

OPERATION PLAN

HUFFAKER ROAD LANDFILL

PLANT HAMMOND FLOYD COUNTY, GEORGIA

FOR



Georgia Power

FEBRUARY 2025



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1. INTRODUCTION

Georgia Power Company (Georgia Power) owns and operates the existing Huffaker Road Landfill located in Floyd County, Georgia. This Operation Plan, which addresses the operating criteria of an existing Coal Combustion Residual (CCR) landfill with lateral expansion, is included as part of the permit application package being submitted to Georgia Environmental Protection Division (EPD). This Operation Plan has been prepared pursuant to the Georgia Rules for Solid Waste Management, Chapter 391-3-4-.10 Coal Combustion Residuals (State CCR Rule) and the United States Environmental Protection Agency (USEPA) Title 40 of the Code of Federal Regulations (CFR) §257 (40 CFR §257) (Federal CCR Rule).

2. GENERAL SITE INFORMATION

A. VOLUMES AND LIFE ESTIMATE

The total waste disposal area of the Plant Hammond Huffaker Road Landfill (HRL) is 141 acres and is divided into six (6) parcels as follows:

Table 1: Summary of Volumes

Parcel	CCR Volume (cy)	Life (yrs) ¹	12" Temporary Cover (cy)	Final Cover (cy)	
				6" Topsoil	18" Barrier
A & B	1,884,830	5.8	89,520	20,470	87,270
C & D	1,180,200	3.6	50,040	-- ³	-- ³
E	738,413	-- ²	-- ²	-- ³	-- ³
F	8,612,200	26.3	296,300	-- ³	-- ³
TOTAL	12,415,643	35.7	435,860	20,470	87,270

Notes:

¹ The disposal life of the facility is based on a projected disposal rate of 327,000 tons/yr. The estimated life of all parcels is based on 1 ton/cy.

² Parcel E received waste material prior to this permit application under the current Solid Waste Permit. No additional waste material is anticipated to be placed in Parcel E.

³ Final Cover System for Parcels C, D, E, and F is anticipated to consist of (from bottom to top) a 50-mil LLDPE (Linear Low-Density Polyethylene) liner and engineered turf with sand infill.

The actual site life may differ depending on the amount of CCR disposal and the amount of CCR removal from the site for beneficial use.

B. DESCRIPTION OF WASTES

The facility will receive solid waste produced from the generation of electricity from coal (CCRs) as defined in State CCR Rule 391-3-4-.01, and materials that have come into contact with or used to contain or absorb CCR (truck liners, truck wash sediments containing ash, etc.) generated by Georgia Power. Allowable wastes include:

1. CCR (fly ash, bottom ash, flue gas desulfurization materials, and boiler slag);
2. Materials that have come in contact with CCR, or used to collect or absorb CCR, that were generated by Georgia Power;
3. Other wastes generated from milling coal in preparation for the combustion process;
4. Coal combustion water treatment residuals (as described below);
 - a. Coal combustion water treatment residuals are generated primarily from processes that support the combustion of coal or other fossil fuels that are co-disposed with fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste. The residuals result from the treatment of the following wastewater: coal pile run-off, boiler cleaning solutions, boiler blowdown, process water treatment, and demineralizer regeneration

wastes, colling tower blowdown, air heater and precipitator washes, and effluents from floor and yard drains and sumps.

5. Wastewater treatment residuals from the treatment of water generated during ash pond dewatering activities (filter cake); and
6. Residuals from the tire-wash process.

An evaluation on the CCR water treatment filter cake material was performed to confirm the handling and placement of this material will not result in unstable conditions or increased pore water pressures of the waste mass and that the in-place strength requirements for long-term stability of this Operations Plan will be achieved. A report was prepared by a Professional Engineer registered in Georgia that included the results of the testing of the CCR water treatment filter cake materials and required material-specific handling, processing, and placement procedures for the CCR water treatment filter cake material. These requirements are provided below:

1. Filter cake material from the water treatment system will be placed at the landfill in maximum 4-inch lifts and mixed with minimum 8-inches of CCR via disking or other approved method;
2. The filter cake material will not be placed in a single continuous layer; and
3. The filter cake material will be placed away from the landfill final outer slopes.

As required by the State CCR Rules, CCRs do not include putrescible or hazardous materials regulated under Subtitle C of the Resource Conservation Recovery Act (RCRA).

C. ZONING

Verification of zoning approval is included within Part A of the permit application.

D. BUFFERS

The Huffaker Road Landfill is located entirely on Georgia Power property. A 200-foot undisturbed buffer zone is provided along property lines with a 50-foot buffer along the railroad as shown in the Permit Drawings in Part A of the permit application.

Disturbance of wetland areas is prohibited, except as permitted by the United States Army Corps of Engineers. Otherwise, a minimum 50-foot buffer will be maintained between the CCR disposal boundary (limits of waste), and the jurisdictional wetland areas depicted on the permit drawings in Part A of the permit application. See the Site Acceptability Report in Part B of the Permit Application for the wetland determination documentation.

A minimum 25-foot buffer shall be maintained between the CCR disposal boundary and any on-site springs and surface waters (perennial or intermittent). Erosion control measures and/or diversion ditches conform to the Erosion and Sedimentation Control Act and are protective of all streams in the landfill watershed and any associated perennial or intermittent tributaries.

A minimum 500-foot buffer shall be maintained between the CCR disposal boundary (limits of waste) and any occupied dwelling and the dwelling's operational private, domestic water supply well in existence on the date of permit application.



E. SITE SURVEY CONTROL

The Permitted Site Boundary is shown on the Permit Drawings in Part A of the Permit Application. Boundary markers of ¾-inch reinforcing bars, with 4-inch by 4-inch marker posts, were established to delineate the disposal site's CCR management boundaries. Permanent survey control monuments were established at locations indicated on the drawings for vertical and horizontal control during the life of this facility. The limits of CCR fill will be delineated prior to placement by survey stakes. During filling, standard survey practices will be used to establish vertical and horizontal control of the filling operations.

F. LIMITED ACCESS

The CCR landfill is for exclusive use by Georgia Power for CCR disposal and is located entirely within the Georgia Power property boundary. Only authorized personnel are allowed on the plant property. Access to the site will be controlled by fencing, gates, buffers, etc.

G. POSTED INFORMATION

The CCR landfill is for exclusive use by Georgia Power for CCR disposal, and is not open to, or accessible by the public. Signage indicating the daily hours of operation, the name, and owners of the facility is displayed at the entrance to the site. A permanent identification marker for the CCR unit was installed on August 6, 2015.

H. COMMUNICATION

Communications are by cell phone or two-way radio with Plant Hammond. Telephone communications are maintained at the existing facility on-site.

I. FIRST AID

First aid equipment is available at the existing facility on-site.

J. EMPLOYEE FACILITIES

Employee facilities are maintained at the existing facility located on-site.

3. OPERATIONAL PROCEDURES

A. SUPERVISION

The CCR landfill is under the supervision of an operator who is present at all times during operation and who is properly trained in the operation of landfills and the implementation of the landfill's permit.

Training in the operation of CCR landfills and the implementation of the approved permit is provided by Georgia Power with documentation of training maintained in the facility's operating record.

B. EXCLUSION OF PROHIBITED WASTES

No hazardous, putrescible wastes, or other non-approved wastes are to be deposited at this site. To ensure the exclusion of prohibited wastes, random inspections by the supervisor and/or operator may be performed of incoming loads and of the working face of the CCR landfill. Facility personnel have received training to recognize prohibited wastes. If any prohibited wastes are detected, Georgia Power will remove it and ensure it is transported to a properly-permitted solid waste handling facility. Any incident concerning prohibited waste will be described in a report and placed in the facility's operating record.

C. PROHIBITED ACTS

The CCR landfill is operated and maintained in such a manner, as described herein, to prevent open burning, scavenging, and the open dumping of waste.

D. EROSION AND SEDIMENT CONTROL

All necessary erosion and sediment control measures will be constructed or installed in accordance with Best Management Practices (BMPs) that meet the requirements of the latest version of the Manual for Erosion and Sediment Control in Georgia (E&S Manual). Any required diversion berms, ditches and other stormwater management structures will be constructed in accordance with the latest edition of the Georgia E&S Manual. Run-off from the disposal areas is routed to the sedimentation basins designed to pass a 100-year, 24 hours storm with no basin overflow. The plans and details of permanent erosion and sediment control structures are included in the Permit Drawings included within Part A of the Permit Application.

E. ACCESS ROADS

Temporary all-weather access roads will be provided for ease of access inside of the disposal parcel to the working area of each parcel. Final access roads are designed to provide continued access for maintenance and inspection. Permanent access road details are included on the Permit Drawings included within Part A of the Permit Application. Additionally, access roads may be paved at Georgia Power's discretion to enhance all-weather performance.

F. FIRE PROTECTION

Since CCR is an inorganic by-product of the combustion of coal at temperatures in excess of 2,500 degrees or the by-product of the flue gas desulfurization process, and since litter and other putrescible wastes are not permitted at this facility, the occurrence of fire related to waste disposal will not occur. Therefore, fire protection measures are not required.

G. SITE EQUIPMENT

Typical equipment to be used during operation of this site includes, at a minimum:

- CAT D5H-5S dozer or equivalent,
- Excavators,
- Smooth drum or vibratory roller,
- Water truck with spray attachment,
- Off-road trucks,
- Backup and/or specialized equipment will be leased or subcontracted on an as-needed basis, and
- Other equipment as needed.

H. RECOVERED MATERIALS PROCESSING OPERATIONS

CCR may be recovered (removed) from the CCR landfill for beneficial re-use in construction, manufacturing, agriculture, or other industries. During recovery operations, personnel will leave two (2) feet minimum depth of in-place CCR material over the two-foot protective cover for the liner. When recovered materials are removed by truck, the truck tires will be cleaned to avoid tracking of recovered materials offsite.

Georgia Power will maintain a record of the volume of CCR material that is recovered for beneficial re-use and will report it to EPD in accordance with State CCR Rule 391-3-4-.17(5). Potential recovery of CCR material will cause the site life to vary.

I. CONTROLLED UNLOADING OF WASTE

The CCR will be unloaded from dump trucks at the working face within the disposal site. The CCR will be in a moistened condition to prevent dusting and to permit optimum compaction at the working face. See Section 3.L. for spreading and compaction procedures and Section 3.P. for dust control. Georgia Power will maintain a record of the volume of CCR that is placed in the CCR Landfill and will report it to EPD in accordance with State CCR Rule 391-3-4-.17(5).

J. SOLID WASTE PROCESSING OPERATIONS

No on-site waste processing will be performed at this facility.

K. WASTE REQUIRING SPECIAL HANDLING

No special solid wastes will be handled at this facility.



L. SPREADING, COMPACTION, AND STABILITY

During initial CCR fill operations, a temporary earthen containment berm will be constructed no more than 100 feet (down gradient) from the CCR placement limit. This berm will define the initial working area. The leachate collection and removal system located downgradient of the berm shall be covered with a 40-mil HDPE geomembrane (rain flap), or approved equivalent material, to reduce the potential for erosion of the underlying materials and infiltration into the system. The berm and rain flap will be removed and reconstructed downgradient as the working area progresses. Stormwater pooling on top of the rain flap may be pumped to perimeter ditches and managed as stormwater through the stormwater management system.

Conditioned CCR is uniformly spread in approximately 12-inch lifts (nominal loose thickness) and compacted with a minimum of four passes of a CAT D5H-5S dozer, smooth drum roller, or equivalent, to achieve a minimum 90% of its maximum dry density as determined by ASTM D698. Proper placement of CCR includes stabilization of wet materials by mixing with dry materials or by drying, no downhill pushing and/or compaction of CCR, and benching lifts of CCR material when placing against existing CCR slopes.

The surface of the compacted CCR is compacted with a smooth drum roller to seal the surface to reduce infiltration and to prevent ponding of precipitation. Efforts will be made to achieve conditioning at a moisture content suitable for ease of handling, transporting, placement, compaction, and testing.

CCR placement operations should be conducted in a manner to minimize water infiltration into the waste. The landfill will be regularly monitored for standing water, leachate outbreaks, pumping and rutting of CCR under traffic loading, or other signs that may indicate that liquids are not draining properly. Additionally, CCR placement procedures should not be modified in a manner that may create impermeable zones of CCR. If CCR permeabilities change or signs of saturated CCR conditions are observed, the stability of the landfill slopes will be re-evaluated based on the new conditions.

Additionally, CCR will be placed and compacted in uniform and continuous lifts beginning in the bottom of the cell with CCR abutting the perimeter berm. Intermediate CCR slopes are not to be formed in the bottom of the parcel, i.e. the slopes (maximum 3H:1V with a 25-foot vertical height) must toe-out and/or abut the exterior berm of the cell to maintain intermediate stability conditions. CCR for intermediate benches above the perimeter berm elevation will also be placed and compacted in uniform and continuous lifts beginning at the down-slope extent of the bench, progressing up-slope.

M. DAILY AND INTERMEDIATE COVER

Since CCRs are inorganic by-products of the combustion of coal at temperatures in excess of 2,500 degrees and since litter and other putrescible wastes are not permitted at this facility, daily and intermediate cover is not necessary for the control of disease vectors, odor, fires, scavenging, and litter. The CCR is compacted in a moistened condition, thus reducing the possibility of dusting. The possibility of fugitive dust from this facility is further controlled by water spray from either the sedimentation basins or water trucks. Any CCR fill areas that have reached final grade and will not receive additional CCR fill will be covered with temporary cover or with final cover in accordance with the Construction Quality Assurance Plan included in Part A of this Permit Application.



N. DISEASE VECTOR CONTROL

The landfill will be used only to dispose of CCR materials as described in Section 2.B. of this Operation Plan. Disease vector controls will not be required at this facility since no litter or putrescible wastes will be allowed.

O. LITTER CONTROL

The CCR landfill will be used exclusively for disposal of CCR materials as described in Section 2.B. of this Operation Plan. The CCR will not contain litter or contribute to blowing refuse. Routine inspection of the entire site is performed regularly, and any litter and/or wind-blown waste is removed.

P. FUGITIVE DUST CONTROL

The purpose of this fugitive dust control plan is to demonstrate compliance with the fugitive dust requirements in State CCR Rule 391-3-4.10(5)(a).

This fugitive dust plan identifies and describes the CCR fugitive dust control measures that Georgia Power will use to minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities.

Fugitive dust is defined in State CCR Rule 391-3-4.10(2)(a) as “solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than through a stack, or chimney.” Fugitive dust originating from activities the Huffaker Road Landfill will be controlled using water suppression, polymers, temporary cover, and/or compaction.

The fugitive dust control measures identified and described in this plan were adopted and implemented based upon an evaluation of site-specific conditions and are determined to be applicable and appropriate for Huffaker Road Landfill. Evaluation included assessing the effectiveness of the fugitive dust control measures for the facility, taking into consideration various factors such as site conditions, weather conditions, and operating conditions.

CCR that is transported via truck will be conditioned to appropriate moisture content to reduce the potential for fugitive dust.

Water suppression will be used as needed to control fugitive dust on facility roads used to transport CCR and other CCR management areas.

Speed limits will be utilized to reduce the potential for fugitive dust.

Trucks used to transport CCR are filled to or under capacity to reduce the potential for material spillage.

Plant personnel shall assess the effectiveness of the control measures by performing visual observations of all CCR units and surrounding areas and implementing appropriate corrective actions for fugitive dust, as necessary. Logs will be used to record the utilization of water-spray equipment.

If a complaint is received from a citizen regarding a CCR fugitive dust event at the facility, the complaint shall be documented and investigated. Appropriate steps will be taken, including any corrective action, if needed.

Q. EXPLOSIVE GAS CONTROL (METHANE)

Since the wastes to be disposed of are an inorganic by-product of the combustion of coal, and since litter and other putrescible wastes will not be allowed at this facility, methane gas will not be generated. Therefore, no methane monitoring equipment or infrastructure is planned for installation at this facility.

R. RUN-ON/RUN-OFF CONTROL

An earthen drainage berm and ditch are provided to prevent stormwater from the surrounding area from entering the disposal parcels. CCR disposal, soil excavation and/or placement are confined to within this berm. Run-off from active parcels, as well as any disturbed areas, is routed into the sedimentation basins designed to collect and handle the flow resulting from a 100-year storm event. The plans and details for erosion and sedimentation control structures are included in the Permit Drawings included within Part A of this Permit Application. The calculations for the run-on/run-off control are presented in the Engineering Report included within Part B of this permit application. The Run-On and Run-Off Control Plan has been revised and is included in Appendix A. This Run-On and Run-Off Control Plan will be reviewed every 5-years. Georgia Power may amend the written run-on and run-off control system plan at any time provided the revised plan is placed in the facility's operating record. Georgia Power must amend the written run-on and run-off control system plan whenever there is a change in conditions that would substantially affect the written plan in effect.

S. SURFACE WATER REQUIREMENTS

The only discharge from the site is stormwater runoff from the sedimentation ponds and clear pools. This discharge will be monitored during construction in accordance with the NPDES general permit GAR100001 for stand-alone construction projects. During operations, the discharge from the clear pools will be monitored under the NPDES General Permit for Industrial Activities GAR050000.

T. FINAL GRADING

The final slopes are designed to ensure permanent slope stability, control erosion, allow placement, compaction, and seeding of cover material, minimize percolation of precipitation into the final cover, and provide diversion of surface runoff from the disposal area. The final surface slopes are between 3% and 33% (3H:1V). Final site grading is shown on the Permit Drawings included within Part A of this Permit Application. The final grading will meet the closure requirements as indicated in the Closure Plan included within Part A of this Permit Application.

U. VEGETATION

All disturbed exposed soil areas that are not a part of the CCR disposal area or that will remain exposed for more than three months will be seeded, mulched and fertilized. Seeding will occur within two weeks after completion of final cover placement. Areas of structural fill, such as the sedimentation basin dikes, will be grassed above the marker layer. The following schedule indicates the

recommended species, planting dates, and fertilization requirements during the operating life of the landfill. If different, the latest edition of the Manual for Erosion and Sediment Control in Georgia supersedes these recommendations. The Closure Plan in Part A of this Permit Application contains the vegetation schedule to be followed once operations have ceased.

Table 2: Vegetation Schedule

Broadcast	Rate/ Acre (lbs)	Planting dates											
Species		J	F	M	A	M	J	J	A	S	O	N	D
Bahia	60	P	P	P	P	P	P	P	P	P	P	P	P
Bermuda	10		P	P	P	P	P						
Centipede	Sod Only				P	P	P						
Lespedeza	75	P	P	P	P	P	P	P	P	P	P	P	P
Weeping Love Grass	4		P	P	P	P	P						
Switch Grass	40			P	P	P							

Table 3: Fertilization Rates

Fertilization (Warm Season Grasses)			
Year	N-P-K	Rate	Top Dressing Rate
First	6-12-12	1500 lbs/ac	50-100 lbs/ac
Second	6-12-12	800 lbs/ac	50-100 lbs/ac
Maintenance	10-10-10	400 lbs/ac	30 lbs/ac

V. CONTINUITY OF OPERATION

Access roads and ramps will be provided to the working face of the active parcels. This will allow access to the parcels, if required, during inclement weather for disposal, inspection, and maintenance or replacement of equipment.

W. TIRE WASH

The tire wash system is primarily used to clean the undercarriage of service vehicles exiting the disposal area prior to entering onto county roads. The system includes a water reclamation tank which recycles used water runoff from the vehicles and separates the solids as they enter the reclamation tank. County water is only used to replenish the water tank at low levels, which eliminates the need for draining the reclamation tank. Solids are cleaned out periodically using a front-end loader and the solids are disposed of in the landfill.

X. ABOVE GROUND FUEL TANK

The above ground fuel tank consists of a dual compartment fuel tank for regular gasoline and diesel. The tank is a horizontal double wall steel tank primarily used to fuel service vehicles for the landfill. This tank has an integral spill basin and is also equipped with a rain guard that sheds rainwater while containing any fuel spill at the tank. A containment pad for fueling service vehicles and supplying fuel for the above ground tank is also installed. The containment pad is equipped with a catch basin. The



catch basin is a semi-below ground pit designed to catch and contain any fuel from the storage tank and loading pad if a spill, leak, or rupture should occur. This prevents any fuel from coming in contact with the surrounding soil and halts the contamination or impacts to surface water or groundwater. A manually operated sump pump system handles any excess water that may accumulate in the catch basin. When a visible amount of petroleum products can be seen floating on top of the water, it is skimmed and disposed of properly.

Y. LEACHATE MANAGEMENT

Leachate management is applicable to Parcels A, B, C, D, and F.

1. A geomembrane bottom liner and leachate collection system has been designed for Parcels A, B, C, D, and F meeting the requirements of State CCR Rule 391-3-4-.10(4)(a). Georgia Power will maintain permanent pumps in the leachate collection and removal system and will operate them as needed to maintain a liner system head level below 30 cm (1 foot). Parcel E is underlain by a minimum 24-inch compacted clay liner with a maximum hydraulic conductivity of 1×10^{-6} cm/s. There is not a leachate collection and removal system installed in Parcel E, which was filled with CCR in accordance with the prior Huffaker Rd. Landfill Solid Waste Permit 057-022D(LI).
2. A leachate pond is provided to capture leachate from the CCR disposal stacks in Parcels A and B. Leachate tanks are provided to contain leachate from Parcels C, D and F.
3. Water which migrates through the CCR and enters the underlying geocomposite drainage material and the leachate removal collection system piping is routed to the leachate pond or tanks via a leachate collection sump.
4. The leachate pond for Parcels A and B is designed and sized to hold a 100-year storm event plus 10 days of leachate storage. There is an additional 2 feet of freeboard in the pond for Parcels A and B.
5. The leachate tanks for Parcels C, D and F are designed and sized to hold the quantity of rainfall from a 24-hr, 100-year storm event that falls directly into the leachate tanks. A concrete structure around the base of the tanks provides secondary containment. Storage volumes may be adjusted to suit changes in leachate production.
6. Pumps are provided to pump leachate to water trucks for use inside the parcels for dust control and ash conditioning water in the active working area only. The working area shall be clearly designated by easily identifiable markers.
7. The leachate sumps are equipped with self-priming electric motor-driven pumps. A control panel provides power to the sump level float switches. The pond and tanks are equipped with a level alarm, as well as visible pond level indicators. The leachate sump and pond instrumentation energize a wireless transmitter when a high set point is reached, sending a signal on-site.

4. ENVIRONMENTAL PROTECTION

A. INSPECTIONS

The following inspections will be performed in accordance with State CCR Rule 391-3-4-.10(5)(a).

1. 7-Day Inspections

Georgia Power will inspect the CCR landfill and discharge of all hydraulic structure outlets at intervals not exceeding seven (7) days. The 7-day inspections will be made by a Qualified Person and include observation and documentation of any appearance of actual or potential structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the facility.

Georgia Power will record the results of these inspections on a self-generated form that will be filed in the facility's operating record. If a potential deficiency or release is identified during an inspection, Georgia Power will remedy the deficiency or release as soon as feasible. Georgia Power will prepare documentation detailing corrective measures taken and place it in the facility's operating record.

2. Annual Inspections

A Professional Engineer registered in Georgia will inspect the facility on an annual basis. The inspection includes, at a minimum:

- a. A visual inspection of the CCR landfill to identify signs of distress or malfunction of the CCR landfill;
- b. A review of available information regarding the status and condition of the landfill including, but not limited to, files available in the facility's operating record such as:
 - i. The results of weekly inspections and the results of previous annual inspections;
 - ii. Files available in the operating record and other conditions which have disrupted or have the potential to disrupt the operation or safety of the CCR landfill.

c. If a potential deficiency or release is identified during an inspection, Georgia Power will remedy the deficiency or release as soon as feasible. Georgia Power will prepare documentation detailing the corrective measures taken and place it in the facility's operating record.

At the completion of each annual inspection, the Professional Engineer who completed the inspection will prepare an annual report that will be placed in the facility's operating record. The report will include the following:

- a. Any changes in geometry of the landfill components since the previous annual inspection;
- b. The approximate volume of CCR contained in the unit at the time of the inspection;

- c. Any appearances of an actual or potential structural weakness of the CCR within the landfill, or any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR landfill; and
- d. Any other change(s) which may have affected the stability or operation of the CCR landfill since the previous annual inspection.

B. GROUNDWATER MONITORING PLAN

Groundwater quality monitoring will be performed in accordance with the schedule and requirements indicated in the Groundwater Monitoring Plan included within Part A of the Permit Application. The Groundwater Monitoring Plan meets the requirements of State CCR Rule 391-3-4-.10(6).

5. RECORDKEEPING

The Huffaker Road Landfill complies, and will continue to comply, with the recordkeeping, notification, and publicly-accessible internet site requirements set forth in State CCR Rule 391-3-4-.10(8).

A. RECORDKEEPING

Georgia Power will maintain the facility's operational records at all times during the life of facility, including throughout the closure and post closure period. These records will be maintained by Georgia Power and will be located on-site at the Huffaker Road Landfill. The following records will be maintained as part of the operating record of the facility:

1. A copy of the permit and any operating conditions, including location restrictions;
2. Inspection records, training procedures, and notification procedures required by this Plan and by State CCR Rule 391-3-4-.10(5) and (8);
3. Any demonstration, certification, finding, monitoring, testing, or analytical data pertaining to groundwater monitoring and as required by State CCR Rule 391-3-4-.10(6);
4. Closure and Post Closure Care Plans and any monitoring, testing, or analytical data required by those plans and State CCR Rule 391-3-4-.10(7);
5. Any cost estimates and financial assurance documentation;
6. A copy of the permit documents for the CCR landfill;
7. A copy of the groundwater monitoring plan for the CCR landfill;
8. A copy of the Construction Quality Assurance Plan, construction certifications, closure certifications, and post-closure certifications;
9. The fugitive dust control plan, and any subsequent amendments of the plan, required by 40 CFR 257.80(b), except that only the most recent control plan must be maintained in the facility's operating record irrespective of the time requirement of 5 years;
10. The annual CCR fugitive dust control report as required by 40 CFR 257.80(c); and
11. The initial and periodic run-on and run-off control system plans.

All information contained in the facility's operating record will be furnished to EPD or be made available at all reasonable times for inspection by EPD staff.

B. NOTIFICATION AND INTERNET POSTING REQUIREMENTS

Unless otherwise specified by the State CCR Rules, Georgia Power will provide required notifications to EPD within 30 days of placing documents in the facility's operating record. The notifications will be sent before the close of business on the day the notification is required to be completed. The notifications will be postmarked or sent electronically. If a notification deadline falls on a weekend or federal holiday, the notification deadline will be extended to the next business day. Georgia Power

will also state in the notification to the EPD if the relevant information was also placed on the Georgia Power compliance website.

C. MEASURING AND REPORTING REQUIREMENTS

In accordance with State CCR Rule 391-3-4-.17(5), on July 1 of each year after the first full year that the CCR landfill permit is issued, Georgia Power will report to EPD the total volume of the CCR waste disposed in the landfill, and the CCR removed, recovered, or diverted for beneficial use. The required data will be submitted to EPD on forms issued by EPD.

6. SITE LIMITATIONS

This plan incorporates the following site limitations based on the site acceptability letter from EPD dated February 11, 2004, as modified on July 29, 2004, and January 31, 2025.

February 11, 2004 & July 29, 2004:

1. The areas proposed for coal combustion by-products disposal include only those areas enclosed by the lines labeled “Permitted Site Boundary – North Parcel” and “Permitted Site Boundary – South Parcel” on Drawing H-628-11 as revised on August 21, 2003. This drawing is included in Southern Company Services, Inc.’s correspondence entitled “Huffaker Road Ash Monofill, Site Acceptability Report – Additional Information, Dated September 26, 2003”.

The northern boundary of the north parcel has been further revised to reflect the potential widening of Huffaker Road. This boundary and buffer zone have been moved inward from the original disposal site boundary and, thusly, remains within the area covered by site acceptability. Per the September 1, 2005 conversation between representatives of EPD and Southern Company Generation, this boundary is reflected on Drawing H9131, and subsequent drawings, in this plan.

2. A liner system consisting of at least 2 feet of clayey soil with permeability no greater than 1×10^{-6} cm/sec shall be installed beneath all waste disposal areas, including all surface water impoundments.

The disposal site shall be graded and drained such that no surface water will pond on any portion of the landfill, and all surface water from the landfill shall be routed through a sedimentation pond prior to release from the site.

3. The bottom of waste shall be kept a minimum of 5 feet above the potentiometric surface depicted on Southern Company Services, Inc.’s drawing number HR GW 3-11-04: Plant Hammond, Huffaker Road CCB Disposal Facility, Topographic Map, Groundwater Flow, March 11, 2004, signed and stamped by David R. Asti on June 8, 2004. If, during construction of the site, bedrock is encountered at an elevation above groundwater, a minimum of 5 feet of clean, compacted, rubble-free soil with a permeability no less than the surrounding in-situ soils shall be installed to separate bedrock rock from the bottom of waste.
4. No waste shall be placed within 50 feet of the Central of Georgia right-of-way.
5. No waste shall be placed within 50 feet of the jurisdictional wetland areas depicted on Southern Company Services, Inc.’s Figure 1-3: Wetland Boundaries (included within the above-referenced report), unless otherwise permitted by the United States Army Corps of Engineers. A minimum 500-foot buffer shall be maintained between the waste disposal area and any adjacent residential structures and/or waste supply wells.
6. A minimum 200-foot undisturbed buffer shall be maintained between the waste disposal area and the permitted site boundaries referenced in the above Limitation 1.
7. If, during excavation of the site, any springs or seeps are discovered, the EPD shall be notified immediately, and protective designs will be incorporated into the facility’s design and operational plans such that the spring or seep can be incorporated into the facility’s groundwater monitoring system.

8. All borings/piezometers located in the proposed waste footprint shall be abandoned in accordance with the Water Well Standards Act. The well casing shall be removed, and the borings shall be overdrilled and filled with a non-shrinking cement/bentonite mixture via tremie pipe to within 10 feet of the maximum depth of waste. Within 10 feet of the maximum depth of waste, the boring can be filled with bentonite. Any remaining annular space can be backfilled with soil cuttings. The abandonment of all wells shall be supervised by a professional geologist (PG) or professional engineer (PE) registered to practice in Georgia. The supervising PG/PE shall submit a report of the abandonment to EPD and certify that the borings/piezometers were abandoned in accordance with the Water Well Standards Act.
9. A groundwater monitoring system, conforming to EPD's Rules of Solid Waste Management and current guidance, shall be installed at the site.
10. All erosion control measures and/or diversion ditches shall conform to the Erosion and Sedimentation Control Act and to be protective of Smith Creek and any associated perennial or intermittent tributaries.
11. As the proposed site is located with a seismic impact zone, all plan sheets in the Design and Operations Plans that detail surface water containment structures shall specify that the structures are engineered to withstand a maximum horizontal acceleration of 0.22g.

January 31, 2025:

1. The area considered for acceptability includes only the area delineated by the line "Proposed CCR Permit Limits" on Stantec Consulting Services (Stantec) Figure 2-1, Existing Conditions Topographic Map, 2022, dated 12/14/23.
2. Waste shall not be placed outside of the area delineated by the line "Proposed Waste Limits" on Stantec's Figure 2-1, Existing Conditions Topographic Map, 2022, dated 12/14/23.
3. A composite liner and leachate collection system, as required by 40 CFR 257.70, shall be constructed under all areas proposed for CCR disposal. The bottom of the liner system shall be constructed a minimum of five feet above the groundwater elevation contours and a minimum of ten feet above the three intermittent streams within the proposed waste limits shown on Stantec's Figure 2-7, Composite Seasonal High Potentiometric Surface Map, dated 11/9/23.

An underdrain system shall be placed in each drainage ravine containing a stream within the proposed waste areas and shall be designed to maintain the water table, within the drainage ravines, at an elevation no higher than depicted on Stantec's Figure 2-7, Composite Seasonal High Potentiometric Surface Map, dated 11/9/23. The outfall of the underdrain systems must be incorporated into the groundwater monitoring plan for the site.

4. A minimum 500-foot buffer shall be maintained between the waste disposal boundary and any adjacent residences and/or water supply wells.
5. A minimum 200-foot undisturbed buffer shall be maintained between the waste disposal boundary and the permitted property boundaries. The 200-foot buffer may be disturbed if approved by the EPD.

6. A minimum 50-foot undisturbed buffer shall be maintained between the waste disposal boundaries and all wetlands, except as permitted by the United States Army Corps of Engineers (USACE) and allowed by EPD. A statement certifying that the landfill has been designed so that implementation of the design and operational plans will not impact wetlands, delineated on December 8-11, 2020 and January 13-14, 2021, shall be submitted. This statement shall be signed and stamped by the professional engineer responsible for the design and operational plans for the subject site. Wetland areas shall be delineated on permit drawings.
7. Prior to the initial receipt of waste, a certification statement shall be placed in the operating record demonstrating that the requirements of 40 CFR 257.61(a) have been met. This statement shall be signed and stamped by the professional engineer responsible for the Design and Operational Plan for the subject site.
8. A minimum 25-foot undisturbed buffer shall be maintained between the waste disposal area and any onsite springs, intermittent or perennial streams or surface water bodies, except as allowed by EPD.
9. If during excavation of the site, any springs or seeps are discovered, precautions shall be taken to implement protective designs into the facility's design and operational plans. Also, the spring or seep shall be incorporated into the facility's groundwater monitoring plan.
10. The facility shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in a washout of solid waste or material to pose a hazard to human health and the environment.
11. If non-rippable rock (bedrock) is encountered at an elevation above the approved base of the liner system, or if non-rippable rock is removed during excavation, at least five (5) feet of clean, compacted, rubble-free fill shall be placed above the non-rippable rock. Alternatively, an engineered layer (soil or a combination of soils and geosynthetics) shall be placed and compacted between the non-rippable rock and the liner system. The engineered layer shall include:
 - i. One (1) foot of soil with a hydraulic conductivity equal or less than 1×10^{-5} cm/sec constructed over one (1) foot of structural fill, or
 - ii. If a geosynthetic is used, the geosynthetic will have a hydraulic conductivity equivalent to or less than one (1) of 1×10^{-5} cm/sec soil and will be placed on a minimum of two (2) feet of structural fill.Installation of an alternative engineered layer over rock shall be documented and certified by a Professional Engineer or Professional Geologist registered in the State of Georgia and shall be included in the CQA report for the cell being constructed.
12. Structural fill shall be required in some portions of the expansion area to achieve the required base grade elevations. Structural fill shall meet the requirements of the Construction Quality Assurance Plan within the EPD approved Design & Operational Plan.
13. All erosion control measures and/or diversion ditches shall conform to the latest edition of the *Manual for Erosion and Sediment Control in Georgia* and be protective of Smith Creek and its perennial

and intermittent tributaries. All drainage structures must be routed to a permanent sediment control impoundment.

14. This site is in a seismic impact zone as defined in the Rules for Solid Waste Management (Chapter 391-3-4.10(3)(a)). The design engineer must certify that all containment structures are designed to resist the maximum horizontal ground acceleration specified in Rule 391-3-4.10(4) for the site and include a statement in the design documents indicating the maximum horizontal ground acceleration used in the design. Therefore, the registered professional engineer preparing the Permit Drawings and Operational Plans must stamp and sign each engineering drawing with the accompanying notation:

I have reviewed the information presented in this drawing, and in my professional opinion, all containment structures are designed to resist a maximum horizontal ground acceleration of 0.24g, or the maximum expected horizontal acceleration at the ground surface with a 98% or greater probability that the acceleration will not be exceeded in 50 years as determined by the United States Geologic Survey's Earthquake Hazards Program, as of the date of permit issuance, whichever is more conservative.

15. Groundwater and surface water monitoring systems shall be installed at the site. Sampling parameters, sampling schedules, monitoring well construction, and spacing shall adhere to the guidelines established in the applicable parts of the 1991 *Georgia Manual for Groundwater Monitoring* and current USEPA Region IV guidance. The system design and monitoring requirements shall be detailed in a groundwater and surface water monitoring plan that are prepared in accordance with the *Georgia Solid Waste Management Rules, Subject 391-3-4*, the guidance documents mentioned above and are approvable by EPD.
16. All soil borings, monitoring wells and piezometers that have been completed/installed within the permit boundary, shall be plugged, and abandoned, except for those locations that will be used as monitoring wells for the proposed landfill. Abandonments shall be performed in accordance with the Water Well Standards Act. Additionally, all soil borings, monitoring wells and piezometers located within the proposed waste footprint shall be abandoned by overdrilling and filling with a non-shrinking cement/bentonite grout mixture via tremie pipe from the bottom to within 10 feet of the base of the landfill. The remaining borehole shall be filled with hydrated bentonite. The abandonment of all borings/piezometers/monitoring wells shall be supervised by a professional geologist (PG) or professional engineer (PE) registered to practice in the State of Georgia. A report documenting the abandonment shall be submitted to EPD prior to cell construction. This documentation shall be signed and stamped by the responsible professional geologist or engineer registered to practice in the State of Georgia.



Appendix A
Periodic Run-On and Run-Off Control Plan Revision 1

PERIODIC RUN-ON AND RUN-OFF CONTROL PLAN REVISION 1

391-3-4-.10(5) and 40 C.F.R. PART 257.81

PLANT HAMMOND HUFFAKER ROAD LANDFILL

GEORGIA POWER COMPANY

The Federal CCR Rule, and, for Existing CCR Landfills where applicable, the Georgia CCR Rule (391-3-4-.10) require the owner or operator of an existing or new CCR landfill or any lateral expansion of a CCR landfill to prepare a run-on and run-off control system plan to document how these control systems have been designed and constructed to meet the applicable requirements of this section of the rule. See 40 C.F.R. §257.81; GA. Comp. R. & Regs. R. 391-3-4-.10(5)(a). In addition, the Rules require periodic run-on and run-off control system plans every five years. See 40 C.F.R. §257.81(c)(4); GA. Comp. R. & Regs. R. 391-3-4-.10(4)(b)). This document constitutes the run-on and run-off control system plan for the Huffaker Road Landfill.

The Coal Combustion Residuals (CCR) landfill known as the Huffaker Road Landfill is located in Floyd County, west of Rome, Georgia on Plant Hammond property. Huffaker Road Landfill is comprised of Parcels A/B (active) and C/D (future) on the north side of the site and Parcels E (active) and F (future) on the south side of the site.

Each parcel contains stormwater controls (ditches, culverts, ponds, etc.) that are designed to meet the run-on and run-off criteria of the CCR Rule, namely:

- **40 CFR § 257.81(a).** *The owner or operator of an existing or new CCR landfill or any lateral expansion of a CCR landfill must design, construct, operate, and maintain:*
 - (1) *a run-on control system to prevent flow onto the active portion of the CCR unit during the peak discharge from a 24-hour, 25-year storm; and*
 - (2) *a run-off control system from the active portion of the CCR unit to collect and control at least the water volume resulting from a 24-hour, 25-year storm.*
- **40 CFR § 257.81(b).** *Run-off from the active portion of the CCR unit must be handled in accordance with the surface water requirements under § 257.3-3.*

Information is summarized by parcel below.

Parcels A/B

The Parcels A/B stormwater controls consist of an access road ditch, flumes, a perimeter ditch, a sediment pond, and a clear pool. Peak stormwater flows were computed using the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) curve number method to evaluate the capacity of the stormwater controls in the final closed landfill configuration (with a vegetative cover cap). The 25-year, 24-hour storm rainfall depth was taken from National Oceanic and Atmospheric Administration (NOAA) Atlas 14 and used with an SCS Type II rainfall distribution.

The access road ditch, flumes and perimeter ditch can convey the flow resulting from a 25-year, 24-hour rainfall event with an additional minimum freeboard of 0.5 feet. The sediment pond and clear pool include a perforated principal spillway riser and an auxiliary spillway channel. The sediment pond and clear pool can pass the 25-year, 24-hour storm event through the principal spillway without utilizing the auxiliary spillway or overtopping the crest of the ponds. Therefore, the run-off control system for Parcels A/B meets the requirements in 40 CFR § 257.81(a)(2).

Runoff generated from the landfill flows through the flumes and ditches to the sediment pond, and ultimately the clear pool before discharging off-site. The clear pool is a permitted NPDES compliance

point, and therefore the run-off is handled in accordance with surface water requirements of 40 CFR § 257.3-3 as required by 40 CFR § 257.81(b).

The Parcels A/B perimeter ditch is formed on the exterior by perimeter berms, which prevent stormwater run-on to the landfill during a 25-year, 24-hour storm event. Therefore, the run-on control system for Parcels A/B meets the requirements in 40 CFR § 257.81(a)(1).

Engineering calculations are attached that support the conclusions above.

Parcels C/D

The Parcels C/D stormwater controls consist of an access road ditch, flumes, a perimeter ditch, a sediment pond, and a clear pool. Peak stormwater flows were computed using the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) curve number method to evaluate the capacity of the stormwater controls in the final closed landfill configuration (with a final cover system consisting of either soil cover or engineered turf). The 25-year, 24-hour storm rainfall depth was taken from National Oceanic and Atmospheric Administration (NOAA) Atlas 14 and used with an SCS Type II rainfall distribution.

The access road ditch, flumes, and perimeter ditch can convey the flow resulting from a 25-year, 24-hour rainfall event with an additional minimum freeboard of 0.5 feet. The sediment pond and clear pool include a perforated principal spillway riser and an auxiliary spillway channel. The sediment pond and clear pool can pass the 25-year, 24-hour storm event through the principal spillway without utilizing the auxiliary spillway or overtopping the crest of the pond. Therefore, the run-off control system for Parcels C/D meets the requirements in 40 CFR § 257.81(a)(2).

Runoff generated from the landfill flows through the flumes and ditches to the sediment pond, and ultimately the clear pool before discharging off-site. The clear pool is a permitted NPDES compliance point, and therefore the run-off is handled in accordance with surface water requirements of 40 CFR § 257.3-3 as required by 40 CFR § 257.81(b).

The Parcel C/D perimeter ditch is formed on the exterior by perimeter berms, which prevent stormwater run-on to the landfill during a 25-year, 24-hour storm event. Therefore, the run-on control system for Parcels C/D meets the requirements in 40 CFR § 257.81(a)(1).

Engineering calculations are attached that support the conclusions above.

Parcel E

The Parcel E stormwater controls consist of drainage ditches, flumes, a perimeter ditch, a sediment pond, and a clear pool. Peak stormwater flows were computed using the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) curve number method to evaluate the capacity of the stormwater controls in the final closed landfill configuration (with a final cover system consisting of either soil cover or engineered turf). The 25-year, 24-hour storm rainfall depth was taken from National Oceanic and Atmospheric Administration (NOAA) Atlas 14 and used with an SCS Type II rainfall distribution.

The drainage ditches, flumes, and perimeter ditch can convey the flow resulting from a 25-year, 24-hour rainfall event with an additional minimum freeboard of 0.5 feet. The sediment pond and clear pool include a perforated principal spillway riser and an auxiliary spillway channel. The sediment pond and clear pool can pass the 25-year, 24-hour storm event through the principal spillway without utilizing the auxiliary spillway or overtopping the crest of the pond. Therefore, the run-off control system for Parcel E meets the requirements in 40 CFR § 257.81(a)(2).

Runoff generated from the landfill flows through the flumes and perimeter ditch to the sediment pond, and ultimately the clear pool before discharging off-site. The clear pool is a permitted NPDES compliance

point, and therefore the run-off is handled in accordance with surface water requirements of 40 CFR § 257.3-3 as required by 40 CFR § 257.81(b).

The Parcel E perimeter ditch is formed on the exterior by perimeter berms, which prevent stormwater run-on to the landfill during a 25-year, 24-hour storm event. Therefore, the run-on control system for Parcel E meets the requirements in 40 CFR § 257.81(a)(1).

Engineering calculations are attached that support the conclusions above.

Parcel F

The Parcel F stormwater controls consist of drainage ditches, flumes, culverts and pipes, a perimeter ditch, two sediment ponds, and two clear pools. Peak stormwater flows were computed using the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) curve number method to evaluate the capacity of the stormwater controls in the final closed landfill configuration (with a final cover system consisting of either soil cover or engineered turf). The 25-year, 24-hour storm rainfall depth was taken from National Oceanic and Atmospheric Administration (NOAA) Atlas 14 and used with an SCS Type II rainfall distribution.

The drainage ditches, flumes, and perimeter ditch can convey the flow resulting from a 25-year, 24-hour rainfall event with an additional minimum freeboard of 0.5 feet. The culverts and pipes can convey the 25-year, 24-hour rainfall event without overtopping the roadway. The sediment ponds and clear pools include a perforated principal spillway riser and an auxiliary spillway channel. The sediment ponds and clear pools can pass the 25-year, 24-hour storm event through the principal spillway without utilizing the auxiliary spillway or overtopping the crest of the pond. Therefore, the run-off control system for Parcel F meets the requirements in 40 CFR § 257.81(a)(2).

Runoff generated from the landfill flows through the flumes, ditches, pipes, and culverts to the sediment ponds, and ultimately the clear pools before discharging off-site. The clear pools are a permitted NPDES compliance point, and therefore the run-off is handled in accordance with surface water requirements of 40 CFR § 257.3-3 as required by 40 CFR § 257.81(b).

The Parcel F perimeter ditch is formed on the exterior by perimeter berms, which prevent stormwater run-on to the landfill during a 25-year, 24-hour storm event. Therefore, the run-on control system for Parcel F meets the requirements in 40 CFR § 257.81(a)(1).

Engineering calculations are attached that support the conclusions above.

Certification

I hereby certify that the run-on and run-off control system plan meets the requirements of 40 C.F.R. Part § 257.81.

Digitally signed by Matthew C. Vaughan
Date: 2025.02.12 15:03:44-05'00'

Matthew C. Vaughan, P.E.

Licensed State of Georgia, PE No. 44791



Calculations



Attachment 1
Parcels A/B Hydrologic & Hydraulic Calculations

1. BACKGROUND AND DESIGN CRITERIA

The Huffaker Road Landfill (HRL) will be used to contain the coal combustion residual (CCR) materials from Plant Hammond Ash Pond 1 (AP-1) and Ash Pond 2 (AP-2). Some stacking of CCR from AP-2 has occurred in the northern portion of the landfill area. The bottom lining system, leachate collection system, leachate pond, Sedimentation Pond 1, Clearing Pool 1, and perimeter drainage ditches have been constructed. These features can be seen in Figure 1.

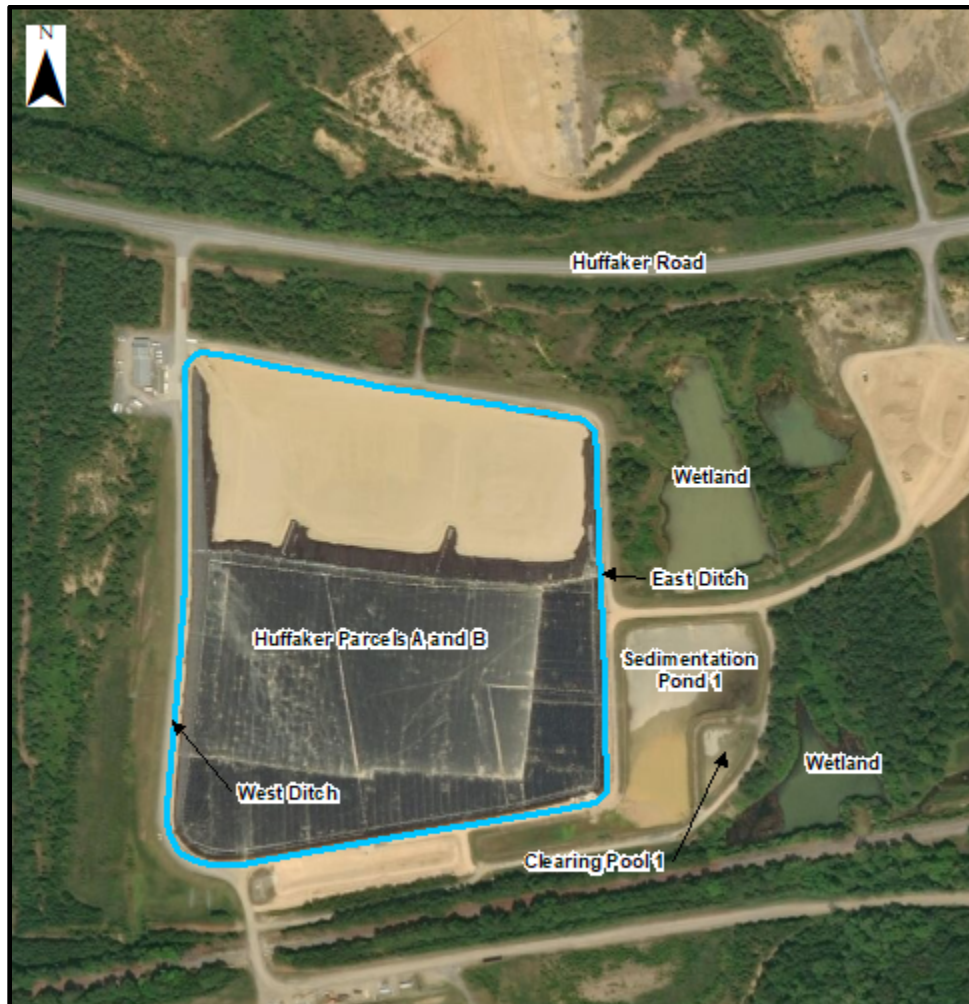


Figure 1 Huffaker Road Landfill Property Layout

The existing ditches, spillways, and ponds will be used to convey the stormwater runoff from the landfill to Sedimentation Pond 1.

The purpose of this report is to analyze the hydrologic and hydraulic performance of drainage features during future conditions of the constructed CCR landfill, including the following:

1. Evaluate if existing perimeter drainage ditches maintain 1/2 -foot of freeboard during the 25-year, 24-hour storm event;
2. Evaluate if Sedimentation Pond 1 and Clearing Pool 1 can contain the 100-year, 24-hour storm event without overtopping the berm;
3. Analyze existing spillway capacity during the 100-year, 24-hour storm event; and
4. Size stormwater runoff flumes for the proposed CCR stack to convey the 25-year, 24-hour event.

2. METHODOLOGY

The United States Department of Agriculture (USDA) Soil Conservation Service (SCS) curve number method was used in creating a stormwater management model (with the Computational Hydraulics Institute PCSWMM design software) to compute the peak flows and the capacity of the ditches and ponds on the site. Esri ArcGIS software was used to create multiple features and measurements used in the PCSWMM model. An overview figure of the PCSWMM model is included in Attachment A. The following were applied for this analysis:

- The drainage areas were delineated by using the post construction conditions contours following construction of the proposed CCR stack. The total area that drains into the ditches is 32.1 acres.
- Existing drainage ditches channel geometry as stated in design calculations titled *Plant Hammond Huffaker Road Coal Combustions By-Product Storage Site Application #ALPI0571* (dated September 27, 2004):
 - Vegetated trapezoidal channel
 - 4-foot bottom width
 - 2H:1V side slopes
 - 2-foot total depth
- The proposed CCR Stack stormwater flume layout and dimensions were from the IFC drawing set, that corresponds with this analysis, and were used in order to calculate longest flowpath, channel slopes, and drainage areas. The dimensions of proposed stormwater flumes are:
 - Riprap trapezoidal channel with a 4-foot bottom width
 - 3H:1V side slopes
 - 1.5-foot total depth.
- NOAA Atlas 14 rainfall depths were used for all storm events evaluated.
 - 25-year, 24-hour: 6.29 inches
 - 100-year, 24-hour: 7.85 inches
- An SCS Type-II rainfall distribution was used along with the rainfall depths listed above.
- A composite curve number was calculated for each drainage subcatchment based on future CCR stack closure conditions. A SCS hydrologic soil group composite classification of Type B-C (poorly drained to moderately drained) was assigned for the following land covers. The SCS hydrologic soil group classification of Type B/C was determined to better fit the configuration of the closure surface

cross section than Type C since silt loam or loam type soils will be used in the top 6 inches of the cap and underlying protective cover will likely be lean clay:

- Closure vegetated surface and vegetated ditches – 58 & 71 for a composite of 64.5
- Wooded area – 70
- Rock-lined stormwater flumes and crushed stone roads – 89
- Open water surface – 98.
- Manning's roughness coefficient "n" values were based on *Open Channel Hydraulics* (Chow, 1959) and the *Georgia Stormwater Management Manual* (current edition dated 2016). The values used were:
 - 0.01 – new schedule 40 steel pipe
 - 0.015 – concrete lined channels
 - 0.022 – Bituminous-Coated Corrugated Metal Pipe (BCCMP)
 - 0.03 – vegetated ditch
 - 0.069 – riprap with a 6-inch D_{50}
 - 0.078 – riprap with a 12-inch D_{50}
- Sedimentation Pond 1 and Clearing Pool 1 stage-area curves were developed based on the IFC closure drawings. The elevation-area curves are included in Attachment B.
- Sedimentation Pond 1 and Clearing Pool 1 existing primary spillway structure configuration was referenced from a design drawing titled *Plant Hammond-Huffaker Road Coal Combustion By-Products Disposal Facility Erosion Control Sections & Details* (Drawing No. H5915 dated September 27, 2004):
 - 48-inch diameter, 5-foot tall BCCMP riser with trash rack
 - Risers perforated with ½-inch diameter holes spaced 3-inches on center
 - 36-inch diameter BCCMP barrel
 - Rim and invert elevation values referenced from Table 1, Drawing No. H5915
 - A perforated riser rating curve calculation is included in Attachment C.
- Sedimentation Pond 1 and Clearing Pool 1 emergency spillway channel referenced from Drawing No. H5915:
 - Concrete-lined trapezoidal channel
 - Bottom width 20-feet
 - 3H:1V side-slopes
 - Sedimentation Pond 1 emergency spillway channel total depth 1.5-feet
 - Clearing Pool 1 emergency spillway channel total depth 2.0-feet

3. INTERMEDIATE ISSUES AND FIXES

In running the PCSWMM model, there were capacity issues with the existing drainage ditches. In order to resolve these issues, the following adjustments were made to the model:



- Approximately 775 feet of the drainage ditch, located in the southeastern corner of the stack, was modeled as lined with concrete (i.e. Type B ditch) instead of vegetation.
- Approximately 300 feet of the road that separates the closure stack and Sedimentation Pond 1 was raised 6 inches.

With these changes incorporated, the 25-year and 100-year, 24-hour storms were contained in the ditches.

For both Sedimentation Pond 1 and Clearing Pool 1, the 25-year, 24-hour and the 100-year, 24-hour storms were contained, and the emergency spillway was not utilized.

4. CLOSURE TURF COVER OPTION

Another cover option was considered, which involved the use of engineered turf (such as Closure Turf) onsite. In this option, multiple model changes were applied including:

- The curve number for the closure surface was changed from 64.5 to 95.
- Approximately 1,470 feet of the drainage ditch was modeled lined with concrete (i.e. Type B ditch) instead of vegetation.
- The road that lies in between the stack and Sedimentation Pond 1 was raised between 1 to 1.5 feet in order to contain the 100-year storm and contain the 25-year storm with ½ foot of freeboard within the ditches.

With these changes, the 25-year, 24 hour and 100-year, 24-hour storms are contained within both Sedimentation Pond 1 and Clearing Pool 1 and do not utilize the emergency spillway.

5. RESULTS

Detailed PCSWMM reports are included in Attachment D. A summary of results is included in Tables 1-5.

Table 1 Vegetated Cover Ditch Results

Scenario¹	Peak Water Surface Depth (ft)	Ditch Height (ft)	Freeboard (ft)
West Side Ditch - 25-year storm	1.5	2.0	0.5
West Side Ditch - 100-year storm	2.0	2.0	0.0
East Side Ditch – 25-year storm	2.0	2.5	0.5
East Side Ditch – 100-year storm	2.5	2.5	0.0

¹For each ditch listed, the segment with the largest resulting peak water surface depth is shown.

Table 2 Engineered Turf Cover Ditch Results

Scenario¹	Peak Water Surface Depth (ft)	Ditch Height (ft)	Freeboard (ft)
West Side Ditch - 25-year storm	2.5	3.0	0.5
West Side Ditch - 100-year storm	2.7	3.0	0.3
East Side Ditch – 25-year storm	2.9	3.5	0.6
East Side Ditch – 100-year storm	3.2	3.5	0.3

¹For each ditch listed, the segment with the largest resulting peak water surface depth is shown.

Table 3 Vegetated Cover Pond Results

Scenario	Starting Water Surface Elevation (WSE) (ft)	Peak WSE (ft)	Top of Berm Elevation (ft)	Freeboard (ft)	Emergency Spillway Elevation (ft)	Riser Elevation (ft)	Overflow Riser Peak Flow (cfs)	Riser Perforation Peak Flow (cfs)
Sedimentation Pond 1 - 25-year storm	643.5	646.2	650.0	3.8	648.5	648.0	0.00	5.3
Sedimentation Pond 1 - 100-year storm	643.5	647.0	650.0	3.0	648.5	648.0	0.00	7.2
Clearing Pool 1 – 25-year storm	642.5	645.1	650.0	4.9	648.0	647.0	0.00	5.1
Clearing Pool 1 – 100-year storm	642.5	645.9	650.0	4.1	648.0	647.0	0.00	6.9

Table 4 Engineered Turf Cover Closure Pond Results

Scenario	Starting Water Surface Elevation (WSE) (ft)	Peak WSE (ft)	Top of Berm Elevation (ft)	Freeboard (ft)	Emergency Spillway Elevation (ft)	Riser Elevation (ft)	Overflow Riser Peak Flow (cfs)	Riser Perforation Peak Flow (cfs)
Sedimentation Pond 1 - 25-year storm	643.5	647.2	650.0	2.8	648.5	648.0	0.0	8.0
Sedimentation Pond 1 - 100-year storm	643.5	648.1	650.0	1.9	648.5	648.0	2.4	9.4
Clearing Pool 1 – 25-year storm	642.5	646.1	650.0	3.9	648.0	647.0	0.0	7.5
Clearing Pool 1 – 100-year storm	642.5	646.9	650.0	3.1	648.0	647.0	0.0	9.4

Table 5 Flume Results

Scenario*	Peak Water Surface Depth (ft)	Flume Height (ft)	Freeboard (ft)
Grass Closure - 25-year storm	1.0	1.5	0.5
Grass Closure - 100-year storm	1.0	1.5	0.5
Closure Turf Closure – 25-year storm	1.0	1.5	0.5
Closure Turf Closure – 100-year storm	1.1	1.5	0.4

*For each scenario listed, the segment with the largest resulting peak water surface depth is shown.

6. CONCLUSION

Based on the PCSWMM-calculated results with the modifications described in Section 3, the following are concluded for the vegetated cover closure:

1. The existing drainage ditches on the west side of the stack will be able to contain the 25-year, 24-hour storm with the minimum half a foot of freeboard, but not the ditches on the east side. A portion of the road in this area will need to be raised 0.5 feet as noted on the Drawings. Ditches will also need to be lined with concrete (Type B Ditch) as shown in the Drawings.
2. Sedimentation Pond 1 will contain the 100-year, 24-hour storm without utilizing the emergency spillway.
3. The existing configuration of Clearing Pool 1 will not be overtopped by the 100-year, 24-hour storm nor does it utilize the emergency spillway for that storm.

For the closure utilizing closure turf:

1. The road between the stack and Sedimentation Pond 1 would need to be raised between 1 and 1.5 feet in order to provide the required freeboard and containment. The existing ditches will also need to be lined with concrete (Type B Ditch).
2. Sedimentation Pond 1 and Clearing Pool 1 are sized sufficiently in order to contain the 100-year storm without utilizing the emergency spillway for either pond.

Based on these additional requirements, this option is not recommended.

For the flumes:

1. The designed flumes contain sufficient capacity for both the 25-year and 100-year, 24-hour storms.



5. REFERENCES

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List of Attachments

A: PCSWMM Model Overview

B: Pond Elevation-Area Curves

C: Perforated Riser Rating Curve Calculation

D: PCSWMM Results



Attachment A

PCSWMM Model Overview

Legend

- Junctions
- ▲ Outfalls
- Storages
- Conduits
- Weirs
- Outlets
- Subcatchments





Attachment B

Pond Elevation-Area Curves

Sedimentation Pond 1		
Depth	Elevation	Area
(ft)	(ft)	(ft²)
0	642	3113
1	643	30855
2	644	80929
3	645	137926
4	646	162266
5	647	168465
6	648	174703
7	649	180984
8	650	187301

Clear Pool 1		
Depth	Elevation	Area
(ft)	(ft)	(ft²)
0	642	1266
1	643	15304
2	644	17081
3	645	18464
4	646	19884
5	647	21344
6	648	22844
7	649	24383
8	650	25963



Attachment C

Perforated Riser Rating Curve Calculation

Stormwater Stage-Storage-Discharge Calculation
Huffaker Landfill at Plant Hammond
Plant Hammond, Rome, GA

Sedimentation Pond 1

Primary Spillway

RIM: 648.0'
 48" Riser
 TOP: 648.0'
 36" BCCMP
 ~50LF @ 0.6%
 INV: 942.0'

Elevation (FT)	Area (SF)	Incremental Storage (AC-FT)	Cumulative Storage (AC-FT)	Primary Spillway (48" Riser)			Minimum (CFS)
				Head (FT)	Orifice ⁴ (CFS)	Weir ⁵ (CFS)	
642.0	3113.2	0.0	0.0				0.0
643.0	30855.3	0.4	0.4				0.0
644.0	80928.5	1.3	1.7				0.0
645.0	137926.0	2.5	4.2				0.0
646.0	162266.0	3.4	7.6				0.0
647.0	168465.0	3.8	11.4				0.0
648.0	174703.0	3.9	15.4	0.0	0.0	0.0	0.0
648.5	177843.5	4.0	19.4	0.5	42.8	13.7	13.7
649.0	180984.0	4.1	23.5	1.0	60.5	38.8	38.8
650.0	187301.0	4.1	27.6	2.0	85.6	109.7	85.6
651.0	193724.0	4.4	32.0	3.0	104.8	201.6	104.8

(1) Discharge estimated with sand-filter equation

$$Q = \frac{K(h_{sf} + d)}{d} A_{sf}$$

(2) Discharge estimated with Dodson Hydrocalc

(3) Discharge estimated with orifice equation (12-inch pipe):

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(4) Discharge estimated with broad-crested weir equation (8-inch riser):

$$Q = 3.087 \cdot L \cdot H^{3/2}$$

(5) Discharge estimated with Manning's Equation

dia 36 inches

radius 1.5 ft

area 7.068583471 sf

Stormwater Stage-Storage-Discharge Calculation
Huffaker Landfill at Plant Hammond
Plant Hammond, Rome, GA

Sedimentation Pond 1

Primary Spillway

RIM: 647.0'
 48" Riser
 TOP: 648.0'
 36" BCCMP
 ~50LF @ 0.6%
 INV: 942.0'

Elevation (FT)	Area (SF)	Incremental Storage (AC-FT)	Cumulative Storage (AC-FT)	Primary Spillway (48" Riser)			Composite (CFS)
				Head (FT)	Orifice ⁴ (CFS)	Weir ⁵ (CFS)	
642.0	1266.5	0.0	0.0				0.0
643.0	15303.9	0.2	0.2				0.0
644.0	17081.3	0.4	0.6				0.0
645.0	18463.6	0.4	1.0				0.0
646.0	19883.9	0.4	1.4				0.0
647.0	21343.9	0.5	1.9	0.0	0.0	0.0	0.0
648.0	22844.3	0.5	2.4	1.0	60.5	38.8	38.8
649.0	24383.0	0.5	2.9	2.0	85.6	109.7	85.6
650.0	25963.4	0.5	3.5	3.0	104.8	201.6	104.8

(1) Discharge estimated with sand-filter equation

$$Q = \frac{K(h_{sf} + d)}{d} A_{sf}$$

(2) Discharge estimated with Dodson Hydrocalc

(3) Discharge estimated with orifice equation (12-inch pipe):

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(4) Discharge estimated with broad-crested weir equation (8-inch riser):

$$Q = 3.087 \cdot L \cdot H^{3/2}$$

(5) Discharge estimated with Manning's Equation

dia 36 inches

radius 1.5 ft

area 7.068583471 sf



Attachment D
PCSWMM Results

Vegetated Cover - 25 Year Results

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.013)

Final SWMM Model for Georgia Power Plant Hammond Huffaker Road Landfill
 Grass Closure - Includes B/C soils for closure resulting in a 64.5 CN.
 Concrete lining was added to the channels in the southeastern corner of
 the site. The structures for both Sediment Pond 1 and Clear Pool 1 have
 perforations. The starting WSE for Sediment Pond 1 is 643.5 and for Clear
 Pool 1 is 642.5.

WARNING 02: maximum depth increased for Node J1
 WARNING 02: maximum depth increased for Node J19

Element Count

Number of rain gages 5
 Number of subcatchments ... 65
 Number of nodes 140
 Number of links 143
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_0.1in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_100-year_24-hour_7.85in	SCS_Type_II_100-year_24-hour_7.85in	INTENSITY	6 min.
SCS_Type_II_10-year_5.32in	SCS_Type_II_10-year_5.32in	INTENSITY	6 min.
SCS_Type_II_25-year_24-hour_6.29in	SCS_Type_II_25-year_24-hour_6.29in	INTENSITY	6 min.
SCS_Type_II_2-year_24-hour_3.82in	SCS_Type_II_3.82in	INTENSITY	6 min.

Subcatchment Summary

Name Outlet	Area	Width	%Imperv	%Slope	Rain Gage
B2_E	0.60	89.26	0.00	6.8800	
SCS_Type_II_25-year_24-hour_6.29in		J110			
B2_ENE	0.24	69.54	0.00	12.9400	
SCS_Type_II_25-year_24-hour_6.29in		J100			

Vegetated Cover - 25 Year Results

B2_NE	0.28	70.99	0.00	11.5400
SCS_Type_II_25-year_24-hour_6.29in	J81			
B3_E	0.44	101.99	0.00	10.7400
SCS_Type_II_25-year_24-hour_6.29in	J108			
B3_ENE	0.37	84.08	0.00	9.8400
SCS_Type_II_25-year_24-hour_6.29in	J98			
B3_ESE	0.31	71.44	0.00	10.7400
SCS_Type_II_25-year_24-hour_6.29in	J120			
B3_N	0.50	116.06	0.00	10.5900
SCS_Type_II_25-year_24-hour_6.29in	J76			
B3_NE	0.43	96.10	0.00	9.7400
SCS_Type_II_25-year_24-hour_6.29in	J83			
B3_S	0.54	117.38	0.00	10.2700
SCS_Type_II_25-year_24-hour_6.29in	J31			
B3_SE	0.33	77.75	0.00	10.7700
SCS_Type_II_25-year_24-hour_6.29in	J121			
B3_SW	0.42	91.19	0.00	9.8000
SCS_Type_II_25-year_24-hour_6.29in	J33			
B3_WSW	0.53	97.03	0.00	8.7700
SCS_Type_II_25-year_24-hour_6.29in	J48			
B4_E	0.44	102.00	0.00	10.7000
SCS_Type_II_25-year_24-hour_6.29in	J106			
B4_ENE	0.53	88.48	0.00	7.6600
SCS_Type_II_25-year_24-hour_6.29in	J96			
B4_ESE	0.45	104.70	0.00	10.6700
SCS_Type_II_25-year_24-hour_6.29in	J118			
B4_N	0.49	114.31	0.00	10.6900
SCS_Type_II_25-year_24-hour_6.29in	J74			
B4_NNE	0.58	97.67	0.00	7.7800
SCS_Type_II_25-year_24-hour_6.29in	J85			
B4_S	0.54	116.94	0.00	10.0000
SCS_Type_II_25-year_24-hour_6.29in	J29			
B4_SE	0.45	105.53	0.00	10.6900
SCS_Type_II_25-year_24-hour_6.29in	J123			
B4_SSW	0.66	94.78	0.00	6.2400
SCS_Type_II_25-year_24-hour_6.29in	J35			
B4_SW	0.72	106.88	0.00	6.4700
SCS_Type_II_25-year_24-hour_6.29in	J46			
B4_W	0.70	138.24	0.00	9.1000
SCS_Type_II_25-year_24-hour_6.29in	J53			
B5_E	0.30	65.48	0.00	6.9800
SCS_Type_II_25-year_24-hour_6.29in	J104			
B5_ENE	0.65	59.91	0.00	2.5400
SCS_Type_II_25-year_24-hour_6.29in	J94			
B5_ESE	0.44	69.28	0.00	5.8500
SCS_Type_II_25-year_24-hour_6.29in	J116			
B5_N	0.28	50.04	0.00	2.4300
SCS_Type_II_25-year_24-hour_6.29in	J72			
B5_N2	0.27	51.22	0.00	3.5200
SCS_Type_II_25-year_24-hour_6.29in	J87			
B5_S	0.48	80.29	0.00	5.7300
SCS_Type_II_25-year_24-hour_6.29in	J27			
B5_SE	0.66	125.62	0.00	7.8200
SCS_Type_II_25-year_24-hour_6.29in	J129			

Vegetated Cover - 25 Year Results

B5_SSE	0.38	66.53	0.00	6.8600
SCS_Type_II_25-year_24-hour_6.29in	J125			
B5_SW	0.72	73.42	0.00	3.2700
SCS_Type_II_25-year_24-hour_6.29in	J37			
B5_W	0.41	58.01	0.00	2.7800
SCS_Type_II_25-year_24-hour_6.29in	J51			
B5_WSW	0.62	82.01	0.00	3.0100
SCS_Type_II_25-year_24-hour_6.29in	J44			
Bench_1_E	0.57	78.39	0.00	3.1500
SCS_Type_II_25-year_24-hour_6.29in	J112			
Bench_1_S	0.75	80.66	0.00	2.2200
SCS_Type_II_25-year_24-hour_6.29in	J32			
Bench_2_N	0.61	84.11	0.00	3.1600
SCS_Type_II_25-year_24-hour_6.29in	J80			
Bench_2_NW	0.58	74.72	0.00	5.6600
SCS_Type_II_25-year_24-hour_6.29in	J78			
Bench_2_S	0.92	110.20	0.00	5.4900
SCS_Type_II_25-year_24-hour_6.29in	J22			
Bench_2_W	1.00	85.76	0.00	5.3000
SCS_Type_II_25-year_24-hour_6.29in	J57			
Bench_3_NW	0.35	80.92	0.00	11.1800
SCS_Type_II_25-year_24-hour_6.29in	J68			
Bench_3_W	0.87	141.03	0.00	5.4100
SCS_Type_II_25-year_24-hour_6.29in	J55			
Bench_4_NW	0.58	77.75	0.00	5.8500
SCS_Type_II_25-year_24-hour_6.29in	J66			
Bench_4_WNW	0.57	113.97	0.00	9.6000
SCS_Type_II_25-year_24-hour_6.29in	J61			
Bench_5_NNW	0.28	55.69	0.00	5.2600
SCS_Type_II_25-year_24-hour_6.29in	J59			
Bench_5_NW	0.22	36.62	0.00	4.4900
SCS_Type_II_25-year_24-hour_6.29in	J64			
Clear1_42	0.74	827.71	0.00	27.0100
SCS_Type_II_25-year_24-hour_6.29in	Clear_Pool1			
D_43	0.60	345.20	0.00	28.4000
SCS_Type_II_25-year_24-hour_6.29in	J11			
D_44	1.14	745.95	0.00	26.9800
SCS_Type_II_25-year_24-hour_6.29in	J10			
D_47	0.52	529.86	0.00	25.5800
SCS_Type_II_25-year_24-hour_6.29in	J9			
D_48	0.38	463.72	0.00	29.0500
SCS_Type_II_25-year_24-hour_6.29in	J8			
D_49	0.41	246.87	0.00	28.2600
SCS_Type_II_25-year_24-hour_6.29in	J13			
D_50	0.07	35.77	0.00	24.8100
SCS_Type_II_25-year_24-hour_6.29in	J20			
D_53	0.46	278.18	0.00	31.0900
SCS_Type_II_25-year_24-hour_6.29in	J19			
D_55	0.48	281.65	0.00	30.0700
SCS_Type_II_25-year_24-hour_6.29in	J18			
D_57	0.34	188.18	0.00	27.8000
SCS_Type_II_25-year_24-hour_6.29in	J17			
D_58	1.10	459.75	0.00	20.4200
SCS_Type_II_25-year_24-hour_6.29in	J16			

Vegetated Cover - 25 Year Results

D_60	0.34	294.61	0.00	29.9700
SCS_Type_II_25-year_24-hour_6.29in	J15			
D_62	0.33	298.54	0.00	29.4100
SCS_Type_II_25-year_24-hour_6.29in	J14			
Ditch_18	0.55	312.83	0.00	28.0500
SCS_Type_II_25-year_24-hour_6.29in	J12			
Ditch_61	0.87	300.56	0.00	3.1800
SCS_Type_II_25-year_24-hour_6.29in	J7			
Ditch_63	0.56	108.19	0.00	2.2100
SCS_Type_II_25-year_24-hour_6.29in	J7			
Road_Ditch_Lower	0.26	508.74	0.00	23.2300
SCS_Type_II_25-year_24-hour_6.29in	J136			
Road_Ditch_Middle	0.41	415.00	0.00	33.5600
SCS_Type_II_25-year_24-hour_6.29in	J134			
Road_Ditch_Upper	0.68	318.33	0.00	3.2100
SCS_Type_II_25-year_24-hour_6.29in	J6			
Sed1_41	5.20	2897.24	0.00	12.7900
SCS_Type_II_25-year_24-hour_6.29in	SED_Pond1			

Node Summary

External		Invert	Max.	Ponded
Name	Type	Elev.	Depth	Area

J1	JUNCTION	651.90	2.50	0.0
J10	JUNCTION	666.80	2.00	0.0
J100	JUNCTION	728.00	1.50	0.0
J101	JUNCTION	662.00	1.50	0.0
J102	JUNCTION	673.00	1.50	0.0
J103	JUNCTION	675.00	1.50	0.0
J104	JUNCTION	686.00	1.50	0.0
J105	JUNCTION	688.00	1.50	0.0
J106	JUNCTION	705.00	1.50	0.0
J107	JUNCTION	706.00	1.50	0.0
J108	JUNCTION	723.00	1.50	0.0
J109	JUNCTION	725.00	1.50	0.0
J11	JUNCTION	658.00	2.00	0.0
J110	JUNCTION	742.00	1.50	0.0
J111	JUNCTION	743.00	1.50	0.0
J112	JUNCTION	746.50	1.50	0.0
J113	JUNCTION	661.00	1.50	0.0
J114	JUNCTION	671.00	1.50	0.0
J115	JUNCTION	673.00	1.50	0.0
J116	JUNCTION	686.00	1.50	0.0
J117	JUNCTION	688.00	1.50	0.0
J118	JUNCTION	705.00	1.50	0.0
J119	JUNCTION	706.00	1.50	0.0
J12	JUNCTION	655.70	2.00	0.0
J120	JUNCTION	709.50	1.50	0.0

Vegetated Cover - 25 Year Results

J121	JUNCTION	709.50	1.50	0.0
J122	JUNCTION	706.00	1.50	0.0
J123	JUNCTION	705.00	1.50	0.0
J124	JUNCTION	688.00	1.50	0.0
J125	JUNCTION	686.00	1.50	0.0
J126	JUNCTION	672.00	1.50	0.0
J127	JUNCTION	671.00	1.50	0.0
J128	JUNCTION	661.00	1.50	0.0
J129	JUNCTION	673.50	1.50	0.0
J13	JUNCTION	652.90	2.00	0.0
J130	JUNCTION	670.00	1.50	0.0
J131	JUNCTION	669.00	1.50	0.0
J132	JUNCTION	661.00	1.50	0.0
J133	JUNCTION	706.00	2.00	0.0
J134	JUNCTION	727.00	2.00	0.0
J135	JUNCTION	680.00	2.00	0.0
J136	JUNCTION	703.00	2.00	0.0
J14	JUNCTION	676.20	2.00	0.0
J15	JUNCTION	670.80	2.00	0.0
J16	JUNCTION	665.90	2.00	0.0
J17	JUNCTION	656.00	2.00	0.0
J18	JUNCTION	654.50	2.00	0.0
J19	JUNCTION	653.00	2.50	0.0
J2	JUNCTION	642.00	5.00	0.0
J20	JUNCTION	652.00	2.50	0.0
J21	JUNCTION	743.00	1.50	0.0
J22	JUNCTION	742.00	1.50	0.0
J23	JUNCTION	725.00	1.50	0.0
J24	JUNCTION	672.00	1.50	0.0
J25	JUNCTION	662.00	1.50	0.0
J26	JUNCTION	674.00	1.50	0.0
J27	JUNCTION	686.00	1.50	0.0
J28	JUNCTION	688.00	1.50	0.0
J29	JUNCTION	705.00	1.50	0.0
J3	JUNCTION	641.35	3.00	0.0
J30	JUNCTION	706.00	1.50	0.0
J31	JUNCTION	723.00	1.50	0.0
J32	JUNCTION	746.50	1.50	0.0
J33	JUNCTION	709.50	1.50	0.0
J34	JUNCTION	706.00	1.50	0.0
J35	JUNCTION	705.00	1.50	0.0
J36	JUNCTION	688.00	1.50	0.0
J37	JUNCTION	686.00	1.50	0.0
J38	JUNCTION	675.00	1.50	0.0
J39	JUNCTION	674.00	1.50	0.0
J4	JUNCTION	643.00	5.00	0.0
J40	JUNCTION	664.00	1.50	0.0
J41	JUNCTION	673.00	1.50	0.0
J42	JUNCTION	677.00	1.50	0.0
J43	JUNCTION	678.00	1.50	0.0
J44	JUNCTION	686.00	1.50	0.0
J45	JUNCTION	688.00	1.50	0.0
J46	JUNCTION	705.00	1.50	0.0
J47	JUNCTION	706.00	1.50	0.0

Vegetated Cover - 25 Year Results

J48	JUNCTION	709.50	1.50	0.0
J49	JUNCTION	680.00	1.50	0.0
J5	JUNCTION	681.00	2.00	0.0
J50	JUNCTION	681.00	1.50	0.0
J51	JUNCTION	686.00	1.50	0.0
J52	JUNCTION	688.00	1.50	0.0
J53	JUNCTION	705.00	1.50	0.0
J54	JUNCTION	706.00	1.50	0.0
J55	JUNCTION	723.00	1.50	0.0
J56	JUNCTION	725.00	1.50	0.0
J57	JUNCTION	728.00	1.50	0.0
J58	JUNCTION	685.00	1.50	0.0
J59	JUNCTION	686.00	1.50	0.0
J6	JUNCTION	751.00	2.00	0.0
J60	JUNCTION	688.00	1.50	0.0
J61	JUNCTION	691.00	1.50	0.0
J62	JUNCTION	682.00	1.50	0.0
J63	JUNCTION	684.00	1.50	0.0
J64	JUNCTION	686.00	1.50	0.0
J65	JUNCTION	688.00	1.50	0.0
J66	JUNCTION	705.00	1.50	0.0
J67	JUNCTION	706.00	1.50	0.0
J68	JUNCTION	709.50	1.50	0.0
J69	JUNCTION	677.00	1.50	0.0
J7	JUNCTION	683.00	2.00	0.0
J70	JUNCTION	681.00	1.50	0.0
J71	JUNCTION	682.00	1.50	0.0
J72	JUNCTION	686.00	1.50	0.0
J73	JUNCTION	688.00	1.50	0.0
J74	JUNCTION	705.00	1.50	0.0
J75	JUNCTION	706.00	1.50	0.0
J76	JUNCTION	723.00	1.50	0.0
J77	JUNCTION	725.00	1.50	0.0
J78	JUNCTION	742.00	1.50	0.0
J79	JUNCTION	743.00	1.50	0.0
J8	JUNCTION	678.20	2.00	0.0
J80	JUNCTION	746.50	1.50	0.0
J81	JUNCTION	728.00	1.50	0.0
J82	JUNCTION	725.00	1.50	0.0
J83	JUNCTION	723.00	1.50	0.0
J84	JUNCTION	706.00	1.50	0.0
J85	JUNCTION	705.00	1.50	0.0
J86	JUNCTION	688.00	1.50	0.0
J87	JUNCTION	686.00	1.50	0.0
J88	JUNCTION	681.00	1.50	0.0
J89	JUNCTION	679.00	1.50	0.0
J9	JUNCTION	672.70	2.00	0.0
J90	JUNCTION	672.00	1.50	0.0
J91	JUNCTION	663.00	1.50	0.0
J92	JUNCTION	674.00	1.50	0.0
J93	JUNCTION	676.00	1.50	0.0
J94	JUNCTION	686.00	1.50	0.0
J95	JUNCTION	688.00	1.50	0.0
J96	JUNCTION	705.00	1.50	0.0

Vegetated Cover - 25 Year Results

J97	JUNCTION	706.00	1.50	0.0
J98	JUNCTION	723.00	1.50	0.0
J99	JUNCTION	725.00	1.50	0.0
O1	OUTFALL	641.00	3.00	0.0
O2	OUTFALL	637.00	12.59	0.0
Clear_Pool1	STORAGE	642.00	8.00	0.0
SED_Pond1	STORAGE	642.00	8.00	0.0

 Link Summary

Name	From Node	To Node	Type
Length	%Slope	Roughness	

C10	J11	J12	CONDUIT
275.0	0.8363	0.0300	
C100	J107	J106	CONDUIT
37.3	2.6855	0.0780	
C101	J106	J105	CONDUIT
51.2	35.1769	0.0780	
C102	J105	J104	CONDUIT
40.3	4.9714	0.0780	
C103	J104	J103	CONDUIT
33.3	34.9505	0.0780	
C104	J103	J102	CONDUIT
40.3	4.9701	0.0780	
C105	J102	J101	CONDUIT
33.2	35.0685	0.0780	
C106	J101	J18	CONDUIT
29.4	26.3831	0.0780	
C107	J121	J122	CONDUIT
9.9	37.7507	0.0780	
C108	J122	J123	CONDUIT
27.4	3.6588	0.0780	
C109	J123	J124	CONDUIT
51.2	35.1692	0.0780	
C11	J10	J11	CONDUIT
693.7	1.2687	0.0300	
C110	J124	J125	CONDUIT
40.3	4.9726	0.0780	
C111	J125	J126	CONDUIT
42.3	35.1202	0.0780	
C112	J126	J127	CONDUIT
37.3	2.6855	0.0780	
C113	J127	J128	CONDUIT
30.1	35.2101	0.0780	
C114	J128	J13	CONDUIT
35.6	23.3934	0.0780	
C115	J32	J21	CONDUIT
9.9	37.7507	0.0780	
C116	J21	J22	CONDUIT
27.4	3.6588	0.0780	

Vegetated Cover - 25 Year Results

C117		J22	J23	CONDUIT
51.2	35.1692	0.0780		
C118		J23	J31	CONDUIT
40.3	4.9726	0.0780		
C119		J31	J30	CONDUIT
51.2	35.1692	0.0780		
C12		J9	J10	CONDUIT
352.5	1.6742	0.0300		
C120		J30	J29	CONDUIT
37.3	2.6855	0.0780		
C121		J29	J28	CONDUIT
51.2	35.1692	0.0780		
C122		J28	J27	CONDUIT
40.3	4.9726	0.0780		
C123		J27	J26	CONDUIT
36.2	35.0923	0.0780		
C124		J26	J24	CONDUIT
40.4	4.9615	0.0780		
C125		J24	J25	CONDUIT
31.6	33.3249	0.0780		
C126		J25	J12	CONDUIT
30.4	21.2127	0.0780		
C127		J33	J34	CONDUIT
9.9	37.7942	0.0780		
C128		J34	J35	CONDUIT
27.4	3.6588	0.0780		
C129		J35	J36	CONDUIT
51.2	35.1692	0.0780		
C13		J8	J9	CONDUIT
316.4	1.7385	0.0300		
C130		J36	J37	CONDUIT
40.3	4.9726	0.0780		
C131		J37	J38	CONDUIT
33.2	35.0685	0.0780		
C132		J38	J39	CONDUIT
37.3	2.6834	0.0780		
C133		J39	J40	CONDUIT
31.1	33.9577	0.0780		
C134		J40	J11	CONDUIT
29.4	20.8174	0.0780		
C135		J134	J133	CONDUIT
262.4	8.0273	0.0690		
C136		J7	J135	CONDUIT
135.1	2.2212	0.0300		
C137		J5	J135	CONDUIT
19.2	5.2280	0.0690		
C138		J135	J14	CONDUIT
170.9	2.2238	0.0300		
C139		J133	J136	CONDUIT
37.7	7.9807	0.0100		
C14		J136	J5	CONDUIT
213.4	10.3625	0.0690		
C15		J14	J15	CONDUIT
251.3	2.1489	0.0300		

Vegetated Cover - 25 Year Results

C16		J15	J16	CONDUIT
225.0	2.1781	0.0300		
C17		J16	J17	CONDUIT
605.8	1.6343	0.0300		
C18		J17	J18	CONDUIT
174.9	0.8577	0.0300		
C19		J18	J19	CONDUIT
250.1	0.5997	0.0150		
C2		SED_Pond1	Clear_Pool1	CONDUIT
8.0	0.1250	0.0150		
C20		J19	J20	CONDUIT
256.1	0.3904	0.0150		
C21		J20	J1	CONDUIT
46.6	0.2147	0.0150		
C22		J13	J1	CONDUIT
220.6	0.4533	0.0150		
C23		J68	J67	CONDUIT
10.0	37.3632	0.0780		
C24		J67	J66	CONDUIT
27.4	3.6588	0.0780		
C25		J66	J65	CONDUIT
51.2	35.1692	0.0780		
C26		J65	J64	CONDUIT
39.5	5.0659	0.0780		
C27		J64	J63	CONDUIT
4.1	55.7017	0.0780		
C28		J63	J62	CONDUIT
39.4	5.0892	0.0780		
C29		J62	J14	CONDUIT
30.5	19.3567	0.0780		
C3		Clear_Pool1	O2	CONDUIT
13.0	3.1554	0.0150		
C30		J80	J79	CONDUIT
10.0	37.3632	0.0780		
C31		J79	J78	CONDUIT
27.4	3.6588	0.0780		
C32		J78	J77	CONDUIT
51.2	35.1692	0.0780		
C33		J77	J76	CONDUIT
40.3	4.9726	0.0780		
C34		J76	J75	CONDUIT
51.2	35.1692	0.0780		
C35		J75	J74	CONDUIT
37.3	2.6855	0.0780		
C36		J74	J73	CONDUIT
51.2	35.1692	0.0780		
C37		J73	J72	CONDUIT
40.3	4.9689	0.0780		
C38		J72	J71	CONDUIT
12.2	34.7053	0.0780		
C39		J71	J70	CONDUIT
37.3	2.6848	0.0780		
C4		J2	J3	CONDUIT
65.0	1.0001	0.0220		

Vegetated Cover - 25 Year Results

C40		J70	J69	CONDUIT
12.2	34.6099	0.0780		
C41		J69	J15	CONDUIT
28.0	22.7065	0.0780		
C42		J90	J16	CONDUIT
28.8	21.6723	0.0780		
C43		J89	J90	CONDUIT
20.9	35.6226	0.0780		
C44		J88	J89	CONDUIT
40.3	4.9689	0.0780		
C45		J87	J88	CONDUIT
15.3	34.6290	0.0780		
C46		J86	J87	CONDUIT
40.3	4.9689	0.0780		
C47		J85	J86	CONDUIT
51.2	35.1692	0.0780		
C48		J81	J82	CONDUIT
8.5	37.7217	0.0780		
C49		J82	J83	CONDUIT
30.3	6.6217	0.0780		
C5		J3	O1	CONDUIT
28.0	1.2501	0.0230		
C50		J83	J84	CONDUIT
51.2	35.1692	0.0780		
C51		J84	J85	CONDUIT
37.3	2.6855	0.0780		
C52		J100	J99	CONDUIT
8.5	37.7217	0.0780		
C53		J99	J98	CONDUIT
30.3	6.6217	0.0780		
C54		J98	J97	CONDUIT
51.2	35.1692	0.0780		
C55		J97	J96	CONDUIT
37.3	2.6855	0.0780		
C56		J96	J95	CONDUIT
51.2	35.1692	0.0780		
C57		J95	J94	CONDUIT
40.3	4.9714	0.0780		
C58		J94	J93	CONDUIT
30.2	35.0792	0.0780		
C59		J93	J92	CONDUIT
40.3	4.9714	0.0780		
C6		J4	Clear_Pool1	CONDUIT
50.0	0.6000	0.0220		
C60		J92	J91	CONDUIT
33.2	35.1517	0.0780		
C61		J91	J17	CONDUIT
28.5	25.3660	0.0780		
C62		J129	J130	CONDUIT
9.8	38.1467	0.0780		
C63		J130	J131	CONDUIT
27.8	3.6059	0.0780		
C64		J131	J132	CONDUIT
37.6	21.7873	0.0780		

Vegetated Cover - 25 Year Results

C65		J132	J20	CONDUIT
34.7	26.8805	0.0780		
C66		J120	J119	CONDUIT
10.0	37.3632	0.0780		
C67		J119	J118	CONDUIT
27.4	3.6588	0.0780		
C68		J118	J117	CONDUIT
51.2	35.1692	0.0780		
C69		J117	J116	CONDUIT
40.3	4.9714	0.0780		
C7		J7	J8	CONDUIT
299.8	1.6015	0.0300		
C70		J116	J115	CONDUIT
39.3	35.0923	0.0780		
C71		J115	J114	CONDUIT
40.4	4.9603	0.0780		
C72		J114	J113	CONDUIT
32.1	32.8180	0.0780		
C73		J113	J19	CONDUIT
31.4	26.3113	0.0780		
C74		J61	J60	CONDUIT
8.5	37.7217	0.0780		
C75		J60	J59	CONDUIT
30.3	6.6085	0.0780		
C76		J59	J58	CONDUIT
3.1	34.2031	0.0780		
C77		J58	J8	CONDUIT
65.6	10.4204	0.0780		
C78		J57	J56	CONDUIT
8.5	37.7217	0.0780		
C79		J56	J55	CONDUIT
30.3	6.6217	0.0780		
C8		J6	J134	CONDUIT
296.6	8.1176	0.0690		
C80		J55	J54	CONDUIT
51.2	35.1692	0.0780		
C81		J54	J53	CONDUIT
37.3	2.6855	0.0780		
C82		J53	J52	CONDUIT
51.2	35.1769	0.0780		
C83		J52	J51	CONDUIT
40.3	4.9677	0.0780		
C84		J51	J50	CONDUIT
15.3	34.5278	0.0780		
C85		J50	J49	CONDUIT
21.8	4.5836	0.0780		
C86		J49	J9	CONDUIT
46.6	15.8506	0.0780		
C87		J48	J47	CONDUIT
9.9	37.7507	0.0780		
C88		J47	J46	CONDUIT
27.4	3.6588	0.0780		
C89		J46	J45	CONDUIT
51.2	35.1769	0.0780		

Vegetated Cover - 25 Year Results

C9		J12	J13	CONDUIT
250.2	1.1192	0.0300		
C90		J45	J44	CONDUIT
40.3	4.9714	0.0780		
C91		J44	J43	CONDUIT
24.2	35.0760	0.0780		
C92		J43	J42	CONDUIT
35.9	2.7858	0.0780		
C93		J42	J41	CONDUIT
13.5	30.9975	0.0780		
C94		J41	J10	CONDUIT
28.4	22.3375	0.0780		
C95		J112	J111	CONDUIT
9.9	37.7507	0.0780		
C96		J111	J110	CONDUIT
27.4	3.6588	0.0780		
C97		J110	J109	CONDUIT
51.2	35.1692	0.0780		
C98		J109	J108	CONDUIT
40.3	4.9726	0.0780		
C99		J108	J107	CONDUIT
51.2	35.1692	0.0780		
C1		J1	SED_Pond1	WEIR
OL1		SED_Pond1	J4	OUTLET
OL2		Clear_Pool1	J2	OUTLET
OR_1		Clear_Pool1	J2	OUTLET
W1		SED_Pond1	J4	OUTLET

 Cross Section Summary

No. of Conduit Barrels	Full Flow	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width
1	83.48	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	55.76	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.77	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	75.86	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.32	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	75.85	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.56	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	174.76	TRAPEZOIDAL	1.50	19.50	0.88	22.00

Vegetated Cover - 25 Year Results

	C107	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C108	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C109	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C11	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	102.81					
	C110	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C111	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.66					
	C112	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C113	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.84					
	C114	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	164.56					
	C115	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C116	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C117	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C118	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C119	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C12	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	118.11					
	C120	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C121	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C122	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C123	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.60					
	C124	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.79					
	C125	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	135.07					
	C126	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	156.70					
	C127	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.84					
	C128	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C129	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C13	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	120.36					
	C130	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					

Vegetated Cover - 25 Year Results

	C131	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.56					
	C132	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.73					
	C133	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	136.34					
	C134	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	155.24					
	C135	RoadsideDitch	2.00	10.00	0.92	10.00
1	57.82					
	C136	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	136.04					
	C137	RoadsideDitch	2.00	10.00	0.92	10.00
1	46.66					
	C138	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	136.12					
	C139	CIRCULAR	1.00	0.79	0.25	1.00
1	13.08					
	C14	RoadsideDitch	2.00	10.00	0.92	10.00
1	65.70					
	C15	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	133.81					
	C16	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	134.71					
	C17	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	116.69					
	C18	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	84.54					
	C19	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	141.38					
	C2	TRAPEZOIDAL	1.50	36.75	1.25	29.00
1	149.07					
	C20	TRAPEZOIDAL	2.50	22.50	1.48	14.00
1	181.05					
	C21	TRAPEZOIDAL	2.50	22.50	1.48	14.00
1	134.27					
	C22	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	122.92					
	C23	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
	C24	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C25	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C26	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	76.58					
	C27	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	174.62					
	C28	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	76.76					
	C29	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	149.69					
	C3	TRAPEZOIDAL	2.00	52.00	1.59	32.00
1	1248.00					

Vegetated Cover - 25 Year Results

	C30	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
	C31	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C32	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C33	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C34	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C35	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C36	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C37	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C38	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.84					
	C39	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.75					
	C4	CIRCULAR	3.00	7.07	0.75	3.00
1	39.41					
	C40	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.65					
	C41	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	162.13					
	C42	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	158.39					
	C43	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	139.65					
	C44	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C45	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.69					
	C46	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C47	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C48	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
	C49	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					
	C5	TRAPEZOIDAL	3.00	45.00	2.01	21.00
1	517.30					
	C50	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C51	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C52	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
	C53	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					
	C54	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					

Vegetated Cover - 25 Year Results

1	C55	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	55.76					
1	C56	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.76					
1	C57	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	75.86					
1	C58	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.58					
1	C59	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	75.86					
1	C6	CIRCULAR	3.00	7.07	0.75	3.00
	30.53					
1	C60	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.72					
1	C61	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	171.36					
1	C62	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	144.51					
1	C63	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	64.61					
1	C64	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	109.21					
1	C65	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	176.40					
1	C66	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	143.02					
1	C67	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	65.08					
1	C68	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.76					
1	C69	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	75.86					
1	C7	TRAPEZOIDAL	2.00	16.00	1.24	12.00
	115.52					
1	C70	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.60					
1	C71	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	75.78					
1	C72	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	134.04					
1	C73	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	174.52					
1	C74	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	143.70					
1	C75	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	87.47					
1	C76	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	136.84					
1	C77	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	109.83					
1	C78	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	143.70					
1	C79	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	87.55					

Vegetated Cover - 25 Year Results

	C8	RoadsideDitch	2.00	10.00	0.92	10.00
1	58.15					
	C80	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C81	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C82	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.77					
	C83	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.83					
	C84	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.48					
	C85	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	72.84					
	C86	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	135.46					
	C87	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C88	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C89	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.77					
	C9	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	96.57					
	C90	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
	C91	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.57					
	C92	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	56.79					
	C93	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	130.27					
	C94	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	160.81					
	C95	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C96	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C97	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C98	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C99	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					

 Transect Summary

Transect RoadsideDitch

Area:

0.0004 0.0016 0.0036 0.0064 0.0100

Vegetated Cover - 25 Year Results

	0.0144	0.0196	0.0256	0.0324	0.0400
	0.0484	0.0576	0.0676	0.0784	0.0900
	0.1024	0.1156	0.1296	0.1444	0.1600
	0.1764	0.1936	0.2116	0.2304	0.2500
	0.2704	0.2916	0.3136	0.3364	0.3600
	0.3844	0.4096	0.4356	0.4624	0.4900
	0.5184	0.5476	0.5776	0.6084	0.6400
	0.6724	0.7056	0.7396	0.7744	0.8100
	0.8464	0.8836	0.9216	0.9604	1.0000
Hrad:					
	0.0200	0.0400	0.0600	0.0800	0.1000
	0.1200	0.1400	0.1600	0.1800	0.2000
	0.2200	0.2400	0.2600	0.2800	0.3000
	0.3200	0.3400	0.3600	0.3800	0.4000
	0.4200	0.4400	0.4600	0.4800	0.5000
	0.5200	0.5400	0.5600	0.5800	0.6000
	0.6200	0.6400	0.6600	0.6800	0.7000
	0.7200	0.7400	0.7600	0.7800	0.8000
	0.8200	0.8400	0.8600	0.8800	0.9000
	0.9200	0.9400	0.9600	0.9800	1.0000
Width:					
	0.0200	0.0400	0.0600	0.0800	0.1000
	0.1200	0.1400	0.1600	0.1800	0.2000
	0.2200	0.2400	0.2600	0.2800	0.3000
	0.3200	0.3400	0.3600	0.3800	0.4000
	0.4200	0.4400	0.4600	0.4800	0.5000
	0.5200	0.5400	0.5600	0.5800	0.6000
	0.6200	0.6400	0.6600	0.6800	0.7000
	0.7200	0.7400	0.7600	0.7800	0.8000
	0.8200	0.8400	0.8600	0.8800	0.9000
	0.9200	0.9400	0.9600	0.9800	1.0000

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

Analysis Options

Flow Units CFS

Process Models:

Rainfall/Runoff YES

RDII NO

Snowmelt NO

Groundwater NO

Flow Routing YES

Ponding Allowed NO

Water Quality NO

Infiltration Method CURVE_NUMBER

Flow Routing Method DYNWAVE

Surcharge Method EXTRAN

Vegetated Cover - 25 Year Results

```

Starting Date ..... 01/01/2020 00:00:00
Ending Date ..... 01/08/2020 00:00:00
Antecedent Dry Days ..... 0.0
Report Time Step ..... 00:01:00
Wet Time Step ..... 00:05:00
Dry Time Step ..... 00:05:00
Routing Time Step ..... 5.00 sec
Variable Time Step ..... YES
Maximum Trials ..... 8
Number of Threads ..... 4
Head Tolerance ..... 0.005000 ft
  
```

	Volume acre-feet	Depth inches

Runoff Quantity Continuity	-----	-----

Total Precipitation	20.189	6.290
Evaporation Loss	0.000	0.000
Infiltration Loss	7.977	2.485
Surface Runoff	12.073	3.762
Final Storage	0.159	0.050
Continuity Error (%)	-0.103	

	Volume acre-feet	Volume 10^6 gal

Flow Routing Continuity	-----	-----

Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	12.093	3.941
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	12.620	4.112
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.943	0.307
Final Stored Volume	0.417	0.136
Continuity Error (%)	-0.009	

```

*****
Time-Step Critical Elements
*****
Link C76 (30.65%)
Link C5 (5.55%)
  
```

```

*****
Highest Flow Instability Indexes
*****
Link OL2 (14)
Link OL1 (7)
Link C4 (7)
  
```

Vegetated Cover - 25 Year Results

Link C6 (2)

Routing Time Step Summary

```

Minimum Time Step      :      0.50 sec
Average Time Step      :      3.87 sec
Maximum Time Step     :      5.00 sec
Percent in Steady State :      0.00
Average Iterations per Step :      2.00
Percent Not Converging :      0.00
    
```

Subcatchment Runoff Summary

		Total		Total		Total	Total
Imperv	Perv	Total	Total	Peak	Runoff		
Runoff	Runoff	Runoff	Runoff	Runoff	Evap		Infil
Subcatchment	Subcatchment	Precip	Runon	Runoff	Coeff		in
in	in	in	10^6 gal	in	in		in
B2_E		6.29	0.00	0.00			2.90
0.00	3.35	3.35	0.05	2.24	0.532		
B2_ENE		6.29	0.00	0.00			2.88
0.00	3.36	3.36	0.02	1.10	0.535		
B2_NE		6.29	0.00	0.00			2.91
0.00	3.33	3.33	0.03	1.22	0.530		
B3_E		6.29	0.00	0.00			2.85
0.00	3.39	3.39	0.04	1.88	0.539		
B3_ENE		6.29	0.00	0.00			2.84
0.00	3.41	3.41	0.03	1.58	0.542		
B3_ESE		6.29	0.00	0.00			2.91
0.00	3.34	3.34	0.03	1.29	0.531		
B3_N		6.29	0.00	0.00			2.87
0.00	3.38	3.38	0.05	2.14	0.537		
B3_NE		6.29	0.00	0.00			2.85
0.00	3.40	3.40	0.04	1.81	0.540		
B3_S		6.29	0.00	0.00			2.87
0.00	3.38	3.38	0.05	2.25	0.537		
B3_SE		6.29	0.00	0.00			2.91
0.00	3.34	3.34	0.03	1.40	0.531		
B3_SW		6.29	0.00	0.00			2.92
0.00	3.32	3.32	0.04	1.69	0.528		
B3_WSW		6.29	0.00	0.00			2.93
0.00	3.31	3.31	0.05	2.08	0.526		
B4_E		6.29	0.00	0.00			2.86
0.00	3.39	3.39	0.04	1.87	0.538		

Vegetated Cover - 25 Year Results

B4_ENE			6.29	0.00	0.00	2.87
0.00	3.37	3.37	0.05	2.07	0.536	
B4_ESE			6.29	0.00	0.00	2.86
0.00	3.39	3.39	0.04	1.93	0.538	
B4_N			6.29	0.00	0.00	2.87
0.00	3.38	3.38	0.05	2.10	0.537	
B4_NNE			6.29	0.00	0.00	2.88
0.00	3.36	3.36	0.05	2.25	0.535	
B4_S			6.29	0.00	0.00	2.87
0.00	3.38	3.38	0.05	2.23	0.537	
B4_SE			6.29	0.00	0.00	2.86
0.00	3.39	3.39	0.04	1.94	0.538	
B4_SSW			6.29	0.00	0.00	2.90
0.00	3.34	3.34	0.06	2.44	0.532	
B4_SW			6.29	0.00	0.00	2.91
0.00	3.34	3.34	0.07	2.68	0.531	
B4_W			6.29	0.00	0.00	2.90
0.00	3.35	3.35	0.06	2.79	0.532	
B5_E			6.29	0.00	0.00	2.84
0.00	3.41	3.41	0.03	1.22	0.542	
B5_ENE			6.29	0.00	0.00	2.92
0.00	3.32	3.32	0.06	1.76	0.528	
B5_ESE			6.29	0.00	0.00	2.92
0.00	3.32	3.32	0.04	1.62	0.529	
B5_N			6.29	0.00	0.00	2.88
0.00	3.36	3.36	0.03	0.98	0.534	
B5_N2			6.29	0.00	0.00	2.90
0.00	3.34	3.34	0.02	1.00	0.532	
B5_S			6.29	0.00	0.00	2.88
0.00	3.36	3.36	0.04	1.83	0.534	
B5_SE			6.29	0.00	0.00	2.89
0.00	3.35	3.35	0.06	2.62	0.533	
B5_SSE			6.29	0.00	0.00	2.89
0.00	3.36	3.36	0.03	1.47	0.534	
B5_SW			6.29	0.00	0.00	2.94
0.00	3.31	3.31	0.06	2.14	0.526	
B5_W			6.29	0.00	0.00	2.91
0.00	3.33	3.33	0.04	1.34	0.530	
B5_WSW			6.29	0.00	0.00	2.92
0.00	3.32	3.32	0.06	2.01	0.528	
Bench_1_E			6.29	0.00	0.00	2.29
0.00	3.95	3.95	0.06	2.32	0.629	
Bench_1_S			6.29	0.00	0.00	2.27
0.00	3.97	3.97	0.08	2.67	0.632	
Bench_2_N			6.29	0.00	0.00	2.62
0.00	3.63	3.63	0.06	2.24	0.577	
Bench_2_NW			6.29	0.00	0.00	2.89
0.00	3.35	3.35	0.05	2.06	0.533	
Bench_2_S			6.29	0.00	0.00	2.92
0.00	3.32	3.32	0.08	3.17	0.529	
Bench_2_W			6.29	0.00	0.00	2.93
0.00	3.31	3.31	0.09	3.06	0.527	
Bench_3_NW			6.29	0.00	0.00	2.91
0.00	3.34	3.34	0.03	1.47	0.531	

Vegetated Cover - 25 Year Results

Bench_3_W			6.29	0.00	0.00	2.91
0.00	3.33	3.33	0.08	3.22	0.530	
Bench_4_NW			6.29	0.00	0.00	2.89
0.00	3.35	3.35	0.05	2.09	0.532	
Bench_4_WNW			6.29	0.00	0.00	2.93
0.00	3.31	3.31	0.05	2.27	0.527	
Bench_5_NNW			6.29	0.00	0.00	2.87
0.00	3.37	3.37	0.03	1.09	0.536	
Bench_5_NW			6.29	0.00	0.00	2.88
0.00	3.37	3.37	0.02	0.80	0.535	
Clear1_42			6.29	0.00	0.00	1.48
0.00	4.77	4.77	0.10	5.54	0.758	
D_43			6.29	0.00	0.00	2.69
0.00	3.56	3.56	0.06	3.30	0.566	
D_44			6.29	0.00	0.00	2.71
0.00	3.53	3.53	0.11	6.31	0.562	
D_47			6.29	0.00	0.00	2.48
0.00	3.76	3.76	0.05	3.13	0.598	
D_48			6.29	0.00	0.00	2.42
0.00	3.82	3.82	0.04	2.33	0.608	
D_49			6.29	0.00	0.00	2.79
0.00	3.46	3.46	0.04	2.22	0.551	
D_50			6.29	0.00	0.00	2.52
0.00	3.73	3.73	0.01	0.42	0.593	
D_53			6.29	0.00	0.00	2.73
0.00	3.52	3.52	0.04	2.54	0.560	
D_55			6.29	0.00	0.00	2.75
0.00	3.50	3.50	0.05	2.64	0.556	
D_57			6.29	0.00	0.00	2.73
0.00	3.52	3.52	0.03	1.88	0.559	
D_58			6.29	0.00	0.00	2.78
0.00	3.47	3.47	0.10	5.67	0.551	
D_60			6.29	0.00	0.00	2.68
0.00	3.57	3.57	0.03	1.92	0.567	
D_62			6.29	0.00	0.00	2.65
0.00	3.60	3.60	0.03	1.89	0.572	
Ditch_18			6.29	0.00	0.00	2.69
0.00	3.56	3.56	0.05	3.05	0.566	
Ditch_61			6.29	0.00	0.00	1.56
0.00	4.69	4.69	0.11	5.20	0.746	
Ditch_63			6.29	0.00	0.00	2.09
0.00	4.16	4.16	0.06	2.51	0.661	
Road_Ditch_Lower			6.29	0.00	0.00	1.93
0.00	4.32	4.32	0.03	1.82	0.686	
Road_Ditch_Middle			6.29	0.00	0.00	2.22
0.00	4.02	4.02	0.04	2.61	0.640	
Road_Ditch_Upper			6.29	0.00	0.00	1.93
0.00	4.32	4.32	0.08	3.99	0.687	
Sed1_41			6.29	0.00	0.00	1.06
0.00	5.20	5.20	0.73	40.36	0.827	

Node Depth Summary

Vegetated Cover - 25 Year Results

Reported Max Depth Node Feet	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
1.95	J1	0.09	1.95	653.85	0 12:01
1.11	J10	0.07	1.11	667.91	0 12:00
0.10	J100	0.01	0.10	728.10	0 11:54
0.37	J101	0.02	0.37	662.37	0 12:00
0.37	J102	0.02	0.37	673.37	0 12:00
0.63	J103	0.05	0.63	675.63	0 12:00
0.36	J104	0.02	0.36	686.36	0 12:00
0.59	J105	0.04	0.59	688.59	0 12:00
0.34	J106	0.02	0.34	705.34	0 12:00
0.67	J107	0.05	0.67	706.67	0 12:00
0.29	J108	0.02	0.29	723.29	0 12:00
0.44	J109	0.03	0.44	725.44	0 12:00
1.39	J11	0.09	1.39	659.39	0 12:01
0.24	J110	0.01	0.24	742.24	0 12:00
0.34	J111	0.02	0.34	743.34	0 12:00
0.16	J112	0.01	0.16	746.66	0 12:00
0.26	J113	0.01	0.26	661.26	0 12:00
0.26	J114	0.01	0.26	671.26	0 12:00
0.47	J115	0.03	0.47	673.47	0 12:00
0.25	J116	0.01	0.25	686.25	0 12:00
0.37	J117	0.02	0.37	688.37	0 11:54

Vegetated Cover - 25 Year Results

J118	JUNCTION	0.01	0.20	705.20	0	11:54
0.20						
J119	JUNCTION	0.01	0.23	706.23	0	11:54
0.23						
J12	JUNCTION	0.10	1.51	657.21	0	12:01
1.51						
J120	JUNCTION	0.01	0.11	709.61	0	11:54
0.11						
J121	JUNCTION	0.01	0.12	709.62	0	11:54
0.12						
J122	JUNCTION	0.01	0.24	706.24	0	11:54
0.24						
J123	JUNCTION	0.01	0.20	705.20	0	11:54
0.20						
J124	JUNCTION	0.02	0.38	688.38	0	11:54
0.38						
J125	JUNCTION	0.01	0.25	686.25	0	11:55
0.25						
J126	JUNCTION	0.04	0.62	672.62	0	11:55
0.62						
J127	JUNCTION	0.01	0.25	671.25	0	11:55
0.25						
J128	JUNCTION	0.02	0.26	661.26	0	11:56
0.26						
J129	JUNCTION	0.01	0.17	673.67	0	12:00
0.17						
J13	JUNCTION	0.09	1.42	654.32	0	12:01
1.42						
J130	JUNCTION	0.02	0.39	670.39	0	12:00
0.39						
J131	JUNCTION	0.01	0.21	669.21	0	12:00
0.21						
J132	JUNCTION	0.01	0.18	661.18	0	12:00
0.18						
J133	JUNCTION	0.03	0.49	706.49	0	11:56
0.49						
J134	JUNCTION	0.10	0.96	727.96	0	11:55
0.96						
J135	JUNCTION	0.03	0.55	680.55	0	11:56
0.55						
J136	JUNCTION	0.08	0.90	703.90	0	11:56
0.90						
J14	JUNCTION	0.04	0.69	676.89	0	11:57
0.69						
J15	JUNCTION	0.05	0.89	671.69	0	11:58
0.89						
J16	JUNCTION	0.07	1.14	667.04	0	11:58
1.14						
J17	JUNCTION	0.10	1.50	657.50	0	12:00
1.50						
J18	JUNCTION	0.08	1.29	655.79	0	12:00
1.29						
J19	JUNCTION	0.09	1.52	654.52	0	12:00
1.52						

Vegetated Cover - 25 Year Results

J2 0.74	JUNCTION	0.31	0.74	642.74	0	19:44
J20 1.91	JUNCTION	0.11	1.91	653.91	0	12:01
J21 0.35	JUNCTION	0.03	0.35	743.35	0	12:00
J22 0.28	JUNCTION	0.02	0.28	742.28	0	12:00
J23 0.50	JUNCTION	0.04	0.50	725.50	0	12:00
J24 0.43	JUNCTION	0.03	0.43	672.43	0	12:00
J25 0.44	JUNCTION	0.03	0.44	662.44	0	12:00
J26 0.70	JUNCTION	0.05	0.71	674.71	0	12:00
J27 0.42	JUNCTION	0.03	0.42	686.42	0	12:00
J28 0.65	JUNCTION	0.05	0.65	688.65	0	12:00
J29 0.38	JUNCTION	0.02	0.38	705.38	0	12:00
J3 0.22	JUNCTION	0.08	0.22	641.57	0	19:44
J30 0.74	JUNCTION	0.06	0.74	706.74	0	12:00
J31 0.33	JUNCTION	0.02	0.33	723.33	0	12:00
J32 0.17	JUNCTION	0.01	0.17	746.67	0	12:00
J33 0.13	JUNCTION	0.01	0.13	709.63	0	11:54
J34 0.27	JUNCTION	0.02	0.27	706.27	0	11:54
J35 0.23	JUNCTION	0.01	0.23	705.23	0	12:00
J36 0.42	JUNCTION	0.03	0.42	688.42	0	12:00
J37 0.29	JUNCTION	0.02	0.29	686.29	0	12:00
J38 0.69	JUNCTION	0.05	0.69	675.69	0	12:00
J39 0.29	JUNCTION	0.02	0.29	674.29	0	12:00
J4 2.13	JUNCTION	0.61	2.13	645.13	0	19:43
J40 0.32	JUNCTION	0.02	0.32	664.32	0	12:00
J41 0.32	JUNCTION	0.02	0.32	673.32	0	12:00
J42 0.32	JUNCTION	0.02	0.32	677.32	0	12:00
J43 0.69	JUNCTION	0.05	0.69	678.69	0	12:00

Vegetated Cover - 25 Year Results

J44	JUNCTION	0.02	0.30	686.30	0	12:00
0.30						
J45	JUNCTION	0.03	0.45	688.45	0	12:00
0.45						
J46	JUNCTION	0.01	0.25	705.25	0	12:00
0.25						
J47	JUNCTION	0.02	0.31	706.31	0	12:00
0.31						
J48	JUNCTION	0.01	0.15	709.65	0	12:00
0.15						
J49	JUNCTION	0.03	0.44	680.44	0	12:00
0.44						
J5	JUNCTION	0.11	1.05	682.05	0	11:56
1.05						
J50	JUNCTION	0.05	0.66	681.66	0	12:00
0.66						
J51	JUNCTION	0.02	0.39	686.39	0	12:00
0.39						
J52	JUNCTION	0.05	0.62	688.62	0	12:00
0.62						
J53	JUNCTION	0.02	0.36	705.36	0	12:00
0.36						
J54	JUNCTION	0.05	0.66	706.66	0	12:00
0.66						
J55	JUNCTION	0.02	0.29	723.29	0	12:00
0.29						
J56	JUNCTION	0.02	0.30	725.30	0	12:00
0.29						
J57	JUNCTION	0.01	0.19	728.19	0	12:00
0.19						
J58	JUNCTION	0.02	0.27	685.27	0	12:00
0.27						
J59	JUNCTION	0.01	0.21	686.21	0	12:00
0.21						
J6	JUNCTION	0.07	0.73	751.73	0	11:54
0.73						
J60	JUNCTION	0.02	0.27	688.27	0	12:00
0.27						
J61	JUNCTION	0.01	0.16	691.16	0	12:00
0.16						
J62	JUNCTION	0.02	0.26	682.26	0	12:00
0.26						
J63	JUNCTION	0.03	0.44	684.44	0	12:00
0.43						
J64	JUNCTION	0.01	0.21	686.21	0	12:00
0.21						
J65	JUNCTION	0.03	0.40	688.40	0	12:00
0.40						
J66	JUNCTION	0.01	0.21	705.21	0	12:00
0.21						
J67	JUNCTION	0.01	0.26	706.26	0	11:54
0.26						
J68	JUNCTION	0.01	0.12	709.62	0	11:54
0.12						

Vegetated Cover - 25 Year Results

J69	JUNCTION	0.02	0.38	677.38	0	12:00
0.38						
J7	JUNCTION	0.02	0.29	683.29	0	11:55
0.29						
J70	JUNCTION	0.02	0.37	681.37	0	12:00
0.37						
J71	JUNCTION	0.06	0.80	682.80	0	12:00
0.80						
J72	JUNCTION	0.02	0.36	686.36	0	12:00
0.36						
J73	JUNCTION	0.04	0.60	688.60	0	12:00
0.60						
J74	JUNCTION	0.02	0.34	705.34	0	12:00
0.34						
J75	JUNCTION	0.05	0.67	706.67	0	12:00
0.67						
J76	JUNCTION	0.02	0.29	723.29	0	12:00
0.29						
J77	JUNCTION	0.03	0.43	725.43	0	12:00
0.43						
J78	JUNCTION	0.01	0.23	742.23	0	12:00
0.23						
J79	JUNCTION	0.02	0.33	743.33	0	12:00
0.33						
J8	JUNCTION	0.03	0.49	678.69	0	11:56
0.49						
J80	JUNCTION	0.01	0.16	746.66	0	12:00
0.16						
J81	JUNCTION	0.01	0.11	728.11	0	11:54
0.11						
J82	JUNCTION	0.01	0.18	725.18	0	11:54
0.18						
J83	JUNCTION	0.01	0.19	723.19	0	11:54
0.19						
J84	JUNCTION	0.03	0.45	706.45	0	11:55
0.45						
J85	JUNCTION	0.01	0.26	705.26	0	12:00
0.26						
J86	JUNCTION	0.03	0.48	688.48	0	11:56
0.48						
J87	JUNCTION	0.02	0.29	686.29	0	12:00
0.29						
J88	JUNCTION	0.04	0.53	681.53	0	12:00
0.53						
J89	JUNCTION	0.02	0.29	679.29	0	12:00
0.29						
J9	JUNCTION	0.05	0.82	673.52	0	12:00
0.82						
J90	JUNCTION	0.02	0.31	672.31	0	12:00
0.31						
J91	JUNCTION	0.02	0.30	663.30	0	12:00
0.30						
J92	JUNCTION	0.02	0.30	674.30	0	12:00
0.30						

Vegetated Cover - 25 Year Results

J93	JUNCTION	0.04	0.53	676.53	0	12:00
0.53						
J94	JUNCTION	0.02	0.29	686.29	0	12:00
0.29						
J95	JUNCTION	0.03	0.45	688.45	0	11:55
0.45						
J96	JUNCTION	0.01	0.25	705.25	0	11:56
0.25						
J97	JUNCTION	0.02	0.42	706.42	0	11:55
0.42						
J98	JUNCTION	0.01	0.18	723.18	0	11:54
0.18						
J99	JUNCTION	0.01	0.17	725.17	0	11:54
0.17						
O1	OUTFALL	0.07	0.21	641.21	0	19:44
0.21						
O2	OUTFALL	0.00	0.00	637.00	0	00:00
0.00						
Clear_Pool1	STORAGE	1.03	3.13	645.13	0	19:44
3.13						
SED_Pond1	STORAGE	2.10	4.21	646.21	0	15:51
4.21						

Node Inflow Summary

Lateral		Total	Flow	Maximum	Maximum		
Inflow	Inflow	Balance	Lateral	Total	Time of Max		
Volume	Volume	Error	Inflow	Inflow	Occurrence		
Node	10 ⁶ gal	Type	CFS	CFS	days	hr:min	10 ⁶
gal	10 ⁶ gal	Percent					
J1		JUNCTION	0.00	127.15	0	12:01	
0	3.11	0.001					
J10		JUNCTION	6.31	32.52	0	12:00	
0.11	0.8	-0.022					
J100		JUNCTION	1.10	1.10	0	11:54	
0.022	0.022	-0.002					
J101		JUNCTION	0.00	9.27	0	12:00	
0	0.224	-0.004					
J102		JUNCTION	0.00	9.27	0	12:00	
0	0.224	-0.000					
J103		JUNCTION	0.00	9.27	0	12:00	
0	0.224	-0.000					
J104		JUNCTION	1.22	9.28	0	12:00	
0.028	0.224	-0.001					

Vegetated Cover - 25 Year Results

J105		JUNCTION	0.00	8.08	0	12:00
0	0.196	0.001				
J106		JUNCTION	1.87	8.09	0	12:00
0.0403	0.196	-0.002				
J107		JUNCTION	0.00	6.31	0	12:00
0	0.156	0.003				
J108		JUNCTION	1.88	6.32	0	12:00
0.0403	0.156	-0.003				
J109		JUNCTION	0.00	4.54	0	12:00
0	0.116	0.003				
J11		JUNCTION	3.30	41.01	0	12:00
0.0578	1.02	0.023				
J110		JUNCTION	2.24	4.55	0	12:00
0.0542	0.116	-0.002				
J111		JUNCTION	0.00	2.32	0	12:00
0	0.0614	0.001				
J112		JUNCTION	2.32	2.32	0	12:00
0.0614	0.0614	-0.001				
J113		JUNCTION	0.00	4.71	0	12:00
0	0.109	-0.015				
J114		JUNCTION	0.00	4.71	0	12:00
0	0.109	-0.000				
J115		JUNCTION	0.00	4.72	0	12:00
0	0.109	0.000				
J116		JUNCTION	1.62	4.72	0	12:00
0.0394	0.109	0.001				
J117		JUNCTION	0.00	3.20	0	11:54
0	0.0693	-0.002				
J118		JUNCTION	1.93	3.21	0	11:54
0.0415	0.0693	-0.001				
J119		JUNCTION	0.00	1.29	0	11:54
0	0.0277	0.001				
J12		JUNCTION	3.05	54.51	0	12:00
0.0534	1.38	0.001				
J120		JUNCTION	1.29	1.29	0	11:54
0.0277	0.0277	-0.001				
J121		JUNCTION	1.40	1.40	0	11:54
0.0301	0.0301	-0.001				
J122		JUNCTION	0.00	1.40	0	11:54
0	0.0301	0.001				
J123		JUNCTION	1.94	3.33	0	11:54
0.0418	0.0719	-0.001				
J124		JUNCTION	0.00	3.33	0	11:54
0	0.0719	-0.001				
J125		JUNCTION	1.47	4.71	0	11:55
0.0345	0.106	0.000				
J126		JUNCTION	0.00	4.71	0	11:55
0	0.106	0.000				
J127		JUNCTION	0.00	4.71	0	11:55
0	0.106	-0.000				
J128		JUNCTION	0.00	4.71	0	11:56
0	0.106	-0.021				
J129		JUNCTION	2.62	2.62	0	12:00
0.0605	0.0605	-0.001				

Vegetated Cover - 25 Year Results

J13		JUNCTION	2.22	60.49	0	12:00
0.0388	1.53	0.001				
J130		JUNCTION	0.00	2.62	0	12:00
0	0.0605	-0.001				
J131		JUNCTION	0.00	2.62	0	12:00
0	0.0605	-0.000				
J132		JUNCTION	0.00	2.62	0	12:00
0	0.0605	-0.028				
J133		JUNCTION	0.00	6.27	0	11:55
0	0.125	0.007				
J134		JUNCTION	2.61	6.43	0	11:54
0.0445	0.125	0.003				
J135		JUNCTION	0.00	11.85	0	11:56
0	0.25	-0.005				
J136		JUNCTION	1.82	7.89	0	11:55
0.031	0.156	-0.012				
J14		JUNCTION	1.89	17.57	0	11:56
0.0324	0.387	-0.005				
J15		JUNCTION	1.92	28.04	0	11:57
0.0329	0.649	0.000				
J16		JUNCTION	5.67	39.01	0	11:57
0.103	0.896	-0.019				
J17		JUNCTION	1.88	46.49	0	11:59
0.033	1.09	0.019				
J18		JUNCTION	2.64	57.61	0	12:00
0.0461	1.36	-0.000				
J19		JUNCTION	2.54	64.17	0	12:00
0.0443	1.52	-0.005				
J2		JUNCTION	0.00	5.10	0	19:44
0	4.11	-0.104				
J20		JUNCTION	0.42	67.04	0	12:00
0.00739	1.58	0.007				
J21		JUNCTION	0.00	2.67	0	12:00
0	0.0811	0.002				
J22		JUNCTION	3.17	5.83	0	12:00
0.0833	0.164	-0.002				
J23		JUNCTION	0.00	5.81	0	12:00
0	0.164	0.003				
J24		JUNCTION	0.00	11.87	0	12:00
0	0.307	-0.000				
J25		JUNCTION	0.00	11.86	0	12:00
0	0.307	-0.004				
J26		JUNCTION	0.00	11.87	0	12:00
0	0.307	-0.000				
J27		JUNCTION	1.83	11.87	0	12:00
0.0441	0.307	-0.000				
J28		JUNCTION	0.00	10.09	0	12:00
0	0.263	0.001				
J29		JUNCTION	2.23	10.10	0	12:00
0.0493	0.263	-0.002				
J3		JUNCTION	0.00	5.10	0	19:44
0	4.11	0.003				
J30		JUNCTION	0.00	7.96	0	12:00
0	0.214	0.003				

Vegetated Cover - 25 Year Results

J31		JUNCTION	2.25	7.97	0	12:00
0.0495	0.214	-0.003				
J32		JUNCTION	2.67	2.67	0	12:00
0.0811	0.0811	-0.000				
J33		JUNCTION	1.69	1.69	0	11:54
0.0376	0.0376	-0.001				
J34		JUNCTION	0.00	1.69	0	11:54
0	0.0376	-0.005				
J35		JUNCTION	2.44	4.12	0	12:00
0.0603	0.0979	0.002				
J36		JUNCTION	0.00	4.11	0	12:00
0	0.0979	-0.003				
J37		JUNCTION	2.14	6.24	0	12:00
0.0648	0.163	0.002				
J38		JUNCTION	0.00	6.23	0	12:00
0	0.163	0.000				
J39		JUNCTION	0.00	6.22	0	12:00
0	0.163	-0.000				
J4		JUNCTION	0.00	5.29	0	15:51
0	3.99	-0.153				
J40		JUNCTION	0.00	6.22	0	12:00
0	0.163	-0.005				
J41		JUNCTION	0.00	6.74	0	12:00
0	0.17	-0.001				
J42		JUNCTION	0.00	6.74	0	12:00
0	0.17	-0.000				
J43		JUNCTION	0.00	6.74	0	12:00
0	0.17	0.000				
J44		JUNCTION	2.01	6.75	0	12:00
0.0564	0.17	0.001				
J45		JUNCTION	0.00	4.75	0	12:00
0	0.113	-0.002				
J46		JUNCTION	2.68	4.76	0	12:00
0.0653	0.113	0.001				
J47		JUNCTION	0.00	2.08	0	12:00
0	0.048	-0.002				
J48		JUNCTION	2.08	2.08	0	12:00
0.048	0.048	-0.001				
J49		JUNCTION	0.00	10.29	0	12:00
0	0.269	0.002				
J5		JUNCTION	0.00	7.87	0	11:56
0	0.156	0.012				
J50		JUNCTION	0.00	10.29	0	12:00
0	0.269	-0.000				
J51		JUNCTION	1.34	10.29	0	12:00
0.0369	0.269	0.000				
J52		JUNCTION	0.00	8.99	0	12:00
0	0.233	0.000				
J53		JUNCTION	2.79	9.00	0	12:00
0.0635	0.233	-0.003				
J54		JUNCTION	0.00	6.26	0	12:00
0	0.169	0.004				
J55		JUNCTION	3.22	6.27	0	12:00
0.0786	0.169	-0.003				

Vegetated Cover - 25 Year Results

J56		JUNCTION	0.00	3.06	0	12:00
0	0.0904	0.003				
J57		JUNCTION	3.06	3.06	0	12:00
0.0904	0.0904	-0.000				
J58		JUNCTION	0.00	3.36	0	12:00
0	0.0772	-0.001				
J59		JUNCTION	1.09	3.36	0	12:00
0.0256	0.0772	-0.000				
J6		JUNCTION	3.99	3.99	0	11:54
0.0802	0.0802	-0.010				
J60		JUNCTION	0.00	2.27	0	12:00
0	0.0516	-0.000				
J61		JUNCTION	2.27	2.27	0	12:00
0.0516	0.0516	-0.001				
J62		JUNCTION	0.00	4.29	0	12:00
0	0.104	0.003				
J63		JUNCTION	0.00	4.30	0	12:00
0	0.104	-0.001				
J64		JUNCTION	0.80	4.30	0	12:00
0.0197	0.104	-0.001				
J65		JUNCTION	0.00	3.51	0	12:00
0	0.0845	0.001				
J66		JUNCTION	2.09	3.51	0	12:00
0.0528	0.0845	0.002				
J67		JUNCTION	0.00	1.47	0	11:54
0	0.0317	-0.007				
J68		JUNCTION	1.47	1.47	0	11:54
0.0317	0.0317	-0.001				
J69		JUNCTION	0.00	9.24	0	12:00
0	0.23	0.001				
J7		JUNCTION	7.47	7.47	0	11:54
0.174	0.174	-0.005				
J70		JUNCTION	0.00	9.24	0	12:00
0	0.23	-0.000				
J71		JUNCTION	0.00	9.24	0	12:00
0	0.23	-0.000				
J72		JUNCTION	0.98	9.24	0	12:00
0.0259	0.23	0.000				
J73		JUNCTION	0.00	8.29	0	12:00
0	0.204	0.000				
J74		JUNCTION	2.10	8.29	0	12:00
0.0452	0.204	-0.002				
J75		JUNCTION	0.00	6.31	0	12:00
0	0.159	0.004				
J76		JUNCTION	2.14	6.32	0	12:00
0.0462	0.159	-0.003				
J77		JUNCTION	0.00	4.28	0	12:00
0	0.113	0.004				
J78		JUNCTION	2.06	4.29	0	12:00
0.0525	0.113	-0.002				
J79		JUNCTION	0.00	2.24	0	12:00
0	0.0602	0.001				
J8		JUNCTION	2.33	8.92	0	11:54
0.0397	0.197	-0.016				

Vegetated Cover - 25 Year Results

J80		JUNCTION	2.24	2.24	0	12:00
0.0602	0.0602	-0.001				
J81		JUNCTION	1.22	1.22	0	11:54
0.0256	0.0256	-0.002				
J82		JUNCTION	0.00	1.22	0	11:54
0	0.0256	-0.000				
J83		JUNCTION	1.81	3.02	0	11:54
0.0398	0.0654	-0.001				
J84		JUNCTION	0.00	3.02	0	11:54
0	0.0654	-0.001				
J85		JUNCTION	2.25	5.18	0	12:00
0.0527	0.118	0.001				
J86		JUNCTION	0.00	5.18	0	12:00
0	0.118	-0.000				
J87		JUNCTION	1.00	6.18	0	12:00
0.0249	0.143	0.000				
J88		JUNCTION	0.00	6.17	0	12:00
0	0.143	-0.000				
J89		JUNCTION	0.00	6.17	0	12:00
0	0.143	-0.000				
J9		JUNCTION	3.13	21.04	0	12:00
0.0536	0.52	-0.002				
J90		JUNCTION	0.00	6.17	0	12:00
0	0.143	-0.003				
J91		JUNCTION	0.00	6.36	0	12:00
0	0.164	-0.004				
J92		JUNCTION	0.00	6.36	0	12:00
0	0.164	-0.000				
J93		JUNCTION	0.00	6.37	0	12:00
0	0.164	-0.000				
J94		JUNCTION	1.76	6.37	0	12:00
0.0586	0.164	0.003				
J95		JUNCTION	0.00	4.62	0	11:56
0	0.105	-0.004				
J96		JUNCTION	2.07	4.62	0	11:55
0.0486	0.105	0.002				
J97		JUNCTION	0.00	2.66	0	11:54
0	0.0565	-0.002				
J98		JUNCTION	1.58	2.67	0	11:54
0.0345	0.0565	-0.001				
J99		JUNCTION	0.00	1.10	0	11:54
0	0.022	-0.001				
O1		OUTFALL	0.00	5.10	0	19:44
0	4.11	0.000				
O2		OUTFALL	0.00	0.00	0	00:00
0	0	0.000 gal				
Clear_Pool1		STORAGE	5.54	7.36	0	11:54
0.0957	4.11	0.094				
SED_Pond1		STORAGE	40.36	155.31	0	12:00
0.735	4.14	0.146				

Node Surcharge Summary

Vegetated Cover - 25 Year Results

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

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Time of Max Occurrence	Maximum Outflow Storage Unit	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full
0 19:44	Clear_Pool1 5.10	12.312	8	0	0	44.576	29
0 15:51	SED_Pond1 5.29	117.085	11	0	0	366.049	35

Outfall Loading Summary

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Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
O1	100.00	1.42	5.10	4.112
O2	0.00	0.00	0.00	0.000
System	50.00	1.42	0.00	4.112

Link Flow Summary

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Vegetated Cover - 25 Year Results

Max/ Full Link Depth	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow
0.73	C10	40.53	0 12:01	4.05	0.49
0.34	C100	6.29	0 12:00	1.77	0.11
0.31	C101	8.08	0 12:00	3.23	0.06
0.32	C102	8.07	0 12:00	2.46	0.11
0.33	C103	9.27	0 12:00	3.38	0.07
0.33	C104	9.27	0 12:00	2.64	0.12
0.25	C105	9.27	0 12:00	4.92	0.07
0.55	C106	9.27	0 12:00	1.36	0.05
0.12	C107	1.40	0 11:54	1.70	0.01
0.15	C108	1.39	0 11:54	1.17	0.02
0.19	C109	3.33	0 11:54	2.35	0.02
0.62	C11	32.30	0 12:00	4.03	0.31
0.21	C110	3.32	0 11:55	1.79	0.04
0.29	C111	4.71	0 11:55	2.06	0.03
0.29	C112	4.71	0 11:55	1.65	0.08
0.17	C113	4.71	0 11:56	3.84	0.03
0.56	C114	4.71	0 11:56	0.75	0.03
0.17	C115	2.67	0 12:00	2.13	0.02
0.21	C116	2.66	0 12:00	1.44	0.04
0.26	C117	5.81	0 12:00	2.89	0.04
0.28	C118	5.79	0 12:00	2.14	0.08
0.36	C119	7.96	0 12:00	2.64	0.06
0.48	C12	20.95	0 12:00	3.71	0.18

Vegetated Cover - 25 Year Results

0.37	C120	CONDUIT	7.94	0	12:00	1.92	0.14
0.34	C121	CONDUIT	10.09	0	12:00	3.51	0.07
0.36	C122	CONDUIT	10.08	0	12:00	2.61	0.13
0.37	C123	CONDUIT	11.87	0	12:00	3.72	0.09
0.38	C124	CONDUIT	11.87	0	12:00	2.83	0.16
0.29	C125	CONDUIT	11.86	0	12:00	5.14	0.09
0.65	C126	CONDUIT	11.86	0	12:00	1.33	0.08
0.14	C127	CONDUIT	1.69	0	11:54	1.83	0.01
0.17	C128	CONDUIT	1.69	0	11:54	1.24	0.03
0.22	C129	CONDUIT	4.11	0	12:00	2.56	0.03
0.33	C13	CONDUIT	8.70	0	11:56	2.55	0.07
0.24	C130	CONDUIT	4.10	0	12:00	1.89	0.05
0.33	C131	CONDUIT	6.23	0	12:00	2.33	0.04
0.33	C132	CONDUIT	6.22	0	12:00	1.82	0.11
0.20	C133	CONDUIT	6.22	0	12:00	4.14	0.05
0.57	C134	CONDUIT	6.22	0	12:00	0.87	0.04
0.36	C135	CHANNEL	6.27	0	11:55	4.77	0.11
0.21	C136	CONDUIT	4.01	0	11:55	2.04	0.03
0.40	C137	CHANNEL	7.85	0	11:56	4.91	0.17
0.31	C138	CONDUIT	11.82	0	11:56	3.65	0.09
0.69	C139	CONDUIT	6.26	0	11:56	10.74	0.48
0.49	C14	CHANNEL	7.87	0	11:56	3.31	0.12
0.39	C15	CONDUIT	17.52	0	11:57	3.99	0.13
0.51	C16	CONDUIT	27.98	0	11:58	4.59	0.21
0.66	C17	CONDUIT	38.74	0	11:58	4.46	0.33
0.70	C18	CONDUIT	46.36	0	12:00	4.92	0.55
0.70	C19	CONDUIT	57.61	0	12:00	6.04	0.41

Vegetated Cover - 25 Year Results

0.00	C2	CONDUIT	0.00	0	00:00	0.00	0.00
0.69	C20	CONDUIT	64.17	0	12:00	5.07	0.35
0.77	C21	CONDUIT	66.71	0	12:01	4.43	0.50
0.84	C22	CONDUIT	60.45	0	12:01	4.88	0.49
0.13	C23	CONDUIT	1.47	0	11:54	1.72	0.01
0.15	C24	CONDUIT	1.47	0	11:54	1.19	0.02
0.20	C25	CONDUIT	3.51	0	12:00	2.33	0.03
0.20	C26	CONDUIT	3.50	0	12:00	1.97	0.05
0.21	C27	CONDUIT	4.30	0	12:00	2.70	0.02
0.23	C28	CONDUIT	4.29	0	12:00	2.01	0.06
0.32	C29	CONDUIT	4.29	0	12:00	1.34	0.03
0.00	C3	CONDUIT	0.00	0	00:00	0.00	0.00
0.16	C30	CONDUIT	2.24	0	12:00	1.92	0.02
0.19	C31	CONDUIT	2.24	0	12:00	1.38	0.03
0.22	C32	CONDUIT	4.28	0	12:00	2.59	0.03
0.24	C33	CONDUIT	4.26	0	12:00	1.92	0.06
0.32	C34	CONDUIT	6.31	0	12:00	2.41	0.05
0.34	C35	CONDUIT	6.29	0	12:00	1.77	0.11
0.31	C36	CONDUIT	8.29	0	12:00	3.25	0.06
0.32	C37	CONDUIT	8.28	0	12:00	2.49	0.11
0.39	C38	CONDUIT	9.24	0	12:00	2.76	0.07
0.39	C39	CONDUIT	9.24	0	12:00	2.10	0.17
0.16	C4	CONDUIT	5.10	0	19:44	7.08	0.13
0.25	C40	CONDUIT	9.24	0	12:00	4.81	0.07
0.42	C41	CONDUIT	9.24	0	12:00	1.88	0.06
0.48	C42	CONDUIT	6.17	0	12:00	1.08	0.04
0.20	C43	CONDUIT	6.17	0	12:00	4.19	0.04

Vegetated Cover - 25 Year Results

C44	CONDUIT	6.17	0	12:00	2.34	0.08
0.27						
C45	CONDUIT	6.17	0	12:00	2.89	0.04
0.27						
C46	CONDUIT	5.17	0	12:00	2.13	0.07
0.26						
C47	CONDUIT	5.18	0	12:00	2.72	0.04
0.25						
C48	CONDUIT	1.22	0	11:54	1.92	0.01
0.10						
C49	CONDUIT	1.22	0	11:54	1.29	0.01
0.12						
C5	CONDUIT	5.10	0	19:44	2.53	0.01
0.07						
C50	CONDUIT	3.02	0	11:54	1.90	0.02
0.21						
C51	CONDUIT	3.01	0	11:55	1.37	0.05
0.24						
C52	CONDUIT	1.10	0	11:54	1.85	0.01
0.09						
C53	CONDUIT	1.09	0	11:54	1.26	0.01
0.11						
C54	CONDUIT	2.66	0	11:54	1.82	0.02
0.20						
C55	CONDUIT	2.65	0	11:55	1.32	0.05
0.22						
C56	CONDUIT	4.62	0	11:56	2.64	0.03
0.23						
C57	CONDUIT	4.62	0	11:56	2.01	0.06
0.25						
C58	CONDUIT	6.37	0	12:00	2.93	0.05
0.28						
C59	CONDUIT	6.36	0	12:00	2.35	0.08
0.28						
C6	CONDUIT	5.29	0	15:53	3.31	0.17
0.76						
C60	CONDUIT	6.36	0	12:00	4.31	0.05
0.20						
C61	CONDUIT	6.36	0	12:00	0.81	0.04
0.60						
C62	CONDUIT	2.62	0	12:00	1.91	0.02
0.19						
C63	CONDUIT	2.62	0	12:00	1.50	0.04
0.20						
C64	CONDUIT	2.62	0	12:00	2.91	0.02
0.13						
C65	CONDUIT	2.61	0	12:00	0.36	0.01
0.56						
C66	CONDUIT	1.29	0	11:54	1.67	0.01
0.11						
C67	CONDUIT	1.28	0	11:54	1.14	0.02
0.14						
C68	CONDUIT	3.20	0	11:54	2.32	0.02
0.19						

Vegetated Cover - 25 Year Results

0.21	C69	CONDUIT	3.20	0	11:55	1.76	0.04
0.20	C7	CONDUIT	3.41	0	11:55	1.84	0.03
0.24	C70	CONDUIT	4.72	0	12:00	2.61	0.03
0.24	C71	CONDUIT	4.71	0	12:00	2.12	0.06
0.17	C72	CONDUIT	4.71	0	12:00	3.86	0.04
0.59	C73	CONDUIT	4.71	0	12:00	0.68	0.03
0.14	C74	CONDUIT	2.27	0	12:00	2.26	0.02
0.16	C75	CONDUIT	2.27	0	12:00	1.74	0.03
0.16	C76	CONDUIT	3.36	0	12:00	2.97	0.02
0.26	C77	CONDUIT	3.36	0	12:00	1.41	0.03
0.16	C78	CONDUIT	3.06	0	12:00	2.68	0.02
0.20	C79	CONDUIT	3.05	0	12:00	1.81	0.03
0.42	C8	CHANNEL	3.91	0	11:54	2.21	0.07
0.32	C80	CONDUIT	6.26	0	12:00	2.43	0.05
0.34	C81	CONDUIT	6.23	0	12:00	1.74	0.11
0.33	C82	CONDUIT	8.99	0	12:00	3.36	0.06
0.34	C83	CONDUIT	8.97	0	12:00	2.53	0.12
0.35	C84	CONDUIT	10.29	0	12:00	3.53	0.07
0.37	C85	CONDUIT	10.29	0	12:00	2.56	0.14
0.42	C86	CONDUIT	10.28	0	12:00	2.10	0.08
0.15	C87	CONDUIT	2.08	0	12:00	1.95	0.01
0.18	C88	CONDUIT	2.08	0	12:00	1.33	0.03
0.23	C89	CONDUIT	4.75	0	12:00	2.68	0.03
0.73	C9	CONDUIT	54.37	0	12:01	5.36	0.56
0.25	C90	CONDUIT	4.74	0	12:00	2.00	0.06
0.33	C91	CONDUIT	6.74	0	12:00	2.46	0.05
0.34	C92	CONDUIT	6.74	0	12:00	1.89	0.12

Vegetated Cover - 25 Year Results

C93	CONDUIT	6.74	0	12:00	4.23	0.05
0.21						
C94	CONDUIT	6.73	0	12:00	1.15	0.04
0.48						
C95	CONDUIT	2.32	0	12:00	1.96	0.02
0.17						
C96	CONDUIT	2.31	0	12:00	1.39	0.04
0.19						
C97	CONDUIT	4.54	0	12:00	2.63	0.03
0.23						
C98	CONDUIT	4.52	0	12:00	1.98	0.06
0.25						
C99	CONDUIT	6.31	0	12:00	2.40	0.05
0.32						
C1	WEIR	127.09	0	12:01		
0.78						
OL1	DUMMY	5.29	0	15:51		
OL2	DUMMY	5.10	0	19:44		
OR_1	DUMMY	0.00	0	00:00		
W1	DUMMY	0.00	0	00:00		

 Flow Classification Summary

Class -----		Adjusted	----- Fraction of Time in Flow						
Norm	Inlet	/Actual	Up	Down	Sub	Sup	Up	Down	
Ltd	Ctrl	Length	Dry	Dry	Dry	Crit	Crit	Crit	
C10		1.00	0.52	0.01	0.00	0.47	0.00	0.00	
0.96	0.00								
C100		1.00	0.65	0.00	0.00	0.35	0.00	0.00	
0.00	0.00								
C101		1.00	0.64	0.01	0.00	0.35	0.00	0.00	
0.96	0.00								
C102		1.00	0.64	0.00	0.00	0.36	0.00	0.00	
0.00	0.00								
C103		1.00	0.64	0.01	0.00	0.35	0.00	0.00	
0.96	0.00								
C104		1.00	0.64	0.00	0.00	0.36	0.00	0.00	
0.00	0.00								
C105		1.00	0.64	0.01	0.00	0.07	0.28	0.00	
0.06	0.00								
C106		1.00	0.42	0.22	0.00	0.36	0.00	0.00	
0.97	0.00								
C107		1.00	0.69	0.00	0.00	0.31	0.00	0.00	
0.96	0.00								

Vegetated Cover - 25 Year Results

C80	1.00	0.66	0.02	0.00	0.32	0.00	0.00	0.00
0.96 0.00								
C81	1.00	0.66	0.00	0.00	0.34	0.00	0.00	0.00
0.00 0.00								
C82	1.00	0.66	0.01	0.00	0.34	0.00	0.00	0.00
0.96 0.00								
C83	1.00	0.66	0.00	0.00	0.34	0.00	0.00	0.00
0.00 0.00								
C84	1.00	0.65	0.00	0.00	0.34	0.00	0.00	0.00
0.96 0.00								
C85	1.00	0.65	0.00	0.00	0.35	0.00	0.00	0.00
0.00 0.00								
C86	1.00	0.61	0.05	0.00	0.34	0.00	0.00	0.00
0.96 0.00								
C87	1.00	0.68	0.00	0.00	0.31	0.00	0.00	0.00
0.96 0.00								
C88	1.00	0.68	0.00	0.00	0.32	0.00	0.00	0.00
0.85 0.00								
C89	1.00	0.67	0.01	0.00	0.32	0.00	0.00	0.00
0.96 0.00								
C9	1.00	0.51	0.01	0.00	0.47	0.00	0.00	0.00
0.85 0.00								
C90	1.00	0.67	0.00	0.00	0.33	0.00	0.00	0.00
0.01 0.00								
C91	1.00	0.67	0.01	0.00	0.32	0.00	0.00	0.00
0.96 0.00								
C92	1.00	0.67	0.00	0.00	0.33	0.00	0.00	0.00
0.00 0.00								
C93	1.00	0.67	0.00	0.00	0.16	0.16	0.00	0.00
0.10 0.00								
C94	1.00	0.57	0.10	0.00	0.33	0.00	0.00	0.00
0.96 0.00								
C95	1.00	0.67	0.01	0.00	0.33	0.00	0.00	0.00
0.97 0.00								
C96	1.00	0.67	0.00	0.00	0.33	0.00	0.00	0.00
0.00 0.00								
C97	1.00	0.66	0.01	0.00	0.33	0.00	0.00	0.00
0.97 0.00								
C98	1.00	0.66	0.00	0.00	0.34	0.00	0.00	0.00
0.00 0.00								
C99	1.00	0.65	0.01	0.00	0.34	0.00	0.00	0.00
0.97 0.00								

 Conduit Surcharge Summary

 Hours
 Hours
 Capacity
 ----- Hours Full ----- Above Full

Vegetated Cover - 25 Year Results

Conduit Limited	Both Ends	Upstream	Dnstream	Normal Flow

C126 0.01	0.01	0.01	0.04	0.01
C65 0.01	0.01	0.01	0.22	0.01
C73 0.01	0.01	0.01	0.06	0.01

Analysis begun on: Thu May 21 13:42:24 2020
Analysis ended on: Thu May 21 13:42:36 2020
Total elapsed time: 00:00:12

Vegetated Cover - 100 Year Results

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.013)

Final SWMM Model for Georgia Power Plant Hammond Huffaker Road Landfill
 Grass Closure - Includes B/C soils for closure resulting in a 64.5 CN.
 Concrete lining was added to the channels in the southeastern corner of
 the site. The structures for both Sediment Pond 1 and Clear Pool 1 have
 perforations. The starting WSE for Sediment Pond 1 is 643.5 and for Clear
 Pool 1 is 642.5.

WARNING 02: maximum depth increased for Node J1
 WARNING 02: maximum depth increased for Node J19

Element Count

Number of rain gages 5
 Number of subcatchments ... 65
 Number of nodes 140
 Number of links 143
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_0.1in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_100-year_24-hour_7.85in	SCS_Type_II_100-year_24-hour_7.85in	INTENSITY	6 min.
SCS_Type_II_10-year_5.32in	SCS_Type_II_10-year_5.32in	INTENSITY	6 min.
SCS_Type_II_25-year_24-hour_6.29in	SCS_Type_II_25-year_24-hour_6.29in	INTENSITY	6 min.
SCS_Type_II_2-year_24-hour_3.82in	SCS_Type_II_3.82in	INTENSITY	6 min.

Subcatchment Summary

Name	Area	Width	%Imperv	%Slope	Rain Gage
B2_E	0.60	89.26	0.00	6.8800	
SCS_Type_II_100-year_24-hour_7.85in		J110			
B2_ENE	0.24	69.54	0.00	12.9400	
SCS_Type_II_100-year_24-hour_7.85in		J100			

Vegetated Cover - 100 Year Results

B2_NE	0.28	70.99	0.00	11.5400
SCS_Type_II_100-year_24-hour_7.85in	J81			
B3_E	0.44	101.99	0.00	10.7400
SCS_Type_II_100-year_24-hour_7.85in	J108			
B3_ENE	0.37	84.08	0.00	9.8400
SCS_Type_II_100-year_24-hour_7.85in	J98			
B3_ESE	0.31	71.44	0.00	10.7400
SCS_Type_II_100-year_24-hour_7.85in	J120			
B3_N	0.50	116.06	0.00	10.5900
SCS_Type_II_100-year_24-hour_7.85in	J76			
B3_NE	0.43	96.10	0.00	9.7400
SCS_Type_II_100-year_24-hour_7.85in	J83			
B3_S	0.54	117.38	0.00	10.2700
SCS_Type_II_100-year_24-hour_7.85in	J31			
B3_SE	0.33	77.75	0.00	10.7700
SCS_Type_II_100-year_24-hour_7.85in	J121			
B3_SW	0.42	91.19	0.00	9.8000
SCS_Type_II_100-year_24-hour_7.85in	J33			
B3_WSW	0.53	97.03	0.00	8.7700
SCS_Type_II_100-year_24-hour_7.85in	J48			
B4_E	0.44	102.00	0.00	10.7000
SCS_Type_II_100-year_24-hour_7.85in	J106			
B4_ENE	0.53	88.48	0.00	7.6600
SCS_Type_II_100-year_24-hour_7.85in	J96			
B4_ESE	0.45	104.70	0.00	10.6700
SCS_Type_II_100-year_24-hour_7.85in	J118			
B4_N	0.49	114.31	0.00	10.6900
SCS_Type_II_100-year_24-hour_7.85in	J74			
B4_NNE	0.58	97.67	0.00	7.7800
SCS_Type_II_100-year_24-hour_7.85in	J85			
B4_S	0.54	116.94	0.00	10.0000
SCS_Type_II_100-year_24-hour_7.85in	J29			
B4_SE	0.45	105.53	0.00	10.6900
SCS_Type_II_100-year_24-hour_7.85in	J123			
B4_SSW	0.66	94.78	0.00	6.2400
SCS_Type_II_100-year_24-hour_7.85in	J35			
B4_SW	0.72	106.88	0.00	6.4700
SCS_Type_II_100-year_24-hour_7.85in	J46			
B4_W	0.70	138.24	0.00	9.1000
SCS_Type_II_100-year_24-hour_7.85in	J53			
B5_E	0.30	65.48	0.00	6.9800
SCS_Type_II_100-year_24-hour_7.85in	J104			
B5_ENE	0.65	59.91	0.00	2.5400
SCS_Type_II_100-year_24-hour_7.85in	J94			
B5_ESE	0.44	69.28	0.00	5.8500
SCS_Type_II_100-year_24-hour_7.85in	J116			
B5_N	0.28	50.04	0.00	2.4300
SCS_Type_II_100-year_24-hour_7.85in	J72			
B5_N2	0.27	51.22	0.00	3.5200
SCS_Type_II_100-year_24-hour_7.85in	J87			
B5_S	0.48	80.29	0.00	5.7300
SCS_Type_II_100-year_24-hour_7.85in	J27			
B5_SE	0.66	125.62	0.00	7.8200
SCS_Type_II_100-year_24-hour_7.85in	J129			

Vegetated Cover - 100 Year Results

B5_SSE	0.38	66.53	0.00	6.8600
SCS_Type_II_100-year_24-hour_7.85in	J125			
B5_SW	0.72	73.42	0.00	3.2700
SCS_Type_II_100-year_24-hour_7.85in	J37			
B5_W	0.41	58.01	0.00	2.7800
SCS_Type_II_100-year_24-hour_7.85in	J51			
B5_WSW	0.62	82.01	0.00	3.0100
SCS_Type_II_100-year_24-hour_7.85in	J44			
Bench_1_E	0.57	78.39	0.00	3.1500
SCS_Type_II_100-year_24-hour_7.85in	J112			
Bench_1_S	0.75	80.66	0.00	2.2200
SCS_Type_II_100-year_24-hour_7.85in	J32			
Bench_2_N	0.61	84.11	0.00	3.1600
SCS_Type_II_100-year_24-hour_7.85in	J80			
Bench_2_NW	0.58	74.72	0.00	5.6600
SCS_Type_II_100-year_24-hour_7.85in	J78			
Bench_2_S	0.92	110.20	0.00	5.4900
SCS_Type_II_100-year_24-hour_7.85in	J22			
Bench_2_W	1.00	85.76	0.00	5.3000
SCS_Type_II_100-year_24-hour_7.85in	J57			
Bench_3_NW	0.35	80.92	0.00	11.1800
SCS_Type_II_100-year_24-hour_7.85in	J68			
Bench_3_W	0.87	141.03	0.00	5.4100
SCS_Type_II_100-year_24-hour_7.85in	J55			
Bench_4_NW	0.58	77.75	0.00	5.8500
SCS_Type_II_100-year_24-hour_7.85in	J66			
Bench_4_WNW	0.57	113.97	0.00	9.6000
SCS_Type_II_100-year_24-hour_7.85in	J61			
Bench_5_NNW	0.28	55.69	0.00	5.2600
SCS_Type_II_100-year_24-hour_7.85in	J59			
Bench_5_NW	0.22	36.62	0.00	4.4900
SCS_Type_II_100-year_24-hour_7.85in	J64			
Clear1_42	0.74	827.71	0.00	27.0100
SCS_Type_II_100-year_24-hour_7.85in	Clear_Pool1			
D_43	0.60	345.20	0.00	28.4000
SCS_Type_II_100-year_24-hour_7.85in	J11			
D_44	1.14	745.95	0.00	26.9800
SCS_Type_II_100-year_24-hour_7.85in	J10			
D_47	0.52	529.86	0.00	25.5800
SCS_Type_II_100-year_24-hour_7.85in	J9			
D_48	0.38	463.72	0.00	29.0500
SCS_Type_II_100-year_24-hour_7.85in	J8			
D_49	0.41	246.87	0.00	28.2600
SCS_Type_II_100-year_24-hour_7.85in	J13			
D_50	0.07	35.77	0.00	24.8100
SCS_Type_II_100-year_24-hour_7.85in	J20			
D_53	0.46	278.18	0.00	31.0900
SCS_Type_II_100-year_24-hour_7.85in	J19			
D_55	0.48	281.65	0.00	30.0700
SCS_Type_II_100-year_24-hour_7.85in	J18			
D_57	0.34	188.18	0.00	27.8000
SCS_Type_II_100-year_24-hour_7.85in	J17			
D_58	1.10	459.75	0.00	20.4200
SCS_Type_II_100-year_24-hour_7.85in	J16			

Vegetated Cover - 100 Year Results

D_60	0.34	294.61	0.00	29.9700
SCS_Type_II_100-year_24-hour_7.85in	J15			
D_62	0.33	298.54	0.00	29.4100
SCS_Type_II_100-year_24-hour_7.85in	J14			
Ditch_18	0.55	312.83	0.00	28.0500
SCS_Type_II_100-year_24-hour_7.85in	J12			
Ditch_61	0.87	300.56	0.00	3.1800
SCS_Type_II_100-year_24-hour_7.85in	J7			
Ditch_63	0.56	108.19	0.00	2.2100
SCS_Type_II_100-year_24-hour_7.85in	J7			
Road_Ditch_Lower	0.26	508.74	0.00	23.2300
SCS_Type_II_100-year_24-hour_7.85in	J136			
Road_Ditch_Middle	0.41	415.00	0.00	33.5600
SCS_Type_II_100-year_24-hour_7.85in	J134			
Road_Ditch_Upper	0.68	318.33	0.00	3.2100
SCS_Type_II_100-year_24-hour_7.85in	J6			
Sed1_41	5.20	2897.24	0.00	12.7900
SCS_Type_II_100-year_24-hour_7.85in	SED_Pond1			

Node Summary

External		Invert	Max.	Ponded
Name	Type	Elev.	Depth	Area

J1	JUNCTION	651.90	2.50	0.0
J10	JUNCTION	666.80	2.00	0.0
J100	JUNCTION	728.00	1.50	0.0
J101	JUNCTION	662.00	1.50	0.0
J102	JUNCTION	673.00	1.50	0.0
J103	JUNCTION	675.00	1.50	0.0
J104	JUNCTION	686.00	1.50	0.0
J105	JUNCTION	688.00	1.50	0.0
J106	JUNCTION	705.00	1.50	0.0
J107	JUNCTION	706.00	1.50	0.0
J108	JUNCTION	723.00	1.50	0.0
J109	JUNCTION	725.00	1.50	0.0
J11	JUNCTION	658.00	2.00	0.0
J110	JUNCTION	742.00	1.50	0.0
J111	JUNCTION	743.00	1.50	0.0
J112	JUNCTION	746.50	1.50	0.0
J113	JUNCTION	661.00	1.50	0.0
J114	JUNCTION	671.00	1.50	0.0
J115	JUNCTION	673.00	1.50	0.0
J116	JUNCTION	686.00	1.50	0.0
J117	JUNCTION	688.00	1.50	0.0
J118	JUNCTION	705.00	1.50	0.0
J119	JUNCTION	706.00	1.50	0.0
J12	JUNCTION	655.70	2.00	0.0
J120	JUNCTION	709.50	1.50	0.0

Vegetated Cover - 100 Year Results

J121	JUNCTION	709.50	1.50	0.0
J122	JUNCTION	706.00	1.50	0.0
J123	JUNCTION	705.00	1.50	0.0
J124	JUNCTION	688.00	1.50	0.0
J125	JUNCTION	686.00	1.50	0.0
J126	JUNCTION	672.00	1.50	0.0
J127	JUNCTION	671.00	1.50	0.0
J128	JUNCTION	661.00	1.50	0.0
J129	JUNCTION	673.50	1.50	0.0
J13	JUNCTION	652.90	2.00	0.0
J130	JUNCTION	670.00	1.50	0.0
J131	JUNCTION	669.00	1.50	0.0
J132	JUNCTION	661.00	1.50	0.0
J133	JUNCTION	706.00	2.00	0.0
J134	JUNCTION	727.00	2.00	0.0
J135	JUNCTION	680.00	2.00	0.0
J136	JUNCTION	703.00	2.00	0.0
J14	JUNCTION	676.20	2.00	0.0
J15	JUNCTION	670.80	2.00	0.0
J16	JUNCTION	665.90	2.00	0.0
J17	JUNCTION	656.00	2.00	0.0
J18	JUNCTION	654.50	2.00	0.0
J19	JUNCTION	653.00	2.50	0.0
J2	JUNCTION	642.00	5.00	0.0
J20	JUNCTION	652.00	2.50	0.0
J21	JUNCTION	743.00	1.50	0.0
J22	JUNCTION	742.00	1.50	0.0
J23	JUNCTION	725.00	1.50	0.0
J24	JUNCTION	672.00	1.50	0.0
J25	JUNCTION	662.00	1.50	0.0
J26	JUNCTION	674.00	1.50	0.0
J27	JUNCTION	686.00	1.50	0.0
J28	JUNCTION	688.00	1.50	0.0
J29	JUNCTION	705.00	1.50	0.0
J3	JUNCTION	641.35	3.00	0.0
J30	JUNCTION	706.00	1.50	0.0
J31	JUNCTION	723.00	1.50	0.0
J32	JUNCTION	746.50	1.50	0.0
J33	JUNCTION	709.50	1.50	0.0
J34	JUNCTION	706.00	1.50	0.0
J35	JUNCTION	705.00	1.50	0.0
J36	JUNCTION	688.00	1.50	0.0
J37	JUNCTION	686.00	1.50	0.0
J38	JUNCTION	675.00	1.50	0.0
J39	JUNCTION	674.00	1.50	0.0
J4	JUNCTION	643.00	5.00	0.0
J40	JUNCTION	664.00	1.50	0.0
J41	JUNCTION	673.00	1.50	0.0
J42	JUNCTION	677.00	1.50	0.0
J43	JUNCTION	678.00	1.50	0.0
J44	JUNCTION	686.00	1.50	0.0
J45	JUNCTION	688.00	1.50	0.0
J46	JUNCTION	705.00	1.50	0.0
J47	JUNCTION	706.00	1.50	0.0

Vegetated Cover - 100 Year Results

J48	JUNCTION	709.50	1.50	0.0
J49	JUNCTION	680.00	1.50	0.0
J5	JUNCTION	681.00	2.00	0.0
J50	JUNCTION	681.00	1.50	0.0
J51	JUNCTION	686.00	1.50	0.0
J52	JUNCTION	688.00	1.50	0.0
J53	JUNCTION	705.00	1.50	0.0
J54	JUNCTION	706.00	1.50	0.0
J55	JUNCTION	723.00	1.50	0.0
J56	JUNCTION	725.00	1.50	0.0
J57	JUNCTION	728.00	1.50	0.0
J58	JUNCTION	685.00	1.50	0.0
J59	JUNCTION	686.00	1.50	0.0
J6	JUNCTION	751.00	2.00	0.0
J60	JUNCTION	688.00	1.50	0.0
J61	JUNCTION	691.00	1.50	0.0
J62	JUNCTION	682.00	1.50	0.0
J63	JUNCTION	684.00	1.50	0.0
J64	JUNCTION	686.00	1.50	0.0
J65	JUNCTION	688.00	1.50	0.0
J66	JUNCTION	705.00	1.50	0.0
J67	JUNCTION	706.00	1.50	0.0
J68	JUNCTION	709.50	1.50	0.0
J69	JUNCTION	677.00	1.50	0.0
J7	JUNCTION	683.00	2.00	0.0
J70	JUNCTION	681.00	1.50	0.0
J71	JUNCTION	682.00	1.50	0.0
J72	JUNCTION	686.00	1.50	0.0
J73	JUNCTION	688.00	1.50	0.0
J74	JUNCTION	705.00	1.50	0.0
J75	JUNCTION	706.00	1.50	0.0
J76	JUNCTION	723.00	1.50	0.0
J77	JUNCTION	725.00	1.50	0.0
J78	JUNCTION	742.00	1.50	0.0
J79	JUNCTION	743.00	1.50	0.0
J8	JUNCTION	678.20	2.00	0.0
J80	JUNCTION	746.50	1.50	0.0
J81	JUNCTION	728.00	1.50	0.0
J82	JUNCTION	725.00	1.50	0.0
J83	JUNCTION	723.00	1.50	0.0
J84	JUNCTION	706.00	1.50	0.0
J85	JUNCTION	705.00	1.50	0.0
J86	JUNCTION	688.00	1.50	0.0
J87	JUNCTION	686.00	1.50	0.0
J88	JUNCTION	681.00	1.50	0.0
J89	JUNCTION	679.00	1.50	0.0
J9	JUNCTION	672.70	2.00	0.0
J90	JUNCTION	672.00	1.50	0.0
J91	JUNCTION	663.00	1.50	0.0
J92	JUNCTION	674.00	1.50	0.0
J93	JUNCTION	676.00	1.50	0.0
J94	JUNCTION	686.00	1.50	0.0
J95	JUNCTION	688.00	1.50	0.0
J96	JUNCTION	705.00	1.50	0.0

Vegetated Cover - 100 Year Results

J97	JUNCTION	706.00	1.50	0.0
J98	JUNCTION	723.00	1.50	0.0
J99	JUNCTION	725.00	1.50	0.0
O1	OUTFALL	641.00	3.00	0.0
O2	OUTFALL	637.00	12.59	0.0
Clear_Pool1	STORAGE	642.00	8.00	0.0
SED_Pond1	STORAGE	642.00	8.00	0.0

 Link Summary

Name	From Node	To Node	Type
Length	%Slope	Roughness	

C10	J11	J12	CONDUIT
275.0	0.8363	0.0300	
C100	J107	J106	CONDUIT
37.3	2.6855	0.0780	
C101	J106	J105	CONDUIT
51.2	35.1769	0.0780	
C102	J105	J104	CONDUIT
40.3	4.9714	0.0780	
C103	J104	J103	CONDUIT
33.3	34.9505	0.0780	
C104	J103	J102	CONDUIT
40.3	4.9701	0.0780	
C105	J102	J101	CONDUIT
33.2	35.0685	0.0780	
C106	J101	J18	CONDUIT
29.4	26.3831	0.0780	
C107	J121	J122	CONDUIT
9.9	37.7507	0.0780	
C108	J122	J123	CONDUIT
27.4	3.6588	0.0780	
C109	J123	J124	CONDUIT
51.2	35.1692	0.0780	
C11	J10	J11	CONDUIT
693.7	1.2687	0.0300	
C110	J124	J125	CONDUIT
40.3	4.9726	0.0780	
C111	J125	J126	CONDUIT
42.3	35.1202	0.0780	
C112	J126	J127	CONDUIT
37.3	2.6855	0.0780	
C113	J127	J128	CONDUIT
30.1	35.2101	0.0780	
C114	J128	J13	CONDUIT
35.6	23.3934	0.0780	
C115	J32	J21	CONDUIT
9.9	37.7507	0.0780	
C116	J21	J22	CONDUIT
27.4	3.6588	0.0780	

Vegetated Cover - 100 Year Results

C117		J22	J23	CONDUIT
51.2	35.1692	0.0780		
C118		J23	J31	CONDUIT
40.3	4.9726	0.0780		
C119		J31	J30	CONDUIT
51.2	35.1692	0.0780		
C12		J9	J10	CONDUIT
352.5	1.6742	0.0300		
C120		J30	J29	CONDUIT
37.3	2.6855	0.0780		
C121		J29	J28	CONDUIT
51.2	35.1692	0.0780		
C122		J28	J27	CONDUIT
40.3	4.9726	0.0780		
C123		J27	J26	CONDUIT
36.2	35.0923	0.0780		
C124		J26	J24	CONDUIT
40.4	4.9615	0.0780		
C125		J24	J25	CONDUIT
31.6	33.3249	0.0780		
C126		J25	J12	CONDUIT
30.4	21.2127	0.0780		
C127		J33	J34	CONDUIT
9.9	37.7942	0.0780		
C128		J34	J35	CONDUIT
27.4	3.6588	0.0780		
C129		J35	J36	CONDUIT
51.2	35.1692	0.0780		
C13		J8	J9	CONDUIT
316.4	1.7385	0.0300		
C130		J36	J37	CONDUIT
40.3	4.9726	0.0780		
C131		J37	J38	CONDUIT
33.2	35.0685	0.0780		
C132		J38	J39	CONDUIT
37.3	2.6834	0.0780		
C133		J39	J40	CONDUIT
31.1	33.9577	0.0780		
C134		J40	J11	CONDUIT
29.4	20.8174	0.0780		
C135		J134	J133	CONDUIT
262.4	8.0273	0.0690		
C136		J7	J135	CONDUIT
135.1	2.2212	0.0300		
C137		J5	J135	CONDUIT
19.2	5.2280	0.0690		
C138		J135	J14	CONDUIT
170.9	2.2238	0.0300		
C139		J133	J136	CONDUIT
37.7	7.9807	0.0100		
C14		J136	J5	CONDUIT
213.4	10.3625	0.0690		
C15		J14	J15	CONDUIT
251.3	2.1489	0.0300		

Vegetated Cover - 100 Year Results

C16		J15	J16	CONDUIT
225.0	2.1781	0.0300		
C17		J16	J17	CONDUIT
605.8	1.6343	0.0300		
C18		J17	J18	CONDUIT
174.9	0.8577	0.0300		
C19		J18	J19	CONDUIT
250.1	0.5997	0.0150		
C2		SED_Pond1	Clear_Pool1	CONDUIT
8.0	0.1250	0.0150		
C20		J19	J20	CONDUIT
256.1	0.3904	0.0150		
C21		J20	J1	CONDUIT
46.6	0.2147	0.0150		
C22		J13	J1	CONDUIT
220.6	0.4533	0.0150		
C23		J68	J67	CONDUIT
10.0	37.3632	0.0780		
C24		J67	J66	CONDUIT
27.4	3.6588	0.0780		
C25		J66	J65	CONDUIT
51.2	35.1692	0.0780		
C26		J65	J64	CONDUIT
39.5	5.0659	0.0780		
C27		J64	J63	CONDUIT
4.1	55.7017	0.0780		
C28		J63	J62	CONDUIT
39.4	5.0892	0.0780		
C29		J62	J14	CONDUIT
30.5	19.3567	0.0780		
C3		Clear_Pool1	O2	CONDUIT
13.0	3.1554	0.0150		
C30		J80	J79	CONDUIT
10.0	37.3632	0.0780		
C31		J79	J78	CONDUIT
27.4	3.6588	0.0780		
C32		J78	J77	CONDUIT
51.2	35.1692	0.0780		
C33		J77	J76	CONDUIT
40.3	4.9726	0.0780		
C34		J76	J75	CONDUIT
51.2	35.1692	0.0780		
C35		J75	J74	CONDUIT
37.3	2.6855	0.0780		
C36		J74	J73	CONDUIT
51.2	35.1692	0.0780		
C37		J73	J72	CONDUIT
40.3	4.9689	0.0780		
C38		J72	J71	CONDUIT
12.2	34.7053	0.0780		
C39		J71	J70	CONDUIT
37.3	2.6848	0.0780		
C4		J2	J3	CONDUIT
65.0	1.0001	0.0220		

Vegetated Cover - 100 Year Results

C40		J70	J69	CONDUIT
12.2	34.6099	0.0780		
C41		J69	J15	CONDUIT
28.0	22.7065	0.0780		
C42		J90	J16	CONDUIT
28.8	21.6723	0.0780		
C43		J89	J90	CONDUIT
20.9	35.6226	0.0780		
C44		J88	J89	CONDUIT
40.3	4.9689	0.0780		
C45		J87	J88	CONDUIT
15.3	34.6290	0.0780		
C46		J86	J87	CONDUIT
40.3	4.9689	0.0780		
C47		J85	J86	CONDUIT
51.2	35.1692	0.0780		
C48		J81	J82	CONDUIT
8.5	37.7217	0.0780		
C49		J82	J83	CONDUIT
30.3	6.6217	0.0780		
C5		J3	O1	CONDUIT
28.0	1.2501	0.0230		
C50		J83	J84	CONDUIT
51.2	35.1692	0.0780		
C51		J84	J85	CONDUIT
37.3	2.6855	0.0780		
C52		J100	J99	CONDUIT
8.5	37.7217	0.0780		
C53		J99	J98	CONDUIT
30.3	6.6217	0.0780		
C54		J98	J97	CONDUIT
51.2	35.1692	0.0780		
C55		J97	J96	CONDUIT
37.3	2.6855	0.0780		
C56		J96	J95	CONDUIT
51.2	35.1692	0.0780		
C57		J95	J94	CONDUIT
40.3	4.9714	0.0780		
C58		J94	J93	CONDUIT
30.2	35.0792	0.0780		
C59		J93	J92	CONDUIT
40.3	4.9714	0.0780		
C6		J4	Clear_Pool1	CONDUIT
50.0	0.6000	0.0220		
C60		J92	J91	CONDUIT
33.2	35.1517	0.0780		
C61		J91	J17	CONDUIT
28.5	25.3660	0.0780		
C62		J129	J130	CONDUIT
9.8	38.1467	0.0780		
C63		J130	J131	CONDUIT
27.8	3.6059	0.0780		
C64		J131	J132	CONDUIT
37.6	21.7873	0.0780		

Vegetated Cover - 100 Year Results

C65		J132	J20	CONDUIT
34.7	26.8805	0.0780		
C66		J120	J119	CONDUIT
10.0	37.3632	0.0780		
C67		J119	J118	CONDUIT
27.4	3.6588	0.0780		
C68		J118	J117	CONDUIT
51.2	35.1692	0.0780		
C69		J117	J116	CONDUIT
40.3	4.9714	0.0780		
C7		J7	J8	CONDUIT
299.8	1.6015	0.0300		
C70		J116	J115	CONDUIT
39.3	35.0923	0.0780		
C71		J115	J114	CONDUIT
40.4	4.9603	0.0780		
C72		J114	J113	CONDUIT
32.1	32.8180	0.0780		
C73		J113	J19	CONDUIT
31.4	26.3113	0.0780		
C74		J61	J60	CONDUIT
8.5	37.7217	0.0780		
C75		J60	J59	CONDUIT
30.3	6.6085	0.0780		
C76		J59	J58	CONDUIT
3.1	34.2031	0.0780		
C77		J58	J8	CONDUIT
65.6	10.4204	0.0780		
C78		J57	J56	CONDUIT
8.5	37.7217	0.0780		
C79		J56	J55	CONDUIT
30.3	6.6217	0.0780		
C8		J6	J134	CONDUIT
296.6	8.1176	0.0690		
C80		J55	J54	CONDUIT
51.2	35.1692	0.0780		
C81		J54	J53	CONDUIT
37.3	2.6855	0.0780		
C82		J53	J52	CONDUIT
51.2	35.1769	0.0780		
C83		J52	J51	CONDUIT
40.3	4.9677	0.0780		
C84		J51	J50	CONDUIT
15.3	34.5278	0.0780		
C85		J50	J49	CONDUIT
21.8	4.5836	0.0780		
C86		J49	J9	CONDUIT
46.6	15.8506	0.0780		
C87		J48	J47	CONDUIT
9.9	37.7507	0.0780		
C88		J47	J46	CONDUIT
27.4	3.6588	0.0780		
C89		J46	J45	CONDUIT
51.2	35.1769	0.0780		

Vegetated Cover - 100 Year Results

C9		J12	J13	CONDUIT
250.2	1.1192	0.0300		
C90		J45	J44	CONDUIT
40.3	4.9714	0.0780		
C91		J44	J43	CONDUIT
24.2	35.0760	0.0780		
C92		J43	J42	CONDUIT
35.9	2.7858	0.0780		
C93		J42	J41	CONDUIT
13.5	30.9975	0.0780		
C94		J41	J10	CONDUIT
28.4	22.3375	0.0780		
C95		J112	J111	CONDUIT
9.9	37.7507	0.0780		
C96		J111	J110	CONDUIT
27.4	3.6588	0.0780		
C97		J110	J109	CONDUIT
51.2	35.1692	0.0780		
C98		J109	J108	CONDUIT
40.3	4.9726	0.0780		
C99		J108	J107	CONDUIT
51.2	35.1692	0.0780		
C1		J1	SED_Pond1	WEIR
OL1		SED_Pond1	J4	OUTLET
OL2		Clear_Pool1	J2	OUTLET
OR_1		Clear_Pool1	J2	OUTLET
W1		SED_Pond1	J4	OUTLET

 Cross Section Summary

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

1	83.48	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	55.76	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.77	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	75.86	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.32	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	75.85	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.56	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	174.76	TRAPEZOIDAL	1.50	19.50	0.88	22.00

Vegetated Cover - 100 Year Results

	C107	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C108	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C109	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C11	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	102.81					
	C110	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C111	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.66					
	C112	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C113	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.84					
	C114	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	164.56					
	C115	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C116	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C117	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C118	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C119	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C12	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	118.11					
	C120	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C121	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C122	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C123	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.60					
	C124	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.79					
	C125	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	135.07					
	C126	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	156.70					
	C127	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.84					
	C128	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C129	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C13	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	120.36					
	C130	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					

Vegetated Cover - 100 Year Results

	C131	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.56					
	C132	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.73					
	C133	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	136.34					
	C134	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	155.24					
	C135	RoadsideDitch	2.00	10.00	0.92	10.00
1	57.82					
	C136	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	136.04					
	C137	RoadsideDitch	2.00	10.00	0.92	10.00
1	46.66					
	C138	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	136.12					
	C139	CIRCULAR	1.00	0.79	0.25	1.00
1	13.08					
	C14	RoadsideDitch	2.00	10.00	0.92	10.00
1	65.70					
	C15	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	133.81					
	C16	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	134.71					
	C17	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	116.69					
	C18	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	84.54					
	C19	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	141.38					
	C2	TRAPEZOIDAL	1.50	36.75	1.25	29.00
1	149.07					
	C20	TRAPEZOIDAL	2.50	22.50	1.48	14.00
1	181.05					
	C21	TRAPEZOIDAL	2.50	22.50	1.48	14.00
1	134.27					
	C22	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	122.92					
	C23	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
	C24	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C25	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C26	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	76.58					
	C27	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	174.62					
	C28	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	76.76					
	C29	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	149.69					
	C3	TRAPEZOIDAL	2.00	52.00	1.59	32.00
1	1248.00					

Vegetated Cover - 100 Year Results

	C30	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
	C31	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C32	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C33	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C34	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C35	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C36	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C37	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C38	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.84					
	C39	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.75					
	C4	CIRCULAR	3.00	7.07	0.75	3.00
1	39.41					
	C40	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.65					
	C41	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	162.13					
	C42	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	158.39					
	C43	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	139.65					
	C44	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C45	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.69					
	C46	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C47	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C48	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
	C49	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					
	C5	TRAPEZOIDAL	3.00	45.00	2.01	21.00
1	517.30					
	C50	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C51	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C52	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
	C53	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					
	C54	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					

Vegetated Cover - 100 Year Results

1	C55	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
1	C56	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
1	C57	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
1	C58	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.58					
1	C59	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
1	C6	CIRCULAR	3.00	7.07	0.75	3.00
1	30.53					
1	C60	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.72					
1	C61	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	171.36					
1	C62	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	144.51					
1	C63	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	64.61					
1	C64	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	109.21					
1	C65	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	176.40					
1	C66	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
1	C67	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
1	C68	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
1	C69	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
1	C7	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	115.52					
1	C70	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.60					
1	C71	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.78					
1	C72	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	134.04					
1	C73	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	174.52					
1	C74	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
1	C75	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.47					
1	C76	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	136.84					
1	C77	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	109.83					
1	C78	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
1	C79	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					

Vegetated Cover - 100 Year Results

	C8	RoadsideDitch	2.00	10.00	0.92	10.00
1	58.15					
	C80	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C81	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C82	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.77					
	C83	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.83					
	C84	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.48					
	C85	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	72.84					
	C86	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	135.46					
	C87	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C88	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C89	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.77					
	C9	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	96.57					
	C90	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
	C91	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.57					
	C92	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	56.79					
	C93	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	130.27					
	C94	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	160.81					
	C95	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C96	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C97	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C98	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C99	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					

 Transect Summary

Transect RoadsideDitch

Area:

0.0004 0.0016 0.0036 0.0064 0.0100

Vegetated Cover - 100 Year Results

	0.0144	0.0196	0.0256	0.0324	0.0400
	0.0484	0.0576	0.0676	0.0784	0.0900
	0.1024	0.1156	0.1296	0.1444	0.1600
	0.1764	0.1936	0.2116	0.2304	0.2500
	0.2704	0.2916	0.3136	0.3364	0.3600
	0.3844	0.4096	0.4356	0.4624	0.4900
	0.5184	0.5476	0.5776	0.6084	0.6400
	0.6724	0.7056	0.7396	0.7744	0.8100
	0.8464	0.8836	0.9216	0.9604	1.0000
Hrad:					
	0.0200	0.0400	0.0600	0.0800	0.1000
	0.1200	0.1400	0.1600	0.1800	0.2000
	0.2200	0.2400	0.2600	0.2800	0.3000
	0.3200	0.3400	0.3600	0.3800	0.4000
	0.4200	0.4400	0.4600	0.4800	0.5000
	0.5200	0.5400	0.5600	0.5800	0.6000
	0.6200	0.6400	0.6600	0.6800	0.7000
	0.7200	0.7400	0.7600	0.7800	0.8000
	0.8200	0.8400	0.8600	0.8800	0.9000
	0.9200	0.9400	0.9600	0.9800	1.0000
Width:					
	0.0200	0.0400	0.0600	0.0800	0.1000
	0.1200	0.1400	0.1600	0.1800	0.2000
	0.2200	0.2400	0.2600	0.2800	0.3000
	0.3200	0.3400	0.3600	0.3800	0.4000
	0.4200	0.4400	0.4600	0.4800	0.5000
	0.5200	0.5400	0.5600	0.5800	0.6000
	0.6200	0.6400	0.6600	0.6800	0.7000
	0.7200	0.7400	0.7600	0.7800	0.8000
	0.8200	0.8400	0.8600	0.8800	0.9000
	0.9200	0.9400	0.9600	0.9800	1.0000

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

Analysis Options

Flow Units CFS

Process Models:

Rainfall/Runoff YES

RDII NO

Snowmelt NO

Groundwater NO

Flow Routing YES

Ponding Allowed NO

Water Quality NO

Infiltration Method CURVE_NUMBER

Flow Routing Method DYNWAVE

Surcharge Method EXTRAN

Vegetated Cover - 100 Year Results

```

Starting Date ..... 01/01/2020 00:00:00
Ending Date ..... 01/08/2020 00:00:00
Antecedent Dry Days ..... 0.0
Report Time Step ..... 00:01:00
Wet Time Step ..... 00:05:00
Dry Time Step ..... 00:05:00
Routing Time Step ..... 5.00 sec
Variable Time Step ..... YES
Maximum Trials ..... 8
Number of Threads ..... 4
Head Tolerance ..... 0.005000 ft
  
```

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	25.196	7.850
Evaporation Loss	0.000	0.000
Infiltration Loss	8.700	2.710
Surface Runoff	16.368	5.100
Final Storage	0.159	0.050
Continuity Error (%)	-0.123	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	16.394	5.342
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	16.919	5.513
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.943	0.307
Final Stored Volume	0.418	0.136
Continuity Error (%)	-0.006	

```

*****
Time-Step Critical Elements
*****
Link C76 (33.21%)
Link C5 (5.37%)
Link C6 (3.44%)
  
```

```

*****
Highest Flow Instability Indexes
*****
Link OL2 (12)
Link OL1 (7)
  
```

Vegetated Cover - 100 Year Results

Link C4 (6)
Link C6 (2)

Routing Time Step Summary

```

Minimum Time Step      :      0.50 sec
Average Time Step      :      3.69 sec
Maximum Time Step     :      5.00 sec
Percent in Steady State :      0.00
Average Iterations per Step :      2.00
Percent Not Converging :      0.00
    
```

Subcatchment Runoff Summary

		Total		Total		Total		Total
Imperv	Perv	Total	Total	Peak	Runoff			Total
Runoff	Runoff	Runoff	Runoff	Runoff	Runoff	Evap		Infil
Subcatchment	Subcatchment	Precip	Runon	Runoff	Runoff	Coeff		in
in	in	in	10^6 gal	in	in	in		in
B2_E	0.00	4.62	7.85	0.00	0.00	0.00		3.18
B2_ENE	0.00	4.64	7.85	0.00	0.00	0.00		3.17
B2_NE	0.00	4.60	7.85	0.00	0.00	0.00		3.21
B3_E	0.00	4.68	7.85	0.00	0.00	0.00		3.13
B3_ENE	0.00	4.69	7.85	0.00	0.00	0.00		3.12
B3_ESE	0.00	4.61	7.85	0.00	0.00	0.00		3.20
B3_N	0.00	4.66	7.85	0.00	0.00	0.00		3.15
B3_NE	0.00	4.68	7.85	0.00	0.00	0.00		3.13
B3_S	0.00	4.66	7.85	0.00	0.00	0.00		3.15
B3_SE	0.00	4.61	7.85	0.00	0.00	0.00		3.20
B3_SW	0.00	4.59	7.85	0.00	0.00	0.00		3.22
B3_WSW	0.00	4.58	7.85	0.00	0.00	0.00		3.23

Vegetated Cover - 100 Year Results

B4_E			7.85	0.00	0.00	3.14
0.00	4.67	4.67	0.06	2.73	0.595	
B4_ENE			7.85	0.00	0.00	3.16
0.00	4.65	4.65	0.07	2.91	0.592	
B4_ESE			7.85	0.00	0.00	3.14
0.00	4.67	4.67	0.06	2.80	0.595	
B4_N			7.85	0.00	0.00	3.15
0.00	4.66	4.66	0.06	3.05	0.594	
B4_NNE			7.85	0.00	0.00	3.17
0.00	4.64	4.64	0.07	3.17	0.591	
B4_S			7.85	0.00	0.00	3.15
0.00	4.66	4.66	0.07	3.26	0.593	
B4_SE			7.85	0.00	0.00	3.14
0.00	4.67	4.67	0.06	2.82	0.595	
B4_SSW			7.85	0.00	0.00	3.19
0.00	4.62	4.62	0.08	3.49	0.588	
B4_SW			7.85	0.00	0.00	3.19
0.00	4.61	4.61	0.09	3.82	0.588	
B4_W			7.85	0.00	0.00	3.19
0.00	4.62	4.62	0.09	4.05	0.589	
B5_E			7.85	0.00	0.00	3.11
0.00	4.70	4.70	0.04	1.77	0.598	
B5_ENE			7.85	0.00	0.00	3.21
0.00	4.59	4.59	0.08	2.67	0.585	
B5_ESE			7.85	0.00	0.00	3.21
0.00	4.60	4.60	0.05	2.31	0.585	
B5_N			7.85	0.00	0.00	3.17
0.00	4.64	4.64	0.04	1.43	0.591	
B5_N2			7.85	0.00	0.00	3.19
0.00	4.62	4.62	0.03	1.44	0.588	
B5_S			7.85	0.00	0.00	3.17
0.00	4.64	4.64	0.06	2.60	0.591	
B5_SE			7.85	0.00	0.00	3.18
0.00	4.63	4.63	0.08	3.74	0.590	
B5_SSE			7.85	0.00	0.00	3.17
0.00	4.63	4.63	0.05	2.07	0.590	
B5_SW			7.85	0.00	0.00	3.23
0.00	4.57	4.57	0.09	3.20	0.583	
B5_W			7.85	0.00	0.00	3.20
0.00	4.61	4.61	0.05	1.96	0.587	
B5_WSW			7.85	0.00	0.00	3.21
0.00	4.59	4.59	0.08	2.96	0.585	
Bench_1_E			7.85	0.00	0.00	2.46
0.00	5.34	5.34	0.08	3.27	0.681	
Bench_1_S			7.85	0.00	0.00	2.44
0.00	5.37	5.37	0.11	3.85	0.684	
Bench_2_N			7.85	0.00	0.00	2.85
0.00	4.96	4.96	0.08	3.22	0.632	
Bench_2_NW			7.85	0.00	0.00	3.17
0.00	4.63	4.63	0.07	2.96	0.590	
Bench_2_S			7.85	0.00	0.00	3.21
0.00	4.60	4.60	0.12	4.61	0.585	
Bench_2_W			7.85	0.00	0.00	3.22
0.00	4.59	4.59	0.12	4.55	0.584	

Vegetated Cover - 100 Year Results

Bench_3_NW		7.85	0.00	0.00	3.20
0.00	4.61	4.61	0.04	2.15	0.587
Bench_3_W		7.85	0.00	0.00	3.20
0.00	4.60	4.60	0.11	4.60	0.586
Bench_4_NW		7.85	0.00	0.00	3.18
0.00	4.63	4.63	0.07	3.01	0.589
Bench_4_WNW		7.85	0.00	0.00	3.23
0.00	4.58	4.58	0.07	3.32	0.584
Bench_5_NNW		7.85	0.00	0.00	3.16
0.00	4.65	4.65	0.04	1.53	0.592
Bench_5_NW		7.85	0.00	0.00	3.16
0.00	4.64	4.64	0.03	1.14	0.592
Clear1_42		7.85	0.00	0.00	1.55
0.00	6.26	6.26	0.13	7.20	0.797
D_43		7.85	0.00	0.00	2.93
0.00	4.88	4.88	0.08	4.56	0.621
D_44		7.85	0.00	0.00	2.97
0.00	4.84	4.84	0.15	8.71	0.617
D_47		7.85	0.00	0.00	2.69
0.00	5.12	5.12	0.07	4.26	0.652
D_48		7.85	0.00	0.00	2.62
0.00	5.18	5.18	0.05	3.16	0.660
D_49		7.85	0.00	0.00	3.05
0.00	4.76	4.76	0.05	3.07	0.606
D_50		7.85	0.00	0.00	2.74
0.00	5.07	5.07	0.01	0.57	0.646
D_53		7.85	0.00	0.00	2.99
0.00	4.83	4.83	0.06	3.51	0.615
D_55		7.85	0.00	0.00	3.01
0.00	4.80	4.80	0.06	3.65	0.612
D_57		7.85	0.00	0.00	2.99
0.00	4.86	4.86	0.05	2.66	0.619
D_58		7.85	0.00	0.00	3.05
0.00	4.76	4.76	0.14	7.94	0.607
D_60		7.85	0.00	0.00	2.92
0.00	4.88	4.88	0.04	2.63	0.622
D_62		7.85	0.00	0.00	2.89
0.00	4.92	4.92	0.04	2.59	0.627
Ditch_18		7.85	0.00	0.00	2.94
0.00	4.88	4.88	0.07	4.21	0.621
Ditch_61		7.85	0.00	0.00	1.64
0.00	6.18	6.18	0.15	7.07	0.787
Ditch_63		7.85	0.00	0.00	2.23
0.00	5.58	5.58	0.09	3.47	0.711
Road_Ditch_Lower		7.85	0.00	0.00	2.05
0.00	5.75	5.75	0.04	2.41	0.733
Road_Ditch_Middle		7.85	0.00	0.00	2.39
0.00	5.42	5.42	0.06	3.50	0.690
Road_Ditch_Upper		7.85	0.00	0.00	2.05
0.00	5.76	5.76	0.11	5.48	0.734
Sed1_41		7.85	0.00	0.00	1.09
0.00	6.73	6.73	0.95	52.06	0.857

Vegetated Cover - 100 Year Results

Node Depth Summary

Reported Max Depth Node Feet	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
2.47	J1	0.12	2.47	654.37	0 12:01
1.34	J10	0.08	1.34	668.14	0 11:58
0.13	J100	0.01	0.13	728.13	0 11:54
0.44	J101	0.03	0.44	662.44	0 11:56
0.45	J102	0.03	0.45	673.45	0 11:56
0.74	J103	0.06	0.74	675.74	0 11:56
0.44	J104	0.03	0.44	686.44	0 11:55
0.69	J105	0.05	0.69	688.69	0 11:55
0.41	J106	0.02	0.41	705.41	0 11:55
0.77	J107	0.06	0.77	706.77	0 12:00
0.36	J108	0.02	0.36	723.36	0 12:00
0.52	J109	0.04	0.52	725.52	0 12:00
1.67	J11	0.11	1.67	659.67	0 12:00
0.30	J110	0.02	0.30	742.30	0 12:00
0.40	J111	0.03	0.40	743.40	0 12:00
0.20	J112	0.01	0.20	746.70	0 12:00
0.31	J113	0.02	0.31	661.31	0 11:55
0.32	J114	0.02	0.32	671.32	0 11:55
0.55	J115	0.04	0.55	673.55	0 11:55
0.31	J116	0.02	0.31	686.31	0 11:54

Vegetated Cover - 100 Year Results

J117	JUNCTION	0.03	0.45	688.45	0	11:54
0.44						
J118	JUNCTION	0.01	0.25	705.25	0	11:54
0.25						
J119	JUNCTION	0.02	0.28	706.28	0	11:54
0.28						
J12	JUNCTION	0.12	1.80	657.50	0	12:00
1.80						
J120	JUNCTION	0.01	0.14	709.64	0	11:54
0.14						
J121	JUNCTION	0.01	0.15	709.65	0	11:54
0.15						
J122	JUNCTION	0.02	0.30	706.30	0	11:54
0.30						
J123	JUNCTION	0.01	0.25	705.25	0	11:54
0.25						
J124	JUNCTION	0.03	0.46	688.46	0	11:54
0.45						
J125	JUNCTION	0.02	0.31	686.31	0	11:54
0.31						
J126	JUNCTION	0.05	0.71	672.71	0	11:55
0.71						
J127	JUNCTION	0.02	0.31	671.31	0	11:55
0.31						
J128	JUNCTION	0.02	0.32	661.32	0	11:55
0.32						
J129	JUNCTION	0.01	0.21	673.71	0	11:54
0.21						
J13	JUNCTION	0.11	1.98	654.88	0	12:00
1.98						
J130	JUNCTION	0.03	0.46	670.46	0	11:54
0.46						
J131	JUNCTION	0.01	0.26	669.26	0	11:54
0.26						
J132	JUNCTION	0.01	0.22	661.22	0	11:54
0.22						
J133	JUNCTION	0.04	0.59	706.59	0	11:55
0.59						
J134	JUNCTION	0.11	1.07	728.07	0	11:55
1.07						
J135	JUNCTION	0.04	0.65	680.65	0	11:56
0.65						
J136	JUNCTION	0.10	1.01	704.01	0	11:55
1.01						
J14	JUNCTION	0.05	0.83	677.03	0	11:56
0.83						
J15	JUNCTION	0.06	1.07	671.87	0	11:57
1.07						
J16	JUNCTION	0.08	1.37	667.27	0	11:57
1.37						
J17	JUNCTION	0.12	1.77	657.77	0	11:58
1.77						
J18	JUNCTION	0.10	1.55	656.05	0	11:58
1.55						

Vegetated Cover - 100 Year Results

J19	JUNCTION	0.11	1.84	654.84	0	11:59
1.84						
J2	JUNCTION	0.36	0.84	642.84	0	19:20
0.84						
J20	JUNCTION	0.14	2.40	654.40	0	12:00
2.40						
J21	JUNCTION	0.03	0.42	743.42	0	12:00
0.42						
J22	JUNCTION	0.02	0.35	742.35	0	12:00
0.35						
J23	JUNCTION	0.05	0.59	725.59	0	12:00
0.59						
J24	JUNCTION	0.03	0.52	672.52	0	12:00
0.52						
J25	JUNCTION	0.04	0.53	662.53	0	12:00
0.53						
J26	JUNCTION	0.07	0.82	674.82	0	12:00
0.82						
J27	JUNCTION	0.03	0.51	686.51	0	12:00
0.51						
J28	JUNCTION	0.06	0.76	688.76	0	12:00
0.76						
J29	JUNCTION	0.03	0.47	705.47	0	12:00
0.47						
J3	JUNCTION	0.10	0.26	641.61	0	19:20
0.26						
J30	JUNCTION	0.07	0.86	706.86	0	12:00
0.86						
J31	JUNCTION	0.03	0.41	723.41	0	12:00
0.41						
J32	JUNCTION	0.01	0.22	746.72	0	12:00
0.22						
J33	JUNCTION	0.01	0.17	709.67	0	11:54
0.17						
J34	JUNCTION	0.02	0.33	706.33	0	11:54
0.33						
J35	JUNCTION	0.02	0.28	705.28	0	12:00
0.28						
J36	JUNCTION	0.03	0.49	688.49	0	11:55
0.49						
J37	JUNCTION	0.02	0.36	686.36	0	12:00
0.36						
J38	JUNCTION	0.06	0.79	675.79	0	12:00
0.79						
J39	JUNCTION	0.02	0.36	674.36	0	12:00
0.36						
J4	JUNCTION	0.85	2.87	645.87	0	19:18
2.87						
J40	JUNCTION	0.02	0.38	664.38	0	12:00
0.38						
J41	JUNCTION	0.02	0.39	673.39	0	12:00
0.39						
J42	JUNCTION	0.02	0.39	677.39	0	12:00
0.39						

Vegetated Cover - 100 Year Results

J43	JUNCTION	0.06	0.80	678.80	0	12:00
0.80						
J44	JUNCTION	0.02	0.37	686.37	0	12:00
0.37						
J45	JUNCTION	0.04	0.53	688.53	0	12:00
0.53						
J46	JUNCTION	0.02	0.30	705.30	0	12:00
0.30						
J47	JUNCTION	0.02	0.37	706.37	0	11:54
0.37						
J48	JUNCTION	0.01	0.19	709.69	0	11:54
0.19						
J49	JUNCTION	0.04	0.53	680.53	0	12:00
0.53						
J5	JUNCTION	0.13	1.17	682.17	0	11:56
1.17						
J50	JUNCTION	0.06	0.77	681.77	0	12:00
0.77						
J51	JUNCTION	0.03	0.48	686.48	0	12:00
0.48						
J52	JUNCTION	0.06	0.73	688.73	0	12:00
0.73						
J53	JUNCTION	0.03	0.44	705.44	0	12:00
0.44						
J54	JUNCTION	0.06	0.77	706.77	0	12:00
0.77						
J55	JUNCTION	0.02	0.36	723.36	0	12:00
0.36						
J56	JUNCTION	0.03	0.36	725.36	0	12:00
0.36						
J57	JUNCTION	0.02	0.24	728.24	0	12:00
0.24						
J58	JUNCTION	0.02	0.33	685.33	0	11:54
0.33						
J59	JUNCTION	0.01	0.25	686.25	0	11:54
0.25						
J6	JUNCTION	0.08	0.82	751.82	0	11:54
0.82						
J60	JUNCTION	0.02	0.33	688.33	0	11:54
0.33						
J61	JUNCTION	0.01	0.20	691.20	0	11:54
0.20						
J62	JUNCTION	0.02	0.32	682.32	0	12:00
0.32						
J63	JUNCTION	0.04	0.51	684.51	0	12:00
0.51						
J64	JUNCTION	0.01	0.25	686.25	0	12:00
0.25						
J65	JUNCTION	0.03	0.47	688.47	0	12:00
0.47						
J66	JUNCTION	0.01	0.26	705.26	0	12:00
0.26						
J67	JUNCTION	0.02	0.31	706.31	0	11:54
0.31						

Vegetated Cover - 100 Year Results

J68	JUNCTION	0.01	0.15	709.65	0	11:54
0.15						
J69	JUNCTION	0.03	0.46	677.46	0	12:00
0.46						
J7	JUNCTION	0.02	0.36	683.36	0	11:54
0.36						
J70	JUNCTION	0.03	0.45	681.45	0	12:00
0.45						
J71	JUNCTION	0.07	0.92	682.92	0	12:00
0.92						
J72	JUNCTION	0.03	0.44	686.44	0	12:00
0.44						
J73	JUNCTION	0.05	0.70	688.70	0	12:00
0.70						
J74	JUNCTION	0.02	0.42	705.42	0	12:00
0.42						
J75	JUNCTION	0.06	0.78	706.78	0	12:00
0.77						
J76	JUNCTION	0.02	0.36	723.36	0	12:00
0.36						
J77	JUNCTION	0.04	0.51	725.51	0	12:00
0.51						
J78	JUNCTION	0.02	0.29	742.29	0	12:00
0.29						
J79	JUNCTION	0.03	0.40	743.40	0	12:00
0.40						
J8	JUNCTION	0.03	0.60	678.80	0	11:55
0.60						
J80	JUNCTION	0.01	0.20	746.70	0	12:00
0.20						
J81	JUNCTION	0.01	0.14	728.14	0	11:54
0.14						
J82	JUNCTION	0.01	0.22	725.22	0	11:54
0.22						
J83	JUNCTION	0.01	0.24	723.24	0	11:54
0.24						
J84	JUNCTION	0.03	0.54	706.54	0	11:54
0.54						
J85	JUNCTION	0.02	0.32	705.32	0	11:55
0.32						
J86	JUNCTION	0.04	0.57	688.57	0	11:55
0.57						
J87	JUNCTION	0.02	0.36	686.36	0	11:55
0.36						
J88	JUNCTION	0.05	0.62	681.62	0	11:55
0.62						
J89	JUNCTION	0.02	0.36	679.36	0	11:55
0.36						
J9	JUNCTION	0.06	0.99	673.69	0	11:57
0.99						
J90	JUNCTION	0.02	0.38	672.38	0	11:55
0.38						
J91	JUNCTION	0.02	0.37	663.37	0	12:00
0.37						

Vegetated Cover - 100 Year Results

J92	JUNCTION	0.02	0.37	674.37	0	12:00
0.37						
J93	JUNCTION	0.05	0.63	676.63	0	12:00
0.63						
J94	JUNCTION	0.02	0.36	686.36	0	12:00
0.36						
J95	JUNCTION	0.03	0.54	688.54	0	11:55
0.54						
J96	JUNCTION	0.02	0.30	705.30	0	11:55
0.30						
J97	JUNCTION	0.03	0.51	706.51	0	11:54
0.50						
J98	JUNCTION	0.01	0.22	723.22	0	11:54
0.22						
J99	JUNCTION	0.01	0.20	725.20	0	11:54
0.20						
O1	OUTFALL	0.09	0.26	641.26	0	19:20
0.26						
O2	OUTFALL	0.00	0.00	637.00	0	00:00
0.00						
Clear_Pool1	STORAGE	1.32	3.86	645.86	0	19:20
3.86						
SED_Pond1	STORAGE	2.40	4.96	646.96	0	15:40
4.96						

Node Inflow Summary

Lateral		Total	Flow	Maximum	Maximum		
Inflow	Inflow	Balance	Lateral	Total	Time of Max		
Volume	Volume	Error	Inflow	Inflow	Occurrence		
Node	Volume	Type	CFS	CFS	days	hr:min	10^6
gal	10^6 gal	Percent					
J1		JUNCTION	0.00	180.71	0	12:00	
0	4.27	0.001					
J10		JUNCTION	8.71	46.82	0	11:56	
0.151	1.1	-0.022					
J100		JUNCTION	1.58	1.58	0	11:54	
0.0304	0.0304	-0.002					
J101		JUNCTION	0.00	13.12	0	11:56	
0	0.307	-0.004					
J102		JUNCTION	0.00	13.12	0	11:56	
0	0.307	-0.000					
J103		JUNCTION	0.00	13.12	0	11:55	
0	0.307	-0.000					

Vegetated Cover - 100 Year Results

J104		JUNCTION	1.77	13.12	0	11:55
0.0385	0.307	-0.000				
J105		JUNCTION	0.00	11.38	0	11:55
0	0.269	0.001				
J106		JUNCTION	2.73	11.38	0	11:55
0.0556	0.269	-0.002				
J107		JUNCTION	0.00	8.89	0	12:00
0	0.213	0.003				
J108		JUNCTION	2.72	8.90	0	12:00
0.0555	0.213	-0.003				
J109		JUNCTION	0.00	6.44	0	12:00
0	0.158	0.003				
J11		JUNCTION	4.56	58.54	0	11:58
0.0791	1.4	0.022				
J110		JUNCTION	3.18	6.44	0	12:00
0.0748	0.158	-0.002				
J111		JUNCTION	0.00	3.27	0	12:00
0	0.083	0.001				
J112		JUNCTION	3.27	3.27	0	12:00
0.083	0.083	-0.000				
J113		JUNCTION	0.00	6.85	0	11:55
0	0.15	-0.011				
J114		JUNCTION	0.00	6.85	0	11:55
0	0.15	-0.000				
J115		JUNCTION	0.00	6.85	0	11:54
0	0.15	0.000				
J116		JUNCTION	2.31	6.85	0	11:54
0.0544	0.15	0.001				
J117		JUNCTION	0.00	4.66	0	11:54
0	0.0956	-0.002				
J118		JUNCTION	2.80	4.66	0	11:54
0.0572	0.0956	-0.001				
J119		JUNCTION	0.00	1.88	0	11:54
0	0.0383	0.000				
J12		JUNCTION	4.21	78.15	0	12:00
0.0731	1.9	-0.001				
J120		JUNCTION	1.88	1.88	0	11:54
0.0383	0.0383	-0.001				
J121		JUNCTION	2.04	2.04	0	11:54
0.0416	0.0416	-0.001				
J122		JUNCTION	0.00	2.04	0	11:54
0	0.0416	0.000				
J123		JUNCTION	2.82	4.84	0	11:54
0.0576	0.0991	-0.001				
J124		JUNCTION	0.00	4.84	0	11:54
0	0.0991	-0.001				
J125		JUNCTION	2.07	6.87	0	11:54
0.0477	0.147	0.000				
J126		JUNCTION	0.00	6.87	0	11:54
0	0.147	0.000				
J127		JUNCTION	0.00	6.86	0	11:55
0	0.147	-0.000				
J128		JUNCTION	0.00	6.86	0	11:55
0	0.147	-0.019				

Vegetated Cover - 100 Year Results

J129		JUNCTION	3.74	3.74	0	11:54
0.0836	0.0836	-0.001				
J13		JUNCTION	3.07	86.69	0	12:00
0.0532	2.1	0.002				
J130		JUNCTION	0.00	3.74	0	11:54
0	0.0836	-0.001				
J131		JUNCTION	0.00	3.73	0	11:54
0	0.0836	-0.000				
J132		JUNCTION	0.00	3.73	0	11:54
0	0.0836	-0.018				
J133		JUNCTION	0.00	8.59	0	11:55
0	0.167	0.008				
J134		JUNCTION	3.50	8.79	0	11:54
0.0599	0.167	0.001				
J135		JUNCTION	0.00	16.18	0	11:56
0	0.333	-0.004				
J136		JUNCTION	2.41	10.76	0	11:55
0.0413	0.208	-0.010				
J14		JUNCTION	2.59	24.46	0	11:56
0.0443	0.521	-0.005				
J15		JUNCTION	2.63	39.65	0	11:56
0.045	0.883	0.000				
J16		JUNCTION	7.94	55.37	0	11:56
0.142	1.22	-0.017				
J17		JUNCTION	2.66	66.09	0	11:57
0.0456	1.49	0.017				
J18		JUNCTION	3.65	81.60	0	11:58
0.0632	1.86	-0.001				
J19		JUNCTION	3.51	90.97	0	11:58
0.0607	2.08	-0.007				
J2		JUNCTION	0.00	6.92	0	19:20
0	5.51	-0.080				
J20		JUNCTION	0.57	95.07	0	11:59
0.0101	2.17	0.010				
J21		JUNCTION	0.00	3.85	0	12:00
0	0.11	0.002				
J22		JUNCTION	4.61	8.44	0	12:00
0.115	0.225	-0.002				
J23		JUNCTION	0.00	8.43	0	12:00
0	0.225	0.003				
J24		JUNCTION	0.00	16.95	0	12:00
0	0.422	-0.000				
J25		JUNCTION	0.00	16.94	0	12:00
0	0.422	-0.003				
J26		JUNCTION	0.00	16.95	0	12:00
0	0.422	-0.000				
J27		JUNCTION	2.60	16.96	0	12:00
0.0609	0.422	-0.000				
J28		JUNCTION	0.00	14.40	0	12:00
0	0.361	0.001				
J29		JUNCTION	3.26	14.41	0	12:00
0.068	0.361	-0.002				
J3		JUNCTION	0.00	6.92	0	19:20
0	5.51	0.002				

Vegetated Cover - 100 Year Results

J30		JUNCTION	0.00	11.42	0	12:00
0	0.293	0.003				
J31		JUNCTION	3.28	11.44	0	12:00
0.0682	0.293	-0.003				
J32		JUNCTION	3.85	3.85	0	12:00
0.11	0.11	-0.000				
J33		JUNCTION	2.48	2.48	0	11:54
0.052	0.052	-0.001				
J34		JUNCTION	0.00	2.48	0	11:54
0	0.052	-0.005				
J35		JUNCTION	3.49	5.82	0	12:00
0.0833	0.135	0.002				
J36		JUNCTION	0.00	5.82	0	12:00
0	0.135	-0.004				
J37		JUNCTION	3.20	9.01	0	12:00
0.0898	0.225	0.002				
J38		JUNCTION	0.00	9.00	0	12:00
0	0.225	0.000				
J39		JUNCTION	0.00	8.99	0	12:00
0	0.225	-0.000				
J4		JUNCTION	0.00	7.19	0	15:40
0	5.37	-0.106				
J40		JUNCTION	0.00	8.99	0	12:00
0	0.225	-0.004				
J41		JUNCTION	0.00	9.68	0	12:00
0	0.235	-0.002				
J42		JUNCTION	0.00	9.68	0	12:00
0	0.235	-0.000				
J43		JUNCTION	0.00	9.69	0	12:00
0	0.235	0.000				
J44		JUNCTION	2.96	9.70	0	12:00
0.078	0.235	0.001				
J45		JUNCTION	0.00	6.74	0	12:00
0	0.157	-0.002				
J46		JUNCTION	3.82	6.74	0	12:00
0.0903	0.157	0.001				
J47		JUNCTION	0.00	2.98	0	11:54
0	0.0664	-0.003				
J48		JUNCTION	2.98	2.98	0	11:54
0.0664	0.0664	-0.001				
J49		JUNCTION	0.00	14.88	0	12:00
0	0.372	0.002				
J5		JUNCTION	0.00	10.73	0	11:55
0	0.208	0.010				
J50		JUNCTION	0.00	14.88	0	12:00
0	0.372	-0.000				
J51		JUNCTION	1.96	14.89	0	12:00
0.051	0.372	0.000				
J52		JUNCTION	0.00	12.96	0	12:00
0	0.321	-0.000				
J53		JUNCTION	4.05	12.97	0	12:00
0.0877	0.321	-0.002				
J54		JUNCTION	0.00	9.12	0	12:00
0	0.234	0.004				

Vegetated Cover - 100 Year Results

J55		JUNCTION	4.60	9.14	0	12:00
0.109	0.234	-0.003				
J56		JUNCTION	0.00	4.55	0	12:00
0	0.125	0.003				
J57		JUNCTION	4.55	4.55	0	12:00
0.125	0.125	-0.000				
J58		JUNCTION	0.00	4.83	0	11:54
0	0.107	-0.002				
J59		JUNCTION	1.53	4.83	0	11:54
0.0354	0.107	0.000				
J6		JUNCTION	5.48	5.48	0	11:54
0.107	0.107	-0.010				
J60		JUNCTION	0.00	3.32	0	11:54
0	0.0714	-0.000				
J61		JUNCTION	3.32	3.32	0	11:54
0.0714	0.0714	-0.001				
J62		JUNCTION	0.00	6.10	0	12:00
0	0.144	0.002				
J63		JUNCTION	0.00	6.10	0	12:00
0	0.144	-0.001				
J64		JUNCTION	1.14	6.11	0	12:00
0.0272	0.144	-0.000				
J65		JUNCTION	0.00	4.97	0	12:00
0	0.117	0.000				
J66		JUNCTION	3.01	4.97	0	12:00
0.0729	0.117	0.002				
J67		JUNCTION	0.00	2.15	0	11:54
0	0.0438	-0.007				
J68		JUNCTION	2.15	2.15	0	11:54
0.0438	0.0438	-0.001				
J69		JUNCTION	0.00	13.14	0	12:00
0	0.317	0.001				
J7		JUNCTION	10.36	10.36	0	11:54
0.231	0.231	-0.005				
J70		JUNCTION	0.00	13.14	0	12:00
0	0.317	-0.000				
J71		JUNCTION	0.00	13.15	0	12:00
0	0.317	-0.000				
J72		JUNCTION	1.43	13.15	0	12:00
0.0357	0.317	0.000				
J73		JUNCTION	0.00	11.74	0	12:00
0	0.281	0.000				
J74		JUNCTION	3.05	11.75	0	12:00
0.0623	0.281	-0.002				
J75		JUNCTION	0.00	8.99	0	12:00
0	0.219	0.003				
J76		JUNCTION	3.11	9.00	0	12:00
0.0638	0.219	-0.003				
J77		JUNCTION	0.00	6.17	0	12:00
0	0.155	0.004				
J78		JUNCTION	2.96	6.18	0	12:00
0.0725	0.155	-0.002				
J79		JUNCTION	0.00	3.22	0	12:00
0	0.0823	0.001				

Vegetated Cover - 100 Year Results

J8		JUNCTION	3.16	12.60	0	11:54
0.0538	0.266	-0.016				
J80		JUNCTION	3.22	3.22	0	12:00
0.0823	0.0823	-0.000				
J81		JUNCTION	1.77	1.77	0	11:54
0.0354	0.0354	-0.001				
J82		JUNCTION	0.00	1.77	0	11:54
0	0.0354	-0.000				
J83		JUNCTION	2.64	4.40	0	11:54
0.0548	0.0902	-0.001				
J84		JUNCTION	0.00	4.39	0	11:54
0	0.0902	-0.001				
J85		JUNCTION	3.17	7.52	0	11:54
0.0728	0.163	0.001				
J86		JUNCTION	0.00	7.51	0	11:55
0	0.163	-0.000				
J87		JUNCTION	1.44	8.88	0	11:55
0.0344	0.197	0.000				
J88		JUNCTION	0.00	8.88	0	11:55
0	0.197	-0.000				
J89		JUNCTION	0.00	8.88	0	11:55
0	0.197	-0.000				
J9		JUNCTION	4.26	30.19	0	11:55
0.0728	0.712	-0.002				
J90		JUNCTION	0.00	8.88	0	11:55
0	0.197	-0.004				
J91		JUNCTION	0.00	9.09	0	12:00
0	0.226	-0.002				
J92		JUNCTION	0.00	9.09	0	12:00
0	0.226	0.000				
J93		JUNCTION	0.00	9.09	0	12:00
0	0.226	-0.000				
J94		JUNCTION	2.67	9.10	0	12:00
0.0811	0.226	0.003				
J95		JUNCTION	0.00	6.72	0	11:55
0	0.145	-0.004				
J96		JUNCTION	2.91	6.72	0	11:54
0.067	0.145	0.002				
J97		JUNCTION	0.00	3.85	0	11:54
0	0.0779	-0.002				
J98		JUNCTION	2.30	3.86	0	11:54
0.0476	0.0779	-0.001				
J99		JUNCTION	0.00	1.58	0	11:54
0	0.0304	-0.002				
O1		OUTFALL	0.00	6.92	0	19:20
0	5.51	0.000				
O2		OUTFALL	0.00	0.00	0	00:00
0	0	0.000 gal				
Clear_Pool1		STORAGE	7.20	9.75	0	11:54
0.126	5.51	0.074				
SED_Pond1		STORAGE	52.06	217.87	0	12:00
0.951	5.51	0.101				

Vegetated Cover - 100 Year Results

 Node Surcharge Summary

No nodes were surcharged.

 Node Flooding Summary

No nodes were flooded.

 Storage Volume Summary

Time of Max Occurrence		Maximum Outflow	Average Volume	Avg Pc	Evap Pc	Exfil Pc	Maximum Volume	Max Pc
days	hr:min	Storage Unit	1000 ft3	Full	Loss	Loss	1000 ft3	Full
		CFS						
0	19:20	Clear_Pool1	17.106	11	0	0	58.573	38
0	15:40	SED_Pond1	159.375	15	0	0	490.674	48

 Outfall Loading Summary

Outfall Node	Flow Freq Pc	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
O1	100.00	2.00	6.92	5.513
O2	0.00	0.00	0.00	0.000
System	50.00	2.00	0.00	5.513

 Link Flow Summary

Vegetated Cover - 100 Year Results

Max/ Full Link Depth	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow
0.87	C10	58.11	0 12:00	4.48	0.70
0.39	C100	8.88	0 12:00	1.99	0.16
0.37	C101	11.38	0 11:55	3.67	0.08
0.38	C102	11.38	0 11:55	2.72	0.15
0.39	C103	13.12	0 11:55	3.86	0.09
0.40	C104	13.12	0 11:56	2.92	0.17
0.30	C105	13.12	0 11:56	5.52	0.09
0.65	C106	13.12	0 11:56	1.44	0.08
0.15	C107	2.04	0 11:54	1.96	0.01
0.18	C108	2.03	0 11:54	1.31	0.03
0.24	C109	4.84	0 11:54	2.71	0.03
0.75	C11	46.15	0 11:58	4.45	0.45
0.25	C110	4.82	0 11:54	2.01	0.06
0.34	C111	6.87	0 11:54	2.43	0.05
0.34	C112	6.86	0 11:55	1.89	0.12
0.21	C113	6.86	0 11:55	4.38	0.05
0.61	C114	6.86	0 11:55	0.79	0.04
0.21	C115	3.85	0 12:00	2.46	0.03
0.25	C116	3.84	0 12:00	1.60	0.06
0.31	C117	8.43	0 12:00	3.32	0.06
0.33	C118	8.41	0 12:00	2.39	0.11
0.42	C119	11.42	0 12:00	3.06	0.08

Vegetated Cover - 100 Year Results

C12	CONDUIT	29.97	0	11:57	4.12	0.25
0.58						
C120	CONDUIT	11.40	0	12:00	2.17	0.20
0.44						
C121	CONDUIT	14.40	0	12:00	4.01	0.10
0.41						
C122	CONDUIT	14.39	0	12:00	2.89	0.19
0.42						
C123	CONDUIT	16.95	0	12:00	4.24	0.12
0.44						
C124	CONDUIT	16.95	0	12:00	3.13	0.22
0.45						
C125	CONDUIT	16.94	0	12:00	5.78	0.13
0.35						
C126	CONDUIT	16.94	0	12:00	1.66	0.11
0.68						
C127	CONDUIT	2.48	0	11:54	2.10	0.02
0.17						
C128	CONDUIT	2.48	0	11:54	1.40	0.04
0.20						
C129	CONDUIT	5.82	0	12:00	2.93	0.04
0.26						
C13	CONDUIT	12.27	0	11:55	2.80	0.10
0.40						
C130	CONDUIT	5.81	0	12:00	2.11	0.08
0.28						
C131	CONDUIT	9.00	0	12:00	2.73	0.06
0.38						
C132	CONDUIT	8.99	0	12:00	2.08	0.16
0.39						
C133	CONDUIT	8.99	0	12:00	4.69	0.07
0.25						
C134	CONDUIT	8.99	0	12:00	0.99	0.06
0.63						
C135	CHANNEL	8.59	0	11:55	4.99	0.15
0.42						
C136	CONDUIT	5.55	0	11:54	2.27	0.04
0.25						
C137	CHANNEL	10.70	0	11:56	5.15	0.23
0.46						
C138	CONDUIT	16.15	0	11:56	3.98	0.12
0.37						
C139	CONDUIT	8.57	0	11:55	12.80	0.65
0.80						
C14	CHANNEL	10.73	0	11:55	3.61	0.16
0.55						
C15	CONDUIT	24.38	0	11:56	4.36	0.18
0.47						
C16	CONDUIT	39.55	0	11:57	5.06	0.29
0.61						
C17	CONDUIT	54.90	0	11:57	4.92	0.47
0.78						
C18	CONDUIT	65.75	0	11:58	5.40	0.78
0.83						

Vegetated Cover - 100 Year Results

0.85	C19	CONDUIT	81.66	0	11:59	6.52	0.58
0.00	C2	CONDUIT	0.00	0	00:00	0.00	0.00
0.85	C20	CONDUIT	90.96	0	11:59	5.32	0.50
0.97	C21	CONDUIT	94.44	0	12:00	4.53	0.70
0.99	C22	CONDUIT	86.46	0	12:01	5.46	0.70
0.15	C23	CONDUIT	2.15	0	11:54	1.98	0.02
0.19	C24	CONDUIT	2.14	0	11:54	1.34	0.03
0.24	C25	CONDUIT	4.97	0	12:00	2.68	0.04
0.24	C26	CONDUIT	4.97	0	12:00	2.21	0.06
0.26	C27	CONDUIT	6.10	0	12:00	3.10	0.03
0.28	C28	CONDUIT	6.10	0	12:00	2.25	0.08
0.38	C29	CONDUIT	6.10	0	12:00	1.48	0.04
0.00	C3	CONDUIT	0.00	0	00:00	0.00	0.00
0.20	C30	CONDUIT	3.22	0	12:00	2.22	0.02
0.23	C31	CONDUIT	3.22	0	12:00	1.54	0.05
0.27	C32	CONDUIT	6.17	0	12:00	2.98	0.04
0.29	C33	CONDUIT	6.15	0	12:00	2.15	0.08
0.38	C34	CONDUIT	8.99	0	12:00	2.78	0.06
0.40	C35	CONDUIT	8.97	0	12:00	1.99	0.16
0.37	C36	CONDUIT	11.74	0	12:00	3.71	0.08
0.38	C37	CONDUIT	11.73	0	12:00	2.76	0.15
0.45	C38	CONDUIT	13.15	0	12:00	3.19	0.10
0.46	C39	CONDUIT	13.14	0	12:00	2.37	0.24
0.18	C4	CONDUIT	6.92	0	19:20	7.77	0.18
0.30	C40	CONDUIT	13.14	0	12:00	5.40	0.10
0.51	C41	CONDUIT	13.14	0	12:00	2.05	0.08
0.58	C42	CONDUIT	8.87	0	11:55	1.17	0.06

Vegetated Cover - 100 Year Results

C43	CONDUIT	8.88	0	11:55	4.74	0.06
0.24						
C44	CONDUIT	8.88	0	11:55	2.62	0.12
0.33						
C45	CONDUIT	8.88	0	11:55	3.32	0.06
0.33						
C46	CONDUIT	7.51	0	11:55	2.38	0.10
0.31						
C47	CONDUIT	7.51	0	11:55	3.15	0.05
0.30						
C48	CONDUIT	1.77	0	11:54	2.20	0.01
0.12						
C49	CONDUIT	1.76	0	11:54	1.44	0.02
0.15						
C5	CONDUIT	6.92	0	19:20	2.81	0.01
0.09						
C50	CONDUIT	4.39	0	11:54	2.20	0.03
0.26						
C51	CONDUIT	4.36	0	11:54	1.53	0.08
0.29						
C52	CONDUIT	1.58	0	11:54	2.11	0.01
0.11						
C53	CONDUIT	1.57	0	11:54	1.40	0.02
0.14						
C54	CONDUIT	3.85	0	11:54	2.10	0.03
0.24						
C55	CONDUIT	3.83	0	11:54	1.47	0.07
0.27						
C56	CONDUIT	6.72	0	11:55	3.04	0.05
0.28						
C57	CONDUIT	6.72	0	11:55	2.25	0.09
0.30						
C58	CONDUIT	9.09	0	12:00	3.36	0.07
0.33						
C59	CONDUIT	9.09	0	12:00	2.62	0.12
0.33						
C6	CONDUIT	7.19	0	15:42	2.99	0.24
0.98						
C60	CONDUIT	9.09	0	12:00	4.86	0.07
0.24						
C61	CONDUIT	9.08	0	12:00	1.01	0.05
0.62						
C62	CONDUIT	3.74	0	11:54	2.21	0.03
0.22						
C63	CONDUIT	3.73	0	11:54	1.69	0.06
0.24						
C64	CONDUIT	3.73	0	11:54	3.30	0.03
0.16						
C65	CONDUIT	3.73	0	11:54	0.47	0.02
0.57						
C66	CONDUIT	1.88	0	11:54	1.93	0.01
0.14						
C67	CONDUIT	1.87	0	11:54	1.28	0.03
0.18						

Vegetated Cover - 100 Year Results

0.23	C68	CONDUIT	4.66	0	11:54	2.68	0.03
0.25	C69	CONDUIT	4.64	0	11:54	1.97	0.06
0.24	C7	CONDUIT	4.71	0	11:54	2.02	0.04
0.29	C70	CONDUIT	6.85	0	11:54	3.02	0.05
0.29	C71	CONDUIT	6.85	0	11:55	2.38	0.09
0.21	C72	CONDUIT	6.85	0	11:55	4.39	0.05
0.60	C73	CONDUIT	6.85	0	11:55	0.80	0.04
0.18	C74	CONDUIT	3.32	0	11:54	2.61	0.02
0.20	C75	CONDUIT	3.31	0	11:54	1.96	0.04
0.20	C76	CONDUIT	4.83	0	11:54	3.39	0.04
0.31	C77	CONDUIT	4.82	0	11:54	1.56	0.04
0.20	C78	CONDUIT	4.55	0	12:00	3.09	0.03
0.24	C79	CONDUIT	4.54	0	12:00	2.03	0.05
0.47	C8	CHANNEL	5.37	0	11:54	2.42	0.09
0.38	C80	CONDUIT	9.12	0	12:00	2.83	0.07
0.40	C81	CONDUIT	9.09	0	12:00	1.97	0.16
0.39	C82	CONDUIT	12.96	0	12:00	3.85	0.09
0.40	C83	CONDUIT	12.94	0	12:00	2.81	0.17
0.42	C84	CONDUIT	14.88	0	12:00	4.05	0.11
0.44	C85	CONDUIT	14.88	0	12:00	2.88	0.20
0.51	C86	CONDUIT	14.88	0	12:00	2.30	0.11
0.18	C87	CONDUIT	2.98	0	11:54	2.23	0.02
0.22	C88	CONDUIT	2.98	0	11:54	1.48	0.05
0.28	C89	CONDUIT	6.74	0	12:00	3.07	0.05
0.94	C9	CONDUIT	77.97	0	12:00	5.53	0.81
0.30	C90	CONDUIT	6.73	0	12:00	2.22	0.09
0.39	C91	CONDUIT	9.69	0	12:00	2.87	0.07

Vegetated Cover - 100 Year Results

C92	CONDUIT	9.68	0	12:00	2.15	0.17
0.40						
C93	CONDUIT	9.68	0	12:00	4.78	0.07
0.26						
C94	CONDUIT	9.68	0	12:00	1.26	0.06
0.57						
C95	CONDUIT	3.27	0	12:00	2.25	0.02
0.20						
C96	CONDUIT	3.26	0	12:00	1.54	0.05
0.23						
C97	CONDUIT	6.44	0	12:00	3.00	0.05
0.27						
C98	CONDUIT	6.42	0	12:00	2.20	0.08
0.29						
C99	CONDUIT	8.89	0	12:00	2.76	0.06
0.38						
C1	WEIR	180.64	0	12:01		
0.99						
OL1	DUMMY	7.19	0	15:40		
OL2	DUMMY	6.92	0	19:20		
OR_1	DUMMY	0.00	0	00:00		
W1	DUMMY	0.00	0	00:00		

Flow Classification Summary

Class -----		Adjusted	----- Fraction of Time in Flow						
Norm	Inlet	/Actual	Up	Down	Sub	Sup	Up	Down	
Ltd	Ctrl	Length	Dry	Dry	Dry	Crit	Crit	Crit	
C10		1.00	0.49	0.01	0.00	0.50	0.00	0.00	
0.97	0.00								
C100		1.00	0.61	0.00	0.00	0.39	0.00	0.00	
0.00	0.00								
C101		1.00	0.61	0.01	0.00	0.38	0.00	0.00	
0.97	0.00								
C102		1.00	0.61	0.00	0.00	0.39	0.00	0.00	
0.00	0.00								
C103		1.00	0.61	0.01	0.00	0.38	0.01	0.00	
0.97	0.00								
C104		1.00	0.61	0.00	0.00	0.39	0.00	0.00	
0.00	0.00								
C105		1.00	0.61	0.01	0.00	0.08	0.31	0.00	
0.05	0.00								
C106		1.00	0.40	0.21	0.00	0.39	0.00	0.00	
0.97	0.00								

Vegetated Cover - 100 Year Results

C8	1.00	0.02	0.00	0.00	0.98	0.00	0.00	0.00
0.97 0.00								
C80	1.00	0.63	0.02	0.00	0.35	0.00	0.00	0.00
0.97 0.00								
C81	1.00	0.63	0.00	0.00	0.37	0.00	0.00	0.00
0.00 0.00								
C82	1.00	0.62	0.01	0.00	0.36	0.01	0.00	0.00
0.97 0.00								
C83	1.00	0.62	0.00	0.00	0.38	0.00	0.00	0.00
0.00 0.00								
C84	1.00	0.62	0.00	0.00	0.37	0.01	0.00	0.00
0.97 0.00								
C85	1.00	0.62	0.00	0.00	0.38	0.00	0.00	0.00
0.00 0.00								
C86	1.00	0.57	0.05	0.00	0.38	0.00	0.00	0.00
0.97 0.00								
C87	1.00	0.65	0.00	0.00	0.34	0.00	0.00	0.00
0.97 0.00								
C88	1.00	0.65	0.00	0.00	0.35	0.00	0.00	0.00
0.85 0.00								
C89	1.00	0.64	0.01	0.00	0.35	0.00	0.00	0.00
0.97 0.00								
C9	1.00	0.49	0.01	0.00	0.50	0.00	0.00	0.00
0.85 0.00								
C90	1.00	0.64	0.00	0.00	0.36	0.00	0.00	0.00
0.01 0.00								
C91	1.00	0.64	0.01	0.00	0.35	0.00	0.00	0.00
0.97 0.00								
C92	1.00	0.64	0.00	0.00	0.36	0.00	0.00	0.00
0.00 0.00								
C93	1.00	0.64	0.00	0.00	0.14	0.21	0.00	0.00
0.09 0.00								
C94	1.00	0.54	0.10	0.00	0.36	0.00	0.00	0.00
0.97 0.00								
C95	1.00	0.64	0.01	0.00	0.36	0.00	0.00	0.00
0.97 0.00								
C96	1.00	0.64	0.00	0.00	0.36	0.00	0.00	0.00
0.00 0.00								
C97	1.00	0.63	0.01	0.00	0.36	0.00	0.00	0.00
0.97 0.00								
C98	1.00	0.63	0.00	0.00	0.37	0.00	0.00	0.00
0.00 0.00								
C99	1.00	0.61	0.01	0.00	0.37	0.00	0.00	0.00
0.97 0.00								

 Conduit Surcharge Summary

 Hours

Vegetated Cover - 100 Year Results

Capacity Conduit Limited	----- Hours Full -----			Above Full
	Both Ends	Upstream	Dnstream	Normal Flow
----- C106 0.01	0.01	0.01	0.11	0.01
C114 0.01	0.01	0.01	0.20	0.01
C126 0.01	0.01	0.01	0.22	0.01
C134 0.01	0.01	0.01	0.17	0.01
C139 0.01	0.01	0.01	0.05	0.01
C22 0.01	0.01	0.01	0.21	0.01
C6 0.01	0.01	0.01	6.77	0.01
C61 0.01	0.01	0.01	0.20	0.01
C65 0.01	0.01	0.01	0.33	0.01
C73 0.01	0.01	0.01	0.21	0.01

Analysis begun on: Fri May 22 10:53:56 2020
 Analysis ended on: Fri May 22 10:54:09 2020
 Total elapsed time: 00:00:13

Engineered Turf - 25 Year Results

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.013)

Final SWMM Model for Georgia Power Plant Hammond Huffaker Road Closure Turf Closure - Includes B/C soils for closure resulting in a 64.5 CN and a 95 CN for closure turf. Concrete lining was added to the channels in the southeastern corner of the site. The structures for both Sediment Pond 1 and Clear Pool 1 have perforations. The starting WSE for Sediment Pond 1 is 643.5 and for Clear Pool 1 is 642.5. Road in the southeastern corner requires 1 to 1.5 feet of fill to raise it for flooding purposes.

WARNING 02: maximum depth increased for Node J12
 WARNING 02: maximum depth increased for Node J19

Element Count

Number of rain gages 5
 Number of subcatchments ... 65
 Number of nodes 140
 Number of links 143
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_0.1in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_100-year_24-hour_7.85in	SCS_Type_II_100-year_24-hour_7.85in	INTENSITY	6 min.
SCS_Type_II_10-year_5.32in	SCS_Type_II_10-year_5.32in	INTENSITY	6 min.
SCS_Type_II_25-year_24-hour_6.29in	SCS_Type_II_25-year_24-hour_6.29in	INTENSITY	6 min.
SCS_Type_II_2-year_24-hour_3.82in	SCS_Type_II_3.82in	INTENSITY	6 min.

Subcatchment Summary

Name Outlet	Area	Width	%Imperv	%Slope	Rain Gage
B2_E	0.60	89.26	0.00	6.8800	
SCS_Type_II_25-year_24-hour_6.29in		J110			
B2_ENE	0.24	69.54	0.00	12.9400	
SCS_Type_II_25-year_24-hour_6.29in		J100			

Engineered Turf - 25 Year Results

B2_NE	0.28	70.99	0.00	11.5400
SCS_Type_II_25-year_24-hour_6.29in	J81			
B3_E	0.44	101.99	0.00	10.7400
SCS_Type_II_25-year_24-hour_6.29in	J108			
B3_ENE	0.37	84.08	0.00	9.8400
SCS_Type_II_25-year_24-hour_6.29in	J98			
B3_ESE	0.31	71.44	0.00	10.7400
SCS_Type_II_25-year_24-hour_6.29in	J120			
B3_N	0.50	116.06	0.00	10.5900
SCS_Type_II_25-year_24-hour_6.29in	J76			
B3_NE	0.43	96.10	0.00	9.7400
SCS_Type_II_25-year_24-hour_6.29in	J83			
B3_S	0.54	117.38	0.00	10.2700
SCS_Type_II_25-year_24-hour_6.29in	J31			
B3_SE	0.33	77.75	0.00	10.7700
SCS_Type_II_25-year_24-hour_6.29in	J121			
B3_SW	0.42	91.19	0.00	9.8000
SCS_Type_II_25-year_24-hour_6.29in	J33			
B3_WSW	0.53	97.03	0.00	8.7700
SCS_Type_II_25-year_24-hour_6.29in	J48			
B4_E	0.44	102.00	0.00	10.7000
SCS_Type_II_25-year_24-hour_6.29in	J106			
B4_ENE	0.53	88.48	0.00	7.6600
SCS_Type_II_25-year_24-hour_6.29in	J96			
B4_ESE	0.45	104.70	0.00	10.6700
SCS_Type_II_25-year_24-hour_6.29in	J118			
B4_N	0.49	114.31	0.00	10.6900
SCS_Type_II_25-year_24-hour_6.29in	J74			
B4_NNE	0.58	97.67	0.00	7.7800
SCS_Type_II_25-year_24-hour_6.29in	J85			
B4_S	0.54	116.94	0.00	10.0000
SCS_Type_II_25-year_24-hour_6.29in	J29			
B4_SE	0.45	105.53	0.00	10.6900
SCS_Type_II_25-year_24-hour_6.29in	J123			
B4_SSW	0.66	94.78	0.00	6.2400
SCS_Type_II_25-year_24-hour_6.29in	J35			
B4_SW	0.72	106.88	0.00	6.4700
SCS_Type_II_25-year_24-hour_6.29in	J46			
B4_W	0.70	138.24	0.00	9.1000
SCS_Type_II_25-year_24-hour_6.29in	J53			
B5_E	0.30	65.48	0.00	6.9800
SCS_Type_II_25-year_24-hour_6.29in	J104			
B5_ENE	0.65	59.91	0.00	2.5400
SCS_Type_II_25-year_24-hour_6.29in	J94			
B5_ESE	0.44	69.28	0.00	5.8500
SCS_Type_II_25-year_24-hour_6.29in	J116			
B5_N	0.28	50.04	0.00	2.4300
SCS_Type_II_25-year_24-hour_6.29in	J72			
B5_N2	0.27	51.22	0.00	3.5200
SCS_Type_II_25-year_24-hour_6.29in	J87			
B5_S	0.48	80.29	0.00	5.7300
SCS_Type_II_25-year_24-hour_6.29in	J27			
B5_SE	0.66	125.62	0.00	7.8200
SCS_Type_II_25-year_24-hour_6.29in	J129			

Engineered Turf - 25 Year Results

B5_SSE	0.38	66.53	0.00	6.8600
SCS_Type_II_25-year_24-hour_6.29in	J125			
B5_SW	0.72	73.42	0.00	3.2700
SCS_Type_II_25-year_24-hour_6.29in	J37			
B5_W	0.41	58.01	0.00	2.7800
SCS_Type_II_25-year_24-hour_6.29in	J51			
B5_WSW	0.62	82.01	0.00	3.0100
SCS_Type_II_25-year_24-hour_6.29in	J44			
Bench_1_E	0.57	78.39	0.00	3.1500
SCS_Type_II_25-year_24-hour_6.29in	J112			
Bench_1_S	0.75	80.66	0.00	2.2200
SCS_Type_II_25-year_24-hour_6.29in	J32			
Bench_2_N	0.61	84.11	0.00	3.1600
SCS_Type_II_25-year_24-hour_6.29in	J80			
Bench_2_NW	0.58	74.72	0.00	5.6600
SCS_Type_II_25-year_24-hour_6.29in	J78			
Bench_2_S	0.92	110.20	0.00	5.4900
SCS_Type_II_25-year_24-hour_6.29in	J22			
Bench_2_W	1.00	85.76	0.00	5.3000
SCS_Type_II_25-year_24-hour_6.29in	J57			
Bench_3_NW	0.35	80.92	0.00	11.1800
SCS_Type_II_25-year_24-hour_6.29in	J68			
Bench_3_W	0.87	141.03	0.00	5.4100
SCS_Type_II_25-year_24-hour_6.29in	J55			
Bench_4_NW	0.58	77.75	0.00	5.8500
SCS_Type_II_25-year_24-hour_6.29in	J66			
Bench_4_WNW	0.57	113.97	0.00	9.6000
SCS_Type_II_25-year_24-hour_6.29in	J61			
Bench_5_NNW	0.28	55.69	0.00	5.2600
SCS_Type_II_25-year_24-hour_6.29in	J59			
Bench_5_NW	0.22	36.62	0.00	4.4900
SCS_Type_II_25-year_24-hour_6.29in	J64			
Clear1_42	0.74	827.71	0.00	27.0100
SCS_Type_II_25-year_24-hour_6.29in	Clear_Pool1			
D_43	0.60	345.20	0.00	28.4000
SCS_Type_II_25-year_24-hour_6.29in	J11			
D_44	1.14	745.95	0.00	26.9800
SCS_Type_II_25-year_24-hour_6.29in	J10			
D_47	0.52	529.86	0.00	25.5800
SCS_Type_II_25-year_24-hour_6.29in	J9			
D_48	0.38	463.72	0.00	29.0500
SCS_Type_II_25-year_24-hour_6.29in	J8			
D_49	0.41	246.87	0.00	28.2600
SCS_Type_II_25-year_24-hour_6.29in	J13			
D_50	0.07	35.77	0.00	24.8100
SCS_Type_II_25-year_24-hour_6.29in	J20			
D_53	0.46	278.18	0.00	31.0900
SCS_Type_II_25-year_24-hour_6.29in	J19			
D_55	0.48	281.65	0.00	30.0700
SCS_Type_II_25-year_24-hour_6.29in	J18			
D_57	0.34	188.18	0.00	27.8000
SCS_Type_II_25-year_24-hour_6.29in	J17			
D_58	1.10	459.75	0.00	20.4200
SCS_Type_II_25-year_24-hour_6.29in	J16			

Engineered Turf - 25 Year Results

D_60	0.34	294.61	0.00	29.9700
SCS_Type_II_25-year_24-hour_6.29in	J15			
D_62	0.33	298.54	0.00	29.4100
SCS_Type_II_25-year_24-hour_6.29in	J14			
Ditch_18	0.55	312.83	0.00	28.0500
SCS_Type_II_25-year_24-hour_6.29in	J12			
Ditch_61	0.87	300.56	0.00	3.1800
SCS_Type_II_25-year_24-hour_6.29in	J7			
Ditch_63	0.56	108.19	0.00	2.2100
SCS_Type_II_25-year_24-hour_6.29in	J7			
Road_Ditch_Lower	0.26	508.74	0.00	23.2300
SCS_Type_II_25-year_24-hour_6.29in	J136			
Road_Ditch_Middle	0.41	415.00	0.00	33.5600
SCS_Type_II_25-year_24-hour_6.29in	J134			
Road_Ditch_Upper	0.68	318.33	0.00	3.2100
SCS_Type_II_25-year_24-hour_6.29in	J6			
Sed1_41	5.20	2897.24	0.00	12.7900
SCS_Type_II_25-year_24-hour_6.29in	SED_Pond1			

Node Summary

External		Invert	Max.	Ponded
Name	Type	Elev.	Depth	Area

J1	JUNCTION	651.90	3.50	0.0
J10	JUNCTION	666.80	2.00	0.0
J100	JUNCTION	728.00	1.50	0.0
J101	JUNCTION	662.00	1.50	0.0
J102	JUNCTION	673.00	1.50	0.0
J103	JUNCTION	675.00	1.50	0.0
J104	JUNCTION	686.00	1.50	0.0
J105	JUNCTION	688.00	1.50	0.0
J106	JUNCTION	705.00	1.50	0.0
J107	JUNCTION	706.00	1.50	0.0
J108	JUNCTION	723.00	1.50	0.0
J109	JUNCTION	725.00	1.50	0.0
J11	JUNCTION	658.00	2.00	0.0
J110	JUNCTION	742.00	1.50	0.0
J111	JUNCTION	743.00	1.50	0.0
J112	JUNCTION	746.50	1.50	0.0
J113	JUNCTION	661.00	1.50	0.0
J114	JUNCTION	671.00	1.50	0.0
J115	JUNCTION	673.00	1.50	0.0
J116	JUNCTION	686.00	1.50	0.0
J117	JUNCTION	688.00	1.50	0.0
J118	JUNCTION	705.00	1.50	0.0
J119	JUNCTION	706.00	1.50	0.0
J12	JUNCTION	655.70	3.00	0.0
J120	JUNCTION	709.50	1.50	0.0

Engineered Turf - 25 Year Results

J121	JUNCTION	709.50	1.50	0.0
J122	JUNCTION	706.00	1.50	0.0
J123	JUNCTION	705.00	1.50	0.0
J124	JUNCTION	688.00	1.50	0.0
J125	JUNCTION	686.00	1.50	0.0
J126	JUNCTION	672.00	1.50	0.0
J127	JUNCTION	671.00	1.50	0.0
J128	JUNCTION	661.00	1.50	0.0
J129	JUNCTION	673.50	1.50	0.0
J13	JUNCTION	652.90	3.00	0.0
J130	JUNCTION	670.00	1.50	0.0
J131	JUNCTION	669.00	1.50	0.0
J132	JUNCTION	661.00	1.50	0.0
J133	JUNCTION	706.00	2.00	0.0
J134	JUNCTION	727.00	2.00	0.0
J135	JUNCTION	680.00	2.00	0.0
J136	JUNCTION	703.00	2.00	0.0
J14	JUNCTION	676.20	2.00	0.0
J15	JUNCTION	670.80	2.00	0.0
J16	JUNCTION	665.90	2.00	0.0
J17	JUNCTION	656.00	2.00	0.0
J18	JUNCTION	654.50	3.00	0.0
J19	JUNCTION	653.00	3.00	0.0
J2	JUNCTION	642.00	5.00	0.0
J20	JUNCTION	652.00	3.50	0.0
J21	JUNCTION	743.00	1.50	0.0
J22	JUNCTION	742.00	1.50	0.0
J23	JUNCTION	725.00	1.50	0.0
J24	JUNCTION	672.00	1.50	0.0
J25	JUNCTION	662.00	1.50	0.0
J26	JUNCTION	674.00	1.50	0.0
J27	JUNCTION	686.00	1.50	0.0
J28	JUNCTION	688.00	1.50	0.0
J29	JUNCTION	705.00	1.50	0.0
J3	JUNCTION	641.35	3.00	0.0
J30	JUNCTION	706.00	1.50	0.0
J31	JUNCTION	723.00	1.50	0.0
J32	JUNCTION	746.50	1.50	0.0
J33	JUNCTION	709.50	1.50	0.0
J34	JUNCTION	706.00	1.50	0.0
J35	JUNCTION	705.00	1.50	0.0
J36	JUNCTION	688.00	1.50	0.0
J37	JUNCTION	686.00	1.50	0.0
J38	JUNCTION	675.00	1.50	0.0
J39	JUNCTION	674.00	1.50	0.0
J4	JUNCTION	643.00	5.00	0.0
J40	JUNCTION	664.00	1.50	0.0
J41	JUNCTION	673.00	1.50	0.0
J42	JUNCTION	677.00	1.50	0.0
J43	JUNCTION	678.00	1.50	0.0
J44	JUNCTION	686.00	1.50	0.0
J45	JUNCTION	688.00	1.50	0.0
J46	JUNCTION	705.00	1.50	0.0
J47	JUNCTION	706.00	1.50	0.0

Engineered Turf - 25 Year Results

J48	JUNCTION	709.50	1.50	0.0
J49	JUNCTION	680.00	1.50	0.0
J5	JUNCTION	681.00	2.00	0.0
J50	JUNCTION	681.00	1.50	0.0
J51	JUNCTION	686.00	1.50	0.0
J52	JUNCTION	688.00	1.50	0.0
J53	JUNCTION	705.00	1.50	0.0
J54	JUNCTION	706.00	1.50	0.0
J55	JUNCTION	723.00	1.50	0.0
J56	JUNCTION	725.00	1.50	0.0
J57	JUNCTION	728.00	1.50	0.0
J58	JUNCTION	685.00	1.50	0.0
J59	JUNCTION	686.00	1.50	0.0
J6	JUNCTION	751.00	2.00	0.0
J60	JUNCTION	688.00	1.50	0.0
J61	JUNCTION	691.00	1.50	0.0
J62	JUNCTION	682.00	1.50	0.0
J63	JUNCTION	684.00	1.50	0.0
J64	JUNCTION	686.00	1.50	0.0
J65	JUNCTION	688.00	1.50	0.0
J66	JUNCTION	705.00	1.50	0.0
J67	JUNCTION	706.00	1.50	0.0
J68	JUNCTION	709.50	1.50	0.0
J69	JUNCTION	677.00	1.50	0.0
J7	JUNCTION	683.00	2.00	0.0
J70	JUNCTION	681.00	1.50	0.0
J71	JUNCTION	682.00	1.50	0.0
J72	JUNCTION	686.00	1.50	0.0
J73	JUNCTION	688.00	1.50	0.0
J74	JUNCTION	705.00	1.50	0.0
J75	JUNCTION	706.00	1.50	0.0
J76	JUNCTION	723.00	1.50	0.0
J77	JUNCTION	725.00	1.50	0.0
J78	JUNCTION	742.00	1.50	0.0
J79	JUNCTION	743.00	1.50	0.0
J8	JUNCTION	678.20	2.00	0.0
J80	JUNCTION	746.50	1.50	0.0
J81	JUNCTION	728.00	1.50	0.0
J82	JUNCTION	725.00	1.50	0.0
J83	JUNCTION	723.00	1.50	0.0
J84	JUNCTION	706.00	1.50	0.0
J85	JUNCTION	705.00	1.50	0.0
J86	JUNCTION	688.00	1.50	0.0
J87	JUNCTION	686.00	1.50	0.0
J88	JUNCTION	681.00	1.50	0.0
J89	JUNCTION	679.00	1.50	0.0
J9	JUNCTION	672.70	2.00	0.0
J90	JUNCTION	672.00	1.50	0.0
J91	JUNCTION	663.00	1.50	0.0
J92	JUNCTION	674.00	1.50	0.0
J93	JUNCTION	676.00	1.50	0.0
J94	JUNCTION	686.00	1.50	0.0
J95	JUNCTION	688.00	1.50	0.0
J96	JUNCTION	705.00	1.50	0.0

Engineered Turf - 25 Year Results

J97	JUNCTION	706.00	1.50	0.0
J98	JUNCTION	723.00	1.50	0.0
J99	JUNCTION	725.00	1.50	0.0
O1	OUTFALL	641.00	3.00	0.0
O2	OUTFALL	637.00	12.59	0.0
Clear_Pool1	STORAGE	642.00	8.00	0.0
SED_Pond1	STORAGE	642.00	8.00	0.0

Link Summary

Name	From Node	To Node	Type
Length	%Slope	Roughness	

C10	J11	J12	CONDUIT
275.0	0.8363	0.0150	
C100	J107	J106	CONDUIT
37.3	2.6855	0.0780	
C101	J106	J105	CONDUIT
51.2	35.1769	0.0780	
C102	J105	J104	CONDUIT
40.3	4.9714	0.0780	
C103	J104	J103	CONDUIT
33.3	34.9505	0.0780	
C104	J103	J102	CONDUIT
40.3	4.9701	0.0780	
C105	J102	J101	CONDUIT
33.2	35.0685	0.0780	
C106	J101	J18	CONDUIT
29.4	26.3831	0.0780	
C107	J121	J122	CONDUIT
9.9	37.7507	0.0780	
C108	J122	J123	CONDUIT
27.4	3.6588	0.0780	
C109	J123	J124	CONDUIT
51.2	35.1692	0.0780	
C11	J10	J11	CONDUIT
693.7	1.2687	0.0300	
C110	J124	J125	CONDUIT
40.3	4.9726	0.0780	
C111	J125	J126	CONDUIT
42.3	35.1202	0.0780	
C112	J126	J127	CONDUIT
37.3	2.6855	0.0780	
C113	J127	J128	CONDUIT
30.1	35.2101	0.0780	
C114	J128	J13	CONDUIT
35.6	23.3934	0.0780	
C115	J32	J21	CONDUIT
9.9	37.7507	0.0780	
C116	J21	J22	CONDUIT
27.4	3.6588	0.0780	

Engineered Turf - 25 Year Results

C117		J22	J23	CONDUIT
51.2	35.1692	0.0780		
C118		J23	J31	CONDUIT
40.3	4.9726	0.0780		
C119		J31	J30	CONDUIT
51.2	35.1692	0.0780		
C12		J9	J10	CONDUIT
352.5	1.6742	0.0300		
C120		J30	J29	CONDUIT
37.3	2.6855	0.0780		
C121		J29	J28	CONDUIT
51.2	35.1692	0.0780		
C122		J28	J27	CONDUIT
40.3	4.9726	0.0780		
C123		J27	J26	CONDUIT
36.2	35.0923	0.0780		
C124		J26	J24	CONDUIT
40.4	4.9615	0.0780		
C125		J24	J25	CONDUIT
31.6	33.3249	0.0780		
C126		J25	J12	CONDUIT
30.4	21.2127	0.0780		
C127		J33	J34	CONDUIT
9.9	37.7942	0.0780		
C128		J34	J35	CONDUIT
27.4	3.6588	0.0780		
C129		J35	J36	CONDUIT
51.2	35.1692	0.0780		
C13		J8	J9	CONDUIT
316.4	1.7385	0.0300		
C130		J36	J37	CONDUIT
40.3	4.9726	0.0780		
C131		J37	J38	CONDUIT
33.2	35.0685	0.0780		
C132		J38	J39	CONDUIT
37.3	2.6834	0.0780		
C133		J39	J40	CONDUIT
31.1	33.9577	0.0780		
C134		J40	J11	CONDUIT
29.4	20.8174	0.0780		
C135		J134	J133	CONDUIT
262.4	8.0273	0.0690		
C136		J7	J135	CONDUIT
135.1	2.2212	0.0300		
C137		J5	J135	CONDUIT
19.2	5.2280	0.0690		
C138		J135	J14	CONDUIT
170.9	2.2238	0.0300		
C139		J133	J136	CONDUIT
37.7	7.9807	0.0100		
C14		J136	J5	CONDUIT
213.4	10.3625	0.0690		
C15		J14	J15	CONDUIT
251.3	2.1489	0.0300		

Engineered Turf - 25 Year Results

C16		J15	J16	CONDUIT
225.0	2.1781	0.0300		
C17		J16	J17	CONDUIT
605.8	1.6343	0.0300		
C18		J17	J18	CONDUIT
174.9	0.8577	0.0150		
C19		J18	J19	CONDUIT
250.1	0.5997	0.0150		
C2		SED_Pond1	Clear_Pool1	CONDUIT
8.0	0.1250	0.0150		
C20		J19	J20	CONDUIT
256.1	0.3904	0.0150		
C21		J20	J1	CONDUIT
46.6	0.2147	0.0150		
C22		J13	J1	CONDUIT
220.6	0.4533	0.0150		
C23		J68	J67	CONDUIT
10.0	37.3632	0.0780		
C24		J67	J66	CONDUIT
27.4	3.6588	0.0780		
C25		J66	J65	CONDUIT
51.2	35.1692	0.0780		
C26		J65	J64	CONDUIT
39.5	5.0659	0.0780		
C27		J64	J63	CONDUIT
4.1	55.7017	0.0780		
C28		J63	J62	CONDUIT
39.4	5.0892	0.0780		
C29		J62	J14	CONDUIT
30.5	19.3567	0.0780		
C3		Clear_Pool1	O2	CONDUIT
13.0	3.1554	0.0150		
C30		J80	J79	CONDUIT
10.0	37.3632	0.0780		
C31		J79	J78	CONDUIT
27.4	3.6588	0.0780		
C32		J78	J77	CONDUIT
51.2	35.1692	0.0780		
C33		J77	J76	CONDUIT
40.3	4.9726	0.0780		
C34		J76	J75	CONDUIT
51.2	35.1692	0.0780		
C35		J75	J74	CONDUIT
37.3	2.6855	0.0780		
C36		J74	J73	CONDUIT
51.2	35.1692	0.0780		
C37		J73	J72	CONDUIT
40.3	4.9689	0.0780		
C38		J72	J71	CONDUIT
12.2	34.7053	0.0780		
C39		J71	J70	CONDUIT
37.3	2.6848	0.0780		
C4		J2	J3	CONDUIT
65.0	1.0001	0.0220		

Engineered Turf - 25 Year Results

C40		J70	J69	CONDUIT
12.2	34.6099	0.0780		
C41		J69	J15	CONDUIT
28.0	22.7065	0.0780		
C42		J90	J16	CONDUIT
28.8	21.6723	0.0780		
C43		J89	J90	CONDUIT
20.9	35.6226	0.0780		
C44		J88	J89	CONDUIT
40.3	4.9689	0.0780		
C45		J87	J88	CONDUIT
15.3	34.6290	0.0780		
C46		J86	J87	CONDUIT
40.3	4.9689	0.0780		
C47		J85	J86	CONDUIT
51.2	35.1692	0.0780		
C48		J81	J82	CONDUIT
8.5	37.7217	0.0780		
C49		J82	J83	CONDUIT
30.3	6.6217	0.0780		
C5		J3	O1	CONDUIT
28.0	1.2501	0.0230		
C50		J83	J84	CONDUIT
51.2	35.1692	0.0780		
C51		J84	J85	CONDUIT
37.3	2.6855	0.0780		
C52		J100	J99	CONDUIT
8.5	37.7217	0.0780		
C53		J99	J98	CONDUIT
30.3	6.6217	0.0780		
C54		J98	J97	CONDUIT
51.2	35.1692	0.0780		
C55		J97	J96	CONDUIT
37.3	2.6855	0.0780		
C56		J96	J95	CONDUIT
51.2	35.1692	0.0780		
C57		J95	J94	CONDUIT
40.3	4.9714	0.0780		
C58		J94	J93	CONDUIT
30.2	35.0792	0.0780		
C59		J93	J92	CONDUIT
40.3	4.9714	0.0780		
C6		J4	Clear_Pool1	CONDUIT
50.0	0.6000	0.0220		
C60		J92	J91	CONDUIT
33.2	35.1517	0.0780		
C61		J91	J17	CONDUIT
28.5	25.3660	0.0780		
C62		J129	J130	CONDUIT
9.8	38.1467	0.0780		
C63		J130	J131	CONDUIT
27.8	3.6059	0.0780		
C64		J131	J132	CONDUIT
37.6	21.7873	0.0780		

Engineered Turf - 25 Year Results

C65		J132	J20	CONDUIT
34.7	26.8805	0.0780		
C66		J120	J119	CONDUIT
10.0	37.3632	0.0780		
C67		J119	J118	CONDUIT
27.4	3.6588	0.0780		
C68		J118	J117	CONDUIT
51.2	35.1692	0.0780		
C69		J117	J116	CONDUIT
40.3	4.9714	0.0780		
C7		J7	J8	CONDUIT
299.8	1.6015	0.0300		
C70		J116	J115	CONDUIT
39.3	35.0923	0.0780		
C71		J115	J114	CONDUIT
40.4	4.9603	0.0780		
C72		J114	J113	CONDUIT
32.1	32.8180	0.0780		
C73		J113	J19	CONDUIT
31.4	26.3113	0.0780		
C74		J61	J60	CONDUIT
8.5	37.7217	0.0780		
C75		J60	J59	CONDUIT
30.3	6.6085	0.0780		
C76		J59	J58	CONDUIT
3.1	34.2031	0.0780		
C77		J58	J8	CONDUIT
65.6	10.4204	0.0780		
C78		J57	J56	CONDUIT
8.5	37.7217	0.0780		
C79		J56	J55	CONDUIT
30.3	6.6217	0.0780		
C8		J6	J134	CONDUIT
296.6	8.1176	0.0690		
C80		J55	J54	CONDUIT
51.2	35.1692	0.0780		
C81		J54	J53	CONDUIT
37.3	2.6855	0.0780		
C82		J53	J52	CONDUIT
51.2	35.1769	0.0780		
C83		J52	J51	CONDUIT
40.3	4.9677	0.0780		
C84		J51	J50	CONDUIT
15.3	34.5278	0.0780		
C85		J50	J49	CONDUIT
21.8	4.5836	0.0780		
C86		J49	J9	CONDUIT
46.6	15.8506	0.0780		
C87		J48	J47	CONDUIT
9.9	37.7507	0.0780		
C88		J47	J46	CONDUIT
27.4	3.6588	0.0780		
C89		J46	J45	CONDUIT
51.2	35.1769	0.0780		

Engineered Turf - 25 Year Results

C9		J12	J13	CONDUIT
250.2	1.1192	0.0150		
C90		J45	J44	CONDUIT
40.3	4.9714	0.0780		
C91		J44	J43	CONDUIT
24.2	35.0760	0.0780		
C92		J43	J42	CONDUIT
35.9	2.7858	0.0780		
C93		J42	J41	CONDUIT
13.5	30.9975	0.0780		
C94		J41	J10	CONDUIT
28.4	22.3375	0.0780		
C95		J112	J111	CONDUIT
9.9	37.7507	0.0780		
C96		J111	J110	CONDUIT
27.4	3.6588	0.0780		
C97		J110	J109	CONDUIT
51.2	35.1692	0.0780		
C98		J109	J108	CONDUIT
40.3	4.9726	0.0780		
C99		J108	J107	CONDUIT
51.2	35.1692	0.0780		
C1		J1	SED_Pond1	WEIR
OL1		SED_Pond1	J4	OUTLET
OL2		Clear_Pool1	J2	OUTLET
OR_1		Clear_Pool1	J2	OUTLET
W1		SED_Pond1	J4	OUTLET

 Cross Section Summary

No. of Conduit Barrels	Full Flow	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width
1	166.95	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	55.76	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.77	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	75.86	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.32	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	75.85	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.56	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	174.76	TRAPEZOIDAL	1.50	19.50	0.88	22.00

Engineered Turf - 25 Year Results

	C107	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C108	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C109	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C11	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	102.81					
	C110	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C111	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.66					
	C112	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C113	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.84					
	C114	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	164.56					
	C115	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C116	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C117	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C118	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C119	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C12	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	118.11					
	C120	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C121	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C122	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C123	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.60					
	C124	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.79					
	C125	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	135.07					
	C126	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	156.70					
	C127	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.84					
	C128	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C129	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C13	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	120.36					
	C130	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					

Engineered Turf - 25 Year Results

	C131	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.56					
	C132	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.73					
	C133	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	136.34					
	C134	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	155.24					
	C135	RoadsideDitch	2.00	10.00	0.92	10.00
1	57.82					
	C136	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	136.04					
	C137	RoadsideDitch	2.00	10.00	0.92	10.00
1	46.66					
	C138	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	136.12					
	C139	CIRCULAR	1.00	0.79	0.25	1.00
1	13.08					
	C14	RoadsideDitch	2.00	10.00	0.92	10.00
1	65.70					
	C15	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	133.81					
	C16	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	134.71					
	C17	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	116.69					
	C18	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	169.07					
	C19	TRAPEZOIDAL	3.00	30.00	1.72	16.00
1	330.73					
	C2	TRAPEZOIDAL	1.50	36.75	1.25	29.00
1	149.07					
	C20	TRAPEZOIDAL	3.00	30.00	1.72	16.00
1	266.84					
	C21	TRAPEZOIDAL	3.50	38.50	1.96	18.00
1	276.71					
	C22	TRAPEZOIDAL	3.00	30.00	1.72	16.00
1	287.54					
	C23	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
	C24	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C25	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C26	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	76.58					
	C27	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	174.62					
	C28	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	76.76					
	C29	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	149.69					
	C3	TRAPEZOIDAL	2.00	52.00	1.59	32.00
1	1248.00					

Engineered Turf - 25 Year Results

	C30	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
	C31	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C32	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C33	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C34	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C35	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C36	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C37	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C38	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.84					
	C39	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.75					
	C4	CIRCULAR	3.00	7.07	0.75	3.00
1	39.41					
	C40	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.65					
	C41	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	162.13					
	C42	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	158.39					
	C43	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	139.65					
	C44	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C45	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.69					
	C46	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C47	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C48	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
	C49	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					
	C5	TRAPEZOIDAL	3.00	45.00	2.01	21.00
1	517.30					
	C50	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C51	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C52	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
	C53	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					
	C54	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					

Engineered Turf - 25 Year Results

1	C55	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
1	C56	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
1	C57	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
1	C58	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.58					
1	C59	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
1	C6	CIRCULAR	3.00	7.07	0.75	3.00
1	30.53					
1	C60	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.72					
1	C61	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	171.36					
1	C62	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	144.51					
1	C63	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	64.61					
1	C64	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	109.21					
1	C65	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	176.40					
1	C66	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
1	C67	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
1	C68	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
1	C69	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
1	C7	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	115.52					
1	C70	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.60					
1	C71	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.78					
1	C72	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	134.04					
1	C73	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	174.52					
1	C74	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
1	C75	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.47					
1	C76	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	136.84					
1	C77	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	109.83					
1	C78	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
1	C79	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					

Engineered Turf - 25 Year Results

	C8	RoadsideDitch	2.00	10.00	0.92	10.00
1	58.15					
	C80	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C81	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C82	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.77					
	C83	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.83					
	C84	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.48					
	C85	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	72.84					
	C86	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	135.46					
	C87	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C88	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C89	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.77					
	C9	TRAPEZOIDAL	3.00	30.00	1.72	16.00
1	451.79					
	C90	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
	C91	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.57					
	C92	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	56.79					
	C93	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	130.27					
	C94	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	160.81					
	C95	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C96	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C97	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C98	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C99	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					

 Transect Summary

Transect RoadsideDitch

Area:

0.0004 0.0016 0.0036 0.0064 0.0100

Engineered Turf - 25 Year Results

	0.0144	0.0196	0.0256	0.0324	0.0400
	0.0484	0.0576	0.0676	0.0784	0.0900
	0.1024	0.1156	0.1296	0.1444	0.1600
	0.1764	0.1936	0.2116	0.2304	0.2500
	0.2704	0.2916	0.3136	0.3364	0.3600
	0.3844	0.4096	0.4356	0.4624	0.4900
	0.5184	0.5476	0.5776	0.6084	0.6400
	0.6724	0.7056	0.7396	0.7744	0.8100
	0.8464	0.8836	0.9216	0.9604	1.0000
Hrad:					
	0.0200	0.0400	0.0600	0.0800	0.1000
	0.1200	0.1400	0.1600	0.1800	0.2000
	0.2200	0.2400	0.2600	0.2800	0.3000
	0.3200	0.3400	0.3600	0.3800	0.4000
	0.4200	0.4400	0.4600	0.4800	0.5000
	0.5200	0.5400	0.5600	0.5800	0.6000
	0.6200	0.6400	0.6600	0.6800	0.7000
	0.7200	0.7400	0.7600	0.7800	0.8000
	0.8200	0.8400	0.8600	0.8800	0.9000
	0.9200	0.9400	0.9600	0.9800	1.0000
Width:					
	0.0200	0.0400	0.0600	0.0800	0.1000
	0.1200	0.1400	0.1600	0.1800	0.2000
	0.2200	0.2400	0.2600	0.2800	0.3000
	0.3200	0.3400	0.3600	0.3800	0.4000
	0.4200	0.4400	0.4600	0.4800	0.5000
	0.5200	0.5400	0.5600	0.5800	0.6000
	0.6200	0.6400	0.6600	0.6800	0.7000
	0.7200	0.7400	0.7600	0.7800	0.8000
	0.8200	0.8400	0.8600	0.8800	0.9000
	0.9200	0.9400	0.9600	0.9800	1.0000

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

Analysis Options

Flow Units CFS

Process Models:

Rainfall/Runoff YES

RDII NO

Snowmelt NO

Groundwater NO

Flow Routing YES

Ponding Allowed NO

Water Quality NO

Infiltration Method CURVE_NUMBER

Flow Routing Method DYNWAVE

Surcharge Method EXTRAN

Engineered Turf - 25 Year Results

```

Starting Date ..... 01/01/2020 00:00:00
Ending Date ..... 01/08/2020 00:00:00
Antecedent Dry Days ..... 0.0
Report Time Step ..... 00:01:00
Wet Time Step ..... 00:05:00
Dry Time Step ..... 00:05:00
Routing Time Step ..... 5.00 sec
Variable Time Step ..... YES
Maximum Trials ..... 8
Number of Threads ..... 4
Head Tolerance ..... 0.005000 ft
  
```

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	20.189	6.290
Evaporation Loss	0.000	0.000
Infiltration Loss	2.445	0.762
Surface Runoff	17.621	5.490
Final Storage	0.160	0.050
Continuity Error (%)	-0.185	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	17.636	5.747
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	18.162	5.918
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.943	0.307
Final Stored Volume	0.418	0.136
Continuity Error (%)	-0.006	

```

*****
Time-Step Critical Elements
*****
Link C76 (35.61%)
Link C6 (6.34%)
Link C5 (5.05%)
  
```

```

*****
Highest Flow Instability Indexes
*****
Link OL2 (11)
Link OL1 (6)
  
```

Engineered Turf - 25 Year Results

Link C4 (6)
Link C6 (2)

Routing Time Step Summary

```

Minimum Time Step      :      0.50 sec
Average Time Step      :      3.47 sec
Maximum Time Step      :      5.00 sec
Percent in Steady State :      -0.00
Average Iterations per Step :      2.00
Percent Not Converging :      0.00
    
```

Subcatchment Runoff Summary

		Total		Total		Total		Total
Imperv	Perv	Total	Total	Peak	Total	Total	Total	
Runoff	Runoff	Runoff	Runoff	Runoff	Runoff	Runoff	Runoff	Infil
Subcatchment	Subcatchment	Precip	Runon	Peak	Evap	Coeff		
in	in	in	in	in	in	in	in	in
		10^6 gal		CFS				
B2_E	0.00	5.73	5.73	0.09	3.83	0.911	0.00	0.52
B2_ENE	0.00	5.74	5.74	0.04	1.88	0.912	0.00	0.52
B2_NE	0.00	5.75	5.75	0.04	2.15	0.914	0.00	0.51
B3_E	0.00	5.73	5.73	0.07	3.26	0.911	0.00	0.53
B3_ENE	0.00	5.73	5.73	0.06	2.74	0.910	0.00	0.53
B3_ESE	0.00	5.75	5.75	0.05	2.29	0.914	0.00	0.51
B3_N	0.00	5.74	5.74	0.08	3.75	0.912	0.00	0.52
B3_NE	0.00	5.73	5.73	0.07	3.16	0.910	0.00	0.53
B3_S	0.00	5.74	5.74	0.08	3.96	0.912	0.00	0.52
B3_SE	0.00	5.75	5.75	0.05	2.48	0.914	0.00	0.51
B3_SW	0.00	5.75	5.75	0.07	3.06	0.915	0.00	0.50
B3_WSW	0.00	5.75	5.75	0.08	3.73	0.915	0.00	0.50

Engineered Turf - 25 Year Results

B4_E			6.29	0.00	0.00	0.52
0.00	5.74	5.74	0.07	3.27	0.912	
B4_ENE			6.29	0.00	0.00	0.52
0.00	5.73	5.73	0.08	3.56	0.911	
B4_ESE			6.29	0.00	0.00	0.52
0.00	5.74	5.74	0.07	3.36	0.912	
B4_N			6.29	0.00	0.00	0.52
0.00	5.74	5.74	0.08	3.67	0.912	
B4_NNE			6.29	0.00	0.00	0.52
0.00	5.73	5.73	0.09	3.90	0.911	
B4_S			6.29	0.00	0.00	0.52
0.00	5.74	5.74	0.08	3.94	0.912	
B4_SE			6.29	0.00	0.00	0.52
0.00	5.74	5.74	0.07	3.38	0.912	
B4_SSW			6.29	0.00	0.00	0.51
0.00	5.74	5.74	0.10	4.15	0.912	
B4_SW			6.29	0.00	0.00	0.51
0.00	5.74	5.74	0.11	4.58	0.912	
B4_W			6.29	0.00	0.00	0.51
0.00	5.74	5.74	0.11	4.98	0.913	
B5_E			6.29	0.00	0.00	0.53
0.00	5.72	5.72	0.05	2.13	0.910	
B5_ENE			6.29	0.00	0.00	0.52
0.00	5.73	5.73	0.10	3.28	0.911	
B5_ESE			6.29	0.00	0.00	0.51
0.00	5.74	5.74	0.07	2.79	0.912	
B5_N			6.29	0.00	0.00	0.52
0.00	5.73	5.73	0.04	1.66	0.910	
B5_N2			6.29	0.00	0.00	0.51
0.00	5.74	5.74	0.04	1.71	0.912	
B5_S			6.29	0.00	0.00	0.52
0.00	5.73	5.73	0.08	3.12	0.911	
B5_SE			6.29	0.00	0.00	0.52
0.00	5.73	5.73	0.10	4.61	0.911	
B5_SSE			6.29	0.00	0.00	0.52
0.00	5.73	5.73	0.06	2.54	0.911	
B5_SW			6.29	0.00	0.00	0.51
0.00	5.73	5.73	0.11	3.88	0.911	
B5_W			6.29	0.00	0.00	0.51
0.00	5.73	5.73	0.06	2.32	0.912	
B5_WSW			6.29	0.00	0.00	0.51
0.00	5.73	5.73	0.10	3.53	0.912	
Bench_1_E			6.29	0.00	0.00	0.71
0.00	5.54	5.54	0.09	3.21	0.880	
Bench_1_S			6.29	0.00	0.00	0.72
0.00	5.52	5.52	0.11	3.79	0.878	
Bench_2_N			6.29	0.00	0.00	0.61
0.00	5.64	5.64	0.09	3.47	0.897	
Bench_2_NW			6.29	0.00	0.00	0.52
0.00	5.73	5.73	0.09	3.44	0.911	
Bench_2_S			6.29	0.00	0.00	0.51
0.00	5.74	5.74	0.14	5.41	0.912	
Bench_2_W			6.29	0.00	0.00	0.51
0.00	5.73	5.73	0.16	5.49	0.911	

Engineered Turf - 25 Year Results

Bench_3_NW	6.29	0.00	0.00	0.51
0.00 5.75	5.75	0.05	2.62	0.914
Bench_3_W	6.29	0.00	0.00	0.51
0.00 5.74	5.74	0.14	5.53	0.912
Bench_4_NW	6.29	0.00	0.00	0.52
0.00 5.73	5.73	0.09	3.52	0.911
Bench_4_WNW	6.29	0.00	0.00	0.50
0.00 5.75	5.75	0.09	4.12	0.915
Bench_5_NNW	6.29	0.00	0.00	0.52
0.00 5.73	5.73	0.04	1.87	0.911
Bench_5_NW	6.29	0.00	0.00	0.52
0.00 5.73	5.73	0.03	1.35	0.911
Clear1_42	6.29	0.00	0.00	1.48
0.00 4.77	4.77	0.10	5.54	0.758
D_43	6.29	0.00	0.00	1.25
0.00 5.01	5.01	0.08	4.58	0.796
D_44	6.29	0.00	0.00	0.66
0.00 5.60	5.60	0.17	9.52	0.890
D_47	6.29	0.00	0.00	1.30
0.00 4.95	4.95	0.07	4.04	0.788
D_48	6.29	0.00	0.00	1.38
0.00 4.87	4.87	0.05	2.91	0.774
D_49	6.29	0.00	0.00	1.33
0.00 4.92	4.92	0.05	3.12	0.782
D_50	6.29	0.00	0.00	1.65
0.00 4.60	4.60	0.01	0.51	0.732
D_53	6.29	0.00	0.00	1.36
0.00 4.90	4.90	0.06	3.50	0.778
D_55	6.29	0.00	0.00	1.07
0.00 5.18	5.18	0.07	3.83	0.824
D_57	6.29	0.00	0.00	1.12
0.00 5.14	5.14	0.05	2.70	0.817
D_58	6.29	0.00	0.00	1.17
0.00 5.09	5.09	0.15	8.33	0.808
D_60	6.29	0.00	0.00	1.27
0.00 4.98	4.98	0.05	2.62	0.792
D_62	6.29	0.00	0.00	1.36
0.00 4.89	4.89	0.04	2.53	0.778
Ditch_18	6.29	0.00	0.00	1.22
0.00 5.03	5.03	0.08	4.25	0.800
Ditch_61	6.29	0.00	0.00	0.93
0.00 5.33	5.33	0.13	5.90	0.847
Ditch_63	6.29	0.00	0.00	1.71
0.00 4.54	4.54	0.07	2.75	0.721
Road_Ditch_Lower	6.29	0.00	0.00	0.85
0.00 5.40	5.40	0.04	2.18	0.858
Road_Ditch_Middle	6.29	0.00	0.00	0.71
0.00 5.54	5.54	0.06	3.39	0.881
Road_Ditch_Upper	6.29	0.00	0.00	0.81
0.00 5.45	5.45	0.10	5.00	0.866
Sed1_41	6.29	0.00	0.00	1.06
0.00 5.20	5.20	0.73	40.36	0.827

Engineered Turf - 25 Year Results

Node Depth Summary

Reported Max Depth Node Feet	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
2.68	J1	0.13	2.68	654.58	0 11:58
1.46	J10	0.10	1.46	668.26	0 11:57
0.14	J100	0.01	0.14	728.14	0 11:54
0.47	J101	0.03	0.47	662.47	0 11:55
0.49	J102	0.03	0.49	673.49	0 11:55
0.79	J103	0.06	0.79	675.79	0 11:55
0.48	J104	0.03	0.48	686.48	0 11:55
0.74	J105	0.06	0.74	688.74	0 11:55
0.44	J106	0.03	0.44	705.44	0 11:54
0.81	J107	0.07	0.81	706.81	0 11:55
0.38	J108	0.02	0.38	723.38	0 11:54
0.54	J109	0.04	0.54	725.54	0 12:00
1.26	J11	0.08	1.26	659.26	0 11:57
0.31	J110	0.02	0.31	742.31	0 11:54
0.39	J111	0.03	0.39	743.39	0 12:00
0.19	J112	0.01	0.19	746.69	0 12:00
0.35	J113	0.02	0.35	661.35	0 11:54
0.36	J114	0.02	0.36	671.36	0 11:54
0.60	J115	0.05	0.60	673.60	0 11:54
0.34	J116	0.02	0.34	686.34	0 11:54

Engineered Turf - 25 Year Results

J117	JUNCTION	0.03	0.49	688.49	0	11:54
0.48						
J118	JUNCTION	0.02	0.27	705.27	0	11:54
0.27						
J119	JUNCTION	0.02	0.31	706.31	0	11:54
0.31						
J12	JUNCTION	0.09	1.36	657.06	0	11:57
1.36						
J120	JUNCTION	0.01	0.16	709.66	0	11:54
0.16						
J121	JUNCTION	0.01	0.17	709.67	0	11:54
0.17						
J122	JUNCTION	0.02	0.33	706.33	0	11:54
0.33						
J123	JUNCTION	0.02	0.28	705.28	0	11:54
0.28						
J124	JUNCTION	0.03	0.50	688.50	0	11:54
0.49						
J125	JUNCTION	0.02	0.34	686.34	0	11:54
0.34						
J126	JUNCTION	0.06	0.77	672.77	0	11:54
0.77						
J127	JUNCTION	0.02	0.35	671.35	0	11:54
0.35						
J128	JUNCTION	0.02	0.36	661.36	0	11:55
0.36						
J129	JUNCTION	0.01	0.24	673.74	0	11:54
0.24						
J13	JUNCTION	0.12	1.89	654.79	0	11:58
1.89						
J130	JUNCTION	0.04	0.51	670.51	0	11:54
0.51						
J131	JUNCTION	0.02	0.29	669.29	0	11:54
0.29						
J132	JUNCTION	0.02	0.25	661.25	0	11:54
0.25						
J133	JUNCTION	0.04	0.57	706.57	0	11:55
0.56						
J134	JUNCTION	0.12	1.05	728.05	0	11:55
1.05						
J135	JUNCTION	0.03	0.61	680.61	0	11:56
0.61						
J136	JUNCTION	0.10	0.99	703.99	0	11:55
0.99						
J14	JUNCTION	0.05	0.82	677.02	0	11:56
0.82						
J15	JUNCTION	0.07	1.10	671.90	0	11:56
1.10						
J16	JUNCTION	0.09	1.44	667.34	0	11:56
1.44						
J17	JUNCTION	0.08	1.33	657.33	0	11:57
1.33						
J18	JUNCTION	0.10	1.64	656.14	0	11:57
1.64						

Engineered Turf - 25 Year Results

J19	JUNCTION	0.13	1.95	654.95	0	11:57
1.95						
J2	JUNCTION	0.38	0.88	642.88	0	18:46
0.88						
J20	JUNCTION	0.15	2.61	654.61	0	11:58
2.61						
J21	JUNCTION	0.03	0.40	743.40	0	12:00
0.40						
J22	JUNCTION	0.02	0.36	742.36	0	12:00
0.36						
J23	JUNCTION	0.05	0.62	725.62	0	12:00
0.62						
J24	JUNCTION	0.04	0.56	672.56	0	11:55
0.56						
J25	JUNCTION	0.04	0.57	662.57	0	11:55
0.57						
J26	JUNCTION	0.08	0.87	674.87	0	11:55
0.87						
J27	JUNCTION	0.04	0.55	686.55	0	11:55
0.55						
J28	JUNCTION	0.07	0.81	688.81	0	11:55
0.81						
J29	JUNCTION	0.03	0.50	705.50	0	11:55
0.50						
J3	JUNCTION	0.10	0.27	641.62	0	18:46
0.27						
J30	JUNCTION	0.08	0.89	706.89	0	12:00
0.89						
J31	JUNCTION	0.03	0.43	723.43	0	11:55
0.43						
J32	JUNCTION	0.01	0.21	746.71	0	12:00
0.21						
J33	JUNCTION	0.01	0.19	709.69	0	11:54
0.19						
J34	JUNCTION	0.02	0.36	706.36	0	11:54
0.36						
J35	JUNCTION	0.02	0.32	705.32	0	11:54
0.31						
J36	JUNCTION	0.04	0.54	688.54	0	11:54
0.54						
J37	JUNCTION	0.03	0.40	686.40	0	11:54
0.40						
J38	JUNCTION	0.07	0.85	675.85	0	11:55
0.85						
J39	JUNCTION	0.03	0.40	674.40	0	11:55
0.40						
J4	JUNCTION	0.92	3.10	646.10	0	18:44
3.10						
J40	JUNCTION	0.03	0.42	664.42	0	11:55
0.42						
J41	JUNCTION	0.03	0.43	673.43	0	11:55
0.43						
J42	JUNCTION	0.03	0.43	677.43	0	11:55
0.43						

Engineered Turf - 25 Year Results

J43	JUNCTION	0.07	0.86	678.86	0	11:54
0.86						
J44	JUNCTION	0.03	0.41	686.41	0	11:54
0.41						
J45	JUNCTION	0.04	0.59	688.59	0	11:54
0.59						
J46	JUNCTION	0.02	0.34	705.34	0	11:54
0.34						
J47	JUNCTION	0.03	0.41	706.41	0	11:54
0.41						
J48	JUNCTION	0.01	0.21	709.71	0	11:54
0.21						
J49	JUNCTION	0.04	0.58	680.58	0	11:55
0.58						
J5	JUNCTION	0.14	1.14	682.14	0	11:56
1.14						
J50	JUNCTION	0.07	0.83	681.83	0	11:55
0.83						
J51	JUNCTION	0.03	0.52	686.52	0	11:55
0.52						
J52	JUNCTION	0.07	0.79	688.79	0	11:55
0.79						
J53	JUNCTION	0.03	0.48	705.48	0	11:54
0.48						
J54	JUNCTION	0.07	0.83	706.83	0	12:00
0.83						
J55	JUNCTION	0.03	0.40	723.40	0	12:00
0.40						
J56	JUNCTION	0.03	0.40	725.40	0	12:00
0.40						
J57	JUNCTION	0.02	0.27	728.27	0	12:00
0.27						
J58	JUNCTION	0.02	0.37	685.37	0	11:54
0.37						
J59	JUNCTION	0.02	0.29	686.29	0	11:54
0.29						
J6	JUNCTION	0.08	0.79	751.79	0	11:54
0.79						
J60	JUNCTION	0.02	0.37	688.37	0	11:54
0.37						
J61	JUNCTION	0.01	0.22	691.22	0	11:54
0.22						
J62	JUNCTION	0.02	0.35	682.35	0	11:54
0.35						
J63	JUNCTION	0.04	0.56	684.56	0	11:54
0.56						
J64	JUNCTION	0.02	0.28	686.28	0	11:54
0.28						
J65	JUNCTION	0.04	0.52	688.52	0	11:54
0.52						
J66	JUNCTION	0.02	0.29	705.29	0	11:54
0.29						
J67	JUNCTION	0.02	0.34	706.34	0	11:54
0.34						

Engineered Turf - 25 Year Results

J68	JUNCTION	0.01	0.17	709.67	0	11:54
0.17						
J69	JUNCTION	0.03	0.50	677.50	0	11:55
0.50						
J7	JUNCTION	0.02	0.32	683.32	0	11:54
0.32						
J70	JUNCTION	0.03	0.50	681.50	0	11:55
0.49						
J71	JUNCTION	0.08	0.98	682.98	0	11:55
0.98						
J72	JUNCTION	0.03	0.49	686.49	0	11:55
0.49						
J73	JUNCTION	0.06	0.76	688.76	0	11:55
0.76						
J74	JUNCTION	0.03	0.46	705.46	0	11:54
0.46						
J75	JUNCTION	0.07	0.82	706.82	0	11:55
0.82						
J76	JUNCTION	0.02	0.39	723.39	0	11:54
0.39						
J77	JUNCTION	0.04	0.54	725.54	0	12:00
0.54						
J78	JUNCTION	0.02	0.31	742.31	0	12:00
0.31						
J79	JUNCTION	0.03	0.41	743.41	0	12:00
0.41						
J8	JUNCTION	0.03	0.60	678.80	0	11:55
0.60						
J80	JUNCTION	0.01	0.20	746.70	0	12:00
0.20						
J81	JUNCTION	0.01	0.15	728.15	0	11:54
0.15						
J82	JUNCTION	0.01	0.24	725.24	0	11:54
0.24						
J83	JUNCTION	0.01	0.26	723.26	0	11:54
0.26						
J84	JUNCTION	0.04	0.59	706.59	0	11:54
0.59						
J85	JUNCTION	0.02	0.36	705.36	0	11:54
0.36						
J86	JUNCTION	0.05	0.62	688.62	0	11:54
0.62						
J87	JUNCTION	0.02	0.40	686.40	0	11:54
0.40						
J88	JUNCTION	0.05	0.68	681.68	0	11:54
0.68						
J89	JUNCTION	0.02	0.40	679.40	0	11:55
0.40						
J9	JUNCTION	0.07	1.05	673.75	0	11:56
1.05						
J90	JUNCTION	0.03	0.42	672.42	0	11:55
0.42						
J91	JUNCTION	0.03	0.41	663.41	0	11:55
0.41						

Engineered Turf - 25 Year Results

J92	JUNCTION	0.03	0.41	674.41	0	11:55
0.41						
J93	JUNCTION	0.06	0.68	676.68	0	11:55
0.68						
J94	JUNCTION	0.03	0.40	686.40	0	11:55
0.40						
J95	JUNCTION	0.04	0.58	688.58	0	11:54
0.58						
J96	JUNCTION	0.02	0.34	705.34	0	11:54
0.34						
J97	JUNCTION	0.04	0.55	706.55	0	11:54
0.55						
J98	JUNCTION	0.01	0.24	723.24	0	11:54
0.24						
J99	JUNCTION	0.01	0.23	725.23	0	11:54
0.22						
O1	OUTFALL	0.10	0.27	641.27	0	18:46
0.27						
O2	OUTFALL	0.00	0.00	637.00	0	00:00
0.00						
Clear_Pool1	STORAGE	1.40	4.09	646.09	0	18:45
4.09						
SED_Pond1	STORAGE	2.50	5.24	647.24	0	14:55
5.24						

Node Inflow Summary

Lateral	Total	Flow	Maximum	Maximum		
Inflow	Inflow	Balance	Lateral	Total	Time of Max	
Volume	Volume	Error	Inflow	Inflow	Occurrence	
Node	Volume	Type	CFS	CFS	days	hr:min
gal	10^6 gal	Percent				10^6

J1		JUNCTION	0.00	204.74	0	11:58
0	4.92	0.002				
J10		JUNCTION	9.52	53.29	0	11:55
0.174	1.27	-0.007				
J100		JUNCTION	1.88	1.88	0	11:54
0.0375	0.0375	-0.001				
J101		JUNCTION	0.00	15.27	0	11:55
0	0.362	-0.003				
J102		JUNCTION	0.00	15.27	0	11:55
0	0.362	-0.000				
J103		JUNCTION	0.00	15.27	0	11:55
0	0.362	-0.000				

Engineered Turf - 25 Year Results

J104		JUNCTION	2.13	15.27	0	11:55
0.0469	0.362	-0.000				
J105		JUNCTION	0.00	13.20	0	11:54
0	0.315	0.001				
J106		JUNCTION	3.27	13.21	0	11:54
0.0682	0.315	-0.002				
J107		JUNCTION	0.00	10.04	0	11:54
0	0.247	0.003				
J108		JUNCTION	3.26	10.05	0	11:54
0.0679	0.247	-0.003				
J109		JUNCTION	0.00	6.87	0	11:54
0	0.179	0.003				
J11		JUNCTION	4.58	66.99	0	11:57
0.0811	1.64	0.010				
J110		JUNCTION	3.83	6.87	0	11:54
0.0927	0.179	-0.002				
J111		JUNCTION	0.00	3.21	0	12:00
0	0.0859	0.003				
J112		JUNCTION	3.21	3.21	0	12:00
0.0859	0.0859	-0.000				
J113		JUNCTION	0.00	8.37	0	11:54
0	0.186	-0.009				
J114		JUNCTION	0.00	8.37	0	11:54
0	0.186	-0.000				
J115		JUNCTION	0.00	8.38	0	11:54
0	0.186	0.000				
J116		JUNCTION	2.79	8.38	0	11:54
0.0679	0.186	0.001				
J117		JUNCTION	0.00	5.62	0	11:54
0	0.118	-0.002				
J118		JUNCTION	3.36	5.63	0	11:54
0.0703	0.118	-0.000				
J119		JUNCTION	0.00	2.29	0	11:54
0	0.0477	-0.000				
J12		JUNCTION	4.25	89.36	0	11:57
0.0753	2.21	-0.000				
J120		JUNCTION	2.29	2.29	0	11:54
0.0477	0.0477	-0.001				
J121		JUNCTION	2.48	2.48	0	11:54
0.0518	0.0518	-0.001				
J122		JUNCTION	0.00	2.48	0	11:54
0	0.0518	-0.000				
J123		JUNCTION	3.38	5.85	0	11:54
0.0707	0.122	-0.001				
J124		JUNCTION	0.00	5.84	0	11:54
0	0.122	-0.001				
J125		JUNCTION	2.54	8.35	0	11:54
0.0589	0.181	0.000				
J126		JUNCTION	0.00	8.34	0	11:54
0	0.181	0.000				
J127		JUNCTION	0.00	8.33	0	11:54
0	0.181	-0.001				
J128		JUNCTION	0.00	8.33	0	11:54
0	0.181	-0.013				

Engineered Turf - 25 Year Results

J129		JUNCTION	4.61	4.61	0	11:54
0.103	0.103	-0.000				
J13		JUNCTION	3.12	99.62	0	11:57
0.055	2.45	-0.004				
J130		JUNCTION	0.00	4.61	0	11:54
0	0.103	-0.000				
J131		JUNCTION	0.00	4.60	0	11:54
0	0.103	-0.000				
J132		JUNCTION	0.00	4.60	0	11:54
0	0.103	-0.014				
J133		JUNCTION	0.00	8.03	0	11:55
0	0.162	0.007				
J134		JUNCTION	3.39	8.22	0	11:54
0.0611	0.162	-0.006				
J135		JUNCTION	0.00	14.43	0	11:55
0	0.306	-0.003				
J136		JUNCTION	2.18	10.00	0	11:55
0.0387	0.201	-0.010				
J14		JUNCTION	2.53	23.99	0	11:55
0.044	0.529	-0.003				
J15		JUNCTION	2.62	41.71	0	11:55
0.0458	0.957	0.001				
J16		JUNCTION	8.33	59.64	0	11:56
0.151	1.35	-0.006				
J17		JUNCTION	2.70	72.40	0	11:56
0.0482	1.68	0.008				
J18		JUNCTION	3.83	90.43	0	11:57
0.0681	2.11	-0.001				
J19		JUNCTION	3.50	101.31	0	11:57
0.0615	2.36	-0.005				
J2		JUNCTION	0.00	7.53	0	18:46
0	5.91	-0.076				
J20		JUNCTION	0.51	105.90	0	11:57
0.00911	2.47	0.008				
J21		JUNCTION	0.00	3.79	0	12:00
0	0.113	0.004				
J22		JUNCTION	5.41	9.19	0	12:00
0.144	0.256	-0.002				
J23		JUNCTION	0.00	9.18	0	12:00
0	0.256	0.003				
J24		JUNCTION	0.00	19.45	0	11:55
0	0.499	-0.000				
J25		JUNCTION	0.00	19.45	0	11:55
0	0.499	-0.002				
J26		JUNCTION	0.00	19.46	0	11:55
0	0.499	-0.000				
J27		JUNCTION	3.12	19.46	0	11:55
0.0752	0.499	-0.000				
J28		JUNCTION	0.00	16.38	0	11:55
0	0.424	0.001				
J29		JUNCTION	3.94	16.39	0	11:54
0.0837	0.424	-0.002				
J3		JUNCTION	0.00	7.53	0	18:46
0	5.92	0.002				

Engineered Turf - 25 Year Results

J30		JUNCTION	0.00	12.57	0	11:55
0	0.34	0.002				
J31		JUNCTION	3.96	12.58	0	11:54
0.0839	0.34	-0.003				
J32		JUNCTION	3.79	3.79	0	12:00
0.113	0.113	-0.000				
J33		JUNCTION	3.06	3.06	0	11:54
0.0651	0.0651	-0.001				
J34		JUNCTION	0.00	3.06	0	11:54
0	0.0652	-0.005				
J35		JUNCTION	4.15	7.20	0	11:54
0.103	0.169	0.002				
J36		JUNCTION	0.00	7.19	0	11:54
0	0.169	-0.003				
J37		JUNCTION	3.88	10.77	0	11:54
0.112	0.281	0.002				
J38		JUNCTION	0.00	10.76	0	11:54
0	0.281	0.000				
J39		JUNCTION	0.00	10.76	0	11:55
0	0.281	-0.000				
J4		JUNCTION	0.00	7.95	0	14:55
0	5.8	-0.097				
J40		JUNCTION	0.00	10.76	0	11:55
0	0.281	-0.003				
J41		JUNCTION	0.00	11.64	0	11:55
0	0.293	-0.002				
J42		JUNCTION	0.00	11.64	0	11:55
0	0.293	-0.000				
J43		JUNCTION	0.00	11.64	0	11:54
0	0.293	-0.000				
J44		JUNCTION	3.53	11.64	0	11:54
0.0974	0.293	0.001				
J45		JUNCTION	0.00	8.29	0	11:54
0	0.196	-0.002				
J46		JUNCTION	4.58	8.29	0	11:54
0.112	0.196	0.000				
J47		JUNCTION	0.00	3.73	0	11:54
0	0.0834	-0.002				
J48		JUNCTION	3.73	3.73	0	11:54
0.0834	0.0834	-0.001				
J49		JUNCTION	0.00	17.71	0	11:55
0	0.464	-0.000				
J5		JUNCTION	0.00	9.98	0	11:55
0	0.201	0.009				
J50		JUNCTION	0.00	17.71	0	11:55
0	0.464	-0.000				
J51		JUNCTION	2.32	17.71	0	11:55
0.0634	0.464	0.000				
J52		JUNCTION	0.00	15.48	0	11:54
0	0.401	-0.000				
J53		JUNCTION	4.98	15.48	0	11:54
0.109	0.401	-0.002				
J54		JUNCTION	0.00	10.77	0	12:00
0	0.292	0.003				

Engineered Turf - 25 Year Results

J55		JUNCTION	5.53	10.77	0	12:00
0.135	0.292	-0.002				
J56		JUNCTION	0.00	5.49	0	12:00
0	0.156	0.002				
J57		JUNCTION	5.49	5.49	0	12:00
0.156	0.156	-0.000				
J58		JUNCTION	0.00	5.98	0	11:54
0	0.133	-0.009				
J59		JUNCTION	1.87	5.98	0	11:54
0.0436	0.133	-0.001				
J6		JUNCTION	5.00	5.00	0	11:54
0.101	0.101	0.003				
J60		JUNCTION	0.00	4.12	0	11:54
0	0.0895	-0.001				
J61		JUNCTION	4.12	4.12	0	11:54
0.0895	0.0895	-0.001				
J62		JUNCTION	0.00	7.45	0	11:54
0	0.178	-0.001				
J63		JUNCTION	0.00	7.46	0	11:54
0	0.178	-0.001				
J64		JUNCTION	1.35	7.46	0	11:54
0.0335	0.178	-0.000				
J65		JUNCTION	0.00	6.12	0	11:54
0	0.145	0.000				
J66		JUNCTION	3.52	6.13	0	11:54
0.0903	0.145	0.002				
J67		JUNCTION	0.00	2.62	0	11:54
0	0.0545	-0.007				
J68		JUNCTION	2.62	2.62	0	11:54
0.0545	0.0545	-0.001				
J69		JUNCTION	0.00	15.58	0	11:55
0	0.382	-0.000				
J7		JUNCTION	8.44	8.44	0	11:54
0.195	0.195	0.001				
J70		JUNCTION	0.00	15.58	0	11:55
0	0.382	-0.000				
J71		JUNCTION	0.00	15.58	0	11:55
0	0.382	-0.000				
J72		JUNCTION	1.66	15.58	0	11:55
0.0441	0.382	0.000				
J73		JUNCTION	0.00	13.95	0	11:54
0	0.338	0.000				
J74		JUNCTION	3.67	13.96	0	11:54
0.0766	0.338	-0.002				
J75		JUNCTION	0.00	10.41	0	11:54
0	0.262	0.002				
J76		JUNCTION	3.75	10.41	0	11:54
0.0784	0.262	-0.003				
J77		JUNCTION	0.00	6.89	0	12:00
0	0.183	0.004				
J78		JUNCTION	3.44	6.89	0	12:00
0.0896	0.183	-0.001				
J79		JUNCTION	0.00	3.47	0	12:00
0	0.0936	0.001				

Engineered Turf - 25 Year Results

J8		JUNCTION	2.91	12.64	0	11:54
0.0504	0.273	-0.017				
J80		JUNCTION	3.47	3.47	0	12:00
0.0936	0.0936	-0.000				
J81		JUNCTION	2.15	2.15	0	11:54
0.0441	0.0441	-0.001				
J82		JUNCTION	0.00	2.15	0	11:54
0	0.0441	-0.001				
J83		JUNCTION	3.16	5.30	0	11:54
0.067	0.111	-0.001				
J84		JUNCTION	0.00	5.29	0	11:54
0	0.111	-0.001				
J85		JUNCTION	3.90	9.13	0	11:54
0.0898	0.201	0.001				
J86		JUNCTION	0.00	9.12	0	11:54
0	0.201	-0.000				
J87		JUNCTION	1.71	10.81	0	11:54
0.0427	0.244	0.000				
J88		JUNCTION	0.00	10.81	0	11:54
0	0.244	-0.000				
J89		JUNCTION	0.00	10.81	0	11:55
0	0.244	-0.000				
J9		JUNCTION	4.04	33.70	0	11:55
0.0704	0.807	0.001				
J90		JUNCTION	0.00	10.80	0	11:55
0	0.244	-0.005				
J91		JUNCTION	0.00	11.05	0	11:55
0	0.279	-0.002				
J92		JUNCTION	0.00	11.05	0	11:55
0	0.279	-0.000				
J93		JUNCTION	0.00	11.05	0	11:55
0	0.279	-0.000				
J94		JUNCTION	3.28	11.05	0	11:55
0.101	0.279	0.002				
J95		JUNCTION	0.00	8.11	0	11:54
0	0.178	-0.004				
J96		JUNCTION	3.56	8.11	0	11:54
0.0826	0.178	0.002				
J97		JUNCTION	0.00	4.61	0	11:54
0	0.0955	-0.002				
J98		JUNCTION	2.74	4.61	0	11:54
0.058	0.0955	-0.000				
J99		JUNCTION	0.00	1.88	0	11:54
0	0.0375	-0.001				
O1		OUTFALL	0.00	7.53	0	18:46
0	5.92	0.000				
O2		OUTFALL	0.00	0.00	0	00:00
0	0	0.000 gal				
Clear_Pool1		STORAGE	5.54	8.89	0	11:54
0.0958	5.92	0.070				
SED_Pond1		STORAGE	40.36	236.26	0	11:58
0.735	5.94	0.092				

Engineered Turf - 25 Year Results

 Node Surcharge Summary

No nodes were surcharged.

 Node Flooding Summary

No nodes were flooded.

 Storage Volume Summary

Time of Max Occurrence		Maximum Outflow	Average Volume	Avg Pc	Evap Loss	Exfil Loss	Maximum Volume	Max Pc
days	hr:min	Storage Unit CFS	1000 ft3	Full	Loss	Loss	1000 ft3	Full
0	18:45	Clear_Pool1 7.53	18.367	12	0	0	63.125	41
0	14:55	SED_Pond1 7.95	171.727	17	0	0	538.455	52

 Outfall Loading Summary

Outfall Node	Flow Freq Pc	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
O1	100.00	2.16	7.53	5.918
O2	0.00	0.00	0.00	0.000
System	50.00	2.16	0.00	5.918

 Link Flow Summary

Engineered Turf - 25 Year Results

Max/ Full Link Depth	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow
0.65	C10	66.73	0 11:57	7.72	0.40
0.42	C100	10.03	0 11:55	2.06	0.18
0.39	C101	13.20	0 11:54	3.88	0.10
0.41	C102	13.19	0 11:55	2.83	0.17
0.42	C103	15.27	0 11:55	4.08	0.11
0.43	C104	15.27	0 11:55	3.05	0.20
0.32	C105	15.27	0 11:55	5.80	0.11
0.66	C106	15.26	0 11:55	1.56	0.09
0.17	C107	2.48	0 11:54	2.11	0.02
0.20	C108	2.47	0 11:54	1.40	0.04
0.26	C109	5.84	0 11:54	2.91	0.04
0.68	C11	52.51	0 11:57	5.76	0.51
0.28	C110	5.82	0 11:54	2.12	0.08
0.37	C111	8.34	0 11:54	2.64	0.06
0.37	C112	8.33	0 11:54	2.03	0.15
0.23	C113	8.33	0 11:54	4.68	0.06
0.62	C114	8.33	0 11:55	0.94	0.05
0.20	C115	3.79	0 12:00	2.51	0.03
0.25	C116	3.78	0 12:00	1.58	0.06
0.33	C117	9.18	0 12:00	3.43	0.07
0.35	C118	9.17	0 12:00	2.45	0.12
0.44	C119	12.57	0 11:55	3.19	0.09

Engineered Turf - 25 Year Results

C12	CONDUIT	33.31	0	11:56	4.11	0.28
0.63						
C120	CONDUIT	12.57	0	11:55	2.23	0.23
0.46						
C121	CONDUIT	16.38	0	11:55	4.20	0.12
0.44						
C122	CONDUIT	16.38	0	11:55	2.99	0.22
0.45						
C123	CONDUIT	19.46	0	11:55	4.46	0.14
0.47						
C124	CONDUIT	19.45	0	11:55	3.25	0.26
0.48						
C125	CONDUIT	19.45	0	11:55	6.04	0.14
0.38						
C126	CONDUIT	19.45	0	11:55	2.19	0.12
0.64						
C127	CONDUIT	3.06	0	11:54	2.29	0.02
0.18						
C128	CONDUIT	3.05	0	11:54	1.49	0.05
0.23						
C129	CONDUIT	7.19	0	11:54	3.17	0.05
0.29						
C13	CONDUIT	12.28	0	11:55	2.66	0.10
0.41						
C130	CONDUIT	7.18	0	11:54	2.24	0.09
0.31						
C131	CONDUIT	10.76	0	11:54	2.94	0.08
0.42						
C132	CONDUIT	10.76	0	11:55	2.21	0.19
0.42						
C133	CONDUIT	10.76	0	11:55	4.98	0.08
0.27						
C134	CONDUIT	10.76	0	11:55	1.51	0.07
0.56						
C135	CHANNEL	8.03	0	11:55	4.95	0.14
0.40						
C136	CONDUIT	4.52	0	11:54	2.04	0.03
0.23						
C137	CHANNEL	9.95	0	11:56	5.17	0.21
0.44						
C138	CONDUIT	14.40	0	11:56	3.70	0.11
0.36						
C139	CONDUIT	8.01	0	11:55	12.25	0.61
0.78						
C14	CHANNEL	9.98	0	11:55	3.53	0.15
0.53						
C15	CONDUIT	23.91	0	11:56	4.22	0.18
0.48						
C16	CONDUIT	41.57	0	11:56	5.02	0.31
0.63						
C17	CONDUIT	59.22	0	11:57	6.32	0.51
0.69						
C18	CONDUIT	72.41	0	11:57	6.99	0.43
0.74						

Engineered Turf - 25 Year Results

C19	CONDUIT	90.52	0	11:57	6.63	0.27
0.60						
C2	CONDUIT	0.00	0	00:00	0.00	0.00
0.00						
C20	CONDUIT	101.18	0	11:58	5.24	0.38
0.76						
C21	CONDUIT	105.42	0	11:58	4.30	0.38
0.76						
C22	CONDUIT	99.39	0	11:58	5.20	0.35
0.76						
C23	CONDUIT	2.62	0	11:54	2.15	0.02
0.17						
C24	CONDUIT	2.61	0	11:54	1.42	0.04
0.21						
C25	CONDUIT	6.12	0	11:54	2.91	0.04
0.27						
C26	CONDUIT	6.11	0	11:54	2.37	0.08
0.27						
C27	CONDUIT	7.46	0	11:54	3.34	0.04
0.28						
C28	CONDUIT	7.45	0	11:54	2.40	0.10
0.31						
C29	CONDUIT	7.45	0	11:54	1.74	0.05
0.39						
C3	CONDUIT	0.00	0	00:00	0.00	0.00
0.00						
C30	CONDUIT	3.47	0	12:00	2.30	0.02
0.20						
C31	CONDUIT	3.47	0	12:00	1.57	0.05
0.24						
C32	CONDUIT	6.89	0	12:00	3.11	0.05
0.28						
C33	CONDUIT	6.88	0	12:00	2.22	0.09
0.31						
C34	CONDUIT	10.41	0	11:54	2.97	0.08
0.40						
C35	CONDUIT	10.39	0	11:55	2.08	0.19
0.43						
C36	CONDUIT	13.95	0	11:54	3.95	0.10
0.40						
C37	CONDUIT	13.95	0	11:55	2.90	0.18
0.41						
C38	CONDUIT	15.58	0	11:55	3.42	0.11
0.49						
C39	CONDUIT	15.58	0	11:55	2.51	0.28
0.49						
C4	CONDUIT	7.53	0	18:46	7.98	0.19
0.19						
C40	CONDUIT	15.58	0	11:55	5.71	0.11
0.33						
C41	CONDUIT	15.57	0	11:55	2.27	0.10
0.53						
C42	CONDUIT	10.80	0	11:55	1.27	0.07
0.62						

Engineered Turf - 25 Year Results

C43	CONDUIT	10.80	0	11:55	5.06	0.08
0.27						
C44	CONDUIT	10.81	0	11:55	2.78	0.14
0.36						
C45	CONDUIT	10.81	0	11:54	3.58	0.08
0.36						
C46	CONDUIT	9.11	0	11:54	2.52	0.12
0.34						
C47	CONDUIT	9.12	0	11:54	3.39	0.07
0.33						
C48	CONDUIT	2.15	0	11:54	2.36	0.01
0.13						
C49	CONDUIT	2.14	0	11:54	1.53	0.02
0.17						
C5	CONDUIT	7.53	0	18:46	2.90	0.01
0.09						
C50	CONDUIT	5.29	0	11:54	2.36	0.04
0.28						
C51	CONDUIT	5.26	0	11:54	1.62	0.09
0.32						
C52	CONDUIT	1.88	0	11:54	2.25	0.01
0.12						
C53	CONDUIT	1.87	0	11:54	1.48	0.02
0.16						
C54	CONDUIT	4.61	0	11:54	2.25	0.03
0.26						
C55	CONDUIT	4.58	0	11:54	1.55	0.08
0.30						
C56	CONDUIT	8.11	0	11:54	3.27	0.06
0.31						
C57	CONDUIT	8.10	0	11:54	2.36	0.11
0.33						
C58	CONDUIT	11.05	0	11:55	3.62	0.08
0.36						
C59	CONDUIT	11.05	0	11:55	2.78	0.15
0.36						
C6	CONDUIT	7.95	0	14:57	2.91	0.26
1.00						
C60	CONDUIT	11.05	0	11:55	5.19	0.08
0.27						
C61	CONDUIT	11.04	0	11:55	1.47	0.06
0.58						
C62	CONDUIT	4.61	0	11:54	2.41	0.03
0.25						
C63	CONDUIT	4.60	0	11:54	1.81	0.07
0.27						
C64	CONDUIT	4.60	0	11:54	3.55	0.04
0.18						
C65	CONDUIT	4.59	0	11:54	0.57	0.03
0.58						
C66	CONDUIT	2.29	0	11:54	2.07	0.02
0.16						
C67	CONDUIT	2.28	0	11:54	1.36	0.03
0.19						

Engineered Turf - 25 Year Results

0.25	C68	CONDUIT	5.62	0	11:54	2.89	0.04
0.28	C69	CONDUIT	5.61	0	11:54	2.08	0.07
0.23	C7	CONDUIT	3.84	0	11:54	1.72	0.03
0.32	C70	CONDUIT	8.38	0	11:54	3.26	0.06
0.32	C71	CONDUIT	8.37	0	11:54	2.53	0.11
0.23	C72	CONDUIT	8.37	0	11:54	4.70	0.06
0.62	C73	CONDUIT	8.37	0	11:54	0.95	0.05
0.20	C74	CONDUIT	4.12	0	11:54	2.83	0.03
0.22	C75	CONDUIT	4.11	0	11:54	2.10	0.05
0.22	C76	CONDUIT	5.98	0	11:54	3.65	0.04
0.32	C77	CONDUIT	5.97	0	11:54	1.81	0.05
0.22	C78	CONDUIT	5.49	0	12:00	3.29	0.04
0.27	C79	CONDUIT	5.48	0	12:00	2.15	0.06
0.46	C8	CHANNEL	4.90	0	11:54	2.33	0.08
0.41	C80	CONDUIT	10.77	0	12:00	3.02	0.08
0.43	C81	CONDUIT	10.76	0	12:00	2.08	0.19
0.42	C82	CONDUIT	15.48	0	11:54	4.11	0.11
0.44	C83	CONDUIT	15.47	0	11:55	2.96	0.20
0.45	C84	CONDUIT	17.71	0	11:55	4.32	0.13
0.47	C85	CONDUIT	17.71	0	11:55	3.03	0.24
0.54	C86	CONDUIT	17.70	0	11:55	2.50	0.13
0.21	C87	CONDUIT	3.73	0	11:54	2.44	0.03
0.25	C88	CONDUIT	3.72	0	11:54	1.58	0.06
0.31	C89	CONDUIT	8.29	0	11:54	3.32	0.06
0.54	C9	CONDUIT	89.27	0	11:57	7.60	0.20
0.33	C90	CONDUIT	8.27	0	11:54	2.36	0.11
0.42	C91	CONDUIT	11.64	0	11:54	3.10	0.08

Engineered Turf - 25 Year Results

C8	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00
0.98 0.00								
C80	1.00	0.51	0.01	0.00	0.48	0.00	0.00	0.00
0.98 0.00								
C81	1.00	0.51	0.00	0.00	0.49	0.00	0.00	0.00
0.00 0.00								
C82	1.00	0.51	0.01	0.00	0.48	0.01	0.00	0.00
0.98 0.00								
C83	1.00	0.51	0.00	0.00	0.49	0.00	0.00	0.00
0.00 0.00								
C84	1.00	0.51	0.00	0.00	0.48	0.01	0.00	0.00
0.98 0.00								
C85	1.00	0.51	0.00	0.00	0.49	0.00	0.00	0.00
0.00 0.00								
C86	1.00	0.49	0.02	0.00	0.49	0.00	0.00	0.00
0.98 0.00								
C87	1.00	0.56	0.01	0.00	0.43	0.00	0.00	0.00
0.19 0.00								
C88	1.00	0.55	0.01	0.00	0.44	0.00	0.00	0.00
0.83 0.00								
C89	1.00	0.55	0.00	0.00	0.45	0.00	0.00	0.00
0.98 0.00								
C9	1.00	0.43	0.02	0.00	0.36	0.19	0.00	0.00
0.98 0.00								
C90	1.00	0.53	0.02	0.00	0.45	0.00	0.00	0.00
0.81 0.00								
C91	1.00	0.53	0.01	0.00	0.47	0.00	0.00	0.00
0.98 0.00								
C92	1.00	0.53	0.00	0.00	0.47	0.00	0.00	0.00
0.00 0.00								
C93	1.00	0.53	0.00	0.00	0.21	0.25	0.00	0.00
0.18 0.00								
C94	1.00	0.45	0.08	0.00	0.47	0.00	0.00	0.00
0.98 0.00								
C95	1.00	0.55	0.00	0.00	0.44	0.00	0.00	0.00
0.98 0.00								
C96	1.00	0.55	0.00	0.00	0.45	0.00	0.00	0.00
0.01 0.00								
C97	1.00	0.54	0.01	0.00	0.45	0.00	0.00	0.00
0.22 0.00								
C98	1.00	0.54	0.00	0.00	0.46	0.00	0.00	0.00
0.00 0.00								
C99	1.00	0.53	0.01	0.00	0.46	0.00	0.00	0.00
0.98 0.00								

 Conduit Surcharge Summary

 Hours

Engineered Turf - 25 Year Results

Capacity Conduit Limited	----- Hours Full -----			Above Full
	Both Ends	Upstream	Dnstream	Normal Flow
----- C106	0.01	0.01	0.15	0.01
0.01 C114	0.01	0.01	0.23	0.01
0.01 C6	4.82	4.82	10.03	0.01
0.01 C65	0.01	0.01	0.37	0.01
0.01 C73	0.01	0.01	0.24	0.01
0.01				

Analysis begun on: Thu May 21 13:39:09 2020
 Analysis ended on: Thu May 21 13:39:24 2020
 Total elapsed time: 00:00:15

Engineered Turf - 100 Year Results

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.013)

Final SWMM Model for Georgia Power Plant Hammond Huffaker Road Closure Turf Closure - Includes B/C soils for closure resulting in a 64.5 CN and a 95 CN for closure turf. Concrete lining was added to the channels in the southeastern corner of the site. The structures for both Sediment Pond 1 and Clear Pool 1 have perforations. The starting WSE for Sediment Pond 1 is 643.5 and for Clear Pool 1 is 642.5. Road in the southeastern corner requires 1 to 1.5 feet of fill to raise it for flooding purposes.

WARNING 02: maximum depth increased for Node J12
 WARNING 02: maximum depth increased for Node J19

Element Count

Number of rain gages 5
 Number of subcatchments ... 65
 Number of nodes 140
 Number of links 143
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_0.1in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_100-year_24-hour_7.85in	SCS_Type_II_100-year_24-hour_7.85in	INTENSITY	6 min.
SCS_Type_II_10-year_5.32in	SCS_Type_II_10-year_5.32in	INTENSITY	6 min.
SCS_Type_II_25-year_24-hour_6.29in	SCS_Type_II_25-year_24-hour_6.29in	INTENSITY	6 min.
SCS_Type_II_2-year_24-hour_3.82in	SCS_Type_II_3.82in	INTENSITY	6 min.

Subcatchment Summary

Name Outlet	Area	Width	%Imperv	%Slope	Rain Gage
B2_E	0.60	89.26	0.00	6.8800	
SCS_Type_II_100-year_24-hour_7.85in		J110			
B2_ENE	0.24	69.54	0.00	12.9400	
SCS_Type_II_100-year_24-hour_7.85in		J100			

Engineered Turf - 100 year Results

B2_NE	0.28	70.99	0.00	11.5400
SCS_Type_II_100-year_24-hour_7.85in	J81			
B3_E	0.44	101.99	0.00	10.7400
SCS_Type_II_100-year_24-hour_7.85in	J108			
B3_ENE	0.37	84.08	0.00	9.8400
SCS_Type_II_100-year_24-hour_7.85in	J98			
B3_ESE	0.31	71.44	0.00	10.7400
SCS_Type_II_100-year_24-hour_7.85in	J120			
B3_N	0.50	116.06	0.00	10.5900
SCS_Type_II_100-year_24-hour_7.85in	J76			
B3_NE	0.43	96.10	0.00	9.7400
SCS_Type_II_100-year_24-hour_7.85in	J83			
B3_S	0.54	117.38	0.00	10.2700
SCS_Type_II_100-year_24-hour_7.85in	J31			
B3_SE	0.33	77.75	0.00	10.7700
SCS_Type_II_100-year_24-hour_7.85in	J121			
B3_SW	0.42	91.19	0.00	9.8000
SCS_Type_II_100-year_24-hour_7.85in	J33			
B3_WSW	0.53	97.03	0.00	8.7700
SCS_Type_II_100-year_24-hour_7.85in	J48			
B4_E	0.44	102.00	0.00	10.7000
SCS_Type_II_100-year_24-hour_7.85in	J106			
B4_ENE	0.53	88.48	0.00	7.6600
SCS_Type_II_100-year_24-hour_7.85in	J96			
B4_ESE	0.45	104.70	0.00	10.6700
SCS_Type_II_100-year_24-hour_7.85in	J118			
B4_N	0.49	114.31	0.00	10.6900
SCS_Type_II_100-year_24-hour_7.85in	J74			
B4_NNE	0.58	97.67	0.00	7.7800
SCS_Type_II_100-year_24-hour_7.85in	J85			
B4_S	0.54	116.94	0.00	10.0000
SCS_Type_II_100-year_24-hour_7.85in	J29			
B4_SE	0.45	105.53	0.00	10.6900
SCS_Type_II_100-year_24-hour_7.85in	J123			
B4_SSW	0.66	94.78	0.00	6.2400
SCS_Type_II_100-year_24-hour_7.85in	J35			
B4_SW	0.72	106.88	0.00	6.4700
SCS_Type_II_100-year_24-hour_7.85in	J46			
B4_W	0.70	138.24	0.00	9.1000
SCS_Type_II_100-year_24-hour_7.85in	J53			
B5_E	0.30	65.48	0.00	6.9800
SCS_Type_II_100-year_24-hour_7.85in	J104			
B5_ENE	0.65	59.91	0.00	2.5400
SCS_Type_II_100-year_24-hour_7.85in	J94			
B5_ESE	0.44	69.28	0.00	5.8500
SCS_Type_II_100-year_24-hour_7.85in	J116			
B5_N	0.28	50.04	0.00	2.4300
SCS_Type_II_100-year_24-hour_7.85in	J72			
B5_N2	0.27	51.22	0.00	3.5200
SCS_Type_II_100-year_24-hour_7.85in	J87			
B5_S	0.48	80.29	0.00	5.7300
SCS_Type_II_100-year_24-hour_7.85in	J27			
B5_SE	0.66	125.62	0.00	7.8200
SCS_Type_II_100-year_24-hour_7.85in	J129			

Engineered Turf - 100 year Results

B5_SSE	0.38	66.53	0.00	6.8600
SCS_Type_II_100-year_24-hour_7.85in	J125			
B5_SW	0.72	73.42	0.00	3.2700
SCS_Type_II_100-year_24-hour_7.85in	J37			
B5_W	0.41	58.01	0.00	2.7800
SCS_Type_II_100-year_24-hour_7.85in	J51			
B5_WSW	0.62	82.01	0.00	3.0100
SCS_Type_II_100-year_24-hour_7.85in	J44			
Bench_1_E	0.57	78.39	0.00	3.1500
SCS_Type_II_100-year_24-hour_7.85in	J112			
Bench_1_S	0.75	80.66	0.00	2.2200
SCS_Type_II_100-year_24-hour_7.85in	J32			
Bench_2_N	0.61	84.11	0.00	3.1600
SCS_Type_II_100-year_24-hour_7.85in	J80			
Bench_2_NW	0.58	74.72	0.00	5.6600
SCS_Type_II_100-year_24-hour_7.85in	J78			
Bench_2_S	0.92	110.20	0.00	5.4900
SCS_Type_II_100-year_24-hour_7.85in	J22			
Bench_2_W	1.00	85.76	0.00	5.3000
SCS_Type_II_100-year_24-hour_7.85in	J57			
Bench_3_NW	0.35	80.92	0.00	11.1800
SCS_Type_II_100-year_24-hour_7.85in	J68			
Bench_3_W	0.87	141.03	0.00	5.4100
SCS_Type_II_100-year_24-hour_7.85in	J55			
Bench_4_NW	0.58	77.75	0.00	5.8500
SCS_Type_II_100-year_24-hour_7.85in	J66			
Bench_4_WNW	0.57	113.97	0.00	9.6000
SCS_Type_II_100-year_24-hour_7.85in	J61			
Bench_5_NNW	0.28	55.69	0.00	5.2600
SCS_Type_II_100-year_24-hour_7.85in	J59			
Bench_5_NW	0.22	36.62	0.00	4.4900
SCS_Type_II_100-year_24-hour_7.85in	J64			
Clear1_42	0.74	827.71	0.00	27.0100
SCS_Type_II_100-year_24-hour_7.85in	Clear_Pool1			
D_43	0.60	345.20	0.00	28.4000
SCS_Type_II_100-year_24-hour_7.85in	J11			
D_44	1.14	745.95	0.00	26.9800
SCS_Type_II_100-year_24-hour_7.85in	J10			
D_47	0.52	529.86	0.00	25.5800
SCS_Type_II_100-year_24-hour_7.85in	J9			
D_48	0.38	463.72	0.00	29.0500
SCS_Type_II_100-year_24-hour_7.85in	J8			
D_49	0.41	246.87	0.00	28.2600
SCS_Type_II_100-year_24-hour_7.85in	J13			
D_50	0.07	35.77	0.00	24.8100
SCS_Type_II_100-year_24-hour_7.85in	J20			
D_53	0.46	278.18	0.00	31.0900
SCS_Type_II_100-year_24-hour_7.85in	J19			
D_55	0.48	281.65	0.00	30.0700
SCS_Type_II_100-year_24-hour_7.85in	J18			
D_57	0.34	188.18	0.00	27.8000
SCS_Type_II_100-year_24-hour_7.85in	J17			
D_58	1.10	459.75	0.00	20.4200
SCS_Type_II_100-year_24-hour_7.85in	J16			

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D_60	0.34	294.61	0.00	29.9700
SCS_Type_II_100-year_24-hour_7.85in	J15			
D_62	0.33	298.54	0.00	29.4100
SCS_Type_II_100-year_24-hour_7.85in	J14			
Ditch_18	0.55	312.83	0.00	28.0500
SCS_Type_II_100-year_24-hour_7.85in	J12			
Ditch_61	0.87	300.56	0.00	3.1800
SCS_Type_II_100-year_24-hour_7.85in	J7			
Ditch_63	0.56	108.19	0.00	2.2100
SCS_Type_II_100-year_24-hour_7.85in	J7			
Road_Ditch_Lower	0.26	508.74	0.00	23.2300
SCS_Type_II_100-year_24-hour_7.85in	J136			
Road_Ditch_Middle	0.41	415.00	0.00	33.5600
SCS_Type_II_100-year_24-hour_7.85in	J134			
Road_Ditch_Upper	0.68	318.33	0.00	3.2100
SCS_Type_II_100-year_24-hour_7.85in	J6			
Sed1_41	5.20	2897.24	0.00	12.7900
SCS_Type_II_100-year_24-hour_7.85in	SED_Pond1			

Node Summary

External		Invert	Max.	Ponded
Name	Type	Elev.	Depth	Area

J1	JUNCTION	651.90	3.50	0.0
J10	JUNCTION	666.80	2.00	0.0
J100	JUNCTION	728.00	1.50	0.0
J101	JUNCTION	662.00	1.50	0.0
J102	JUNCTION	673.00	1.50	0.0
J103	JUNCTION	675.00	1.50	0.0
J104	JUNCTION	686.00	1.50	0.0
J105	JUNCTION	688.00	1.50	0.0
J106	JUNCTION	705.00	1.50	0.0
J107	JUNCTION	706.00	1.50	0.0
J108	JUNCTION	723.00	1.50	0.0
J109	JUNCTION	725.00	1.50	0.0
J11	JUNCTION	658.00	2.00	0.0
J110	JUNCTION	742.00	1.50	0.0
J111	JUNCTION	743.00	1.50	0.0
J112	JUNCTION	746.50	1.50	0.0
J113	JUNCTION	661.00	1.50	0.0
J114	JUNCTION	671.00	1.50	0.0
J115	JUNCTION	673.00	1.50	0.0
J116	JUNCTION	686.00	1.50	0.0
J117	JUNCTION	688.00	1.50	0.0
J118	JUNCTION	705.00	1.50	0.0
J119	JUNCTION	706.00	1.50	0.0
J12	JUNCTION	655.70	3.00	0.0
J120	JUNCTION	709.50	1.50	0.0

Engineered Turf - 100 year Results

J121	JUNCTION	709.50	1.50	0.0
J122	JUNCTION	706.00	1.50	0.0
J123	JUNCTION	705.00	1.50	0.0
J124	JUNCTION	688.00	1.50	0.0
J125	JUNCTION	686.00	1.50	0.0
J126	JUNCTION	672.00	1.50	0.0
J127	JUNCTION	671.00	1.50	0.0
J128	JUNCTION	661.00	1.50	0.0
J129	JUNCTION	673.50	1.50	0.0
J13	JUNCTION	652.90	3.00	0.0
J130	JUNCTION	670.00	1.50	0.0
J131	JUNCTION	669.00	1.50	0.0
J132	JUNCTION	661.00	1.50	0.0
J133	JUNCTION	706.00	2.00	0.0
J134	JUNCTION	727.00	2.00	0.0
J135	JUNCTION	680.00	2.00	0.0
J136	JUNCTION	703.00	2.00	0.0
J14	JUNCTION	676.20	2.00	0.0
J15	JUNCTION	670.80	2.00	0.0
J16	JUNCTION	665.90	2.00	0.0
J17	JUNCTION	656.00	2.00	0.0
J18	JUNCTION	654.50	3.00	0.0
J19	JUNCTION	653.00	3.00	0.0
J2	JUNCTION	642.00	5.00	0.0
J20	JUNCTION	652.00	3.50	0.0
J21	JUNCTION	743.00	1.50	0.0
J22	JUNCTION	742.00	1.50	0.0
J23	JUNCTION	725.00	1.50	0.0
J24	JUNCTION	672.00	1.50	0.0
J25	JUNCTION	662.00	1.50	0.0
J26	JUNCTION	674.00	1.50	0.0
J27	JUNCTION	686.00	1.50	0.0
J28	JUNCTION	688.00	1.50	0.0
J29	JUNCTION	705.00	1.50	0.0
J3	JUNCTION	641.35	3.00	0.0
J30	JUNCTION	706.00	1.50	0.0
J31	JUNCTION	723.00	1.50	0.0
J32	JUNCTION	746.50	1.50	0.0
J33	JUNCTION	709.50	1.50	0.0
J34	JUNCTION	706.00	1.50	0.0
J35	JUNCTION	705.00	1.50	0.0
J36	JUNCTION	688.00	1.50	0.0
J37	JUNCTION	686.00	1.50	0.0
J38	JUNCTION	675.00	1.50	0.0
J39	JUNCTION	674.00	1.50	0.0
J4	JUNCTION	643.00	5.00	0.0
J40	JUNCTION	664.00	1.50	0.0
J41	JUNCTION	673.00	1.50	0.0
J42	JUNCTION	677.00	1.50	0.0
J43	JUNCTION	678.00	1.50	0.0
J44	JUNCTION	686.00	1.50	0.0
J45	JUNCTION	688.00	1.50	0.0
J46	JUNCTION	705.00	1.50	0.0
J47	JUNCTION	706.00	1.50	0.0

Engineered Turf - 100 year Results

J48	JUNCTION	709.50	1.50	0.0
J49	JUNCTION	680.00	1.50	0.0
J5	JUNCTION	681.00	2.00	0.0
J50	JUNCTION	681.00	1.50	0.0
J51	JUNCTION	686.00	1.50	0.0
J52	JUNCTION	688.00	1.50	0.0
J53	JUNCTION	705.00	1.50	0.0
J54	JUNCTION	706.00	1.50	0.0
J55	JUNCTION	723.00	1.50	0.0
J56	JUNCTION	725.00	1.50	0.0
J57	JUNCTION	728.00	1.50	0.0
J58	JUNCTION	685.00	1.50	0.0
J59	JUNCTION	686.00	1.50	0.0
J6	JUNCTION	751.00	2.00	0.0
J60	JUNCTION	688.00	1.50	0.0
J61	JUNCTION	691.00	1.50	0.0
J62	JUNCTION	682.00	1.50	0.0
J63	JUNCTION	684.00	1.50	0.0
J64	JUNCTION	686.00	1.50	0.0
J65	JUNCTION	688.00	1.50	0.0
J66	JUNCTION	705.00	1.50	0.0
J67	JUNCTION	706.00	1.50	0.0
J68	JUNCTION	709.50	1.50	0.0
J69	JUNCTION	677.00	1.50	0.0
J7	JUNCTION	683.00	2.00	0.0
J70	JUNCTION	681.00	1.50	0.0
J71	JUNCTION	682.00	1.50	0.0
J72	JUNCTION	686.00	1.50	0.0
J73	JUNCTION	688.00	1.50	0.0
J74	JUNCTION	705.00	1.50	0.0
J75	JUNCTION	706.00	1.50	0.0
J76	JUNCTION	723.00	1.50	0.0
J77	JUNCTION	725.00	1.50	0.0
J78	JUNCTION	742.00	1.50	0.0
J79	JUNCTION	743.00	1.50	0.0
J8	JUNCTION	678.20	2.00	0.0
J80	JUNCTION	746.50	1.50	0.0
J81	JUNCTION	728.00	1.50	0.0
J82	JUNCTION	725.00	1.50	0.0
J83	JUNCTION	723.00	1.50	0.0
J84	JUNCTION	706.00	1.50	0.0
J85	JUNCTION	705.00	1.50	0.0
J86	JUNCTION	688.00	1.50	0.0
J87	JUNCTION	686.00	1.50	0.0
J88	JUNCTION	681.00	1.50	0.0
J89	JUNCTION	679.00	1.50	0.0
J9	JUNCTION	672.70	2.00	0.0
J90	JUNCTION	672.00	1.50	0.0
J91	JUNCTION	663.00	1.50	0.0
J92	JUNCTION	674.00	1.50	0.0
J93	JUNCTION	676.00	1.50	0.0
J94	JUNCTION	686.00	1.50	0.0
J95	JUNCTION	688.00	1.50	0.0
J96	JUNCTION	705.00	1.50	0.0

Engineered Turf - 100 year Results

J97	JUNCTION	706.00	1.50	0.0
J98	JUNCTION	723.00	1.50	0.0
J99	JUNCTION	725.00	1.50	0.0
O1	OUTFALL	641.00	3.00	0.0
O2	OUTFALL	637.00	12.59	0.0
Clear_Pool1	STORAGE	642.00	8.00	0.0
SED_Pond1	STORAGE	642.00	8.00	0.0

Link Summary

Name	From Node	To Node	Type
Length	%Slope	Roughness	

C10	J11	J12	CONDUIT
275.0	0.8363	0.0150	
C100	J107	J106	CONDUIT
37.3	2.6855	0.0780	
C101	J106	J105	CONDUIT
51.2	35.1769	0.0780	
C102	J105	J104	CONDUIT
40.3	4.9714	0.0780	
C103	J104	J103	CONDUIT
33.3	34.9505	0.0780	
C104	J103	J102	CONDUIT
40.3	4.9701	0.0780	
C105	J102	J101	CONDUIT
33.2	35.0685	0.0780	
C106	J101	J18	CONDUIT
29.4	26.3831	0.0780	
C107	J121	J122	CONDUIT
9.9	37.7507	0.0780	
C108	J122	J123	CONDUIT
27.4	3.6588	0.0780	
C109	J123	J124	CONDUIT
51.2	35.1692	0.0780	
C11	J10	J11	CONDUIT
693.7	1.2687	0.0300	
C110	J124	J125	CONDUIT
40.3	4.9726	0.0780	
C111	J125	J126	CONDUIT
42.3	35.1202	0.0780	
C112	J126	J127	CONDUIT
37.3	2.6855	0.0780	
C113	J127	J128	CONDUIT
30.1	35.2101	0.0780	
C114	J128	J13	CONDUIT
35.6	23.3934	0.0780	
C115	J32	J21	CONDUIT
9.9	37.7507	0.0780	
C116	J21	J22	CONDUIT
27.4	3.6588	0.0780	

Engineered Turf - 100 year Results

C117		J22	J23	CONDUIT
51.2	35.1692	0.0780		
C118		J23	J31	CONDUIT
40.3	4.9726	0.0780		
C119		J31	J30	CONDUIT
51.2	35.1692	0.0780		
C12		J9	J10	CONDUIT
352.5	1.6742	0.0300		
C120		J30	J29	CONDUIT
37.3	2.6855	0.0780		
C121		J29	J28	CONDUIT
51.2	35.1692	0.0780		
C122		J28	J27	CONDUIT
40.3	4.9726	0.0780		
C123		J27	J26	CONDUIT
36.2	35.0923	0.0780		
C124		J26	J24	CONDUIT
40.4	4.9615	0.0780		
C125		J24	J25	CONDUIT
31.6	33.3249	0.0780		
C126		J25	J12	CONDUIT
30.4	21.2127	0.0780		
C127		J33	J34	CONDUIT
9.9	37.7942	0.0780		
C128		J34	J35	CONDUIT
27.4	3.6588	0.0780		
C129		J35	J36	CONDUIT
51.2	35.1692	0.0780		
C13		J8	J9	CONDUIT
316.4	1.7385	0.0300		
C130		J36	J37	CONDUIT
40.3	4.9726	0.0780		
C131		J37	J38	CONDUIT
33.2	35.0685	0.0780		
C132		J38	J39	CONDUIT
37.3	2.6834	0.0780		
C133		J39	J40	CONDUIT
31.1	33.9577	0.0780		
C134		J40	J11	CONDUIT
29.4	20.8174	0.0780		
C135		J134	J133	CONDUIT
262.4	8.0273	0.0690		
C136		J7	J135	CONDUIT
135.1	2.2212	0.0300		
C137		J5	J135	CONDUIT
19.2	5.2280	0.0690		
C138		J135	J14	CONDUIT
170.9	2.2238	0.0300		
C139		J133	J136	CONDUIT
37.7	7.9807	0.0100		
C14		J136	J5	CONDUIT
213.4	10.3625	0.0690		
C15		J14	J15	CONDUIT
251.3	2.1489	0.0300		

Engineered Turf - 100 year Results

C16		J15	J16	CONDUIT
225.0	2.1781	0.0300		
C17		J16	J17	CONDUIT
605.8	1.6343	0.0300		
C18		J17	J18	CONDUIT
174.9	0.8577	0.0150		
C19		J18	J19	CONDUIT
250.1	0.5997	0.0150		
C2		SED_Pond1	Clear_Pool1	CONDUIT
8.0	0.1250	0.0150		
C20		J19	J20	CONDUIT
256.1	0.3904	0.0150		
C21		J20	J1	CONDUIT
46.6	0.2147	0.0150		
C22		J13	J1	CONDUIT
220.6	0.4533	0.0150		
C23		J68	J67	CONDUIT
10.0	37.3632	0.0780		
C24		J67	J66	CONDUIT
27.4	3.6588	0.0780		
C25		J66	J65	CONDUIT
51.2	35.1692	0.0780		
C26		J65	J64	CONDUIT
39.5	5.0659	0.0780		
C27		J64	J63	CONDUIT
4.1	55.7017	0.0780		
C28		J63	J62	CONDUIT
39.4	5.0892	0.0780		
C29		J62	J14	CONDUIT
30.5	19.3567	0.0780		
C3		Clear_Pool1	O2	CONDUIT
13.0	3.1554	0.0150		
C30		J80	J79	CONDUIT
10.0	37.3632	0.0780		
C31		J79	J78	CONDUIT
27.4	3.6588	0.0780		
C32		J78	J77	CONDUIT
51.2	35.1692	0.0780		
C33		J77	J76	CONDUIT
40.3	4.9726	0.0780		
C34		J76	J75	CONDUIT
51.2	35.1692	0.0780		
C35		J75	J74	CONDUIT
37.3	2.6855	0.0780		
C36		J74	J73	CONDUIT
51.2	35.1692	0.0780		
C37		J73	J72	CONDUIT
40.3	4.9689	0.0780		
C38		J72	J71	CONDUIT
12.2	34.7053	0.0780		
C39		J71	J70	CONDUIT
37.3	2.6848	0.0780		
C4		J2	J3	CONDUIT
65.0	1.0001	0.0220		

Engineered Turf - 100 year Results

C40		J70	J69	CONDUIT
12.2	34.6099	0.0780		
C41		J69	J15	CONDUIT
28.0	22.7065	0.0780		
C42		J90	J16	CONDUIT
28.8	21.6723	0.0780		
C43		J89	J90	CONDUIT
20.9	35.6226	0.0780		
C44		J88	J89	CONDUIT
40.3	4.9689	0.0780		
C45		J87	J88	CONDUIT
15.3	34.6290	0.0780		
C46		J86	J87	CONDUIT
40.3	4.9689	0.0780		
C47		J85	J86	CONDUIT
51.2	35.1692	0.0780		
C48		J81	J82	CONDUIT
8.5	37.7217	0.0780		
C49		J82	J83	CONDUIT
30.3	6.6217	0.0780		
C5		J3	O1	CONDUIT
28.0	1.2501	0.0230		
C50		J83	J84	CONDUIT
51.2	35.1692	0.0780		
C51		J84	J85	CONDUIT
37.3	2.6855	0.0780		
C52		J100	J99	CONDUIT
8.5	37.7217	0.0780		
C53		J99	J98	CONDUIT
30.3	6.6217	0.0780		
C54		J98	J97	CONDUIT
51.2	35.1692	0.0780		
C55		J97	J96	CONDUIT
37.3	2.6855	0.0780		
C56		J96	J95	CONDUIT
51.2	35.1692	0.0780		
C57		J95	J94	CONDUIT
40.3	4.9714	0.0780		
C58		J94	J93	CONDUIT
30.2	35.0792	0.0780		
C59		J93	J92	CONDUIT
40.3	4.9714	0.0780		
C6		J4	Clear_Pool1	CONDUIT
50.0	0.6000	0.0220		
C60		J92	J91	CONDUIT
33.2	35.1517	0.0780		
C61		J91	J17	CONDUIT
28.5	25.3660	0.0780		
C62		J129	J130	CONDUIT
9.8	38.1467	0.0780		
C63		J130	J131	CONDUIT
27.8	3.6059	0.0780		
C64		J131	J132	CONDUIT
37.6	21.7873	0.0780		

Engineered Turf - 100 year Results

C65		J132	J20	CONDUIT
34.7	26.8805	0.0780		
C66		J120	J119	CONDUIT
10.0	37.3632	0.0780		
C67		J119	J118	CONDUIT
27.4	3.6588	0.0780		
C68		J118	J117	CONDUIT
51.2	35.1692	0.0780		
C69		J117	J116	CONDUIT
40.3	4.9714	0.0780		
C7		J7	J8	CONDUIT
299.8	1.6015	0.0300		
C70		J116	J115	CONDUIT
39.3	35.0923	0.0780		
C71		J115	J114	CONDUIT
40.4	4.9603	0.0780		
C72		J114	J113	CONDUIT
32.1	32.8180	0.0780		
C73		J113	J19	CONDUIT
31.4	26.3113	0.0780		
C74		J61	J60	CONDUIT
8.5	37.7217	0.0780		
C75		J60	J59	CONDUIT
30.3	6.6085	0.0780		
C76		J59	J58	CONDUIT
3.1	34.2031	0.0780		
C77		J58	J8	CONDUIT
65.6	10.4204	0.0780		
C78		J57	J56	CONDUIT
8.5	37.7217	0.0780		
C79		J56	J55	CONDUIT
30.3	6.6217	0.0780		
C8		J6	J134	CONDUIT
296.6	8.1176	0.0690		
C80		J55	J54	CONDUIT
51.2	35.1692	0.0780		
C81		J54	J53	CONDUIT
37.3	2.6855	0.0780		
C82		J53	J52	CONDUIT
51.2	35.1769	0.0780		
C83		J52	J51	CONDUIT
40.3	4.9677	0.0780		
C84		J51	J50	CONDUIT
15.3	34.5278	0.0780		
C85		J50	J49	CONDUIT
21.8	4.5836	0.0780		
C86		J49	J9	CONDUIT
46.6	15.8506	0.0780		
C87		J48	J47	CONDUIT
9.9	37.7507	0.0780		
C88		J47	J46	CONDUIT
27.4	3.6588	0.0780		
C89		J46	J45	CONDUIT
51.2	35.1769	0.0780		

Engineered Turf - 100 year Results

C9		J12	J13	CONDUIT
250.2	1.1192	0.0150		
C90		J45	J44	CONDUIT
40.3	4.9714	0.0780		
C91		J44	J43	CONDUIT
24.2	35.0760	0.0780		
C92		J43	J42	CONDUIT
35.9	2.7858	0.0780		
C93		J42	J41	CONDUIT
13.5	30.9975	0.0780		
C94		J41	J10	CONDUIT
28.4	22.3375	0.0780		
C95		J112	J111	CONDUIT
9.9	37.7507	0.0780		
C96		J111	J110	CONDUIT
27.4	3.6588	0.0780		
C97		J110	J109	CONDUIT
51.2	35.1692	0.0780		
C98		J109	J108	CONDUIT
40.3	4.9726	0.0780		
C99		J108	J107	CONDUIT
51.2	35.1692	0.0780		
C1		J1	SED_Pond1	WEIR
OL1		SED_Pond1	J4	OUTLET
OL2		Clear_Pool1	J2	OUTLET
OR_1		Clear_Pool1	J2	OUTLET
W1		SED_Pond1	J4	OUTLET

 Cross Section Summary

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

1	166.95	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	55.76	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.77	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	75.86	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.32	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	75.85	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	138.56	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	174.76	TRAPEZOIDAL	1.50	19.50	0.88	22.00

Engineered Turf - 100 year Results

	C107	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C108	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C109	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C11	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	102.81					
	C110	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C111	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.66					
	C112	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C113	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.84					
	C114	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	164.56					
	C115	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C116	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C117	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C118	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C119	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C12	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	118.11					
	C120	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C121	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C122	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C123	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.60					
	C124	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.79					
	C125	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	135.07					
	C126	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	156.70					
	C127	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.84					
	C128	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C129	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C13	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	120.36					
	C130	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					

Engineered Turf - 100 year Results

	C131	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.56					
	C132	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.73					
	C133	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	136.34					
	C134	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	155.24					
	C135	RoadsideDitch	2.00	10.00	0.92	10.00
1	57.82					
	C136	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	136.04					
	C137	RoadsideDitch	2.00	10.00	0.92	10.00
1	46.66					
	C138	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	136.12					
	C139	CIRCULAR	1.00	0.79	0.25	1.00
1	13.08					
	C14	RoadsideDitch	2.00	10.00	0.92	10.00
1	65.70					
	C15	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	133.81					
	C16	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	134.71					
	C17	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	116.69					
	C18	TRAPEZOIDAL	2.00	16.00	1.24	12.00
1	169.07					
	C19	TRAPEZOIDAL	3.00	30.00	1.72	16.00
1	330.73					
	C2	TRAPEZOIDAL	1.50	36.75	1.25	29.00
1	149.07					
	C20	TRAPEZOIDAL	3.00	30.00	1.72	16.00
1	266.84					
	C21	TRAPEZOIDAL	3.50	38.50	1.96	18.00
1	276.71					
	C22	TRAPEZOIDAL	3.00	30.00	1.72	16.00
1	287.54					
	C23	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
	C24	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C25	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C26	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	76.58					
	C27	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	174.62					
	C28	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	76.76					
	C29	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	149.69					
	C3	TRAPEZOIDAL	2.00	52.00	1.59	32.00
1	1248.00					

Engineered Turf - 100 year Results

	C30	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.02					
	C31	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C32	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C33	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C34	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C35	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C36	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C37	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C38	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.84					
	C39	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.75					
	C4	CIRCULAR	3.00	7.07	0.75	3.00
1	39.41					
	C40	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.65					
	C41	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	162.13					
	C42	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	158.39					
	C43	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	139.65					
	C44	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C45	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.69					
	C46	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.84					
	C47	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C48	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
	C49	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					
	C5	TRAPEZOIDAL	3.00	45.00	2.01	21.00
1	517.30					
	C50	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C51	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C52	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.70					
	C53	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	87.55					
	C54	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					

Engineered Turf - 100 year Results

1	C55	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	55.76					
1	C56	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.76					
1	C57	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	75.86					
1	C58	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.58					
1	C59	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	75.86					
1	C6	CIRCULAR	3.00	7.07	0.75	3.00
	30.53					
1	C60	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.72					
1	C61	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	171.36					
1	C62	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	144.51					
1	C63	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	64.61					
1	C64	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	109.21					
1	C65	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	176.40					
1	C66	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	143.02					
1	C67	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	65.08					
1	C68	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.76					
1	C69	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	75.86					
1	C7	TRAPEZOIDAL	2.00	16.00	1.24	12.00
	115.52					
1	C70	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	138.60					
1	C71	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	75.78					
1	C72	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	134.04					
1	C73	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	174.52					
1	C74	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	143.70					
1	C75	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	87.47					
1	C76	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	136.84					
1	C77	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	109.83					
1	C78	TRAPEZOIDAL	1.50	12.75	0.95	13.00
	143.70					
1	C79	TRAPEZOIDAL	1.50	19.50	0.88	22.00
	87.55					

Engineered Turf - 100 year Results

	C8	RoadsideDitch	2.00	10.00	0.92	10.00
1	58.15					
	C80	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C81	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	55.76					
	C82	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.77					
	C83	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.83					
	C84	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	137.48					
	C85	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	72.84					
	C86	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	135.46					
	C87	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C88	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C89	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.77					
	C9	TRAPEZOIDAL	3.00	30.00	1.72	16.00
1	451.79					
	C90	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.86					
	C91	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.57					
	C92	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	56.79					
	C93	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	130.27					
	C94	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	160.81					
	C95	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	143.76					
	C96	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	65.08					
	C97	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					
	C98	TRAPEZOIDAL	1.50	19.50	0.88	22.00
1	75.87					
	C99	TRAPEZOIDAL	1.50	12.75	0.95	13.00
1	138.76					

 Transect Summary

Transect RoadsideDitch

Area:

0.0004 0.0016 0.0036 0.0064 0.0100

Engineered Turf - 100 year Results

	0.0144	0.0196	0.0256	0.0324	0.0400
	0.0484	0.0576	0.0676	0.0784	0.0900
	0.1024	0.1156	0.1296	0.1444	0.1600
	0.1764	0.1936	0.2116	0.2304	0.2500
	0.2704	0.2916	0.3136	0.3364	0.3600
	0.3844	0.4096	0.4356	0.4624	0.4900
	0.5184	0.5476	0.5776	0.6084	0.6400
	0.6724	0.7056	0.7396	0.7744	0.8100
	0.8464	0.8836	0.9216	0.9604	1.0000
Hrad:					
	0.0200	0.0400	0.0600	0.0800	0.1000
	0.1200	0.1400	0.1600	0.1800	0.2000
	0.2200	0.2400	0.2600	0.2800	0.3000
	0.3200	0.3400	0.3600	0.3800	0.4000
	0.4200	0.4400	0.4600	0.4800	0.5000
	0.5200	0.5400	0.5600	0.5800	0.6000
	0.6200	0.6400	0.6600	0.6800	0.7000
	0.7200	0.7400	0.7600	0.7800	0.8000
	0.8200	0.8400	0.8600	0.8800	0.9000
	0.9200	0.9400	0.9600	0.9800	1.0000
Width:					
	0.0200	0.0400	0.0600	0.0800	0.1000
	0.1200	0.1400	0.1600	0.1800	0.2000
	0.2200	0.2400	0.2600	0.2800	0.3000
	0.3200	0.3400	0.3600	0.3800	0.4000
	0.4200	0.4400	0.4600	0.4800	0.5000
	0.5200	0.5400	0.5600	0.5800	0.6000
	0.6200	0.6400	0.6600	0.6800	0.7000
	0.7200	0.7400	0.7600	0.7800	0.8000
	0.8200	0.8400	0.8600	0.8800	0.9000
	0.9200	0.9400	0.9600	0.9800	1.0000

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

Analysis Options

Flow Units CFS

Process Models:

Rainfall/Runoff YES

RDII NO

Snowmelt NO

Groundwater NO

Flow Routing YES

Ponding Allowed NO

Water Quality NO

Infiltration Method CURVE_NUMBER

Flow Routing Method DYNWAVE

Surcharge Method EXTRAN

Engineered Turf - 100 year Results

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Starting Date ..... 01/01/2020 00:00:00
Ending Date ..... 01/08/2020 00:00:00
Antecedent Dry Days ..... 0.0
Report Time Step ..... 00:01:00
Wet Time Step ..... 00:05:00
Dry Time Step ..... 00:05:00
Routing Time Step ..... 5.00 sec
Variable Time Step ..... YES
Maximum Trials ..... 8
Number of Threads ..... 4
Head Tolerance ..... 0.005000 ft
  
```

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	25.196	7.850
Evaporation Loss	0.000	0.000
Infiltration Loss	2.515	0.783
Surface Runoff	22.571	7.032
Final Storage	0.160	0.050
Continuity Error (%)	-0.197	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	22.588	7.361
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	23.112	7.531
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.943	0.307
Final Stored Volume	0.419	0.137
Continuity Error (%)	-0.002	

```

*****
Time-Step Critical Elements
*****
Link C76 (39.67%)
Link C5 (5.97%)
Link C6 (5.47%)
  
```

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*****
Highest Flow Instability Indexes
*****
Link C4 (12)
Link OL2 (9)
  
```

Engineered Turf - 100 year Results

Link OL1 (6)
 Link C5 (6)
 Link C6 (2)

 Routing Time Step Summary

Minimum Time Step : 0.50 sec
 Average Time Step : 3.33 sec
 Maximum Time Step : 5.00 sec
 Percent in Steady State : 0.00
 Average Iterations per Step : 2.00
 Percent Not Converging : 0.00

 Subcatchment Runoff Summary

		Total		Total	Total	Total	Total
Imperv	Perv	Total	Total	Peak	Runoff		Total
Runoff	Runoff	Runoff	Runoff	Runoff	Evap		Infil
Subcatchment	Subcatchment	Precip	Runon	Runoff	Coeff		in
in	in	in	10^6 gal	in	in		in
B2_E		7.85	0.00	0.00			0.53
0.00	7.29	7.29	0.12	5.03	0.928		
B2_ENE		7.85	0.00	0.00			0.53
0.00	7.30	7.30	0.05	2.41	0.929		
B2_NE		7.85	0.00	0.00			0.52
0.00	7.30	7.30	0.06	2.76	0.930		
B3_E		7.85	0.00	0.00			0.54
0.00	7.28	7.28	0.09	4.20	0.928		
B3_ENE		7.85	0.00	0.00			0.54
0.00	7.28	7.28	0.07	3.54	0.928		
B3_ESE		7.85	0.00	0.00			0.52
0.00	7.30	7.30	0.06	2.94	0.930		
B3_N		7.85	0.00	0.00			0.53
0.00	7.29	7.29	0.10	4.83	0.929		
B3_NE		7.85	0.00	0.00			0.54
0.00	7.28	7.28	0.09	4.08	0.928		
B3_S		7.85	0.00	0.00			0.53
0.00	7.29	7.29	0.11	5.11	0.929		
B3_SE		7.85	0.00	0.00			0.52
0.00	7.30	7.30	0.07	3.20	0.930		
B3_SW		7.85	0.00	0.00			0.51
0.00	7.31	7.31	0.08	3.95	0.931		
B3_WSW		7.85	0.00	0.00			0.51
0.00	7.31	7.31	0.11	4.84	0.931		

Engineered Turf - 100 year Results

B4_E			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.09	4.21	0.929	
B4_ENE			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.10	4.65	0.928	
B4_ESE			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.09	4.33	0.929	
B4_N			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.10	4.73	0.929	
B4_NNE			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.11	5.08	0.928	
B4_S			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.11	5.09	0.929	
B4_SE			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.09	4.36	0.929	
B4_SSW			7.85	0.00	0.00	0.52
0.00	7.30	7.30	0.13	5.46	0.929	
B4_SW			7.85	0.00	0.00	0.52
0.00	7.30	7.30	0.14	6.02	0.929	
B4_W			7.85	0.00	0.00	0.52
0.00	7.30	7.30	0.14	6.46	0.930	
B5_E			7.85	0.00	0.00	0.54
0.00	7.28	7.28	0.06	2.77	0.927	
B5_ENE			7.85	0.00	0.00	0.52
0.00	7.28	7.28	0.13	4.31	0.928	
B5_ESE			7.85	0.00	0.00	0.52
0.00	7.30	7.30	0.09	3.66	0.929	
B5_N			7.85	0.00	0.00	0.53
0.00	7.28	7.28	0.06	2.16	0.928	
B5_N2			7.85	0.00	0.00	0.52
0.00	7.29	7.29	0.05	2.24	0.929	
B5_S			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.10	4.09	0.928	
B5_SE			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.13	6.00	0.929	
B5_SSE			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.07	3.32	0.928	
B5_SW			7.85	0.00	0.00	0.52
0.00	7.29	7.29	0.14	5.06	0.928	
B5_W			7.85	0.00	0.00	0.52
0.00	7.29	7.29	0.08	3.00	0.929	
B5_WSW			7.85	0.00	0.00	0.52
0.00	7.29	7.29	0.12	4.57	0.929	
Bench_1_E			7.85	0.00	0.00	0.73
0.00	7.08	7.08	0.11	4.16	0.902	
Bench_1_S			7.85	0.00	0.00	0.74
0.00	7.07	7.07	0.14	5.01	0.900	
Bench_2_N			7.85	0.00	0.00	0.62
0.00	7.19	7.19	0.12	4.49	0.916	
Bench_2_NW			7.85	0.00	0.00	0.53
0.00	7.28	7.28	0.11	4.55	0.928	
Bench_2_S			7.85	0.00	0.00	0.52
0.00	7.29	7.29	0.18	7.07	0.929	
Bench_2_W			7.85	0.00	0.00	0.52
0.00	7.29	7.29	0.20	7.14	0.928	

Engineered Turf - 100 year Results

Bench_3_NW			7.85	0.00	0.00	0.52
0.00	7.30	7.30	0.07	3.37	0.930	
Bench_3_W			7.85	0.00	0.00	0.52
0.00	7.30	7.30	0.17	7.26	0.929	
Bench_4_NW			7.85	0.00	0.00	0.53
0.00	7.28	7.28	0.11	4.65	0.928	
Bench_4_WNW			7.85	0.00	0.00	0.51
0.00	7.31	7.31	0.11	5.33	0.931	
Bench_5_NNW			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.06	2.45	0.928	
Bench_5_NW			7.85	0.00	0.00	0.53
0.00	7.29	7.29	0.04	1.78	0.928	
Clear1_42			7.85	0.00	0.00	1.55
0.00	6.26	6.26	0.13	7.20	0.797	
D_43			7.85	0.00	0.00	1.30
0.00	6.52	6.52	0.11	5.92	0.831	
D_44			7.85	0.00	0.00	0.67
0.00	7.15	7.15	0.22	12.04	0.911	
D_47			7.85	0.00	0.00	1.35
0.00	6.46	6.46	0.09	5.21	0.823	
D_48			7.85	0.00	0.00	1.44
0.00	6.36	6.36	0.07	3.77	0.811	
D_49			7.85	0.00	0.00	1.39
0.00	6.43	6.43	0.07	4.05	0.819	
D_50			7.85	0.00	0.00	1.74
0.00	6.08	6.08	0.01	0.68	0.774	
D_53			7.85	0.00	0.00	1.42
0.00	6.40	6.40	0.08	4.54	0.815	
D_55			7.85	0.00	0.00	1.11
0.00	6.71	6.71	0.09	4.91	0.855	
D_57			7.85	0.00	0.00	1.16
0.00	6.66	6.66	0.06	3.48	0.849	
D_58			7.85	0.00	0.00	1.21
0.00	6.61	6.61	0.20	10.80	0.842	
D_60			7.85	0.00	0.00	1.32
0.00	6.49	6.49	0.06	3.38	0.827	
D_62			7.85	0.00	0.00	1.42
0.00	6.40	6.40	0.06	3.27	0.815	
Ditch_18			7.85	0.00	0.00	1.27
0.00	6.55	6.55	0.10	5.49	0.834	
Ditch_61			7.85	0.00	0.00	0.95
0.00	6.86	6.86	0.16	7.76	0.874	
Ditch_63			7.85	0.00	0.00	1.80
0.00	6.01	6.01	0.09	3.72	0.765	
Road_Ditch_Lower			7.85	0.00	0.00	0.87
0.00	6.94	6.94	0.05	2.76	0.884	
Road_Ditch_Middle			7.85	0.00	0.00	0.73
0.00	7.08	7.08	0.08	4.29	0.903	
Road_Ditch_Upper			7.85	0.00	0.00	0.83
0.00	6.99	6.99	0.13	6.50	0.891	
Sed1_41			7.85	0.00	0.00	1.09
0.00	6.73	6.73	0.95	52.06	0.857	

Engineered Turf - 100 year Results

Node Depth Summary

Reported Max Depth Node Feet	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min
3.24	JUNCTION	0.16	3.24	655.14	0 11:59
1.67	JUNCTION	0.11	1.67	668.47	0 11:56
0.16	JUNCTION	0.01	0.16	728.16	0 11:54
0.54	JUNCTION	0.04	0.54	662.54	0 11:55
0.57	JUNCTION	0.03	0.57	673.57	0 11:55
0.88	JUNCTION	0.07	0.88	675.88	0 11:55
0.56	JUNCTION	0.03	0.56	686.56	0 11:54
0.83	JUNCTION	0.07	0.83	688.83	0 11:54
0.51	JUNCTION	0.03	0.51	705.51	0 11:54
0.90	JUNCTION	0.07	0.90	706.90	0 11:54
0.44	JUNCTION	0.03	0.44	723.44	0 11:54
0.61	JUNCTION	0.05	0.61	725.61	0 11:54
1.45	JUNCTION	0.10	1.45	659.45	0 11:57
0.36	JUNCTION	0.02	0.36	742.36	0 11:54
0.44	JUNCTION	0.03	0.44	743.44	0 12:00
0.23	JUNCTION	0.01	0.23	746.73	0 12:00
0.40	JUNCTION	0.02	0.40	661.40	0 11:54
0.41	JUNCTION	0.02	0.41	671.41	0 11:54
0.68	JUNCTION	0.05	0.68	673.68	0 11:54
0.40	JUNCTION	0.02	0.40	686.40	0 11:54

Engineered Turf - 100 year Results

J117	JUNCTION	0.04	0.55	688.55	0	11:54
0.54						
J118	JUNCTION	0.02	0.32	705.32	0	11:54
0.32						
J119	JUNCTION	0.02	0.35	706.35	0	11:54
0.35						
J12	JUNCTION	0.10	1.56	657.26	0	11:57
1.56						
J120	JUNCTION	0.01	0.19	709.69	0	11:54
0.19						
J121	JUNCTION	0.01	0.19	709.69	0	11:54
0.19						
J122	JUNCTION	0.02	0.37	706.37	0	11:54
0.37						
J123	JUNCTION	0.02	0.32	705.32	0	11:54
0.32						
J124	JUNCTION	0.04	0.56	688.56	0	11:54
0.56						
J125	JUNCTION	0.02	0.40	686.40	0	11:54
0.39						
J126	JUNCTION	0.07	0.85	672.85	0	11:54
0.85						
J127	JUNCTION	0.02	0.40	671.40	0	11:54
0.40						
J128	JUNCTION	0.03	0.41	661.41	0	11:54
0.41						
J129	JUNCTION	0.02	0.28	673.78	0	11:54
0.28						
J13	JUNCTION	0.15	2.38	655.28	0	11:59
2.38						
J130	JUNCTION	0.04	0.57	670.57	0	11:54
0.57						
J131	JUNCTION	0.02	0.34	669.34	0	11:54
0.33						
J132	JUNCTION	0.02	0.29	661.29	0	11:54
0.29						
J133	JUNCTION	0.04	0.67	706.67	0	11:55
0.67						
J134	JUNCTION	0.13	1.14	728.14	0	11:54
1.14						
J135	JUNCTION	0.04	0.71	680.71	0	11:56
0.71						
J136	JUNCTION	0.11	1.09	704.09	0	11:55
1.08						
J14	JUNCTION	0.06	0.95	677.15	0	11:56
0.95						
J15	JUNCTION	0.08	1.26	672.06	0	11:56
1.26						
J16	JUNCTION	0.11	1.64	667.54	0	11:56
1.64						
J17	JUNCTION	0.10	1.54	657.54	0	11:56
1.54						
J18	JUNCTION	0.12	1.90	656.40	0	11:57
1.90						

Engineered Turf - 100 year Results

J19	JUNCTION	0.15	2.36	655.36	0	11:59
2.36						
J2	JUNCTION	0.43	0.98	642.98	0	18:17
0.98						
J20	JUNCTION	0.18	3.15	655.15	0	11:59
3.15						
J21	JUNCTION	0.04	0.46	743.46	0	12:00
0.46						
J22	JUNCTION	0.03	0.42	742.42	0	12:00
0.42						
J23	JUNCTION	0.06	0.70	725.70	0	12:00
0.70						
J24	JUNCTION	0.04	0.65	672.65	0	11:55
0.65						
J25	JUNCTION	0.05	0.65	662.65	0	11:55
0.65						
J26	JUNCTION	0.09	0.98	674.98	0	11:55
0.98						
J27	JUNCTION	0.04	0.64	686.64	0	11:55
0.64						
J28	JUNCTION	0.08	0.91	688.91	0	11:55
0.91						
J29	JUNCTION	0.04	0.58	705.58	0	11:54
0.58						
J3	JUNCTION	0.12	0.31	641.66	0	19:05
0.31						
J30	JUNCTION	0.09	0.99	706.99	0	11:55
0.99						
J31	JUNCTION	0.03	0.50	723.50	0	11:54
0.50						
J32	JUNCTION	0.02	0.25	746.75	0	12:00
0.25						
J33	JUNCTION	0.01	0.22	709.72	0	11:54
0.22						
J34	JUNCTION	0.03	0.41	706.41	0	11:54
0.41						
J35	JUNCTION	0.02	0.37	705.37	0	11:54
0.37						
J36	JUNCTION	0.04	0.62	688.62	0	11:54
0.61						
J37	JUNCTION	0.03	0.46	686.46	0	11:54
0.46						
J38	JUNCTION	0.08	0.94	675.94	0	11:54
0.94						
J39	JUNCTION	0.03	0.47	674.47	0	11:54
0.47						
J4	JUNCTION	1.19	3.92	646.92	0	19:47
3.92						
J40	JUNCTION	0.03	0.48	664.48	0	11:55
0.48						
J41	JUNCTION	0.03	0.50	673.50	0	11:54
0.50						
J42	JUNCTION	0.03	0.51	677.51	0	11:54
0.51						

Engineered Turf - 100 year Results

J43	JUNCTION	0.08	0.96	678.96	0	11:54
0.96						
J44	JUNCTION	0.03	0.48	686.48	0	11:54
0.48						
J45	JUNCTION	0.05	0.66	688.66	0	11:54
0.66						
J46	JUNCTION	0.02	0.40	705.40	0	11:54
0.40						
J47	JUNCTION	0.03	0.46	706.46	0	11:54
0.46						
J48	JUNCTION	0.01	0.25	709.75	0	11:54
0.25						
J49	JUNCTION	0.05	0.66	680.66	0	11:55
0.66						
J5	JUNCTION	0.15	1.25	682.25	0	11:55
1.25						
J50	JUNCTION	0.08	0.94	681.94	0	11:54
0.94						
J51	JUNCTION	0.04	0.61	686.61	0	11:54
0.61						
J52	JUNCTION	0.08	0.89	688.89	0	11:54
0.89						
J53	JUNCTION	0.04	0.56	705.56	0	11:54
0.56						
J54	JUNCTION	0.08	0.92	706.92	0	12:00
0.92						
J55	JUNCTION	0.03	0.46	723.46	0	11:54
0.46						
J56	JUNCTION	0.04	0.46	725.46	0	12:00
0.46						
J57	JUNCTION	0.02	0.31	728.31	0	12:00
0.31						
J58	JUNCTION	0.03	0.43	685.43	0	11:54
0.42						
J59	JUNCTION	0.02	0.33	686.33	0	11:54
0.33						
J6	JUNCTION	0.09	0.87	751.87	0	11:54
0.87						
J60	JUNCTION	0.03	0.42	688.42	0	11:54
0.42						
J61	JUNCTION	0.01	0.26	691.26	0	11:54
0.26						
J62	JUNCTION	0.03	0.41	682.41	0	11:54
0.41						
J63	JUNCTION	0.05	0.64	684.64	0	11:54
0.64						
J64	JUNCTION	0.02	0.33	686.33	0	11:54
0.33						
J65	JUNCTION	0.05	0.59	688.59	0	11:54
0.59						
J66	JUNCTION	0.02	0.34	705.34	0	11:54
0.33						
J67	JUNCTION	0.02	0.38	706.38	0	11:54
0.38						

Engineered Turf - 100 year Results

J68	JUNCTION	0.01	0.20	709.70	0	11:54
0.20						
J69	JUNCTION	0.04	0.57	677.57	0	11:55
0.57						
J7	JUNCTION	0.02	0.38	683.38	0	11:54
0.37						
J70	JUNCTION	0.04	0.57	681.57	0	11:55
0.57						
J71	JUNCTION	0.10	1.09	683.09	0	11:55
1.09						
J72	JUNCTION	0.04	0.56	686.56	0	11:55
0.56						
J73	JUNCTION	0.07	0.85	688.85	0	11:54
0.85						
J74	JUNCTION	0.03	0.53	705.53	0	11:54
0.53						
J75	JUNCTION	0.08	0.92	706.92	0	11:54
0.92						
J76	JUNCTION	0.03	0.45	723.45	0	11:54
0.45						
J77	JUNCTION	0.05	0.60	725.60	0	12:00
0.60						
J78	JUNCTION	0.02	0.36	742.36	0	11:54
0.36						
J79	JUNCTION	0.04	0.46	743.46	0	12:00
0.46						
J8	JUNCTION	0.04	0.70	678.90	0	11:55
0.70						
J80	JUNCTION	0.02	0.24	746.74	0	12:00
0.24						
J81	JUNCTION	0.01	0.18	728.18	0	11:54
0.18						
J82	JUNCTION	0.02	0.28	725.28	0	11:54
0.28						
J83	JUNCTION	0.02	0.31	723.31	0	11:54
0.31						
J84	JUNCTION	0.04	0.66	706.66	0	11:54
0.65						
J85	JUNCTION	0.02	0.42	705.42	0	11:54
0.42						
J86	JUNCTION	0.05	0.70	688.70	0	11:54
0.70						
J87	JUNCTION	0.03	0.46	686.46	0	11:54
0.46						
J88	JUNCTION	0.06	0.76	681.76	0	11:54
0.76						
J89	JUNCTION	0.03	0.46	679.46	0	11:54
0.46						
J9	JUNCTION	0.08	1.21	673.91	0	11:56
1.21						
J90	JUNCTION	0.03	0.48	672.48	0	11:54
0.48						
J91	JUNCTION	0.03	0.47	663.47	0	11:55
0.47						

Engineered Turf - 100 year Results

J92	JUNCTION	0.03	0.48	674.48	0	11:55
0.48						
J93	JUNCTION	0.07	0.77	676.77	0	11:55
0.77						
J94	JUNCTION	0.03	0.47	686.47	0	11:54
0.47						
J95	JUNCTION	0.05	0.66	688.66	0	11:54
0.65						
J96	JUNCTION	0.02	0.39	705.39	0	11:54
0.39						
J97	JUNCTION	0.04	0.61	706.61	0	11:54
0.61						
J98	JUNCTION	0.02	0.28	723.28	0	11:54
0.28						
J99	JUNCTION	0.01	0.26	725.26	0	11:54
0.26						
O1	OUTFALL	0.11	0.31	641.31	0	15:45
0.31						
O2	OUTFALL	0.00	0.00	637.00	0	00:00
0.00						
Clear_Pool1	STORAGE	1.71	4.89	646.89	0	19:49
4.89						
SED_Pond1	STORAGE	2.82	6.06	648.06	0	14:15
6.06						

Node Inflow Summary

Lateral	Total	Flow	Maximum	Maximum		
Inflow	Inflow	Balance	Lateral	Total	Time of Max	
Volume	Volume	Error	Inflow	Inflow	Occurrence	
Node	Volume	Type	CFS	CFS	days	hr:min
gal	10^6 gal	Percent				10^6

J1		JUNCTION	0.00	260.86	0	11:58
0	6.28	0.003				
J10		JUNCTION	12.04	69.72	0	11:55
0.222	1.63	-0.006				
J100		JUNCTION	2.41	2.41	0	11:54
0.0477	0.0477	-0.001				
J101		JUNCTION	0.00	19.94	0	11:55
0	0.461	-0.002				
J102		JUNCTION	0.00	19.95	0	11:55
0	0.461	-0.000				
J103		JUNCTION	0.00	19.95	0	11:54
0	0.461	-0.000				

Engineered Turf - 100 year Results

J104		JUNCTION	2.77	19.96	0	11:54
0.0597	0.461	-0.000				
J105		JUNCTION	0.00	17.27	0	11:54
0	0.401	0.001				
J106		JUNCTION	4.21	17.27	0	11:54
0.0868	0.401	-0.002				
J107		JUNCTION	0.00	13.19	0	11:54
0	0.314	0.002				
J108		JUNCTION	4.20	13.20	0	11:54
0.0863	0.314	-0.002				
J109		JUNCTION	0.00	9.10	0	11:54
0	0.228	0.003				
J11		JUNCTION	5.92	87.65	0	11:56
0.106	2.09	0.009				
J110		JUNCTION	5.03	9.10	0	11:54
0.118	0.228	-0.002				
J111		JUNCTION	0.00	4.16	0	12:00
0	0.11	0.003				
J112		JUNCTION	4.16	4.16	0	12:00
0.11	0.11	-0.000				
J113		JUNCTION	0.00	10.85	0	11:54
0	0.236	-0.006				
J114		JUNCTION	0.00	10.85	0	11:54
0	0.236	-0.000				
J115		JUNCTION	0.00	10.86	0	11:54
0	0.236	-0.000				
J116		JUNCTION	3.66	10.87	0	11:54
0.0863	0.236	0.001				
J117		JUNCTION	0.00	7.25	0	11:54
0	0.15	-0.002				
J118		JUNCTION	4.33	7.26	0	11:54
0.0893	0.15	-0.000				
J119		JUNCTION	0.00	2.94	0	11:54
0	0.0606	0.000				
J12		JUNCTION	5.49	117.16	0	11:57
0.098	2.82	-0.001				
J120		JUNCTION	2.94	2.94	0	11:54
0.0606	0.0606	-0.001				
J121		JUNCTION	3.20	3.20	0	11:54
0.0658	0.0658	-0.001				
J122		JUNCTION	0.00	3.20	0	11:54
0	0.0658	-0.000				
J123		JUNCTION	4.36	7.54	0	11:54
0.0898	0.156	-0.001				
J124		JUNCTION	0.00	7.53	0	11:54
0	0.156	-0.001				
J125		JUNCTION	3.32	10.80	0	11:54
0.0749	0.231	0.000				
J126		JUNCTION	0.00	10.80	0	11:54
0	0.231	0.000				
J127		JUNCTION	0.00	10.78	0	11:54
0	0.231	-0.000				
J128		JUNCTION	0.00	10.78	0	11:54
0	0.231	-0.009				

Engineered Turf - 100 year Results

J129		JUNCTION	6.00	6.00	0	11:54
0.131	0.131	-0.000				
J13		JUNCTION	4.05	130.49	0	11:57
0.0718	3.13	-0.004				
J130		JUNCTION	0.00	6.00	0	11:54
0	0.131	-0.000				
J131		JUNCTION	0.00	5.98	0	11:54
0	0.131	0.000				
J132		JUNCTION	0.00	5.98	0	11:54
0	0.131	-0.010				
J133		JUNCTION	0.00	10.40	0	11:55
0	0.208	0.007				
J134		JUNCTION	4.29	10.60	0	11:54
0.0781	0.208	-0.006				
J135		JUNCTION	0.00	18.83	0	11:55
0	0.395	-0.002				
J136		JUNCTION	2.76	12.90	0	11:55
0.0497	0.258	-0.009				
J14		JUNCTION	3.27	31.31	0	11:55
0.0575	0.679	-0.003				
J15		JUNCTION	3.38	54.50	0	11:55
0.0597	1.22	0.001				
J16		JUNCTION	10.80	77.84	0	11:55
0.197	1.73	-0.006				
J17		JUNCTION	3.48	94.51	0	11:56
0.0625	2.15	0.007				
J18		JUNCTION	4.91	118.07	0	11:56
0.0882	2.7	-0.003				
J19		JUNCTION	4.54	132.04	0	11:56
0.0804	3.01	-0.005				
J2		JUNCTION	0.00	9.39	0	15:31
0	7.53	-0.030				
J20		JUNCTION	0.68	134.75	0	11:57
0.012	3.16	0.010				
J21		JUNCTION	0.00	5.01	0	12:00
0	0.144	0.004				
J22		JUNCTION	7.07	11.95	0	12:00
0.183	0.327	-0.002				
J23		JUNCTION	0.00	11.94	0	12:00
0	0.327	0.002				
J24		JUNCTION	0.00	25.56	0	11:55
0	0.635	0.000				
J25		JUNCTION	0.00	25.56	0	11:55
0	0.635	-0.002				
J26		JUNCTION	0.00	25.57	0	11:55
0	0.635	-0.000				
J27		JUNCTION	4.09	25.57	0	11:54
0.0956	0.635	-0.000				
J28		JUNCTION	0.00	21.56	0	11:54
0	0.54	0.001				
J29		JUNCTION	5.09	21.56	0	11:54
0.106	0.54	-0.002				
J3		JUNCTION	0.00	9.57	0	19:04
0	7.53	-0.029				

Engineered Turf - 100 year Results

J30		JUNCTION	0.00	16.63	0	11:54
0	0.434	0.002				
J31		JUNCTION	5.11	16.63	0	11:54
0.107	0.434	-0.002				
J32		JUNCTION	5.01	5.01	0	12:00
0.144	0.144	-0.000				
J33		JUNCTION	3.95	3.95	0	11:54
0.0828	0.0828	-0.001				
J34		JUNCTION	0.00	3.95	0	11:54
0	0.0828	-0.005				
J35		JUNCTION	5.46	9.40	0	11:54
0.131	0.214	0.002				
J36		JUNCTION	0.00	9.39	0	11:54
0	0.214	-0.003				
J37		JUNCTION	5.06	14.15	0	11:54
0.143	0.357	0.002				
J38		JUNCTION	0.00	14.15	0	11:54
0	0.357	0.000				
J39		JUNCTION	0.00	14.14	0	11:54
0	0.357	-0.000				
J4		JUNCTION	0.00	11.76	0	14:15
0	7.38	-0.070				
J40		JUNCTION	0.00	14.14	0	11:55
0	0.357	-0.003				
J41		JUNCTION	0.00	15.27	0	11:54
0	0.372	-0.002				
J42		JUNCTION	0.00	15.27	0	11:54
0	0.372	-0.000				
J43		JUNCTION	0.00	15.28	0	11:54
0	0.372	-0.000				
J44		JUNCTION	4.57	15.28	0	11:54
0.124	0.372	0.001				
J45		JUNCTION	0.00	10.83	0	11:54
0	0.249	-0.002				
J46		JUNCTION	6.02	10.84	0	11:54
0.143	0.249	0.001				
J47		JUNCTION	0.00	4.84	0	11:54
0	0.106	-0.002				
J48		JUNCTION	4.84	4.84	0	11:54
0.106	0.106	-0.001				
J49		JUNCTION	0.00	23.30	0	11:55
0	0.59	-0.001				
J5		JUNCTION	0.00	12.87	0	11:55
0	0.258	0.008				
J50		JUNCTION	0.00	23.30	0	11:54
0	0.59	-0.000				
J51		JUNCTION	3.00	23.30	0	11:54
0.0806	0.59	0.000				
J52		JUNCTION	0.00	20.35	0	11:54
0	0.509	-0.000				
J53		JUNCTION	6.46	20.35	0	11:54
0.138	0.509	-0.002				
J54		JUNCTION	0.00	14.03	0	11:54
0	0.371	0.003				

Engineered Turf - 100 year Results

J55		JUNCTION	7.26	14.03	0	11:54
0.172	0.371	-0.002				
J56		JUNCTION	0.00	7.14	0	12:00
0	0.199	0.002				
J57		JUNCTION	7.14	7.14	0	12:00
0.199	0.199	-0.000				
J58		JUNCTION	0.00	7.76	0	11:54
0	0.169	-0.008				
J59		JUNCTION	2.45	7.76	0	11:54
0.0554	0.169	-0.001				
J6		JUNCTION	6.50	6.50	0	11:54
0.13	0.13	0.002				
J60		JUNCTION	0.00	5.33	0	11:54
0	0.114	-0.001				
J61		JUNCTION	5.33	5.33	0	11:54
0.114	0.114	-0.001				
J62		JUNCTION	0.00	9.74	0	11:54
0	0.227	-0.001				
J63		JUNCTION	0.00	9.74	0	11:54
0	0.227	-0.001				
J64		JUNCTION	1.78	9.75	0	11:54
0.0426	0.227	-0.000				
J65		JUNCTION	0.00	8.00	0	11:54
0	0.184	0.000				
J66		JUNCTION	4.65	8.00	0	11:54
0.115	0.184	0.002				
J67		JUNCTION	0.00	3.37	0	11:54
0	0.0693	-0.006				
J68		JUNCTION	3.37	3.37	0	11:54
0.0693	0.0693	-0.001				
J69		JUNCTION	0.00	20.39	0	11:55
0	0.486	-0.000				
J7		JUNCTION	11.37	11.37	0	11:54
0.254	0.254	-0.000				
J70		JUNCTION	0.00	20.39	0	11:55
0	0.486	-0.000				
J71		JUNCTION	0.00	20.39	0	11:55
0	0.486	-0.000				
J72		JUNCTION	2.16	20.40	0	11:54
0.056	0.486	0.000				
J73		JUNCTION	0.00	18.25	0	11:54
0	0.43	0.000				
J74		JUNCTION	4.73	18.26	0	11:54
0.0973	0.43	-0.002				
J75		JUNCTION	0.00	13.68	0	11:54
0	0.333	0.002				
J76		JUNCTION	4.83	13.68	0	11:54
0.0997	0.333	-0.003				
J77		JUNCTION	0.00	8.97	0	11:54
0	0.233	0.003				
J78		JUNCTION	4.55	8.97	0	11:54
0.114	0.233	-0.001				
J79		JUNCTION	0.00	4.49	0	12:00
0	0.119	0.001				

Engineered Turf - 100 year Results

J8		JUNCTION	3.77	16.60	0	11:54
0.066	0.352	-0.016				
J80		JUNCTION	4.49	4.49	0	12:00
0.119	0.119	-0.000				
J81		JUNCTION	2.76	2.76	0	11:54
0.0561	0.0561	-0.001				
J82		JUNCTION	0.00	2.76	0	11:54
0	0.0561	-0.001				
J83		JUNCTION	4.08	6.83	0	11:54
0.0852	0.141	-0.001				
J84		JUNCTION	0.00	6.82	0	11:54
0	0.141	-0.001				
J85		JUNCTION	5.08	11.83	0	11:54
0.114	0.255	0.001				
J86		JUNCTION	0.00	11.83	0	11:54
0	0.255	-0.000				
J87		JUNCTION	2.24	14.05	0	11:54
0.0543	0.31	0.000				
J88		JUNCTION	0.00	14.04	0	11:54
0	0.31	-0.000				
J89		JUNCTION	0.00	14.04	0	11:54
0	0.31	-0.000				
J9		JUNCTION	5.21	44.29	0	11:55
0.0918	1.03	0.001				
J90		JUNCTION	0.00	14.04	0	11:54
0	0.31	-0.004				
J91		JUNCTION	0.00	14.44	0	11:55
0	0.355	-0.002				
J92		JUNCTION	0.00	14.44	0	11:55
0	0.355	0.000				
J93		JUNCTION	0.00	14.45	0	11:54
0	0.355	-0.000				
J94		JUNCTION	4.31	14.45	0	11:54
0.129	0.355	0.002				
J95		JUNCTION	0.00	10.51	0	11:54
0	0.226	-0.004				
J96		JUNCTION	4.65	10.51	0	11:54
0.105	0.226	0.001				
J97		JUNCTION	0.00	5.93	0	11:54
0	0.121	-0.002				
J98		JUNCTION	3.54	5.94	0	11:54
0.0737	0.121	-0.001				
J99		JUNCTION	0.00	2.41	0	11:54
0	0.0477	-0.001				
O1		OUTFALL	0.00	9.46	0	15:45
0	7.53	0.000				
O2		OUTFALL	0.00	0.00	0	00:00
0	0	0.000 gal				
Clear_Pool1		STORAGE	7.20	11.95	0	14:14
0.126	7.53	0.057				
SED_Pond1		STORAGE	52.06	300.09	0	11:58
0.951	7.52	0.067				

Engineered Turf - 100 year Results

Node Surcharge Summary

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

Time of Max Occurrence		Maximum Outflow	Average Volume	Avg Pcnt Full	Evap Loss	Exfil Loss	Maximum Volume	Max Pcnt Full
days	hr:min	Storage Unit CFS	1000 ft3		Pcnt	Pcnt	1000 ft3	
0	19:49	Clear_Pool1 9.39	23.953	16	0	0	79.759	52
0	14:15	SED_Pond1 11.76	217.948	21	0	0	680.035	66

Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
O1	100.00	2.84	9.46	7.531
O2	0.00	0.00	0.00	0.000
System	50.00	2.84	0.00	7.531

Link Flow Summary

Engineered Turf - 100 year Results

Max/ Full Link Depth	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow
0.75	C10	87.48	0 11:57	8.31	0.52
0.47	C100	13.17	0 11:54	2.25	0.24
0.45	C101	17.27	0 11:54	4.28	0.12
0.46	C102	17.26	0 11:54	3.05	0.23
0.48	C103	19.95	0 11:54	4.50	0.14
0.48	C104	19.95	0 11:55	3.29	0.26
0.37	C105	19.94	0 11:55	6.32	0.14
0.68	C106	19.94	0 11:55	1.93	0.11
0.19	C107	3.20	0 11:54	2.33	0.02
0.23	C108	3.19	0 11:54	1.50	0.05
0.29	C109	7.53	0 11:54	3.20	0.05
0.78	C11	68.69	0 11:56	6.20	0.67
0.32	C110	7.50	0 11:54	2.28	0.10
0.42	C111	10.80	0 11:54	2.95	0.08
0.42	C112	10.78	0 11:54	2.22	0.19
0.27	C113	10.78	0 11:54	5.10	0.08
0.64	C114	10.77	0 11:54	1.16	0.07
0.24	C115	5.01	0 12:00	2.77	0.03
0.29	C116	5.00	0 12:00	1.71	0.08
0.37	C117	11.94	0 12:00	3.77	0.09
0.40	C118	11.93	0 12:00	2.64	0.16
0.50	C119	16.63	0 11:54	3.56	0.12

Engineered Turf - 100 year Results

C12	CONDUIT	43.74	0	11:56	4.44	0.37
0.72						
C120	CONDUIT	16.61	0	11:54	2.42	0.30
0.52						
C121	CONDUIT	21.56	0	11:54	4.64	0.16
0.50						
C122	CONDUIT	21.55	0	11:55	3.22	0.28
0.52						
C123	CONDUIT	25.57	0	11:55	4.92	0.18
0.54						
C124	CONDUIT	25.56	0	11:55	3.50	0.34
0.55						
C125	CONDUIT	25.56	0	11:55	6.59	0.19
0.43						
C126	CONDUIT	25.56	0	11:55	2.28	0.16
0.72						
C127	CONDUIT	3.95	0	11:54	2.53	0.03
0.21						
C128	CONDUIT	3.94	0	11:54	1.60	0.06
0.26						
C129	CONDUIT	9.39	0	11:54	3.50	0.07
0.33						
C13	CONDUIT	16.14	0	11:55	2.89	0.13
0.48						
C130	CONDUIT	9.37	0	11:54	2.41	0.12
0.36						
C131	CONDUIT	14.15	0	11:54	3.30	0.10
0.47						
C132	CONDUIT	14.14	0	11:54	2.43	0.25
0.47						
C133	CONDUIT	14.14	0	11:55	5.45	0.10
0.32						
C134	CONDUIT	14.14	0	11:55	1.58	0.09
0.64						
C135	CHANNEL	10.40	0	11:55	5.09	0.18
0.45						
C136	CONDUIT	6.08	0	11:54	2.26	0.04
0.27						
C137	CHANNEL	12.83	0	11:55	5.37	0.28
0.49						
C138	CONDUIT	18.79	0	11:56	4.01	0.14
0.41						
C139	CONDUIT	10.36	0	11:55	14.78	0.79
0.84						
C14	CHANNEL	12.87	0	11:55	3.80	0.20
0.58						
C15	CONDUIT	31.20	0	11:56	4.55	0.23
0.55						
C16	CONDUIT	54.30	0	11:56	5.41	0.40
0.73						
C17	CONDUIT	77.31	0	11:56	6.75	0.66
0.80						
C18	CONDUIT	94.57	0	11:57	7.39	0.56
0.86						

Engineered Turf - 100 year Results

C19	CONDUIT	117.92	0	11:57	6.91	0.36
0.71						
C2	CONDUIT	0.00	0	00:00	0.00	0.00
0.00						
C20	CONDUIT	128.65	0	11:57	5.30	0.48
0.89						
C21	CONDUIT	133.48	0	11:59	4.30	0.48
0.91						
C22	CONDUIT	127.72	0	11:58	5.26	0.44
0.90						
C23	CONDUIT	3.37	0	11:54	2.38	0.02
0.19						
C24	CONDUIT	3.36	0	11:54	1.53	0.05
0.24						
C25	CONDUIT	8.00	0	11:54	3.23	0.06
0.31						
C26	CONDUIT	7.98	0	11:54	2.58	0.10
0.31						
C27	CONDUIT	9.74	0	11:54	3.70	0.06
0.32						
C28	CONDUIT	9.74	0	11:54	2.61	0.13
0.35						
C29	CONDUIT	9.74	0	11:54	1.83	0.07
0.45						
C3	CONDUIT	0.00	0	00:00	0.00	0.00
0.00						
C30	CONDUIT	4.49	0	12:00	2.55	0.03
0.23						
C31	CONDUIT	4.49	0	12:00	1.70	0.07
0.27						
C32	CONDUIT	8.97	0	11:54	3.45	0.06
0.32						
C33	CONDUIT	8.96	0	11:54	2.40	0.12
0.35						
C34	CONDUIT	13.68	0	11:54	3.31	0.10
0.46						
C35	CONDUIT	13.66	0	11:54	2.27	0.24
0.48						
C36	CONDUIT	18.25	0	11:54	4.36	0.13
0.46						
C37	CONDUIT	18.24	0	11:54	3.13	0.24
0.47						
C38	CONDUIT	20.39	0	11:55	3.81	0.15
0.55						
C39	CONDUIT	20.39	0	11:55	2.73	0.37
0.55						
C4	CONDUIT	9.57	0	19:04	8.58	0.24
0.22						
C40	CONDUIT	20.39	0	11:55	6.23	0.15
0.38						
C41	CONDUIT	20.39	0	11:55	2.39	0.13
0.61						
C42	CONDUIT	14.03	0	11:54	1.43	0.09
0.66						

Engineered Turf - 100 year Results

C43	CONDUIT	14.04	0	11:54	5.52	0.10
0.31						
C44	CONDUIT	14.04	0	11:54	3.00	0.19
0.41						
C45	CONDUIT	14.04	0	11:54	3.95	0.10
0.41						
C46	CONDUIT	11.82	0	11:54	2.72	0.16
0.39						
C47	CONDUIT	11.83	0	11:54	3.73	0.09
0.37						
C48	CONDUIT	2.76	0	11:54	2.59	0.02
0.15						
C49	CONDUIT	2.76	0	11:54	1.64	0.03
0.19						
C5	CONDUIT	9.46	0	15:45	3.15	0.02
0.10						
C50	CONDUIT	6.82	0	11:54	2.60	0.05
0.32						
C51	CONDUIT	6.79	0	11:54	1.75	0.12
0.36						
C52	CONDUIT	2.41	0	11:54	2.46	0.02
0.14						
C53	CONDUIT	2.40	0	11:54	1.58	0.03
0.18						
C54	CONDUIT	5.93	0	11:54	2.48	0.04
0.30						
C55	CONDUIT	5.89	0	11:54	1.67	0.11
0.34						
C56	CONDUIT	10.51	0	11:54	3.61	0.08
0.35						
C57	CONDUIT	10.50	0	11:54	2.54	0.14
0.37						
C58	CONDUIT	14.45	0	11:54	4.00	0.10
0.41						
C59	CONDUIT	14.44	0	11:55	3.01	0.19
0.41						
C6	CONDUIT	11.75	0	14:15	2.69	0.38
1.00						
C60	CONDUIT	14.44	0	11:55	5.67	0.10
0.31						
C61	CONDUIT	14.44	0	11:55	1.52	0.08
0.66						
C62	CONDUIT	6.00	0	11:54	2.68	0.04
0.28						
C63	CONDUIT	5.98	0	11:54	1.97	0.09
0.30						
C64	CONDUIT	5.98	0	11:54	3.88	0.05
0.21						
C65	CONDUIT	5.97	0	11:54	0.71	0.03
0.60						
C66	CONDUIT	2.94	0	11:54	2.28	0.02
0.18						
C67	CONDUIT	2.93	0	11:54	1.46	0.05
0.22						

Engineered Turf - 100 year Results

C68	CONDUIT	7.25	0	11:54	3.18	0.05
0.29						
C69	CONDUIT	7.23	0	11:54	2.24	0.10
0.31						
C7	CONDUIT	5.17	0	11:54	1.91	0.04
0.27						
C70	CONDUIT	10.86	0	11:54	3.60	0.08
0.36						
C71	CONDUIT	10.85	0	11:54	2.73	0.14
0.36						
C72	CONDUIT	10.85	0	11:54	5.12	0.08
0.27						
C73	CONDUIT	10.85	0	11:54	1.18	0.06
0.63						
C74	CONDUIT	5.33	0	11:54	3.12	0.04
0.23						
C75	CONDUIT	5.32	0	11:54	2.26	0.06
0.25						
C76	CONDUIT	7.76	0	11:54	4.00	0.06
0.25						
C77	CONDUIT	7.74	0	11:54	1.90	0.07
0.37						
C78	CONDUIT	7.14	0	12:00	3.61	0.05
0.26						
C79	CONDUIT	7.13	0	12:00	2.31	0.08
0.31						
C8	CHANNEL	6.38	0	11:54	2.52	0.11
0.50						
C80	CONDUIT	14.03	0	11:54	3.38	0.10
0.46						
C81	CONDUIT	14.01	0	11:54	2.26	0.25
0.49						
C82	CONDUIT	20.35	0	11:54	4.54	0.15
0.48						
C83	CONDUIT	20.34	0	11:54	3.20	0.27
0.50						
C84	CONDUIT	23.30	0	11:54	4.77	0.17
0.52						
C85	CONDUIT	23.30	0	11:55	3.30	0.32
0.53						
C86	CONDUIT	23.29	0	11:55	2.63	0.17
0.62						
C87	CONDUIT	4.84	0	11:54	2.70	0.03
0.24						
C88	CONDUIT	4.83	0	11:54	1.71	0.07
0.29						
C89	CONDUIT	10.83	0	11:54	3.66	0.08
0.35						
C9	CONDUIT	117.02	0	11:57	7.95	0.26
0.66						
C90	CONDUIT	10.81	0	11:54	2.54	0.14
0.38						
C91	CONDUIT	15.28	0	11:54	3.46	0.11
0.48						

Engineered Turf - 100 year Results

C8	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.00
0.98 0.00								
C80	1.00	0.47	0.02	0.00	0.51	0.00	0.00	0.00
0.33 0.00								
C81	1.00	0.47	0.00	0.00	0.53	0.00	0.00	0.00
0.00 0.00								
C82	1.00	0.47	0.01	0.00	0.51	0.01	0.00	0.00
0.98 0.00								
C83	1.00	0.47	0.00	0.00	0.53	0.00	0.00	0.00
0.00 0.00								
C84	1.00	0.46	0.01	0.00	0.52	0.01	0.00	0.00
0.99 0.00								
C85	1.00	0.46	0.00	0.00	0.54	0.00	0.00	0.00
0.00 0.00								
C86	1.00	0.43	0.04	0.00	0.53	0.00	0.00	0.00
0.98 0.00								
C87	1.00	0.53	0.01	0.00	0.46	0.00	0.00	0.00
0.20 0.00								
C88	1.00	0.53	0.01	0.00	0.47	0.00	0.00	0.00
0.83 0.00								
C89	1.00	0.52	0.01	0.00	0.47	0.00	0.00	0.00
0.22 0.00								
C9	1.00	0.37	0.02	0.00	0.38	0.23	0.00	0.00
0.98 0.00								
C90	1.00	0.50	0.01	0.00	0.48	0.00	0.00	0.00
0.80 0.00								
C91	1.00	0.49	0.01	0.00	0.50	0.00	0.00	0.00
0.31 0.00								
C92	1.00	0.49	0.00	0.00	0.51	0.00	0.00	0.00
0.00 0.00								
C93	1.00	0.49	0.01	0.00	0.18	0.32	0.00	0.00
0.18 0.00								
C94	1.00	0.39	0.11	0.00	0.51	0.00	0.00	0.00
0.98 0.00								
C95	1.00	0.53	0.00	0.00	0.47	0.00	0.00	0.00
0.98 0.00								
C96	1.00	0.52	0.00	0.00	0.47	0.00	0.00	0.00
0.01 0.00								
C97	1.00	0.51	0.01	0.00	0.48	0.00	0.00	0.00
0.23 0.00								
C98	1.00	0.51	0.00	0.00	0.49	0.00	0.00	0.00
0.00 0.00								
C99	1.00	0.49	0.02	0.00	0.48	0.00	0.00	0.00
0.24 0.00								

 Conduit Surcharge Summary

 Hours

Engineered Turf - 100 year Results

Capacity Conduit Limited	----- Hours Full -----			Above Full
	Both Ends	Upstream	Dnstream	Normal Flow

C106 0.01	0.01	0.01	0.23	0.01
C114 0.01	0.01	0.01	0.30	0.01
C126 0.01	0.01	0.01	0.11	0.01
C139 0.01	0.01	0.01	0.14	0.01
C20 0.01	0.01	0.01	0.11	0.01
C22 0.01	0.01	0.01	0.13	0.01
C42 0.01	0.01	0.01	0.15	0.01
C6 0.01	14.15	14.15	16.55	0.01
C61 0.01	0.01	0.01	0.08	0.01
C65 0.01	0.01	0.01	0.45	0.01
C73 0.01	0.01	0.01	0.31	0.01
C94 0.01	0.01	0.01	0.17	0.01

Analysis begun on: Fri May 22 10:48:51 2020
 Analysis ended on: Fri May 22 10:49:06 2020
 Total elapsed time: 00:00:15



Attachment 2
Parcels C/D Hydrologic & Hydraulic Calculations

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1. BACKGROUND AND DESIGN CRITERIA

Georgia Power is constructing a previously designed landfill at the Huffaker Road Facility on Parcel C and D. This landfill will contain coal combustion residual (CCR) material from nearby Plant Hammond. To manage stormwater, the proposed landfill will utilize ponds as well as various stormwater drainage ditches, and flumes. This report documents the hydrologic and hydraulic analysis performed for the proposed Sediment Pond and Clear Pool, perimeter drainage ditches, and landfill flumes. The locations of proposed stormwater structures are illustrated in **Error! Reference source not found.**

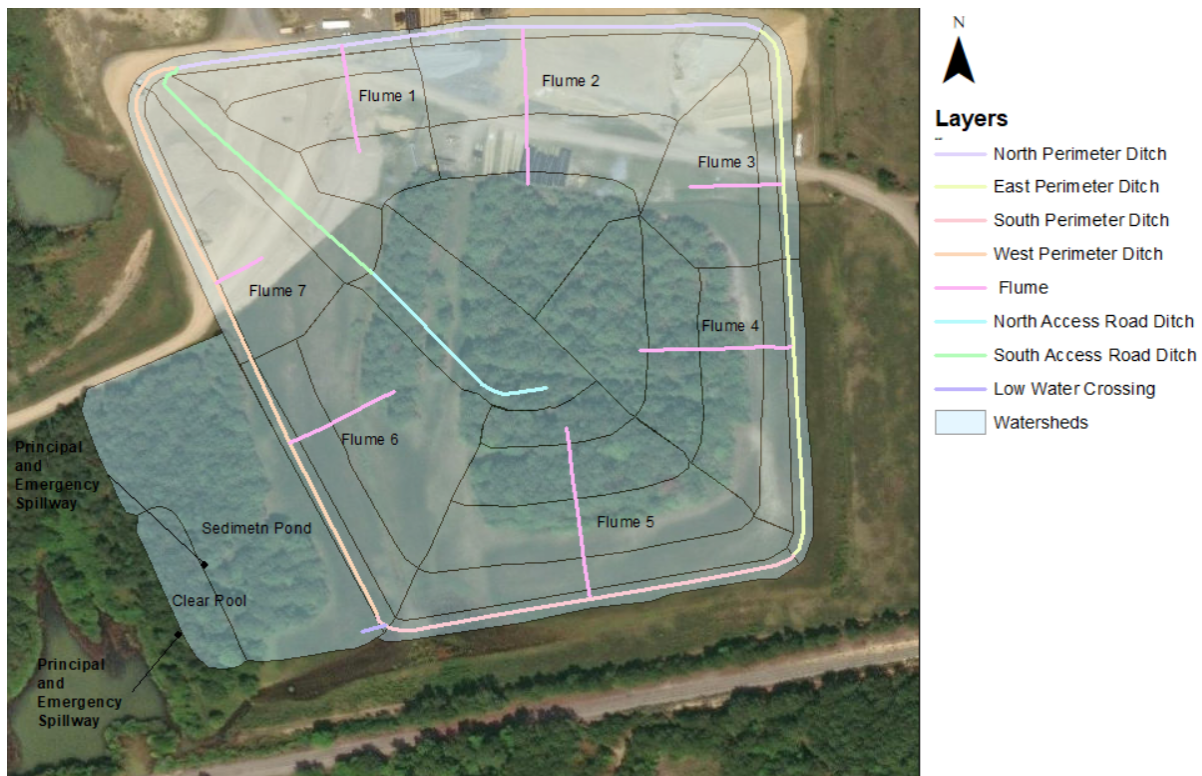


Figure 1 Huffaker Road Landfill – Parcels C/D

The following design criteria were used to evaluate proposed stormwater infrastructure:

1. Drainage ditches maintain ½-foot of freeboard during the 25-year, 24-hour storm event and contain the 100-year, 24-hour storm event without overtopping.
2. Sediment Pond and Clear Pool route the 100-year, 24-hour storm event without overtopping and convey the 25-year, 24-hour storm without activating the emergency spillway.
3. Stormwater runoff flumes for the proposed landfill convey both the 25-year, 24-hour event and 100-year, 24-hour event.
4. The low water crossing is able to maintain ½-foot of freeboard during the 25-year, 24-hour storm event and pass the 100-year, 24-hour storm event without overtopping the access road.

2. METHODOLOGY

The United States Department of Agriculture (USDA) Soil Conservation Service (SCS) curve number method was used in creating a stormwater management model (with the Computational Hydraulics International PCSWMM design software) to compute the peak flows and the hydraulic capacity of the ditches and ponds at the site. Esri ArcGIS software was used to create multiple features and measurements used in the PCSWMM model. The following were applied for this analysis:

- Drainage areas were delineated using the design contours. The total area that drains to the ditches is approximately 28 acres.
- Perimeter drainage ditch channel geometry
 - Vegetated trapezoidal channel
 - 4-foot bottom width
 - 2H:1V side slopes
 - 3-foot depth
- Access Road Ditch geometry
 - Erosion Control Lined V-ditch channel
 - 2-foot depth
- Flume geometry
 - Riprap trapezoidal channel
 - 4-foot bottom width
 - 3H:1V side slopes
 - 2-foot depth
- Low water crossing
 - Concrete lined trapezoidal channel
 - 25-foot bottom width
 - 10H:1V side slopes
 - 3-foot depth
- NOAA Atlas 14 rainfall depths were used for all storm events evaluated.
 - 25-year, 24-hour: 6.29 inches
 - 100-year, 24-hour: 7.66 inches
- A SCS Type-II rainfall distribution was used along with the rainfall depths listed above.
- A composite curve number was calculated for each drainage sub-catchment based on future landfill closure conditions. A SCS hydrologic soil group composite classification of C (poorly drained) was assigned for the land covers provided below. The SCS hydrologic soil group classification of Type C was determined to be the most appropriate fit:
 - Closure vegetated surface and vegetated ditches – 71
 - Rock-lined stormwater flumes and crushed stone roads – 89
 - Open water surface – 98
 - Closure turf – 95
- Manning's roughness coefficient "n" values were based on *Open Channel Hydraulics* (Chow, 1959) and the *Georgia Stormwater Management Manual* (current edition dated 2016). The values used were:

- 0.015 – Concrete-lined channels
- 0.012 – Concrete Box Culvert
- 0.020 – Erosion control blanket lined channels
- 0.022 – Bituminous-Coated Corrugated Metal Pipe (BCCMP)
- 0.030 – Vegetated ditch
- 0.074 – Rip rap
- 0.012 – HDPE Pipe
- Sediment Pond and Clear Pool stage-area curves were developed based on Permit Drawing No. S1801 (dated 11/14/2018). The elevation-area curves are included in Attachment B.
- Sediment Pond and Clear Pool current primary spillway structure configuration was referenced from Permit Drawing No. H9155 (dated 3/24/2014):
 - 48-inch diameter, 5-foot tall BCCMP riser with trash rack
 - Risers perforated with ½-inch diameter holes spaced 3-inches apart on center
 - 36-inch diameter BCCMP barrel
 - Rim and invert elevation values referenced from Table 1 on permit drawing number H9155
 - A rating curve calculation is included in Attachment C. Note that the perforations are not included in the model since discharge through the perforations will be small compared to the discharge through the riser once the pool reaches the top of the riser structure. The initial water surface elevation in the ponds is set to the elevation of the maximum sediment storage.
- Sediment Pond and Clear Pool emergency spillway channel was referenced from Permit Drawing No. H9155 (dated 3/24/2014):
 - Concrete-lined trapezoidal channel
 - 20-foot bottom width
 - 3H:1V side slopes
 - 2-foot depth for the Sediment Pond emergency spillway channel
 - 2-foot depth for the Clear Pool emergency spillway channel

2.1 EVALUATION BETWEEN VEGETATIVE AND CLOSURE TURF COVER SYSTEMS

The use of a closure turf cover system was included in these analyses. For this cover system, changes to the model included:

- The site was evaluated to use closure turf and a resulting curve number of 95 was used from the Closure Turf Hydrology Parameters for high intensity (Watershed Geo, 2019).

A summary of hydraulic results for Sediment Pond and Clear Pool, stormwater ditches, and runoff flumes are shown below in Tables 1-10. For each hydraulic element there is a table for natural vegetative cover and a table for Closure Turf. Tables 11-12 show the results of channel lining evaluations for the perimeter, access road ditch, and stormwater flumes.

Table 1 Perimeter Ditch Hydraulic Results (Vegetative Cover)

Scenario¹	Peak Water Surface Depth (ft)	Ditch Height (ft)	Freeboard (ft)
North Perimeter Ditch - 25-year storm event	1.6	3.0	1.4
North Perimeter Ditch - 100-year storm event	1.8	3.0	1.2
East Perimeter Ditch - 25-year storm event	1.3	3.0	1.7
East Perimeter Ditch - 100-year storm event	1.5	3.0	1.5
South Perimeter Ditch – 25-year storm event	1.3	3.0	1.7
South Perimeter Ditch – 100-year storm event	1.5	3.0	1.5
West Perimeter Ditch – 25-year storm event	1.7	3.0	1.3
West Perimeter Ditch – 100-year storm event	1.9	3.0	1.1

¹For each ditch listed, the segment with the largest resulting peak water surface depth is shown.

Table 2 Perimeter Ditch Hydraulic Results (Closure Turf Cover)

Scenario¹	Peak Water Surface Depth (ft)	Ditch Height (ft)	Freeboard (ft)
North Perimeter Ditch - 25-year storm event	1.9	3.0	1.1
North Perimeter Ditch - 100-year storm event	2.1	3.0	0.9
East Perimeter Ditch - 25-year storm event	1.6	3.0	1.4
East Perimeter Ditch - 100-year storm event	1.8	3.0	1.2
South Perimeter Ditch – 25-year storm event	1.6	3.0	1.4
South Perimeter Ditch – 100-year storm event	1.8	3.0	1.2
West Perimeter Ditch – 25-year storm event	2.0	3.0	1.0
West Perimeter Ditch – 100-year storm event	2.2	3.0	0.8

¹For each ditch listed, the segment with the largest resulting peak water surface depth is shown.

Table 3 Access Road Ditch Hydraulic Results (Vegetative Cover)

Scenario¹	Vegetative Cover Peak Water Surface Depth (ft)	Ditch Depth (ft)	Maximum Freeboard (ft)
North Access Road Ditch – 25-year storm event	0.8	2.0	1.2
North Access Road Ditch – 100-year storm event	0.9	2.0	1.1
South Access Road Ditch – 25-year storm event	1.0	2.0	1.0
South Access Road Ditch – 100-year storm event	1.1	2.0	0.9

Table 4 Access Road Ditch Hydraulic Results (Closure Turf Cover)

Scenario¹	Closure Turf Cover Peak Water Surface Depth (ft)	Ditch Depth (ft)	Maximum Freeboard (ft)
North Access Road Ditch – 25-year storm event	1.0	2.0	1.0
North Access Road Ditch – 100-year storm event	1.0	2.0	1.0
South Access Road Ditch – 25-year storm event	1.2	2.0	0.8
South Access Road Ditch – 100-year storm event	1.3	2.0	0.7

Table 5 Pond Hydraulic Results (Vegetative Cover)

Scenario	Starting Water Surface Elevation (WSE) (ft)	Peak WSE (ft)	Top of Berm Elevation (ft)	Freeboard (ft)	Emergency Spillway Elevation (ft)	Top of Riser Elevation (ft)	Emergency Spillway Discharge (cfs)	Principal Spillway Discharge (cfs)
Sediment Pond – 25-year storm event	643.5	647.1	650.0	2.9	648.0	647.0	0.0	2.6
Sediment Pond – 100-year storm event	643.5	647.3	650.0	2.7	648.0	647.0	0.0	7.7
Clear Pool – 25-year storm event	642	646.1	650.0	3.9	648.0	646.0	0.0	2.5
Clear Pool – 100-year storm event	642	646.3	650.0	3.7	648.0	646.0	0.0	7.7



Table 6 Pond Hydraulic Results (Closure Turf Cover)

Scenario	Starting Water Surface Elevation (WSE) (ft)	Peak WSE (ft)	Top of Berm Elevation (ft)	Freeboard (ft)	Emergency Spillway Elevation (ft)	Riser Elevation (ft)	Emergency Spillway Discharge (cfs)	Principal Spillway Discharge (cfs)
Sediment Pond – 25-year storm event	643.5	647.4	650.0	2.6	648.0	647.0	0.0	12.0
Sediment Pond – 100-year storm event	643.5	647.9	650.0	2.1	648.0	647.0	0.0	31.5
Clear Pool – 25-year storm event	642	646.4	650.0	3.6	648.0	646.0	0.0	11.7
Clear Pool – 100-year storm event	642	646.8	650.0	3.2	648.0	646.0	0.0	30.4

Table 7 Flume Hydraulic Results (Vegetative Cover)

Scenario*	Peak Water Surface Depth (ft) 25-year	Peak Water Surface Depth (ft) 100-year	Flume Height (ft)	Minimum Freeboard (ft)
Flume 1	0.5	0.6	2.0	1.4
Flume 2	0.7	0.8	2.0	1.2
Flume 3	0.4	0.5	2.0	1.5
Flume 4	0.8	1.0	2.0	1.0
Flume 5	0.8	0.9	2.0	1.1
Flume 6	0.5	0.6	2.0	1.4
Flume 7	0.4	0.5	2.0	1.5

*For each scenario listed, the segment with the largest resulting peak water surface depth is shown.

Table 8 Flume Hydraulic Results (Closure Turf Cover)

Scenario*	Peak Water Surface Depth (ft) 25-year	Peak Water Surface Depth (ft) 100-year	Flume Height (ft)	Minimum Freeboard (ft)
Flume 1	0.6	0.7	2.0	1.3
Flume 2	0.8	0.9	2.0	1.1
Flume 3	0.5	0.6	2.0	1.4
Flume 4	1.0	1.1	2.0	0.9
Flume 5	0.8	1.1	2.0	0.9
Flume 6	0.7	0.7	2.0	1.3
Flume 7	0.5	0.5	2.0	1.5

Table 9 Low Water Crossing Hydraulic Results (Vegetative Cover)

Scenario ¹	Closure Turf Peak Water Surface Depth (ft)	Ditch Depth (ft)	Maximum Freeboard (ft)
Low Water Crossing 25-year storm event	2.0	3.0	1.0
Low Water Crossing 100-year storm event	2.4	3.0	0.6

Table 10 Low Water Crossing Hydraulic Results (Closure Turf Cover)

Scenario ¹	Closure Turf Peak Water Surface Depth (ft)	Ditch Depth (ft)	Maximum Freeboard (ft)
Low Water Crossing 25-year storm event	2.5	3.0	0.5
Low Water Crossing 100-year storm event	2.8	3.0	0.2

2.2 EVALUATION OF DITCH LININGS

The ditch linings were evaluated and chosen using the *Manual for Erosion and Sediment Control in Georgia*. The velocities from the closure turf model during the 100-year storm event were used as they are higher than the vegetative model.

Table 11 Ditch Lining Evaluation

Ditch ¹	Max Velocity (ft/s) 100-year storm event	Category	Recommended Lining	Manning's n
North Perimeter Ditch - 100-year storm event	3.5	< 5ft/s Category 1	Vegetative Lined Channel	0.03
East Perimeter Ditch - 100-year storm event	4.8	< 5ft/s Category 1	Vegetative Lined Channel	0.03
South Perimeter Ditch – 100-year storm event	7.7	> 5ft/s, <10ft/s Category 2	Erosion Control Blanket	0.02
West Perimeter Ditch – 100-year storm event	7.8	> 5ft/s, <10ft/s Category 2	Erosion Control Blanket	0.02
North Access Road Ditch - 100-year storm event	8.6	> 5ft/s, <10ft/s Category 2	Erosion Control Blanket	0.02
South Access Road Ditch - 100-year storm event	7.7	> 5ft/s, <10ft/s Category 2	Erosion Control Blanket	0.02

Table 12 Flume Evaluation

Flume ¹	Maximum Velocity (ft/s) 100-year storm event	Recommended Lining	Category	Permissible Velocity (ft/s)	Depth of Channel (ft)	Manning's n
Flume 1	4.9	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 2	5.9	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 3	4.2	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 4	6.7	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 5	4.7	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 6	4.8	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 7	1.7	Rip Rap	DOT Type 3	11.5	2.0	0.074

¹For each scenario listed, the segment with the largest resulting velocity is shown.

The velocities in the flumes shown in Table 12 were evaluated using the *Manual for Erosion and Sediment Control in Georgia*. Tables C-1 and C-3 (Attachment F) were used



to select Type 3 rip rap for the ditch lining, which has a nominal size of nine inches. In the *Georgia Stormwater Management Manual* Table 5.4-4 (Attachment F), the Manning's n of a rip rap channel with a nominal size of nine inches is 0.074.

The 30% slopes from the flume decrease to approximately 1% at the confluence with the perimeter ditch. Due to the steep slope of the flume confluence with the perimeter ditch, the hydraulic jump was modeled through the program HydroCalc to evaluate the depth of lining. The flowrate was taken as the peak flow from the Closure Turf model in the flumes. Manning's n values for rip rap lined channels were determined based on the *Georgia Stormwater Management Manual*.

Figure 2 HydroCalc Flume Hydraulic Jump Calculations

TRAPEZOIDAL CHANNEL ANALYSIS
CRITICAL DEPTH COMPUTATION

October 25, 2023

PROGRAM INPUT DATA	
DESCRIPTION	VALUE
Flow Rate (cfs).....	40.0
Channel Bottom Slope (ft/ft).....	0.2
Manning's Roughness Coefficient (n-value).....	0.074
Channel Left Side Slope (horizontal/vertical).....	2.0
Channel Right Side Slope (horizontal/vertical).....	2.0
Channel Bottom Width (ft).....	4.0

COMPUTATION RESULTS	
DESCRIPTION	VALUE
Critical Depth (ft).....	1.19
Critical Slope (ft/ft).....	0.091
Flow Velocity (fps).....	5.28
Froude Number.....	1.0
Velocity Head (ft).....	0.43
Energy Head (ft).....	1.62
Cross-Sectional Area of Flow (sq ft).....	7.58
Top Width of Flow (ft).....	8.75

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3. CONCLUSION

3.1 VEGETATIVE AND CLOSURE TURF COVER SYSTEMS CONCLUSION

Based on the results in tables 1-8, both vegetative and closure turf cover are acceptable within the design criteria.

3.2 DITCH LINING EVALUATION CONCLUSION

Based on the peak velocities in the perimeter ditches, an Erosion Control Blanket channel lining is recommended.

The flumes were evaluated by computing the velocity and conservatively Type 3 Rip Rap sizing was recommended as summarized in Table 12.

The hydraulic jump was evaluated at the confluence of the flume and perimeter ditch the results shown above in Figure 2. The depth of the confluence was found to have acceptable amount of freeboard within the design parameters. The perimeter ditch at the confluence was conservatively recommended to be armored with rip rap.

3.3 RESULTS

Based on the PCSWMM-calculated results with the modifications described in Section 3, the following are concluded for the vegetative and closure turf cover systems:

1. Drainage ditches maintain ½-foot of freeboard during the 25-year, 24-hour storm event and contain the 100-year, 24-hour storm event without overtopping.
2. Sediment Pond and Clear Pool route the 100-year, 24-hour storm event without overtopping and convey the 25-year, 24-hour storm without activating the emergency spillway.
3. Stormwater runoff flumes for the proposed landfill convey both the 25-year, 24-hour event and 100-year, 24-hour event.
4. The low water crossing is able to maintain ½-foot of freeboard during the 25-year, 24-hour storm event and pass the 100-year, 24-hour storm event without overtopping the access road.

Detailed PCSWMM reports are included in Attachment D. A summary of results is included in Tables 1-8.

4. REFERENCES

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List of Attachments

A: PCSWMM Model Overview

B: Pond Elevation-Area Curves

C: Perforated Riser Rating Curve Calculation

D: Land Cover Figures

E: PCSWMM Results

F: Ditch Lining Evaluation Reference Tables



Attachment A

PCSWMM Model Overview

PCSWMM Model Overview





Attachment B

Pond Elevation-Area Curves

Parcels C&D	
Sediment Basin 2	
Elevation	Area
642	1094.18
644	65866.00
646	114633.43
648	116833.95
650	130213.23
Clear Pool 2	
Elevation	Area
642	1182.40
644	10304.79
646	13319.51
648	16491.84
650	19821.32



Attachment C

Perforated Riser Rating Curve Calculation

Stage-Discharge Calculation
Georgia Power Company Plant Hammond
Huffaker Road



Sediment Basin

Basin Elevations

Top of Berm	650 Feet
Emergency Spillway Crest	648 Feet
Top of Riser	647 Feet
Bottom of Basin	642 Feet

Principal Spillway

Dia.
Dia.
Perim.
Area

48" Dia. Riser & 36" Dia. Barrel

48 Inches
4 Feet
12.6 Feet
12.6 SF

Elevation (FT)	Principal Spillway			Pipe Orifice Flow		Outlet ³	
	Head (FT)	Orifice ¹ (CFS)	Weir ² (CFS)	Hc (ft)	Q=COA(2gHc)0.5 (cfs)	Head (FT)	Discharge (CFS)
642.0				0.0		0.0	0.0
642.5				0.5		0.5	0.0
643.0				1.0		1.0	0.0
643.5				1.5		1.5	0.0
644.0				2.0		2.0	0.0
644.5				2.5		2.5	0.0
645.0				3.0		3.0	0.0
645.5				3.5		3.5	0.0
646.0				4.0		4.0	0.0
646.5				4.5		4.5	0.0
647.0	0.0	0.0	0.0	5.0	0.0	5.0	0.0
647.5	0.5	42.8	13.7	5.5	141.8	5.5	13.7
648.0	1.0	60.5	38.8	6.0	148.2	6.0	38.8
648.5	1.5	74.1	71.3	6.5	154.2	6.5	71.3
649.0	2.0	85.6	109.7	7.0	160.0	7.0	85.6
649.5	2.5	95.7	153.3	7.5	165.6	7.5	95.7
650.0	3.0	104.8	201.6	8.0	171.1	8.0	104.8

(1) Discharge estimated with orifice equation:

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(2) Discharge estimated with broad-crested weir equation

$$Q = 3.087 \cdot L \cdot H^{3/2}$$

(3) Discharge is the minimum of orifice and weir flow

Stage-Discharge Calculation
Georgia Power Company Plant Hammond
Huffaker Road



Clear Pool

Basin Elevations

Top of Berm	650 Feet
Emergency Spillway Crest	648 Feet
Top of Riser	646 Feet
Bottom of Basin	642 Feet

Principal Spillway

Dia.	
Dia.	
Perim.	
Area	

48" Dia. Riser & 36" Dia. Barrel

48 Inches
4 Feet
12.6 Feet
12.6 SF

Elevation (FT)	Principal Spillway			Pipe Orifice Flow		Outlet ³	
	Head (FT)	Orifice ¹ (CFS)	Weir ² (CFS)	Hc (ft)	Q=C0A(2gHc)0.5 (cfs)	Head (FT)	Discharge (CFS)
642.0				0.0		0.0	0.0
642.5				0.5		0.5	0.0
643.0				1.0		1.0	0.0
643.5				1.5		1.5	0.0
644.0				2.0		2.0	0.0
644.5				2.5		2.5	0.0
645.0				3.0		3.0	0.0
645.5				3.5		3.5	0.0
646.0	0.0	0.0	0.0	4.0	121.0	4.0	0.0
646.5	0.5	42.8	13.7	4.5	128.3	4.5	13.7
647.0	1.0	60.5	38.8	5.0	135.2	5.0	38.8
647.5	1.5	74.1	71.3	5.5	141.8	5.5	71.3
648.0	2.0	85.6	109.7	6.0	148.2	6.0	85.6
648.5	2.5	95.7	153.3	6.5	154.2	6.5	95.7
649.0	3.0	104.8	201.6	7.0	160.0	7.0	104.8
649.5	3.5	113.2	254.0	7.5	165.6	7.5	113.2
650.0	4.0	121.0	310.3	8.0	171.1	8.0	121.0

(1) Discharge estimated with orifice equation:

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(2) Discharge estimated with broad-crested weir equation

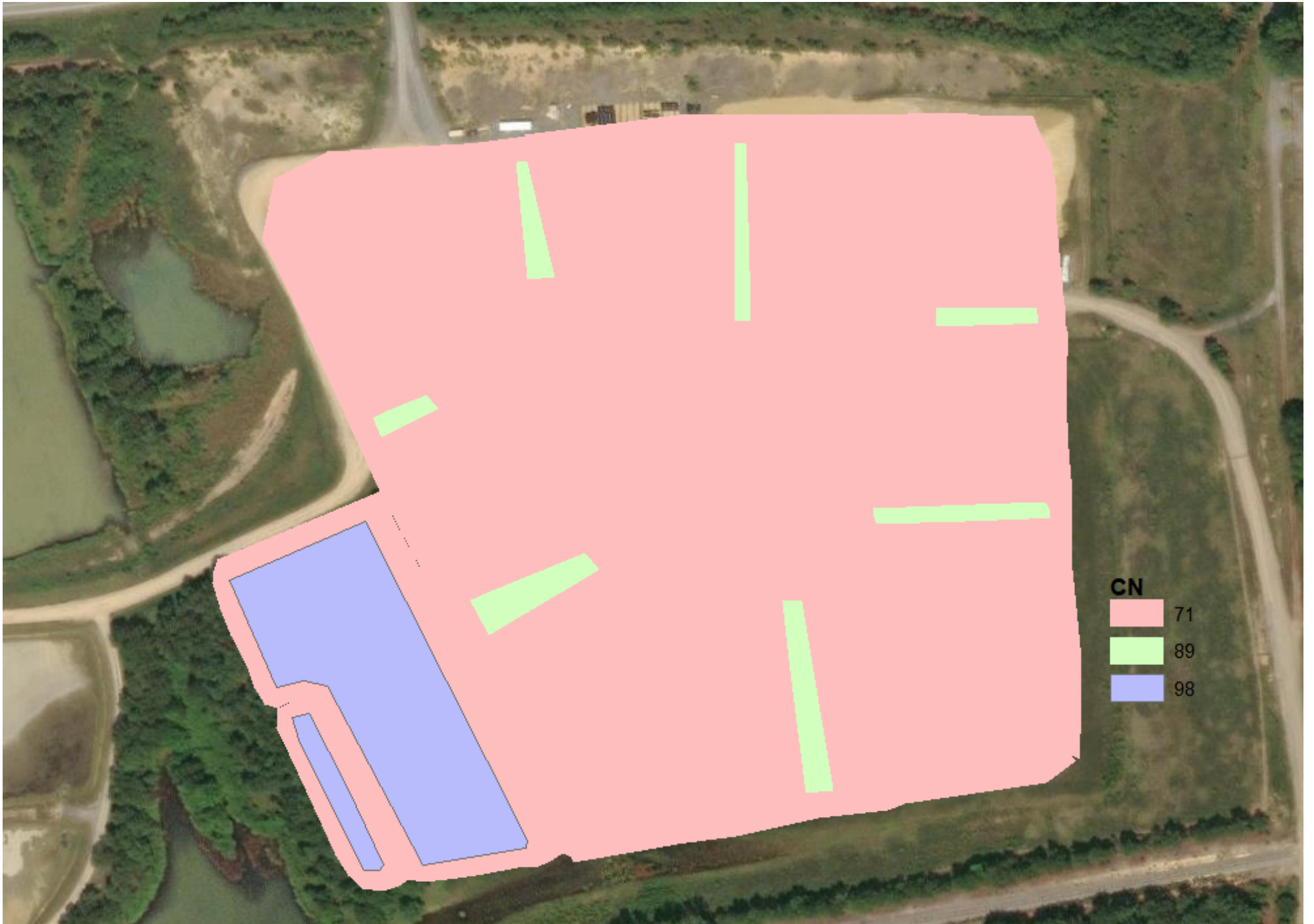
$$Q = 3.087 \cdot L \cdot H^{3/2}$$

(3) Discharge is the minimum of orifice and weir flow

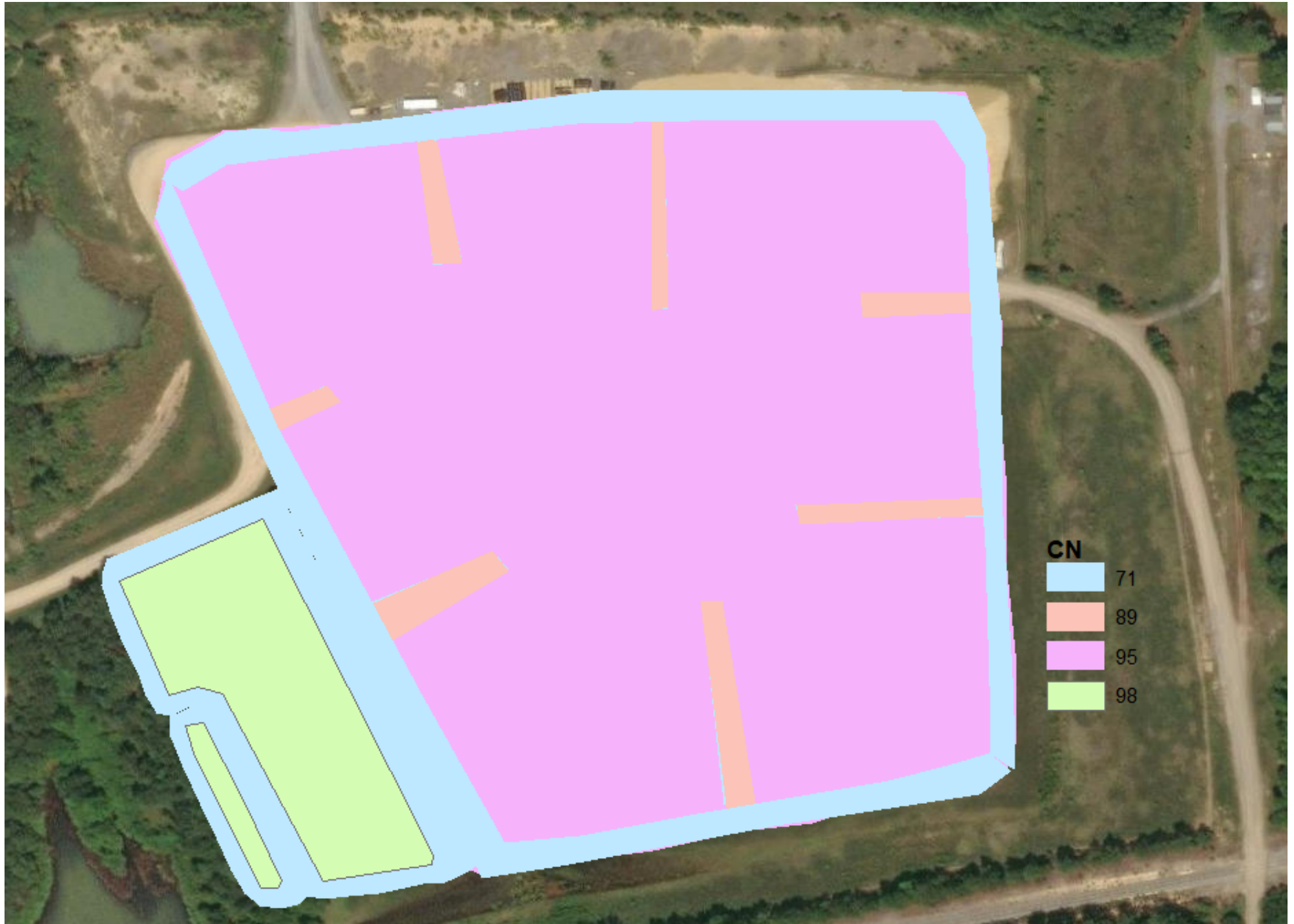


Attachment D
Land Cover Figures

Vegetative Cover Curve Number



Closure Turf Curve Number





Attachment E
PCSWMM Results

WARNING 02: maximum depth increased for Node J1
 WARNING 02: maximum depth increased for Node J11
 WARNING 02: maximum depth increased for Node J13
 WARNING 02: maximum depth increased for Node J19
 WARNING 02: maximum depth increased for Node J22
 WARNING 02: maximum depth increased for Node J23
 WARNING 02: maximum depth increased for Node J24
 WARNING 02: maximum depth increased for Node J25
 WARNING 02: maximum depth increased for Node J26
 WARNING 02: maximum depth increased for Node J27
 WARNING 02: maximum depth increased for Node J33
 WARNING 02: maximum depth increased for Node J34
 WARNING 02: maximum depth increased for Node J35
 WARNING 02: maximum depth increased for Node J36
 WARNING 02: maximum depth increased for Node J42
 WARNING 02: maximum depth increased for Node J43
 WARNING 02: maximum depth increased for Node J44
 WARNING 02: maximum depth increased for Node J45
 WARNING 02: maximum depth increased for Node J49
 WARNING 02: maximum depth increased for Node J54
 WARNING 02: maximum depth increased for Node J55
 WARNING 02: maximum depth increased for Node J56
 WARNING 02: maximum depth increased for Node J57
 WARNING 02: maximum depth increased for Node J58
 WARNING 02: maximum depth increased for Node J59
 WARNING 02: maximum depth increased for Node J60
 WARNING 02: maximum depth increased for Node J61
 WARNING 02: maximum depth increased for Node J62
 WARNING 02: maximum depth increased for Node J63
 WARNING 02: maximum depth increased for Node J64
 WARNING 02: maximum depth increased for Node J74

Element Count

Number of rain gages 4
 Number of subcatchments ... 30
 Number of nodes 50
 Number of links 51
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_3.82in	SCS_Type_II_0.1in.	INTENSITY	6 min.
SCS_Type_II_6.18in	SCS_Type_II_6.18in	INTENSITY	6 min.
SCS_Type_II_6.29in_25yr	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_7.66in	SCS_Type_II_7.66in	INTENSITY	6 min.

 Subcatchment Summary

Name Outlet	Area	Width	%Imperv	%Slope	Rain Gage
CP2	0.55	60.00	0.00	2.5810	SCS_Type_II_7.66in
ClearPond2					
S1	0.59	360.00	0.00	5.0000	SCS_Type_II_7.66in
J2					
S1_2	0.33	245.00	0.00	17.1430	SCS_Type_II_7.66in
J49					
S1_3	1.16	190.00	0.00	22.8570	SCS_Type_II_7.66in
J13					
S1_4	1.01	110.00	0.00	12.2450	SCS_Type_II_7.66in
J5					
S1_6	1.38	150.00	0.00	8.0000	SCS_Type_II_7.66in
J9					
S10_2	0.41	150.00	0.00	11.4290	SCS_Type_II_7.66in
J1					
S11	0.54	500.00	0.00	20.0000	SCS_Type_II_7.66in
J19					
S2	0.35	360.00	0.00	6.6670	SCS_Type_II_7.66in
J6					
S2_2	0.88	170.00	0.00	22.0000	SCS_Type_II_7.66in
J36					
S2_3	1.33	290.00	0.00	20.0000	SCS_Type_II_7.66in
J34					
S2_5	0.99	320.00	0.00	23.3330	SCS_Type_II_7.66in
J33					
S3	0.40	380.00	0.00	5.0000	SCS_Type_II_7.66in
J10					
S3_1	1.02	230.00	0.00	7.0000	SCS_Type_II_7.66in
J11					
S3_2	0.98	280.00	0.00	18.3330	SCS_Type_II_7.66in
J44					
S3_3	0.79	240.00	0.00	22.0000	SCS_Type_II_7.66in
J45					
S3_5	0.51	320.00	0.00	20.0000	SCS_Type_II_7.66in
J42					
S4	0.35	380.00	0.00	10.0000	SCS_Type_II_7.66in
J20					
S4_2	1.48	240.00	0.00	4.6150	SCS_Type_II_7.66in
J57					
S4_3	1.70	380.00	0.00	21.4290	SCS_Type_II_7.66in
J54					
S4_4	1.02	235.00	0.00	26.0000	SCS_Type_II_7.66in
J23					
S5	0.51	415.00	0.00	5.0000	SCS_Type_II_7.66in
J18					
S5_3	0.42	500.00	0.00	24.0000	SCS_Type_II_7.66in
J58					
S5_4	0.76	500.00	0.00	20.0000	SCS_Type_II_7.66in
J60					
S6	1.67	381.75	0.00	13.5290	SCS_Type_II_7.66in
J62					
S6_4	1.73	500.00	0.00	17.0370	SCS_Type_II_7.66in

S6_5	0.62	500.00	0.00	28.5710	SCS_Type_II_7.66in
J25					
S8	0.31	270.00	0.00	5.0000	SCS_Type_II_7.66in
J14					
S9	0.41	340.00	0.00	5.0000	SCS_Type_II_7.66in
J12					
SP2	3.41	280.00	0.00	3.5710	SCS_Type_II_7.66in
SedPond2					

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	718.00	2.00	0.0	
J10	JUNCTION	654.00	3.00	0.0	
J11	JUNCTION	718.00	2.00	0.0	
J12	JUNCTION	658.00	3.00	0.0	
J13	JUNCTION	696.00	2.00	0.0	
J14	JUNCTION	660.00	3.00	0.0	
J15	JUNCTION	730.00	2.00	0.0	
J16	JUNCTION	656.00	4.00	0.0	
J18	JUNCTION	662.00	3.00	0.0	
J19	JUNCTION	698.00	2.00	0.0	
J2	JUNCTION	652.00	3.00	0.0	
J20	JUNCTION	658.00	3.00	0.0	
J21	JUNCTION	642.00	8.00	0.0	
J22	JUNCTION	694.00	2.00	0.0	
J23	JUNCTION	700.00	2.00	0.0	
J24	JUNCTION	696.00	2.00	0.0	
J25	JUNCTION	670.00	2.00	0.0	
J26	JUNCTION	674.00	2.00	0.0	
J27	JUNCTION	694.00	2.00	0.0	
J3	JUNCTION	644.80	4.33	0.0	
J33	JUNCTION	672.00	2.00	0.0	
J34	JUNCTION	674.00	2.00	0.0	
J35	JUNCTION	696.00	2.00	0.0	
J36	JUNCTION	698.00	2.00	0.0	
J42	JUNCTION	664.00	2.00	0.0	
J43	JUNCTION	672.00	2.00	0.0	
J44	JUNCTION	674.00	2.00	0.0	
J45	JUNCTION	696.00	2.00	0.0	
J49	JUNCTION	674.00	2.00	0.0	
J5	JUNCTION	678.00	2.00	0.0	
J54	JUNCTION	666.00	2.00	0.0	
J55	JUNCTION	676.00	2.00	0.0	
J56	JUNCTION	696.00	2.00	0.0	
J57	JUNCTION	718.00	2.00	0.0	
J58	JUNCTION	664.00	2.00	0.0	
J59	JUNCTION	670.00	2.00	0.0	
J6	JUNCTION	652.00	3.00	0.0	
J60	JUNCTION	674.00	2.00	0.0	
J61	JUNCTION	694.00	2.00	0.0	
J62	JUNCTION	658.00	2.00	0.0	
J63	JUNCTION	672.00	2.00	0.0	

J64	JUNCTION	674.00	2.00	0.0
J66	JUNCTION	642.00	8.00	0.0
J74	JUNCTION	716.00	2.00	0.0
J8	JUNCTION	645.00	4.00	0.0
J9	JUNCTION	712.00	2.00	0.0
OF1	OUTFALL	641.50	3.00	0.0
OF2	OUTFALL	641.50	0.00	0.0
ClearPond2	STORAGE	642.00	8.00	0.0
SedPond2	STORAGE	642.00	8.00	0.0

Link Summary

Name	Slope Roughness	From Node	To Node	Type	Length	%

C1_2		J74	J36	CONDUIT	63.5	
29.5462	0.0740					
C1_3		J1	J74	CONDUIT	29.8	
6.7279	0.0740					
C1_4		J33	J2	CONDUIT	66.3	
31.6608	0.0740					
C1_5		J34	J33	CONDUIT	38.0	
5.2685	0.0740					
C1_6		J35	J34	CONDUIT	65.9	
35.3915	0.0740					
C1_7		J36	J35	CONDUIT	40.5	
4.9422	0.0740					
C10		J54	J18	CONDUIT	23.6	
17.1710	0.0740					
C11		J2	J8	CONDUIT	370.1	
1.8920	0.0300					
C12		J15	J9	CONDUIT	211.6	
8.5372	0.0200					
C13		J9	J5	CONDUIT	421.3	
8.0971	0.0200					
C14		J14	J12	CONDUIT	286.7	
0.6977	0.0300					
C15		J18	J14	CONDUIT	700.7	
0.2854	0.0300					
C16_2		J20	J16	CONDUIT	291.6	
0.6858	0.0300					
C16_3		J16	J10	CONDUIT	452.6	
0.4419	0.0300					
C17		J18	J20	CONDUIT	320.9	
1.2466	0.0300					
C18		J49	J14	CONDUIT	79.3	
17.9320	0.0740					
C19_1		J8	J3	CONDUIT	59.8	
0.3361	0.0300					
C19_2		J3	SedPond2	CONDUIT	314.0	
0.8915	0.0100					
C2		J42	J12	CONDUIT	17.3	
36.9141	0.0740					
C20		J5	J16	CONDUIT	291.1	
7.5791	0.0200					
C3_2		J22	J44	CONDUIT	64.6	
32.5389	0.0740					

C3_3		J11	J45	CONDUIT	82.6	
27.6495	0.0740					
C3_6		J43	J42	CONDUIT	27.6	
30.2581	0.0740					
C3_7		J44	J43	CONDUIT	41.4	
4.8395	0.0740					
C3_8		J45	J22	CONDUIT	35.3	
5.6803	0.0740					
C4		J12	J2	CONDUIT	738.2	
0.8128	0.0300					
C4_3		J13	J49	CONDUIT	86.4	
26.3217	0.0740					
C6		J10	J6	CONDUIT	311.5	
0.6420	0.0300					
C6_3		J23	J56	CONDUIT	40.7	
9.8827	0.0740					
C6_6		J55	J54	CONDUIT	62.2	
16.2880	0.0740					
C6_7		J56	J55	CONDUIT	66.5	
31.5467	0.0740					
C6_8		J57	J23	CONDUIT	84.0	
21.9456	0.0740					
C7		J21	ClearPond2	CONDUIT	54.3	-
2.2093	0.0100					
C7_2		J58	J20	CONDUIT	19.3	
32.6863	0.0740					
C7_3		J19	J61	CONDUIT	40.4	
9.9566	0.0740					
C7_4		J59	J58	CONDUIT	24.3	
25.4736	0.0740					
C7_5		J60	J59	CONDUIT	46.3	
8.6723	0.0740					
C7_6		J61	J60	CONDUIT	60.0	
35.3832	0.0740					
C7_8		J66	OF1	CONDUIT	63.7	
0.7849	0.0100					
C8_2		J62	J10	CONDUIT	17.3	
23.7770	0.0740					
C8_4		J63	J62	CONDUIT	40.9	
36.4417	0.0740					
C8_5		J64	J63	CONDUIT	34.2	
5.8587	0.0740					
C9		J6	J8	CONDUIT	357.7	
1.9573	0.0200					
C9_3		J24	J27	CONDUIT	30.7	
6.5215	0.0740					
C9_4		J25	J6	CONDUIT	64.5	
29.0816	0.0740					
C9_5		J26	J25	CONDUIT	42.8	
9.3816	0.0740					
C9_6		J27	J26	CONDUIT	65.9	
31.8470	0.0740					
C1		SedPond2	ClearPond2	WEIR		
C3		ClearPond2	OF2	WEIR		
C5		SedPond2	J21	OUTLET		
C8		ClearPond2	J66	OUTLET		

Cross Section Summary

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

C1_2 246.70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_3 117.72	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_4 255.37	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_5 104.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_6 270.00	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_7 100.90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C10 188.06	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11 293.71	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C12 68.92	TRIANGULAR	2.00	4.00	0.71	4.00	1
C13 67.12	TRIANGULAR	2.00	4.00	0.71	4.00	1
C14 178.36	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C15 114.08	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C16_2 176.83	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C16_3 141.95	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C17 238.41	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C18 192.19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C19_1 1363.15	TRAPEZOIDAL	4.00	260.00	2.47	105.00	1
C19_2 0.00	DUMMY	0.00	0.00	0.00	0.00	1
C2 275.74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C20 64.94	TRIANGULAR	2.00	4.00	0.71	4.00	1
C3_2 258.89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_3 238.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_6 249.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_7 99.84	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_8 108.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C4 192.51	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1

C4_3 232.85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6 171.10	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C6_3 142.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_6 183.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_7 254.91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_8 212.61	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7 128.88	CIRCULAR	3.00	7.07	0.75	3.00	1
C7_2 259.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_3 143.21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_4 229.06	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_5 133.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_6 269.97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_8 76.82	CIRCULAR	3.00	7.07	0.75	3.00	1
C8_2 221.30	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C8_4 273.97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C8_5 109.85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9 448.11	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C9_3 115.90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_4 244.75	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_5 139.01	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_6 256.12	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

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

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO

Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method CURVE_NUMBER
 Flow Routing Method DYNWAVE
 Surcharge Method EXTRAN
 Starting Date 03/30/2022 00:00:00
 Ending Date 03/31/2022 00:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:01:00
 Wet Time Step 00:05:00
 Dry Time Step 00:05:00
 Routing Time Step 5.00 sec
 Variable Time Step YES
 Maximum Trials 8
 Number of Threads 8
 Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	17.623	7.660
Evaporation Loss	0.000	0.000
Infiltration Loss	1.247	0.542
Surface Runoff	16.208	7.045
Final Storage	0.220	0.095
Continuity Error (%)	-0.293	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	16.209	5.282
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	7.585	2.472
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.874	0.285
Final Stored Volume	9.500	3.096
Continuity Error (%)	-0.007	

 Time-Step Critical Elements

 Link C7 (46.56%)
 Link C2 (35.13%)

 Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

```

Minimum Time Step      :      0.50 sec
Average Time Step      :      3.01 sec
Maximum Time Step      :      5.00 sec
Percent in Steady State :      0.00
Average Iterations per Step :      2.00
Percent Not Converging :      0.00
Time Step Frequencies :
    5.000 - 3.155 sec :    46.12 %
    3.155 - 1.991 sec :    23.03 %
    1.991 - 1.256 sec :    19.38 %
    1.256 - 0.792 sec :     8.06 %
    0.792 - 0.500 sec :     3.41 %

```

Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Total	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Precip	Runoff	Runoff	in	in	in
in	in	10^6 gal	in	in	in	in	in

CP2			7.66	0.00	0.00	0.20	0.00
7.33	7.33	0.11	4.10	0.956			
S1			7.66	0.00	0.00	0.59	0.00
7.02	7.02	0.11	6.01	0.916			
S1_2			7.66	0.00	0.00	0.59	0.00
7.02	7.02	0.06	3.38	0.917			
S1_3			7.66	0.00	0.00	0.69	0.00
6.91	6.91	0.22	11.26	0.902			
S1_4			7.66	0.00	0.00	0.59	0.00
6.98	6.98	0.19	8.97	0.911			
S1_6			7.66	0.00	0.00	0.49	0.00
7.07	7.07	0.27	11.82	0.922			
S10_2			7.66	0.00	0.00	0.69	0.00
6.92	6.92	0.08	4.15	0.903			
S11			7.66	0.00	0.00	0.49	0.00
7.12	7.12	0.10	5.59	0.929			
S2			7.66	0.00	0.00	0.97	0.00
6.64	6.64	0.06	3.55	0.867			
S2_2			7.66	0.00	0.00	0.59	0.00
7.01	7.01	0.17	8.70	0.915			
S2_3			7.66	0.00	0.00	0.49	0.00
7.11	7.11	0.26	13.39	0.928			
S2_5			7.66	0.00	0.00	0.49	0.00
7.16	7.16	0.19	10.47	0.935			

S3			7.66	0.00	0.00	2.58	0.00
5.02	5.02	0.05	3.15	0.656			
S3_1			7.66	0.00	0.00	0.59	0.00
7.00	7.00	0.19	9.74	0.913			
S3_2			7.66	0.00	0.00	0.49	0.00
7.11	7.11	0.19	10.01	0.928			
S3_3			7.66	0.00	0.00	0.59	0.00
7.02	7.02	0.15	8.04	0.916			
S3_5			7.66	0.00	0.00	0.59	0.00
7.02	7.02	0.10	5.26	0.917			
S4			7.66	0.00	0.00	0.49	0.00
7.12	7.12	0.07	3.70	0.929			
S4_2			7.66	0.00	0.00	0.49	0.00
7.07	7.07	0.28	13.01	0.923			
S4_3			7.66	0.00	0.00	0.49	0.00
7.11	7.11	0.33	17.17	0.928			
S4_4			7.66	0.00	0.00	0.69	0.00
6.92	6.92	0.19	10.19	0.903			
S5			7.66	0.00	0.00	0.69	0.00
6.92	6.92	0.10	5.20	0.904			
S5_3			7.66	0.00	0.00	0.69	0.00
6.92	6.92	0.08	4.36	0.904			
S5_4			7.66	0.00	0.00	0.59	0.00
7.02	7.02	0.14	7.85	0.917			
S6			7.66	0.00	0.00	0.58	0.00
7.02	7.02	0.32	16.51	0.917			
S6_4			7.66	0.00	0.00	0.49	0.00
7.11	7.11	0.33	17.58	0.928			
S6_5			7.66	0.00	0.00	0.59	0.00
7.02	7.02	0.12	6.41	0.917			
S8			7.66	0.00	0.00	0.49	0.00
7.12	7.12	0.06	3.25	0.929			
S9			7.66	0.00	0.00	0.69	0.00
6.92	6.92	0.08	4.14	0.904			
SP2			7.66	0.00	0.00	0.20	0.00
7.32	7.32	0.68	24.69	0.955			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.05	0.38	718.38	0 11:54	0.38
J10	JUNCTION	0.34	2.16	656.16	0 11:57	2.16
J11	JUNCTION	0.04	0.39	718.39	0 11:54	0.39
J12	JUNCTION	0.22	1.75	659.75	0 11:56	1.75
J13	JUNCTION	0.05	0.43	696.43	0 11:54	0.43
J14	JUNCTION	0.15	1.25	661.25	0 11:56	1.25
J15	JUNCTION	0.00	0.00	730.00	0 00:00	0.00
J16	JUNCTION	0.28	2.11	658.11	0 11:56	2.11
J18	JUNCTION	0.12	1.07	663.07	0 11:55	1.07
J19	JUNCTION	0.05	0.40	698.40	0 11:54	0.40
J2	JUNCTION	0.23	1.80	653.80	0 11:56	1.79
J20	JUNCTION	0.20	1.62	659.62	0 11:55	1.62

J21	JUNCTION	2.77	5.17	647.17	0	12:38	5.17
J22	JUNCTION	0.06	0.52	694.52	0	11:54	0.52
J23	JUNCTION	0.11	0.85	700.85	0	11:54	0.85
J24	JUNCTION	0.00	0.00	696.00	0	00:00	0.00
J25	JUNCTION	0.07	0.63	670.63	0	11:54	0.63
J26	JUNCTION	0.09	0.73	674.73	0	11:54	0.73
J27	JUNCTION	0.06	0.52	694.52	0	11:54	0.52
J3	JUNCTION	0.01	0.12	644.92	0	11:58	0.12
J33	JUNCTION	0.09	0.77	672.77	0	11:54	0.77
J34	JUNCTION	0.14	1.06	675.06	0	11:54	1.06
J35	JUNCTION	0.05	0.42	696.42	0	11:54	0.42
J36	JUNCTION	0.11	0.76	698.76	0	11:54	0.76
J42	JUNCTION	0.08	0.70	664.70	0	11:54	0.69
J43	JUNCTION	0.08	0.67	672.67	0	11:54	0.67
J44	JUNCTION	0.16	1.11	675.11	0	11:54	1.11
J45	JUNCTION	0.12	0.85	696.85	0	11:54	0.85
J49	JUNCTION	0.06	0.55	674.55	0	11:54	0.55
J5	JUNCTION	0.31	1.30	679.30	0	11:54	1.30
J54	JUNCTION	0.11	0.94	666.94	0	11:54	0.94
J55	JUNCTION	0.09	0.72	676.72	0	11:54	0.71
J56	JUNCTION	0.07	0.60	696.60	0	11:54	0.60
J57	JUNCTION	0.06	0.49	718.49	0	11:54	0.49
J58	JUNCTION	0.06	0.52	664.52	0	11:54	0.52
J59	JUNCTION	0.05	0.48	670.48	0	11:54	0.48
J6	JUNCTION	0.19	1.50	653.50	0	11:57	1.50
J60	JUNCTION	0.08	0.66	674.66	0	11:54	0.66
J61	JUNCTION	0.03	0.26	694.26	0	11:54	0.26
J62	JUNCTION	0.06	0.54	658.54	0	11:54	0.54
J63	JUNCTION	0.00	0.00	672.00	0	00:00	0.00
J64	JUNCTION	0.00	0.00	674.00	0	00:00	0.00
J66	JUNCTION	0.46	1.95	643.95	0	12:42	1.95
J74	JUNCTION	0.02	0.23	716.23	0	11:54	0.23
J8	JUNCTION	0.63	3.43	648.43	0	11:58	3.43
J9	JUNCTION	0.24	1.04	713.04	0	11:54	1.04
OF1	OUTFALL	0.35	1.30	642.80	0	12:42	1.30
OF2	OUTFALL	0.00	0.00	641.50	0	00:00	0.00
ClearPond2	STORAGE	2.88	4.83	646.83	0	12:42	4.83
SedPond2	STORAGE	4.18	5.85	647.85	0	12:29	5.85

Node Inflow Summary

Total		Flow		Maximum	Maximum	Lateral	
Inflow	Balance	Lateral	Total	Inflow	Inflow	Time of Max	Inflow
Volume	Error	Type	CFS	CFS	Occurrence	Volume	Volume
Node	Percent				days hr:min	10^6 gal	10^6
gal							
J1	0.0774	JUNCTION	4.15	4.15	0	11:54	0.0774

J10		JUNCTION	3.15	85.32	0	11:56	0.0546
1.83	0.161						
J11		JUNCTION	9.74	9.74	0	11:54	0.195
0.195	0.018						
J12		JUNCTION	4.14	65.08	0	11:54	0.0762
1.34	0.163						
J13		JUNCTION	11.26	11.26	0	11:54	0.217
0.217	0.017						
J14		JUNCTION	3.25	31.71	0	11:54	0.0607
0.63	0.271						
J15		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J16		JUNCTION	0.00	69.92	0	11:55	0
1.46	0.160						
J18		JUNCTION	5.20	45.09	0	11:54	0.0957
0.9	0.106						
J19		JUNCTION	5.59	5.59	0	11:54	0.103
0.103	0.015						
J2		JUNCTION	6.01	102.38	0	11:55	0.112
2.14	0.077						
J20		JUNCTION	3.70	50.55	0	11:54	0.0685
1	0.084						
J21		JUNCTION	0.00	31.14	0	12:29	0
2.64	0.060						
J22		JUNCTION	0.00	17.69	0	11:54	0
0.345	0.016						
J23		JUNCTION	10.19	23.14	0	11:54	0.191
0.476	0.025						
J24		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J25		JUNCTION	6.41	23.90	0	11:54	0.118
0.451	-0.001						
J26		JUNCTION	0.00	17.56	0	11:54	0
0.334	0.026						
J27		JUNCTION	17.58	17.58	0	11:54	0.334
0.334	0.014						
J3		JUNCTION	0.00	205.86	0	11:58	0
4.47	-0.002						
J33		JUNCTION	10.47	36.41	0	11:54	0.192
0.692	0.001						
J34		JUNCTION	13.39	26.11	0	11:54	0.257
0.501	0.029						
J35		JUNCTION	0.00	12.79	0	11:54	0
0.244	0.018						
J36		JUNCTION	8.70	12.82	0	11:54	0.167
0.244	0.045						
J42		JUNCTION	5.26	32.75	0	11:54	0.0968
0.631	0.002						
J43		JUNCTION	0.00	27.57	0	11:54	0
0.534	0.010						
J44		JUNCTION	10.01	27.60	0	11:54	0.19
0.534	0.032						
J45		JUNCTION	8.04	17.74	0	11:54	0.15
0.345	0.039						
J49		JUNCTION	3.38	14.61	0	11:54	0.0622
0.279	0.016						
J5		JUNCTION	8.97	20.61	0	11:54	0.192
0.458	0.021						
J54		JUNCTION	17.17	39.95	0	11:54	0.329
0.804	0.009						

J55		JUNCTION	0.00	23.07	0	11:54	0
0.475	0.023						
J56		JUNCTION	0.00	23.08	0	11:54	0
0.476	0.013						
J57		JUNCTION	13.01	13.01	0	11:54	0.285
0.285	0.018						
J58		JUNCTION	4.36	17.78	0	11:54	0.0794
0.327	0.002						
J59		JUNCTION	0.00	13.42	0	11:54	0
0.248	0.013						
J6		JUNCTION	3.55	108.55	0	11:56	0.0637
2.34	0.031						
J60		JUNCTION	7.85	13.43	0	11:54	0.144
0.248	0.031						
J61		JUNCTION	0.00	5.59	0	11:54	0
0.103	0.021						
J62		JUNCTION	16.51	16.51	0	11:54	0.319
0.319	0.004						
J63		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J64		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J66		JUNCTION	0.00	30.05	0	12:42	0
2.47	0.006						
J74		JUNCTION	0.00	4.14	0	11:54	0
0.0774	0.025						
J8		JUNCTION	0.00	208.97	0	11:56	0
4.48	0.306						
J9		JUNCTION	11.82	11.82	0	11:54	0.266
0.266	0.030						
OF1		OUTFALL	0.00	30.05	0	12:42	0
2.47	0.000						
OF2		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
ClearPond2		STORAGE	4.10	31.89	0	12:28	0.11
2.75	0.051						
SedPond2		STORAGE	24.69	230.44	0	11:58	0.677
5.43	0.000						

Node Surcharge Summary

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

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
J21	JUNCTION	11.87	2.167	2.833

Node Flooding Summary

No nodes were flooded.

 Storage Volume Summary

of Max Occurrence	Maximum Outflow Storage Unit	Average Volume	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume	Max Pcnt Full	Time days
12:42	30.05	24.960	25	0	0	46.649	46	0
12:29	31.14	285.091	39	0	0	461.122	64	0

 Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
OF1	63.46	6.47	30.05	2.471
OF2	0.00	0.00	0.00	0.000
System	31.73	6.47	30.05	2.471

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1_2	CONDUIT	4.14	0 11:54	1.51	0.02	0.25
C1_3	CONDUIT	4.14	0 11:54	2.72	0.04	0.15
C1_4	CONDUIT	36.40	0 11:54	3.90	0.14	0.63
C1_5	CONDUIT	26.07	0 11:54	4.23	0.25	0.46
C1_6	CONDUIT	12.78	0 11:54	2.77	0.05	0.37
C1_7	CONDUIT	12.79	0 11:54	3.75	0.13	0.30
C10	CONDUIT	39.94	0 11:54	5.76	0.21	0.50
C11	CONDUIT	100.90	0 11:56	4.78	0.34	0.80
C12	CONDUIT	0.00	0 00:00	0.00	0.00	0.26
C13	CONDUIT	11.72	0 11:54	8.59	0.17	0.58
C14	CONDUIT	29.92	0 11:56	2.85	0.17	0.50
C15	CONDUIT	14.22	0 11:55	1.98	0.12	0.38
C16_2	CONDUIT	49.56	0 11:55	3.51	0.28	0.62

C16_3	CONDUIT	67.98	0	11:56	3.85	0.48	0.71
C17	CONDUIT	29.71	0	11:55	3.32	0.12	0.45
C18	CONDUIT	14.57	0	11:54	2.59	0.08	0.44
C19_1	CONDUIT	205.86	0	11:58	2.72	0.15	0.44
C19_2	DUMMY	205.86	0	11:58			
C2	CONDUIT	32.75	0	11:54	3.72	0.12	0.61
C20	CONDUIT	20.51	0	11:54	8.97	0.32	0.82
C3_2	CONDUIT	17.68	0	11:54	3.38	0.07	0.41
C3_3	CONDUIT	9.72	0	11:54	2.67	0.04	0.31
C3_6	CONDUIT	27.57	0	11:54	6.65	0.11	0.34
C3_7	CONDUIT	27.57	0	11:54	4.64	0.28	0.45
C3_8	CONDUIT	17.69	0	11:54	4.26	0.16	0.34
C4	CONDUIT	63.19	0	11:56	4.71	0.33	0.59
C4_3	CONDUIT	11.23	0	11:54	4.23	0.05	0.24
C6	CONDUIT	85.05	0	11:57	6.07	0.50	0.61
C6_3	CONDUIT	23.08	0	11:54	5.13	0.16	0.36
C6_6	CONDUIT	23.04	0	11:54	4.29	0.13	0.41
C6_7	CONDUIT	23.07	0	11:54	5.85	0.09	0.33
C6_8	CONDUIT	12.98	0	11:54	3.22	0.06	0.33
C7	CONDUIT	31.13	0	12:29	4.50	0.24	1.00
C7_2	CONDUIT	17.78	0	11:54	2.44	0.07	0.53
C7_3	CONDUIT	5.59	0	11:54	3.36	0.04	0.17
C7_4	CONDUIT	13.42	0	11:54	4.93	0.06	0.25
C7_5	CONDUIT	13.42	0	11:54	4.13	0.10	0.28
C7_6	CONDUIT	5.59	0	11:54	2.23	0.02	0.23
C7_8	CONDUIT	30.05	0	12:42	7.68	0.39	0.54
C8_2	CONDUIT	16.50	0	11:54	1.68	0.07	0.64
C8_4	CONDUIT	0.00	0	00:00	0.00	0.00	0.14
C8_5	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
C9	CONDUIT	108.28	0	11:57	5.65	0.24	0.75
C9_3	CONDUIT	0.00	0	00:00	0.00	0.00	0.13
C9_4	CONDUIT	23.89	0	11:54	3.41	0.10	0.52
C9_5	CONDUIT	17.52	0	11:54	4.27	0.13	0.34
C9_6	CONDUIT	17.56	0	11:54	4.78	0.07	0.31
C1	WEIR	0.00	0	00:00			0.00
C3	WEIR	0.00	0	00:00			0.00
C5	DUMMY	31.14	0	12:29			
C8	DUMMY	30.05	0	12:42			

Flow Classification Summary

Inlet Conduit Ctrl	Adjusted /Actual Length	Fraction of Time in Flow Class							
		Up Dry	Down Dry	Sub Crit	Sup Crit	Up Crit	Down Crit	Norm Ltd	
C1_2 0.00	1.00	0.06	0.00	0.00	0.94	0.00	0.00	0.00	0.89
C1_3 0.00	1.00	0.06	0.00	0.00	0.94	0.00	0.00	0.00	0.00

C7_2	1.00	0.06	0.00	0.00	0.94	0.00	0.00	0.00	0.90
0.00									
C7_3	1.00	0.06	0.00	0.00	0.91	0.03	0.00	0.00	0.00
0.00									
C7_4	1.00	0.06	0.00	0.00	0.70	0.24	0.00	0.00	0.89
0.00									
C7_5	1.00	0.06	0.00	0.00	0.92	0.03	0.00	0.00	0.00
0.00									
C7_6	1.00	0.06	0.00	0.00	0.94	0.00	0.00	0.00	0.90
0.00									
C7_8	1.00	0.37	0.00	0.00	0.00	0.63	0.00	0.00	0.00
0.00									
C8_2	1.00	0.06	0.00	0.00	0.93	0.01	0.00	0.00	0.88
0.00									
C8_4	1.00	0.06	0.94	0.00	0.00	0.00	0.00	0.00	0.00
0.00									
C8_5	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00									
C9	1.00	0.06	0.00	0.00	0.94	0.01	0.00	0.00	0.88
0.00									
C9_3	1.00	0.06	0.94	0.00	0.00	0.00	0.00	0.00	0.00
0.00									
C9_4	1.00	0.06	0.00	0.00	0.93	0.01	0.00	0.00	0.88
0.00									
C9_5	1.00	0.06	0.00	0.00	0.92	0.02	0.00	0.00	0.00
0.00									
C9_6	1.00	0.06	0.00	0.00	0.89	0.05	0.00	0.00	0.90
0.00									

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
C11	0.01	0.01	0.17	0.01	0.01
C20	0.01	0.01	0.11	0.01	0.01
C7	5.31	5.31	11.87	0.01	0.01
C8_2	0.01	0.01	0.14	0.01	0.01
C9	0.01	0.01	0.17	0.01	0.01

Analysis begun on: Mon Oct 23 18:23:46 2023
 Analysis ended on: Mon Oct 23 18:23:47 2023
 Total elapsed time: 00:00:01

WARNING 02: maximum depth increased for Node J1
 WARNING 02: maximum depth increased for Node J11
 WARNING 02: maximum depth increased for Node J13
 WARNING 02: maximum depth increased for Node J19
 WARNING 02: maximum depth increased for Node J22
 WARNING 02: maximum depth increased for Node J23
 WARNING 02: maximum depth increased for Node J24
 WARNING 02: maximum depth increased for Node J25
 WARNING 02: maximum depth increased for Node J26
 WARNING 02: maximum depth increased for Node J27
 WARNING 02: maximum depth increased for Node J33
 WARNING 02: maximum depth increased for Node J34
 WARNING 02: maximum depth increased for Node J35
 WARNING 02: maximum depth increased for Node J36
 WARNING 02: maximum depth increased for Node J42
 WARNING 02: maximum depth increased for Node J43
 WARNING 02: maximum depth increased for Node J44
 WARNING 02: maximum depth increased for Node J45
 WARNING 02: maximum depth increased for Node J49
 WARNING 02: maximum depth increased for Node J54
 WARNING 02: maximum depth increased for Node J55
 WARNING 02: maximum depth increased for Node J56
 WARNING 02: maximum depth increased for Node J57
 WARNING 02: maximum depth increased for Node J58
 WARNING 02: maximum depth increased for Node J59
 WARNING 02: maximum depth increased for Node J60
 WARNING 02: maximum depth increased for Node J61
 WARNING 02: maximum depth increased for Node J62
 WARNING 02: maximum depth increased for Node J63
 WARNING 02: maximum depth increased for Node J64
 WARNING 02: maximum depth increased for Node J74

Element Count

Number of rain gages 4
 Number of subcatchments ... 30
 Number of nodes 50
 Number of links 51
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_3.82in	SCS_Type_II_0.1in.	INTENSITY	6 min.
SCS_Type_II_6.18in	SCS_Type_II_6.18in	INTENSITY	6 min.
SCS_Type_II_6.29in_25yr	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_7.66in	SCS_Type_II_7.66in	INTENSITY	6 min.

 Subcatchment Summary

Name Outlet	Area	Width	%Imperv	%Slope	Rain Gage
CP2	0.55	60.00	0.00	2.5810	
SCS_Type_II_6.29in_25yr ClearPond2					
S1	0.59	360.00	0.00	5.0000	
SCS_Type_II_6.29in_25yr J2					
S1_2	0.33	245.00	0.00	17.1430	
SCS_Type_II_6.29in_25yr J49					
S1_3	1.16	190.00	0.00	22.8570	
SCS_Type_II_6.29in_25yr J13					
S1_4	1.01	110.00	0.00	12.2450	
SCS_Type_II_6.29in_25yr J5					
S1_6	1.38	150.00	0.00	8.0000	
SCS_Type_II_6.29in_25yr J9					
S10_2	0.41	150.00	0.00	11.4290	
SCS_Type_II_6.29in_25yr J1					
S11	0.54	500.00	0.00	20.0000	
SCS_Type_II_6.29in_25yr J19					
S2	0.35	360.00	0.00	6.6670	
SCS_Type_II_6.29in_25yr J6					
S2_2	0.88	170.00	0.00	22.0000	
SCS_Type_II_6.29in_25yr J36					
S2_3	1.33	290.00	0.00	20.0000	
SCS_Type_II_6.29in_25yr J34					
S2_5	0.99	320.00	0.00	23.3330	
SCS_Type_II_6.29in_25yr J33					
S3	0.40	380.00	0.00	5.0000	
SCS_Type_II_6.29in_25yr J10					
S3_1	1.02	230.00	0.00	7.0000	
SCS_Type_II_6.29in_25yr J11					
S3_2	0.98	280.00	0.00	18.3330	
SCS_Type_II_6.29in_25yr J44					
S3_3	0.79	240.00	0.00	22.0000	
SCS_Type_II_6.29in_25yr J45					
S3_5	0.51	320.00	0.00	20.0000	
SCS_Type_II_6.29in_25yr J42					
S4	0.35	380.00	0.00	10.0000	
SCS_Type_II_6.29in_25yr J20					
S4_2	1.48	240.00	0.00	4.6150	
SCS_Type_II_6.29in_25yr J57					
S4_3	1.70	380.00	0.00	21.4290	
SCS_Type_II_6.29in_25yr J54					
S4_4	1.02	235.00	0.00	26.0000	
SCS_Type_II_6.29in_25yr J23					
S5	0.51	415.00	0.00	5.0000	
SCS_Type_II_6.29in_25yr J18					
S5_3	0.42	500.00	0.00	24.0000	
SCS_Type_II_6.29in_25yr J58					
S5_4	0.76	500.00	0.00	20.0000	
SCS_Type_II_6.29in_25yr J60					
S6	1.67	381.75	0.00	13.5290	
SCS_Type_II_6.29in_25yr J62					
S6_4	1.73	500.00	0.00	17.0370	SCS_Type_II_6.29in_

S6_5	0.62	500.00	0.00	28.5710
SCS_Type_II_6.29in_25yr J25				
S8	0.31	270.00	0.00	5.0000
SCS_Type_II_6.29in_25yr J14				
S9	0.41	340.00	0.00	5.0000
SCS_Type_II_6.29in_25yr J12				
SP2	3.41	280.00	0.00	3.5710
SCS_Type_II_6.29in_25yr SedPond2				

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	718.00	2.00	0.0	
J10	JUNCTION	654.00	3.00	0.0	
J11	JUNCTION	718.00	2.00	0.0	
J12	JUNCTION	658.00	3.00	0.0	
J13	JUNCTION	696.00	2.00	0.0	
J14	JUNCTION	660.00	3.00	0.0	
J15	JUNCTION	730.00	2.00	0.0	
J16	JUNCTION	656.00	4.00	0.0	
J18	JUNCTION	662.00	3.00	0.0	
J19	JUNCTION	698.00	2.00	0.0	
J2	JUNCTION	652.00	3.00	0.0	
J20	JUNCTION	658.00	3.00	0.0	
J21	JUNCTION	642.00	8.00	0.0	
J22	JUNCTION	694.00	2.00	0.0	
J23	JUNCTION	700.00	2.00	0.0	
J24	JUNCTION	696.00	2.00	0.0	
J25	JUNCTION	670.00	2.00	0.0	
J26	JUNCTION	674.00	2.00	0.0	
J27	JUNCTION	694.00	2.00	0.0	
J3	JUNCTION	644.80	4.33	0.0	
J33	JUNCTION	672.00	2.00	0.0	
J34	JUNCTION	674.00	2.00	0.0	
J35	JUNCTION	696.00	2.00	0.0	
J36	JUNCTION	698.00	2.00	0.0	
J42	JUNCTION	664.00	2.00	0.0	
J43	JUNCTION	672.00	2.00	0.0	
J44	JUNCTION	674.00	2.00	0.0	
J45	JUNCTION	696.00	2.00	0.0	
J49	JUNCTION	674.00	2.00	0.0	
J5	JUNCTION	678.00	2.00	0.0	
J54	JUNCTION	666.00	2.00	0.0	
J55	JUNCTION	676.00	2.00	0.0	
J56	JUNCTION	696.00	2.00	0.0	
J57	JUNCTION	718.00	2.00	0.0	
J58	JUNCTION	664.00	2.00	0.0	
J59	JUNCTION	670.00	2.00	0.0	
J6	JUNCTION	652.00	3.00	0.0	
J60	JUNCTION	674.00	2.00	0.0	
J61	JUNCTION	694.00	2.00	0.0	
J62	JUNCTION	658.00	2.00	0.0	
J63	JUNCTION	672.00	2.00	0.0	

J64	JUNCTION	674.00	2.00	0.0
J66	JUNCTION	642.00	8.00	0.0
J74	JUNCTION	716.00	2.00	0.0
J8	JUNCTION	645.00	4.00	0.0
J9	JUNCTION	712.00	2.00	0.0
OF1	OUTFALL	641.50	3.00	0.0
OF2	OUTFALL	641.50	0.00	0.0
ClearPond2	STORAGE	642.00	8.00	0.0
SedPond2	STORAGE	642.00	8.00	0.0

Link Summary

Name	Slope Roughness	From Node	To Node	Type	Length	%

C1_2		J74	J36	CONDUIT	63.5	
29.5462	0.0740					
C1_3		J1	J74	CONDUIT	29.8	
6.7279	0.0740					
C1_4		J33	J2	CONDUIT	66.3	
31.6608	0.0740					
C1_5		J34	J33	CONDUIT	38.0	
5.2685	0.0740					
C1_6		J35	J34	CONDUIT	65.9	
35.3915	0.0740					
C1_7		J36	J35	CONDUIT	40.5	
4.9422	0.0740					
C10		J54	J18	CONDUIT	23.6	
17.1710	0.0740					
C11		J2	J8	CONDUIT	370.1	
1.8920	0.0300					
C12		J15	J9	CONDUIT	211.6	
8.5372	0.0200					
C13		J9	J5	CONDUIT	421.3	
8.0971	0.0200					
C14		J14	J12	CONDUIT	286.7	
0.6977	0.0300					
C15		J18	J14	CONDUIT	700.7	
0.2854	0.0300					
C16_2		J20	J16	CONDUIT	291.6	
0.6858	0.0300					
C16_3		J16	J10	CONDUIT	452.6	
0.4419	0.0300					
C17		J18	J20	CONDUIT	320.9	
1.2466	0.0300					
C18		J49	J14	CONDUIT	79.3	
17.9320	0.0740					
C19_1		J8	J3	CONDUIT	59.8	
0.3361	0.0300					
C19_2		J3	SedPond2	CONDUIT	314.0	
0.8915	0.0100					
C2		J42	J12	CONDUIT	17.3	
36.9141	0.0740					
C20		J5	J16	CONDUIT	291.1	
7.5791	0.0200					
C3_2		J22	J44	CONDUIT	64.6	
32.5389	0.0740					

C3_3		J11	J45	CONDUIT	82.6	
27.6495	0.0740					
C3_6		J43	J42	CONDUIT	27.6	
30.2581	0.0740					
C3_7		J44	J43	CONDUIT	41.4	
4.8395	0.0740					
C3_8		J45	J22	CONDUIT	35.3	
5.6803	0.0740					
C4		J12	J2	CONDUIT	738.2	
0.8128	0.0300					
C4_3		J13	J49	CONDUIT	86.4	
26.3217	0.0740					
C6		J10	J6	CONDUIT	311.5	
0.6420	0.0300					
C6_3		J23	J56	CONDUIT	40.7	
9.8827	0.0740					
C6_6		J55	J54	CONDUIT	62.2	
16.2880	0.0740					
C6_7		J56	J55	CONDUIT	66.5	
31.5467	0.0740					
C6_8		J57	J23	CONDUIT	84.0	
21.9456	0.0740					
C7		J21	ClearPond2	CONDUIT	54.3	-
2.2093	0.0100					
C7_2		J58	J20	CONDUIT	19.3	
32.6863	0.0740					
C7_3		J19	J61	CONDUIT	40.4	
9.9566	0.0740					
C7_4		J59	J58	CONDUIT	24.3	
25.4736	0.0740					
C7_5		J60	J59	CONDUIT	46.3	
8.6723	0.0740					
C7_6		J61	J60	CONDUIT	60.0	
35.3832	0.0740					
C7_8		J66	OF1	CONDUIT	63.7	
0.7849	0.0100					
C8_2		J62	J10	CONDUIT	17.3	
23.7770	0.0740					
C8_4		J63	J62	CONDUIT	40.9	
36.4417	0.0740					
C8_5		J64	J63	CONDUIT	34.2	
5.8587	0.0740					
C9		J6	J8	CONDUIT	357.7	
1.9573	0.0200					
C9_3		J24	J27	CONDUIT	30.7	
6.5215	0.0740					
C9_4		J25	J6	CONDUIT	64.5	
29.0816	0.0740					
C9_5		J26	J25	CONDUIT	42.8	
9.3816	0.0740					
C9_6		J27	J26	CONDUIT	65.9	
31.8470	0.0740					
C1		SedPond2	ClearPond2	WEIR		
C3		ClearPond2	OF2	WEIR		
C5		SedPond2	J21	OUTLET		
C8		ClearPond2	J66	OUTLET		

Cross Section Summary

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

C1_2 246.70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_3 117.72	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_4 255.37	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_5 104.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_6 270.00	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_7 100.90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C10 188.06	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11 293.71	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C12 68.92	TRIANGULAR	2.00	4.00	0.71	4.00	1
C13 67.12	TRIANGULAR	2.00	4.00	0.71	4.00	1
C14 178.36	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C15 114.08	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C16_2 176.83	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C16_3 141.95	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C17 238.41	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C18 192.19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C19_1 1363.15	TRAPEZOIDAL	4.00	260.00	2.47	105.00	1
C19_2 0.00	DUMMY	0.00	0.00	0.00	0.00	1
C2 275.74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C20 64.94	TRIANGULAR	2.00	4.00	0.71	4.00	1
C3_2 258.89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_3 238.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_6 249.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_7 99.84	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_8 108.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C4 192.51	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1

C4_3 232.85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6 171.10	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C6_3 142.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_6 183.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_7 254.91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_8 212.61	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7 128.88	CIRCULAR	3.00	7.07	0.75	3.00	1
C7_2 259.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_3 143.21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_4 229.06	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_5 133.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_6 269.97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_8 76.82	CIRCULAR	3.00	7.07	0.75	3.00	1
C8_2 221.30	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C8_4 273.97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C8_5 109.85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9 448.11	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C9_3 115.90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_4 244.75	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_5 139.01	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_6 256.12	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

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

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO

Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method CURVE_NUMBER
 Flow Routing Method DYNWAVE
 Surcharge Method EXTRAN
 Starting Date 03/30/2022 00:00:00
 Ending Date 03/31/2022 00:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:01:00
 Wet Time Step 00:05:00
 Dry Time Step 00:05:00
 Routing Time Step 5.00 sec
 Variable Time Step YES
 Maximum Trials 8
 Number of Threads 8
 Head Tolerance 0.005000 ft

	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
	-----	-----
Total Precipitation	14.471	6.290
Evaporation Loss	0.000	0.000
Infiltration Loss	1.223	0.531
Surface Runoff	13.079	5.685
Final Storage	0.208	0.090
Continuity Error (%)	-0.267	

	Volume	Volume
Flow Routing Continuity	acre-feet	10 ⁶ gal
	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	13.081	4.263
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	4.515	1.471
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.874	0.285
Final Stored Volume	9.441	3.077
Continuity Error (%)	-0.011	

 Time-Step Critical Elements

 Link C7 (50.99%)
 Link C2 (27.23%)

 Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

Minimum Time Step : 0.39 sec
 Average Time Step : 3.05 sec
 Maximum Time Step : 5.00 sec
 Percent in Steady State : -0.00
 Average Iterations per Step : 2.00
 Percent Not Converging : 0.00
 Time Step Frequencies :
 5.000 - 3.155 sec : 43.33 %
 3.155 - 1.991 sec : 28.83 %
 1.991 - 1.256 sec : 18.27 %
 1.256 - 0.792 sec : 6.73 %
 0.792 - 0.500 sec : 2.84 %

Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Total	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Runoff	Precip	Runoff	Evap	Infil	Runoff
in	in	10^6 gal	in	in	in	in	in

CP2			6.29	0.00	0.00	0.20	0.00
5.97	5.97	0.09	3.27	0.948			
S1			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.09	4.86	0.899			
S1_2			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.05	2.75	0.900			
S1_3			6.29	0.00	0.00	0.67	0.00
5.55	5.55	0.17	9.01	0.883			
S1_4			6.29	0.00	0.00	0.58	0.00
5.62	5.62	0.15	7.10	0.894			
S1_6			6.29	0.00	0.00	0.49	0.00
5.71	5.71	0.21	9.32	0.907			
S10_2			6.29	0.00	0.00	0.67	0.00
5.56	5.56	0.06	3.34	0.884			
S11			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.08	4.56	0.915			
S2			6.29	0.00	0.00	0.94	0.00
5.29	5.29	0.05	2.86	0.842			
S2_2			6.29	0.00	0.00	0.58	0.00
5.65	5.65	0.13	7.00	0.898			
S2_3			6.29	0.00	0.00	0.49	0.00
5.74	5.74	0.21	10.81	0.913			
S2_5			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.15	8.25	0.914			

S3			6.29	0.00	0.00	2.40	0.00
3.83	3.83	0.04	2.40	0.609			
S3_1			6.29	0.00	0.00	0.58	0.00
5.64	5.64	0.16	7.78	0.896			
S3_2			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.15	8.11	0.914			
S3_3			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.12	6.51	0.899			
S3_5			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.08	4.28	0.900			
S4			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.06	3.02	0.915			
S4_2			6.29	0.00	0.00	0.49	0.00
5.71	5.71	0.23	10.30	0.908			
S4_3			6.29	0.00	0.00	0.49	0.00
5.74	5.74	0.27	13.88	0.913			
S4_4			6.29	0.00	0.00	0.67	0.00
5.56	5.56	0.15	8.21	0.884			
S5			6.29	0.00	0.00	0.67	0.00
5.57	5.57	0.08	4.21	0.885			
S5_3			6.29	0.00	0.00	0.67	0.00
5.57	5.57	0.06	3.55	0.885			
S5_4			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.12	6.39	0.900			
S6			6.29	0.00	0.00	0.57	0.00
5.66	5.66	0.26	13.28	0.900			
S6_4			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.27	14.24	0.914			
S6_5			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.09	5.22	0.900			
S8			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.05	2.64	0.915			
S9			6.29	0.00	0.00	0.67	0.00
5.57	5.57	0.06	3.35	0.885			
SP2			6.29	0.00	0.00	0.20	0.00
5.96	5.96	0.55	19.78	0.947			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.04	0.34	718.34	0 11:54	0.34
J10	JUNCTION	0.30	1.96	655.96	0 11:57	1.95
J11	JUNCTION	0.04	0.34	718.34	0 11:54	0.34
J12	JUNCTION	0.19	1.57	659.57	0 11:56	1.57
J13	JUNCTION	0.04	0.38	696.38	0 11:54	0.38
J14	JUNCTION	0.13	1.11	661.11	0 11:56	1.11
J15	JUNCTION	0.00	0.00	730.00	0 00:00	0.00
J16	JUNCTION	0.24	1.89	657.89	0 11:57	1.89
J18	JUNCTION	0.11	0.95	662.95	0 11:55	0.95
J19	JUNCTION	0.04	0.36	698.36	0 11:54	0.36
J2	JUNCTION	0.20	1.61	653.61	0 11:56	1.60
J20	JUNCTION	0.17	1.45	659.45	0 11:55	1.45

J21	JUNCTION	2.67	4.48	646.48	0	13:33	4.48
J22	JUNCTION	0.05	0.46	694.46	0	11:54	0.46
J23	JUNCTION	0.09	0.76	700.76	0	11:54	0.76
J24	JUNCTION	0.00	0.00	696.00	0	00:00	0.00
J25	JUNCTION	0.06	0.56	670.56	0	11:54	0.56
J26	JUNCTION	0.08	0.66	674.66	0	11:54	0.65
J27	JUNCTION	0.05	0.46	694.46	0	11:54	0.46
J3	JUNCTION	0.00	0.10	644.90	0	11:58	0.10
J33	JUNCTION	0.08	0.68	672.68	0	11:54	0.68
J34	JUNCTION	0.13	0.96	674.96	0	11:54	0.96
J35	JUNCTION	0.04	0.37	696.37	0	11:54	0.37
J36	JUNCTION	0.10	0.69	698.69	0	11:54	0.69
J42	JUNCTION	0.07	0.62	664.62	0	11:54	0.62
J43	JUNCTION	0.07	0.60	672.60	0	11:54	0.60
J44	JUNCTION	0.14	1.00	675.00	0	11:54	0.99
J45	JUNCTION	0.11	0.77	696.77	0	11:54	0.76
J49	JUNCTION	0.05	0.49	674.49	0	11:54	0.48
J5	JUNCTION	0.29	1.19	679.19	0	11:54	1.19
J54	JUNCTION	0.10	0.84	666.84	0	11:54	0.84
J55	JUNCTION	0.07	0.64	676.64	0	11:54	0.63
J56	JUNCTION	0.06	0.53	696.53	0	11:54	0.53
J57	JUNCTION	0.05	0.43	718.43	0	11:54	0.43
J58	JUNCTION	0.05	0.46	664.46	0	11:54	0.46
J59	JUNCTION	0.04	0.42	670.42	0	11:54	0.42
J6	JUNCTION	0.17	1.34	653.34	0	11:57	1.34
J60	JUNCTION	0.07	0.60	674.60	0	11:54	0.60
J61	JUNCTION	0.02	0.24	694.24	0	11:54	0.24
J62	JUNCTION	0.05	0.48	658.48	0	11:54	0.48
J63	JUNCTION	0.00	0.00	672.00	0	00:00	0.00
J64	JUNCTION	0.00	0.00	674.00	0	00:00	0.00
J66	JUNCTION	0.36	1.09	643.09	0	13:34	1.09
J74	JUNCTION	0.02	0.21	716.21	0	11:54	0.21
J8	JUNCTION	0.57	3.04	648.04	0	11:58	3.03
J9	JUNCTION	0.22	0.95	712.95	0	11:54	0.95
OF1	OUTFALL	0.29	0.79	642.29	0	13:35	0.79
OF2	OUTFALL	0.00	0.00	641.50	0	00:00	0.00
ClearPond2	STORAGE	2.78	4.43	646.43	0	13:34	4.43
SedPond2	STORAGE	4.09	5.44	647.44	0	13:08	5.44

Node Inflow Summary

Total Inflow Volume		Flow Balance Error	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence	Lateral Inflow Volume
gal	Percent			CFS	CFS	days hr:min	10^6 gal
J1	0.0622	0.019	JUNCTION	3.34	3.34	0 11:54	0.0622

J10		JUNCTION	2.40	68.11	0	11:56	0.0416
1.47	0.180						
J11		JUNCTION	7.78	7.78	0	11:54	0.157
0.157	0.019						
J12		JUNCTION	3.35	52.15	0	11:54	0.0612
1.08	0.178						
J13		JUNCTION	9.01	9.01	0	11:54	0.174
0.174	0.019						
J14		JUNCTION	2.64	25.43	0	11:54	0.049
0.508	0.295						
J15		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J16		JUNCTION	0.00	55.95	0	11:55	0
1.18	0.172						
J18		JUNCTION	4.21	36.16	0	11:54	0.0769
0.726	0.119						
J19		JUNCTION	4.56	4.56	0	11:54	0.0836
0.0836	0.017						
J2		JUNCTION	4.86	81.90	0	11:55	0.0907
1.72	0.083						
J20		JUNCTION	3.02	40.68	0	11:54	0.0554
0.809	0.093						
J21		JUNCTION	0.00	11.99	0	13:08	0
1.66	0.090						
J22		JUNCTION	0.00	14.21	0	11:54	0
0.278	0.017						
J23		JUNCTION	8.21	18.46	0	11:54	0.153
0.383	0.028						
J24		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J25		JUNCTION	5.22	19.37	0	11:54	0.0949
0.364	0.000						
J26		JUNCTION	0.00	14.21	0	11:54	0
0.27	0.029						
J27		JUNCTION	14.24	14.24	0	11:54	0.27
0.27	0.015						
J3		JUNCTION	0.00	164.26	0	11:58	0
3.6	-0.002						
J33		JUNCTION	8.25	29.18	0	11:54	0.154
0.558	0.001						
J34		JUNCTION	10.81	21.04	0	11:54	0.208
0.404	0.032						
J35		JUNCTION	0.00	10.29	0	11:54	0
0.196	0.020						
J36		JUNCTION	7.00	10.32	0	11:54	0.134
0.196	0.049						
J42		JUNCTION	4.28	26.40	0	11:54	0.0781
0.509	0.002						
J43		JUNCTION	0.00	22.20	0	11:54	0
0.431	0.011						
J44		JUNCTION	8.11	22.22	0	11:54	0.153
0.431	0.036						
J45		JUNCTION	6.51	14.26	0	11:54	0.121
0.278	0.044						
J49		JUNCTION	2.75	11.74	0	11:54	0.0502
0.224	0.019						
J5		JUNCTION	7.10	16.28	0	11:54	0.155
0.369	0.023						
J54		JUNCTION	13.88	32.01	0	11:54	0.266
0.649	0.010						

J55		JUNCTION	0.00	18.40	0	11:54	0
0.383	0.025						
J56		JUNCTION	0.00	18.41	0	11:54	0
0.383	0.015						
J57		JUNCTION	10.30	10.30	0	11:54	0.23
0.23	0.020						
J58		JUNCTION	3.55	14.47	0	11:54	0.0638
0.264	0.002						
J59		JUNCTION	0.00	10.93	0	11:54	0
0.2	0.015						
J6		JUNCTION	2.86	86.57	0	11:56	0.0508
1.89	0.033						
J60		JUNCTION	6.39	10.94	0	11:54	0.116
0.2	0.034						
J61		JUNCTION	0.00	4.56	0	11:54	0
0.0836	0.023						
J62		JUNCTION	13.28	13.28	0	11:54	0.257
0.257	0.004						
J63		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J64		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J66		JUNCTION	0.00	11.68	0	13:34	0
1.47	0.009						
J74		JUNCTION	0.00	3.34	0	11:54	0
0.0622	0.027						
J8		JUNCTION	0.00	166.85	0	11:57	0
3.61	0.341						
J9		JUNCTION	9.32	9.32	0	11:54	0.215
0.215	0.032						
OF1		OUTFALL	0.00	11.68	0	13:35	0
1.47	0.000						
OF2		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
ClearPond2		STORAGE	3.27	12.27	0	13:06	0.0894
1.74	0.083						
SedPond2		STORAGE	19.78	183.87	0	11:58	0.552
4.43	-0.000						

Node Surcharge Summary

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

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
J21	JUNCTION	11.31	1.477	3.523

Node Flooding Summary

No nodes were flooded.

 Storage Volume Summary

of Max Occurrence hr:min	Maximum Outflow Unit CFS	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time days
13:34	11.68	23.903	24	0	0	40.934	40	0
13:08	11.99	276.536	38	0	0	413.390	57	0

 Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
OF1	61.38	4.39	11.68	1.471
OF2	0.00	0.00	0.00	0.000
System	30.69	4.39	11.68	1.471

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1_2	CONDUIT	3.33	0 11:54	1.39	0.01	0.22
C1_3	CONDUIT	3.34	0 11:54	2.51	0.03	0.14
C1_4	CONDUIT	29.17	0 11:54	3.70	0.11	0.56
C1_5	CONDUIT	21.00	0 11:54	3.97	0.20	0.41
C1_6	CONDUIT	10.28	0 11:54	2.57	0.04	0.33
C1_7	CONDUIT	10.29	0 11:54	3.47	0.10	0.27
C10	CONDUIT	32.01	0 11:54	5.45	0.17	0.45
C11	CONDUIT	80.69	0 11:56	4.23	0.27	0.77
C12	CONDUIT	0.00	0 00:00	0.00	0.00	0.24
C13	CONDUIT	9.25	0 11:54	8.10	0.14	0.53
C14	CONDUIT	23.93	0 11:56	2.68	0.13	0.45
C15	CONDUIT	11.38	0 11:55	1.86	0.10	0.34
C16_2	CONDUIT	39.84	0 11:55	3.32	0.23	0.56

C16_3	CONDUIT	54.35	0	11:57	3.60	0.38	0.64
C17	CONDUIT	23.78	0	11:55	3.11	0.10	0.40
C18	CONDUIT	11.70	0	11:54	2.46	0.06	0.39
C19_1	CONDUIT	164.26	0	11:58	2.57	0.12	0.39
C19_2	DUMMY	164.26	0	11:58			
C2	CONDUIT	26.40	0	11:54	3.55	0.10	0.54
C20	CONDUIT	16.20	0	11:54	7.47	0.25	0.77
C3_2	CONDUIT	14.20	0	11:54	3.16	0.05	0.36
C3_3	CONDUIT	7.76	0	11:54	2.48	0.03	0.28
C3_6	CONDUIT	22.19	0	11:54	6.24	0.09	0.31
C3_7	CONDUIT	22.20	0	11:54	4.35	0.22	0.40
C3_8	CONDUIT	14.21	0	11:54	3.98	0.13	0.31
C4	CONDUIT	50.58	0	11:56	4.44	0.26	0.53
C4_3	CONDUIT	8.99	0	11:54	3.94	0.04	0.22
C6	CONDUIT	67.81	0	11:57	5.65	0.40	0.55
C6_3	CONDUIT	18.41	0	11:54	4.80	0.13	0.32
C6_6	CONDUIT	18.37	0	11:54	4.01	0.10	0.37
C6_7	CONDUIT	18.40	0	11:54	5.48	0.07	0.29
C6_8	CONDUIT	10.27	0	11:54	3.00	0.05	0.30
C7	CONDUIT	11.98	0	13:06	2.09	0.09	1.00
C7_2	CONDUIT	14.46	0	11:54	2.33	0.06	0.47
C7_3	CONDUIT	4.56	0	11:54	3.14	0.03	0.15
C7_4	CONDUIT	10.93	0	11:54	4.63	0.05	0.22
C7_5	CONDUIT	10.93	0	11:54	3.88	0.08	0.25
C7_6	CONDUIT	4.56	0	11:54	2.09	0.02	0.21
C7_8	CONDUIT	11.68	0	13:35	6.18	0.15	0.31
C8_2	CONDUIT	13.26	0	11:54	1.59	0.06	0.60
C8_4	CONDUIT	0.00	0	00:00	0.00	0.00	0.12
C8_5	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
C9	CONDUIT	86.34	0	11:57	4.86	0.19	0.72
C9_3	CONDUIT	0.00	0	00:00	0.00	0.00	0.12
C9_4	CONDUIT	19.36	0	11:54	3.28	0.08	0.46
C9_5	CONDUIT	14.18	0	11:54	4.01	0.10	0.30
C9_6	CONDUIT	14.21	0	11:54	4.49	0.06	0.28
C1	WEIR	0.00	0	00:00			0.00
C3	WEIR	0.00	0	00:00			0.00
C5	DUMMY	11.99	0	13:08			
C8	DUMMY	11.68	0	13:34			

Flow Classification Summary

Inlet Conduit Ctrl	Adjusted /Actual Length	Fraction of Time in Flow Class							
		Up Dry	Down Dry	Sub Crit	Sup Crit	Up Crit	Down Crit	Norm Ltd	
C1_2 0.00	1.00	0.07	0.00	0.00	0.92	0.00	0.00	0.00	0.87
C1_3 0.00	1.00	0.08	0.00	0.00	0.92	0.00	0.00	0.00	0.00

C7_2	1.00	0.07	0.00	0.00	0.93	0.00	0.00	0.00	0.88
0.00									
C7_3	1.00	0.07	0.00	0.00	0.91	0.03	0.00	0.00	0.00
0.00									
C7_4	1.00	0.07	0.00	0.00	0.75	0.18	0.00	0.00	0.87
0.00									
C7_5	1.00	0.07	0.00	0.00	0.91	0.02	0.00	0.00	0.00
0.00									
C7_6	1.00	0.07	0.00	0.00	0.93	0.00	0.00	0.00	0.89
0.00									
C7_8	1.00	0.39	0.00	0.00	0.00	0.61	0.00	0.00	0.00
0.00									
C8_2	1.00	0.07	0.00	0.00	0.92	0.01	0.00	0.00	0.86
0.00									
C8_4	1.00	0.07	0.93	0.00	0.00	0.00	0.00	0.00	0.00
0.00									
C8_5	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00									
C9	1.00	0.07	0.00	0.00	0.92	0.01	0.00	0.00	0.86
0.00									
C9_3	1.00	0.07	0.93	0.00	0.00	0.00	0.00	0.00	0.00
0.00									
C9_4	1.00	0.07	0.00	0.00	0.92	0.01	0.00	0.00	0.86
0.00									
C9_5	1.00	0.07	0.00	0.00	0.92	0.02	0.00	0.00	0.00
0.00									
C9_6	1.00	0.07	0.00	0.00	0.89	0.04	0.00	0.00	0.88
0.00									

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
C11	0.01	0.01	0.05	0.01	0.01
C7	3.64	3.64	11.31	0.01	0.01
C9	0.01	0.01	0.05	0.01	0.01

Analysis begun on: Mon Oct 23 18:31:22 2023
 Analysis ended on: Mon Oct 23 18:31:24 2023
 Total elapsed time: 00:00:02

WARNING 02: maximum depth increased for Node J1
 WARNING 02: maximum depth increased for Node J11
 WARNING 02: maximum depth increased for Node J13
 WARNING 02: maximum depth increased for Node J19
 WARNING 02: maximum depth increased for Node J22
 WARNING 02: maximum depth increased for Node J23
 WARNING 02: maximum depth increased for Node J24
 WARNING 02: maximum depth increased for Node J25
 WARNING 02: maximum depth increased for Node J26
 WARNING 02: maximum depth increased for Node J27
 WARNING 02: maximum depth increased for Node J33
 WARNING 02: maximum depth increased for Node J34
 WARNING 02: maximum depth increased for Node J35
 WARNING 02: maximum depth increased for Node J36
 WARNING 02: maximum depth increased for Node J42
 WARNING 02: maximum depth increased for Node J43
 WARNING 02: maximum depth increased for Node J44
 WARNING 02: maximum depth increased for Node J45
 WARNING 02: maximum depth increased for Node J49
 WARNING 02: maximum depth increased for Node J54
 WARNING 02: maximum depth increased for Node J55
 WARNING 02: maximum depth increased for Node J56
 WARNING 02: maximum depth increased for Node J57
 WARNING 02: maximum depth increased for Node J58
 WARNING 02: maximum depth increased for Node J59
 WARNING 02: maximum depth increased for Node J60
 WARNING 02: maximum depth increased for Node J61
 WARNING 02: maximum depth increased for Node J62
 WARNING 02: maximum depth increased for Node J63
 WARNING 02: maximum depth increased for Node J64
 WARNING 02: maximum depth increased for Node J74
 WARNING 02: maximum depth increased for Node J8

Element Count

Number of rain gages 4
 Number of subcatchments ... 30
 Number of nodes 50
 Number of links 51
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_3.82in	SCS_Type_II_0.1in.	INTENSITY	6 min.
SCS_Type_II_6.18in	SCS_Type_II_6.18in	INTENSITY	6 min.
SCS_Type_II_6.29in_25yr	SCS_Type_II_6.29in	INTENSITY	6 min.

SCS_Type_II_7.66in SCS_Type_II_7.66in INTENSITY 6 min.

 Subcatchment Summary

Name Outlet	Area	Width	%Imperv	%Slope	Rain Gage
CP2	0.55	60.00	0.00	2.5810	
SCS_Type_II_6.29in_25yr ClearPond2					
S1	0.59	360.00	0.00	5.0000	
SCS_Type_II_6.29in_25yr J2					
S1_2	0.33	245.00	0.00	17.1430	
SCS_Type_II_6.29in_25yr J49					
S1_3	1.16	190.00	0.00	22.8570	
SCS_Type_II_6.29in_25yr J13					
S1_4	1.01	110.00	0.00	12.2450	
SCS_Type_II_6.29in_25yr J5					
S1_6	1.38	150.00	0.00	8.0000	
SCS_Type_II_6.29in_25yr J9					
S10_2	0.41	150.00	0.00	11.4290	
SCS_Type_II_6.29in_25yr J1					
S11	0.54	500.00	0.00	20.0000	
SCS_Type_II_6.29in_25yr J19					
S2	0.35	360.00	0.00	6.6670	
SCS_Type_II_6.29in_25yr J6					
S2_2	0.88	170.00	0.00	22.0000	
SCS_Type_II_6.29in_25yr J36					
S2_3	1.33	290.00	0.00	20.0000	
SCS_Type_II_6.29in_25yr J34					
S2_5	0.99	320.00	0.00	23.3330	
SCS_Type_II_6.29in_25yr J33					
S3	0.40	380.00	0.00	5.0000	
SCS_Type_II_6.29in_25yr J10					
S3_1	1.02	230.00	0.00	7.0000	
SCS_Type_II_6.29in_25yr J11					
S3_2	0.98	280.00	0.00	18.3330	
SCS_Type_II_6.29in_25yr J44					
S3_3	0.79	240.00	0.00	22.0000	
SCS_Type_II_6.29in_25yr J45					
S3_5	0.51	320.00	0.00	20.0000	
SCS_Type_II_6.29in_25yr J42					
S4	0.35	380.00	0.00	10.0000	
SCS_Type_II_6.29in_25yr J20					
S4_2	1.48	240.00	0.00	4.6150	
SCS_Type_II_6.29in_25yr J57					
S4_3	1.70	380.00	0.00	21.4290	
SCS_Type_II_6.29in_25yr J54					
S4_4	1.02	235.00	0.00	26.0000	
SCS_Type_II_6.29in_25yr J23					
S5	0.51	415.00	0.00	5.0000	
SCS_Type_II_6.29in_25yr J18					
S5_3	0.42	500.00	0.00	24.0000	
SCS_Type_II_6.29in_25yr J58					
S5_4	0.76	500.00	0.00	20.0000	
SCS_Type_II_6.29in_25yr J60					
S6	1.67	381.75	0.00	13.5290	
SCS_Type_II_6.29in_25yr J62					

S6_4	1.73	500.00	0.00	17.0370
SCS_Type_II_6.29in_25yr J27				
S6_5	0.62	500.00	0.00	28.5710
SCS_Type_II_6.29in_25yr J25				
S8	0.31	270.00	0.00	5.0000
SCS_Type_II_6.29in_25yr J14				
S9	0.41	340.00	0.00	5.0000
SCS_Type_II_6.29in_25yr J12				
SP2	3.41	280.00	0.00	3.5710
SCS_Type_II_6.29in_25yr SedPond2				

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	718.00	2.00	0.0	
J10	JUNCTION	654.00	3.00	0.0	
J11	JUNCTION	718.00	2.00	0.0	
J12	JUNCTION	658.00	3.00	0.0	
J13	JUNCTION	696.00	2.00	0.0	
J14	JUNCTION	660.00	3.00	0.0	
J15	JUNCTION	730.00	2.00	0.0	
J16	JUNCTION	656.00	4.00	0.0	
J18	JUNCTION	662.00	3.00	0.0	
J19	JUNCTION	698.00	2.00	0.0	
J2	JUNCTION	652.00	3.00	0.0	
J20	JUNCTION	658.00	3.00	0.0	
J21	JUNCTION	642.00	8.00	0.0	
J22	JUNCTION	694.00	2.00	0.0	
J23	JUNCTION	700.00	2.00	0.0	
J24	JUNCTION	696.00	2.00	0.0	
J25	JUNCTION	670.00	2.00	0.0	
J26	JUNCTION	674.00	2.00	0.0	
J27	JUNCTION	694.00	2.00	0.0	
J3	JUNCTION	644.80	4.33	0.0	
J33	JUNCTION	672.00	2.00	0.0	
J34	JUNCTION	674.00	2.00	0.0	
J35	JUNCTION	696.00	2.00	0.0	
J36	JUNCTION	698.00	2.00	0.0	
J42	JUNCTION	664.00	2.00	0.0	
J43	JUNCTION	672.00	2.00	0.0	
J44	JUNCTION	674.00	2.00	0.0	
J45	JUNCTION	696.00	2.00	0.0	
J49	JUNCTION	674.00	2.00	0.0	
J5	JUNCTION	678.00	2.00	0.0	
J54	JUNCTION	666.00	2.00	0.0	
J55	JUNCTION	676.00	2.00	0.0	
J56	JUNCTION	696.00	2.00	0.0	
J57	JUNCTION	718.00	2.00	0.0	
J58	JUNCTION	664.00	2.00	0.0	
J59	JUNCTION	670.00	2.00	0.0	
J6	JUNCTION	652.00	3.00	0.0	
J60	JUNCTION	674.00	2.00	0.0	
J61	JUNCTION	694.00	2.00	0.0	

J62	JUNCTION	658.00	2.00	0.0
J63	JUNCTION	672.00	2.00	0.0
J64	JUNCTION	674.00	2.00	0.0
J66	JUNCTION	642.00	8.00	0.0
J74	JUNCTION	716.00	2.00	0.0
J8	JUNCTION	645.00	4.00	0.0
J9	JUNCTION	712.00	2.00	0.0
OF1	OUTFALL	641.50	3.00	0.0
OF2	OUTFALL	641.50	0.00	0.0
ClearPond2	STORAGE	642.00	8.00	0.0
SedPond2	STORAGE	642.00	8.00	0.0

Link Summary

Name	From Node	To Node	Type	Length	%

C1_2	J74	J36	CONDUIT	63.5	
29.5462	0.0740				
C1_3	J1	J74	CONDUIT	29.8	
6.7279	0.0740				
C1_4	J33	J2	CONDUIT	66.3	
31.6608	0.0740				
C1_5	J34	J33	CONDUIT	38.0	
5.2685	0.0740				
C1_6	J35	J34	CONDUIT	65.9	
35.3915	0.0740				
C1_7	J36	J35	CONDUIT	40.5	
4.9422	0.0740				
C10	J54	J18	CONDUIT	23.6	
17.1710	0.0740				
C11	J2	J8	CONDUIT	370.1	
1.8920	0.0300				
C12	J15	J9	CONDUIT	211.6	
8.5372	0.0200				
C13	J9	J5	CONDUIT	421.3	
8.0971	0.0200				
C14	J14	J12	CONDUIT	286.7	
0.6977	0.0300				
C15	J18	J14	CONDUIT	700.7	
0.2854	0.0300				
C16_2	J20	J16	CONDUIT	291.6	
0.6858	0.0300				
C16_3	J16	J10	CONDUIT	452.6	
0.4419	0.0300				
C17	J18	J20	CONDUIT	320.9	
1.2466	0.0300				
C18	J49	J14	CONDUIT	79.3	
17.9320	0.0740				
C19_1	J8	J3	CONDUIT	59.8	
0.3361	0.0300				
C19_2	J3	SedPond2	CONDUIT	314.0	
0.8915	0.0100				
C2	J42	J12	CONDUIT	17.3	
36.9141	0.0740				
C20	J5	J16	CONDUIT	291.1	
7.5791	0.0200				

C3_2		J22	J44	CONDUIT	64.6
32.5389	0.0740				
C3_3		J11	J45	CONDUIT	82.6
27.6495	0.0740				
C3_6		J43	J42	CONDUIT	27.6
30.2581	0.0740				
C3_7		J44	J43	CONDUIT	41.4
4.8395	0.0740				
C3_8		J45	J22	CONDUIT	35.3
5.6803	0.0740				
C4		J12	J2	CONDUIT	738.2
0.8128	0.0300				
C4_3		J13	J49	CONDUIT	86.4
26.3217	0.0740				
C6		J10	J6	CONDUIT	311.5
0.6420	0.0300				
C6_3		J23	J56	CONDUIT	40.7
9.8827	0.0740				
C6_6		J55	J54	CONDUIT	62.2
16.2880	0.0740				
C6_7		J56	J55	CONDUIT	66.5
31.5467	0.0740				
C6_8		J57	J23	CONDUIT	84.0
21.9456	0.0740				
C7		J21	ClearPond2	CONDUIT	54.3
2.2093	0.0100				-
C7_2		J58	J20	CONDUIT	19.3
32.6863	0.0740				
C7_3		J19	J61	CONDUIT	40.4
9.9566	0.0740				
C7_4		J59	J58	CONDUIT	24.3
25.4736	0.0740				
C7_5		J60	J59	CONDUIT	46.3
8.6723	0.0740				
C7_6		J61	J60	CONDUIT	60.0
35.3832	0.0740				
C7_8		J66	OF1	CONDUIT	63.7
0.7849	0.0100				
C8_2		J62	J10	CONDUIT	17.3
23.7770	0.0740				
C8_4		J63	J62	CONDUIT	40.9
36.4417	0.0740				
C8_5		J64	J63	CONDUIT	34.2
5.8587	0.0740				
C9		J6	J8	CONDUIT	357.7
1.9573	0.0300				
C9_3		J24	J27	CONDUIT	30.7
6.5215	0.0740				
C9_4		J25	J6	CONDUIT	64.5
29.0816	0.0740				
C9_5		J26	J25	CONDUIT	42.8
9.3816	0.0740				
C9_6		J27	J26	CONDUIT	65.9
31.8470	0.0740				
C1		SedPond2	ClearPond2	WEIR	
C3		ClearPond2	OF2	WEIR	
C5		SedPond2	J21	OUTLET	
C8		ClearPond2	J66	OUTLET	

 Cross Section Summary

Full Conduit Flow	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels
----- C1_2 246.70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_3 117.72	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_4 255.37	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_5 104.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_6 270.00	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_7 100.90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C10 188.06	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11 293.71	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C12 68.92	TRIANGULAR	2.00	4.00	0.71	4.00	1
C13 67.12	TRIANGULAR	2.00	4.00	0.71	4.00	1
C14 178.36	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C15 114.08	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C16_2 176.83	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C16_3 141.95	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C17 238.41	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C18 192.19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C19_1 1363.15	TRAPEZOIDAL	4.00	260.00	2.47	105.00	1
C19_2 0.00	DUMMY	0.00	0.00	0.00	0.00	1
C2 275.74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C20 64.94	TRIANGULAR	2.00	4.00	0.71	4.00	1
C3_2 258.89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_3 238.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_6 249.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_7 99.84	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_8 108.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C4	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1

C4_3 232.85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6 171.10	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C6_3 142.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_6 183.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_7 254.91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_8 212.61	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7 128.88	CIRCULAR	3.00	7.07	0.75	3.00	1
C7_2 259.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_3 143.21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_4 229.06	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_5 133.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_6 269.97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_8 76.82	CIRCULAR	3.00	7.07	0.75	3.00	1
C8_2 221.30	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C8_4 273.97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C8_5 109.85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9 298.74	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C9_3 115.90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_4 244.75	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_5 139.01	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_6 256.12	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

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

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO

Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method CURVE_NUMBER
 Flow Routing Method DYNWAVE
 Surcharge Method EXTRAN
 Starting Date 03/30/2022 00:00:00
 Ending Date 03/31/2022 00:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:01:00
 Wet Time Step 00:05:00
 Dry Time Step 00:05:00
 Routing Time Step 5.00 sec
 Variable Time Step YES
 Maximum Trials 8
 Number of Threads 8
 Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	14.471	6.290
Evaporation Loss	0.000	0.000
Infiltration Loss	4.940	2.147
Surface Runoff	9.352	4.065
Final Storage	0.202	0.088
Continuity Error (%)	-0.163	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	9.364	3.052
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	0.832	0.271
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.874	0.285
Final Stored Volume	9.407	3.065
Continuity Error (%)	-0.011	

 Time-Step Critical Elements

 Link C7 (39.38%)
 Link C2 (23.84%)

 Highest Flow Instability Indexes

Link C7 (1)

Routing Time Step Summary

Minimum Time Step : 1.03 sec
 Average Time Step : 3.81 sec
 Maximum Time Step : 5.00 sec
 Percent in Steady State : -0.00
 Average Iterations per Step : 2.00
 Percent Not Converging : 0.00
 Time Step Frequencies :
 5.000 - 3.155 sec : 61.71 %
 3.155 - 1.991 sec : 36.79 %
 1.991 - 1.256 sec : 1.49 %
 1.256 - 0.792 sec : 0.01 %
 0.792 - 0.500 sec : 0.00 %

Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Total	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Runoff	Precip	Runoff	Evap	Infil	Runoff
in	in	10^6 gal	in	in	in	in	in

CP2			6.29	0.00	0.00	0.29	0.00
5.87	5.87	0.09	3.26	0.933			
S1			6.29	0.00	0.00	2.48	0.00
3.75	3.75	0.06	3.36	0.597			
S1_2			6.29	0.00	0.00	2.40	0.00
3.83	3.83	0.03	1.99	0.609			
S1_3			6.29	0.00	0.00	2.40	0.00
3.82	3.82	0.12	6.27	0.607			
S1_4			6.29	0.00	0.00	2.48	0.00
3.72	3.72	0.10	4.55	0.592			
S1_6			6.29	0.00	0.00	2.48	0.00
3.71	3.71	0.14	6.03	0.591			
S10_2			6.29	0.00	0.00	2.48	0.00
3.75	3.75	0.04	2.32	0.596			
S11			6.29	0.00	0.00	2.40	0.00
3.83	3.83	0.06	3.29	0.609			
S2			6.29	0.00	0.00	2.48	0.00
3.76	3.76	0.04	2.10	0.598			
S2_2			6.29	0.00	0.00	2.48	0.00
3.75	3.75	0.09	4.75	0.595			
S2_3			6.29	0.00	0.00	2.48	0.00
3.75	3.75	0.14	7.31	0.596			
S2_5			6.29	0.00	0.00	2.48	0.00
3.75	3.75	0.10	5.69	0.597			

S3			6.29	0.00	0.00	2.48	0.00
3.76	3.76	0.04	2.35	0.597			
S3_1			6.29	0.00	0.00	2.48	0.00
3.74	3.74	0.10	5.15	0.594			
S3_2			6.29	0.00	0.00	2.48	0.00
3.75	3.75	0.10	5.54	0.596			
S3_3			6.29	0.00	0.00	2.48	0.00
3.75	3.75	0.08	4.51	0.597			
S3_5			6.29	0.00	0.00	2.48	0.00
3.76	3.76	0.05	3.03	0.598			
S4			6.29	0.00	0.00	2.48	0.00
3.76	3.76	0.04	2.12	0.598			
S4_2			6.29	0.00	0.00	2.48	0.00
3.72	3.72	0.15	6.56	0.591			
S4_3			6.29	0.00	0.00	2.40	0.00
3.82	3.82	0.18	9.61	0.608			
S4_4			6.29	0.00	0.00	2.40	0.00
3.82	3.82	0.11	5.82	0.608			
S5			6.29	0.00	0.00	2.48	0.00
3.76	3.76	0.05	2.97	0.597			
S5_3			6.29	0.00	0.00	2.48	0.00
3.76	3.76	0.04	2.56	0.598			
S5_4			6.29	0.00	0.00	2.40	0.00
3.83	3.83	0.08	4.61	0.609			
S6			6.29	0.00	0.00	2.48	0.00
3.74	3.74	0.17	8.97	0.595			
S6_4			6.29	0.00	0.00	2.48	0.00
3.75	3.75	0.18	9.71	0.596			
S6_5			6.29	0.00	0.00	2.40	0.00
3.83	3.83	0.06	3.79	0.609			
S8			6.29	0.00	0.00	2.48	0.00
3.76	3.76	0.03	1.84	0.597			
S9			6.29	0.00	0.00	2.48	0.00
3.76	3.76	0.04	2.37	0.597			
SP2			6.29	0.00	0.00	0.29	0.00
5.86	5.86	0.54	19.68	0.932			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.03	0.28	718.28	0 11:54	0.28
J10	JUNCTION	0.22	1.65	655.65	0 11:59	1.65
J11	JUNCTION	0.03	0.27	718.27	0 11:54	0.27
J12	JUNCTION	0.15	1.29	659.29	0 11:57	1.29
J13	JUNCTION	0.03	0.31	696.31	0 11:54	0.31
J14	JUNCTION	0.10	0.91	660.91	0 11:57	0.91
J15	JUNCTION	0.00	0.00	730.00	0 00:00	0.00
J16	JUNCTION	0.19	1.56	657.56	0 11:58	1.56
J18	JUNCTION	0.09	0.76	662.76	0 11:55	0.76
J19	JUNCTION	0.03	0.30	698.30	0 11:54	0.30
J2	JUNCTION	0.16	1.32	653.32	0 11:58	1.32
J20	JUNCTION	0.14	1.19	659.19	0 11:56	1.19

J21	JUNCTION	1.91	4.09	646.09	0	19:46	4.09
J22	JUNCTION	0.04	0.37	694.37	0	11:54	0.37
J23	JUNCTION	0.07	0.61	700.61	0	11:54	0.61
J24	JUNCTION	0.00	0.00	696.00	0	00:00	0.00
J25	JUNCTION	0.05	0.46	670.46	0	11:54	0.46
J26	JUNCTION	0.06	0.53	674.53	0	11:54	0.53
J27	JUNCTION	0.04	0.37	694.37	0	11:54	0.37
J3	JUNCTION	0.00	0.08	644.88	0	12:00	0.08
J33	JUNCTION	0.06	0.55	672.55	0	11:54	0.55
J34	JUNCTION	0.10	0.79	674.79	0	11:54	0.79
J35	JUNCTION	0.03	0.30	696.30	0	11:54	0.30
J36	JUNCTION	0.07	0.57	698.57	0	11:54	0.57
J42	JUNCTION	0.05	0.50	664.50	0	11:54	0.50
J43	JUNCTION	0.05	0.49	672.49	0	11:54	0.48
J44	JUNCTION	0.11	0.83	674.83	0	11:54	0.83
J45	JUNCTION	0.08	0.63	696.63	0	11:54	0.62
J49	JUNCTION	0.04	0.40	674.40	0	11:54	0.40
J5	JUNCTION	0.23	1.01	679.01	0	12:00	1.01
J54	JUNCTION	0.08	0.68	666.68	0	11:54	0.68
J55	JUNCTION	0.06	0.51	676.51	0	11:54	0.51
J56	JUNCTION	0.05	0.43	696.43	0	11:54	0.42
J57	JUNCTION	0.04	0.33	718.33	0	12:00	0.33
J58	JUNCTION	0.04	0.38	664.38	0	11:54	0.38
J59	JUNCTION	0.04	0.35	670.35	0	11:54	0.35
J6	JUNCTION	0.16	1.35	653.35	0	11:59	1.35
J60	JUNCTION	0.05	0.50	674.50	0	11:54	0.50
J61	JUNCTION	0.02	0.19	694.19	0	11:54	0.19
J62	JUNCTION	0.04	0.39	658.39	0	11:54	0.39
J63	JUNCTION	0.00	0.00	672.00	0	00:00	0.00
J64	JUNCTION	0.00	0.00	674.00	0	00:00	0.00
J66	JUNCTION	0.13	0.44	642.44	0	19:47	0.44
J74	JUNCTION	0.02	0.17	716.17	0	11:54	0.17
J8	JUNCTION	0.47	2.48	647.48	0	12:00	2.48
J9	JUNCTION	0.18	0.81	712.81	0	12:00	0.81
OF1	OUTFALL	0.11	0.37	641.87	0	19:47	0.37
OF2	OUTFALL	0.00	0.00	641.50	0	00:00	0.00
ClearPond2	STORAGE	2.03	4.09	646.09	0	19:47	4.09
SedPond2	STORAGE	3.63	5.10	647.10	0	18:30	5.10

Node Inflow Summary

Total Flow			Maximum	Maximum	Lateral	
Inflow	Balance	Type	Lateral Inflow	Total Inflow	Time of Max Occurrence	Inflow Volume
Volume Node gal	Error Percent		CFS	CFS	days hr:min	10^6 gal
J1	0.042	JUNCTION	2.32	2.32	0 11:54	0.042

J10		JUNCTION	2.35	46.63	0	11:57	0.0408
0.992	0.220						
J11		JUNCTION	5.15	5.15	0	11:54	0.104
0.104	0.026						
J12		JUNCTION	2.37	35.33	0	11:55	0.0414
0.719	0.242						
J13		JUNCTION	6.27	6.27	0	11:54	0.12
0.12	0.024						
J14		JUNCTION	1.84	17.42	0	11:54	0.0321
0.342	0.385						
J15		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J16		JUNCTION	0.00	37.74	0	11:56	0
0.782	0.225						
J18		JUNCTION	2.97	24.50	0	11:54	0.052
0.484	0.170						
J19		JUNCTION	3.29	3.29	0	11:54	0.0558
0.0558	0.023						
J2		JUNCTION	3.36	55.46	0	11:56	0.0603
1.14	0.123						
J20		JUNCTION	2.12	27.97	0	11:54	0.0363
0.541	0.127						
J21		JUNCTION	0.00	2.62	0	18:30	0
0.457	0.373						
J22		JUNCTION	0.00	9.59	0	11:54	0
0.184	0.023						
J23		JUNCTION	5.82	12.26	0	11:54	0.106
0.256	0.039						
J24		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J25		JUNCTION	3.79	13.40	0	11:54	0.0644
0.241	-0.000						
J26		JUNCTION	0.00	9.69	0	11:54	0
0.176	0.040						
J27		JUNCTION	9.71	9.71	0	11:54	0.176
0.176	0.021						
J3		JUNCTION	0.00	111.84	0	12:00	0
2.4	-0.002						
J33		JUNCTION	5.69	19.82	0	11:54	0.101
0.367	0.005						
J34		JUNCTION	7.31	14.24	0	11:54	0.136
0.267	0.045						
J35		JUNCTION	0.00	7.02	0	11:54	0
0.131	0.026						
J36		JUNCTION	4.75	7.05	0	11:54	0.0891
0.131	0.067						
J42		JUNCTION	3.03	17.96	0	11:54	0.052
0.336	0.003						
J43		JUNCTION	0.00	15.02	0	11:54	0
0.284	0.015						
J44		JUNCTION	5.54	15.04	0	11:54	0.1
0.285	0.049						
J45		JUNCTION	4.51	9.63	0	11:54	0.0805
0.184	0.061						
J49		JUNCTION	1.99	8.23	0	11:54	0.034
0.154	0.028						
J5		JUNCTION	4.55	10.53	0	12:00	0.102
0.242	0.035						
J54		JUNCTION	9.61	21.62	0	11:54	0.177
0.432	0.013						

J55		JUNCTION	0.00	12.22	0	11:54	0
0.255	0.033						
J56		JUNCTION	0.00	12.22	0	11:54	0
0.255	0.020						
J57		JUNCTION	6.56	6.56	0	12:00	0.15
0.15	0.028						
J58		JUNCTION	2.56	10.36	0	11:54	0.0432
0.178	0.004						
J59		JUNCTION	0.00	7.84	0	11:54	0
0.135	0.020						
J6		JUNCTION	2.10	58.86	0	11:58	0.0361
1.27	0.065						
J60		JUNCTION	4.61	7.86	0	11:54	0.079
0.135	0.047						
J61		JUNCTION	0.00	3.28	0	11:54	0
0.0558	0.032						
J62		JUNCTION	8.97	8.97	0	11:54	0.17
0.17	0.006						
J63		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J64		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J66		JUNCTION	0.00	2.50	0	19:47	0
0.271	0.044						
J74		JUNCTION	0.00	2.32	0	11:54	0
0.042	0.034						
J8		JUNCTION	0.00	113.16	0	11:58	0
2.41	0.488						
J9		JUNCTION	6.03	6.03	0	12:00	0.14
0.14	0.046						
OF1		OUTFALL	0.00	2.50	0	19:47	0
0.271	0.000						
OF2		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
ClearPond2		STORAGE	3.26	3.26	0	12:00	0.088
0.543	0.254						
SedPond2		STORAGE	19.68	131.43	0	12:00	0.543
3.22	-0.001						

Node Surcharge Summary

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

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
J21	JUNCTION	6.15	1.094	3.906

Node Flooding Summary

No nodes were flooded.

 Storage Volume Summary

of Max Occurrence hr:min	Maximum Outflow Storage Unit CFS	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time days
19:47	2.50	15.753	16	0	0	36.334	36	0
18:30	2.62	232.094	32	0	0	373.718	51	0

 Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
OF1	31.48	2.10	2.50	0.271
OF2	0.00	0.00	0.00	0.000
System	15.74	2.10	2.50	0.271

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1_2	CONDUIT	2.31	0 11:54	1.22	0.01	0.19
C1_3	CONDUIT	2.32	0 11:54	2.20	0.02	0.11
C1_4	CONDUIT	19.81	0 11:54	3.44	0.08	0.46
C1_5	CONDUIT	14.22	0 11:54	3.50	0.14	0.34
C1_6	CONDUIT	7.01	0 11:54	2.27	0.03	0.27
C1_7	CONDUIT	7.02	0 11:54	3.02	0.07	0.22
C10	CONDUIT	21.61	0 11:54	4.94	0.11	0.36
C11	CONDUIT	54.76	0 11:58	3.94	0.19	0.63
C12	CONDUIT	0.00	0 00:00	0.00	0.00	0.20
C13	CONDUIT	6.01	0 12:00	7.26	0.09	0.45
C14	CONDUIT	16.40	0 11:57	2.41	0.09	0.37
C15	CONDUIT	7.69	0 11:55	1.66	0.07	0.28
C16_2	CONDUIT	27.36	0 11:56	3.05	0.15	0.46

C16_3	CONDUIT	36.75	0	11:58	3.19	0.26	0.53
C17	CONDUIT	16.08	0	11:55	2.76	0.07	0.33
C18	CONDUIT	8.19	0	11:54	2.31	0.04	0.32
C19_1	CONDUIT	111.84	0	12:00	2.31	0.08	0.32
C19_2	DUMMY	111.84	0	12:00			
C2	CONDUIT	17.96	0	11:54	3.29	0.07	0.44
C20	CONDUIT	10.50	0	12:00	7.16	0.16	0.64
C3_2	CONDUIT	9.58	0	11:54	2.75	0.04	0.30
C3_3	CONDUIT	5.14	0	11:54	2.14	0.02	0.22
C3_6	CONDUIT	15.02	0	11:54	5.54	0.06	0.25
C3_7	CONDUIT	15.02	0	11:54	3.81	0.15	0.33
C3_8	CONDUIT	9.59	0	11:54	3.51	0.09	0.25
C4	CONDUIT	34.41	0	11:57	4.00	0.18	0.43
C4_3	CONDUIT	6.25	0	11:54	3.51	0.03	0.18
C6	CONDUIT	46.18	0	11:59	4.40	0.27	0.50
C6_3	CONDUIT	12.22	0	11:54	4.24	0.09	0.26
C6_6	CONDUIT	12.20	0	11:54	3.53	0.07	0.30
C6_7	CONDUIT	12.22	0	11:54	4.84	0.05	0.23
C6_8	CONDUIT	6.55	0	12:00	2.65	0.03	0.24
C7	CONDUIT	2.61	0	18:30	1.60	0.02	0.98
C7_2	CONDUIT	10.36	0	11:54	2.20	0.04	0.39
C7_3	CONDUIT	3.28	0	11:54	2.82	0.02	0.12
C7_4	CONDUIT	7.83	0	11:54	4.17	0.03	0.18
C7_5	CONDUIT	7.84	0	11:54	3.50	0.06	0.21
C7_6	CONDUIT	3.27	0	11:54	1.88	0.01	0.17
C7_8	CONDUIT	2.50	0	19:47	4.37	0.03	0.14
C8_2	CONDUIT	8.96	0	11:54	1.49	0.04	0.50
C8_4	CONDUIT	0.00	0	00:00	0.00	0.00	0.10
C8_5	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
C9	CONDUIT	58.62	0	11:59	3.99	0.20	0.64
C9_3	CONDUIT	0.00	0	00:00	0.00	0.00	0.09
C9_4	CONDUIT	13.38	0	11:54	2.55	0.05	0.44
C9_5	CONDUIT	9.65	0	11:54	3.55	0.07	0.25
C9_6	CONDUIT	9.69	0	11:54	4.00	0.04	0.23
C1	WEIR	0.00	0	00:00			0.00
C3	WEIR	0.00	0	00:00			0.00
C5	DUMMY	2.62	0	18:30			
C8	DUMMY	2.50	0	19:47			

Flow Classification Summary

Inlet Conduit Ctrl	Adjusted /Actual Length	----- Fraction of Time in Flow Class -----							
		Up Dry	Down Dry	Sub Crit	Sup Crit	Up Crit	Down Crit	Norm Ltd	
C1_2 0.00	1.00	0.18	0.00	0.00	0.82	0.00	0.00	0.00	0.76
C1_3 0.00	1.00	0.18	0.00	0.00	0.82	0.00	0.00	0.00	0.00

C7_2 0.00	1.00	0.18	0.00	0.00	0.82	0.00	0.00	0.00	0.76
C7_3 0.00	1.00	0.18	0.00	0.00	0.80	0.02	0.00	0.00	0.00
C7_4 0.00	1.00	0.18	0.00	0.00	0.68	0.14	0.00	0.00	0.76
C7_5 0.00	1.00	0.18	0.00	0.00	0.80	0.02	0.00	0.00	0.00
C7_6 0.00	1.00	0.18	0.00	0.00	0.82	0.00	0.00	0.00	0.76
C7_8 0.00	1.00	0.69	0.00	0.00	0.00	0.31	0.00	0.00	0.00
C8_2 0.00	1.00	0.18	0.00	0.00	0.81	0.01	0.00	0.00	0.74
C8_4 0.00	1.00	0.18	0.82	0.00	0.00	0.00	0.00	0.00	0.00
C8_5 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C9 0.00	1.00	0.18	0.00	0.00	0.82	0.00	0.00	0.00	0.73
C9_3 0.00	1.00	0.18	0.82	0.00	0.00	0.00	0.00	0.00	0.00
C9_4 0.00	1.00	0.18	0.00	0.00	0.81	0.01	0.00	0.00	0.75
C9_5 0.00	1.00	0.18	0.00	0.00	0.81	0.00	0.00	0.00	0.02
C9_6 0.00	1.00	0.18	0.00	0.00	0.78	0.04	0.00	0.00	0.75

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	Hours
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
C7	0.01	0.01	6.15	0.01	0.01

Analysis begun on: Mon Oct 23 18:20:06 2023
 Analysis ended on: Mon Oct 23 18:20:07 2023
 Total elapsed time: 00:00:01

WARNING 02: maximum depth increased for Node J1
 WARNING 02: maximum depth increased for Node J11
 WARNING 02: maximum depth increased for Node J13
 WARNING 02: maximum depth increased for Node J19
 WARNING 02: maximum depth increased for Node J22
 WARNING 02: maximum depth increased for Node J23
 WARNING 02: maximum depth increased for Node J24
 WARNING 02: maximum depth increased for Node J25
 WARNING 02: maximum depth increased for Node J26
 WARNING 02: maximum depth increased for Node J27
 WARNING 02: maximum depth increased for Node J33
 WARNING 02: maximum depth increased for Node J34
 WARNING 02: maximum depth increased for Node J35
 WARNING 02: maximum depth increased for Node J36
 WARNING 02: maximum depth increased for Node J42
 WARNING 02: maximum depth increased for Node J43
 WARNING 02: maximum depth increased for Node J44
 WARNING 02: maximum depth increased for Node J45
 WARNING 02: maximum depth increased for Node J49
 WARNING 02: maximum depth increased for Node J54
 WARNING 02: maximum depth increased for Node J55
 WARNING 02: maximum depth increased for Node J56
 WARNING 02: maximum depth increased for Node J57
 WARNING 02: maximum depth increased for Node J58
 WARNING 02: maximum depth increased for Node J59
 WARNING 02: maximum depth increased for Node J60
 WARNING 02: maximum depth increased for Node J61
 WARNING 02: maximum depth increased for Node J62
 WARNING 02: maximum depth increased for Node J63
 WARNING 02: maximum depth increased for Node J64
 WARNING 02: maximum depth increased for Node J74
 WARNING 02: maximum depth increased for Node J8

Element Count

Number of rain gages 4
 Number of subcatchments ... 30
 Number of nodes 50
 Number of links 51
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_3.82in	SCS_Type_II_0.1in.	INTENSITY	6 min.
SCS_Type_II_6.18in	SCS_Type_II_6.18in	INTENSITY	6 min.
SCS_Type_II_6.29in_25yr	SCS_Type_II_6.29in	INTENSITY	6 min.

SCS_Type_II_7.66in SCS_Type_II_7.66in INTENSITY 6 min.

 Subcatchment Summary

Name Outlet	Area	Width	%Imperv	%Slope	Rain Gage
CP2 ClearPond2	0.55	60.00	0.00	2.5810	SCS_Type_II_7.66in
S1 J2	0.59	360.00	0.00	5.0000	SCS_Type_II_7.66in
S1_2 J49	0.33	245.00	0.00	17.1430	SCS_Type_II_7.66in
S1_3 J13	1.16	190.00	0.00	22.8570	SCS_Type_II_7.66in
S1_4 J5	1.01	110.00	0.00	12.2450	SCS_Type_II_7.66in
S1_6 J9	1.38	150.00	0.00	8.0000	SCS_Type_II_7.66in
S10_2 J1	0.41	150.00	0.00	11.4290	SCS_Type_II_7.66in
S11 J19	0.54	500.00	0.00	20.0000	SCS_Type_II_7.66in
S2 J6	0.35	360.00	0.00	6.6670	SCS_Type_II_7.66in
S2_2 J36	0.88	170.00	0.00	22.0000	SCS_Type_II_7.66in
S2_3 J34	1.33	290.00	0.00	20.0000	SCS_Type_II_7.66in
S2_5 J33	0.99	320.00	0.00	23.3330	SCS_Type_II_7.66in
S3 J10	0.40	380.00	0.00	5.0000	SCS_Type_II_7.66in
S3_1 J11	1.02	230.00	0.00	7.0000	SCS_Type_II_7.66in
S3_2 J44	0.98	280.00	0.00	18.3330	SCS_Type_II_7.66in
S3_3 J45	0.79	240.00	0.00	22.0000	SCS_Type_II_7.66in
S3_5 J42	0.51	320.00	0.00	20.0000	SCS_Type_II_7.66in
S4 J20	0.35	380.00	0.00	10.0000	SCS_Type_II_7.66in
S4_2 J57	1.48	240.00	0.00	4.6150	SCS_Type_II_7.66in
S4_3 J54	1.70	380.00	0.00	21.4290	SCS_Type_II_7.66in
S4_4 J23	1.02	235.00	0.00	26.0000	SCS_Type_II_7.66in
S5 J18	0.51	415.00	0.00	5.0000	SCS_Type_II_7.66in
S5_3 J58	0.42	500.00	0.00	24.0000	SCS_Type_II_7.66in
S5_4 J60	0.76	500.00	0.00	20.0000	SCS_Type_II_7.66in
S6 J62	1.67	381.75	0.00	13.5290	SCS_Type_II_7.66in

S6_4	1.73	500.00	0.00	17.0370	SCS_Type_II_7.66in
J27					
S6_5	0.62	500.00	0.00	28.5710	SCS_Type_II_7.66in
J25					
S8	0.31	270.00	0.00	5.0000	SCS_Type_II_7.66in
J14					
S9	0.41	340.00	0.00	5.0000	SCS_Type_II_7.66in
J12					
SP2	3.41	280.00	0.00	3.5710	SCS_Type_II_7.66in
SedPond2					

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	718.00	2.00	0.0	
J10	JUNCTION	654.00	3.00	0.0	
J11	JUNCTION	718.00	2.00	0.0	
J12	JUNCTION	658.00	3.00	0.0	
J13	JUNCTION	696.00	2.00	0.0	
J14	JUNCTION	660.00	3.00	0.0	
J15	JUNCTION	730.00	2.00	0.0	
J16	JUNCTION	656.00	4.00	0.0	
J18	JUNCTION	662.00	3.00	0.0	
J19	JUNCTION	698.00	2.00	0.0	
J2	JUNCTION	652.00	3.00	0.0	
J20	JUNCTION	658.00	3.00	0.0	
J21	JUNCTION	642.00	8.00	0.0	
J22	JUNCTION	694.00	2.00	0.0	
J23	JUNCTION	700.00	2.00	0.0	
J24	JUNCTION	696.00	2.00	0.0	
J25	JUNCTION	670.00	2.00	0.0	
J26	JUNCTION	674.00	2.00	0.0	
J27	JUNCTION	694.00	2.00	0.0	
J3	JUNCTION	644.80	4.33	0.0	
J33	JUNCTION	672.00	2.00	0.0	
J34	JUNCTION	674.00	2.00	0.0	
J35	JUNCTION	696.00	2.00	0.0	
J36	JUNCTION	698.00	2.00	0.0	
J42	JUNCTION	664.00	2.00	0.0	
J43	JUNCTION	672.00	2.00	0.0	
J44	JUNCTION	674.00	2.00	0.0	
J45	JUNCTION	696.00	2.00	0.0	
J49	JUNCTION	674.00	2.00	0.0	
J5	JUNCTION	678.00	2.00	0.0	
J54	JUNCTION	666.00	2.00	0.0	
J55	JUNCTION	676.00	2.00	0.0	
J56	JUNCTION	696.00	2.00	0.0	
J57	JUNCTION	718.00	2.00	0.0	
J58	JUNCTION	664.00	2.00	0.0	
J59	JUNCTION	670.00	2.00	0.0	
J6	JUNCTION	652.00	3.00	0.0	
J60	JUNCTION	674.00	2.00	0.0	
J61	JUNCTION	694.00	2.00	0.0	

J62	JUNCTION	658.00	2.00	0.0
J63	JUNCTION	672.00	2.00	0.0
J64	JUNCTION	674.00	2.00	0.0
J66	JUNCTION	642.00	8.00	0.0
J74	JUNCTION	716.00	2.00	0.0
J8	JUNCTION	645.00	4.00	0.0
J9	JUNCTION	712.00	2.00	0.0
OF1	OUTFALL	641.50	3.00	0.0
OF2	OUTFALL	641.50	0.00	0.0
ClearPond2	STORAGE	642.00	8.00	0.0
SedPond2	STORAGE	642.00	8.00	0.0

Link Summary

Name		From Node	To Node	Type	Length	%
Slope Roughness						

C1_2		J74	J36	CONDUIT	63.5	
29.5462	0.0740					
C1_3		J1	J74	CONDUIT	29.8	
6.7279	0.0740					
C1_4		J33	J2	CONDUIT	66.3	
31.6608	0.0740					
C1_5		J34	J33	CONDUIT	38.0	
5.2685	0.0740					
C1_6		J35	J34	CONDUIT	65.9	
35.3915	0.0740					
C1_7		J36	J35	CONDUIT	40.5	
4.9422	0.0740					
C10		J54	J18	CONDUIT	23.6	
17.1710	0.0740					
C11		J2	J8	CONDUIT	370.1	
1.8920	0.0300					
C12		J15	J9	CONDUIT	211.6	
8.5372	0.0200					
C13		J9	J5	CONDUIT	421.3	
8.0971	0.0200					
C14		J14	J12	CONDUIT	286.7	
0.6977	0.0300					
C15		J18	J14	CONDUIT	700.7	
0.2854	0.0300					
C16_2		J20	J16	CONDUIT	291.6	
0.6858	0.0300					
C16_3		J16	J10	CONDUIT	452.6	
0.4419	0.0300					
C17		J18	J20	CONDUIT	320.9	
1.2466	0.0300					
C18		J49	J14	CONDUIT	79.3	
17.9320	0.0740					
C19_1		J8	J3	CONDUIT	59.8	
0.3361	0.0300					
C19_2		J3	SedPond2	CONDUIT	314.0	
0.8915	0.0100					
C2		J42	J12	CONDUIT	17.3	
36.9141	0.0740					
C20		J5	J16	CONDUIT	291.1	
7.5791	0.0200					

C3_2		J22	J44	CONDUIT	64.6
32.5389	0.0740				
C3_3		J11	J45	CONDUIT	82.6
27.6495	0.0740				
C3_6		J43	J42	CONDUIT	27.6
30.2581	0.0740				
C3_7		J44	J43	CONDUIT	41.4
4.8395	0.0740				
C3_8		J45	J22	CONDUIT	35.3
5.6803	0.0740				
C4		J12	J2	CONDUIT	738.2
0.8128	0.0300				
C4_3		J13	J49	CONDUIT	86.4
26.3217	0.0740				
C6		J10	J6	CONDUIT	311.5
0.6420	0.0300				
C6_3		J23	J56	CONDUIT	40.7
9.8827	0.0740				
C6_6		J55	J54	CONDUIT	62.2
16.2880	0.0740				
C6_7		J56	J55	CONDUIT	66.5
31.5467	0.0740				
C6_8		J57	J23	CONDUIT	84.0
21.9456	0.0740				
C7		J21	ClearPond2	CONDUIT	54.3
2.2093	0.0100				-
C7_2		J58	J20	CONDUIT	19.3
32.6863	0.0740				
C7_3		J19	J61	CONDUIT	40.4
9.9566	0.0740				
C7_4		J59	J58	CONDUIT	24.3
25.4736	0.0740				
C7_5		J60	J59	CONDUIT	46.3
8.6723	0.0740				
C7_6		J61	J60	CONDUIT	60.0
35.3832	0.0740				
C7_8		J66	OF1	CONDUIT	63.7
0.7849	0.0100				
C8_2		J62	J10	CONDUIT	17.3
23.7770	0.0740				
C8_4		J63	J62	CONDUIT	40.9
36.4417	0.0740				
C8_5		J64	J63	CONDUIT	34.2
5.8587	0.0740				
C9		J6	J8	CONDUIT	357.7
1.9573	0.0300				
C9_3		J24	J27	CONDUIT	30.7
6.5215	0.0740				
C9_4		J25	J6	CONDUIT	64.5
29.0816	0.0740				
C9_5		J26	J25	CONDUIT	42.8
9.3816	0.0740				
C9_6		J27	J26	CONDUIT	65.9
31.8470	0.0740				
C1		SedPond2	ClearPond2	WEIR	
C3		ClearPond2	OF2	WEIR	
C5		SedPond2	J21	OUTLET	
C8		ClearPond2	J66	OUTLET	

 Cross Section Summary

Full Conduit Flow	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels
----- C1_2 246.70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_3 117.72	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_4 255.37	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_5 104.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_6 270.00	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C1_7 100.90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C10 188.06	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11 293.71	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C12 68.92	TRIANGULAR	2.00	4.00	0.71	4.00	1
C13 67.12	TRIANGULAR	2.00	4.00	0.71	4.00	1
C14 178.36	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C15 114.08	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C16_2 176.83	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C16_3 141.95	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C17 238.41	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C18 192.19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C19_1 1363.15	TRAPEZOIDAL	4.00	260.00	2.47	105.00	1
C19_2 0.00	DUMMY	0.00	0.00	0.00	0.00	1
C2 275.74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C20 64.94	TRIANGULAR	2.00	4.00	0.71	4.00	1
C3_2 258.89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_3 238.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_6 249.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_7 99.84	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C3_8 108.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C4	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1

C4_3 232.85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6 171.10	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C6_3 142.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_6 183.17	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_7 254.91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C6_8 212.61	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7 128.88	CIRCULAR	3.00	7.07	0.75	3.00	1
C7_2 259.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_3 143.21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_4 229.06	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_5 133.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_6 269.97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C7_8 76.82	CIRCULAR	3.00	7.07	0.75	3.00	1
C8_2 221.30	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C8_4 273.97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C8_5 109.85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9 298.74	TRAPEZOIDAL	3.00	30.00	1.72	16.00	1
C9_3 115.90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_4 244.75	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_5 139.01	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C9_6 256.12	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

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

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO

Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method CURVE_NUMBER
 Flow Routing Method DYNWAVE
 Surcharge Method EXTRAN
 Starting Date 03/30/2022 00:00:00
 Ending Date 03/31/2022 00:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:01:00
 Wet Time Step 00:05:00
 Dry Time Step 00:05:00
 Routing Time Step 5.00 sec
 Variable Time Step YES
 Maximum Trials 8
 Number of Threads 8
 Head Tolerance 0.005000 ft

	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches

Total Precipitation	17.623	7.660
Evaporation Loss	0.000	0.000
Infiltration Loss	5.305	2.306
Surface Runoff	12.135	5.275
Final Storage	0.215	0.093
Continuity Error (%)	-0.181	

	Volume	Volume
Flow Routing Continuity	acre-feet	10 ⁶ gal

Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	12.150	3.959
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	3.558	1.159
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.874	0.285
Final Stored Volume	9.467	3.085
Continuity Error (%)	-0.011	

 Time-Step Critical Elements

 Link C7 (53.81%)
 Link C2 (20.84%)

 Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

```

Minimum Time Step      :      0.50 sec
Average Time Step     :      2.98 sec
Maximum Time Step     :      5.00 sec
Percent in Steady State :     -0.00
Average Iterations per Step :      2.00
Percent Not Converging :      0.00
Time Step Frequencies :
    5.000 - 3.155 sec :     41.86 %
    3.155 - 1.991 sec :     25.91 %
    1.991 - 1.256 sec :     20.05 %
    1.256 - 0.792 sec :      8.48 %
    0.792 - 0.500 sec :      3.70 %

```

Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Total	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Runoff	Precip	Runoff	Evap	Infil	Runoff
in	in	10^6 gal	in	in	in	in	in

CP2			7.66	0.00	0.00	0.30	0.00
7.23	7.23	0.11	4.08	0.944			
S1			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.08	4.48	0.644			
S1_2			7.66	0.00	0.00	2.58	0.00
5.03	5.03	0.04	2.61	0.656			
S1_3			7.66	0.00	0.00	2.58	0.00
5.01	5.01	0.16	8.44	0.654			
S1_4			7.66	0.00	0.00	2.66	0.00
4.90	4.90	0.13	6.30	0.640			
S1_6			7.66	0.00	0.00	2.66	0.00
4.89	4.89	0.18	8.11	0.639			
S10_2			7.66	0.00	0.00	2.66	0.00
4.93	4.93	0.06	3.10	0.644			
S11			7.66	0.00	0.00	2.58	0.00
5.03	5.03	0.07	4.30	0.656			
S2			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.05	2.77	0.645			
S2_2			7.66	0.00	0.00	2.66	0.00
4.93	4.93	0.12	6.39	0.643			
S2_3			7.66	0.00	0.00	2.66	0.00
4.93	4.93	0.18	9.80	0.644			
S2_5			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.13	7.55	0.645			

S3			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.05	3.10	0.645			
S3_1			7.66	0.00	0.00	2.66	0.00
4.92	4.92	0.14	7.02	0.642			
S3_2			7.66	0.00	0.00	2.66	0.00
4.93	4.93	0.13	7.39	0.644			
S3_3			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.11	6.00	0.644			
S3_5			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.07	3.98	0.645			
S4			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.05	2.79	0.645			
S4_2			7.66	0.00	0.00	2.66	0.00
4.90	4.90	0.20	9.01	0.639			
S4_3			7.66	0.00	0.00	2.58	0.00
5.02	5.02	0.23	12.83	0.655			
S4_4			7.66	0.00	0.00	2.58	0.00
5.02	5.02	0.14	7.75	0.655			
S5			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.07	3.93	0.645			
S5_3			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.06	3.35	0.645			
S5_4			7.66	0.00	0.00	2.58	0.00
5.03	5.03	0.10	6.05	0.656			
S6			7.66	0.00	0.00	2.66	0.00
4.93	4.93	0.22	12.08	0.643			
S6_4			7.66	0.00	0.00	2.66	0.00
4.93	4.93	0.23	12.97	0.644			
S6_5			7.66	0.00	0.00	2.58	0.00
5.03	5.03	0.08	4.96	0.656			
S8			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.04	2.43	0.645			
S9			7.66	0.00	0.00	2.66	0.00
4.94	4.94	0.05	3.13	0.645			
SP2			7.66	0.00	0.00	0.30	0.00
7.22	7.22	0.67	24.61	0.943			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.04	0.33	718.33	0 11:54	0.33
J10	JUNCTION	0.26	1.90	655.90	0 11:58	1.90
J11	JUNCTION	0.03	0.32	718.32	0 11:54	0.32
J12	JUNCTION	0.18	1.50	659.50	0 11:57	1.50
J13	JUNCTION	0.04	0.36	696.36	0 11:54	0.36
J14	JUNCTION	0.12	1.06	661.06	0 11:57	1.06
J15	JUNCTION	0.00	0.00	730.00	0 00:00	0.00
J16	JUNCTION	0.22	1.81	657.81	0 11:57	1.81
J18	JUNCTION	0.10	0.90	662.90	0 11:55	0.90
J19	JUNCTION	0.04	0.35	698.35	0 11:54	0.35
J2	JUNCTION	0.18	1.53	653.53	0 11:57	1.53
J20	JUNCTION	0.16	1.39	659.39	0 11:55	1.39

J21	JUNCTION	2.69	4.30	646.30	0	14:30	4.30
J22	JUNCTION	0.05	0.43	694.43	0	11:54	0.43
J23	JUNCTION	0.09	0.72	700.72	0	11:54	0.72
J24	JUNCTION	0.00	0.00	696.00	0	00:00	0.00
J25	JUNCTION	0.06	0.53	670.53	0	11:54	0.53
J26	JUNCTION	0.07	0.62	674.62	0	11:54	0.62
J27	JUNCTION	0.05	0.44	694.44	0	11:54	0.44
J3	JUNCTION	0.00	0.09	644.89	0	11:59	0.09
J33	JUNCTION	0.07	0.65	672.65	0	11:54	0.65
J34	JUNCTION	0.12	0.92	674.92	0	11:54	0.91
J35	JUNCTION	0.04	0.36	696.36	0	11:54	0.35
J36	JUNCTION	0.09	0.66	698.66	0	11:54	0.66
J42	JUNCTION	0.06	0.59	664.59	0	11:54	0.59
J43	JUNCTION	0.06	0.57	672.57	0	11:54	0.57
J44	JUNCTION	0.13	0.95	674.95	0	11:54	0.95
J45	JUNCTION	0.10	0.73	696.73	0	11:54	0.73
J49	JUNCTION	0.05	0.47	674.47	0	11:54	0.47
J5	JUNCTION	0.27	1.13	679.13	0	11:55	1.13
J54	JUNCTION	0.09	0.80	666.80	0	11:54	0.80
J55	JUNCTION	0.07	0.60	676.60	0	11:54	0.60
J56	JUNCTION	0.06	0.50	696.50	0	11:54	0.50
J57	JUNCTION	0.05	0.40	718.40	0	11:54	0.40
J58	JUNCTION	0.05	0.45	664.45	0	11:54	0.45
J59	JUNCTION	0.04	0.41	670.41	0	11:54	0.41
J6	JUNCTION	0.19	1.57	653.57	0	11:58	1.57
J60	JUNCTION	0.06	0.58	674.58	0	11:54	0.58
J61	JUNCTION	0.02	0.23	694.23	0	11:54	0.23
J62	JUNCTION	0.05	0.46	658.46	0	11:54	0.46
J63	JUNCTION	0.00	0.00	672.00	0	00:00	0.00
J64	JUNCTION	0.00	0.00	674.00	0	00:00	0.00
J66	JUNCTION	0.35	0.84	642.84	0	14:32	0.84
J74	JUNCTION	0.02	0.20	716.20	0	11:54	0.20
J8	JUNCTION	0.56	2.91	647.91	0	11:59	2.91
J9	JUNCTION	0.21	0.90	712.90	0	11:55	0.90
OF1	OUTFALL	0.28	0.63	642.13	0	14:32	0.63
OF2	OUTFALL	0.00	0.00	641.50	0	00:00	0.00
ClearPond2	STORAGE	2.80	4.28	646.28	0	14:32	4.28
SedPond2	STORAGE	4.06	5.28	647.28	0	14:06	5.28

Node Inflow Summary

Total Inflow Volume Node gal		Flow Balance Error Percent	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal
0.0553		0.022	JUNCTION	3.10	3.10	0 11:54	0.0553

J10		JUNCTION	3.10	62.85	0	11:57	0.0536
1.3	0.192						
J11		JUNCTION	7.02	7.02	0	11:54	0.137
0.137	0.023						
J12		JUNCTION	3.13	47.61	0	11:55	0.0544
0.945	0.213						
J13		JUNCTION	8.44	8.44	0	11:54	0.157
0.157	0.021						
J14		JUNCTION	2.43	23.43	0	11:54	0.0422
0.45	0.343						
J15		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J16		JUNCTION	0.00	50.95	0	11:55	0
1.03	0.201						
J18		JUNCTION	3.93	33.05	0	11:54	0.0684
0.636	0.146						
J19		JUNCTION	4.30	4.30	0	11:54	0.0732
0.0732	0.020						
J2		JUNCTION	4.48	74.66	0	11:56	0.0792
1.51	0.103						
J20		JUNCTION	2.79	37.46	0	11:54	0.0477
0.711	0.110						
J21		JUNCTION	0.00	7.58	0	14:06	0
1.33	0.123						
J22		JUNCTION	0.00	12.92	0	11:54	0
0.242	0.020						
J23		JUNCTION	7.75	16.70	0	11:54	0.139
0.336	0.033						
J24		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J25		JUNCTION	4.96	17.80	0	11:54	0.0844
0.316	-0.002						
J26		JUNCTION	0.00	12.93	0	11:54	0
0.232	0.035						
J27		JUNCTION	12.97	12.97	0	11:54	0.232
0.232	0.018						
J3		JUNCTION	0.00	150.29	0	11:59	0
3.16	-0.002						
J33		JUNCTION	7.55	26.55	0	11:54	0.132
0.483	0.003						
J34		JUNCTION	9.80	19.12	0	11:54	0.179
0.351	0.039						
J35		JUNCTION	0.00	9.42	0	11:54	0
0.172	0.023						
J36		JUNCTION	6.39	9.46	0	11:54	0.117
0.173	0.059						
J42		JUNCTION	3.98	24.07	0	11:54	0.0683
0.442	0.003						
J43		JUNCTION	0.00	20.18	0	11:54	0
0.374	0.013						
J44		JUNCTION	7.39	20.20	0	11:54	0.132
0.374	0.043						
J45		JUNCTION	6.00	12.98	0	11:54	0.106
0.243	0.052						
J49		JUNCTION	2.61	11.01	0	11:54	0.0446
0.202	0.023						
J5		JUNCTION	6.30	14.33	0	11:54	0.135
0.319	0.030						
J54		JUNCTION	12.83	29.21	0	11:54	0.232
0.568	0.011						

J55		JUNCTION	0.00	16.65	0	11:54	0
0.336	0.029						
J56		JUNCTION	0.00	16.66	0	11:54	0
0.336	0.017						
J57		JUNCTION	9.01	9.01	0	11:54	0.197
0.197	0.024						
J58		JUNCTION	3.35	13.60	0	11:54	0.0568
0.233	0.003						
J59		JUNCTION	0.00	10.28	0	11:54	0
0.177	0.017						
J6		JUNCTION	2.77	79.38	0	11:57	0.0475
1.67	0.054						
J60		JUNCTION	6.05	10.32	0	11:54	0.104
0.177	0.041						
J61		JUNCTION	0.00	4.29	0	11:54	0
0.0732	0.028						
J62		JUNCTION	12.08	12.08	0	11:54	0.224
0.224	0.005						
J63		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J64		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J66		JUNCTION	0.00	7.55	0	14:32	0
1.16	0.012						
J74		JUNCTION	0.00	3.10	0	11:54	0
0.0553	0.031						
J8		JUNCTION	0.00	152.43	0	11:58	0
3.17	0.413						
J9		JUNCTION	8.11	8.11	0	11:54	0.184
0.184	0.041						
OF1		OUTFALL	0.00	7.55	0	14:32	0
1.16	0.000						
OF2		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
ClearPond2		STORAGE	4.08	7.77	0	14:04	0.108
1.43	0.098						
SedPond2		STORAGE	24.61	174.87	0	11:59	0.668
4.11	-0.001						

Node Surcharge Summary

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

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
J21	JUNCTION	10.59	1.296	3.704

Node Flooding Summary

No nodes were flooded.

 Storage Volume Summary

of Max Occurrence hr:min	Maximum Outflow Unit CFS	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time days
14:32	7.55	23.886	24	0	0	38.842	38	0
14:06	7.58	274.185	38	0	0	394.698	54	0

 Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
OF1	60.27	4.05	7.55	1.159
OF2	0.00	0.00	0.00	0.000
System	30.13	4.05	7.55	1.159

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1_2	CONDUIT	3.09	0 11:54	1.36	0.01	0.21
C1_3	CONDUIT	3.10	0 11:54	2.44	0.03	0.13
C1_4	CONDUIT	26.54	0 11:54	3.65	0.10	0.54
C1_5	CONDUIT	19.10	0 11:54	3.85	0.18	0.39
C1_6	CONDUIT	9.41	0 11:54	2.51	0.03	0.32
C1_7	CONDUIT	9.42	0 11:54	3.36	0.09	0.25
C10	CONDUIT	29.20	0 11:54	5.33	0.16	0.42
C11	CONDUIT	73.67	0 11:57	4.17	0.25	0.74
C12	CONDUIT	0.00	0 00:00	0.00	0.00	0.23
C13	CONDUIT	8.09	0 11:55	7.82	0.12	0.51
C14	CONDUIT	22.07	0 11:57	2.63	0.12	0.43
C15	CONDUIT	10.39	0 11:55	1.81	0.09	0.33
C16_2	CONDUIT	36.67	0 11:56	3.28	0.21	0.53

C16_3	CONDUIT	49.58	0	11:57	3.47	0.35	0.62
C17	CONDUIT	21.71	0	11:55	3.02	0.09	0.38
C18	CONDUIT	10.96	0	11:54	2.46	0.06	0.38
C19_1	CONDUIT	150.29	0	11:59	2.50	0.11	0.38
C19_2	DUMMY	150.29	0	11:59			
C2	CONDUIT	24.06	0	11:54	3.50	0.09	0.52
C20	CONDUIT	14.30	0	11:55	7.38	0.22	0.73
C3_2	CONDUIT	12.91	0	11:54	3.06	0.05	0.35
C3_3	CONDUIT	7.00	0	11:54	2.39	0.03	0.26
C3_6	CONDUIT	20.17	0	11:54	6.06	0.08	0.29
C3_7	CONDUIT	20.18	0	11:54	4.22	0.20	0.38
C3_8	CONDUIT	12.92	0	11:54	3.87	0.12	0.29
C4	CONDUIT	46.33	0	11:57	4.34	0.24	0.51
C4_3	CONDUIT	8.41	0	11:54	3.86	0.04	0.21
C6	CONDUIT	62.28	0	11:58	4.79	0.36	0.58
C6_3	CONDUIT	16.66	0	11:54	4.66	0.12	0.31
C6_6	CONDUIT	16.63	0	11:54	3.88	0.09	0.35
C6_7	CONDUIT	16.65	0	11:54	5.32	0.07	0.28
C6_8	CONDUIT	9.00	0	11:54	2.91	0.04	0.28
C7	CONDUIT	7.58	0	14:04	1.64	0.06	1.00
C7_2	CONDUIT	13.60	0	11:54	2.33	0.05	0.46
C7_3	CONDUIT	4.29	0	11:54	3.08	0.03	0.14
C7_4	CONDUIT	10.28	0	11:54	4.54	0.04	0.21
C7_5	CONDUIT	10.28	0	11:54	3.81	0.08	0.25
C7_6	CONDUIT	4.28	0	11:54	2.05	0.02	0.20
C7_8	CONDUIT	7.55	0	14:32	5.61	0.10	0.25
C8_2	CONDUIT	12.07	0	11:54	1.59	0.05	0.58
C8_4	CONDUIT	0.00	0	00:00	0.00	0.00	0.11
C8_5	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
C9	CONDUIT	79.05	0	11:58	4.25	0.26	0.75
C9_3	CONDUIT	0.00	0	00:00	0.00	0.00	0.11
C9_4	CONDUIT	17.79	0	11:54	2.68	0.07	0.52
C9_5	CONDUIT	12.89	0	11:54	3.88	0.09	0.29
C9_6	CONDUIT	12.93	0	11:54	4.37	0.05	0.27
C1	WEIR	0.00	0	00:00			0.00
C3	WEIR	0.00	0	00:00			0.00
C5	DUMMY	7.58	0	14:06			
C8	DUMMY	7.55	0	14:32			

Flow Classification Summary

Inlet Conduit Ctrl	Adjusted /Actual Length	Fraction of Time in Flow Class							
		Up Dry	Down Dry	Sub Crit	Sup Crit	Up Crit	Down Crit	Norm Ltd	
C1_2 0.00	1.00	0.12	0.00	0.00	0.88	0.00	0.00	0.00	0.79
C1_3 0.00	1.00	0.12	0.00	0.00	0.88	0.00	0.00	0.00	0.00

C7_2 0.00	1.00	0.12	0.00	0.00	0.88	0.00	0.00	0.00	0.79
C7_3 0.00	1.00	0.12	0.00	0.00	0.86	0.02	0.00	0.00	0.00
C7_4 0.00	1.00	0.12	0.00	0.00	0.71	0.17	0.00	0.00	0.80
C7_5 0.00	1.00	0.12	0.00	0.00	0.86	0.02	0.00	0.00	0.00
C7_6 0.00	1.00	0.12	0.00	0.00	0.88	0.00	0.00	0.00	0.80
C7_8 0.00	1.00	0.40	0.00	0.00	0.00	0.60	0.00	0.00	0.00
C8_2 0.00	1.00	0.12	0.00	0.00	0.87	0.01	0.00	0.00	0.77
C8_4 0.00	1.00	0.12	0.88	0.00	0.00	0.00	0.00	0.00	0.00
C8_5 0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C9 0.00	1.00	0.12	0.00	0.00	0.88	0.00	0.00	0.00	0.76
C9_3 0.00	1.00	0.12	0.88	0.00	0.00	0.00	0.00	0.00	0.00
C9_4 0.00	1.00	0.12	0.00	0.00	0.87	0.01	0.00	0.00	0.78
C9_5 0.00	1.00	0.12	0.00	0.00	0.86	0.01	0.00	0.00	0.02
C9_6 0.00	1.00	0.12	0.00	0.00	0.84	0.04	0.00	0.00	0.79

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
C7	2.67	2.67	10.59	0.01	0.01

Analysis begun on: Mon Oct 23 18:32:42 2023
 Analysis ended on: Mon Oct 23 18:32:43 2023
 Total elapsed time: 00:00:01



Attachment F

Ditch Lining Evaluation Reference Tables

Table C-1 Graded Rip-Rap Stone

Flow Velocity (ft./sec.)	N.S.A. No. ¹	Size Inches (Sq. Opening) Avg. ²			Filter Stone N.S.A. No. ¹
		Max.		Min.	
2.5	R-1	1 1/2	3/4	No. 8	FS-1
4.5	R-2	3	1 1/2	1	FS-1
6.5	R-3	6	3	2	FS-2
9.0	R-4	12	6	3	FS-2
11.5	R-5	18	9	5	FS-2
13.0	R-6	24	12	7	FS-3
14.5	R-7	30	15	12	FS-3

¹ National Stone Association

² At least 50% of the individual stone particles must be equal or larger than this listed size

Table C-3. Graded Rip-Rap Stone

D.O.T. No. ¹	Size inches (Sq. opening)			Common Uses
	Max.	Avg.	Min.	
Type 3	12	9	5	Creek Banks Pipe Outlets
Type 1	24	12	7	Lakes & Shorelines Rivers
Georgia Department of Transportation				

Table 5.4-4 Manning's Roughness Coefficients (n) for Artificial Channels

Category	Lining Type	Depth Ranges		
		0-0.5 ft	0.5-2.0 ft	>2.0 ft
Rigid	Concrete	0.015	0.013	0.013
	Grouted Riprap	0.040	0.030	0.028
	Stone Masonry	0.042	0.032	0.030
	Soil Cement	0.025	0.022	0.020
	Asphalt	0.018	0.016	0.016
Unlined	Bare Soil	0.023	0.020	0.020
	Rock Cut	0.045	0.035	0.025
Temporary*	Woven Paper Net	0.016	0.015	0.015
	Jute Net	0.028	0.022	0.019
	Fiberglass Roving	0.028	0.022	0.019
	Straw with Net	0.065	0.033	0.025
	Curled Wood Mat	0.066	0.035	0.028
	Synthetic Mat	0.036	0.025	0.021
Gravel Riprap	1-inch D_{50}	0.044	0.033	0.030
	2-inch D_{50}	0.066	0.041	0.034
Rock Riprap	6-inch D_{50}	0.104	0.069	0.035
	12-inch D_{50}	-	0.078	0.040

Note: Values listed are representative values for the respective depth ranges. Manning's roughness coefficients, n, vary with the flow depth.

*Some "temporary" linings become permanent when buried.

Source: HEC-15, 2005.



Attachment 3
Parcel E Hydrologic & Hydraulic Calculations



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1. BACKGROUND AND DESIGN CRITERIA

The Huffaker Road Landfill (HRL) Parcel E will be regraded to contain the existing coal combustion residual (CCR) materials and allow for closure. The Sediment Pond 3, Clear Pool 3, and perimeter drainage ditches have been constructed. These features are illustrated in Figure 1.

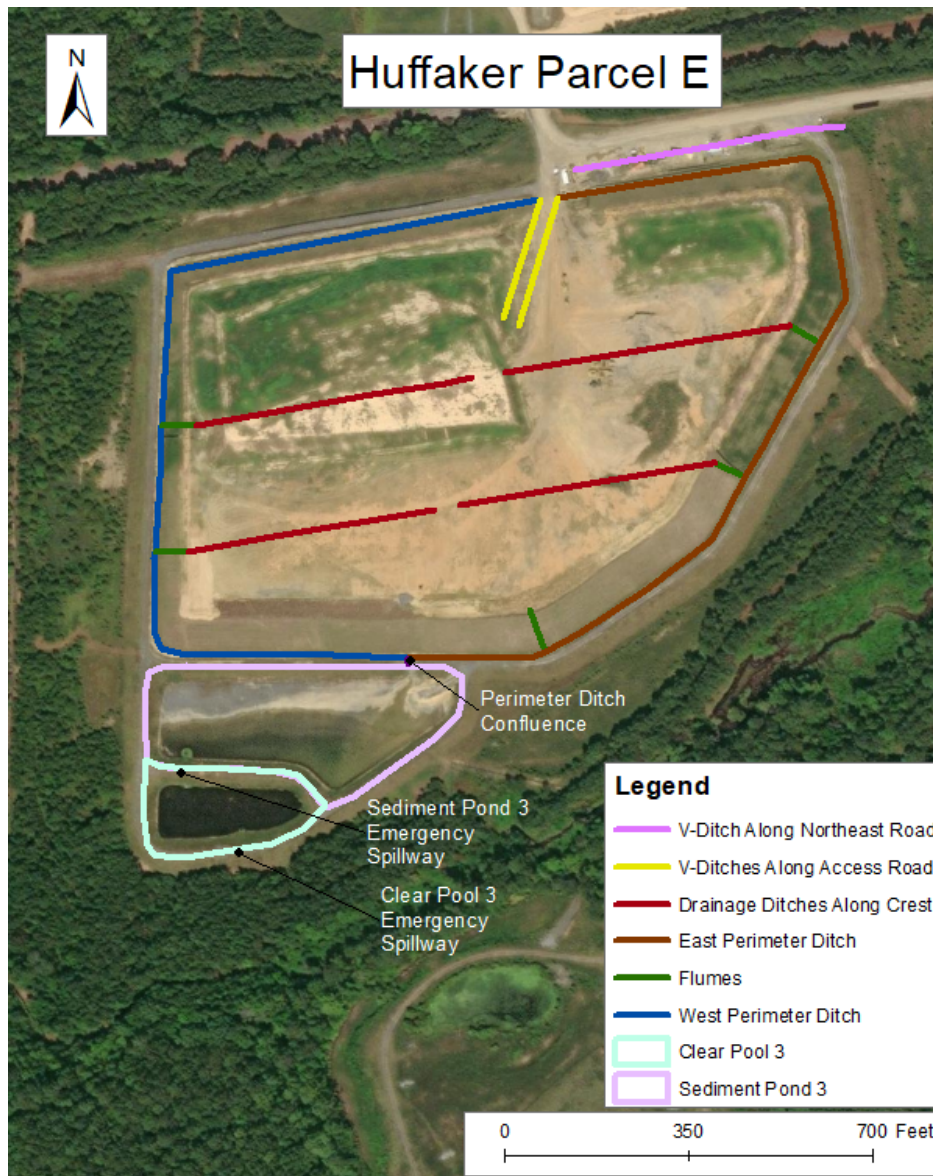


Figure 1 Huffaker Road Landfill – Parcel E

The existing ditches are used to convey the stormwater runoff from the landfill to the Sediment Pond 3.



The purpose of this report is to analyze the hydrologic and hydraulic performance of proposed drainage feature configurations comparing vegetative and closure turf cover systems. Some minor changes may occur due to clean out and routing changes. The drainage features will be reanalyzed during the final design for the following:

1. Evaluate if perimeter drainage ditches maintain 1/2 -foot of freeboard during the 25-year, 24-hour storm event and contain the 100-year, 24-hour storm event without overtopping;
2. Evaluate if the Sediment Pond 3 and Clear Pool 3 can route the 100-year, 24-hour storm event without overtopping;
3. Analyze existing spillway capacity and performance during the 100-year, 24-hour storm event; and
4. Size stormwater runoff flumes for the proposed landfill to convey the 25-year, 24-hour event.
5. Evaluate sizing for ditches along the crest, along the access road, and along the Northeast Road to maintain 1/2 -foot of freeboard during the 25-year, 24-hour storm event and contain the 100-year, 24-hour storm event

2. METHODOLOGY

The United States Department of Agriculture (USDA) Soil Conservation Service (SCS) curve number method was used in creating a stormwater management model (with the Computational Hydraulics Institute PCSWMM design software) to compute the peak flows and the capacity of the ditches and ponds on the site. Esri ArcGIS software was used to create multiple features and measurements used in the PCSWMM model. An overview figure of the PCSWMM model is included in Attachment A. The following were applied for this analysis:

- The drainage areas were delineated using the existing and post-construction/final grade contours shown in the Construction Plans. The total area that drains into the ditches is 27.2 acres.
- East and west perimeter ditch channel geometry as illustrated in the Permit Drawings and Construction Plans:
 - Trapezoidal channel lined with vegetated cover
 - 4-foot bottom width
 - 2H:1V side slopes
 - 2-foot depth
- Drainage ditches along crest
 - Trapezoidal channel lined with either closure turf or vegetated cover after both cases were evaluated
 - 2-foot bottom width
 - 3H:1V side slopes
 - 2-foot depth
- Flume geometry of the following:
 - Riprap trapezoidal channel
 - 4-foot bottom width

- 3H:1V side slopes
 - 1.5-foot depth
- Geometry of the perimeter ditch confluence
 - Concrete trapezoidal channel
 - 18-foot bottom width
 - 10H:1V side slopes
 - 2.5-foot depth
- Geometry of the V-ditch along the access road
 - 1-foot depth
 - 3H:1V side slopes
- Geometry of the V-ditch along the northeast road
 - 2-foot depth
 - 3H:1V side slopes
- NOAA Atlas 14 rainfall depths were used for all storm events evaluated.
 - 25-year, 24-hour: 6.29 inches
 - 100-year, 24-hour: 7.85 inches
- A SCS Type-II rainfall distribution was used along with the rainfall depths listed above.
- A composite curve number was calculated for each drainage sub-catchment based on future landfill closure conditions. A SCS hydrologic soil group composite classification of C (poorly drained) was assigned for the land covers provided below. The SCS hydrologic soil group classification of Type C was determined to be the most appropriate fit:
 - Closure vegetated surface and vegetated ditches – 71
 - Rock-lined stormwater flumes and crushed stone roads – 89
 - Open water surface – 98
 - Closure turf – 95
- Manning's roughness coefficient "n" values were based on *Open Channel Hydraulics* (Chow, 1959), *Manual for Erosion and Sediment Control in Georgia* (current edition dated 2016) and WinTR-55. The values used were:
 - 0.015 – concrete lined channels
 - 0.02 – closure turf lined channels
 - 0.022 – Bituminous-Coated Corrugated Metal Pipe (BCCMP)
 - 0.03 – vegetated ditch
 - 0.074 – rip rap
- Sediment Pond 3 and Clear Pool 3 stage-area curves were developed based on permit and design configurations. The elevation-area curves are included in Attachment B.
- Sediment Pond 3 and Clear Pool 3 current primary spillway structure configuration was referenced from most recent Permit Drawings:
 - 48-inch diameter, 5-foot tall BCCMP riser with trash rack
 - 36-inch diameter BCCMP barrel
 - Rim and invert elevation values referenced from Table 1 on permit drawing number H9155
 - A rating curve calculation is included in Attachment C

- Sediment Pond 3 and Clear Pool 3 emergency spillway channel was referenced from most recent Permit Drawing:
 - Concrete-lined trapezoidal channel
 - 20-foot bottom width
 - 3H:1V side slopes
 - 2-foot depth for the Sediment Pond 3 emergency spillway channel and the Clear Pool 3 emergency spillway channel

3. EVALUATION BETWEEN VEGETATIVE AND CLOSURE TURF COVER SYSTEMS

The use of closure turf cover system was included in these analyses. For this cover system, changes to the model included:

- The curve number for the closure surface was changed from 71 to 95.
- For this analysis, the site was evaluated to use closure turf and a resulting curve number of 95 was used from the Closure Turf Hydrology Parameters for high intensity (Watershed Geo, 2019).

4. RESULTS

Detailed PCSWMM reports are included in Attachment D. A summary of results is included in Tables 1-6.

Table 1 Vegetative Cover System Perimeter Ditch Results

Scenario ¹	Peak Water Surface Depth (ft)	Ditch Depth (ft)	Freeboard (ft)
West Perimeter Ditch - 25-year storm event	0.6	2.0	1.4
West Perimeter Ditch - 100-year storm event	0.6	2.0	1.3
East Perimeter Ditch – 25-year storm event	0.7	2.0	1.3
East Perimeter Ditch – 100-year storm event	0.7	2.0	1.3

¹For each ditch listed, the segment with the largest resulting peak water surface depth is shown.

Table 2 Closure Turf Cover System Perimeter Ditch Results

Scenario¹	Peak Water Surface Depth (ft)	Ditch Depth (ft)	Freeboard (ft)
West Perimeter Ditch - 25-year storm event	0.7	2.0	1.3
West Perimeter Ditch - 100-year storm event	0.7	2.0	1.3
East Perimeter Ditch – 25-year storm event	0.8	2.0	1.2
East Perimeter Ditch – 100-year storm event	0.8	2.0	1.2

¹For each ditch listed, the segment with the largest resulting peak water surface depth is shown.

Table 3 Vegetative Cover System Pond Results

Scenario¹	Starting Water Surface Elevation (WSE) (ft)	Peak WSE (ft)	Top of Berm Elevation (ft)	Freeboard (ft)	Emergency Spillway Elevation (ft)	Riser Rim Elevation (ft)	Emergency Spillway Flow (cfs)	Riser Peak Flow (cfs)
Sediment Pond 3 - 25-year storm event	624.0	630.1	633.0	2.9	631.0	630.0	0.00	1.7
Sediment Pond 3 - 100-year storm event	624.0	630.2	633.0	2.8	631.0	630.0	0.00	4.2
Clear Pool 3 – 25-year storm event	622.0	627.0	633.0	6.0	631.0	629.0	0.00	0
Clear Pool 3 – 100-year storm event	622.0	629.1	633.0	3.9	631.0	629.0	0.00	2.2

Table 4 Closure Turf Cover System Pond Results

Scenario¹	Starting Water Surface Elevation (WSE) (ft)	Peak WSE (ft)	Top of Berm Elevation (ft)	Freeboard (ft)	Emergency Spillway Elevation (ft)	Riser Rim Elevation (ft)	Emergency Spillway Flow (cfs)	Riser Peak Flow (cfs)
Sediment Pond 3 - 25-year storm event	624.0	630.2	633.0	2.8	631.0	630.0	0.00	5.1
Sediment Pond 3 - 100-year storm event	624.0	630.4	633.0	2.6	631.0	630.0	0.00	10.6
Clear Pool 3 – 25-year storm event	622.0	629.1	633.0	3.9	631.0	629.0	0.00	2.4
Clear Pool 3 – 100-year storm event	622.0	629.2	633.0	3.8	631.0	629.0	0.00	6.3

Table 5 Flume Results

Scenario¹	Flume Name	Peak Water Surface Depth (ft)	Flume Depth (ft)	Freeboard (ft)
Vegetative Cover System - 25-year storm event	South Flume	0.6	1.5	0.9
Vegetative Cover System - 100-year storm event	Southwest Flume	0.6	1.5	0.9
Closure Turf Cover System – 25-year storm event	South Flume	0.7	1.5	0.8
Closure Turf Cover System – 100-year storm event	Southwest Flume	0.7	1.5	0.8

¹For each scenario listed, the segment with the largest resulting peak water surface depth is shown.

Table 6 Ditch Along Crest of Landfill

Scenario¹	Ditch name	Peak Water Surface Depth (ft)	Ditch Depth (ft)	Freeboard (ft)
Vegetative Cover System - 25-year storm event	Northwest and Northeast ditch located on Crest	0.2	2.0	1.8
Vegetative Cover System - 100-year storm event	Northwest and Northeast ditch located on Crest	0.3	2.0	1.7
Closure Turf Cover System – 25-year storm event	Northwest and Northeast ditch located on Crest	0.3	2.0	1.7
Closure Turf Cover System – 100-year storm event	Northwest and Northeast ditch located on Crest	0.3	2.0	1.7

¹For each scenario listed, the segment with the largest resulting peak water surface depth is shown.

Table 7 V-Ditch Along Access Road and Northeast Road

Ditch name	Peak Water Surface Depth (ft)	Ditch Depth (ft)	Freeboard (ft)
V-Ditches Along Access Road – 25-year storm event	0.2	1.0	0.8
V-Ditches Along Access Road – 100-year storm event	0.3	1.0	0.7
V-Ditch Along Northeast Road – 25-year storm event	0.3	2.0	1.7
V-Ditch Along Northeast Road – 100-year storm event	0.4	2.0	1.6

5. EVALUATION OF THE DITCH LININGS

The ditch linings were evaluated and chosen using the Manual for Erosion and Sediment Control in Georgia. The velocities from the closure turf model during the 100-year storm event were used as they are higher than the vegetative model.

Table 8 Perimeter Ditch Evaluation

Name	Max Velocity (ft/s) 100-year storm event	Category	Recommended Lining	Manning's n
East perimeter ditch 1	3.8	< 5ft/s Category 1	Vegetated Lining	0.030
East perimeter ditch 2	4.2	< 5ft/s Category 1	Vegetated Lining	0.030
Northeast perimeter ditch	0.9	< 5ft/s Category 1	Vegetated Lining	0.030
Northwest perimeter ditch	0.9	< 5ft/s Category 1	Vegetated Lining	0.030
West perimeter ditch	3.8	< 5ft/s Category 1	Vegetated Lining	0.030
Southeast perimeter ditch	9.3	> 5ft/s, <10ft/s Category 2	Concrete/Unimat Lining	0.015
Southwest perimeter ditch	8.8	> 5ft/s, <10ft/s Category 2	Concrete/Unimat Lining	0.015

Table 9 Flume Evaluation

Name	Max Velocity (ft/s) 100-year storm event	Recommended Lining	Category	Permissible Velocity (ft/s)	Depth of Channel (ft)	Manning's n
Northeast Flume	4.0	Rip Rap	DOT Type 3	11.5	2.0	0.074
Northwest Flume	4.3	Rip Rap	DOT Type 3	11.5	2.0	0.074
South Flume	2.0	Rip Rap	DOT Type 3	11.5	2.0	0.074
Southeast Flume	2.4	Rip Rap	DOT Type 3	11.5	2.0	0.074
Southwest Flume	2.0	Rip Rap	DOT Type 3	11.5	2.0	0.074

The 33% slopes from the flume decrease to approximately 1% at the confluence with the perimeter ditch. Due to the steep slope of the flume confluence with the perimeter ditch, the hydraulic jump was modeled through the program HydroCalc to measure the depth of lining. The results shown below in Figure 2 were evaluated and the confluence was conservatively recommended to be armored with rip rap.

The velocities in the flumes shown in Table 9 were evaluated using the Manual for Erosion and Sediment Control in Georgia. Tables C-1 and C-3 (Attachment F) were used to select Type 3 rip rap for the ditch lining, which has a nominal size of 9". In the Georgia Stormwater Management Manual Table 5.4-4 (Attachment F), the Manning's n of a rip rap channel with a nominal size of 9" is 0.074.



Figure 2 HydroCalc Flume Hydraulic Jump Calculations

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION
September 21, 2022

PROGRAM INPUT DATA	
DESCRIPTION	VALUE
Flow Rate (cfs).....	25.9
Channel Bottom Slope (ft/ft).....	0.01
Manning's Roughness Coefficient (n-value).....	0.074
Channel Left Side Slope (horizontal/vertical).....	0.33
Channel Right Side Slope (horizontal/vertical).....	0.33
Channel Bottom Width (ft).....	4.0

COMPUTATION RESULTS	
DESCRIPTION	VALUE
Normal Depth (ft).....	2.33
Flow Velocity (fps).....	2.33
Froude Number.....	0.289
Velocity Head (ft).....	0.08
Energy Head (ft).....	2.42
Cross-Sectional Area of Flow (sq ft).....	11.13
Top Width of Flow (ft).....	5.54

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Email:software@dodson-hydro.com, All Rights Reserved.

Table 10 Ditch Along Crest of Landfill Evaluation

Name	Max Velocity (ft/s) 100-year storm event	Category	Recommended Lining	Manning's n
Northwest ditch located on Crest	6.8	>5ft/s, <10ft/s Category 2	Closure Turf	0.020
Southwest ditch located on Crest	5.9	>5ft/s, <10ft/s Category 2	Closure Turf	0.020
Northeast ditch located on Crest	6.7	>5ft/s, <10ft/s Category 2	Closure Turf	0.020
Southeast ditch located on Crest	5.9	>5ft/s, <10ft/s Category 2	Closure Turf	0.020

Table 11 Perimeter Ditch Confluence with Sediment Pond 3 Evaluation

Name	Max Velocity (ft/s) 100-year storm event	Category	Recommended Lining	Manning's n
Perimeter Ditch Confluence with Sediment Pond 3	33.1	> 10 ft/sec Category 3	Concrete	0.015

Table 12 V-Ditch Along Access Road and Northeast Road Evaluation

Name	Max Velocity (ft/s) 100-year storm event	Category	Recommended Lining	Manning's n
East V-Ditch Along Access Road	7.8	> 5ft/s, <10ft/s Category 2	Closure turf	0.020
West V-Ditch Along Access Road	8.2	> 5ft/s, <10ft/s Category 2	Closure turf	0.020
V-Ditch Along Northeast Road	4.0	< 5ft/s Category 1	Vegetated Lining	0.030

6. EVALUATION OF THE DITCH LININGS SUMMARY

The perimeter ditches along the Northeast, Northwest, East and West have a maximum velocity low enough that vegetated lining is appropriate. The Southeast and Southwest perimeter ditches around the confluence were recommended to have Concrete/Unimat Lining due to the higher maximum velocity values.

The Flume with the highest flow was evaluated by computing the velocity and conservatively Type 3 Rip Rap sizing was recommended based on the Table 9.

The velocities for the ditches along the crest of the landfill resulted in a recommended closure turf lining.

A concrete lining was recommended for the confluence to the sediment pond due to the velocity being greater than 10 ft/s.

The velocities for the v-ditches along the access road resulted in a recommended closure turf lining.

The v-ditch along the northeast road has a maximum velocity low enough that vegetated lining is appropriate.

Manning's n values were determined based on the Georgia Stormwater Management Manual.

7. CONCLUSION

Based on the PCSWMM-calculated results with the modifications described in Section 3, the following are concluded for the vegetative and closure turf cover systems:

1. The existing West and East perimeter ditches can contain the 25-year, 24-hour storm event with the minimum 6 inches of freeboard and contain the 100-year, 24-hour storm event without overtopping.
2. The existing Sediment Pond 3 and Clear Pool 3 configurations do not overtop, or utilize the emergency spillway, for the 100-year, 24-hour storm event.
3. The current flume configurations can contain the 25-year, 24-hour storm event with the minimum 6 inches of freeboard and contain the 100-year, 24-hour storm event.
4. The ditches along the crest of the landfill can contain the 25-year, 24-hour storm event with the minimum 6 inches of freeboard and contain the 100-year, 24-hour storm event without overtopping.
5. The v-ditches along the access road, and along the northeast road, can contain the 25-year, 24-hour storm event with the minimum 6 inches of freeboard and contain the 100-year, 24-hour storm event without overtopping.

8. REFERENCES

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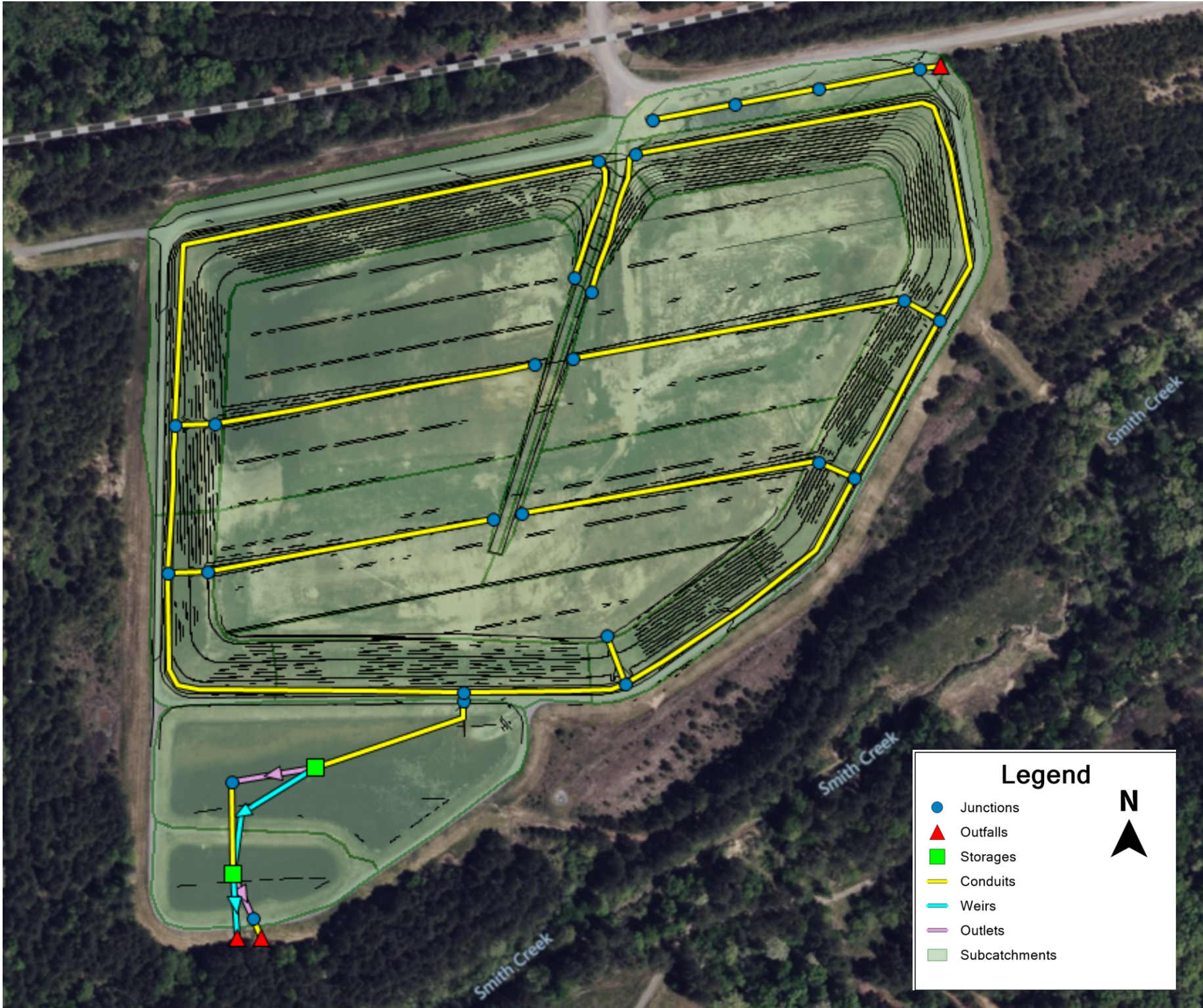
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Attachment A

PCSWMM Model Overview

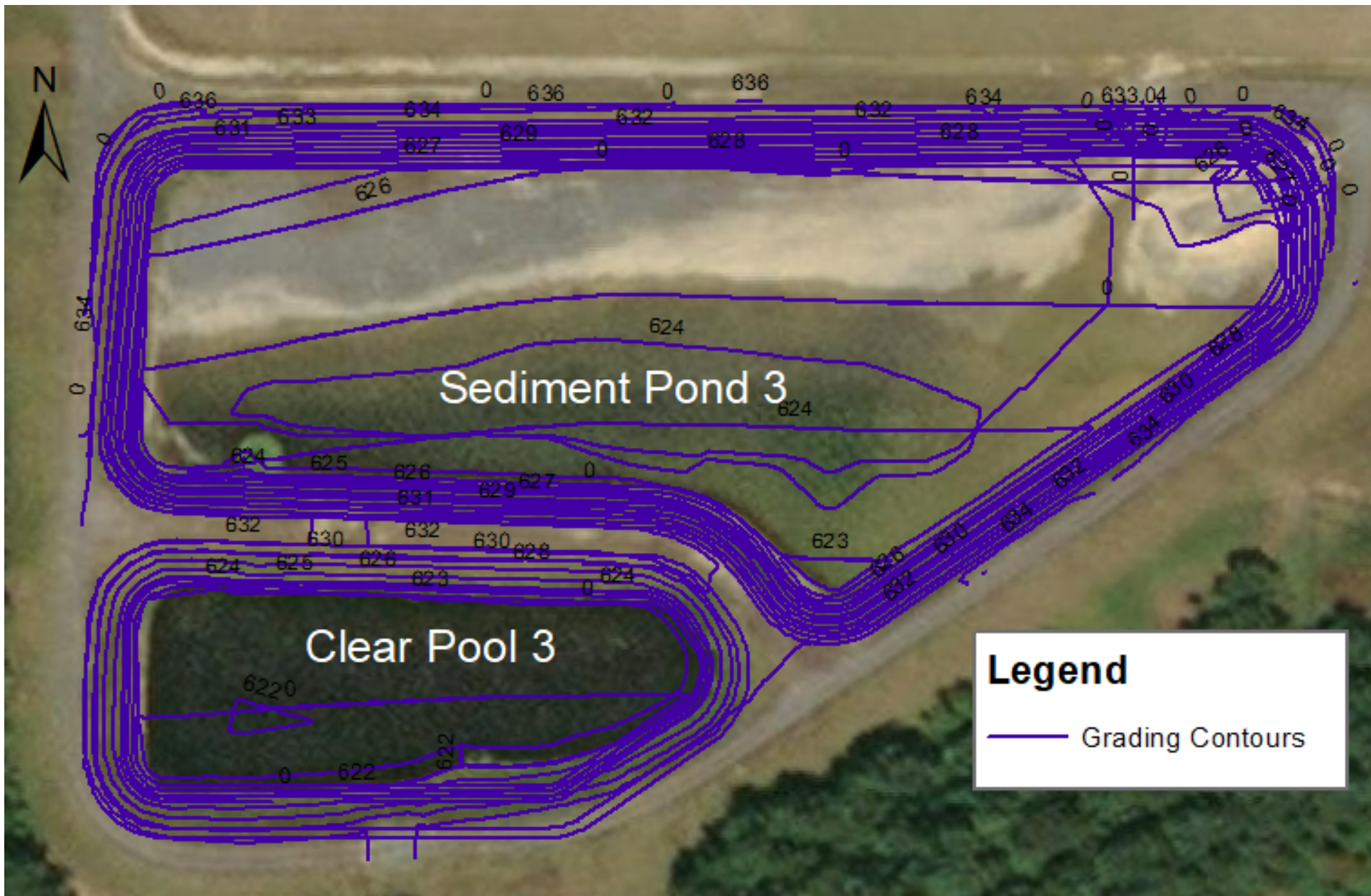




Attachment B

Pond Elevation-Area Curves

Parcel E Storage Curves		
	Elevation	Area
Sediment Pond 3	625	46112.88
	626	75389.53
	627	85123.94
	628	88966.85
	629	92443.96
	630	95881.48
	631	99417.84
Clear Pool 3	623	21416.95
	624	23091.21
	625	24587.04
	626	26146.81
	627	27793.68
	628	29541.31
	629	31376.17
	630	33285.8
	631	35302.4





Attachment C
Riser Rating Curve Calculation

Stage-Discharge Calculation
Georgia Power Company Plant Hammond
Huffaker Road



Sediment Pond 3

Basin Elevations

Top of Berm	633 Feet
Emergency Spillway Crest	631 Feet
Riser Rim	630 Feet
Bottom of Basin	624 Feet

Principal Spillway 48" Dia. Riser & 36" Dia. Barrel

Dia.	48 Inches
Dia.	4 Feet
Perim.	12.6 Feet
Area	12.6 SF

Elevation (FT)	Principal Spillway			Outlet ³	
	Head (FT)	Orifice ¹ (CFS)	Weir ² (CFS)	Head (FT)	Discharge (CFS)
624.0				0.0	0.0
624.5				0.5	0.0
625.0				1.0	0.0
625.5				1.5	0.0
626.0				2.0	0.0
626.5				2.5	0.0
627.0				3.0	0.0
627.5				3.5	0.0
628.0				4.0	0.0
628.5				4.5	0.0
629.0				5.0	0.0
629.5				5.5	0.0
630.0	0.0	0.0	0.0	6.0	0.0
630.5	0.5	42.8	13.7	6.5	13.7
631.0	1.0	60.5	38.8	7.0	38.8
631.5	1.5	74.1	71.3	7.5	71.3
632.0	2.0	85.6	109.7	8.0	85.6
632.5	2.5	95.7	153.3	8.5	95.7
633.0	3.0	104.8	201.6	9.0	104.8

(1) Discharge estimated with orifice equation:

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(2) Discharge estimated with broad-crested weir equation

$$Q = 3.087 \cdot L \cdot H^{3/2}$$

(3) Discharge is the minimum of orifice and weir flow

Stage-Discharge Calculation
Georgia Power Company Plant Hammond
Huffaker Road



Clear Pool 3

Basin Elevations

Top of Berm	633 Feet
Emergency Spillway Crest	631 Feet
Riser Rim	629 Feet
Bottom of Basin	622 Feet

Principal Spillway 48" Dia. Riser & 36" Dia. Barrel

Dia.	48 Inches
Dia.	4 Feet
Perim.	12.6 Feet
Area	12.6 SF

Elevation (FT)	Principal Spillway			Outlet ³	
	Head (FT)	Orifice ¹ (CFS)	Weir ² (CFS)	Head (FT)	Discharge (CFS)
622				0.0	0.0
622.5				0.5	0.0
623				1.0	0.0
623.5				1.5	0.0
624				2.0	0.0
624.5				2.5	0.0
625				3.0	0.0
625.5				3.5	0.0
626				4.0	0.0
626.5				4.5	0.0
627				5.0	0.0
627.5				5.5	0.0
628				6.0	0.0
628.5				6.5	0.0
629	0.0	0.0	0.0	7.0	0.0
629.5	0.5	42.8	13.7	7.5	13.7
630	1.0	60.5	38.8	8.0	38.8
630.5	1.5	74.1	71.3	8.5	71.3
631	2.0	85.6	109.7	9.0	85.6
631.5	2.5	95.7	153.3	9.5	95.7
632	3.0	104.8	201.6	10.0	104.8
632.5	3.5	113.2	254.0	10.5	113.2
633	4.0	121.0	310.3	11.0	121.0

(1) Discharge estimated with orifice equation:

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(2) Discharge estimated with broad-crested weir equation

$$Q = 3.087 \cdot L \cdot H^{3/2}$$

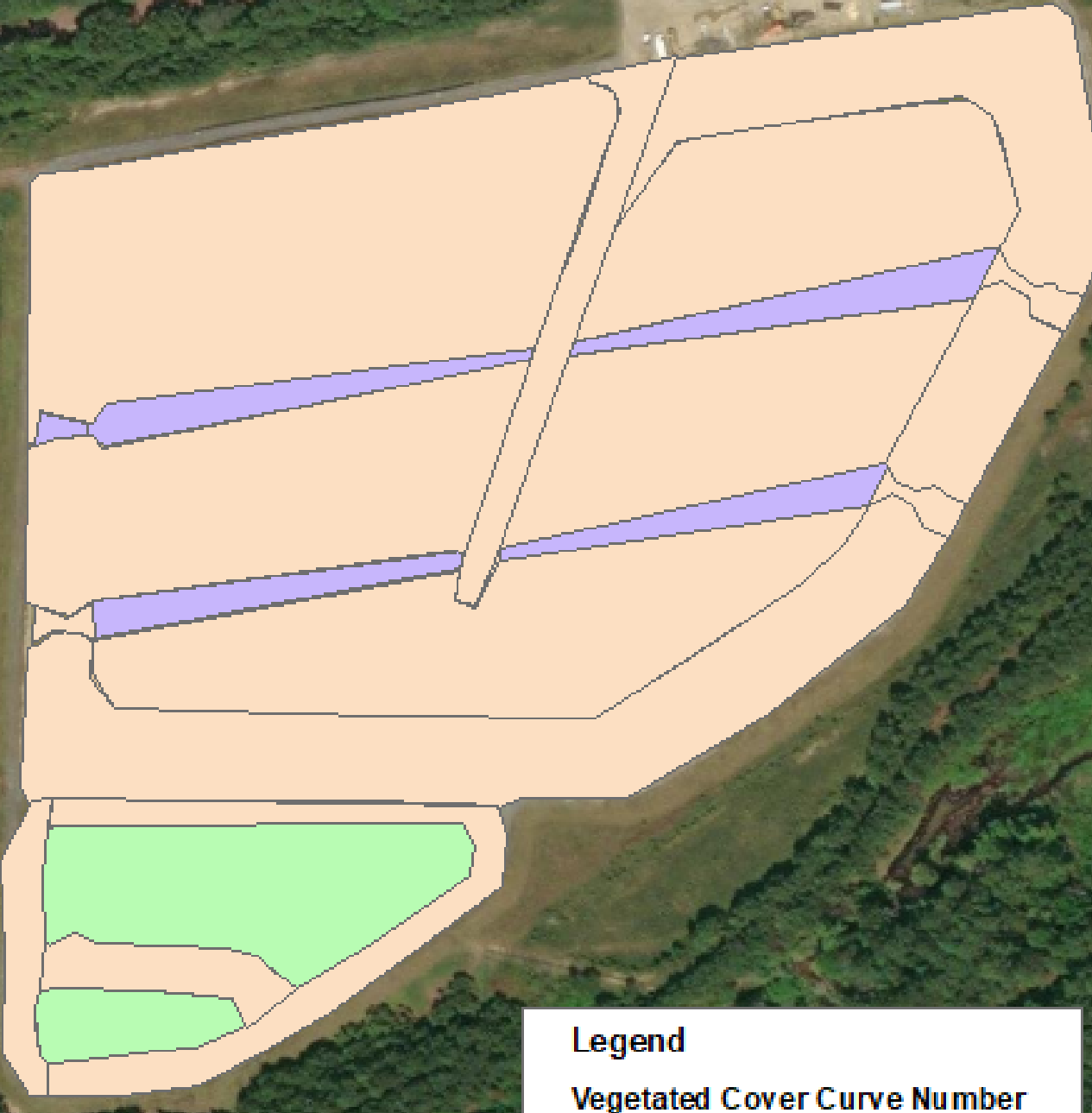
(3) Discharge is the minimum of orifice and weir flow



Attachment D
Land Cover Figures






Huffaker Parcel E Vegetative Cover Curve Number



Legend

Vegetated Cover Curve Number

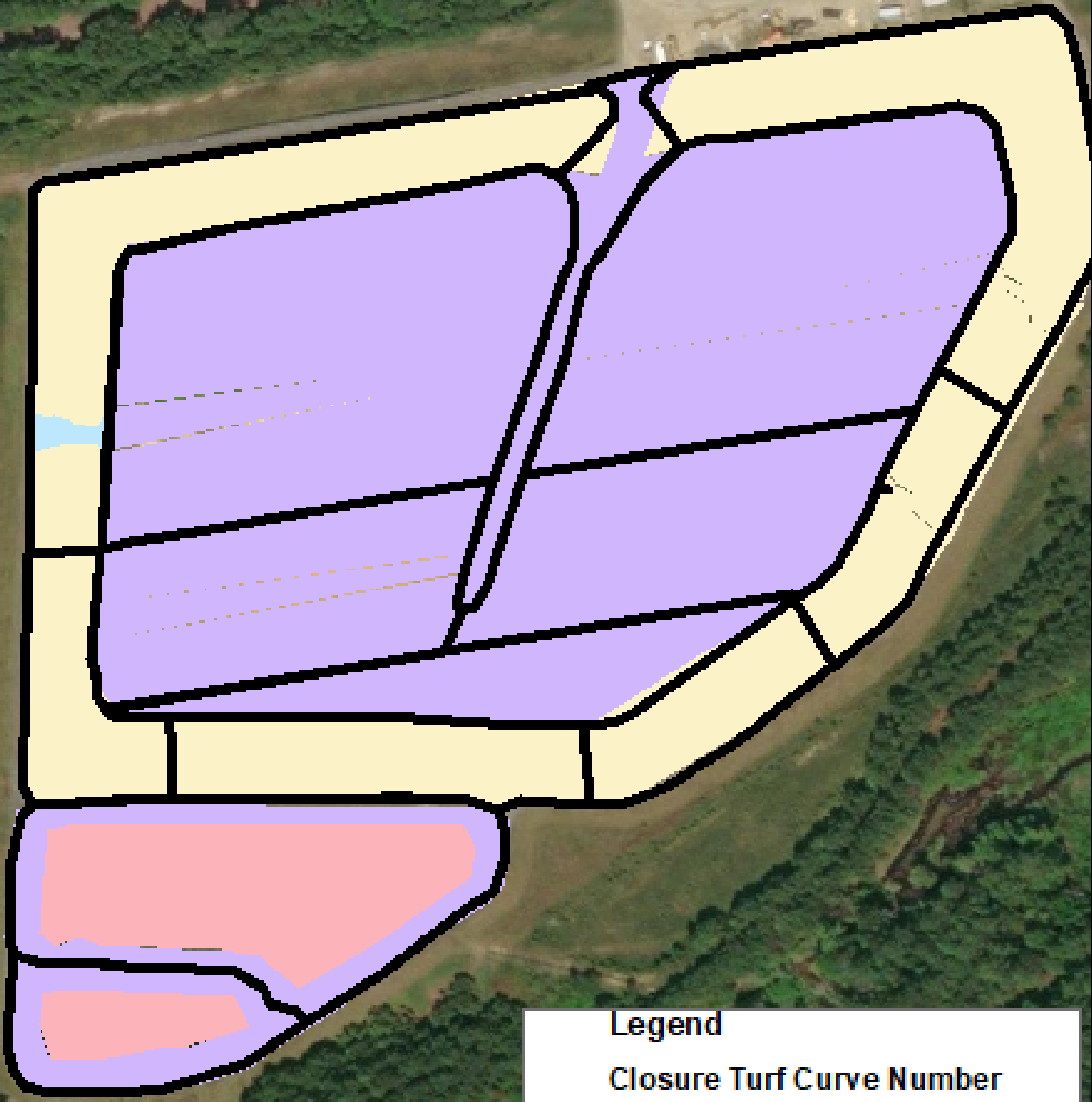
CN

-  71
-  89
-  98









Huffaker Parcel E Closure Turf Curve Number



Legend

Closure Turf Curve Number

CN

	71
	89
	95
	98

0 275 550 Feet



Attachment E
PCSWMM Results

 WARNING 02: maximum depth increased for Node J12
 WARNING 02: maximum depth increased for Node J15
 WARNING 02: maximum depth increased for Node J2
 WARNING 02: maximum depth increased for Node J3
 WARNING 02: maximum depth increased for Node J4
 WARNING 02: maximum depth increased for Node J8
 WARNING 02: maximum depth increased for Node J9

 Element Count

Number of rain gages 8
 Number of subcatchments ... 16
 Number of nodes 31
 Number of links 30
 Number of pollutants 0
 Number of land uses 0

 Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_0.1in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_100-year_24-hour_7.85in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_10-year_5.32in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_25-year_24-hour_6.29in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_3.82in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_6.29in	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_6.29in_new	SCS_Type_II_6.29in_new	INTENSITY	6 min.
SCS_Type_II_7.28in_new	SCS_Type_II_7.28in_new	INTENSITY	6 min.

 Subcatchment Summary

Name	Area	Width	%Imperv	%Slope	Rain Gage
Outlet					
CP1	1.09	361.16	0.00	0.5000	SCS_Type_II_6.29in_new
SU2					
S1	0.38	152.02	79.45	7.9480	SCS_Type_II_6.29in_new
J16					
S1_2	0.35	150.00	80.00	8.0000	SCS_Type_II_6.29in_new
J19					
S2	1.34	500.00	25.00	0.5000	SCS_Type_II_6.29in_new
J13					
S3	4.54	533.73	0.00	0.5000	SCS_Type_II_6.29in_new
J2					
S3_1	0.75	298.19	0.00	0.5000	SCS_Type_II_6.29in_new
J1					
S3_2	1.16	298.19	0.00	0.5000	SCS_Type_II_6.29in_new
J21					
S3_3	0.81	298.19	0.00	0.5000	SCS_Type_II_6.29in_new
J11					

S3_5	0.97	358.15	0.00	0.5000	SCS_Type_II_6.29in_new
J7					
S4	4.21	519.95	0.00	0.5000	SCS_Type_II_6.29in_new
J3					
S5	0.85	500.00	25.00	0.5000	SCS_Type_II_6.29in_new
J20					
S5_1	2.12	476.16	0.00	0.5000	SCS_Type_II_6.29in_new
J4					
S6_1	2.18	479.37	0.00	0.5000	SCS_Type_II_6.29in_new
J6					
S7	2.44	150.00	0.00	0.5000	SCS_Type_II_6.29in_new
J10					
S8_2	3.55	441.87	0.00	0.5000	SCS_Type_II_6.29in_new
J5					
SP1	2.84	600.00	0.00	0.5000	SCS_Type_II_6.29in_new
SU1					

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	636.00	2.00	0.0	
J10	JUNCTION	645.00	2.00	0.0	
J11	JUNCTION	642.00	2.00	0.0	
J12	JUNCTION	662.00	2.00	0.0	
J13	JUNCTION	656.00	1.50	0.0	
J14	JUNCTION	630.00	8.00	0.0	
J15	JUNCTION	656.00	2.00	0.0	
J16	JUNCTION	670.00	2.00	0.0	
J17	JUNCTION	660.00	2.00	0.0	
J18	JUNCTION	660.00	2.00	0.0	
J19	JUNCTION	670.00	2.00	0.0	
J2	JUNCTION	668.00	2.00	0.0	
J20	JUNCTION	654.00	2.00	0.0	
J21	JUNCTION	634.00	2.50	0.0	
J22	JUNCTION	652.00	2.00	0.0	
J23	JUNCTION	650.00	2.00	0.0	
J24	JUNCTION	648.00	2.00	0.0	
J3	JUNCTION	668.00	2.00	0.0	
J33	JUNCTION	624.00	9.00	0.0	
J37	JUNCTION	622.00	11.00	0.0	
J4	JUNCTION	662.00	2.00	0.0	
J5	JUNCTION	645.00	2.00	0.0	
J6	JUNCTION	662.00	2.00	0.0	
J7	JUNCTION	641.00	2.00	0.0	
J8	JUNCTION	662.00	2.00	0.0	
J9	JUNCTION	656.00	2.00	0.0	
J25	OUTFALL	647.00	2.00	0.0	
OF1	OUTFALL	620.00	0.00	0.0	
OF2	OUTFALL	620.00	3.00	0.0	
SU1	STORAGE	626.00	9.00	0.0	
SU2	STORAGE	622.00	11.00	0.0	

Link Summary

Name	From Node	To Node	Type	Length	%Slope
Roughness					

C1	J21	J14	CONDUIT	13.0	32.2750
0.0150					
C12_1	J11	J1	CONDUIT	512.8	1.1701
0.0300					
C12_2	J1	J21	CONDUIT	264.3	0.7567
0.0300					
C15_2	J5	J7	CONDUIT	239.7	1.6688
0.0300					
C15_5	J7	J21	CONDUIT	652.5	1.0728
0.0300					
C17_2	J18	J5	CONDUIT	982.0	1.5277
0.0300					
C2	J16	J18	CONDUIT	200.7	4.9878
0.0200					
C2_2	J10	J11	CONDUIT	290.9	1.0312
0.0300					
C2_3	J17	J10	CONDUIT	859.3	1.7458
0.0300					
C3	J13	J1	CONDUIT	85.2	24.1484
0.0100					
C3_1	J2	J8	CONDUIT	530.9	1.1302
0.0200					
C3_2	J8	J5	CONDUIT	64.9	27.1607
0.0690					
C30	J33	SU2	CONDUIT	150.1	2.4652
0.0220					
C31	J37	OF2	CONDUIT	34.9	5.7347
0.0300					
C4	J19	J17	CONDUIT	237.1	4.2210
0.0200					
C4_1	J4	J15	CONDUIT	472.8	1.2691
0.0200					
C4_2	J15	J7	CONDUIT	63.5	24.3092
0.0690					
C5	J20	J22	CONDUIT	137.4	1.4558
0.0300					
C5_1	J6	J9	CONDUIT	490.8	1.2225
0.0200					
C5_2	J9	J11	CONDUIT	62.0	23.1900
0.0690					
C6	J22	J23	CONDUIT	139.4	1.4351
0.0300					
C6_1	J3	J12	CONDUIT	548.5	1.0940
0.0200					
C6_2	J12	J10	CONDUIT	64.7	27.2121
0.0690					
C7	J23	J24	CONDUIT	165.7	1.2072
0.0300					
C8	J24	J25	CONDUIT	34.9	2.8664
0.0300					
W1_1	J14	SU1	CONDUIT	281.8	1.4194
0.0300					
C18	SU1	SU2	WEIR		
C23	SU2	OF1	WEIR		
C22	SU1	J33	OUTLET		
C31_1	SU2	J37	OUTLET		

Cross Section Summary

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

8190.48	C1 TRAPEZOIDAL	2.50	107.50	1.58	68.00	1
98.74	C12_1 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
79.40	C12_2 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
117.92	C15_2 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
94.55	C15_5 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
112.82	C17_2 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
192.25	C2 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
92.70	C2_2 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
120.61	C2_3 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
896.82	C3 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
134.04	C3_1 TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
137.84	C3_2 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
61.88	C30 CIRCULAR	3.00	7.07	0.75	3.00	1
69.21	C31 CIRCULAR	3.00	7.07	0.75	3.00	1
176.86	C4 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
142.03	C4_1 TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
130.41	C4_2 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
69.24	C5 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
139.40	C5_1 TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
127.37	C5_2 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
68.75	C6 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
131.87	C6_1 TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
137.97	C6_2 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
63.05	C7 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
97.16	C8 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
0.00	W1_1 DUMMY	0.00	0.00	0.00	0.00	1

NOTE: The summary statistics displayed in this report are

based on results found at every computational time step,
not just on results from each reporting time step.

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
Infiltration Method CURVE_NUMBER
Flow Routing Method DYNWAVE
Surcharge Method EXTRAN
Starting Date 01/01/2022 00:00:00
Ending Date 01/08/2022 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00
Routing Time Step 5.00 sec
Variable Time Step YES
Maximum Trials 8
Number of Threads 4
Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	15.511	6.290
Evaporation Loss	0.000	0.000
Infiltration Loss	5.405	2.192
Surface Runoff	9.992	4.052
Final Storage	0.121	0.049
Continuity Error (%)	-0.049	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	10.000	3.259
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	3.490	1.137
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	3.240	1.056
Final Stored Volume	9.746	3.176
Continuity Error (%)	0.034	

Time-Step Critical Elements

Link C1 (34.62%)

 Highest Flow Instability Indexes

 All links are stable.

 Routing Time Step Summary

Minimum Time Step	:	0.08 sec
Average Time Step	:	3.77 sec
Maximum Time Step	:	5.00 sec
Percent in Steady State	:	0.00
Average Iterations per Step	:	2.00
Percent Not Converging	:	0.00
Time Step Frequencies	:	
5.000 - 3.155 sec	:	67.49 %
3.155 - 1.991 sec	:	2.92 %
1.991 - 1.256 sec	:	14.10 %
1.256 - 0.792 sec	:	8.47 %
0.792 - 0.500 sec	:	7.02 %

 Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Total	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Precip	Runoff	Runon	in	in	in
in	in	Runoff	in	Coeff	in	in	in

CP1			6.29	0.00	0.00	0.20	0.00
6.05	6.05	0.18	6.98	0.962			
S1			6.29	0.00	0.00	0.40	4.97
0.88	5.85	0.06	3.13	0.930			
S1_2			6.29	0.00	0.00	0.58	5.00
0.67	5.67	0.05	2.84	0.902			
S2			6.29	0.00	0.00	2.09	1.56
2.59	4.16	0.15	6.89	0.661			
S3			6.29	0.00	0.00	2.89	0.00
3.35	3.35	0.41	11.56	0.532			
S3_1			6.29	0.00	0.00	2.86	0.00
3.38	3.38	0.07	2.89	0.538			
S3_2			6.29	0.00	0.00	2.80	0.00
3.44	3.44	0.11	4.13	0.547			
S3_3			6.29	0.00	0.00	2.93	0.00
3.31	3.31	0.07	3.01	0.526			
S3_5			6.29	0.00	0.00	2.93	0.00
3.31	3.31	0.09	3.61	0.526			
S4			6.29	0.00	0.00	1.32	0.00
4.92	4.92	0.56	17.82	0.782			
S5			6.29	0.00	0.00	1.98	1.56
2.71	4.27	0.10	4.86	0.679			

S5_1			6.29	0.00	0.00	2.66	0.00
3.58	3.58	0.21	7.60	0.570			
S6_1			6.29	0.00	0.00	2.94	0.00
3.30	3.30	0.20	7.03	0.524			
S7			6.29	0.00	0.00	2.99	0.00
3.25	3.25	0.22	4.14	0.516			
S8_2			6.29	0.00	0.00	2.96	0.00
3.28	3.28	0.32	9.03	0.521			
SP1			6.29	0.00	0.00	0.20	0.00
6.05	6.05	0.47	16.37	0.961			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.13	1.50	637.50	0 12:02	1.50
J10	JUNCTION	0.08	0.98	645.98	0 12:01	0.98
J11	JUNCTION	0.09	1.13	643.13	0 12:02	1.13
J12	JUNCTION	0.04	0.52	662.52	0 12:00	0.52
J13	JUNCTION	0.01	0.10	656.10	0 11:54	0.10
J14	JUNCTION	0.01	0.04	630.04	0 12:02	0.04
J15	JUNCTION	0.02	0.33	656.33	0 12:00	0.33
J16	JUNCTION	0.05	0.47	670.47	0 11:53	0.47
J17	JUNCTION	0.01	0.24	660.24	0 11:56	0.24
J18	JUNCTION	0.01	0.27	660.27	0 11:56	0.27
J19	JUNCTION	0.05	0.47	670.47	0 11:53	0.47
J2	JUNCTION	0.06	0.70	668.70	0 12:00	0.70
J20	JUNCTION	0.07	0.74	654.74	0 11:54	0.74
J21	JUNCTION	0.02	0.24	634.24	0 12:02	0.24
J22	JUNCTION	0.08	0.74	652.74	0 11:54	0.74
J23	JUNCTION	0.08	0.78	650.78	0 11:55	0.78
J24	JUNCTION	0.07	0.64	648.64	0 11:56	0.64
J3	JUNCTION	0.08	0.87	668.87	0 12:00	0.87
J33	JUNCTION	1.71	2.31	626.31	0 14:56	2.31
J37	JUNCTION	0.09	0.58	622.58	0 15:20	0.58
J4	JUNCTION	0.04	0.55	662.55	0 12:00	0.55
J5	JUNCTION	0.07	0.84	645.84	0 12:01	0.84
J6	JUNCTION	0.04	0.53	662.53	0 12:00	0.53
J7	JUNCTION	0.11	1.33	642.33	0 12:02	1.33
J8	JUNCTION	0.03	0.41	662.41	0 12:01	0.41
J9	JUNCTION	0.02	0.32	656.32	0 12:00	0.32
J25	OUTFALL	0.06	0.64	647.64	0 11:56	0.64
OF1	OUTFALL	0.00	0.00	620.00	0 00:00	0.00
OF2	OUTFALL	0.08	0.58	620.58	0 15:20	0.58
SU1	STORAGE	4.70	5.20	631.20	0 14:56	5.20
SU2	STORAGE	3.91	4.21	626.21	0 15:20	4.21

Node Inflow Summary

Total	Flow	Maximum	Maximum	Lateral
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Inflow Volume Node gal	Balance Error Percent	Type	Lateral Inflow CFS	Total Inflow CFS	Time of Max Occurrence days hr:min	Inflow Volume 10^6 gal	10^6
J1		JUNCTION	2.89	39.93	0 12:00	0.0691	
1.32	-0.004						
J10		JUNCTION	4.14	23.78	0 12:00	0.215	
0.832	0.031						
J11		JUNCTION	3.01	32.68	0 12:01	0.0731	
1.1	0.009						
J12		JUNCTION	0.00	17.62	0 12:00	0	
0.562	0.003						
J13		JUNCTION	6.89	6.89	0 11:54	0.151	
0.151	-0.017						
J14		JUNCTION	0.00	75.01	0 12:02	0	
2.51	0.000						
J15		JUNCTION	0.00	7.51	0 12:00	0	
0.206	-0.003						
J16		JUNCTION	3.13	3.13	0 11:54	0.0599	
0.0599	-0.043						
J17		JUNCTION	0.00	2.85	0 11:54	0	
0.0544	-0.440						
J18		JUNCTION	0.00	3.14	0 11:54	0	
0.0599	-0.458						
J19		JUNCTION	2.84	2.84	0 11:54	0.0544	
0.0544	-0.047						
J2		JUNCTION	11.56	11.56	0 12:00	0.413	
0.413	-0.005						
J20		JUNCTION	4.86	4.86	0 11:54	0.0985	
0.0985	-0.015						
J21		JUNCTION	4.13	75.01	0 12:02	0.109	
2.51	-0.001						
J22		JUNCTION	0.00	4.84	0 11:54	0	
0.0986	0.001						
J23		JUNCTION	0.00	4.77	0 11:54	0	
0.0986	0.003						
J24		JUNCTION	0.00	4.72	0 11:55	0	
0.0986	0.013						
J3		JUNCTION	17.82	17.82	0 12:00	0.562	
0.562	-0.006						
J33		JUNCTION	0.00	5.61	0 14:56	0	
1.05	0.047						
J37		JUNCTION	0.00	5.71	0 15:20	0	
1.04	-0.000						
J4		JUNCTION	7.60	7.60	0 12:00	0.206	
0.206	-0.008						
J5		JUNCTION	9.03	22.47	0 12:00	0.316	
0.79	0.037						
J6		JUNCTION	7.03	7.03	0 12:00	0.196	
0.196	-0.008						
J7		JUNCTION	3.61	32.56	0 12:01	0.0875	
1.08	0.005						
J8		JUNCTION	0.00	11.37	0 12:00	0	
0.413	0.005						
J9		JUNCTION	0.00	6.93	0 12:00	0	
0.196	0.002						
J25		OUTFALL	0.00	4.71	0 11:56	0	
0.0985	0.000						

OF1		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
OF2		OUTFALL	0.00	5.71	0	15:20	0
1.04	0.000						
SU1		STORAGE	16.37	89.48	0	12:01	0.467
3.61	0.000						
SU2		STORAGE	6.98	6.98	0	11:54	0.179
1.66	0.072						

Node Surcharge Summary

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

Max Occurrence	Maximum Outflow Storage Unit	Average Volume	Avg Full	Evap Loss	Exfil Loss	Maximum Volume	Max Full	Time of days
hr:min	CFS	1000 ft3		Pcnt	Pcnt	1000 ft3		
SU1		315.867	43	0	0	360.819	49	0
14:56	5.61							
SU2		79.810	26	0	0	87.653	28	0
15:20	5.71							

Outfall Loading Summary

Outfall Node	Flow Freq	Avg Flow	Max Flow	Total Volume	
	Pcnt	CFS	CFS	10^6 gal	
J25		35.49	0.32	4.71	0.099
OF1		0.00	0.00	0.00	0.000
OF2		26.06	2.41	5.71	1.039
System		20.52	2.72	5.85	1.137

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min		Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	75.01	0	12:02	27.06	0.01	0.06
C12_1	CONDUIT	32.27	0	12:02	3.69	0.33	0.66
C12_2	CONDUIT	39.49	0	12:02	7.88	0.50	0.44
C15_2	CONDUIT	21.91	0	12:01	3.28	0.19	0.54
C15_5	CONDUIT	31.95	0	12:02	7.27	0.34	0.39
C17_2	CONDUIT	2.79	0	11:56	1.17	0.02	0.27
C2	CONDUIT	3.14	0	11:54	8.13	0.02	0.18
C2_2	CONDUIT	23.18	0	12:01	3.59	0.25	0.53
C2_3	CONDUIT	2.56	0	11:56	0.94	0.02	0.30
C3	CONDUIT	6.88	0	11:54	1.85	0.01	0.53
C3_1	CONDUIT	11.37	0	12:00	5.62	0.08	0.28
C3_2	CONDUIT	11.31	0	12:01	3.10	0.08	0.41
C30	CONDUIT	5.61	0	14:56	1.26	0.09	0.60
C31	CONDUIT	5.71	0	15:20	5.92	0.08	0.19
C4	CONDUIT	2.85	0	11:54	7.73	0.02	0.18
C4_1	CONDUIT	7.51	0	12:00	5.11	0.05	0.22
C4_2	CONDUIT	7.46	0	12:00	1.49	0.06	0.55
C5	CONDUIT	4.84	0	11:54	2.99	0.07	0.37
C5_1	CONDUIT	6.93	0	12:00	4.93	0.05	0.21
C5_2	CONDUIT	6.88	0	12:00	1.58	0.05	0.48
C6	CONDUIT	4.77	0	11:54	2.79	0.07	0.38
C6_1	CONDUIT	17.62	0	12:00	6.24	0.13	0.35
C6_2	CONDUIT	17.53	0	12:00	3.77	0.13	0.50
C7	CONDUIT	4.72	0	11:55	3.10	0.07	0.36
C8	CONDUIT	4.71	0	11:56	3.80	0.05	0.32
W1_1	DUMMY	75.01	0	12:02			
C18	WEIR	0.00	0	00:00			0.00
C23	WEIR	0.00	0	00:00			0.00
C22	DUMMY	5.61	0	14:56			
C31_1	DUMMY	5.71	0	15:20			

Flow Classification Summary

Conduit	Adjusted /Actual Length	Fraction of Time in Flow Class								
		Up Dry	Down Dry	Sub Dry	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl	
C1	1.00	0.01	0.51	0.00	0.08	0.41	0.00	0.00	0.79	0.00
C12_1	1.00	0.36	0.11	0.00	0.53	0.00	0.00	0.00	0.99	0.00
C12_2	1.00	0.36	0.00	0.00	0.34	0.30	0.00	0.00	0.00	0.00
C15_2	1.00	0.43	0.08	0.00	0.50	0.00	0.00	0.00	0.98	0.00
C15_5	1.00	0.42	0.01	0.00	0.26	0.31	0.00	0.00	0.01	0.00
C17_2	1.00	0.50	0.04	0.00	0.45	0.00	0.00	0.00	0.93	0.00
C2	1.00	0.00	0.00	0.00	0.64	0.36	0.00	0.00	0.09	0.00
C2_2	1.00	0.47	0.02	0.00	0.51	0.00	0.00	0.00	0.37	0.00
C2_3	1.00	0.48	0.09	0.00	0.42	0.00	0.00	0.00	0.98	0.00
C3	1.00	0.36	0.27	0.00	0.36	0.00	0.00	0.00	0.49	0.00
C3_1	1.00	0.62	0.00	0.00	0.05	0.33	0.00	0.00	0.00	0.00
C3_2	1.00	0.50	0.12	0.00	0.38	0.00	0.00	0.00	0.96	0.00
C30	1.00	0.00	0.15	0.00	0.84	0.00	0.01	0.00	0.05	0.00
C31	1.00	0.18	0.00	0.00	0.56	0.26	0.00	0.00	0.01	0.00

C4	1.00	0.00	0.00	0.00	0.64	0.36	0.00	0.00	0.07	0.00
C4_1	1.00	0.63	0.00	0.00	0.05	0.32	0.00	0.00	0.00	0.00
C4_2	1.00	0.43	0.21	0.00	0.36	0.00	0.00	0.00	0.96	0.00
C5	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00
C5_1	1.00	0.63	0.00	0.00	0.05	0.32	0.00	0.00	0.00	0.00
C5_2	1.00	0.47	0.16	0.00	0.36	0.00	0.00	0.00	0.96	0.00
C6	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.20	0.00
C6_1	1.00	0.58	0.00	0.00	0.07	0.35	0.00	0.00	0.00	0.00
C6_2	1.00	0.49	0.10	0.00	0.41	0.00	0.00	0.00	0.97	0.00
C7	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.85	0.00
C8	1.00	0.00	0.00	0.00	0.93	0.07	0.00	0.00	0.01	0.00

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
C3	0.01	0.01	0.02	0.01	0.01
C30	0.01	0.01	154.80	0.01	0.01

Analysis begun on: Fri Dec 2 15:30:02 2022
 Analysis ended on: Fri Dec 2 15:30:06 2022
 Total elapsed time: 00:00:04

WARNING 02: maximum depth increased for Node J12
 WARNING 02: maximum depth increased for Node J15
 WARNING 02: maximum depth increased for Node J2
 WARNING 02: maximum depth increased for Node J3
 WARNING 02: maximum depth increased for Node J4
 WARNING 02: maximum depth increased for Node J8
 WARNING 02: maximum depth increased for Node J9

 Element Count

Number of rain gages 8
 Number of subcatchments ... 16
 Number of nodes 31
 Number of links 30
 Number of pollutants 0
 Number of land uses 0

 Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_0.1in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_100-year_24-hour_7.85in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_10-year_5.32in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_25-year_24-hour_6.29in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_3.82in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_6.29in	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_6.29in_new	SCS_Type_II_6.29in_new	INTENSITY	6 min.
SCS_Type_II_7.28in_new	SCS_Type_II_7.28in_new	INTENSITY	6 min.

 Subcatchment Summary

Name	Area	Width	%Imperv	%Slope	Rain Gage
CP1	1.09	361.16	0.00	0.5000	SCS_Type_II_7.28in_new
SU2					
S1	0.38	152.02	79.45	7.9480	SCS_Type_II_7.28in_new
J16					
S1_2	0.35	150.00	80.00	8.0000	SCS_Type_II_7.28in_new
J19					
S2	1.34	500.00	25.00	0.5000	SCS_Type_II_7.28in_new
J13					
S3	4.54	533.73	0.00	0.5000	SCS_Type_II_7.28in_new
J2					
S3_1	0.75	298.19	0.00	0.5000	SCS_Type_II_7.28in_new
J1					
S3_2	1.16	298.19	0.00	0.5000	SCS_Type_II_7.28in_new
J21					
S3_3	0.81	298.19	0.00	0.5000	SCS_Type_II_7.28in_new
J11					

S3_5	0.97	358.15	0.00	0.5000	SCS_Type_II_7.28in_new
J7					
S4	4.21	519.95	0.00	0.5000	SCS_Type_II_7.28in_new
J3					
S5	0.85	500.00	25.00	0.5000	SCS_Type_II_7.28in_new
J20					
S5_1	2.12	476.16	0.00	0.5000	SCS_Type_II_7.28in_new
J4					
S6_1	2.18	479.37	0.00	0.5000	SCS_Type_II_7.28in_new
J6					
S7	2.44	150.00	0.00	0.5000	SCS_Type_II_7.28in_new
J10					
S8_2	3.55	441.87	0.00	0.5000	SCS_Type_II_7.28in_new
J5					
SP1	2.84	600.00	0.00	0.5000	SCS_Type_II_7.28in_new
SU1					

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	636.00	2.00	0.0	
J10	JUNCTION	645.00	2.00	0.0	
J11	JUNCTION	642.00	2.00	0.0	
J12	JUNCTION	662.00	2.00	0.0	
J13	JUNCTION	656.00	1.50	0.0	
J14	JUNCTION	630.00	8.00	0.0	
J15	JUNCTION	656.00	2.00	0.0	
J16	JUNCTION	670.00	2.00	0.0	
J17	JUNCTION	660.00	2.00	0.0	
J18	JUNCTION	660.00	2.00	0.0	
J19	JUNCTION	670.00	2.00	0.0	
J2	JUNCTION	668.00	2.00	0.0	
J20	JUNCTION	654.00	2.00	0.0	
J21	JUNCTION	634.00	2.50	0.0	
J22	JUNCTION	652.00	2.00	0.0	
J23	JUNCTION	650.00	2.00	0.0	
J24	JUNCTION	648.00	2.00	0.0	
J3	JUNCTION	668.00	2.00	0.0	
J33	JUNCTION	624.00	9.00	0.0	
J37	JUNCTION	622.00	11.00	0.0	
J4	JUNCTION	662.00	2.00	0.0	
J5	JUNCTION	645.00	2.00	0.0	
J6	JUNCTION	662.00	2.00	0.0	
J7	JUNCTION	641.00	2.00	0.0	
J8	JUNCTION	662.00	2.00	0.0	
J9	JUNCTION	656.00	2.00	0.0	
J25	OUTFALL	647.00	2.00	0.0	
OF1	OUTFALL	620.00	0.00	0.0	
OF2	OUTFALL	620.00	3.00	0.0	
SU1	STORAGE	626.00	9.00	0.0	
SU2	STORAGE	622.00	11.00	0.0	

Link Summary

Name	From Node	To Node	Type	Length	%Slope
Roughness					

C1	J21	J14	CONDUIT	13.0	32.2750
0.0150					
C12_1	J11	J1	CONDUIT	512.8	1.1701
0.0300					
C12_2	J1	J21	CONDUIT	264.3	0.7567
0.0300					
C15_2	J5	J7	CONDUIT	239.7	1.6688
0.0300					
C15_5	J7	J21	CONDUIT	652.5	1.0728
0.0300					
C17_2	J18	J5	CONDUIT	982.0	1.5277
0.0300					
C2	J16	J18	CONDUIT	200.7	4.9878
0.0200					
C2_2	J10	J11	CONDUIT	290.9	1.0312
0.0300					
C2_3	J17	J10	CONDUIT	859.3	1.7458
0.0300					
C3	J13	J1	CONDUIT	85.2	24.1484
0.0100					
C3_1	J2	J8	CONDUIT	530.9	1.1302
0.0200					
C3_2	J8	J5	CONDUIT	64.9	27.1607
0.0690					
C30	J33	SU2	CONDUIT	150.1	2.4652
0.0220					
C31	J37	OF2	CONDUIT	34.9	5.7347
0.0300					
C4	J19	J17	CONDUIT	237.1	4.2210
0.0200					
C4_1	J4	J15	CONDUIT	472.8	1.2691
0.0200					
C4_2	J15	J7	CONDUIT	63.5	24.3092
0.0690					
C5	J20	J22	CONDUIT	137.4	1.4558
0.0300					
C5_1	J6	J9	CONDUIT	490.8	1.2225
0.0200					
C5_2	J9	J11	CONDUIT	62.0	23.1900
0.0690					
C6	J22	J23	CONDUIT	139.4	1.4351
0.0300					
C6_1	J3	J12	CONDUIT	548.5	1.0940
0.0200					
C6_2	J12	J10	CONDUIT	64.7	27.2121
0.0690					
C7	J23	J24	CONDUIT	165.7	1.2072
0.0300					
C8	J24	J25	CONDUIT	34.9	2.8664
0.0300					
W1_1	J14	SU1	CONDUIT	281.8	1.4194
0.0300					
C18	SU1	SU2	WEIR		
C23	SU2	OF1	WEIR		
C22	SU1	J33	OUTLET		
C31_1	SU2	J37	OUTLET		

Cross Section Summary

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

8190.48	C1 TRAPEZOIDAL	2.50	107.50	1.58	68.00	1
98.74	C12_1 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
79.40	C12_2 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
117.92	C15_2 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
94.55	C15_5 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
112.82	C17_2 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
192.25	C2 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
92.70	C2_2 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
120.61	C2_3 TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
896.82	C3 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
134.04	C3_1 TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
137.84	C3_2 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
61.88	C30 CIRCULAR	3.00	7.07	0.75	3.00	1
69.21	C31 CIRCULAR	3.00	7.07	0.75	3.00	1
176.86	C4 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
142.03	C4_1 TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
130.41	C4_2 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
69.24	C5 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
139.40	C5_1 TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
127.37	C5_2 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
68.75	C6 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
131.87	C6_1 TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
137.97	C6_2 TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
63.05	C7 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
97.16	C8 TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
0.00	W1_1 DUMMY	0.00	0.00	0.00	0.00	1

NOTE: The summary statistics displayed in this report are

based on results found at every computational time step,
not just on results from each reporting time step.

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
Infiltration Method CURVE_NUMBER
Flow Routing Method DYNWAVE
Surcharge Method EXTRAN
Starting Date 01/01/2022 00:00:00
Ending Date 01/08/2022 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00
Routing Time Step 5.00 sec
Variable Time Step YES
Maximum Trials 8
Number of Threads 4
Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	17.952	7.280
Evaporation Loss	0.000	0.000
Infiltration Loss	5.733	2.325
Surface Runoff	12.108	4.910
Final Storage	0.121	0.049
Continuity Error (%)	-0.057	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	12.119	3.949
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	5.608	1.828
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	3.240	1.056
Final Stored Volume	9.746	3.176
Continuity Error (%)	0.030	

Time-Step Critical Elements

Link C1 (36.94%)

 Highest Flow Instability Indexes

 All links are stable.

 Routing Time Step Summary

Minimum Time Step	:	0.50 sec
Average Time Step	:	3.67 sec
Maximum Time Step	:	5.00 sec
Percent in Steady State	:	0.00
Average Iterations per Step	:	2.00
Percent Not Converging	:	0.00
Time Step Frequencies	:	
5.000 - 3.155 sec	:	65.26 %
3.155 - 1.991 sec	:	2.99 %
1.991 - 1.256 sec	:	13.01 %
1.256 - 0.792 sec	:	10.79 %
0.792 - 0.500 sec	:	7.95 %

 Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Total	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Precip	Runoff	Runon	in	in	in
in	in	Runoff	in	Coeff	in	in	in

CP1			7.28	0.00	0.00	0.20	0.00
7.04	7.04	0.21	8.32	0.967			
S1			7.28	0.00	0.00	0.42	5.76
1.07	6.82	0.07	3.65	0.937			
S1_2			7.28	0.00	0.00	0.62	5.80
0.83	6.62	0.06	3.31	0.910			
S2			7.28	0.00	0.00	2.22	1.81
3.20	5.02	0.18	8.52	0.689			
S3			7.28	0.00	0.00	3.08	0.00
4.15	4.15	0.51	15.33	0.570			
S3_1			7.28	0.00	0.00	3.05	0.00
4.19	4.19	0.09	3.65	0.575			
S3_2			7.28	0.00	0.00	2.98	0.00
4.26	4.26	0.13	5.29	0.585			
S3_3			7.28	0.00	0.00	3.13	0.00
4.11	4.11	0.09	3.82	0.564			
S3_5			7.28	0.00	0.00	3.13	0.00
4.11	4.11	0.11	4.58	0.564			
S4			7.28	0.00	0.00	1.36	0.00
5.87	5.87	0.67	22.04	0.807			
S5			7.28	0.00	0.00	2.10	1.81
3.33	5.14	0.12	5.96	0.706			

S5_1			7.28	0.00	0.00	2.82	0.00
4.42	4.42	0.25	9.72	0.607			
S6_1			7.28	0.00	0.00	3.14	0.00
4.09	4.09	0.24	9.11	0.562			
S7			7.28	0.00	0.00	3.19	0.00
4.04	4.04	0.27	5.65	0.555			
S8_2			7.28	0.00	0.00	3.16	0.00
4.07	4.07	0.39	11.98	0.560			
SP1			7.28	0.00	0.00	0.20	0.00
7.04	7.04	0.54	19.33	0.967			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.15	1.68	637.68	0 12:01	1.68
J10	JUNCTION	0.09	1.11	646.11	0 12:01	1.11
J11	JUNCTION	0.11	1.28	643.28	0 12:01	1.28
J12	JUNCTION	0.05	0.58	662.58	0 12:00	0.58
J13	JUNCTION	0.01	0.12	656.12	0 11:54	0.12
J14	JUNCTION	0.01	0.05	630.05	0 12:01	0.05
J15	JUNCTION	0.03	0.38	656.38	0 12:00	0.38
J16	JUNCTION	0.06	0.50	670.50	0 11:53	0.49
J17	JUNCTION	0.01	0.27	660.27	0 11:55	0.27
J18	JUNCTION	0.02	0.29	660.29	0 11:56	0.29
J19	JUNCTION	0.06	0.50	670.50	0 11:53	0.50
J2	JUNCTION	0.07	0.80	668.80	0 12:00	0.80
J20	JUNCTION	0.08	0.80	654.80	0 11:54	0.80
J21	JUNCTION	0.02	0.28	634.28	0 12:01	0.28
J22	JUNCTION	0.09	0.79	652.79	0 11:54	0.79
J23	JUNCTION	0.09	0.84	650.84	0 11:55	0.84
J24	JUNCTION	0.08	0.69	648.69	0 11:55	0.69
J3	JUNCTION	0.08	0.96	668.96	0 12:00	0.96
J33	JUNCTION	1.80	2.57	626.57	0 13:40	2.57
J37	JUNCTION	0.13	0.82	622.82	0 14:02	0.82
J4	JUNCTION	0.05	0.62	662.62	0 12:00	0.62
J5	JUNCTION	0.08	0.97	645.97	0 12:01	0.97
J6	JUNCTION	0.05	0.61	662.61	0 12:00	0.61
J7	JUNCTION	0.13	1.53	642.53	0 12:01	1.53
J8	JUNCTION	0.04	0.48	662.48	0 12:01	0.48
J9	JUNCTION	0.03	0.37	656.37	0 12:00	0.37
J25	OUTFALL	0.07	0.69	647.69	0 11:55	0.69
OF1	OUTFALL	0.00	0.00	620.00	0 00:00	0.00
OF2	OUTFALL	0.13	0.82	620.82	0 14:02	0.82
SU1	STORAGE	4.73	5.41	631.41	0 13:40	5.41
SU2	STORAGE	3.94	4.41	626.41	0 14:02	4.41

Node Inflow Summary

Total	Flow	Maximum	Maximum	Lateral
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Inflow Volume Node gal	Balance Error Percent	Type	Lateral Inflow CFS	Total Inflow CFS	Time of Occurrence days hr:min	Max Inflow Volume 10^6 gal	10^6
J1		JUNCTION	3.65	50.80	0 12:00	0.0855	
1.6	-0.004						
J10		JUNCTION	5.65	29.84	0 12:00	0.268	
1	0.031						
J11		JUNCTION	3.82	41.50	0 12:01	0.0907	
1.34	0.008						
J12		JUNCTION	0.00	21.83	0 12:00	0	
0.672	0.003						
J13		JUNCTION	8.52	8.52	0 11:54	0.183	
0.183	-0.015						
J14		JUNCTION	0.00	96.78	0 12:01	0	
3.08	0.000						
J15		JUNCTION	0.00	9.62	0 12:00	0	
0.254	-0.003						
J16		JUNCTION	3.65	3.65	0 11:54	0.0698	
0.0698	-0.042						
J17		JUNCTION	0.00	3.32	0 11:54	0	
0.0636	-0.448						
J18		JUNCTION	0.00	3.66	0 11:54	0	
0.0699	-0.474						
J19		JUNCTION	3.31	3.31	0 11:54	0.0636	
0.0636	-0.046						
J2		JUNCTION	15.33	15.33	0 12:00	0.513	
0.513	-0.006						
J20		JUNCTION	5.96	5.96	0 11:54	0.119	
0.119	-0.013						
J21		JUNCTION	5.29	96.78	0 12:01	0.134	
3.08	-0.001						
J22		JUNCTION	0.00	5.94	0 11:54	0	
0.119	0.001						
J23		JUNCTION	0.00	5.86	0 11:54	0	
0.119	0.003						
J24		JUNCTION	0.00	5.80	0 11:55	0	
0.119	0.012						
J3		JUNCTION	22.04	22.04	0 12:00	0.671	
0.671	-0.006						
J33		JUNCTION	0.00	11.33	0 13:40	0	
1.69	0.028						
J37		JUNCTION	0.00	11.29	0 14:02	0	
1.71	-0.000						
J4		JUNCTION	9.72	9.72	0 12:00	0.254	
0.254	-0.008						
J5		JUNCTION	11.98	29.52	0 12:00	0.393	
0.976	0.036						
J6		JUNCTION	9.11	9.11	0 12:00	0.243	
0.243	-0.009						
J7		JUNCTION	4.58	42.53	0 12:00	0.109	
1.34	0.005						
J8		JUNCTION	0.00	15.11	0 12:00	0	
0.513	0.005						
J9		JUNCTION	0.00	9.00	0 12:00	0	
0.243	0.002						
J25		OUTFALL	0.00	5.79	0 11:55	0	
0.119	0.000						

OF1		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
OF2		OUTFALL	0.00	11.29	0	14:02	0
1.71	0.000						
SU1		STORAGE	19.33	114.23	0	12:01	0.544
4.25	0.000						
SU2		STORAGE	8.32	11.75	0	13:38	0.208
2.33	0.052						

Node Surcharge Summary

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

Max Occurrence	Maximum Outflow Storage Unit	Average Volume	Avg Full	Evap Loss	Exfil Loss	Maximum Volume	Max Full	Time of days
hr:min	CFS	1000 ft3		Pcnt	Pcnt	1000 ft3		
SU1		318.637	43	0	0	380.350	51	0
13:40	11.33							
SU2		80.625	26	0	0	93.086	30	0
14:02	11.29							

Outfall Loading Summary

Outfall Node	Flow Freq	Avg Flow	Max Flow	Total Volume	
	Pcnt	CFS	CFS	10^6 gal	
J25		37.24	0.37	5.79	0.119
OF1		0.00	0.00	0.00	0.000
OF2		30.33	4.09	11.29	1.709
System		22.52	4.46	11.51	1.827

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min		Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	96.78	0	12:01	29.96	0.01	0.07
C12_1	CONDUIT	41.05	0	12:01	3.97	0.42	0.74
C12_2	CONDUIT	50.29	0	12:01	8.58	0.63	0.49
C15_2	CONDUIT	28.85	0	12:01	3.56	0.24	0.62
C15_5	CONDUIT	41.84	0	12:02	7.96	0.44	0.45
C17_2	CONDUIT	3.26	0	11:56	1.15	0.03	0.31
C2	CONDUIT	3.66	0	11:54	8.30	0.02	0.19
C2_2	CONDUIT	29.18	0	12:01	3.82	0.31	0.60
C2_3	CONDUIT	3.00	0	11:55	0.95	0.02	0.34
C3	CONDUIT	8.51	0	11:54	1.90	0.01	0.54
C3_1	CONDUIT	15.11	0	12:00	6.05	0.11	0.32
C3_2	CONDUIT	15.03	0	12:01	3.37	0.11	0.48
C30	CONDUIT	11.33	0	13:40	2.35	0.18	0.64
C31	CONDUIT	11.29	0	14:02	7.21	0.16	0.27
C4	CONDUIT	3.32	0	11:54	7.89	0.02	0.19
C4_1	CONDUIT	9.62	0	12:00	5.46	0.07	0.25
C4_2	CONDUIT	9.57	0	12:00	1.58	0.07	0.63
C5	CONDUIT	5.94	0	11:54	3.14	0.09	0.40
C5_1	CONDUIT	9.00	0	12:00	5.28	0.06	0.25
C5_2	CONDUIT	8.95	0	12:00	1.73	0.07	0.55
C6	CONDUIT	5.86	0	11:54	2.94	0.09	0.41
C6_1	CONDUIT	21.83	0	12:00	6.58	0.17	0.38
C6_2	CONDUIT	21.73	0	12:00	3.97	0.16	0.56
C7	CONDUIT	5.80	0	11:55	3.28	0.09	0.38
C8	CONDUIT	5.79	0	11:55	4.00	0.06	0.35
W1_1	DUMMY	96.78	0	12:01			
C18	WEIR	0.00	0	00:00			0.00
C23	WEIR	0.00	0	00:00			0.00
C22	DUMMY	11.33	0	13:40			
C31_1	DUMMY	11.29	0	14:02			

Flow Classification Summary

Conduit	Adjusted /Actual Length	Fraction of Time in Flow Class								
		Up Dry	Down Dry	Sub Dry	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl	
C1	1.00	0.00	0.49	0.00	0.08	0.43	0.00	0.00	0.79	0.00
C12_1	1.00	0.34	0.12	0.00	0.54	0.00	0.00	0.00	0.99	0.00
C12_2	1.00	0.34	0.00	0.00	0.33	0.33	0.00	0.00	0.00	0.00
C15_2	1.00	0.42	0.07	0.00	0.51	0.00	0.00	0.00	0.98	0.00
C15_5	1.00	0.41	0.01	0.00	0.25	0.33	0.00	0.00	0.01	0.00
C17_2	1.00	0.49	0.04	0.00	0.47	0.00	0.00	0.00	0.93	0.00
C2	1.00	0.00	0.00	0.00	0.63	0.37	0.00	0.00	0.08	0.00
C2_2	1.00	0.45	0.02	0.00	0.53	0.00	0.00	0.00	0.94	0.00
C2_3	1.00	0.47	0.09	0.00	0.44	0.00	0.00	0.00	0.98	0.00
C3	1.00	0.34	0.27	0.00	0.38	0.00	0.00	0.00	0.50	0.00
C3_1	1.00	0.60	0.00	0.00	0.05	0.35	0.00	0.00	0.00	0.00
C3_2	1.00	0.49	0.12	0.00	0.40	0.00	0.00	0.00	0.96	0.00
C30	1.00	0.00	0.13	0.00	0.86	0.00	0.01	0.00	0.07	0.00
C31	1.00	0.15	0.00	0.00	0.54	0.31	0.00	0.00	0.01	0.00

C4	1.00	0.00	0.00	0.00	0.63	0.37	0.00	0.00	0.07	0.00
C4_1	1.00	0.61	0.00	0.00	0.04	0.34	0.00	0.00	0.00	0.00
C4_2	1.00	0.42	0.20	0.00	0.39	0.00	0.00	0.00	0.97	0.00
C5	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00
C5_1	1.00	0.61	0.00	0.00	0.05	0.34	0.00	0.00	0.00	0.00
C5_2	1.00	0.46	0.16	0.00	0.38	0.00	0.00	0.00	0.96	0.00
C6	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.20	0.00
C6_1	1.00	0.56	0.00	0.00	0.07	0.37	0.00	0.00	0.00	0.00
C6_2	1.00	0.47	0.10	0.00	0.43	0.00	0.00	0.00	0.98	0.00
C7	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.85	0.00
C8	1.00	0.00	0.00	0.00	0.92	0.08	0.00	0.00	0.01	0.00

 Conduit Surcharge Summary

Conduit	Hours Full			Hours Above Full	
	Both Ends	Upstream	Dnstream	Normal Flow	Capacity Limited
C3	0.01	0.01	0.20	0.01	0.01
C30	0.01	0.01	155.68	0.01	0.01
C4_2	0.01	0.01	0.07	0.01	0.01

Analysis begun on: Fri Dec 2 15:32:43 2022
 Analysis ended on: Fri Dec 2 15:32:48 2022
 Total elapsed time: 00:00:05

 WARNING 02: maximum depth increased for Node J12
 WARNING 02: maximum depth increased for Node J15
 WARNING 02: maximum depth increased for Node J2
 WARNING 02: maximum depth increased for Node J3
 WARNING 02: maximum depth increased for Node J4
 WARNING 02: maximum depth increased for Node J8
 WARNING 02: maximum depth increased for Node J9

 Element Count

Number of rain gages 8
 Number of subcatchments ... 16
 Number of nodes 31
 Number of links 30
 Number of pollutants 0
 Number of land uses 0

 Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_0.1in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_100-year_24-hour_7.85in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_10-year_5.32in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_25-year_24-hour_6.29in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_3.82in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_6.29in	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_6.29in_new	SCS_Type_II_6.29in_new	INTENSITY	6 min.
SCS_Type_II_7.28in_new	SCS_Type_II_7.28in_new	INTENSITY	6 min.

 Subcatchment Summary

Name	Area	Width	%Imperv	%Slope	Rain Gage
Outlet					
CP1	1.09	361.16	0.00	0.5000	SCS_Type_II_6.29in_new
SU2					
S1	0.38	152.02	79.45	7.9480	SCS_Type_II_6.29in_new
J16					
S1_2	0.35	150.00	80.00	8.0000	SCS_Type_II_6.29in_new
J19					
S2	1.34	500.00	25.00	0.5000	SCS_Type_II_6.29in_new
J13					
S3	4.54	533.73	0.00	0.5000	SCS_Type_II_6.29in_new
J2					
S3_1	0.75	298.19	0.00	0.5000	SCS_Type_II_6.29in_new
J1					
S3_2	1.16	298.19	0.00	0.5000	SCS_Type_II_6.29in_new
J21					
S3_3	0.81	298.19	0.00	0.5000	SCS_Type_II_6.29in_new
J11					

S3_5	0.97	358.15	0.00	0.5000	SCS_Type_II_6.29in_new
J7					
S4	4.21	519.95	0.00	0.5000	SCS_Type_II_6.29in_new
J3					
S5	0.85	500.00	25.00	0.5000	SCS_Type_II_6.29in_new
J20					
S5_1	2.12	476.16	0.00	0.5000	SCS_Type_II_6.29in_new
J4					
S6_1	2.18	479.37	0.00	0.5000	SCS_Type_II_6.29in_new
J6					
S7	2.44	150.00	0.00	0.5000	SCS_Type_II_6.29in_new
J10					
S8_2	3.55	441.87	0.00	0.5000	SCS_Type_II_6.29in_new
J5					
SP1	2.84	600.00	0.00	0.5000	SCS_Type_II_6.29in_new
SU1					

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	636.00	2.00	0.0	
J10	JUNCTION	645.00	2.00	0.0	
J11	JUNCTION	642.00	2.00	0.0	
J12	JUNCTION	662.00	2.00	0.0	
J13	JUNCTION	656.00	1.50	0.0	
J14	JUNCTION	630.00	8.00	0.0	
J15	JUNCTION	656.00	2.00	0.0	
J16	JUNCTION	670.00	2.00	0.0	
J17	JUNCTION	660.00	2.00	0.0	
J18	JUNCTION	660.00	2.00	0.0	
J19	JUNCTION	670.00	2.00	0.0	
J2	JUNCTION	668.00	2.00	0.0	
J20	JUNCTION	654.00	2.00	0.0	
J21	JUNCTION	634.00	2.50	0.0	
J22	JUNCTION	652.00	2.00	0.0	
J23	JUNCTION	650.00	2.00	0.0	
J24	JUNCTION	648.00	2.00	0.0	
J3	JUNCTION	668.00	2.00	0.0	
J33	JUNCTION	624.00	9.00	0.0	
J37	JUNCTION	622.00	11.00	0.0	
J4	JUNCTION	662.00	2.00	0.0	
J5	JUNCTION	645.00	2.00	0.0	
J6	JUNCTION	662.00	2.00	0.0	
J7	JUNCTION	641.00	2.00	0.0	
J8	JUNCTION	662.00	2.00	0.0	
J9	JUNCTION	656.00	2.00	0.0	
J25	OUTFALL	647.00	2.00	0.0	
OF1	OUTFALL	620.00	0.00	0.0	
OF2	OUTFALL	620.00	3.00	0.0	
SU1	STORAGE	626.00	9.00	0.0	
SU2	STORAGE	622.00	11.00	0.0	

Link Summary

Name	From Node	To Node	Type	Length	%Slope
Roughness					

C1	J21	J14	CONDUIT	13.0	32.2750
0.0150					
C12_1	J11	J1	CONDUIT	512.8	1.1701
0.0300					
C12_2	J1	J21	CONDUIT	264.3	0.7567
0.0300					
C15_2	J5	J7	CONDUIT	239.7	1.6688
0.0300					
C15_5	J7	J21	CONDUIT	652.5	1.0728
0.0300					
C17_2	J18	J5	CONDUIT	982.0	1.5277
0.0300					
C2	J16	J18	CONDUIT	200.7	4.9878
0.0200					
C2_2	J10	J11	CONDUIT	290.9	1.0312
0.0300					
C2_3	J17	J10	CONDUIT	859.3	1.7458
0.0300					
C3	J13	J1	CONDUIT	85.2	24.1484
0.0100					
C3_1	J2	J8	CONDUIT	530.9	1.1302
0.0200					
C3_2	J8	J5	CONDUIT	64.9	27.1607
0.0690					
C30	J33	SU2	CONDUIT	150.1	2.4652
0.0220					
C31	J37	OF2	CONDUIT	34.9	5.7347
0.0300					
C4	J19	J17	CONDUIT	237.1	4.2210
0.0200					
C4_1	J4	J15	CONDUIT	472.8	1.2691
0.0200					
C4_2	J15	J7	CONDUIT	63.5	24.3092
0.0690					
C5	J20	J22	CONDUIT	137.4	1.4558
0.0300					
C5_1	J6	J9	CONDUIT	490.8	1.2225
0.0200					
C5_2	J9	J11	CONDUIT	62.0	23.1900
0.0690					
C6	J22	J23	CONDUIT	139.4	1.4351
0.0300					
C6_1	J3	J12	CONDUIT	548.5	1.0940
0.0200					
C6_2	J12	J10	CONDUIT	64.7	27.2121
0.0690					
C7	J23	J24	CONDUIT	165.7	1.2072
0.0300					
C8	J24	J25	CONDUIT	34.9	2.8664
0.0300					
W1_1	J14	SU1	CONDUIT	281.8	1.4194
0.0300					
C18	SU1	SU2	WEIR		
C23	SU2	OF1	WEIR		
C22	SU1	J33	OUTLET		
C31_1	SU2	J37	OUTLET		

Cross Section Summary

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

C1 8190.48	TRAPEZOIDAL	2.50	107.50	1.58	68.00	1
C12_1 98.74	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C12_2 79.40	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C15_2 117.92	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C15_5 94.55	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C17_2 112.82	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C2 192.25	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C2_2 92.70	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C2_3 120.61	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C3 896.82	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C3_1 134.04	TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
C3_2 137.84	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C30 61.88	CIRCULAR	3.00	7.07	0.75	3.00	1
C31 69.21	CIRCULAR	3.00	7.07	0.75	3.00	1
C4 176.86	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C4_1 142.03	TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
C4_2 130.41	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C5 69.24	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C5_1 139.40	TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
C5_2 127.37	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C6 68.75	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C6_1 131.87	TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
C6_2 137.97	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C7 63.05	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C8 97.16	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
W1_1 0.00	DUMMY	0.00	0.00	0.00	0.00	1

NOTE: The summary statistics displayed in this report are

based on results found at every computational time step,
not just on results from each reporting time step.

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
Infiltration Method CURVE_NUMBER
Flow Routing Method DYNWAVE
Surcharge Method EXTRAN
Starting Date 01/01/2022 00:00:00
Ending Date 01/08/2022 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00
Routing Time Step 5.00 sec
Variable Time Step YES
Maximum Trials 8
Number of Threads 4
Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	15.511	6.290
Evaporation Loss	0.000	0.000
Infiltration Loss	1.255	0.509
Surface Runoff	14.149	5.738
Final Storage	0.122	0.050
Continuity Error (%)	-0.093	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	14.157	4.613
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	7.647	2.492
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	3.240	1.056
Final Stored Volume	9.746	3.176
Continuity Error (%)	0.025	

Time-Step Critical Elements

Link C1 (41.64%)

 Highest Flow Instability Indexes

 All links are stable.

 Routing Time Step Summary

Minimum Time Step	:	0.50	sec
Average Time Step	:	3.48	sec
Maximum Time Step	:	5.00	sec
Percent in Steady State	:	-0.00	
Average Iterations per Step	:	2.00	
Percent Not Converging	:	0.00	
Time Step Frequencies	:		
5.000 - 3.155 sec	:	60.46	%
3.155 - 1.991 sec	:	2.75	%
1.991 - 1.256 sec	:	14.53	%
1.256 - 0.792 sec	:	13.40	%
0.792 - 0.500 sec	:	8.87	%

 Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Total	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Precip	Runoff	Runon	in	in	in
in	in	Runoff	in	Coeff	in	in	in

		10^6 gal	CFS	in			

CP1			6.29	0.00	0.00	0.40	0.00
5.85	5.85	0.17	6.87	0.931			
S1			6.29	0.00	0.00	0.10	4.97
1.18	6.15	0.06	3.26	0.978			
S1_2			6.29	0.00	0.00	0.10	5.00
1.15	6.16	0.06	3.06	0.979			
S2			6.29	0.00	0.00	0.44	1.56
4.25	5.81	0.21	9.84	0.924			
S3			6.29	0.00	0.00	0.50	0.00
5.75	5.75	0.71	21.72	0.914			
S3_1			6.29	0.00	0.00	0.49	0.00
5.76	5.76	0.12	4.94	0.916			
S3_2			6.29	0.00	0.00	0.59	0.00
5.66	5.66	0.18	6.74	0.900			
S3_3			6.29	0.00	0.00	0.49	0.00
5.76	5.76	0.13	5.23	0.916			
S3_5			6.29	0.00	0.00	0.49	0.00
5.76	5.76	0.15	6.27	0.916			
S4			6.29	0.00	0.00	0.30	0.00
5.94	5.94	0.68	20.84	0.945			
S5			6.29	0.00	0.00	1.87	1.56
2.81	4.38	0.10	5.00	0.696			

S5_1			6.29	0.00	0.00	0.59	0.00
5.66	5.66	0.33	12.00	0.900			
S6_1			6.29	0.00	0.00	0.59	0.00
5.66	5.66	0.34	12.31	0.900			
S7			6.29	0.00	0.00	0.50	0.00
5.74	5.74	0.38	8.84	0.913			
S8_2			6.29	0.00	0.00	0.50	0.00
5.75	5.75	0.55	17.31	0.914			
SP1			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.44	16.05	0.915			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.17	1.81	637.81	0 12:01	1.81
J10	JUNCTION	0.10	1.15	646.15	0 12:01	1.15
J11	JUNCTION	0.12	1.38	643.38	0 12:01	1.38
J12	JUNCTION	0.05	0.57	662.57	0 12:00	0.57
J13	JUNCTION	0.01	0.13	656.13	0 11:54	0.13
J14	JUNCTION	0.01	0.05	630.05	0 12:01	0.05
J15	JUNCTION	0.03	0.43	656.43	0 12:00	0.43
J16	JUNCTION	0.06	0.48	670.48	0 11:53	0.48
J17	JUNCTION	0.01	0.25	660.25	0 11:55	0.25
J18	JUNCTION	0.02	0.27	660.27	0 11:56	0.27
J19	JUNCTION	0.06	0.49	670.49	0 11:53	0.48
J2	JUNCTION	0.09	0.94	668.94	0 12:00	0.94
J20	JUNCTION	0.08	0.75	654.75	0 11:54	0.75
J21	JUNCTION	0.02	0.32	634.32	0 12:01	0.32
J22	JUNCTION	0.09	0.74	652.74	0 11:54	0.74
J23	JUNCTION	0.09	0.79	650.79	0 11:55	0.79
J24	JUNCTION	0.08	0.65	648.65	0 11:56	0.65
J3	JUNCTION	0.09	0.93	668.93	0 12:00	0.93
J33	JUNCTION	1.79	3.11	627.11	0 12:54	3.11
J37	JUNCTION	0.16	1.23	623.23	0 13:04	1.23
J4	JUNCTION	0.06	0.69	662.69	0 12:00	0.69
J5	JUNCTION	0.10	1.16	646.16	0 12:00	1.16
J6	JUNCTION	0.06	0.70	662.70	0 12:00	0.70
J7	JUNCTION	0.15	1.79	642.79	0 12:01	1.79
J8	JUNCTION	0.05	0.58	662.58	0 12:00	0.58
J9	JUNCTION	0.03	0.45	656.45	0 12:00	0.45
J25	OUTFALL	0.07	0.65	647.65	0 11:56	0.65
OF1	OUTFALL	0.00	0.00	620.00	0 00:00	0.00
OF2	OUTFALL	0.16	1.23	621.23	0 13:04	1.23
SU1	STORAGE	4.70	5.74	631.74	0 12:48	5.74
SU2	STORAGE	3.92	4.71	626.71	0 13:04	4.71

Node Inflow Summary

Total	Flow	Maximum	Maximum	Lateral
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Inflow Volume Node gal	Balance Error Percent	Type	Lateral Inflow CFS	Total Inflow CFS	Time of Max Occurrence days hr:min	Inflow Volume 10^6 gal	10^6
J1		JUNCTION	4.94	59.45	0 12:00	0.117	
1.91	-0.004						
J10		JUNCTION	8.84	31.64	0 12:00	0.38	
1.12	0.029						
J11		JUNCTION	5.23	47.76	0 12:00	0.127	
1.58	0.005						
J12		JUNCTION	0.00	20.66	0 12:00	0	
0.679	0.003						
J13		JUNCTION	9.84	9.84	0 11:54	0.212	
0.212	-0.011						
J14		JUNCTION	0.00	122.43	0 12:01	0	
3.89	0.000						
J15		JUNCTION	0.00	11.95	0 12:00	0	
0.326	-0.000						
J16		JUNCTION	3.26	3.26	0 11:54	0.063	
0.063	-0.043						
J17		JUNCTION	0.00	3.07	0 11:54	0	
0.0591	-0.427						
J18		JUNCTION	0.00	3.28	0 11:54	0	
0.063	-0.434						
J19		JUNCTION	3.06	3.06	0 11:54	0.0591	
0.0591	-0.046						
J2		JUNCTION	21.72	21.72	0 12:00	0.709	
0.709	-0.005						
J20		JUNCTION	5.00	5.00	0 11:54	0.101	
0.101	-0.014						
J21		JUNCTION	6.74	122.43	0 12:00	0.179	
3.89	-0.000						
J22		JUNCTION	0.00	4.98	0 11:54	0	
0.101	0.001						
J23		JUNCTION	0.00	4.92	0 11:54	0	
0.101	0.003						
J24		JUNCTION	0.00	4.87	0 11:55	0	
0.101	0.012						
J3		JUNCTION	20.84	20.84	0 12:00	0.679	
0.679	-0.006						
J33		JUNCTION	0.00	25.52	0 12:48	0	
2.41	0.021						
J37		JUNCTION	0.00	24.49	0 13:04	0	
2.39	-0.000						
J4		JUNCTION	12.00	12.00	0 12:00	0.326	
0.326	-0.007						
J5		JUNCTION	17.31	41.11	0 12:00	0.554	
1.33	0.022						
J6		JUNCTION	12.31	12.31	0 12:00	0.336	
0.336	-0.008						
J7		JUNCTION	6.27	57.95	0 12:00	0.152	
1.8	0.003						
J8		JUNCTION	0.00	21.53	0 12:00	0	
0.71	0.005						
J9		JUNCTION	0.00	12.26	0 12:00	0	
0.336	0.000						
J25		OUTFALL	0.00	4.85	0 11:56	0	
0.101	0.000						

OF1		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
OF2		OUTFALL	0.00	24.49	0	13:04	0
2.39	0.000						
SU1		STORAGE	16.05	137.64	0	12:00	0.445
4.97	0.000						
SU2		STORAGE	6.87	26.19	0	12:47	0.173
3.01	0.037						

Node Surcharge Summary

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

Max Occurrence	Maximum Outflow Storage Unit	Average Volume	Avg Full	Evap Loss	Exfil Loss	Maximum Volume	Max Full	Time of days
hr:min	CFS	1000 ft3		Pcnt	Pcnt	1000 ft3		
SU1		315.845	43	0	0	410.741	56	0
12:48	25.52							
SU2		80.265	26	0	0	101.281	33	0
13:04	24.49							

Outfall Loading Summary

Outfall Node	Flow Freq	Avg Flow	Max Flow	Total Volume
	Pcnt	CFS	CFS	10^6 gal
J25		40.05	0.29	4.85
OF1		0.00	0.00	0.00
OF2		37.02	5.32	24.49
System		25.69	5.61	24.80
				2.492

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min		Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	122.43	0	12:01	32.87	0.01	0.07
C12_1	CONDUIT	47.34	0	12:01	4.13	0.48	0.80
C12_2	CONDUIT	58.87	0	12:01	9.01	0.74	0.53
C15_2	CONDUIT	40.41	0	12:00	3.94	0.34	0.74
C15_5	CONDUIT	57.37	0	12:01	8.88	0.61	0.53
C17_2	CONDUIT	2.89	0	11:56	0.82	0.03	0.35
C2	CONDUIT	3.28	0	11:54	8.20	0.02	0.18
C2_2	CONDUIT	31.03	0	12:01	3.76	0.33	0.63
C2_3	CONDUIT	2.77	0	11:55	0.83	0.02	0.34
C3	CONDUIT	9.83	0	11:54	1.87	0.01	0.54
C3_1	CONDUIT	21.53	0	12:00	6.61	0.16	0.38
C3_2	CONDUIT	21.44	0	12:00	3.73	0.16	0.58
C30	CONDUIT	25.49	0	12:48	4.63	0.41	0.74
C31	CONDUIT	24.49	0	13:04	8.94	0.35	0.41
C4	CONDUIT	3.07	0	11:54	7.81	0.02	0.18
C4_1	CONDUIT	11.95	0	12:00	5.77	0.08	0.28
C4_2	CONDUIT	11.93	0	12:00	1.79	0.09	0.64
C5	CONDUIT	4.98	0	11:54	3.01	0.07	0.37
C5_1	CONDUIT	12.26	0	12:00	5.72	0.09	0.29
C5_2	CONDUIT	12.23	0	12:00	2.15	0.10	0.61
C6	CONDUIT	4.92	0	11:54	2.81	0.07	0.38
C6_1	CONDUIT	20.66	0	12:00	6.49	0.16	0.37
C6_2	CONDUIT	20.57	0	12:00	3.69	0.15	0.57
C7	CONDUIT	4.87	0	11:55	3.13	0.08	0.36
C8	CONDUIT	4.85	0	11:56	3.83	0.05	0.33
W1_1	DUMMY	122.43	0	12:01			
C18	WEIR	0.00	0	00:00			0.00
C23	WEIR	0.00	0	00:00			0.00
C22	DUMMY	25.52	0	12:48			
C31_1	DUMMY	24.49	0	13:04			

Flow Classification Summary

Conduit	Adjusted /Actual Length	----- Fraction of Time in Flow Class -----								
		Up Dry	Down Dry	Sub Dry	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl	
C1	1.00	0.00	0.37	0.00	0.10	0.53	0.00	0.00	0.73	0.00
C12_1	1.00	0.24	0.11	0.00	0.65	0.00	0.00	0.00	0.99	0.00
C12_2	1.00	0.24	0.00	0.00	0.39	0.37	0.00	0.00	0.00	0.00
C15_2	1.00	0.26	0.15	0.00	0.59	0.00	0.00	0.00	0.99	0.00
C15_5	1.00	0.25	0.00	0.00	0.35	0.39	0.00	0.00	0.01	0.00
C17_2	1.00	0.40	0.11	0.00	0.48	0.00	0.00	0.00	0.97	0.00
C2	1.00	0.00	0.00	0.00	0.60	0.40	0.00	0.00	0.08	0.00
C2_2	1.00	0.35	0.01	0.00	0.64	0.00	0.00	0.00	0.98	0.00
C2_3	1.00	0.36	0.18	0.00	0.46	0.00	0.00	0.00	0.99	0.00
C3	1.00	0.24	0.32	0.00	0.44	0.00	0.00	0.00	0.62	0.00
C3_1	1.00	0.47	0.00	0.00	0.12	0.41	0.00	0.00	0.00	0.00
C3_2	1.00	0.41	0.07	0.00	0.52	0.00	0.00	0.00	0.98	0.00
C30	1.00	0.00	0.16	0.00	0.84	0.00	0.00	0.00	0.07	0.00
C31	1.00	0.17	0.00	0.00	0.46	0.37	0.00	0.00	0.01	0.00

C4	1.00	0.00	0.00	0.00	0.60	0.40	0.00	0.00	0.07	0.00
C4_1	1.00	0.52	0.00	0.00	0.08	0.39	0.00	0.00	0.00	0.00
C4_2	1.00	0.26	0.27	0.00	0.47	0.00	0.00	0.00	0.49	0.00
C5	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00
C5_1	1.00	0.52	0.00	0.00	0.09	0.39	0.00	0.00	0.00	0.00
C5_2	1.00	0.35	0.18	0.00	0.47	0.00	0.00	0.00	0.98	0.00
C6	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.21	0.00
C6_1	1.00	0.42	0.00	0.00	0.17	0.41	0.00	0.00	0.59	0.00
C6_2	1.00	0.36	0.06	0.00	0.58	0.00	0.00	0.00	0.99	0.00
C7	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.85	0.00
C8	1.00	0.00	0.00	0.00	0.93	0.07	0.00	0.00	0.01	0.00

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
C3	0.01	0.01	0.28	0.01	0.01
C30	0.01	0.01	155.83	0.01	0.01
C4_2	0.01	0.01	0.26	0.01	0.01

Analysis begun on: Fri Dec 2 15:24:27 2022
 Analysis ended on: Fri Dec 2 15:24:32 2022
 Total elapsed time: 00:00:05

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.015)

WARNING 02: maximum depth increased for Node J12
 WARNING 02: maximum depth increased for Node J15
 WARNING 02: maximum depth increased for Node J2
 WARNING 02: maximum depth increased for Node J3
 WARNING 02: maximum depth increased for Node J4
 WARNING 02: maximum depth increased for Node J8
 WARNING 02: maximum depth increased for Node J9

 Element Count

Number of rain gages 8
 Number of subcatchments ... 16
 Number of nodes 31
 Number of links 30
 Number of pollutants 0
 Number of land uses 0

 Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_0.1in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_100-year_24-hour_7.85in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_10-year_5.32in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_25-year_24-hour_6.29in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_3.82in	SCS_Type_II_0.1in	INTENSITY	6 min.
SCS_Type_II_6.29in	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_6.29in_new	SCS_Type_II_6.29in_new	INTENSITY	6 min.
SCS_Type_II_7.28in_new	SCS_Type_II_7.28in_new	INTENSITY	6 min.

 Subcatchment Summary

Name	Area	Width	%Imperv	%Slope	Rain Gage
CP1	1.09	361.16	0.00	0.5000	SCS_Type_II_7.28in_new
SU2					
S1	0.38	152.02	79.45	7.9480	SCS_Type_II_7.28in_new
J16					
S1_2	0.35	150.00	80.00	8.0000	SCS_Type_II_7.28in_new
J19					
S2	1.34	500.00	25.00	0.5000	SCS_Type_II_7.28in_new
J13					
S3	4.54	533.73	0.00	0.5000	SCS_Type_II_7.28in_new
J2					
S3_1	0.75	298.19	0.00	0.5000	SCS_Type_II_7.28in_new
J1					
S3_2	1.16	298.19	0.00	0.5000	SCS_Type_II_7.28in_new
J21					

S3_3	0.81	298.19	0.00	0.5000	SCS_Type_II_7.28in_new
J11					
S3_5	0.97	358.15	0.00	0.5000	SCS_Type_II_7.28in_new
J7					
S4	4.21	519.95	0.00	0.5000	SCS_Type_II_7.28in_new
J3					
S5	0.85	500.00	25.00	0.5000	SCS_Type_II_7.28in_new
J20					
S5_1	2.12	476.16	0.00	0.5000	SCS_Type_II_7.28in_new
J4					
S6_1	2.18	479.37	0.00	0.5000	SCS_Type_II_7.28in_new
J6					
S7	2.44	150.00	0.00	0.5000	SCS_Type_II_7.28in_new
J10					
S8_2	3.55	441.87	0.00	0.5000	SCS_Type_II_7.28in_new
J5					
SP1	2.84	600.00	0.00	0.5000	SCS_Type_II_7.28in_new
SU1					

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	636.00	2.00	0.0	
J10	JUNCTION	645.00	2.00	0.0	
J11	JUNCTION	642.00	2.00	0.0	
J12	JUNCTION	662.00	2.00	0.0	
J13	JUNCTION	656.00	1.50	0.0	
J14	JUNCTION	630.00	8.00	0.0	
J15	JUNCTION	656.00	2.00	0.0	
J16	JUNCTION	670.00	2.00	0.0	
J17	JUNCTION	660.00	2.00	0.0	
J18	JUNCTION	660.00	2.00	0.0	
J19	JUNCTION	670.00	2.00	0.0	
J2	JUNCTION	668.00	2.00	0.0	
J20	JUNCTION	654.00	2.00	0.0	
J21	JUNCTION	634.00	2.50	0.0	
J22	JUNCTION	652.00	2.00	0.0	
J23	JUNCTION	650.00	2.00	0.0	
J24	JUNCTION	648.00	2.00	0.0	
J3	JUNCTION	668.00	2.00	0.0	
J33	JUNCTION	624.00	9.00	0.0	
J37	JUNCTION	622.00	11.00	0.0	
J4	JUNCTION	662.00	2.00	0.0	
J5	JUNCTION	645.00	2.00	0.0	
J6	JUNCTION	662.00	2.00	0.0	
J7	JUNCTION	641.00	2.00	0.0	
J8	JUNCTION	662.00	2.00	0.0	
J9	JUNCTION	656.00	2.00	0.0	
J25	OUTFALL	647.00	2.00	0.0	
OF1	OUTFALL	620.00	0.00	0.0	
OF2	OUTFALL	620.00	3.00	0.0	
SU1	STORAGE	626.00	9.00	0.0	
SU2	STORAGE	622.00	11.00	0.0	

Link Summary

Name Roughness	From Node	To Node	Type	Length	%Slope
C1 0.0150	J21	J14	CONDUIT	13.0	32.2750
C12_1 0.0300	J11	J1	CONDUIT	512.8	1.1701
C12_2 0.0300	J1	J21	CONDUIT	264.3	0.7567
C15_2 0.0300	J5	J7	CONDUIT	239.7	1.6688
C15_5 0.0300	J7	J21	CONDUIT	652.5	1.0728
C17_2 0.0300	J18	J5	CONDUIT	982.0	1.5277
C2 0.0200	J16	J18	CONDUIT	200.7	4.9878
C2_2 0.0300	J10	J11	CONDUIT	290.9	1.0312
C2_3 0.0300	J17	J10	CONDUIT	859.3	1.7458
C3 0.0100	J13	J1	CONDUIT	85.2	24.1484
C3_1 0.0200	J2	J8	CONDUIT	530.9	1.1302
C3_2 0.0690	J8	J5	CONDUIT	64.9	27.1607
C30 0.0220	J33	SU2	CONDUIT	150.1	2.4652
C31 0.0300	J37	OF2	CONDUIT	34.9	5.7347
C4 0.0200	J19	J17	CONDUIT	237.1	4.2210
C4_1 0.0200	J4	J15	CONDUIT	472.8	1.2691
C4_2 0.0690	J15	J7	CONDUIT	63.5	24.3092
C5 0.0300	J20	J22	CONDUIT	137.4	1.4558
C5_1 0.0200	J6	J9	CONDUIT	490.8	1.2225
C5_2 0.0690	J9	J11	CONDUIT	62.0	23.1900
C6 0.0300	J22	J23	CONDUIT	139.4	1.4351
C6_1 0.0200	J3	J12	CONDUIT	548.5	1.0940
C6_2 0.0690	J12	J10	CONDUIT	64.7	27.2121
C7 0.0300	J23	J24	CONDUIT	165.7	1.2072
C8 0.0300	J24	J25	CONDUIT	34.9	2.8664
W1_1 0.0300	J14	SU1	CONDUIT	281.8	1.4194
C18	SU1	SU2	WEIR		
C23	SU2	OF1	WEIR		
C22	SU1	J33	OUTLET		
C31_1	SU2	J37	OUTLET		

Cross Section Summary

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

C1 8190.48	TRAPEZOIDAL	2.50	107.50	1.58	68.00	1
C12_1 98.74	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C12_2 79.40	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C15_2 117.92	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C15_5 94.55	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C17_2 112.82	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C2 192.25	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C2_2 92.70	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C2_3 120.61	TRAPEZOIDAL	2.00	16.00	1.24	12.00	1
C3 896.82	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C3_1 134.04	TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
C3_2 137.84	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C30 61.88	CIRCULAR	3.00	7.07	0.75	3.00	1
C31 69.21	CIRCULAR	3.00	7.07	0.75	3.00	1
C4 176.86	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C4_1 142.03	TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
C4_2 130.41	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C5 69.24	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C5_1 139.40	TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
C5_2 127.37	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C6 68.75	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C6_1 131.87	TRAPEZOIDAL	2.00	16.00	1.09	14.00	1
C6_2 137.97	TRAPEZOIDAL	1.50	12.75	0.95	13.00	1
C7 63.05	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
C8 97.16	TRAPEZOIDAL	2.00	12.00	0.95	12.00	1
W1_1 0.00	DUMMY	0.00	0.00	0.00	0.00	1

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

 Analysis Options

Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method CURVE_NUMBER
 Flow Routing Method DYNWAVE
 Surcharge Method EXTRAN
 Starting Date 01/01/2022 00:00:00
 Ending Date 01/08/2022 00:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:01:00
 Wet Time Step 00:05:00
 Dry Time Step 00:05:00
 Routing Time Step 5.00 sec
 Variable Time Step YES
 Maximum Trials 8
 Number of Threads 4
 Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	17.952	7.280
Evaporation Loss	0.000	0.000
Infiltration Loss	1.273	0.516
Surface Runoff	16.576	6.722
Final Storage	0.122	0.049
Continuity Error (%)	-0.102	

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	16.586	5.405
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	10.076	3.283
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	3.240	1.056
Final Stored Volume	9.746	3.176
Continuity Error (%)	0.021	

Time-Step Critical Elements

Link C1 (43.40%)

Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

```

Minimum Time Step      :    0.50 sec
Average Time Step      :    3.39 sec
Maximum Time Step      :    5.00 sec
Percent in Steady State :   -0.00
Average Iterations per Step :    2.00
Percent Not Converging :    0.00
Time Step Frequencies :
    5.000 - 3.155 sec :   58.65 %
    3.155 - 1.991 sec :    2.52 %
    1.991 - 1.256 sec :   13.30 %
    1.256 - 0.792 sec :   15.50 %
    0.792 - 0.500 sec :   10.03 %
    
```

Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Total	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Subcatchment	Runoff	Runoff	Runoff	in	in	in
in	in	10 ⁶ gal	in	Coeff	in	in	in
			in	in			
			CFS				
CP1			7.28	0.00	0.00	0.40	0.00
6.84	6.84	0.20	8.22	0.940			
S1			7.28	0.00	0.00	0.10	5.76
1.39	7.14	0.07	3.78	0.981			
S1_2			7.28	0.00	0.00	0.10	5.80
1.35	7.14	0.07	3.54	0.981			
S2			7.28	0.00	0.00	0.44	1.81
4.99	6.80	0.25	11.63	0.934			
S3			7.28	0.00	0.00	0.50	0.00
6.73	6.73	0.83	26.16	0.925			
S3_1			7.28	0.00	0.00	0.50	0.00
6.75	6.75	0.14	5.90	0.927			
S3_2			7.28	0.00	0.00	0.59	0.00
6.64	6.64	0.21	7.98	0.913			
S3_3			7.28	0.00	0.00	0.50	0.00
6.75	6.75	0.15	6.26	0.927			
S3_5			7.28	0.00	0.00	0.50	0.00
6.75	6.75	0.18	7.50	0.927			
S4			7.28	0.00	0.00	0.30	0.00
6.93	6.93	0.79	24.96	0.952			

S5			7.28	0.00	0.00	1.98	1.81
3.45	5.26	0.12	6.12	0.723			
S5_1			7.28	0.00	0.00	0.60	0.00
6.64	6.64	0.38	14.24	0.913			
S6_1			7.28	0.00	0.00	0.60	0.00
6.64	6.64	0.39	14.62	0.913			
S7			7.28	0.00	0.00	0.51	0.00
6.73	6.73	0.45	10.81	0.924			
S8_2			7.28	0.00	0.00	0.50	0.00
6.73	6.73	0.65	20.82	0.925			
SP1			7.28	0.00	0.00	0.50	0.00
6.74	6.74	0.52	19.04	0.926			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.19	1.97	637.97	0 12:00	1.97
J10	JUNCTION	0.11	1.26	646.26	0 12:01	1.26
J11	JUNCTION	0.13	1.52	643.52	0 12:01	1.52
J12	JUNCTION	0.05	0.63	662.63	0 12:00	0.62
J13	JUNCTION	0.01	0.14	656.14	0 11:54	0.14
J14	JUNCTION	0.01	0.06	630.06	0 12:00	0.06
J15	JUNCTION	0.03	0.48	656.48	0 12:00	0.48
J16	JUNCTION	0.06	0.50	670.50	0 11:53	0.50
J17	JUNCTION	0.02	0.28	660.28	0 11:55	0.28
J18	JUNCTION	0.02	0.30	660.30	0 11:56	0.30
J19	JUNCTION	0.06	0.51	670.51	0 11:53	0.51
J2	JUNCTION	0.10	1.03	669.03	0 12:00	1.02
J20	JUNCTION	0.09	0.81	654.81	0 11:54	0.81
J21	JUNCTION	0.03	0.36	634.36	0 12:00	0.36
J22	JUNCTION	0.09	0.80	652.80	0 11:54	0.80
J23	JUNCTION	0.10	0.85	650.85	0 11:55	0.85
J24	JUNCTION	0.08	0.70	648.70	0 11:55	0.70
J3	JUNCTION	0.10	1.01	669.01	0 12:00	1.01
J33	JUNCTION	1.83	4.23	628.23	0 12:38	4.23
J37	JUNCTION	0.20	1.61	623.61	0 12:47	1.61
J4	JUNCTION	0.06	0.75	662.75	0 12:00	0.75
J5	JUNCTION	0.11	1.28	646.28	0 12:00	1.28
J6	JUNCTION	0.06	0.77	662.77	0 12:00	0.77
J7	JUNCTION	0.17	1.96	642.96	0 12:01	1.96
J8	JUNCTION	0.05	0.64	662.64	0 12:00	0.64
J9	JUNCTION	0.04	0.49	656.49	0 12:00	0.49
J25	OUTFALL	0.08	0.70	647.70	0 11:55	0.70
OF1	OUTFALL	0.00	0.00	620.00	0 00:00	0.00
OF2	OUTFALL	0.20	1.61	621.61	0 12:47	1.61
SU1	STORAGE	4.72	6.03	632.03	0 12:33	6.03
SU2	STORAGE	3.94	5.00	627.00	0 12:47	5.00

Node Inflow Summary

Total Inflow Volume Node gal	Flow Balance Error Percent	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal
J1		JUNCTION	5.90	71.25	0 12:00	0.138
2.24	-0.003					
J10		JUNCTION	10.81	38.09	0 12:00	0.446
1.31	0.029					
J11		JUNCTION	6.26	57.34	0 12:00	0.149
1.85	0.005					
J12		JUNCTION	0.00	24.78	0 12:00	0
0.792	0.003					
J13		JUNCTION	11.63	11.63	0 11:54	0.248
0.248	-0.009					
J14		JUNCTION	0.00	147.05	0 12:00	0
4.56	0.000					
J15		JUNCTION	0.00	14.21	0 12:00	0
0.382	0.001					
J16		JUNCTION	3.78	3.78	0 11:54	0.0731
0.0731	-0.042					
J17		JUNCTION	0.00	3.56	0 11:54	0
0.0686	-0.430					
J18		JUNCTION	0.00	3.80	0 11:54	0
0.0731	-0.432					
J19		JUNCTION	3.54	3.54	0 11:54	0.0685
0.0685	-0.045					
J2		JUNCTION	26.16	26.16	0 12:00	0.831
0.831	-0.005					
J20		JUNCTION	6.12	6.12	0 11:54	0.122
0.122	-0.013					
J21		JUNCTION	7.98	147.06	0 12:00	0.21
4.56	-0.000					
J22		JUNCTION	0.00	6.10	0 11:54	0
0.122	0.001					
J23		JUNCTION	0.00	6.02	0 11:54	0
0.122	0.003					
J24		JUNCTION	0.00	5.96	0 11:55	0
0.122	0.012					
J3		JUNCTION	24.96	24.96	0 12:00	0.792
0.792	-0.006					
J33		JUNCTION	0.00	41.05	0 12:33	0
3.15	0.016					
J37		JUNCTION	0.00	38.91	0 12:47	0
3.16	-0.000					
J4		JUNCTION	14.24	14.24	0 12:00	0.382
0.382	-0.007					
J5		JUNCTION	20.82	49.45	0 12:00	0.649
1.55	0.022					
J6		JUNCTION	14.62	14.62	0 12:00	0.394
0.394	-0.008					
J7		JUNCTION	7.50	69.56	0 12:00	0.178
2.11	0.003					
J8		JUNCTION	0.00	25.97	0 12:00	0
0.831	0.005					
J9		JUNCTION	0.00	14.59	0 12:00	0
0.394	0.000					

J25		OUTFALL	0.00	5.95	0	11:55	0
0.122	0.000						
OF1		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
OF2		OUTFALL	0.00	38.91	0	12:47	0
3.16	0.000						
SU1		STORAGE	19.04	165.36	0	12:00	0.521
5.71	0.000						
SU2		STORAGE	8.22	42.11	0	12:33	0.203
3.78	0.027						

Node Surcharge Summary

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

Max Occurrence	Maximum Outflow Storage Unit	Average Volume	Avg Full	Evap Loss	Exfil Loss	Maximum Volume	Max Full	Time of days
hr:min	CFS	1000 ft3				1000 ft3		
SU1		317.758	43	0	0	439.306	59	0
12:33	41.05							
SU2		80.872	26	0	0	109.187	35	0
12:47	38.91							

Outfall Loading Summary

Outfall Node	Flow Freq	Avg Flow	Max Flow	Total Volume
	Pcnt	CFS	CFS	10^6 gal
J25	41.61	0.33	5.95	0.122
OF1	0.00	0.00	0.00	0.000
OF2	38.66	7.55	38.91	3.162
System	26.76	7.88	39.37	3.283

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min		Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	147.05	0	12:00	35.30	0.02	0.08
C12_1	CONDUIT	56.91	0	12:01	4.37	0.58	0.87
C12_2	CONDUIT	70.66	0	12:00	9.62	0.89	0.58
C15_2	CONDUIT	48.70	0	12:00	4.16	0.41	0.81
C15_5	CONDUIT	68.97	0	12:01	9.43	0.73	0.58
C17_2	CONDUIT	3.36	0	11:56	0.83	0.03	0.39
C2	CONDUIT	3.80	0	11:54	8.36	0.02	0.20
C2_2	CONDUIT	37.44	0	12:01	3.96	0.40	0.70
C2_3	CONDUIT	3.22	0	11:55	0.85	0.03	0.38
C3	CONDUIT	11.62	0	11:54	2.19	0.01	0.55
C3_1	CONDUIT	25.97	0	12:00	6.93	0.19	0.42
C3_2	CONDUIT	25.87	0	12:00	3.91	0.19	0.64
C30	CONDUIT	41.01	0	12:34	6.08	0.66	0.92
C31	CONDUIT	38.91	0	12:47	10.07	0.56	0.54
C4	CONDUIT	3.56	0	11:54	7.97	0.02	0.19
C4_1	CONDUIT	14.21	0	12:00	6.03	0.10	0.31
C4_2	CONDUIT	14.19	0	12:00	2.06	0.11	0.66
C5	CONDUIT	6.10	0	11:54	3.16	0.09	0.40
C5_1	CONDUIT	14.59	0	12:00	5.98	0.10	0.31
C5_2	CONDUIT	14.56	0	12:00	2.25	0.11	0.66
C6	CONDUIT	6.02	0	11:54	2.96	0.09	0.41
C6_1	CONDUIT	24.78	0	12:00	6.79	0.19	0.41
C6_2	CONDUIT	24.68	0	12:00	3.87	0.18	0.63
C7	CONDUIT	5.96	0	11:55	3.30	0.09	0.39
C8	CONDUIT	5.95	0	11:55	4.03	0.06	0.35
W1_1	DUMMY	147.05	0	12:00			
C18	WEIR	0.00	0	00:00			0.00
C23	WEIR	0.00	0	00:00			0.00
C22	DUMMY	41.05	0	12:33			
C31_1	DUMMY	38.91	0	12:47			

 Flow Classification Summary

Conduit	Adjusted /Actual Length	----- Fraction of Time in Flow Class -----								
		Up Dry	Down Dry	Sub Dry	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl	
C1	1.00	0.00	0.36	0.00	0.09	0.55	0.00	0.00	0.71	0.00
C12_1	1.00	0.16	0.11	0.00	0.73	0.00	0.00	0.00	0.96	0.00
C12_2	1.00	0.16	0.00	0.00	0.45	0.39	0.00	0.00	0.00	0.00
C15_2	1.00	0.31	0.07	0.00	0.61	0.00	0.00	0.00	0.98	0.00
C15_5	1.00	0.30	0.02	0.00	0.28	0.41	0.00	0.00	0.01	0.00
C17_2	1.00	0.39	0.12	0.00	0.50	0.00	0.00	0.00	0.97	0.00
C2	1.00	0.00	0.00	0.00	0.58	0.42	0.00	0.00	0.09	0.00
C2_2	1.00	0.27	0.02	0.00	0.71	0.00	0.00	0.00	0.94	0.00
C2_3	1.00	0.29	0.24	0.00	0.47	0.00	0.00	0.00	0.99	0.00
C3	1.00	0.16	0.38	0.00	0.45	0.00	0.00	0.00	0.64	0.00
C3_1	1.00	0.45	0.00	0.00	0.12	0.43	0.00	0.00	0.00	0.00
C3_2	1.00	0.39	0.07	0.00	0.54	0.00	0.00	0.00	0.98	0.00

C30	1.00	0.00	0.16	0.00	0.84	0.00	0.00	0.00	0.07	0.00
C31	1.00	0.17	0.00	0.00	0.44	0.39	0.00	0.00	0.01	0.00
C4	1.00	0.00	0.00	0.00	0.58	0.42	0.00	0.00	0.07	0.00
C4_1	1.00	0.51	0.00	0.00	0.08	0.41	0.00	0.00	0.00	0.00
C4_2	1.00	0.31	0.19	0.00	0.49	0.00	0.00	0.00	0.98	0.00
C5	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.96	0.00
C5_1	1.00	0.50	0.00	0.00	0.09	0.41	0.00	0.00	0.00	0.00
C5_2	1.00	0.27	0.23	0.00	0.49	0.00	0.00	0.00	0.98	0.00
C6	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.21	0.00
C6_1	1.00	0.40	0.00	0.00	0.18	0.43	0.00	0.00	0.00	0.00
C6_2	1.00	0.29	0.11	0.00	0.60	0.00	0.00	0.00	0.49	0.00
C7	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.85	0.00
C8	1.00	0.00	0.00	0.00	0.91	0.09	0.00	0.00	0.01	0.00

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
C3	0.01	0.01	0.35	0.01	0.01
C30	0.01	0.01	155.95	0.01	0.01
C4_2	0.01	0.01	0.33	0.01	0.01
C5_2	0.01	0.01	0.06	0.01	0.01

Analysis begun on: Fri Dec 2 15:22:05 2022
 Analysis ended on: Fri Dec 2 15:22:10 2022
 Total elapsed time: 00:00:05



Attachment F

Ditch Lining Evaluation Reference Tables

Table C-1 Graded Rip-Rap Stone

Flow Velocity (ft./sec.)	N.S.A. No. ¹	Size Inches (Sq. Opening) Avg. ²			Filter Stone N.S.A. No. ¹
		Max.		Min.	
2.5	R-1	1 1/2	3/4	No. 8	FS-1
4.5	R-2	3	1 1/2	1	FS-1
6.5	R-3	6	3	2	FS-2
9.0	R-4	12	6	3	FS-2
11.5	R-5	18	9	5	FS-2
13.0	R-6	24	12	7	FS-3
14.5	R-7	30	15	12	FS-3

¹ National Stone Association

² At least 50% of the individual stone particles must be equal or larger than this listed size

Table C-3. Graded Rip-Rap Stone

D.O.T. No. ¹	Size inches (Sq. opening)			Common Uses
	Max.	Avg.	Min.	
Type 3	12	9	5	Creek Banks Pipe Outlets
Type 1	24	12	7	Lakes & Shorelines Rivers
Georgia Department of Transportation				

Table 5.4-4 Manning's Roughness Coefficients (n) for Artificial Channels

Category	Lining Type	Depth Ranges		
		0-0.5 ft	0.5-2.0 ft	>2.0 ft
Rigid	Concrete	0.015	0.013	0.013
	Grouted Riprap	0.040	0.030	0.028
	Stone Masonry	0.042	0.032	0.030
	Soil Cement	0.025	0.022	0.020
	Asphalt	0.018	0.016	0.016
Unlined	Bare Soil	0.023	0.020	0.020
	Rock Cut	0.045	0.035	0.025
Temporary*	Woven Paper Net	0.016	0.015	0.015
	Jute Net	0.028	0.022	0.019
	Fiberglass Roving	0.028	0.022	0.019
	Straw with Net	0.065	0.033	0.025
	Curled Wood Mat	0.066	0.035	0.028
	Synthetic Mat	0.036	0.025	0.021
Gravel Riprap	1-inch D_{50}	0.044	0.033	0.030
	2-inch D_{50}	0.066	0.041	0.034
Rock Riprap	6-inch D_{50}	0.104	0.069	0.035
	12-inch D_{50}	-	0.078	0.040

Note: Values listed are representative values for the respective depth ranges. Manning's roughness coefficients, n, vary with the flow depth.

*Some "temporary" linings become permanent when buried.

Source: HEC-15, 2005.



Attachment 4
Parcel F Hydrologic & Hydraulic Calculations

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Attachment A: PCSWMM Model Overview

Attachment B: Pond Elevation-Area Curves

Attachment C: Perforated Riser Rating Curve Calculation

Attachment D: Land Cover Figures

Attachment E: PCSWMM Results

Attachment F: Ditch Lining Evaluation Reference Tables

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1. BACKGROUND AND DESIGN CRITERIA

Georgia Power Company (GPC) is designing a new landfill at the Huffaker Road Facility on Parcel F. This landfill will contain coal combustion residual (CCR) material from nearby Plant Hammond. To manage stormwater, the proposed landfill will utilize two separate sediment ponds as well as various stormwater drainage ditches, culverts, and flumes. This report documents the hydrologic and hydraulic analysis performed for proposed Sediment Ponds 4 and 5, Clear Ponds 4 and 5, stormwater culverts, perimeter drainage ditches, and landfill flumes. The locations of proposed stormwater structures are illustrated in Figure 1.

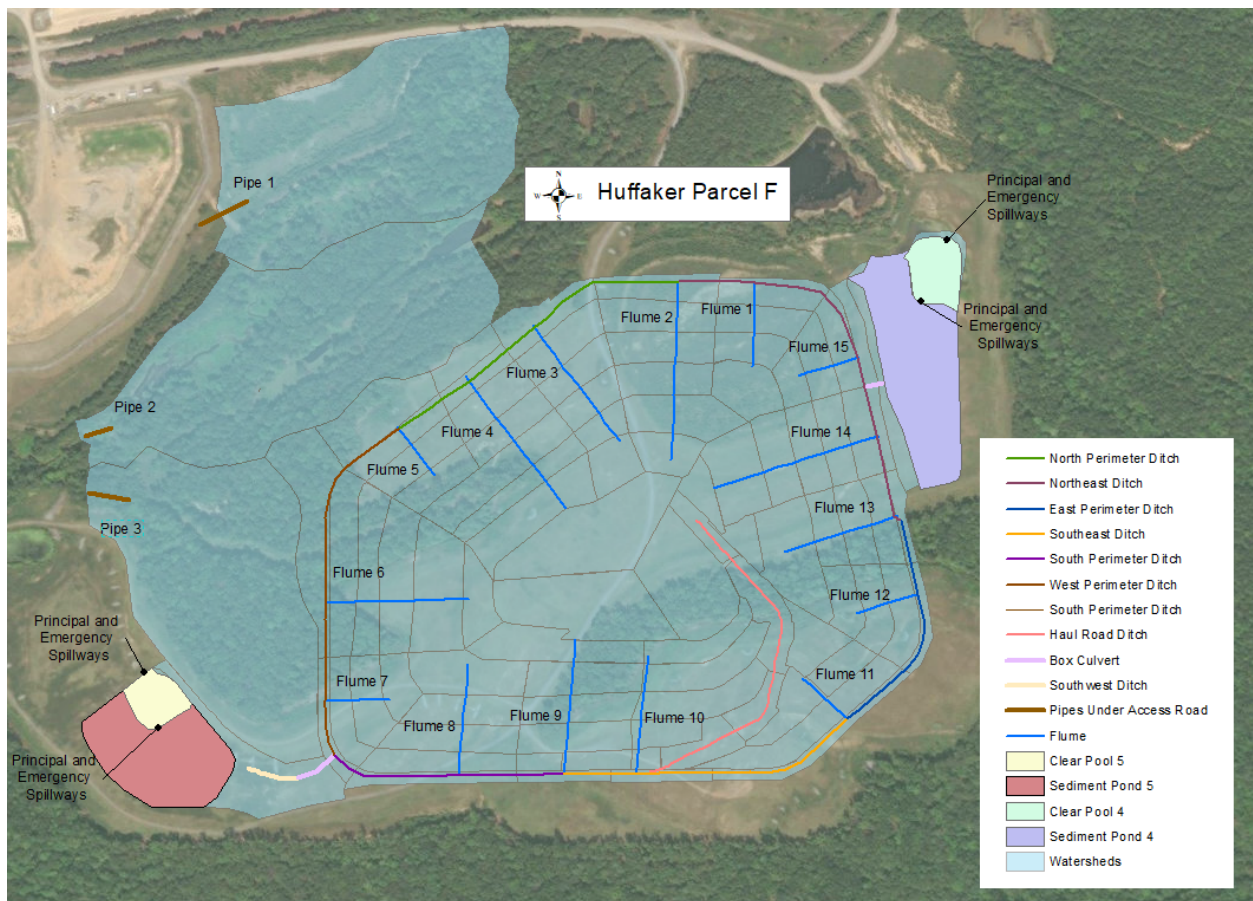


Figure 1 Huffaker Road Landfill – Parcel F Proposed Stormwater Structures



The following design criteria were used to evaluate proposed stormwater infrastructure:

1. Drainage ditches maintain ½-foot of freeboard during the 25-year, 24-hour storm event and contain the 100-year, 24-hour storm event without overtopping.
2. Sediment Pond 4, Clear Pool 4, Sediment Pond 5, and Clear Pool 5 route the 100-year, 24-hour storm event without overtopping and convey the 25-year, 24-hour storm event without activating the emergency spillway.
3. Size stormwater runoff flumes for the proposed landfill to convey both the 25-year, 24-hour event and 100-year, 24-hour event.
4. Size pipes under the access road from Parcel E to Parcel F to maintain ½-foot of freeboard during the 25-year, 24-hour storm event and pass the 100-year, 24-hour storm event without overtopping the access road.
5. Size box culverts at the sediment ponds to maintain ½-foot of freeboard during the 25-year, 24-hour storm event and pass the 100-year 24-hour storm event without overtopping.

2. METHODOLOGY

The United States Department of Agriculture (USDA) Soil Conservation Service (SCS) curve number method was used in creating a stormwater management model (with the Computational Hydraulics Institute PCSWMM design software) to compute the peak flows and the hydraulic capacity of the ditches and ponds at the site. Esri ArcGIS software was used to create multiple features and measurements used in the PCSWMM model. The following were applied for this analysis:

- Drainage areas were delineated using the designed contours. The total area that drains to the ditches is approximately 105 acres.
- Perimeter drainage ditch channel geometry as illustrated on Permit Drawings:
 - Trapezoidal channel
 - Four-foot bottom width
 - 3H:1V side slopes
 - 3.5-foot depth
- Southwest ditch leading to Low Water Crossing at Sediment Pond 4.
 - Concrete-lined trapezoidal channel
 - 20-foot bottom width
 - 3H:1V side slopes
 - 2-foot depth
- Low Water Crossing at Southwest ditch
 - Concrete-lined trapezoidal channel



- 20-foot bottom width
 - 10H:1V side slopes
 - 2-foot depth
- Flume geometry as illustrated on the Permit Drawings:
 - Rip rap trapezoidal channel
 - Four-foot bottom width
 - 3H:1V side slopes
 - Two-foot depth
- Geometry of the pipes under the access road from Parcel E to Parcel F.
 - Four-foot diameter single barrel HDPE pipe culverts
 - Entry loss coefficient 0.2
 - Exit loss coefficient 0.3
- NOAA Atlas 14 rainfall depths were used for all storm events evaluated.
 - 25-year, 24-hour: 6.29 inches
 - 100-year, 24-hour: 7.85 inches
- A SCS Type-II rainfall distribution was used along with the rainfall depths listed above.
- A composite curve number was calculated for each drainage sub-catchment based on future landfill closure conditions. A SCS hydrologic soil group composite classification of C (poorly drained) was assigned for the land covers provided below. The SCS hydrologic soil group classification of Type C was determined to be the most appropriate fit:
 - Closure vegetated surface and vegetated ditches – 71
 - Rock-lined stormwater flumes and crushed stone roads – 89
 - Open water surface – 98
 - Closure turf – 95
 - Road – 89
- Manning's roughness coefficient "n" values were based on *Open Channel Hydraulics* (Chow, 1959), *Manual for Erosion and Sediment Control in Georgia* (current edition dated 2016) and WinTR-55. The values used were:
 - 0.015 – Concrete-lined channels
 - 0.012 – Concrete Box Culvert
 - 0.020 – Erosion control blanket lined channels
 - 0.022 – Bituminous-Coated Corrugated Metal Pipe (BCCMP)
 - 0.030 – Vegetated ditch
 - 0.074 – Rip rap
 - 0.012 – HDPE Pipe



- Sediment Pond 4, Clear Pool 4, Sediment Pond 5, and Clear Pool 5 stage-area curves were developed based on design configurations. The elevation-area curves are included in Attachment B.
- Sediment Pond 4 and Clear Pool 4 current primary spillway structure configuration was referenced from most recent Permit Drawings:
 - Sediment Pond 4, 48-inch diameter with a 14-foot tall BCCMP perforated riser with trash rack.
 - Clear Pool 4, 48-inch diameter with a 10-foot tall BCCMP riser with trash rack
 - 48-inch diameter BCCMP barrel
 - A rating curve calculation is included in Attachment C
- Sediment Pond 4 and Clear Pool 4 emergency spillway channel was referenced from most recent Permit Drawing:
 - Concrete-lined trapezoidal channel
 - 20-foot bottom width
 - 10H:1V side slopes
- Sediment Pond 5 and Clear Pool 5 current primary spillway structure configuration was referenced from most recent Permit Drawings:
 - Sediment Pond 5, 48-inch diameter with a 10-foot tall BCCMP perforated riser with trash rack.
 - Clear Pool 5, 48-inch diameter with a 7-foot tall BCCMP riser with trash rack
 - 48-inch diameter BCCMP barrel
 - A rating curve calculation is included in Attachment C
- Sediment Pond 5 and Clear Pool 5 emergency spillway channel was referenced from most recent Permit Drawing:
 - Concrete-lined trapezoidal channel
 - 10-foot bottom width
 - 10H:1V side slopes
- Box Culvert
 - Northeast box culvert
 - Triple concrete-lined box culvert 3 feet tall and 6 feet wide
 - 60-foot length
 - Entry loss coefficient 0.4
 - Exit loss coefficient 0 (no energy loss due to discharge into Sediment Pond 4)
 - Southwest box culvert
 - Double concrete-lined box culvert 3 feet tall and 6 feet wide
 - 150-foot length
 - Entry loss coefficient 0.4
 - Exit loss coefficient 0.5



2.1 EVALUATION BETWEEN VEGETATIVE AND CLOSURE TURF COVER SYSTEMS

The use of a closure turf cover system was included in these analyses. For this cover system, changes to the model included:

- The site was evaluated to use closure turf and a resulting curve number of 95 was used from the Closure Turf Hydrology Parameters for high intensity (Watershed Geo, 2019).

A summary of hydraulic results for Sediment Ponds 4 and 5, Clear Ponds 4 and 5, stormwater ditches, and runoff flumes are shown below in Tables 1-8. For each hydraulic element there is a table for natural vegetative cover and a table for Closure Turf. Tables 9-12 show the results of channel lining evaluations for the perimeter, haul road, and southwest ditches as well as the stormwater flumes. Tables 13 and 14 show the results of the hydraulic analysis for the access road pipes and box culverts.



Table 1 Perimeter Ditch Hydraulic Results (Vegetative Cover)

Scenario¹	Peak Water Surface Depth (ft)	Ditch Depth (ft)	Freeboard (ft)
North Perimeter Ditch – 25-year storm event	1.6	3.5	1.9
North Perimeter Ditch – 100-year storm event	1.8	3.5	1.7
Northeast Perimeter Ditch – 25-year storm event	2.0	3.5	1.5
Northeast Perimeter Ditch – 100-year storm event	2.3	3.5	1.2
East Perimeter Ditch – 25-year storm event	1.2	3.5	2.3
East Perimeter Ditch – 100-year storm event	1.4	3.5	2.1
Southeast Perimeter Ditch – 25-year storm event	0.8	3.5	2.7
Southeast Perimeter Ditch – 100-year storm event	1.1	3.5	2.4
South Perimeter Ditch – 25-year storm event	1.5	3.5	2.0
South Perimeter Ditch – 100-year storm event	2.0	3.5	1.5
West Perimeter Ditch – 25-year storm event	1.0	3.5	2.5
West Perimeter Ditch – 100-year storm event	1.2	3.5	2.3

¹ For each ditch listed, the segment with the largest resulting peak water surface depth is shown.



Table 2 Perimeter Ditch Hydraulic Results (Closure Turf Cover)

Scenario¹	Peak Water Surface Depth (ft)	Ditch Depth (ft)	Freeboard (ft)
North Perimeter Ditch – 25-year storm event	1.8	3.5	1.7
North Perimeter Ditch – 100-year storm event	2.1	3.5	1.4
Northeast Perimeter Ditch – 25-year storm event	2.3	3.5	1.2
Northeast Perimeter Ditch – 100-year storm event	2.6	3.5	0.9
East Perimeter Ditch – 25-year storm event	0.8	3.5	2.6
East Perimeter Ditch – 100-year storm event	1.0	3.5	2.5
Southeast Perimeter Ditch – 25-year storm event	0.6	3.5	2.9
Southeast Perimeter Ditch – 100-year storm event	0.7	3.5	2.8
South Perimeter Ditch – 25-year storm event	2.0	3.5	1.5
South Perimeter Ditch – 100-year storm event	2.5	3.5	1.0
West Perimeter Ditch – 25-year storm event	0.9	3.5	2.4
West Perimeter Ditch – 100-year storm event	1.2	3.5	2.1

¹ For each ditch listed, the segment with the largest resulting peak water surface depth is shown.

Table 3 Haul Road & Southwest Ditch Hydraulic Results (Vegetative Cover)

Scenario¹	Vegetative Cover Peak Water Surface Depth (ft)	Ditch Depth (ft)	Maximum Freeboard (ft)
North Haul Road Ditch – 25-year storm event	0.5	2.5	2
North Haul Ditch – 100-year storm event	0.5	2.5	2
South Haul Road Ditch – 25-year storm event	0.6	2.5	1.9
South Haul Ditch – 100-year storm event	0.7	2.5	1.8
Southwest Ditch to Sediment Pond 5– 25-year storm event	0.7	2.0	1.3
Southwest Ditch to Sediment Pond 5– 100-year storm event	0.8	2.0	1.2

¹ For each ditch listed, the segment with the largest resulting peak water surface depth is shown.

Table 4 Haul Road & Southwest Ditch Hydraulic Results (Closure Turf Cover)

Scenario¹	Closure Turf Peak Water Surface Depth (ft)	Ditch Depth (ft)	Maximum Freeboard (ft)
North Haul Road Ditch – 25-year storm event	0.6	2.5	1.9
North Haul Ditch – 100-year storm event	0.6	2.5	1.9
South Haul Road Ditch – 25-year storm event	0.7	2.5	1.8
South Haul Ditch – 100-year storm event	0.7	2.5	1.8
Southwest Ditch to Sediment Pond 5– 25-year storm event	0.8	2.0	1.2
Southwest Ditch to Sediment Pond 5– 100-year storm event	0.9	2.0	1.1

¹ For each ditch listed, the segment with the largest resulting peak water surface depth is shown.



Table 5 Pond Hydraulic Results (Vegetative Cover)

Scenario	Starting Water Surface Elevation (WSE) (ft)	Peak WSE (ft)	Top of Berm Elevation (ft)	Freeboard (ft)	Emergency Spillway Elevation (ft)	Riser Rim Elevation (ft)	Emergency Spillway Flow (cfs)	Riser Peak Flow (cfs)
Sediment Pond 4 – 25-year storm event	658.5	665.2	674	8.8	670	668	0	0
Sediment Pond 4 – 100-year storm event	658.5	667.0	674	7.0	670	668	0	0
Clear Pool 4 – 25-year storm event	650.0	652.4	668	15.6	662	660	0	0
Clear Pool 4 – 100-year storm event	650.0	653.1	668	14.9	662	660	0	0
Sediment Pond 5 – 25-year storm event	661.5	670.2	674	3.8	672	670	0	6.0
Sediment Pond 5 – 100-year storm event	661.5	670.7	674	3.3	672	670	0	22.1
Clear Pool 5 – 25-year storm event	658.0	665.2	674	8.8	669	665	0	5.9
Clear Pool 5 – 100-year storm event	658.0	665.7	674	8.3	669	665	0	22.0



Table 6 Pond Hydraulic Results (Closure Turf Cover)

Scenario	Starting Water Surface Elevation (WSE) (ft)	Peak WSE (ft)	Top of Berm Elevation (ft)	Freeboard (ft)	Emergency Spillway Elevation (ft)	Riser Rim Elevation (ft)	Emergency Spillway Flow (cfs)	Riser Peak Flow (cfs)
Sediment Pond 4 – 25-year storm event	658.5	667.4	674	6.6	670	668	0	0
Sediment Pond 4 – 100-year storm event	658.5	668.3	674	5.7	670	668	0	6.9
Clear Pool 4 – 25-year storm event	650.0	653.5	668	14.5	662	660	0	0
Clear Pool 4 – 100-year storm event	650.0	660.2	668	7.8	662	660	0	6.4
Sediment Pond 5 – 25-year storm event	661.5	670.8	674	3.2	672	670	0	30.0
Sediment Pond 5 – 100-year storm event	661.5	671.6	674	2.4	672	670	0	74.6
Clear Pool 5 – 25-year storm event	658.0	665.8	674	8.2	669	665	0	29.7
Clear Pool 5 – 100-year storm event	658.0	666.6	674	7.4	669	665	0	73.9

Table 7 Flume Hydraulic Results (Vegetative Cover)

Flume¹	Peak Water Surface Depth (ft) 25-year	Peak Water Surface Depth (ft) 100-year	Flume Depth (ft)	Minimum Freeboard (ft)
Flume 1	0.7	0.9	2.0	1.1
Flume 2	0.6	0.8	2.0	1.2
Flume 3	0.7	0.8	2.0	1.2
Flume 4	0.9	1.1	2.0	0.9
Flume 5	0.6	0.7	2.0	1.3
Flume 6	0.7	0.9	2.0	1.1
Flume 7	0.7	0.8	2.0	1.2
Flume 8	0.6	0.7	2.0	1.3
Flume 9	1.1	1.3	2.0	0.7
Flume 10	0.8	0.9	2.0	1.1
Flume 11	0.7	0.8	2.0	1.2
Flume 12	0.5	0.6	2.0	1.4
Flume 13	0.7	0.9	2.0	1.1
Flume 14	1.0	1.1	2.0	0.9
Flume 15	0.4	0.5	2.0	1.5

¹ For each flume listed, the segment with the largest resulting peak water surface depth is shown.

Table 8 Flume Hydraulic Results (Closure Turf Cover)

Flume¹	Peak Water Surface Depth (ft) 25-year	Peak Water Surface Depth (ft) 100-year	Flume Depth (ft)	Minimum Freeboard (ft)
Flume 1	0.9	1.0	2.0	1.0
Flume 2	0.8	0.9	2.0	1.1
Flume 3	0.8	1.0	2.0	1.0
Flume 4	1.1	1.3	2.0	0.7
Flume 5	0.7	0.8	2.0	1.2
Flume 6	0.9	1.0	2.0	1.0
Flume 7	0.8	0.9	2.0	1.1
Flume 8	0.7	0.8	2.0	1.2
Flume 9	1.3	1.4	2.0	0.6
Flume 10	0.9	1.0	2.0	1
Flume 11	0.8	0.9	2.0	1.1
Flume 12	0.6	0.6	2.0	1.4
Flume 13	0.9	1.0	2.0	1.0
Flume 14	1.1	1.3	2.0	0.7
Flume 15	0.5	0.6	2.0	1.4

¹ For each flume listed, the segment with the largest resulting peak water surface depth is shown.

2.2 EVALUATION OF DITCH LININGS

The ditch linings were evaluated and chosen using the *Manual for Erosion and Sediment Control in Georgia*. The velocities from the closure turf model during the 100-year storm event were used as they are higher than the vegetative model.

Table 9 Perimeter Ditch Evaluation

Ditch¹	Max Velocity (ft/s) 100-year storm event	Category	Recommended Lining	Manning's n
North perimeter ditch	8.3	> 5ft/s, <10ft/s Category 2	Erosion Control Blanket	0.02
Northeast perimeter ditch	14.5	> 10 ft/s	Concrete	0.015
East perimeter ditch	9.8	> 5ft/s, <10ft/s Category 2	Erosion Control Blanket	0.02
Southeast perimeter ditch	7.9	> 5ft/s, <10ft/s Category 2	Erosion Control Blanket	0.02
South perimeter ditch	14.7	> 10 ft/s	Concrete	0.015
West perimeter ditch	5.8	> 5ft/s, <10ft/s Category 2	Erosion Control Blanket	0.02

¹For each ditch listed, the segment with the largest resulting velocity is shown.

Table 10 Haul Road Ditch Evaluation

Ditch	Maximum Velocity (ft/s) 100-year Storm Event	Category	Recommended Lining	Manning's n
North Haul Road Ditch Segment	6.1	> 10 ft/s	Erosion Control Blanket	0.02
South Haul Road Ditch Segment	15.6	> 10 ft/s	Concrete	0.015

Table 11 Southwest Ditch Evaluation

Ditch	Maximum Velocity (ft/s) 100-year Storm Event	Category	Recommended Lining	Manning's n
Southwest Ditch to Sediment Pond 5	18.9	> 10 ft/s	Concrete	0.015
Low Water Crossing	25.9	> 10 ft/s	Concrete	0.015

Table 12 Flume Evaluation

Flume¹	Maximum Velocity (ft/s) 100-year storm event	Recommended Lining	Category	Permissible Velocity (ft/s)	Depth of Channel (ft)	Manning's n
Flume 1	4.3	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 2	7.4	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 3	5.4	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 4	8.6	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 5	4.2	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 6	7.7	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 7	3.1	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 8	4.7	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 9	7.9	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 10	6.0	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 11	7.2	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 12	4.6	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 13	6.1	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 14	5.4	Rip Rap	DOT Type 3	11.5	2.0	0.074
Flume 15	4.0	Rip Rap	DOT Type 3	11.5	2.0	0.074

¹For each scenario listed, the segment with the largest resulting velocity is shown.

The velocities in the flumes shown in Table 12 were evaluated using the *Manual for Erosion and Sediment Control in Georgia*. Tables C-1 and C-3 (Attachment F) were used to select Type 3 rip rap for the ditch lining, which has a nominal size of nine inches. In the *Georgia Stormwater Management Manual* Table 5.4-4 (Attachment F), the Manning's n of a rip rap channel with a nominal size of nine inches is 0.074.



Figure 2 HydroCalc Flume Hydraulic Jump Calculations

TRAPEZOIDAL CHANNEL ANALYSIS
NORMAL DEPTH COMPUTATION

June 14, 2023

```
=====
                                PROGRAM INPUT DATA
=====
```

DESCRIPTION	VALUE
Flow Rate (cfs).....	82.7
Channel Bottom Slope (ft/ft).....	0.01
Manning's Roughness Coefficient (n-value).....	0.074
Channel Left Side Slope (horizontal/vertical).....	3.0
Channel Right Side Slope (horizontal/vertical).....	3.0
Channel Bottom Width (ft).....	4.0

```
=====
                                COMPUTATION RESULTS
=====
```

DESCRIPTION	VALUE
Normal Depth (ft).....	2.63
Flow Velocity (fps).....	2.65
Froude Number.....	0.371
Velocity Head (ft).....	0.11
Energy Head (ft).....	2.74
Cross-Sectional Area of Flow (sq ft).....	31.23
Top Width of Flow (ft).....	19.77

```
=====
HYDROCALC Hydraulics for Windows, Version 2.0.1, Copyright(c) 1996-2010
Dodson & Associates, Inc., 5629 FM 1960 West, Suite 314, Houston, TX 77069
Email:software@dodson-hydro.com, All Rights Reserved.
=====
```

The 33% slopes from the flume decrease to approximately 1% at the confluence with the perimeter ditch. Due to the steep slope of the flume confluence with the perimeter ditch, the hydraulic jump was modeled through the program HydroCalc to evaluate the depth of lining. The flowrate was taken as the peak flow from the Closure Turf model in the flumes. Manning's n values for rip rap lined channels were determined based on the Georgia Stormwater Management Manual.

Table 13 Pipes Under Access Road

Scenario	Maximum Velocity (ft/s) 100-year Storm Event	Minimum Elevation of the Road (ft)	Pipe Diameter (ft)	Peak Elevation Upstream (ft)	Freeboard (ft)
Pipe 1	8.9	638	4.0	633.1	4.9
Pipe 2	10.5	632	4.0	623.7	8.3
Pipe 3	9.8	632	4.0	627.6	4.4

Table 14 Box Culverts

Scenario	Maximum Velocity (ft/s) 100-year Storm Event	Maximum Depth	Minimum Elevation of the Road (ft)	Peak Elevation Upstream (ft)	Freeboard (ft)
Northeast Culvert	18.8	2.3	676	674.4	1.6
Southwest Culvert	14.5	2.5	694	692.5	1.5

4. CONCLUSION

4.1 VEGETATIVE AND CLOSURE TURF COVER SYSTEMS CONCLUSION

Based on the results in tables 1-8, both vegetative and closure turf cover are acceptable within the design criteria.

4.2 DITCH LINING EVALUATION CONCLUSION

Based on the peak velocities in the perimeter ditches, an Erosion Control Blanket channel lining is recommended. The northeast and southwest perimeter ditch at the confluence with Sediment Ponds 4 and 5 have a recommended lining of concrete due to the higher maximum velocity.

The flumes were evaluated by computing the velocity and conservatively Type 3 Rip Rap sizing was recommended as summarized in Table 12.

The hydraulic jump was evaluated at the confluence of the flume and perimeter ditch the results shown above in Figure 2. The depth of the confluence was found to have



acceptable amount of freeboard within the design parameters. The perimeter ditch at the confluence was conservatively recommended to be armored with rip rap.

The box culverts and pipes under the access road contain the 100-year storm event without overtopping the road.

4.3 RESULTS

Based on the PCSWMM-calculated results with the modifications described in Section 3, the following are concluded for the vegetative and closure turf cover systems:

1. The proposed drainage ditches contain the 25-year, 24-hour storm event with the minimum ½-foot of freeboard and contain the 100-year, 24-hour storm event without overtopping.
2. The designed Sediment Pond 4 and 5 and Clear Pool 4 and 5 configurations do not overtop for the 100-year, 24-hour event and do not activate the emergency spillway for the 25-year, 24-hour event.
3. The proposed flume configurations contain sufficient capacity for both the 25-year and 100-year, 24-hour storm events.
4. The pipes under the access road from Parcel E to Parcel F contain the 25-year, 24-hour storm event with the minimum 6 inches of freeboard and contain the 100-year, 24-hour storm event without overtopping.
5. The box culverts at the sediment ponds contain the 25-year, 24-hour storm event without overtopping the road.



5. REFERENCES

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Attachment A

PCSWMM Model Overview



Legend

- Junctions
- ▲ Outfalls
- Storages
- Conduits
- Weirs
- Outlets
- Subcatchments



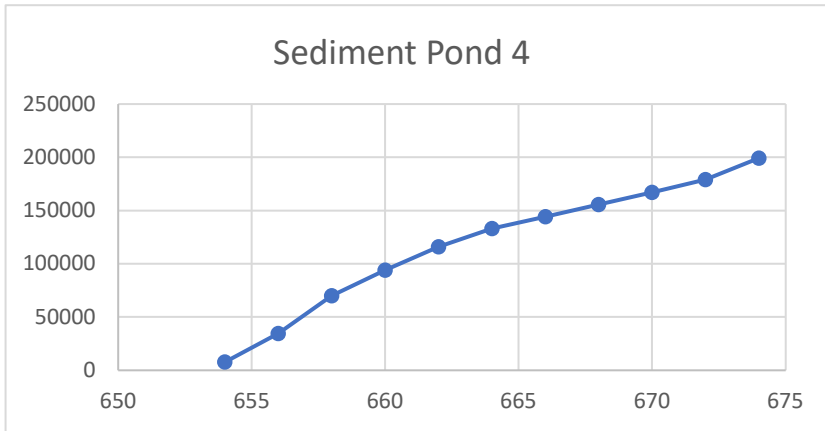
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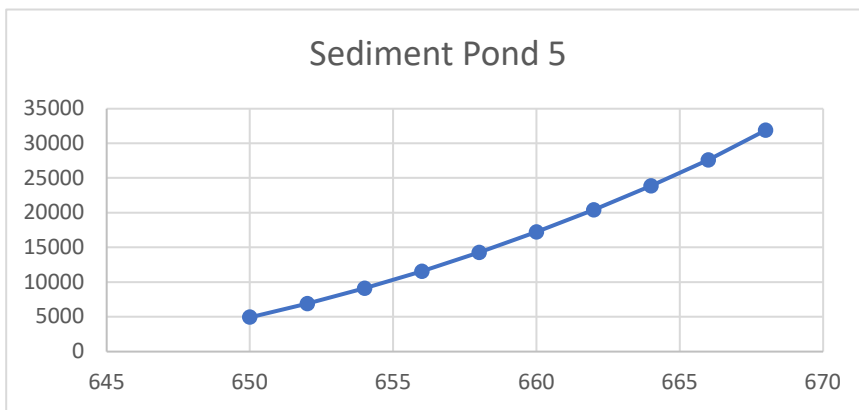
Attachment B

Pond Elevation-Area Curves

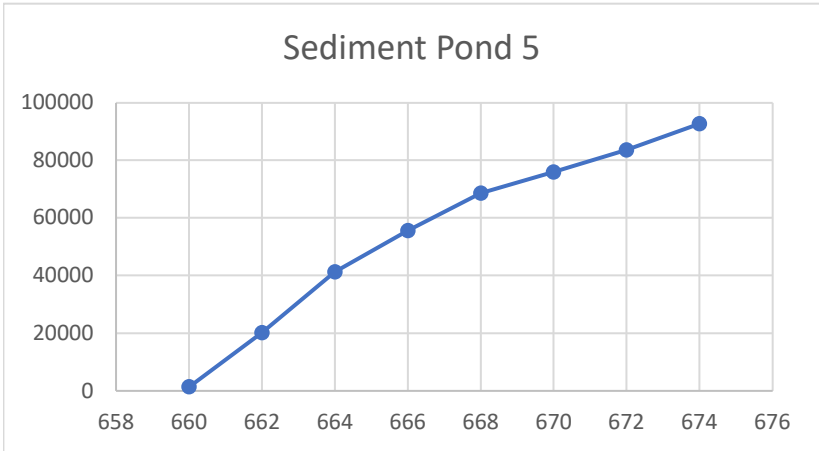
Pond	Elevation (ft)	Area (ft2)
Sediment Pond 4	654	7761.56
Sediment Pond 4	656	34366.84
Sediment Pond 4	658	69952.05
Sediment Pond 4	660	94008.28
Sediment Pond 4	662	116039.3
Sediment Pond 4	664	132993.3
Sediment Pond 4	666	144085.4
Sediment Pond 4	668	155460.7
Sediment Pond 4	670	167078.4
Sediment Pond 4	672	179007.7
Sediment Pond 4	674	199229.9



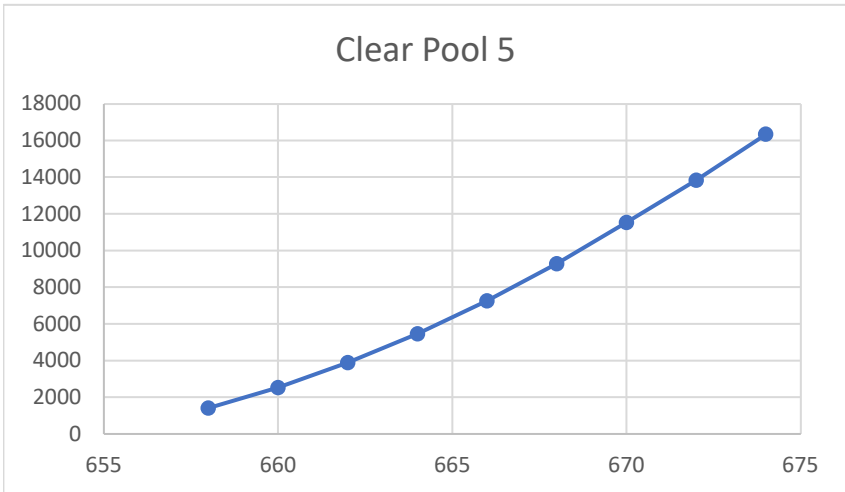
Pond	Elevation (ft)	Area (ft2)
Clear Pool 4	650	4962.13
Clear Pool 4	652	6911.245
Clear Pool 4	654	9110.868
Clear Pool 4	656	11561.01
Clear Pool 4	658	14261.67
Clear Pool 4	660	17212.85
Clear Pool 4	662	20414.57
Clear Pool 4	664	23866.81
Clear Pool 4	666	27569.55
Clear Pool 4	668	31882.85



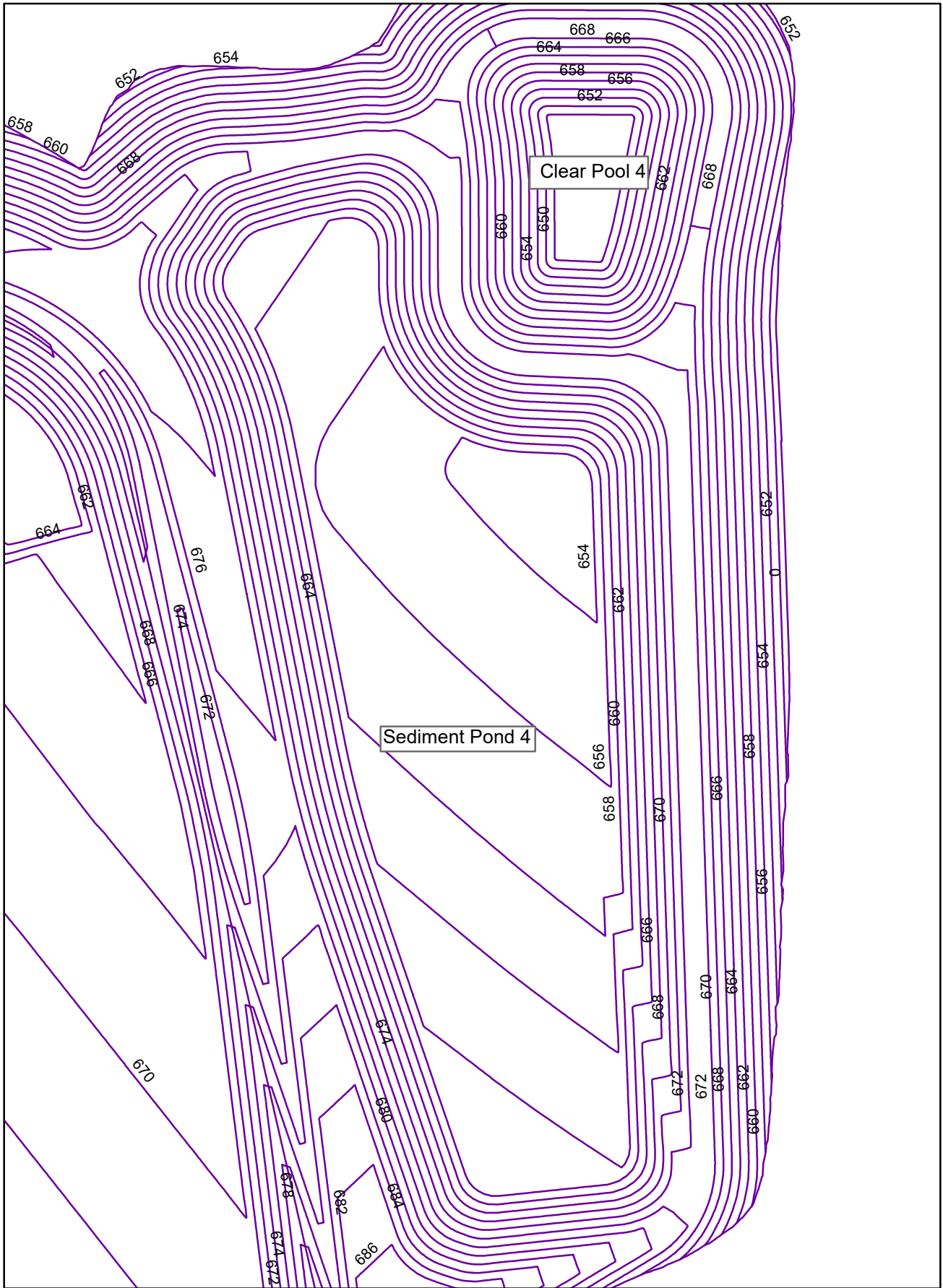
Pond	Elevation (ft)	Area (ft2)
Sediment Pond 5	660	1380
Sediment Pond 5	662	20229
Sediment Pond 5	664	41251
Sediment Pond 5	666	55549
Sediment Pond 5	668	68600
Sediment Pond 5	670	75873
Sediment Pond 5	672	83536
Sediment Pond 5	674	92692



Pond	Elevation (ft)	Area (ft2)
Clear Pool 5	658	1411
Clear Pool 5	660	2533
Clear Pool 5	662	3881
Clear Pool 5	664	5456
Clear Pool 5	666	7256
Clear Pool 5	668	9283
Clear Pool 5	670	11536
Clear Pool 5	672	13836
Clear Pool 5	674	16341

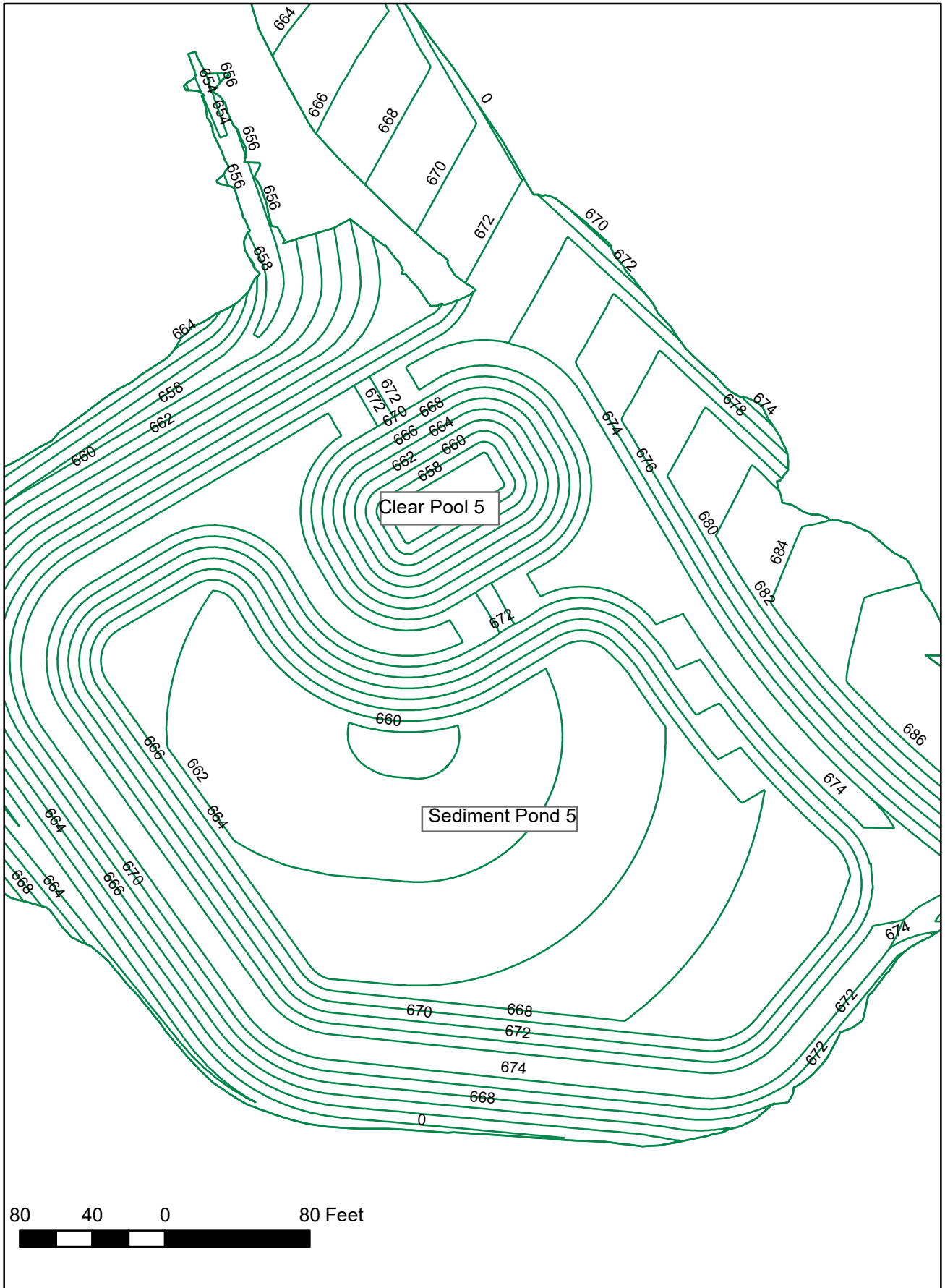


Storage Curve Contours



100 50 0 100 Feet

Storage Curve Contours





Attachment C

Perforated Riser Rating Curve Calculation



Sediment Pond 4

Basin Elevations		Principal Spillway 48" Dia. Riser & 48" Dia. Barrel	
Top of Berm	674 Feet	Dia.	48 inches
Emergency Spillway Crest	670 Feet	Dia.	4 Feet
Riser Rim	668 Feet	Perim.	12.6 Feet
Bottom of Basin	654 Feet	Area	12.6 SF

Elevation (FT)	Principal Spillway			Pipe Orifice Flow		Outlet ³	
	Head (FT)	Orifice ¹ (CFS)	Weir ² (CFS)	Hc (ft)	Q=C0A(2gHc)0.5 (cfs)	Head (FT)	Discharge (CFS)
654.0						0.0	0.0
654.5						0.5	0.0
655.0						1.0	0.0
655.5						1.5	0.0
656.0						2.0	0.0
656.5						2.5	0.0
657.0						3.0	0.0
657.5						3.5	0.0
658.0						4.0	0.0
658.5						4.5	0.0
659.0						5.0	0.0
659.5						5.5	0.0
660.0						6.0	0.0
660.5						6.5	0.0
661.0						7.0	0.0
661.5						7.5	0.0
662.0						8.0	0.0
662.5						8.5	0.0
663.0						9.0	0.0
663.5						9.5	0.0
664.0						10.0	0.0
664.5						10.5	0.0
665.0						11.0	0.0
665.5						11.5	0.0
666.0						12.0	0.0
666.5						12.5	0.0
667.0						13.0	0.0
667.5						13.5	0.0
668.0	0.0	0.0	0.0	0.5	0.0	14.0	0.0
668.5	0.5	42.8	13.7	1	60.5	14.5	13.7
669.0	1.0	60.5	38.8	1.5	74.1	15.0	38.8
669.5	1.5	74.1	71.3	2	85.5	15.5	71.3
670.0	2.0	85.6	109.7	2.5	95.6	16.0	85.6
670.5	2.5	95.7	153.3	3	104.8	16.5	95.7
671.0	3.0	104.8	201.6	3.5	113.2	17.0	104.8
671.5	3.5	113.2	254.0	4	121.0	17.5	113.2
672.0	4.0	121.0	310.3	4.5	128.3	18.0	121.0
672.5	4.5	128.4	370.3	5	135.2	18.5	128.4
673.0	5.0	135.3	433.7	5.5	141.8	19.0	135.3
673.5	5.5	141.9	500.4	6	148.2	19.5	141.9
674.0	6.0	148.2	570.1	6.5	154.2	20.0	148.2

(1) Discharge estimated with orifice equation:

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(2) Discharge estimated with broad-crested weir equation

$$Q = 3.087 \cdot L \cdot H^{3/2}$$

(3) Discharge is the minimum of orifice and weir flow



Clear Pool 4

Basin Elevations

Top of Berm	668 Feet
Emergency Spillway Crest	662 Feet
Riser Rim	660 Feet
Bottom of Basin	650 Feet

Principal Spillway 48" Dia. Riser & 48" Dia. Barrel

Dia.	48 Inches
Dia.	4 Feet
Perim.	12.6 Feet
Area	12.6 SF

Elevation (FT)	Principal Spillway			Pipe Orifice Flow		Outlet ³	
	Head (FT)	Orifice ¹ (CFS)	Weir ² (CFS)	Hc (ft)	Q=C0A(2gHc)0.5 (cfs)	Head (FT)	Discharge (CFS)
650				0		0.0	0.0
650.5				0.5		0.5	0.0
651.0				1.0		1.0	0.0
651.5				1.5		1.5	0.0
652.0				2.0		2.0	0.0
652.5				2.5		2.5	0.0
653.0				3.0		3.0	0.0
653.5				3.5		3.5	0.0
654.0				4.0		4.0	0.0
654.5				4.5		4.5	0.0
655.0				5.0		5.0	0.0
655.5				5.5		5.5	0.0
656.0				6.0		6.0	0.0
656.5				6.5		6.5	0.0
657.0				7.0		7.0	0.0
657.5				7.5		7.5	0.0
658.0				8.0		8.0	0.0
658.5				8.5		8.5	0.0
659.0				9.0		9.0	0.0
659.5				9.5		9.5	0.0
660.0	0.0	0.0	0.0	10.0	0.0	10.0	0.0
660.5	0.5	42.8	13.7	10.5	196.0	10.5	13.7
661.0	1.0	60.5	38.8	11.0	200.6	11.0	38.8
661.5	1.5	74.1	71.3	11.5	205.1	11.5	71.3
662.0	2.0	85.6	109.7	12.0	209.5	12.0	85.6
662.5	2.5	95.7	153.3	12.5	213.8	12.5	95.7
663.0	3.0	104.8	201.6	13.0	218.1	13.0	104.8
663.5	3.5	113.2	254.0	13.5	222.2	13.5	113.2
664.0	4.0	121.0	310.3	14.0	226.3	14.0	121.0
664.5	4.5	128.4	370.3	14.5	230.3	14.5	128.4
665.0	5.0	135.3	433.7	15.0	234.2	15.0	135.3
665.5	5.5	141.9	500.4	15.5	238.1	15.5	141.9
666.0	6.0	148.2	570.1	16.0	241.9	16.0	148.2
666.5	6.5	154.3	642.9	16.5	245.7	16.5	154.3
667.0	7.0	160.1	718.4	17.0	249.4	17.0	160.1
667.5	7.5	165.7	796.8	17.5	253.0	17.5	165.7
668.0	8.0	171.1	877.8	18.0	256.6	18.0	171.1

(1) Discharge estimated with orifice equation:

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(2) Discharge estimated with broad-crested weir equation

$$Q = 3.087 \cdot L \cdot H^{3/2}$$

(3) Discharge is the minimum of orifice and weir flow



Sediment Pond 5

Basin Elevations

Top of Berm	674 Feet
Emergency Spillway Crest	672 Feet
Riser Rim	670 Feet
Bottom of Basin	660 Feet

Principal Spillway 48" Dia. Riser & 48" Dia. Barrel

Dia.	48 Inches
Dia.	4 Feet
Perim.	12.6 Feet
Area	12.6 SF

Elevation (FT)	Principal Spillway			Pipe Orifice Flow		Outlet ³	
	Head (FT)	Orifice ¹ (CFS)	Weir ² (CFS)	Hc (ft)	Q=C0A(2gHc)0.5 (cfs)	Head (FT)	Discharge (CFS)
660.0				0		0.0	0.0
660.5				0.5		0.5	0.0
661.0				1		1.0	0.0
661.5				1.5		1.5	0.0
662.0				2		2.0	0.0
662.5				2.5		2.5	0.0
663.0				3		3.0	0.0
663.5				3.5		3.5	0.0
664.0				4		4.0	0.0
664.5				4.5		4.5	0.0
665.0				5		5.0	0.0
665.5				5.5		5.5	0.0
666.0				6		6.0	0.0
666.5				6.5		6.5	0.0
667.0				7		7.0	0.0
667.5				7.5		7.5	0.0
668.0				8		8.0	0.0
668.5				8.5		8.5	0.0
669.0				9		9.0	0.0
669.5				9.5		9.5	0.0
670.0	0.0	0.0	0.0	10	0.0	10.0	0.0
670.5	0.5	42.8	13.7	10.5	196.0	10.5	13.7
671.0	1.0	60.5	38.8	11	200.6	11.0	38.8
671.5	1.5	74.1	71.3	11.5	205.1	11.5	71.3
672.0	2.0	85.6	109.7	12	209.5	12.0	85.6
672.5	2.5	95.7	153.3	12.5	213.8	12.5	95.7
673.0	3.0	104.8	201.6	13	218.1	13.0	104.8
673.5	3.5	113.2	254.0	13.5	222.2	13.5	113.2
674.0	4.0	121.0	310.3	14	226.3	14.0	121.0

(1) Discharge estimated with orifice equation:

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(2) Discharge estimated with broad-crested weir equation

$$Q = 3.087 \cdot L \cdot H^{3/2}$$

(3) Discharge is the minimum of orifice and weir flow

Stage-Discharge Calculation
Georgia Power Company Plant Hammond
Huffaker Road



Clear Pool 5

Basin Elevations

Top of Berm	674 Feet
Emergency Spillway Crest	669 Feet
Riser Rim	665 Feet
Bottom of Basin	658 Feet

Principal Spillway 48" Dia. Riser & 48" Dia. Barrel

Dia.	48 Inches
Dia.	4 Feet
Perim.	12.6 Feet
Area	12.6 SF

Elevation (FT)	Principal Spillway			Pipe Orifice Flow		Outlet ³	
	Head (FT)	Orifice ¹ (CFS)	Weir ² (CFS)	Hc (ft)	Q=C0A(2gHc)0.5 (cfs)	Head (FT)	Discharge (CFS)
658.0				0.0		0.0	0.0
658.5				0.5		0.5	0.0
659.0				1.0		1.0	0.0
659.5				1.5		1.5	0.0
660.0				2.0		2.0	0.0
660.5				2.5		2.5	0.0
661.0				3.0		3.0	0.0
661.5				3.5		3.5	0.0
662.0				4.0		4.0	0.0
662.5				4.5		4.5	0.0
663.0				5.0		5.0	0.0
663.5				5.5		5.5	0.0
664.0				6.0		6.0	0.0
664.5				6.5		6.5	0.0
665.0	0.0	0.0	0.0	7.0	0.0	7.0	0.0
665.5	0.5	42.8	13.7	7.5	165.6	7.5	13.7
666.0	1.0	60.5	38.8	8.0	171.1	8.0	38.8
666.5	1.5	74.1	71.3	8.5	176.3	8.5	71.3
667.0	2.0	85.6	109.7	9.0	181.4	9.0	85.6
667.5	2.5	95.7	153.3	9.5	186.4	9.5	95.7
668.0	3.0	104.8	201.6	10.0	191.3	10.0	104.8
668.5	3.5	113.2	254.0	10.5	196.0	10.5	113.2
669.0	4.0	121.0	310.3	11.0	200.6	11.0	121.0
669.5	4.5	128.4	370.3	11.5	205.1	11.5	128.4
670.0	5.0	135.3	433.7	12.0	209.5	12.0	135.3
670.5	5.5	141.9	500.4	12.5	213.8	12.5	141.9
671.0	6.0	148.2	570.1	13.0	218.1	13.0	148.2
671.5	6.5	154.3	642.9	13.5	222.2	13.5	154.3
672.0	7.0	160.1	718.4	14.0	226.3	14.0	160.1
672.5	7.5	165.7	796.8	14.5	230.3	14.5	165.7
673.0	8.0	171.1	877.8	15.0	234.2	15.0	171.1
673.5	8.5	176.4	961.3	15.5	238.1	15.5	176.4
674.0	9.0	181.5	1047.4	16.0	241.9	16.0	181.5

(1) Discharge estimated with orifice equation:

$$Q = 0.6 \cdot A \cdot \sqrt{2gh}$$

(2) Discharge estimated with broad-crested weir equation

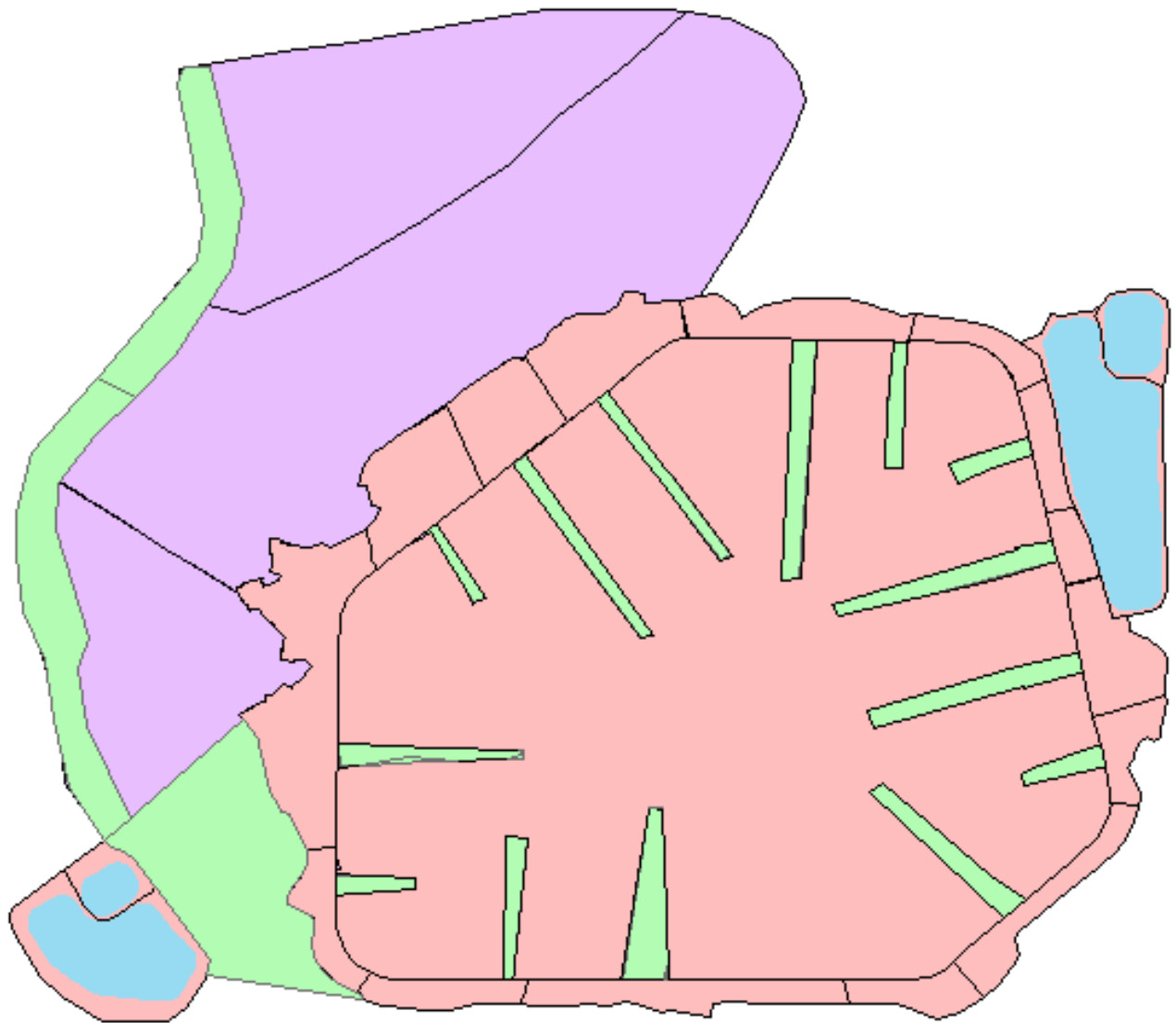
$$Q = 3.087 \cdot L \cdot H^{3/2}$$

(3) Discharge is the minimum of orifice and weir flow



Attachment D
Land Cover Figures

Closure Turf Curve Number



Legend

Closure Turf Curve Number

CN

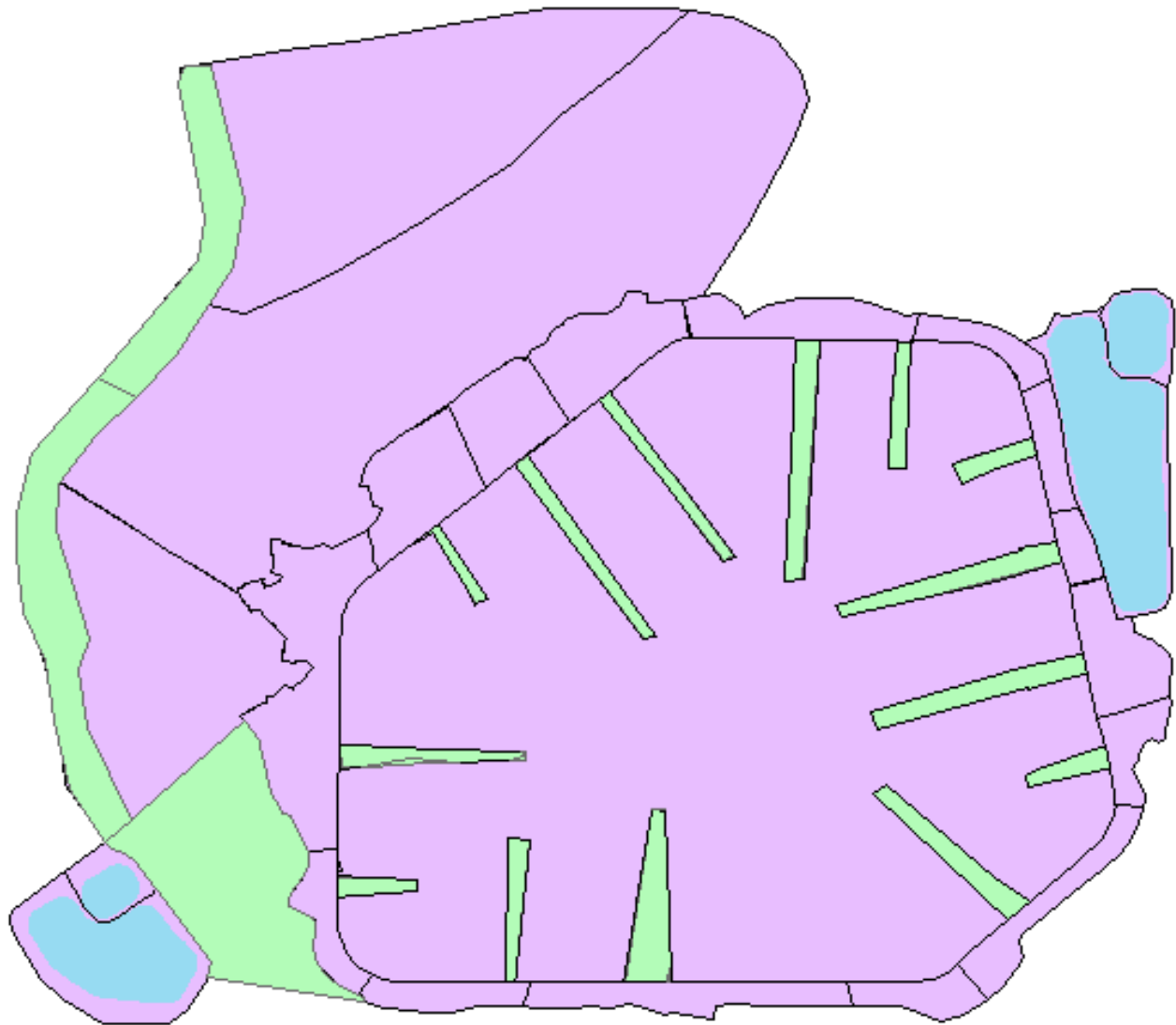
89

95

98

71

Vegetative Cover Curve Number



Legend

Vegcap

CN

71

89

98



Attachment E
PCSWMM Results

 WARNING 04: minimum elevation drop used for Conduit C17_1
 WARNING 02: maximum depth increased for Node J32
 WARNING 02: maximum depth increased for Node J89

Element Count

Number of rain gages 3
 Number of subcatchments ... 96
 Number of nodes 156
 Number of links 157
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_3.77in	SCS_Type_II_3.77in	INTENSITY	6 min.
SCS_Type_II_6.29in	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_7.85in	SCS_Type_II_7.85in	INTENSITY	6 min.

Subcatchment Summary

Outlet	Name	Area	Width	%Imperv	%Slope	Rain Gage
	S1	0.86	115.00	0.00	1.2000	SCS_Type_II_6.29in
J100						
	S10	0.53	780.00	0.00	1.4000	SCS_Type_II_6.29in
J130						
	S10_3	0.64	275.00	0.00	4.7000	SCS_Type_II_6.29in
J62						
	S10_5	0.62	315.00	0.00	4.4000	SCS_Type_II_6.29in
J7						
	S10_6	0.34	520.00	0.00	3.4000	SCS_Type_II_6.29in
J18						
	S11	1.01	400.00	0.00	1.3000	SCS_Type_II_6.29in
J9						
	S11_10	0.69	375.00	0.00	4.4000	SCS_Type_II_6.29in
J70						
	S11_3	0.77	330.00	0.00	4.7000	SCS_Type_II_6.29in
J74						
	S11_4	0.73	355.00	0.00	4.6000	SCS_Type_II_6.29in
J72						
	S11_8	0.63	380.00	0.00	1.4000	SCS_Type_II_6.29in
J104						
	S12	0.94	255.00	0.00	1.3000	SCS_Type_II_6.29in
J105						

S12_3 J128	0.37	355.00	0.00	3.4000	SCS_Type_II_6.29in
S12_4 J7	0.33	315.00	0.00	3.4000	SCS_Type_II_6.29in
S13 SU1	4.93	800.00	0.00	1.0000	SCS_Type_II_6.29in
S14 SU2	1.11	290.00	0.00	1.0000	SCS_Type_II_6.29in
S15 J133	1.54	490.00	0.00	0.5000	SCS_Type_II_6.29in
S16 J106	13.80	980.00	0.00	3.4000	SCS_Type_II_6.29in
S16_2 J94	14.83	740.00	0.00	1.3000	SCS_Type_II_6.29in
S16_3 J147	17.01	970.00	0.00	3.0000	SCS_Type_II_6.29in
S16_4 J64	1.78	415.00	0.00	0.5000	SCS_Type_II_6.29in
S16_5 J64	0.39	180.00	0.00	0.5000	SCS_Type_II_6.29in
S18 J76	0.91	320.00	0.00	0.5000	SCS_Type_II_6.29in
S18_1 J58	0.61	570.00	0.00	4.7000	SCS_Type_II_6.29in
S19_3 J97	0.45	350.00	0.00	3.4000	SCS_Type_II_6.29in
S2 J102	0.73	415.00	0.00	1.2000	SCS_Type_II_6.29in
S20_1 J60	0.73	450.00	0.00	4.6000	SCS_Type_II_6.29in
S21 J149	0.46	230.00	25.00	0.5000	SCS_Type_II_6.29in
S21_1 J59	0.66	470.00	0.00	4.4000	SCS_Type_II_6.29in
S22_2 J82	0.71	540.00	0.00	1.2000	SCS_Type_II_6.29in
S23 J33	1.34	125.00	0.00	0.5000	SCS_Type_II_6.29in
S23_1 J27	0.93	485.00	0.00	0.5000	SCS_Type_II_6.29in
S23_10 J25	0.73	275.00	0.00	0.5000	SCS_Type_II_6.29in
S23_11 J1	1.45	600.00	0.00	0.5000	SCS_Type_II_6.29in
S23_12 J22	0.57	190.00	0.00	0.5000	SCS_Type_II_6.29in
S23_13 J24	0.86	215.00	0.00	0.5000	SCS_Type_II_6.29in
S23_15 J8	1.20	570.00	0.00	0.5000	SCS_Type_II_6.29in
S23_2 J30	0.96	380.00	0.00	0.5000	SCS_Type_II_6.29in
S23_3 J28	1.05	415.00	0.00	0.5000	SCS_Type_II_6.29in
S23_4 J145	0.72	340.00	0.00	0.5000	SCS_Type_II_6.29in
S23_7 J143	0.88	350.00	0.00	0.5000	SCS_Type_II_6.29in
S23_8 J142	0.75	400.00	0.00	0.5000	SCS_Type_II_6.29in

S23_9	1.47	375.00	0.00	0.5000	SCS_Type_II_6.29in
J10					
S24	0.76	415.00	25.00	0.5000	SCS_Type_II_6.29in
J65					
S24_1	0.49	460.00	0.00	0.5000	SCS_Type_II_6.29in
J4					
S25	1.09	470.00	25.00	0.5000	SCS_Type_II_6.29in
J66					
S25_2	1.29	280.00	0.00	1.4000	SCS_Type_II_6.29in
J112					
S25_3	0.68	170.00	0.00	0.5000	SCS_Type_II_6.29in
J127					
S26	0.72	240.00	0.00	0.5000	SCS_Type_II_6.29in
J109					
S27	1.12	450.00	25.00	0.5000	SCS_Type_II_6.29in
J46					
S28	0.54	240.00	25.00	0.5000	SCS_Type_II_6.29in
J67					
S29	0.18	500.00	25.00	0.5000	SCS_Type_II_6.29in
J68					
S3	2.42	440.00	25.00	0.5000	SCS_Type_II_6.29in
J151					
S3_1	1.09	650.00	0.00	0.5000	SCS_Type_II_6.29in
J40					
S3_2	2.84	630.00	25.00	0.5000	SCS_Type_II_6.29in
J146					
S30	0.39	500.00	25.00	0.5000	SCS_Type_II_6.29in
J150					
S32	0.73	300.00	25.00	0.5000	SCS_Type_II_6.29in
J52					
S33	0.76	200.00	25.00	0.5000	SCS_Type_II_6.29in
J50					
S34	0.53	220.00	25.00	0.5000	SCS_Type_II_6.29in
J52					
S35_1	3.07	660.00	25.00	0.5000	SCS_Type_II_6.29in
J79					
S35_2	1.06	150.00	25.00	0.5000	SCS_Type_II_6.29in
J48					
S35_3	0.47	60.00	25.00	0.5000	SCS_Type_II_6.29in
J107					
S35_4	0.70	150.00	25.00	0.5000	SCS_Type_II_6.29in
J80					
S35_6	0.56	100.00	25.00	0.5000	SCS_Type_II_6.29in
J132					
S4	0.76	120.00	0.00	0.5000	SCS_Type_II_6.29in
J36					
S4_2	3.29	515.00	0.00	1.0000	SCS_Type_II_6.29in
J20					
S4_4	0.81	630.00	0.00	4.4000	SCS_Type_II_6.29in
J55					
S5_1	0.73	540.00	0.00	4.6000	SCS_Type_II_6.29in
J56					
S5_3	1.50	650.00	0.00	4.4000	SCS_Type_II_6.29in
J53					
S6	1.79	270.00	0.00	0.5000	SCS_Type_II_6.29in
J15					
S6_11	0.67	450.00	0.00	1.2000	SCS_Type_II_6.29in
J98					
S6_2	0.95	315.00	0.00	4.7000	SCS_Type_II_6.29in
J38					

S6_3	2.17	990.00	0.00	3.9000	SCS_Type_II_6.29in
J87					
S6_4	0.80	870.00	0.00	3.4000	SCS_Type_II_6.29in
J2					
S6_6	0.62	515.00	0.00	3.4000	SCS_Type_II_6.29in
J26					
S7_2	0.74	310.00	0.00	0.5000	SCS_Type_II_6.29in
J19					
S7_3	1.31	300.00	0.00	5.0000	SCS_Type_II_6.29in
J78					
S7_4	1.38	470.00	0.00	0.5000	SCS_Type_II_6.29in
J42					
S8	2.27	950.00	0.00	3.0000	SCS_Type_II_6.29in
J5					
S8_11	0.97	315.00	0.00	4.6000	SCS_Type_II_6.29in
J35					
S8_12	1.53	580.00	0.00	1.3000	SCS_Type_II_6.29in
J136					
S8_13	0.91	580.00	0.00	1.4000	SCS_Type_II_6.29in
J134					
S8_15	0.88	365.00	0.00	1.2000	SCS_Type_II_6.29in
J140					
S8_16	0.51	365.00	0.00	1.2000	SCS_Type_II_6.29in
J141					
S8_18	0.44	380.00	0.00	1.4000	SCS_Type_II_6.29in
J83					
S8_2	0.70	300.00	0.00	1.4000	SCS_Type_II_6.29in
J122					
S8_3	0.95	330.00	0.00	1.2000	SCS_Type_II_6.29in
J120					
S8_4	0.61	240.00	0.00	1.3000	SCS_Type_II_6.29in
J124					
S8_5	0.44	100.00	0.00	1.4000	SCS_Type_II_6.29in
J126					
S8_7	0.78	365.00	0.00	1.4000	SCS_Type_II_6.29in
J138					
S8_8	0.39	620.00	0.00	3.4000	SCS_Type_II_6.29in
J54					
S8_9	0.30	385.00	0.00	3.4000	SCS_Type_II_6.29in
J16					
S9	1.57	840.00	0.00	1.4000	SCS_Type_II_6.29in
J129					
S9_2	0.95	445.00	0.00	1.4000	SCS_Type_II_6.29in
J115					
S9_3	0.90	370.00	0.00	1.3000	SCS_Type_II_6.29in
J113					
S9_4	1.05	445.00	0.00	1.2000	SCS_Type_II_6.29in
J117					
S9_5	0.93	640.00	0.00	1.2000	SCS_Type_II_6.29in
J11					

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	708.00	2.00	0.0	

J10	JUNCTION	736.00	2.00	0.0
J100	JUNCTION	678.00	3.50	0.0
J101	JUNCTION	702.00	2.00	0.0
J102	JUNCTION	704.00	2.00	0.0
J103	JUNCTION	724.00	2.00	0.0
J104	JUNCTION	726.00	2.00	0.0
J105	JUNCTION	746.00	2.00	0.0
J106	JUNCTION	625.00	4.00	0.0
J107	JUNCTION	828.70	2.50	0.0
J108	JUNCTION	825.22	2.50	0.0
J109	JUNCTION	820.00	2.00	0.0
J11	JUNCTION	682.00	3.50	0.0
J110	JUNCTION	796.00	2.00	0.0
J111	JUNCTION	776.00	2.00	0.0
J112	JUNCTION	774.00	2.00	0.0
J113	JUNCTION	754.00	2.00	0.0
J114	JUNCTION	750.00	2.00	0.0
J115	JUNCTION	730.00	2.00	0.0
J116	JUNCTION	728.00	2.00	0.0
J117	JUNCTION	708.00	2.00	0.0
J118	JUNCTION	704.00	2.00	0.0
J119	JUNCTION	710.00	2.00	0.0
J12	JUNCTION	756.00	2.00	0.0
J120	JUNCTION	714.00	2.00	0.0
J121	JUNCTION	732.00	2.00	0.0
J122	JUNCTION	736.00	2.00	0.0
J123	JUNCTION	754.00	2.00	0.0
J124	JUNCTION	756.00	2.00	0.0
J125	JUNCTION	778.00	2.00	0.0
J126	JUNCTION	782.00	2.00	0.0
J127	JUNCTION	800.00	2.00	0.0
J128	JUNCTION	730.00	3.50	0.0
J129	JUNCTION	694.00	3.50	0.0
J13	JUNCTION	760.00	2.00	0.0
J130	JUNCTION	690.00	3.50	0.0
J131	JUNCTION	759.27	2.50	0.0
J132	JUNCTION	766.67	2.50	0.0
J133	JUNCTION	804.00	2.00	0.0
J134	JUNCTION	784.00	2.00	0.0
J135	JUNCTION	780.00	2.00	0.0
J136	JUNCTION	762.00	2.00	0.0
J137	JUNCTION	760.00	2.00	0.0
J138	JUNCTION	738.00	2.00	0.0
J139	JUNCTION	734.00	2.00	0.0
J14	JUNCTION	734.00	3.50	0.0
J140	JUNCTION	716.00	2.00	0.0
J141	JUNCTION	712.00	2.00	0.0
J142	JUNCTION	716.00	2.00	0.0
J143	JUNCTION	718.00	2.00	0.0
J144	JUNCTION	738.00	2.00	0.0
J145	JUNCTION	740.00	2.00	0.0
J146	JUNCTION	824.00	2.00	0.0
J147	JUNCTION	621.00	4.00	0.0
J148	JUNCTION	651.62	22.38	0.0
J149	JUNCTION	814.00	2.00	0.0
J15	JUNCTION	778.00	2.00	0.0
J150	JUNCTION	724.00	2.00	0.0

J151	JUNCTION	814.00	2.50	0.0
J152	JUNCTION	658.86	15.14	0.0
J16	JUNCTION	676.00	3.50	0.0
J17	JUNCTION	784.00	2.00	0.0
J18	JUNCTION	686.00	3.50	0.0
J19	JUNCTION	804.00	2.00	0.0
J2	JUNCTION	716.00	3.50	0.0
J20	JUNCTION	674.00	2.00	0.0
J21	JUNCTION	692.00	3.50	0.0
J22	JUNCTION	740.00	3.50	0.0
J23	JUNCTION	738.00	3.50	0.0
J24	JUNCTION	714.00	3.50	0.0
J25	JUNCTION	713.00	3.50	0.0
J26	JUNCTION	706.00	3.50	0.0
J27	JUNCTION	726.00	2.00	0.0
J28	JUNCTION	730.00	2.00	0.0
J29	JUNCTION	750.00	2.00	0.0
J30	JUNCTION	752.00	2.00	0.0
J31	JUNCTION	768.00	2.00	0.0
J32	JUNCTION	770.00	3.50	0.0
J33	JUNCTION	788.00	3.50	0.0
J34	JUNCTION	678.00	3.50	0.0
J35	JUNCTION	740.00	2.00	0.0
J37	JUNCTION	762.00	2.00	0.0
J38	JUNCTION	764.00	2.00	0.0
J39	JUNCTION	782.00	2.00	0.0
J4	JUNCTION	690.00	3.50	0.0
J40	JUNCTION	784.00	2.00	0.0
J41	JUNCTION	802.00	2.00	0.0
J42	JUNCTION	804.00	2.00	0.0
J43	JUNCTION	682.00	3.50	0.0
J44	JUNCTION	680.04	3.50	0.0
J45	JUNCTION	659.30	14.70	0.0
J46	JUNCTION	774.00	2.00	0.0
J47	JUNCTION	827.80	2.50	0.0
J48	JUNCTION	796.38	2.50	0.0
J49	JUNCTION	789.27	2.50	0.0
J5	JUNCTION	694.00	3.50	0.0
J50	JUNCTION	762.00	2.00	0.0
J51	JUNCTION	758.00	2.00	0.0
J52	JUNCTION	740.00	2.00	0.0
J53	JUNCTION	738.00	2.00	0.0
J54	JUNCTION	696.00	3.50	0.0
J55	JUNCTION	718.00	2.00	0.0
J56	JUNCTION	722.00	2.00	0.0
J57	JUNCTION	744.00	2.00	0.0
J58	JUNCTION	746.00	2.00	0.0
J59	JUNCTION	706.00	2.00	0.0
J6	JUNCTION	712.00	2.00	0.0
J60	JUNCTION	710.00	2.00	0.0
J61	JUNCTION	732.00	2.00	0.0
J62	JUNCTION	734.00	2.00	0.0
J63	JUNCTION	756.00	2.00	0.0
J64	JUNCTION	780.00	2.00	0.0
J65	JUNCTION	816.00	2.00	0.0
J66	JUNCTION	794.00	2.00	0.0
J67	JUNCTION	750.00	2.00	0.0

J68	JUNCTION	730.00	2.00	0.0
J69	JUNCTION	728.00	3.50	0.0
J7	JUNCTION	718.00	3.50	0.0
J70	JUNCTION	694.00	2.00	0.0
J71	JUNCTION	696.00	2.00	0.0
J72	JUNCTION	718.00	2.00	0.0
J73	JUNCTION	720.00	2.00	0.0
J74	JUNCTION	742.00	2.00	0.0
J75	JUNCTION	746.00	2.00	0.0
J76	JUNCTION	764.00	2.00	0.0
J77	JUNCTION	768.00	2.00	0.0
J78	JUNCTION	788.00	2.00	0.0
J79	JUNCTION	826.00	2.00	0.0
J8	JUNCTION	732.00	2.00	0.0
J80	JUNCTION	738.32	2.50	0.0
J81	JUNCTION	772.00	2.00	0.0
J82	JUNCTION	676.00	3.50	0.0
J83	JUNCTION	724.00	2.00	0.0
J86	JUNCTION	657.50	16.50	0.0
J87	JUNCTION	688.00	3.50	0.0
J88	JUNCTION	671.77	3.50	0.0
J89	JUNCTION	675.94	2.00	0.0
J9	JUNCTION	688.00	3.50	0.0
J90	JUNCTION	652.25	21.75	0.0
J91	JUNCTION	649.00	19.00	0.0
J94	JUNCTION	631.00	4.00	0.0
J96	JUNCTION	722.00	2.00	0.0
J97	JUNCTION	672.04	3.50	0.0
J98	JUNCTION	700.00	2.00	0.0
J99	JUNCTION	696.00	2.00	0.0
J3	OUTFALL	648.36	0.00	0.0
J36	OUTFALL	656.94	0.00	0.0
J84	OUTFALL	648.36	3.00	0.0
J85	OUTFALL	656.94	4.00	0.0
J92	OUTFALL	620.00	4.00	0.0
J93	OUTFALL	624.00	4.00	0.0
J95	OUTFALL	630.00	4.00	0.0
SU1	STORAGE	654.00	20.00	0.0
SU2	STORAGE	650.00	18.00	0.0
SU3	STORAGE	660.00	14.00	0.0
SU4	STORAGE	658.00	16.00	0.0

Link Summary

Name		From Node	To Node	Type	Length	%
Slope Roughness						

C1		J87	J43	CONDUIT	88.9	
6.7642	0.0150					
C1_1		J34	J89	CONDUIT	60.7	
3.4049	0.0150					
C1_2		J89	J20	CONDUIT	56.9	
3.4051	0.0150					
C1_4		J43	J34	CONDUIT	60.2	
6.6613	0.0150					

C10		J65	J66	CONDUIT	98.5
22.9117	0.0740				
C10_1		J11	J100	CONDUIT	273.8
1.4609	0.0200				
C10_2		J100	J82	CONDUIT	538.1
0.3717	0.0150				
C10_3		J14	J128	CONDUIT	229.0
1.7468	0.0200				
C10_5		J128	J69	CONDUIT	45.0
4.4460	0.0200				
C100		J126	J125	CONDUIT	42.3
9.5034	0.0740				
C101		J125	J124	CONDUIT	64.2
36.5061	0.0740				
C102		J124	J123	CONDUIT	40.0
5.0036	0.0740				
C103		J122	J121	CONDUIT	38.6
10.4264	0.0740				
C104		J123	J122	CONDUIT	58.0
32.6527	0.0740				
C105		J121	J120	CONDUIT	63.5
29.5553	0.0740				
C106		J120	J119	CONDUIT	39.3
10.2247	0.0740				
C107		J119	J9	CONDUIT	87.3
26.0250	0.0740				
C109		J133	J134	CONDUIT	98.5
20.7356	0.0740				
C11		J83	J96	CONDUIT	35.1
5.7117	0.0740				
C11_3		J16	J97	CONDUIT	184.2
2.1504	0.0200				
C11_4		J82	J97	CONDUIT	106.5
3.7193	0.0150				
C110		J134	J135	CONDUIT	39.8
10.1045	0.0740				
C111		J135	J136	CONDUIT	61.2
30.7487	0.0740				
C112		J136	J137	CONDUIT	15.0
13.4535	0.0740				
C113		J137	J138	CONDUIT	67.6
34.4374	0.0740				
C114		J138	J139	CONDUIT	15.0
27.6686	0.0740				
C115		J139	J140	CONDUIT	66.3
28.2217	0.0740				
C116		J140	J141	CONDUIT	15.0
27.6686	0.0740				
C117		J141	J130	CONDUIT	88.8
25.5861	0.0740				
C118		J145	J144	CONDUIT	32.6
6.1407	0.0740				
C119		J144	J143	CONDUIT	60.9
34.7474	0.0740				
C12		J69	J7	CONDUIT	264.2
3.7872	0.0200				
C12_1		J18	J44	CONDUIT	160.2
3.7240	0.0150				
C120		J143	J142	CONDUIT	41.9
4.7772	0.0740				

C121		J142	J129	CONDUIT	81.7
27.9455	0.0740				
C123		J147	J92	CONDUIT	120.0
0.8334	0.0120				
C13		J58	J57	CONDUIT	38.2
5.2446	0.0740				
C13_2		J54	J18	CONDUIT	291.1
3.4370	0.0200				
C13_4		J2	J54	CONDUIT	560.8
3.5689	0.0200				
C14		J106	J93	CONDUIT	145.0
0.6897	0.0120				
C14_1		J7	J26	CONDUIT	376.1
3.1921	0.0150				
C14_2		J26	J4	CONDUIT	466.4
3.4328	0.0150				
C14_3		J22	J23	CONDUIT	33.4
6.0035	0.0740				
C14_4		J24	J25	CONDUIT	39.9
2.5094	0.0740				
C14_5		J23	J24	CONDUIT	70.4
36.2702	0.0740				
C14_7		J25	J21	CONDUIT	88.7
24.3786	0.0740				
C15		J14	J2	CONDUIT	541.8
3.3244	0.0200				
C16		J44	J16	CONDUIT	127.5
3.1710	0.0200				
C16_1		J5	J21	CONDUIT	351.7
0.5687	0.0200				
C16_2		J21	J4	CONDUIT	199.4
1.0032	0.0150				
C17		J22	J23	CONDUIT	33.4
6.0035	0.0740				
C17_1		J5	J129	CONDUIT	738.2
0.0001	0.0200				
C17_3		J129	J130	CONDUIT	302.4
1.3227	0.0200				
C17_4		J130	J9	CONDUIT	300.0
0.6666	0.0200				
C18		J9	J11	CONDUIT	571.0
1.0508	0.0200				
C19		J10	J8	CONDUIT	25.0
16.2088	0.0740				
C2		J94	J95	CONDUIT	155.0
0.6452	0.0120				
C2_13		J4	J87	CONDUIT	149.6
1.3366	0.0120				
C2_3		J90	J148	CONDUIT	130.0
0.4846	0.0220				
C2_4		J148	SU2	CONDUIT	50.0
3.2417	0.0220				
C20		J8	J6	CONDUIT	60.0
35.3553	0.0740				
C21		J6	J1	CONDUIT	15.0
27.6686	0.0740				
C22		J1	J5	CONDUIT	70.9
20.1353	0.0740				
C23		J145	J144	CONDUIT	32.6
6.1407	0.0740				

C24		J33	J32	CONDUIT	81.6
22.6025	0.0740				
C25		J46	J81	CONDUIT	25.4
7.9029	0.0740				
C26		J81	J67	CONDUIT	74.4
30.9459	0.0740				
C27		J32	J31	CONDUIT	40.1
4.9949	0.0740				
C28		J31	J30	CONDUIT	52.9
31.7148	0.0740				
C29		J30	J29	CONDUIT	35.4
5.6631	0.0740				
C3		J20	SU3	CONDUIT	251.1
5.5847	0.0100				
C3_7		J97	J88	CONDUIT	60.0
0.4500	0.0120				
C30		J29	J28	CONDUIT	65.4
32.0987	0.0740				
C31		J28	J27	CONDUIT	39.4
10.1966	0.0740				
C32		J27	J26	CONDUIT	78.6
26.3282	0.0740				
C33		J67	J68	CONDUIT	104.5
19.4928	0.0740				
C34		J42	J41	CONDUIT	33.6
5.9562	0.0740				
C35		J41	J40	CONDUIT	61.5
30.6141	0.0740				
C36		J40	J39	CONDUIT	30.0
6.6815	0.0740				
C37		J39	J38	CONDUIT	56.5
33.6229	0.0740				
C38		J38	J37	CONDUIT	30.0
6.6815	0.0740				
C39		J37	J35	CONDUIT	100.6
22.4227	0.0740				
C4		J88	SU1	CONDUIT	212.9
8.3770	0.0010				
C40		J68	J69	CONDUIT	15.7
12.8393	0.0740				
C41_1		J35	J150	CONDUIT	47.4
35.8763	0.0740				
C41_2		J150	J7	CONDUIT	34.5
17.6562	0.0740				
C42		J66	J46	CONDUIT	98.5
20.7315	0.0740				
C42_3		J131	J80	CONDUIT	255.6
8.2227	0.0150				
C42_4		J80	J128	CONDUIT	156.0
5.3398	0.0150				
C43		J132	J131	CONDUIT	87.3
8.5086	0.0150				
C44		J49	J132	CONDUIT	269.4
8.4192	0.0150				
C45		J79	J133	CONDUIT	64.2
36.4971	0.0740				
C45_1		J108	J151	CONDUIT	119.1
9.4596	0.0200				
C45_2		J48	J49	CONDUIT	65.3
10.9448	0.0200				

C45_3		J151	J48	CONDUIT	245.2
7.2048	0.0200				
C45_4		J47	J108	CONDUIT	43.8
5.9007	0.0200				
C46		J146	J42	CONDUIT	64.8
32.4246	0.0740				
C47		J149	J78	CONDUIT	124.9
21.2854	0.0740				
C48		J50	J51	CONDUIT	42.4
9.4717	0.0740				
C49		J51	J52	CONDUIT	55.1
34.5825	0.0740				
C5		J19	J17	CONDUIT	85.6
24.0269	0.0740				
C50		J52	J53	CONDUIT	39.5
5.0703	0.0740				
C51		J53	J2	CONDUIT	80.5
28.4005	0.0740				
C52		J57	J56	CONDUIT	67.1
34.7198	0.0740				
C53		J56	J55	CONDUIT	40.4
9.9571	0.0740				
C54		J55	J54	CONDUIT	81.9
27.8818	0.0740				
C55_1		J45	J152	CONDUIT	90.0
0.4889	0.0220				
C55_2		J152	SU4	CONDUIT	28.9
2.9723	0.0220				
C56		J86	J85	CONDUIT	120.0
0.4667	0.0220				
C56_1		J107	J47	CONDUIT	32.0
2.8136	0.0200				
C6		J17	J15	CONDUIT	25.0
24.7226	0.0740				
C60		J64	J63	CONDUIT	117.9
20.7903	0.0740				
C61		J63	J62	CONDUIT	86.6
26.2678	0.0740				
C62		J62	J61	CONDUIT	40.1
4.9939	0.0740				
C63		J61	J60	CONDUIT	65.6
35.5871	0.0740				
C64		J59	J18	CONDUIT	71.4
29.1824	0.0740				
C65		J60	J59	CONDUIT	43.5
9.2395	0.0740				
C69		J78	J77	CONDUIT	70.5
29.5760	0.0740				
C7		J15	J13	CONDUIT	60.1
31.3842	0.0740				
C70		J77	J76	CONDUIT	47.2
8.5043	0.0740				
C71		J76	J75	CONDUIT	55.8
34.0649	0.0740				
C72		J75	J74	CONDUIT	45.1
8.9009	0.0740				
C73		J74	J73	CONDUIT	63.9
36.6590	0.0740				
C74		J73	J72	CONDUIT	38.7
5.1741	0.0740				

C75		J72	J71	CONDUIT	69.7
33.2437	0.0740				
C76		J71	J70	CONDUIT	38.8
5.1583	0.0740				
C77		J70	J16	CONDUIT	66.2
28.2346	0.0740				
C78		J96	J98	CONDUIT	67.5
34.4523	0.0740				
C79		J98	J99	CONDUIT	44.1
9.1130	0.0740				
C8		J13	J12	CONDUIT	40.1
10.0281	0.0740				
C80		J99	J82	CONDUIT	80.3
25.7047	0.0740				
C81		J105	J104	CONDUIT	69.2
30.1873	0.0740				
C82		J104	J103	CONDUIT	34.6
5.7842	0.0740				
C83		J103	J102	CONDUIT	64.6
32.5506	0.0740				
C84		J102	J101	CONDUIT	43.4
4.6107	0.0740				
C85		J101	J100	CONDUIT	83.8
29.9100	0.0740				
C88		J109	J110	CONDUIT	127.9
19.1048	0.0740				
C89		J110	J111	CONDUIT	64.7
32.5183	0.0740				
C9		J12	J10	CONDUIT	45.0
49.6139	0.0740				
C90		J111	J112	CONDUIT	39.1
5.1255	0.0740				
C91		J112	J113	CONDUIT	64.9
32.4080	0.0740				
C92		J113	J114	CONDUIT	39.9
10.0822	0.0740				
C93		J114	J115	CONDUIT	65.6
32.0312	0.0740				
C94		J115	J116	CONDUIT	12.0
16.9031	0.0740				
C95		J116	J117	CONDUIT	63.6
33.1242	0.0740				
C96		J117	J118	CONDUIT	15.0
27.6686	0.0740				
C97		J118	J11	CONDUIT	89.1
25.4672	0.0740				
C99		J127	J126	CONDUIT	85.5
21.5287	0.0740				
OL1_2		J91	J84	CONDUIT	130.0
0.4923	0.0220				
W1		SU1	SU2	WEIR	
W2		SU3	SU4	WEIR	
W3		SU2	J3	WEIR	
W4		SU4	J36	WEIR	
C2_1		SU1	J90	OUTLET	
C41		SU3	J45	OUTLET	
OL1		SU4	J86	OUTLET	
OL1_1		SU2	J91	OUTLET	

 Cross Section Summary

Full Conduit Flow	Shape	Full Depth	Full Area	Hyd. Rad.	Max. Width	No. of Barrels
C1 1827.23	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C1_1 1296.40	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C1_2 1767.72	TRAPEZOIDAL	2.00	80.00	1.33	60.00	1
C1_4 1813.29	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C10 217.24	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C10_1 709.36	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_2 477.06	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_3 775.68	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_5 1237.49	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C100 139.91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C101 274.22	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C102 101.52	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C103 146.55	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C104 259.34	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C105 246.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C106 145.12	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C107 231.53	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C109 206.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11 108.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11_3 860.62	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C11_4 1509.12	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C110 144.27	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C111 251.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C112 166.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C113 266.33	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

C114 238.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C115 241.10	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C116 238.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C117 229.57	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C118 112.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C119 267.53	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C12 1142.13	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C12_1 1510.09	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C120 99.20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C121 239.92	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C123 142.06	CIRCULAR	4.00	12.57	1.00	4.00	1
C13 103.94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C13_2 1088.04	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C13_4 1108.72	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14 129.23	CIRCULAR	4.00	12.57	1.00	4.00	1
C14_1 1398.09	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_2 1449.83	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_3 388.65	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_4 251.27	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_5 955.28	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_7 783.18	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C15 1070.07	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16 1045.10	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16_1 442.58	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16_2 783.76	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17 111.20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C17_1 6.83	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17_3 674.98	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17_4 479.17	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C18 601.61	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1

C19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
182.72						
C2	CIRCULAR	4.00	12.57	1.00	4.00	1
124.99						
C2_13	RECT_CLOSED	3.00	18.00	1.00	6.00	2
257.70						
C2_3	CIRCULAR	4.00	12.57	1.00	4.00	1
59.09						
C2_4	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
269.86						
C21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
238.73						
C22	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
203.65						
C23	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
112.47						
C24	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
754.11						
C25	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
127.59						
C26	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
252.47						
C27	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
101.43						
C28	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
255.59						
C29	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
108.00						
C3	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C3_7	RECT_CLOSED	3.00	18.00	1.00	6.00	3
149.53						
C30	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
257.13						
C31	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
144.92						
C32	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
232.87						
C33	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
200.38						
C34	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
110.76						
C35	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
251.11						
C36	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
117.31						
C37	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
263.16						
C38	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
117.31						
C39	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
214.91						
C4	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C40	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
162.62						
C41_1	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
271.84						

C41_2 190.70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C42 206.64	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C42_3 817.35	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C42_4 658.66	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C43 831.44	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C44 827.06	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45 274.18	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C45_1 657.51	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_2 707.24	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_3 573.82	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_4 519.29	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C46 258.43	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C47 209.39	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C48 139.68	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C49 266.89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C5 222.46	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C50 102.19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C51 241.86	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C52 267.42	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C53 143.21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C54 239.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C55_1 59.35	CIRCULAR	4.00	12.57	1.00	4.00	1
C55_2 0.00	DUMMY	0.00	0.00	0.00	0.00	1
C56 57.98	CIRCULAR	4.00	12.57	1.00	4.00	1
C56_1 358.59	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C6 225.66	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C60 206.94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C61 232.61	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C62 101.42	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C63 270.74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

C64	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
245.17						
C65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
137.95						
C69	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
246.82						
C7	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
254.25						
C70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
132.35						
C71	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
264.89						
C72	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
135.40						
C73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
274.79						
C74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
103.23						
C75	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
261.68						
C76	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
103.08						
C77	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
241.16						
C78	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
266.39						
C79	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
137.01						
C8	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
143.72						
C80	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
230.10						
C81	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
249.36						
C82	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
109.15						
C83	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.93						
C84	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
97.45						
C85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
248.21						
C88	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
198.37						
C89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.81						
C9	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
319.68						
C90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
102.75						
C91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.37						
C92	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
144.11						
C93	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
256.86						
C94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
186.59						
C95	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
261.21						

C96	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
238.73						
C97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
229.03						
C99	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
210.58						
OL1_2	CIRCULAR	3.00	7.07	0.75	3.00	1
27.65						

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

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
Infiltration Method CURVE_NUMBER
Flow Routing Method DYNWAVE
Surcharge Method EXTRAN
Starting Date 10/18/2022 00:00:00
Ending Date 10/19/2022 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00
Routing Time Step 5.00 sec
Variable Time Step YES
Maximum Trials 8
Number of Threads 8
Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	72.393	6.290
Evaporation Loss	0.000	0.000
Infiltration Loss	25.103	2.181
Surface Runoff	45.913	3.989
Final Storage	1.463	0.127
Continuity Error (%)	-0.119	

***** Volume Volume

Flow Routing Continuity	acre-feet	10 ⁶ gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	45.940	14.970
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	17.647	5.750
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	9.276	3.023
Final Stored Volume	37.572	12.244
Continuity Error (%)	-0.006	

Time-Step Critical Elements

Link C116 (83.18%)

Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

Minimum Time Step	:	0.60 sec
Average Time Step	:	3.10 sec
Maximum Time Step	:	5.00 sec
Percent in Steady State	:	-0.00
Average Iterations per Step	:	2.00
Percent Not Converging	:	0.00
Time Step Frequencies	:	
5.000 - 3.155 sec	:	44.51 %
3.155 - 1.991 sec	:	40.30 %
1.991 - 1.256 sec	:	10.09 %
1.256 - 0.792 sec	:	5.10 %
0.792 - 0.500 sec	:	0.00 %

Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Total	Peak	Total	Evap	Infil	Runoff
in	in	Runoff	Runoff	Runoff	in	in	in
	10 ⁶ gal	in	in	Coeff	in	in	
		CFS					

S1			6.29	0.00	0.00	2.03	0.00
4.13	4.13	0.10	3.62	0.656			
S10			6.29	0.00	0.00	2.40	0.00
3.83	3.83	0.06	3.16	0.609			
S10_3			6.29	0.00	0.00	2.25	0.00
3.97	3.97	0.07	3.72	0.631			
S10_5			6.29	0.00	0.00	2.25	0.00
3.97	3.97	0.07	3.67	0.631			
S10_6			6.29	0.00	0.00	2.40	0.00
3.83	3.83	0.04	2.07	0.609			
S11			6.29	0.00	0.00	1.71	0.00
4.50	4.50	0.12	5.97	0.715			
S11_10			6.29	0.00	0.00	2.40	0.00
3.82	3.82	0.07	3.93	0.608			
S11_3			6.29	0.00	0.00	2.40	0.00
3.82	3.82	0.08	4.31	0.607			
S11_4			6.29	0.00	0.00	2.40	0.00
3.82	3.82	0.08	4.15	0.608			
S11_8			6.29	0.00	0.00	2.40	0.00
3.81	3.81	0.07	3.37	0.606			
S12			6.29	0.00	0.00	2.40	0.00
3.79	3.79	0.10	4.18	0.602			
S12_3			6.29	0.00	0.00	2.33	0.00
3.90	3.90	0.04	2.24	0.621			
S12_4			6.29	0.00	0.00	2.33	0.00
3.90	3.90	0.03	1.99	0.621			
S13			6.29	0.00	0.00	2.48	0.00
3.69	3.69	0.49	18.68	0.586			
S14			6.29	0.00	0.00	2.48	0.00
3.71	3.71	0.11	4.71	0.590			
S15			6.29	0.00	0.00	2.40	0.00
3.77	3.77	0.16	6.49	0.600			
S16			6.29	0.00	0.00	2.03	0.00
4.12	4.12	1.54	56.00	0.655			
S16_2			6.29	0.00	0.00	2.40	0.00
3.68	3.68	1.48	36.67	0.585			
S16_3			6.29	0.00	0.00	2.25	0.00
3.88	3.88	1.79	58.00	0.616			
S16_4			6.29	0.00	0.00	2.25	0.00
3.91	3.91	0.19	7.24	0.621			
S16_5			6.29	0.00	0.00	2.18	0.00
4.01	4.01	0.04	1.83	0.638			
S18			6.29	0.00	0.00	2.40	0.00
3.78	3.78	0.09	3.91	0.601			
S18_1			6.29	0.00	0.00	2.40	0.00
3.83	3.83	0.06	3.64	0.609			
S19_3			6.29	0.00	0.00	2.25	0.00
3.98	3.98	0.05	2.75	0.632			
S2			6.29	0.00	0.00	2.48	0.00
3.74	3.74	0.07	3.73	0.594			
S20_1			6.29	0.00	0.00	2.18	0.00
4.05	4.05	0.08	4.52	0.644			
S21			6.29	0.00	0.00	1.75	1.56
2.91	4.47	0.06	2.75	0.711			
S21_1			6.29	0.00	0.00	1.12	0.00
5.11	5.11	0.09	5.08	0.813			
S22_2			6.29	0.00	0.00	2.48	0.00
3.74	3.74	0.07	3.82	0.595			

S23			6.29	0.00	0.00	2.48	0.00
3.62	3.62	0.13	3.49	0.576			
S23_1			6.29	0.00	0.00	2.48	0.00
3.72	3.72	0.09	4.14	0.592			
S23_10			6.29	0.00	0.00	2.25	0.00
3.93	3.93	0.08	3.32	0.625			
S23_11			6.29	0.00	0.00	2.40	0.00
3.79	3.79	0.15	6.41	0.602			
S23_12			6.29	0.00	0.00	2.18	0.00
4.00	4.00	0.06	2.56	0.636			
S23_13			6.29	0.00	0.00	2.40	0.00
3.76	3.76	0.09	3.41	0.598			
S23_15			6.29	0.00	0.00	2.48	0.00
3.72	3.72	0.12	5.30	0.591			
S23_2			6.29	0.00	0.00	2.25	0.00
3.93	3.93	0.10	4.37	0.625			
S23_3			6.29	0.00	0.00	2.40	0.00
3.78	3.78	0.11	4.59	0.602			
S23_4			6.29	0.00	0.00	2.40	0.00
3.79	3.79	0.07	3.24	0.603			
S23_7			6.29	0.00	0.00	2.33	0.00
3.86	3.86	0.09	3.92	0.613			
S23_8			6.29	0.00	0.00	2.48	0.00
3.72	3.72	0.08	3.35	0.592			
S23_9			6.29	0.00	0.00	2.25	0.00
3.91	3.91	0.16	6.14	0.622			
S24			6.29	0.00	0.00	1.69	1.56
2.97	4.53	0.09	4.61	0.720			
S24_1			6.29	0.00	0.00	1.38	0.00
4.84	4.84	0.06	3.36	0.769			
S25			6.29	0.00	0.00	1.69	1.56
2.96	4.52	0.13	6.42	0.719			
S25_2			6.29	0.00	0.00	2.40	0.00
3.78	3.78	0.13	5.57	0.601			
S25_3			6.29	0.00	0.00	2.18	0.00
3.99	3.99	0.07	2.90	0.634			
S26			6.29	0.00	0.00	2.40	0.00
3.78	3.78	0.07	3.06	0.600			
S27			6.29	0.00	0.00	1.52	1.56
3.13	4.69	0.14	6.78	0.746			
S28			6.29	0.00	0.00	1.69	1.56
2.96	4.52	0.07	3.20	0.719			
S29			6.29	0.00	0.00	1.63	1.56
3.04	4.61	0.02	1.25	0.732			
S3			6.29	0.00	0.00	1.86	1.56
2.77	4.33	0.28	11.26	0.688			
S3_1			6.29	0.00	0.00	2.33	0.00
3.87	3.87	0.11	5.29	0.616			
S3_2			6.29	0.00	0.00	1.69	1.56
2.94	4.50	0.35	14.52	0.716			
S30			6.29	0.00	0.00	1.63	1.56
3.04	4.60	0.05	2.62	0.731			
S32			6.29	0.00	0.00	1.69	1.56
2.96	4.52	0.09	4.23	0.719			
S33			6.29	0.00	0.00	1.80	1.56
2.83	4.40	0.09	3.90	0.699			
S34			6.29	0.00	0.00	1.86	1.56
2.79	4.35	0.06	2.97	0.692			
S35_1			6.29	0.00	0.00	1.69	1.56
2.94	4.50	0.38	15.60	0.716			

S35_2			6.29	0.00	0.00	1.75	1.56
2.87	4.43	0.13	4.77	0.704			
S35_3			6.29	0.00	0.00	1.75	1.56
2.86	4.42	0.06	2.05	0.703			
S35_4			6.29	0.00	0.00	1.63	1.56
3.00	4.56	0.09	3.62	0.725			
S35_6			6.29	0.00	0.00	1.86	1.56
2.77	4.33	0.07	2.61	0.688			
S4			6.29	0.00	0.00	2.48	0.00
3.66	3.66	0.08	2.53	0.582			
S4_2			6.29	0.00	0.00	1.12	0.00
5.04	5.04	0.45	17.21	0.801			
S4_4			6.29	0.00	0.00	2.33	0.00
3.90	3.90	0.09	4.86	0.620			
S5_1			6.29	0.00	0.00	2.18	0.00
4.05	4.05	0.08	4.58	0.644			
S5_3			6.29	0.00	0.00	2.33	0.00
3.89	3.89	0.16	8.51	0.619			
S6			6.29	0.00	0.00	2.25	0.00
3.88	3.88	0.19	6.30	0.617			
S6_11			6.29	0.00	0.00	2.03	0.00
4.19	4.19	0.08	3.98	0.667			
S6_2			6.29	0.00	0.00	2.33	0.00
3.89	3.89	0.10	5.18	0.618			
S6_3			6.29	0.00	0.00	2.25	0.00
3.97	3.97	0.23	12.54	0.631			
S6_4			6.29	0.00	0.00	2.25	0.00
3.98	3.98	0.09	4.95	0.633			
S6_6			6.29	0.00	0.00	2.48	0.00
3.75	3.75	0.06	3.55	0.597			
S7_2			6.29	0.00	0.00	2.25	0.00
3.94	3.94	0.08	3.40	0.626			
S7_3			6.29	0.00	0.00	2.18	0.00
4.03	4.03	0.14	7.01	0.641			
S7_4			6.29	0.00	0.00	2.33	0.00
3.85	3.85	0.14	6.01	0.612			
S8			6.29	0.00	0.00	2.25	0.00
3.96	3.96	0.24	12.68	0.630			
S8_11			6.29	0.00	0.00	2.25	0.00
3.96	3.96	0.10	5.39	0.630			
S8_12			6.29	0.00	0.00	2.10	0.00
4.10	4.10	0.17	8.00	0.652			
S8_13			6.29	0.00	0.00	2.40	0.00
3.81	3.81	0.09	4.93	0.606			
S8_15			6.29	0.00	0.00	2.33	0.00
3.88	3.88	0.09	4.37	0.616			
S8_16			6.29	0.00	0.00	2.40	0.00
3.82	3.82	0.05	2.76	0.607			
S8_18			6.29	0.00	0.00	2.33	0.00
3.90	3.90	0.05	2.55	0.619			
S8_2			6.29	0.00	0.00	2.33	0.00
3.88	3.88	0.07	3.56	0.617			
S8_3			6.29	0.00	0.00	2.33	0.00
3.87	3.87	0.10	4.49	0.615			
S8_4			6.29	0.00	0.00	2.40	0.00
3.80	3.80	0.06	2.95	0.604			
S8_5			6.29	0.00	0.00	2.18	0.00
4.01	4.01	0.05	2.02	0.637			
S8_7			6.29	0.00	0.00	2.48	0.00
3.73	3.73	0.08	3.86	0.594			

S8_8			6.29	0.00	0.00	2.25	0.00
3.98	3.98	0.04	2.47	0.633			
S8_9			6.29	0.00	0.00	2.18	0.00
4.06	4.06	0.03	1.92	0.645			
S9			6.29	0.00	0.00	2.48	0.00
3.74	3.74	0.16	7.99	0.594			
S9_2			6.29	0.00	0.00	2.48	0.00
3.73	3.73	0.10	4.70	0.594			
S9_3			6.29	0.00	0.00	2.40	0.00
3.80	3.80	0.09	4.39	0.605			
S9_4			6.29	0.00	0.00	2.03	0.00
4.18	4.18	0.12	5.74	0.665			
S9_5			6.29	0.00	0.00	2.33	0.00
3.89	3.89	0.10	5.13	0.618			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.13	0.74	708.74	0 12:00	0.74
J10	JUNCTION	0.10	0.59	736.59	0 12:00	0.59
J100	JUNCTION	0.37	1.98	679.98	0 11:58	1.98
J101	JUNCTION	0.06	0.41	702.41	0 11:55	0.41
J102	JUNCTION	0.13	0.74	704.74	0 11:54	0.74
J103	JUNCTION	0.05	0.32	724.32	0 11:54	0.32
J104	JUNCTION	0.10	0.55	726.55	0 11:54	0.55
J105	JUNCTION	0.04	0.23	746.23	0 12:00	0.23
J106	JUNCTION	0.40	2.12	627.12	0 12:00	2.12
J107	JUNCTION	0.04	0.21	828.91	0 11:54	0.21
J108	JUNCTION	0.03	0.15	825.37	0 11:54	0.15
J109	JUNCTION	0.04	0.23	820.23	0 12:00	0.23
J11	JUNCTION	0.27	1.55	683.55	0 11:58	1.55
J110	JUNCTION	0.03	0.19	796.19	0 12:00	0.19
J111	JUNCTION	0.05	0.32	776.32	0 12:00	0.32
J112	JUNCTION	0.05	0.35	774.35	0 12:00	0.35
J113	JUNCTION	0.10	0.62	754.62	0 12:00	0.62
J114	JUNCTION	0.07	0.43	750.43	0 12:00	0.43
J115	JUNCTION	0.10	0.62	730.62	0 12:00	0.62
J116	JUNCTION	0.08	0.50	728.50	0 12:00	0.50
J117	JUNCTION	0.10	0.62	708.62	0 11:55	0.62
J118	JUNCTION	0.10	0.63	704.63	0 11:55	0.63
J119	JUNCTION	0.08	0.51	710.51	0 11:56	0.51
J12	JUNCTION	0.06	0.33	756.33	0 12:00	0.33
J120	JUNCTION	0.11	0.68	714.68	0 11:56	0.68
J121	JUNCTION	0.06	0.41	732.41	0 12:00	0.41
J122	JUNCTION	0.09	0.57	736.57	0 12:00	0.57
J123	JUNCTION	0.05	0.33	754.33	0 12:00	0.32
J124	JUNCTION	0.11	0.60	756.60	0 12:00	0.60
J125	JUNCTION	0.04	0.24	778.24	0 12:00	0.24
J126	JUNCTION	0.06	0.38	782.38	0 12:00	0.38
J127	JUNCTION	0.03	0.21	800.21	0 12:00	0.21
J128	JUNCTION	0.09	0.54	730.54	0 11:55	0.54

J129	JUNCTION	0.11	0.71	694.71	0	12:00	0.71
J13	JUNCTION	0.10	0.55	760.55	0	12:00	0.55
J130	JUNCTION	0.25	1.46	691.46	0	11:56	1.46
J131	JUNCTION	0.08	0.46	759.73	0	11:55	0.46
J132	JUNCTION	0.08	0.46	767.13	0	11:54	0.46
J133	JUNCTION	0.11	0.65	804.65	0	11:54	0.65
J134	JUNCTION	0.16	0.91	784.91	0	11:54	0.90
J135	JUNCTION	0.11	0.65	780.65	0	11:54	0.65
J136	JUNCTION	0.16	0.94	762.94	0	11:54	0.94
J137	JUNCTION	0.12	0.73	760.73	0	11:54	0.73
J138	JUNCTION	0.14	0.82	738.82	0	11:54	0.82
J139	JUNCTION	0.13	0.81	734.81	0	11:54	0.81
J14	JUNCTION	0.00	0.00	734.00	0	00:00	0.00
J140	JUNCTION	0.14	0.86	716.86	0	11:54	0.86
J141	JUNCTION	0.15	0.90	712.90	0	11:55	0.90
J142	JUNCTION	0.06	0.40	716.40	0	12:00	0.40
J143	JUNCTION	0.10	0.58	718.58	0	12:00	0.58
J144	JUNCTION	0.03	0.19	738.19	0	12:00	0.19
J145	JUNCTION	0.03	0.23	740.23	0	12:00	0.23
J146	JUNCTION	0.08	0.46	824.46	0	11:54	0.46
J147	JUNCTION	0.41	2.09	623.09	0	12:00	2.09
J148	JUNCTION	0.00	0.00	651.62	0	00:00	0.00
J149	JUNCTION	0.03	0.20	814.20	0	11:54	0.20
J15	JUNCTION	0.06	0.37	778.37	0	12:00	0.37
J150	JUNCTION	0.15	0.91	724.91	0	11:55	0.91
J151	JUNCTION	0.08	0.44	814.44	0	11:54	0.44
J152	JUNCTION	0.01	0.02	658.88	0	15:44	0.02
J16	JUNCTION	0.20	1.22	677.22	0	11:55	1.22
J17	JUNCTION	0.03	0.22	784.22	0	12:00	0.22
J18	JUNCTION	0.12	0.76	686.76	0	11:55	0.76
J19	JUNCTION	0.03	0.22	804.22	0	12:00	0.22
J2	JUNCTION	0.08	0.54	716.54	0	11:55	0.54
J20	JUNCTION	0.01	0.02	674.02	0	11:57	0.02
J21	JUNCTION	0.15	0.87	692.87	0	12:00	0.87
J22	JUNCTION	0.03	0.20	740.20	0	12:00	0.20
J23	JUNCTION	0.03	0.17	738.17	0	12:00	0.17
J24	JUNCTION	0.12	0.68	714.68	0	12:00	0.68
J25	JUNCTION	0.06	0.39	713.39	0	12:00	0.39
J26	JUNCTION	0.18	1.05	707.05	0	11:56	1.05
J27	JUNCTION	0.09	0.53	726.53	0	12:00	0.53
J28	JUNCTION	0.11	0.59	730.59	0	12:00	0.59
J29	JUNCTION	0.06	0.33	750.33	0	12:00	0.33
J30	JUNCTION	0.12	0.57	752.57	0	12:00	0.57
J31	JUNCTION	0.04	0.21	768.21	0	12:00	0.21
J32	JUNCTION	0.09	0.41	770.41	0	12:00	0.40
J33	JUNCTION	0.05	0.23	788.23	0	12:00	0.23
J34	JUNCTION	0.09	0.60	678.60	0	11:57	0.60
J35	JUNCTION	0.12	0.73	740.73	0	11:54	0.73
J37	JUNCTION	0.13	0.77	762.77	0	11:54	0.77
J38	JUNCTION	0.19	1.06	765.06	0	11:54	1.06
J39	JUNCTION	0.10	0.62	782.62	0	11:54	0.62
J4	JUNCTION	0.18	1.53	691.53	0	11:57	1.53
J40	JUNCTION	0.18	0.98	784.98	0	11:54	0.98
J41	JUNCTION	0.09	0.56	802.56	0	11:54	0.56
J42	JUNCTION	0.17	0.90	804.90	0	11:54	0.90
J43	JUNCTION	0.08	0.50	682.50	0	11:57	0.50
J44	JUNCTION	0.14	0.92	680.96	0	11:55	0.92

J45	JUNCTION	0.30	0.84	660.14	0	15:44	0.84
J46	JUNCTION	0.13	0.78	774.78	0	11:54	0.78
J47	JUNCTION	0.03	0.17	827.97	0	11:54	0.17
J48	JUNCTION	0.09	0.47	796.85	0	11:54	0.47
J49	JUNCTION	0.08	0.43	789.70	0	11:54	0.43
J5	JUNCTION	0.19	1.04	695.04	0	12:00	1.04
J50	JUNCTION	0.06	0.33	762.33	0	11:54	0.33
J51	JUNCTION	0.03	0.22	758.22	0	11:54	0.22
J52	JUNCTION	0.12	0.69	740.69	0	11:54	0.69
J53	JUNCTION	0.09	0.58	738.58	0	11:54	0.58
J54	JUNCTION	0.10	0.71	696.71	0	11:55	0.71
J55	JUNCTION	0.06	0.45	718.45	0	11:54	0.45
J56	JUNCTION	0.06	0.47	722.47	0	11:54	0.47
J57	JUNCTION	0.03	0.21	744.21	0	11:54	0.21
J58	JUNCTION	0.06	0.40	746.40	0	11:54	0.40
J59	JUNCTION	0.09	0.58	706.58	0	11:54	0.58
J6	JUNCTION	0.10	0.59	712.59	0	12:00	0.59
J60	JUNCTION	0.12	0.71	710.71	0	11:55	0.71
J61	JUNCTION	0.07	0.41	732.41	0	12:00	0.41
J62	JUNCTION	0.14	0.74	734.74	0	12:00	0.74
J63	JUNCTION	0.06	0.38	756.38	0	12:00	0.38
J64	JUNCTION	0.07	0.41	780.41	0	12:00	0.41
J65	JUNCTION	0.04	0.27	816.27	0	11:54	0.27
J66	JUNCTION	0.07	0.45	794.45	0	11:54	0.45
J67	JUNCTION	0.10	0.65	750.65	0	11:54	0.65
J68	JUNCTION	0.11	0.74	730.74	0	11:54	0.74
J69	JUNCTION	0.13	0.78	728.78	0	11:55	0.78
J7	JUNCTION	0.16	0.98	718.98	0	11:55	0.97
J70	JUNCTION	0.10	0.65	694.65	0	11:55	0.65
J71	JUNCTION	0.17	0.97	696.97	0	11:55	0.97
J72	JUNCTION	0.09	0.57	718.57	0	11:55	0.57
J73	JUNCTION	0.16	0.88	720.88	0	11:55	0.88
J74	JUNCTION	0.07	0.50	742.50	0	11:54	0.50
J75	JUNCTION	0.11	0.65	746.65	0	11:55	0.65
J76	JUNCTION	0.07	0.44	764.44	0	11:54	0.44
J77	JUNCTION	0.09	0.55	768.55	0	11:54	0.55
J78	JUNCTION	0.06	0.38	788.38	0	11:54	0.38
J79	JUNCTION	0.08	0.47	826.47	0	11:54	0.47
J8	JUNCTION	0.09	0.56	732.56	0	12:00	0.56
J80	JUNCTION	0.10	0.56	738.88	0	11:55	0.56
J81	JUNCTION	0.08	0.52	772.52	0	11:54	0.52
J82	JUNCTION	0.20	1.17	677.17	0	11:59	1.17
J83	JUNCTION	0.05	0.32	724.32	0	11:54	0.32
J86	JUNCTION	0.24	0.87	658.37	0	16:05	0.87
J87	JUNCTION	0.08	0.49	688.49	0	11:57	0.49
J88	JUNCTION	0.00	0.08	671.85	0	11:58	0.08
J89	JUNCTION	0.11	0.66	676.60	0	11:57	0.66
J9	JUNCTION	0.26	1.48	689.48	0	11:57	1.48
J90	JUNCTION	0.00	0.00	652.25	0	00:00	0.00
J91	JUNCTION	0.00	0.00	649.00	0	00:00	0.00
J94	JUNCTION	0.39	1.67	632.67	0	12:00	1.67
J96	JUNCTION	0.02	0.17	722.17	0	11:54	0.17
J97	JUNCTION	0.21	1.51	673.55	0	11:58	1.51
J98	JUNCTION	0.06	0.44	700.44	0	11:54	0.44
J99	JUNCTION	0.04	0.32	696.32	0	11:54	0.31
J3	OUTFALL	0.00	0.00	648.36	0	00:00	0.00
J36	OUTFALL	0.00	0.00	656.94	0	00:00	0.00

J84	OUTFALL	0.00	0.00	648.36	0	00:00	0.00
J85	OUTFALL	0.19	0.70	657.64	0	16:05	0.70
J92	OUTFALL	0.38	1.78	621.78	0	12:00	1.78
J93	OUTFALL	0.37	1.84	625.84	0	12:00	1.84
J95	OUTFALL	0.37	1.48	631.48	0	12:00	1.48
SU1	STORAGE	9.49	12.39	666.39	1	00:00	12.39
SU2	STORAGE	5.20	5.91	655.91	1	00:00	5.91
SU3	STORAGE	6.80	10.22	670.22	0	15:44	10.22
SU4	STORAGE	2.73	7.22	665.22	0	16:05	7.22

Node Inflow Summary

Total Inflow Volume gal	Flow Balance Error Percent	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	
0.695	0.013	JUNCTION	6.41	27.38	0 12:00	0.15	
0.424	0.014	JUNCTION	6.14	15.75	0 12:00	0.156	
3.01	0.112	JUNCTION	3.62	132.16	0 11:58	0.0967	
0.237	0.006	JUNCTION	0.00	11.05	0 11:54	0	
0.237	0.055	JUNCTION	3.73	11.07	0 11:54	0.0745	
0.162	0.023	JUNCTION	0.00	7.39	0 11:54	0	
0.162	0.056	JUNCTION	3.37	7.41	0 11:54	0.0656	
0.0967	0.021	JUNCTION	4.18	4.18	0 12:00	0.0967	
1.55	0.010	JUNCTION	56.00	56.00	0 12:00	1.55	
0.056	0.007	JUNCTION	2.05	2.05	0 11:54	0.056	
0.0559	0.029	JUNCTION	0.00	2.04	0 11:54	0	
0.0739	0.049	JUNCTION	3.06	3.06	0 12:00	0.0739	
2.68	0.085	JUNCTION	5.13	118.28	0 11:57	0.0985	
0.0738	0.058	JUNCTION	0.00	3.05	0 12:00	0	
0.0738	0.060	JUNCTION	0.00	3.04	0 12:00	0	
0.206	0.023	JUNCTION	5.57	8.59	0 12:00	0.132	

J113		JUNCTION	4.39	12.74	0	12:00	0.093
0.299	0.030						
J114		JUNCTION	0.00	12.73	0	12:00	0
0.299	0.020						
J115		JUNCTION	4.70	17.05	0	12:00	0.0961
0.395	0.016						
J116		JUNCTION	0.00	17.04	0	12:00	0
0.395	0.013						
J117		JUNCTION	5.74	22.59	0	11:55	0.12
0.515	0.011						
J118		JUNCTION	0.00	22.59	0	11:55	0
0.515	0.008						
J119		JUNCTION	0.00	15.39	0	11:56	0
0.358	0.018						
J12		JUNCTION	0.00	9.66	0	12:00	0
0.267	0.015						
J120		JUNCTION	4.49	15.39	0	11:55	0.1
0.358	0.027						
J121		JUNCTION	0.00	10.98	0	12:00	0
0.258	0.021						
J122		JUNCTION	3.56	10.99	0	12:00	0.0737
0.258	0.029						
J123		JUNCTION	0.00	7.70	0	12:00	0
0.185	0.023						
J124		JUNCTION	2.95	7.71	0	12:00	0.0634
0.185	0.057						
J125		JUNCTION	0.00	4.90	0	12:00	0
0.122	0.028						
J126		JUNCTION	2.02	4.91	0	12:00	0.0476
0.122	0.057						
J127		JUNCTION	2.90	2.90	0	12:00	0.074
0.074	0.031						
J128		JUNCTION	2.24	26.22	0	11:55	0.0393
0.659	0.038						
J129		JUNCTION	7.99	24.07	0	11:56	0.159
0.515	0.206						
J13		JUNCTION	0.00	9.67	0	12:00	0
0.268	0.032						
J130		JUNCTION	3.16	70.60	0	11:56	0.0556
1.59	0.090						
J131		JUNCTION	0.00	20.54	0	11:54	0
0.533	0.019						
J132		JUNCTION	2.61	20.55	0	11:54	0.0661
0.533	0.025						
J133		JUNCTION	6.49	21.49	0	11:54	0.158
0.534	0.027						
J134		JUNCTION	4.93	26.33	0	11:54	0.0949
0.629	0.029						
J135		JUNCTION	0.00	26.31	0	11:54	0
0.628	0.014						
J136		JUNCTION	8.00	34.24	0	11:54	0.17
0.798	0.012						
J137		JUNCTION	0.00	34.24	0	11:54	0
0.798	0.009						
J138		JUNCTION	3.86	38.05	0	11:54	0.0791
0.877	0.010						
J139		JUNCTION	0.00	38.05	0	11:54	0
0.877	0.010						
J14		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						

J140		JUNCTION	4.37	42.38	0	11:54	0.093
0.97	0.009						
J141		JUNCTION	2.76	45.06	0	11:54	0.0527
1.02	0.009						
J142		JUNCTION	3.35	10.48	0	12:00	0.0756
0.242	0.021						
J143		JUNCTION	3.92	7.16	0	12:00	0.0919
0.166	0.054						
J144		JUNCTION	0.00	3.24	0	12:00	0
0.0744	0.039						
J145		JUNCTION	3.24	3.24	0	12:00	0.0744
0.0744	0.024						
J146		JUNCTION	14.52	14.52	0	11:54	0.347
0.347	0.008						
J147		JUNCTION	58.00	58.00	0	12:00	1.79
1.79	0.008						
J148		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J149		JUNCTION	2.75	2.75	0	11:54	0.0564
0.0564	0.040						
J15		JUNCTION	6.30	9.69	0	12:00	0.189
0.268	0.017						
J150		JUNCTION	2.62	38.14	0	11:54	0.0485
0.858	0.011						
J151		JUNCTION	11.26	13.27	0	11:54	0.284
0.34	0.032						
J152		JUNCTION	0.00	6.02	0	15:44	0
1.05	0.000						
J16		JUNCTION	1.92	88.06	0	11:55	0.0331
1.82	0.027						
J17		JUNCTION	0.00	3.39	0	12:00	0
0.079	0.030						
J18		JUNCTION	2.07	61.25	0	11:55	0.0355
1.26	0.040						
J19		JUNCTION	3.40	3.40	0	12:00	0.079
0.079	0.027						
J2		JUNCTION	4.95	24.37	0	11:54	0.0861
0.487	0.152						
J20		JUNCTION	17.21	179.22	0	11:57	0.45
4.37	0.000						
J21		JUNCTION	0.00	41.02	0	12:00	0
1.05	0.097						
J22		JUNCTION	2.56	2.56	0	12:00	0.0616
0.0616	0.026						
J23		JUNCTION	0.00	2.56	0	12:00	0
0.0615	0.039						
J24		JUNCTION	3.41	5.96	0	12:00	0.0877
0.149	0.081						
J25		JUNCTION	3.32	9.25	0	12:00	0.0785
0.228	0.024						
J26		JUNCTION	3.55	109.98	0	11:55	0.0629
2.57	0.048						
J27		JUNCTION	4.14	16.40	0	12:00	0.094
0.435	0.024						
J28		JUNCTION	4.59	12.30	0	12:00	0.108
0.341	0.028						
J29		JUNCTION	0.00	7.74	0	12:00	0
0.234	0.022						
J30		JUNCTION	4.37	7.76	0	12:00	0.102
0.234	0.041						

J31		JUNCTION	0.00	3.45	0	12:00	0
0.131	0.029						
J32		JUNCTION	0.00	3.47	0	12:00	0
0.131	0.081						
J33		JUNCTION	3.49	3.49	0	12:00	0.131
0.131	0.024						
J34		JUNCTION	0.00	162.54	0	11:57	0
3.92	0.011						
J35		JUNCTION	5.39	35.65	0	11:54	0.105
0.81	0.017						
J37		JUNCTION	0.00	30.39	0	11:54	0
0.706	0.019						
J38		JUNCTION	5.18	30.39	0	11:54	0.1
0.706	0.021						
J39		JUNCTION	0.00	25.31	0	11:54	0
0.606	0.012						
J4		JUNCTION	3.36	151.78	0	11:56	0.0647
3.69	0.041						
J40		JUNCTION	5.29	25.32	0	11:54	0.115
0.606	0.025						
J41		JUNCTION	0.00	20.05	0	11:54	0
0.491	0.014						
J42		JUNCTION	6.01	20.08	0	11:54	0.144
0.491	0.032						
J43		JUNCTION	0.00	162.54	0	11:57	0
3.92	0.007						
J44		JUNCTION	0.00	61.18	0	11:55	0
1.26	0.027						
J45		JUNCTION	0.00	6.02	0	15:44	0
1.05	0.032						
J46		JUNCTION	6.78	17.67	0	11:54	0.143
0.37	0.035						
J47		JUNCTION	0.00	2.05	0	11:54	0
0.056	0.015						
J48		JUNCTION	4.77	17.98	0	11:54	0.127
0.467	0.022						
J49		JUNCTION	0.00	17.98	0	11:54	0
0.467	0.022						
J5		JUNCTION	12.68	38.31	0	12:00	0.244
0.939	0.217						
J50		JUNCTION	3.90	3.90	0	11:54	0.0902
0.0902	0.020						
J51		JUNCTION	0.00	3.90	0	11:54	0
0.0902	0.027						
J52		JUNCTION	7.20	11.05	0	11:54	0.152
0.243	0.035						
J53		JUNCTION	8.51	19.48	0	11:54	0.159
0.401	0.017						
J54		JUNCTION	2.47	38.87	0	11:54	0.0423
0.758	0.103						
J55		JUNCTION	4.86	12.98	0	11:54	0.0855
0.23	0.019						
J56		JUNCTION	4.58	8.18	0	11:54	0.0807
0.144	0.036						
J57		JUNCTION	0.00	3.63	0	11:54	0
0.0634	0.035						
J58		JUNCTION	3.64	3.64	0	11:54	0.0634
0.0634	0.029						
J59		JUNCTION	5.08	20.91	0	11:54	0.0913
0.471	0.017						

J6		JUNCTION	0.00	21.01	0	12:00	0
0.545	0.011						
J60		JUNCTION	4.52	16.09	0	11:55	0.0809
0.38	0.029						
J61		JUNCTION	0.00	12.08	0	12:00	0
0.299	0.021						
J62		JUNCTION	3.72	12.10	0	12:00	0.0691
0.3	0.057						
J63		JUNCTION	0.00	9.05	0	12:00	0
0.231	0.046						
J64		JUNCTION	9.07	9.07	0	12:00	0.231
0.231	0.027						
J65		JUNCTION	4.61	4.61	0	11:54	0.093
0.093	0.027						
J66		JUNCTION	6.42	10.99	0	11:54	0.134
0.227	0.042						
J67		JUNCTION	3.20	20.80	0	11:54	0.0668
0.437	0.030						
J68		JUNCTION	1.25	21.98	0	11:54	0.0225
0.459	0.023						
J69		JUNCTION	0.00	48.02	0	11:55	0
1.12	0.028						
J7		JUNCTION	5.66	91.46	0	11:55	0.102
2.08	0.041						
J70		JUNCTION	3.93	25.22	0	11:55	0.0715
0.521	0.015						
J71		JUNCTION	0.00	21.48	0	11:55	0
0.45	0.039						
J72		JUNCTION	4.15	21.48	0	11:55	0.0763
0.45	0.016						
J73		JUNCTION	0.00	17.49	0	11:54	0
0.374	0.040						
J74		JUNCTION	4.31	17.50	0	11:54	0.0804
0.374	0.016						
J75		JUNCTION	0.00	13.33	0	11:54	0
0.293	0.032						
J76		JUNCTION	3.91	13.33	0	11:54	0.0934
0.294	0.018						
J77		JUNCTION	0.00	9.69	0	11:54	0
0.2	0.040						
J78		JUNCTION	7.01	9.72	0	11:54	0.144
0.2	0.041						
J79		JUNCTION	15.60	15.60	0	11:54	0.376
0.376	0.008						
J8		JUNCTION	5.30	21.02	0	12:00	0.122
0.545	0.012						
J80		JUNCTION	3.62	24.09	0	11:55	0.0871
0.62	0.028						
J81		JUNCTION	0.00	17.65	0	11:54	0
0.37	0.015						
J82		JUNCTION	3.82	141.16	0	11:58	0.0726
3.21	0.044						
J83		JUNCTION	2.55	2.55	0	11:54	0.0469
0.0469	0.029						
J86		JUNCTION	0.00	5.92	0	16:05	0
0.858	0.057						
J87		JUNCTION	12.54	162.53	0	11:57	0.234
3.92	0.017						
J88		JUNCTION	0.00	226.51	0	11:58	0
5.07	-0.000						

J89		JUNCTION	0.00	162.53	0	11:57	0
3.92	0.012						
J9		JUNCTION	5.97	91.63	0	11:56	0.124
2.07	0.108						
J90		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J91		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J94		JUNCTION	36.67	36.67	0	12:00	1.48
1.48	0.012						
J96		JUNCTION	0.00	2.54	0	11:54	0
0.0469	0.038						
J97		JUNCTION	2.75	226.56	0	11:57	0.049
5.07	0.021						
J98		JUNCTION	3.98	6.49	0	11:54	0.0758
0.123	0.048						
J99		JUNCTION	0.00	6.47	0	11:54	0
0.123	0.003						
J3		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
J36		OUTFALL	2.53	2.53	0	12:00	0.0756
0.0756	0.000						
J84		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
J85		OUTFALL	0.00	5.92	0	16:05	0
0.858	0.000						
J92		OUTFALL	0.00	58.00	0	12:00	0
1.79	0.000						
J93		OUTFALL	0.00	55.96	0	12:00	0
1.54	0.000						
J95		OUTFALL	0.00	36.70	0	12:00	0
1.48	0.000						
SU1		STORAGE	18.68	244.42	0	11:58	0.494
8.25	-0.000						
SU2		STORAGE	4.71	4.71	0	12:00	0.112
0.356	0.000						
SU3		STORAGE	0.00	179.22	0	11:57	0
4.46	-0.000						
SU4		STORAGE	0.00	6.02	0	15:44	0
1.05	-0.000						

Node Surcharge Summary

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

of Max Occurrence hr:min	Maximum Storage Unit Outflow CFS	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time days
SU1 00:00	0.00	725.798	30	0	0	1102.592	46	1
SU2 00:00	0.00	39.907	13	0	0	47.565	16	1
SU3 15:44	6.02	271.602	35	0	0	465.279	59	0
SU4 16:05	5.92	9.913	8	0	0	26.996	22	0

 Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
J3	0.00	0.00	0.00	0.000
J36	83.89	0.26	2.53	0.076
J84	0.00	0.00	0.00	0.000
J85	34.21	3.94	5.92	0.858
J92	85.62	6.08	58.00	1.790
J93	86.44	5.31	55.96	1.545
J95	84.97	4.83	36.70	1.482
System	53.59	20.43	153.12	5.750

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	162.54	0 11:57	15.29	0.09	0.25
C1_1	CONDUIT	162.53	0 11:57	11.74	0.13	0.32
C1_2	CONDUIT	162.54	0 11:57	20.44	0.09	0.17
C1_4	CONDUIT	162.54	0 11:57	13.64	0.09	0.28
C10	CONDUIT	4.59	0 11:54	2.52	0.02	0.18
C10_1	CONDUIT	118.02	0 11:58	7.20	0.17	0.50
C10_2	CONDUIT	132.23	0 11:59	9.63	0.28	0.45
C10_3	CONDUIT	0.00	0 00:00	0.00	0.00	0.08

C10_5	CONDUIT	26.18	0	11:55	6.65	0.02	0.19
C100	CONDUIT	4.90	0	12:00	3.20	0.03	0.16
C101	CONDUIT	4.89	0	12:00	2.21	0.02	0.21
C102	CONDUIT	7.70	0	12:00	3.10	0.08	0.23
C103	CONDUIT	10.98	0	12:00	4.12	0.07	0.24
C104	CONDUIT	7.69	0	12:00	3.23	0.03	0.22
C105	CONDUIT	10.98	0	12:00	3.58	0.04	0.27
C106	CONDUIT	15.39	0	11:56	4.47	0.11	0.30
C107	CONDUIT	15.39	0	11:56	2.31	0.07	0.50
C109	CONDUIT	21.46	0	11:54	4.37	0.10	0.39
C11	CONDUIT	2.54	0	11:54	2.18	0.02	0.12
C11_3	CONDUIT	87.96	0	11:55	8.49	0.10	0.39
C11_4	CONDUIT	141.11	0	11:59	13.49	0.09	0.38
C110	CONDUIT	26.31	0	11:54	5.34	0.18	0.39
C111	CONDUIT	26.30	0	11:54	5.16	0.10	0.40
C112	CONDUIT	34.24	0	11:54	6.30	0.21	0.42
C113	CONDUIT	34.23	0	11:54	7.00	0.13	0.39
C114	CONDUIT	38.05	0	11:54	7.25	0.16	0.41
C115	CONDUIT	38.05	0	11:54	7.01	0.16	0.42
C116	CONDUIT	42.37	0	11:54	7.22	0.18	0.44
C117	CONDUIT	45.05	0	11:55	5.15	0.20	0.59
C118	CONDUIT	1.62	0	12:00	1.66	0.01	0.11
C119	CONDUIT	3.24	0	12:00	1.61	0.01	0.19
C12	CONDUIT	47.98	0	11:55	8.25	0.04	0.25
C12_1	CONDUIT	61.18	0	11:55	11.11	0.04	0.24
C120	CONDUIT	7.15	0	12:00	2.64	0.07	0.25
C121	CONDUIT	10.47	0	12:00	3.44	0.04	0.28
C123	CONDUIT	58.00	0	12:00	9.66	0.41	0.48
C13	CONDUIT	3.63	0	11:54	2.41	0.03	0.15
C13_2	CONDUIT	38.47	0	11:55	8.40	0.04	0.21
C13_4	CONDUIT	23.79	0	11:55	6.46	0.02	0.18
C14	CONDUIT	55.96	0	12:00	9.07	0.43	0.49
C14_1	CONDUIT	91.27	0	11:55	12.82	0.07	0.29
C14_2	CONDUIT	109.68	0	11:56	11.36	0.08	0.37
C14_3	CONDUIT	1.28	0	12:00	1.52	0.00	0.05
C14_4	CONDUIT	5.93	0	12:00	1.97	0.02	0.15
C14_5	CONDUIT	2.55	0	12:00	1.14	0.00	0.12
C14_7	CONDUIT	9.23	0	12:00	2.48	0.01	0.18
C15	CONDUIT	0.00	0	00:00	0.00	0.00	0.08
C16	CONDUIT	61.14	0	11:55	7.89	0.06	0.31
C16_1	CONDUIT	31.81	0	12:00	4.86	0.07	0.27
C16_2	CONDUIT	40.94	0	12:00	4.89	0.05	0.34
C17	CONDUIT	1.28	0	12:00	1.52	0.01	0.09
C17_1	CONDUIT	6.26	0	12:00	1.08	0.92	0.25
C17_3	CONDUIT	23.88	0	12:00	3.06	0.04	0.31
C17_4	CONDUIT	70.56	0	11:56	5.72	0.15	0.42
C18	CONDUIT	91.24	0	11:57	7.06	0.15	0.43
C19	CONDUIT	15.74	0	12:00	4.77	0.09	0.29
C2	CONDUIT	36.70	0	12:00	8.01	0.29	0.39
C2_13	CONDUIT	151.27	0	11:57	12.46	0.29	0.34
C2_3	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
C2_4	DUMMY	0.00	0	00:00			
C20	CONDUIT	21.01	0	12:00	6.38	0.08	0.29
C21	CONDUIT	21.00	0	12:00	5.24	0.09	0.33
C22	CONDUIT	27.37	0	12:00	4.62	0.13	0.44
C23	CONDUIT	1.62	0	12:00	1.66	0.01	0.11
C24	CONDUIT	3.47	0	12:00	2.22	0.00	0.09

C25	CONDUIT	17.65	0	11:54	4.55	0.14	0.33
C26	CONDUIT	17.64	0	11:54	5.24	0.07	0.29
C27	CONDUIT	3.45	0	12:00	2.29	0.03	0.15
C28	CONDUIT	3.45	0	12:00	1.78	0.01	0.19
C29	CONDUIT	7.74	0	12:00	3.24	0.07	0.22
C3	DUMMY	179.22	0	11:57			
C3_7	CONDUIT	226.51	0	11:58	15.81	0.50	0.27
C30	CONDUIT	7.73	0	12:00	3.13	0.03	0.23
C31	CONDUIT	12.28	0	12:00	3.88	0.08	0.28
C32	CONDUIT	16.38	0	12:00	3.35	0.07	0.39
C33	CONDUIT	20.77	0	11:54	4.90	0.10	0.35
C34	CONDUIT	20.05	0	11:54	4.44	0.18	0.36
C35	CONDUIT	20.04	0	11:54	4.12	0.08	0.39
C36	CONDUIT	25.31	0	11:54	4.94	0.22	0.40
C37	CONDUIT	25.30	0	11:54	4.61	0.10	0.42
C38	CONDUIT	30.39	0	11:54	4.90	0.26	0.46
C39	CONDUIT	30.38	0	11:54	6.43	0.14	0.38
C4	DUMMY	226.51	0	11:58			
C40	CONDUIT	21.96	0	11:54	4.61	0.14	0.38
C41_1	CONDUIT	35.63	0	11:55	6.69	0.13	0.41
C41_2	CONDUIT	38.13	0	11:55	5.93	0.20	0.47
C42	CONDUIT	10.94	0	11:54	3.05	0.05	0.31
C42_3	CONDUIT	20.53	0	11:55	11.40	0.03	0.20
C42_4	CONDUIT	24.09	0	11:55	12.01	0.04	0.22
C43	CONDUIT	20.54	0	11:54	13.30	0.02	0.18
C44	CONDUIT	17.97	0	11:54	12.24	0.02	0.18
C45	CONDUIT	15.58	0	11:54	4.94	0.06	0.28
C45_1	CONDUIT	2.04	0	11:54	2.41	0.00	0.12
C45_2	CONDUIT	17.98	0	11:54	11.97	0.03	0.18
C45_3	CONDUIT	13.23	0	11:54	8.63	0.02	0.18
C45_4	CONDUIT	2.04	0	11:54	5.14	0.00	0.06
C46	CONDUIT	14.50	0	11:54	3.53	0.06	0.34
C47	CONDUIT	2.73	0	11:54	1.92	0.01	0.15
C48	CONDUIT	3.90	0	11:54	2.95	0.03	0.14
C49	CONDUIT	3.89	0	11:54	1.59	0.01	0.23
C5	CONDUIT	3.39	0	12:00	3.27	0.02	0.11
C50	CONDUIT	11.02	0	11:54	2.93	0.11	0.32
C51	CONDUIT	19.48	0	11:54	6.17	0.08	0.28
C52	CONDUIT	3.62	0	11:54	2.13	0.01	0.17
C53	CONDUIT	8.16	0	11:54	3.27	0.06	0.23
C54	CONDUIT	12.96	0	11:54	3.96	0.05	0.29
C55_1	CONDUIT	6.02	0	15:44	8.24	0.10	0.11
C55_2	DUMMY	6.02	0	15:44			
C56	CONDUIT	5.92	0	16:05	3.40	0.10	0.20
C56_1	CONDUIT	2.05	0	11:54	4.11	0.01	0.08
C6	CONDUIT	3.39	0	12:00	2.41	0.02	0.15
C60	CONDUIT	9.05	0	12:00	4.42	0.04	0.20
C61	CONDUIT	9.03	0	12:00	2.86	0.04	0.28
C62	CONDUIT	12.08	0	12:00	3.69	0.12	0.29
C63	CONDUIT	12.08	0	12:00	3.86	0.04	0.28
C64	CONDUIT	20.91	0	11:54	5.21	0.09	0.34
C65	CONDUIT	16.08	0	11:55	4.22	0.12	0.32
C69	CONDUIT	9.69	0	11:54	3.85	0.04	0.23
C7	CONDUIT	9.67	0	12:00	3.91	0.04	0.23
C70	CONDUIT	9.67	0	11:54	3.56	0.07	0.25
C71	CONDUIT	13.33	0	11:54	4.35	0.05	0.27
C72	CONDUIT	13.32	0	11:55	4.05	0.10	0.29

C73	CONDUIT	17.49	0	11:54	4.19	0.06	0.34
C74	CONDUIT	17.49	0	11:55	3.90	0.17	0.36
C75	CONDUIT	21.48	0	11:55	4.41	0.08	0.39
C76	CONDUIT	21.47	0	11:55	4.12	0.21	0.41
C77	CONDUIT	25.22	0	11:55	3.99	0.10	0.47
C78	CONDUIT	2.53	0	11:54	1.69	0.01	0.15
C79	CONDUIT	6.47	0	11:54	3.33	0.05	0.19
C8	CONDUIT	9.66	0	12:00	4.16	0.07	0.22
C80	CONDUIT	6.46	0	11:54	1.64	0.03	0.37
C81	CONDUIT	4.17	0	12:00	2.09	0.02	0.19
C82	CONDUIT	7.39	0	11:54	3.22	0.07	0.22
C83	CONDUIT	7.39	0	11:54	2.50	0.03	0.26
C84	CONDUIT	11.05	0	11:54	3.37	0.11	0.29
C85	CONDUIT	11.04	0	11:55	1.36	0.04	0.59
C88	CONDUIT	3.05	0	12:00	3.12	0.02	0.11
C89	CONDUIT	3.04	0	12:00	2.48	0.01	0.13
C9	CONDUIT	9.65	0	12:00	3.90	0.03	0.23
C90	CONDUIT	3.04	0	12:00	1.82	0.03	0.17
C91	CONDUIT	8.58	0	12:00	3.25	0.03	0.24
C92	CONDUIT	12.73	0	12:00	4.32	0.09	0.26
C93	CONDUIT	12.72	0	12:00	4.34	0.05	0.26
C94	CONDUIT	17.04	0	12:00	5.34	0.09	0.28
C95	CONDUIT	17.04	0	12:00	5.35	0.07	0.28
C96	CONDUIT	22.59	0	11:55	6.14	0.09	0.31
C97	CONDUIT	22.59	0	11:55	3.09	0.10	0.54
C99	CONDUIT	2.89	0	12:00	2.02	0.01	0.15
OL1_2	CONDUIT	0.00	0	00:00	0.00	0.00	0.00
W1	WEIR	0.00	0	00:00			0.00
W2	WEIR	0.00	0	00:00			0.00
W3	WEIR	0.00	0	00:00			0.00
W4	WEIR	0.00	0	00:00			0.00
C2_1	DUMMY	0.00	0	00:00			
C41	DUMMY	6.02	0	15:44			
OL1	DUMMY	5.92	0	16:05			
OL1_1	DUMMY	0.00	0	00:00			

Flow Classification Summary

Inlet Conduit Ctrl	Adjusted /Actual Length	----- Fraction of Time in Flow Class -----							
		Up Dry	Down Dry	Sub Dry	Sup Crit	Up Crit	Down Crit	Norm Ltd	
C1	1.00	0.02	0.00	0.00	0.00	0.98	0.00	0.00	0.51
0.00									
C1_1	1.00	0.02	0.00	0.00	0.00	0.98	0.00	0.00	0.96
0.00									
C1_2	1.00	0.02	0.00	0.00	0.00	0.98	0.00	0.00	0.00
0.00									
C1_4	1.00	0.02	0.00	0.00	0.00	0.98	0.00	0.00	0.97 0.

C79	1.00	0.13	0.00	0.00	0.83	0.03	0.00	0.00	0.00
0.00									
C8	1.00	0.14	0.00	0.00	0.68	0.18	0.00	0.00	0.00
0.00									
C80	1.00	0.04	0.09	0.00	0.87	0.00	0.00	0.00	0.79
0.00									
C81	1.00	0.15	0.00	0.00	0.85	0.00	0.00	0.00	0.76
0.00									
C82	1.00	0.15	0.00	0.00	0.85	0.00	0.00	0.00	0.00
0.00									
C83	1.00	0.15	0.00	0.00	0.85	0.00	0.00	0.00	0.76
0.00									
C84	1.00	0.15	0.00	0.00	0.85	0.00	0.00	0.00	0.00
0.00									
C85	1.00	0.01	0.14	0.00	0.85	0.00	0.00	0.00	0.76
0.00									
C88	1.00	0.15	0.00	0.00	0.67	0.18	0.00	0.00	0.00
0.00									
C89	1.00	0.15	0.00	0.00	0.85	0.00	0.00	0.00	0.76
0.00									
C9	1.00	0.14	0.00	0.00	0.75	0.11	0.00	0.00	0.77
0.00									
C90	1.00	0.15	0.00	0.00	0.85	0.00	0.00	0.00	0.76
0.00									
C91	1.00	0.15	0.00	0.00	0.85	0.00	0.00	0.00	0.76
0.00									
C92	1.00	0.15	0.00	0.00	0.74	0.11	0.00	0.00	0.00
0.00									
C93	1.00	0.15	0.00	0.00	0.73	0.12	0.00	0.00	0.76
0.00									
C94	1.00	0.15	0.00	0.00	0.27	0.58	0.00	0.00	0.00
0.00									
C95	1.00	0.13	0.01	0.00	0.14	0.72	0.00	0.00	0.76
0.00									
C96	1.00	0.13	0.00	0.00	0.05	0.81	0.00	0.00	0.00
0.00									
C97	1.00	0.01	0.12	0.00	0.87	0.00	0.00	0.00	0.79
0.00									
C99	1.00	0.14	0.00	0.00	0.86	0.00	0.00	0.00	0.77
0.00									
OL1_2	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00									

 Conduit Surcharge Summary

No conduits were surcharged.

Analysis begun on: Wed Jun 21 13:57:13 2023
 Analysis ended on: Wed Jun 21 13:57:15 2023
 Total elapsed time: 00:00:02

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.015)

WARNING 04: minimum elevation drop used for Conduit C17_1
 WARNING 02: maximum depth increased for Node J32
 WARNING 02: maximum depth increased for Node J89

Element Count

Number of rain gages 3
 Number of subcatchments ... 96
 Number of nodes 156
 Number of links 157
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_3.77in	SCS_Type_II_3.77in	INTENSITY	6 min.
SCS_Type_II_6.29in	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_7.85in	SCS_Type_II_7.85in	INTENSITY	6 min.

Subcatchment Summary

Outlet	Name	Area	Width	%Imperv	%Slope	Rain Gage
	S1	0.86	115.00	0.00	1.2000	SCS_Type_II_7.85in
J100	S10	0.53	780.00	0.00	1.4000	SCS_Type_II_7.85in
J130	S10_3	0.64	275.00	0.00	4.7000	SCS_Type_II_7.85in
J62	S10_5	0.62	315.00	0.00	4.4000	SCS_Type_II_7.85in
J7	S10_6	0.34	520.00	0.00	3.4000	SCS_Type_II_7.85in
J18	S11	1.01	400.00	0.00	1.3000	SCS_Type_II_7.85in
J9	S11_10	0.69	375.00	0.00	4.4000	SCS_Type_II_7.85in
J70	S11_3	0.77	330.00	0.00	4.7000	SCS_Type_II_7.85in
J74	S11_4	0.73	355.00	0.00	4.6000	SCS_Type_II_7.85in
J72	S11_8	0.63	380.00	0.00	1.4000	SCS_Type_II_7.85in
J104	S12	0.94	255.00	0.00	1.3000	SCS_Type_II_7.85in
J105						

S12_3 J128	0.37	355.00	0.00	3.4000	SCS_Type_II_7.85in
S12_4 J7	0.33	315.00	0.00	3.4000	SCS_Type_II_7.85in
S13 SU1	4.93	800.00	0.00	1.0000	SCS_Type_II_7.85in
S14 SU2	1.11	290.00	0.00	1.0000	SCS_Type_II_7.85in
S15 J133	1.54	490.00	0.00	0.5000	SCS_Type_II_7.85in
S16 J106	13.80	980.00	0.00	3.4000	SCS_Type_II_7.85in
S16_2 J94	14.83	740.00	0.00	1.3000	SCS_Type_II_7.85in
S16_3 J147	17.01	970.00	0.00	3.0000	SCS_Type_II_7.85in
S16_4 J64	1.78	415.00	0.00	0.5000	SCS_Type_II_7.85in
S16_5 J64	0.39	180.00	0.00	0.5000	SCS_Type_II_7.85in
S18 J76	0.91	320.00	0.00	0.5000	SCS_Type_II_7.85in
S18_1 J58	0.61	570.00	0.00	4.7000	SCS_Type_II_7.85in
S19_3 J97	0.45	350.00	0.00	3.4000	SCS_Type_II_7.85in
S2 J102	0.73	415.00	0.00	1.2000	SCS_Type_II_7.85in
S20_1 J60	0.73	450.00	0.00	4.6000	SCS_Type_II_7.85in
S21 J149	0.46	230.00	25.00	0.5000	SCS_Type_II_7.85in
S21_1 J59	0.66	470.00	0.00	4.4000	SCS_Type_II_7.85in
S22_2 J82	0.71	540.00	0.00	1.2000	SCS_Type_II_7.85in
S23 J33	1.34	125.00	0.00	0.5000	SCS_Type_II_7.85in
S23_1 J27	0.93	485.00	0.00	0.5000	SCS_Type_II_7.85in
S23_10 J25	0.73	275.00	0.00	0.5000	SCS_Type_II_7.85in
S23_11 J1	1.45	600.00	0.00	0.5000	SCS_Type_II_7.85in
S23_12 J22	0.57	190.00	0.00	0.5000	SCS_Type_II_7.85in
S23_13 J24	0.86	215.00	0.00	0.5000	SCS_Type_II_7.85in
S23_15 J8	1.20	570.00	0.00	0.5000	SCS_Type_II_7.85in
S23_2 J30	0.96	380.00	0.00	0.5000	SCS_Type_II_7.85in
S23_3 J28	1.05	415.00	0.00	0.5000	SCS_Type_II_7.85in
S23_4 J145	0.72	340.00	0.00	0.5000	SCS_Type_II_7.85in
S23_7 J143	0.88	350.00	0.00	0.5000	SCS_Type_II_7.85in
S23_8 J142	0.75	400.00	0.00	0.5000	SCS_Type_II_7.85in

S23_9	1.47	375.00	0.00	0.5000	SCS_Type_II_7.85in
J10					
S24	0.76	415.00	25.00	0.5000	SCS_Type_II_7.85in
J65					
S24_1	0.49	460.00	0.00	0.5000	SCS_Type_II_7.85in
J4					
S25	1.09	470.00	25.00	0.5000	SCS_Type_II_7.85in
J66					
S25_2	1.29	280.00	0.00	1.4000	SCS_Type_II_7.85in
J112					
S25_3	0.68	170.00	0.00	0.5000	SCS_Type_II_7.85in
J127					
S26	0.72	240.00	0.00	0.5000	SCS_Type_II_7.85in
J109					
S27	1.12	450.00	25.00	0.5000	SCS_Type_II_7.85in
J46					
S28	0.54	240.00	25.00	0.5000	SCS_Type_II_7.85in
J67					
S29	0.18	500.00	25.00	0.5000	SCS_Type_II_7.85in
J68					
S3	2.42	440.00	25.00	0.5000	SCS_Type_II_7.85in
J151					
S3_1	1.09	650.00	0.00	0.5000	SCS_Type_II_7.85in
J40					
S3_2	2.84	630.00	25.00	0.5000	SCS_Type_II_7.85in
J146					
S30	0.39	500.00	25.00	0.5000	SCS_Type_II_7.85in
J150					
S32	0.73	300.00	25.00	0.5000	SCS_Type_II_7.85in
J52					
S33	0.76	200.00	25.00	0.5000	SCS_Type_II_7.85in
J50					
S34	0.53	220.00	25.00	0.5000	SCS_Type_II_7.85in
J52					
S35_1	3.07	660.00	25.00	0.5000	SCS_Type_II_7.85in
J79					
S35_2	1.06	150.00	25.00	0.5000	SCS_Type_II_7.85in
J48					
S35_3	0.47	60.00	25.00	0.5000	SCS_Type_II_7.85in
J107					
S35_4	0.70	150.00	25.00	0.5000	SCS_Type_II_7.85in
J80					
S35_6	0.56	100.00	25.00	0.5000	SCS_Type_II_7.85in
J132					
S4	0.76	120.00	0.00	0.5000	SCS_Type_II_7.85in
J36					
S4_2	3.29	515.00	0.00	1.0000	SCS_Type_II_7.85in
J20					
S4_4	0.81	630.00	0.00	4.4000	SCS_Type_II_7.85in
J55					
S5_1	0.73	540.00	0.00	4.6000	SCS_Type_II_7.85in
J56					
S5_3	1.50	650.00	0.00	4.4000	SCS_Type_II_7.85in
J53					
S6	1.79	270.00	0.00	0.5000	SCS_Type_II_7.85in
J15					
S6_11	0.67	450.00	0.00	1.2000	SCS_Type_II_7.85in
J98					
S6_2	0.95	315.00	0.00	4.7000	SCS_Type_II_7.85in
J38					

S6_3 J87	2.17	990.00	0.00	3.9000	SCS_Type_II_7.85in
S6_4 J2	0.80	870.00	0.00	3.4000	SCS_Type_II_7.85in
S6_6 J26	0.62	515.00	0.00	3.4000	SCS_Type_II_7.85in
S7_2 J19	0.74	310.00	0.00	0.5000	SCS_Type_II_7.85in
S7_3 J78	1.31	300.00	0.00	5.0000	SCS_Type_II_7.85in
S7_4 J42	1.38	470.00	0.00	0.5000	SCS_Type_II_7.85in
S8 J5	2.27	950.00	0.00	3.0000	SCS_Type_II_7.85in
S8_11 J35	0.97	315.00	0.00	4.6000	SCS_Type_II_7.85in
S8_12 J136	1.53	580.00	0.00	1.3000	SCS_Type_II_7.85in
S8_13 J134	0.91	580.00	0.00	1.4000	SCS_Type_II_7.85in
S8_15 J140	0.88	365.00	0.00	1.2000	SCS_Type_II_7.85in
S8_16 J141	0.51	365.00	0.00	1.2000	SCS_Type_II_7.85in
S8_18 J83	0.44	380.00	0.00	1.4000	SCS_Type_II_7.85in
S8_2 J122	0.70	300.00	0.00	1.4000	SCS_Type_II_7.85in
S8_3 J120	0.95	330.00	0.00	1.2000	SCS_Type_II_7.85in
S8_4 J124	0.61	240.00	0.00	1.3000	SCS_Type_II_7.85in
S8_5 J126	0.44	100.00	0.00	1.4000	SCS_Type_II_7.85in
S8_7 J138	0.78	365.00	0.00	1.4000	SCS_Type_II_7.85in
S8_8 J54	0.39	620.00	0.00	3.4000	SCS_Type_II_7.85in
S8_9 J16	0.30	385.00	0.00	3.4000	SCS_Type_II_7.85in
S9 J129	1.57	840.00	0.00	1.4000	SCS_Type_II_7.85in
S9_2 J115	0.95	445.00	0.00	1.4000	SCS_Type_II_7.85in
S9_3 J113	0.90	370.00	0.00	1.3000	SCS_Type_II_7.85in
S9_4 J117	1.05	445.00	0.00	1.2000	SCS_Type_II_7.85in
S9_5 J11	0.93	640.00	0.00	1.2000	SCS_Type_II_7.85in

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	708.00	2.00	0.0	

J10	JUNCTION	736.00	2.00	0.0
J100	JUNCTION	678.00	3.50	0.0
J101	JUNCTION	702.00	2.00	0.0
J102	JUNCTION	704.00	2.00	0.0
J103	JUNCTION	724.00	2.00	0.0
J104	JUNCTION	726.00	2.00	0.0
J105	JUNCTION	746.00	2.00	0.0
J106	JUNCTION	625.00	4.00	0.0
J107	JUNCTION	828.70	2.50	0.0
J108	JUNCTION	825.22	2.50	0.0
J109	JUNCTION	820.00	2.00	0.0
J11	JUNCTION	682.00	3.50	0.0
J110	JUNCTION	796.00	2.00	0.0
J111	JUNCTION	776.00	2.00	0.0
J112	JUNCTION	774.00	2.00	0.0
J113	JUNCTION	754.00	2.00	0.0
J114	JUNCTION	750.00	2.00	0.0
J115	JUNCTION	730.00	2.00	0.0
J116	JUNCTION	728.00	2.00	0.0
J117	JUNCTION	708.00	2.00	0.0
J118	JUNCTION	704.00	2.00	0.0
J119	JUNCTION	710.00	2.00	0.0
J12	JUNCTION	756.00	2.00	0.0
J120	JUNCTION	714.00	2.00	0.0
J121	JUNCTION	732.00	2.00	0.0
J122	JUNCTION	736.00	2.00	0.0
J123	JUNCTION	754.00	2.00	0.0
J124	JUNCTION	756.00	2.00	0.0
J125	JUNCTION	778.00	2.00	0.0
J126	JUNCTION	782.00	2.00	0.0
J127	JUNCTION	800.00	2.00	0.0
J128	JUNCTION	730.00	3.50	0.0
J129	JUNCTION	694.00	3.50	0.0
J13	JUNCTION	760.00	2.00	0.0
J130	JUNCTION	690.00	3.50	0.0
J131	JUNCTION	759.27	2.50	0.0
J132	JUNCTION	766.67	2.50	0.0
J133	JUNCTION	804.00	2.00	0.0
J134	JUNCTION	784.00	2.00	0.0
J135	JUNCTION	780.00	2.00	0.0
J136	JUNCTION	762.00	2.00	0.0
J137	JUNCTION	760.00	2.00	0.0
J138	JUNCTION	738.00	2.00	0.0
J139	JUNCTION	734.00	2.00	0.0
J14	JUNCTION	734.00	3.50	0.0
J140	JUNCTION	716.00	2.00	0.0
J141	JUNCTION	712.00	2.00	0.0
J142	JUNCTION	716.00	2.00	0.0
J143	JUNCTION	718.00	2.00	0.0
J144	JUNCTION	738.00	2.00	0.0
J145	JUNCTION	740.00	2.00	0.0
J146	JUNCTION	824.00	2.00	0.0
J147	JUNCTION	621.00	4.00	0.0
J148	JUNCTION	651.62	22.38	0.0
J149	JUNCTION	814.00	2.00	0.0
J15	JUNCTION	778.00	2.00	0.0
J150	JUNCTION	724.00	2.00	0.0

J151	JUNCTION	814.00	2.50	0.0
J152	JUNCTION	658.86	15.14	0.0
J16	JUNCTION	676.00	3.50	0.0
J17	JUNCTION	784.00	2.00	0.0
J18	JUNCTION	686.00	3.50	0.0
J19	JUNCTION	804.00	2.00	0.0
J2	JUNCTION	716.00	3.50	0.0
J20	JUNCTION	674.00	2.00	0.0
J21	JUNCTION	692.00	3.50	0.0
J22	JUNCTION	740.00	3.50	0.0
J23	JUNCTION	738.00	3.50	0.0
J24	JUNCTION	714.00	3.50	0.0
J25	JUNCTION	713.00	3.50	0.0
J26	JUNCTION	706.00	3.50	0.0
J27	JUNCTION	726.00	2.00	0.0
J28	JUNCTION	730.00	2.00	0.0
J29	JUNCTION	750.00	2.00	0.0
J30	JUNCTION	752.00	2.00	0.0
J31	JUNCTION	768.00	2.00	0.0
J32	JUNCTION	770.00	3.50	0.0
J33	JUNCTION	788.00	3.50	0.0
J34	JUNCTION	678.00	3.50	0.0
J35	JUNCTION	740.00	2.00	0.0
J37	JUNCTION	762.00	2.00	0.0
J38	JUNCTION	764.00	2.00	0.0
J39	JUNCTION	782.00	2.00	0.0
J4	JUNCTION	690.00	3.50	0.0
J40	JUNCTION	784.00	2.00	0.0
J41	JUNCTION	802.00	2.00	0.0
J42	JUNCTION	804.00	2.00	0.0
J43	JUNCTION	682.00	3.50	0.0
J44	JUNCTION	680.04	3.50	0.0
J45	JUNCTION	659.30	14.70	0.0
J46	JUNCTION	774.00	2.00	0.0
J47	JUNCTION	827.80	2.50	0.0
J48	JUNCTION	796.38	2.50	0.0
J49	JUNCTION	789.27	2.50	0.0
J5	JUNCTION	694.00	3.50	0.0
J50	JUNCTION	762.00	2.00	0.0
J51	JUNCTION	758.00	2.00	0.0
J52	JUNCTION	740.00	2.00	0.0
J53	JUNCTION	738.00	2.00	0.0
J54	JUNCTION	696.00	3.50	0.0
J55	JUNCTION	718.00	2.00	0.0
J56	JUNCTION	722.00	2.00	0.0
J57	JUNCTION	744.00	2.00	0.0
J58	JUNCTION	746.00	2.00	0.0
J59	JUNCTION	706.00	2.00	0.0
J6	JUNCTION	712.00	2.00	0.0
J60	JUNCTION	710.00	2.00	0.0
J61	JUNCTION	732.00	2.00	0.0
J62	JUNCTION	734.00	2.00	0.0
J63	JUNCTION	756.00	2.00	0.0
J64	JUNCTION	780.00	2.00	0.0
J65	JUNCTION	816.00	2.00	0.0
J66	JUNCTION	794.00	2.00	0.0
J67	JUNCTION	750.00	2.00	0.0

J68	JUNCTION	730.00	2.00	0.0
J69	JUNCTION	728.00	3.50	0.0
J7	JUNCTION	718.00	3.50	0.0
J70	JUNCTION	694.00	2.00	0.0
J71	JUNCTION	696.00	2.00	0.0
J72	JUNCTION	718.00	2.00	0.0
J73	JUNCTION	720.00	2.00	0.0
J74	JUNCTION	742.00	2.00	0.0
J75	JUNCTION	746.00	2.00	0.0
J76	JUNCTION	764.00	2.00	0.0
J77	JUNCTION	768.00	2.00	0.0
J78	JUNCTION	788.00	2.00	0.0
J79	JUNCTION	826.00	2.00	0.0
J8	JUNCTION	732.00	2.00	0.0
J80	JUNCTION	738.32	2.50	0.0
J81	JUNCTION	772.00	2.00	0.0
J82	JUNCTION	676.00	3.50	0.0
J83	JUNCTION	724.00	2.00	0.0
J86	JUNCTION	657.50	16.50	0.0
J87	JUNCTION	688.00	3.50	0.0
J88	JUNCTION	671.77	3.50	0.0
J89	JUNCTION	675.94	2.00	0.0
J9	JUNCTION	688.00	3.50	0.0
J90	JUNCTION	652.25	21.75	0.0
J91	JUNCTION	649.00	19.00	0.0
J94	JUNCTION	631.00	4.00	0.0
J96	JUNCTION	722.00	2.00	0.0
J97	JUNCTION	672.04	3.50	0.0
J98	JUNCTION	700.00	2.00	0.0
J99	JUNCTION	696.00	2.00	0.0
J3	OUTFALL	648.36	0.00	0.0
J36	OUTFALL	656.94	0.00	0.0
J84	OUTFALL	648.36	3.00	0.0
J85	OUTFALL	656.94	4.00	0.0
J92	OUTFALL	620.00	4.00	0.0
J93	OUTFALL	624.00	4.00	0.0
J95	OUTFALL	630.00	4.00	0.0
SU1	STORAGE	654.00	20.00	0.0
SU2	STORAGE	650.00	18.00	0.0
SU3	STORAGE	660.00	14.00	0.0
SU4	STORAGE	658.00	16.00	0.0

Link Summary

Name		From Node	To Node	Type	Length	%
Slope Roughness						

C1		J87	J43	CONDUIT	88.9	
6.7642	0.0150					
C1_1		J34	J89	CONDUIT	60.7	
3.4049	0.0150					
C1_2		J89	J20	CONDUIT	56.9	
3.4051	0.0150					
C1_4		J43	J34	CONDUIT	60.2	
6.6613	0.0150					

C10		J65	J66	CONDUIT	98.5
22.9117	0.0740				
C10_1		J11	J100	CONDUIT	273.8
1.4609	0.0200				
C10_2		J100	J82	CONDUIT	538.1
0.3717	0.0150				
C10_3		J14	J128	CONDUIT	229.0
1.7468	0.0200				
C10_5		J128	J69	CONDUIT	45.0
4.4460	0.0200				
C100		J126	J125	CONDUIT	42.3
9.5034	0.0740				
C101		J125	J124	CONDUIT	64.2
36.5061	0.0740				
C102		J124	J123	CONDUIT	40.0
5.0036	0.0740				
C103		J122	J121	CONDUIT	38.6
10.4264	0.0740				
C104		J123	J122	CONDUIT	58.0
32.6527	0.0740				
C105		J121	J120	CONDUIT	63.5
29.5553	0.0740				
C106		J120	J119	CONDUIT	39.3
10.2247	0.0740				
C107		J119	J9	CONDUIT	87.3
26.0250	0.0740				
C109		J133	J134	CONDUIT	98.5
20.7356	0.0740				
C11		J83	J96	CONDUIT	35.1
5.7117	0.0740				
C11_3		J16	J97	CONDUIT	184.2
2.1504	0.0200				
C11_4		J82	J97	CONDUIT	106.5
3.7193	0.0150				
C110		J134	J135	CONDUIT	39.8
10.1045	0.0740				
C111		J135	J136	CONDUIT	61.2
30.7487	0.0740				
C112		J136	J137	CONDUIT	15.0
13.4535	0.0740				
C113		J137	J138	CONDUIT	67.6
34.4374	0.0740				
C114		J138	J139	CONDUIT	15.0
27.6686	0.0740				
C115		J139	J140	CONDUIT	66.3
28.2217	0.0740				
C116		J140	J141	CONDUIT	15.0
27.6686	0.0740				
C117		J141	J130	CONDUIT	88.8
25.5861	0.0740				
C118		J145	J144	CONDUIT	32.6
6.1407	0.0740				
C119		J144	J143	CONDUIT	60.9
34.7474	0.0740				
C12		J69	J7	CONDUIT	264.2
3.7872	0.0200				
C12_1		J18	J44	CONDUIT	160.2
3.7240	0.0150				
C120		J143	J142	CONDUIT	41.9
4.7772	0.0740				

C121		J142	J129	CONDUIT	81.7
27.9455	0.0740				
C123		J147	J92	CONDUIT	120.0
0.8334	0.0120				
C13		J58	J57	CONDUIT	38.2
5.2446	0.0740				
C13_2		J54	J18	CONDUIT	291.1
3.4370	0.0200				
C13_4		J2	J54	CONDUIT	560.8
3.5689	0.0200				
C14		J106	J93	CONDUIT	145.0
0.6897	0.0120				
C14_1		J7	J26	CONDUIT	376.1
3.1921	0.0150				
C14_2		J26	J4	CONDUIT	466.4
3.4328	0.0150				
C14_3		J22	J23	CONDUIT	33.4
6.0035	0.0740				
C14_4		J24	J25	CONDUIT	39.9
2.5094	0.0740				
C14_5		J23	J24	CONDUIT	70.4
36.2702	0.0740				
C14_7		J25	J21	CONDUIT	88.7
24.3786	0.0740				
C15		J14	J2	CONDUIT	541.8
3.3244	0.0200				
C16		J44	J16	CONDUIT	127.5
3.1710	0.0200				
C16_1		J5	J21	CONDUIT	351.7
0.5687	0.0200				
C16_2		J21	J4	CONDUIT	199.4
1.0032	0.0150				
C17		J22	J23	CONDUIT	33.4
6.0035	0.0740				
C17_1		J5	J129	CONDUIT	738.2
0.0001	0.0200				
C17_3		J129	J130	CONDUIT	302.4
1.3227	0.0200				
C17_4		J130	J9	CONDUIT	300.0
0.6666	0.0200				
C18		J9	J11	CONDUIT	571.0
1.0508	0.0200				
C19		J10	J8	CONDUIT	25.0
16.2088	0.0740				
C2		J94	J95	CONDUIT	155.0
0.6452	0.0120				
C2_13		J4	J87	CONDUIT	149.6
1.3366	0.0120				
C2_3		J90	J148	CONDUIT	130.0
0.4846	0.0220				
C2_4		J148	SU2	CONDUIT	50.0
3.2417	0.0220				
C20		J8	J6	CONDUIT	60.0
35.3553	0.0740				
C21		J6	J1	CONDUIT	15.0
27.6686	0.0740				
C22		J1	J5	CONDUIT	70.9
20.1353	0.0740				
C23		J145	J144	CONDUIT	32.6
6.1407	0.0740				

C24		J33	J32	CONDUIT	81.6
22.6025	0.0740				
C25		J46	J81	CONDUIT	25.4
7.9029	0.0740				
C26		J81	J67	CONDUIT	74.4
30.9459	0.0740				
C27		J32	J31	CONDUIT	40.1
4.9949	0.0740				
C28		J31	J30	CONDUIT	52.9
31.7148	0.0740				
C29		J30	J29	CONDUIT	35.4
5.6631	0.0740				
C3		J20	SU3	CONDUIT	251.1
5.5847	0.0100				
C3_7		J97	J88	CONDUIT	60.0
0.4500	0.0120				
C30		J29	J28	CONDUIT	65.4
32.0987	0.0740				
C31		J28	J27	CONDUIT	39.4
10.1966	0.0740				
C32		J27	J26	CONDUIT	78.6
26.3282	0.0740				
C33		J67	J68	CONDUIT	104.5
19.4928	0.0740				
C34		J42	J41	CONDUIT	33.6
5.9562	0.0740				
C35		J41	J40	CONDUIT	61.5
30.6141	0.0740				
C36		J40	J39	CONDUIT	30.0
6.6815	0.0740				
C37		J39	J38	CONDUIT	56.5
33.6229	0.0740				
C38		J38	J37	CONDUIT	30.0
6.6815	0.0740				
C39		J37	J35	CONDUIT	100.6
22.4227	0.0740				
C4		J88	SU1	CONDUIT	212.9
8.3770	0.0010				
C40		J68	J69	CONDUIT	15.7
12.8393	0.0740				
C41_1		J35	J150	CONDUIT	47.4
35.8763	0.0740				
C41_2		J150	J7	CONDUIT	34.5
17.6562	0.0740				
C42		J66	J46	CONDUIT	98.5
20.7315	0.0740				
C42_3		J131	J80	CONDUIT	255.6
8.2227	0.0150				
C42_4		J80	J128	CONDUIT	156.0
5.3398	0.0150				
C43		J132	J131	CONDUIT	87.3
8.5086	0.0150				
C44		J49	J132	CONDUIT	269.4
8.4192	0.0150				
C45		J79	J133	CONDUIT	64.2
36.4971	0.0740				
C45_1		J108	J151	CONDUIT	119.1
9.4596	0.0200				
C45_2		J48	J49	CONDUIT	65.3
10.9448	0.0200				

C45_3		J151	J48	CONDUIT	245.2
7.2048	0.0200				
C45_4		J47	J108	CONDUIT	43.8
5.9007	0.0200				
C46		J146	J42	CONDUIT	64.8
32.4246	0.0740				
C47		J149	J78	CONDUIT	124.9
21.2854	0.0740				
C48		J50	J51	CONDUIT	42.4
9.4717	0.0740				
C49		J51	J52	CONDUIT	55.1
34.5825	0.0740				
C5		J19	J17	CONDUIT	85.6
24.0269	0.0740				
C50		J52	J53	CONDUIT	39.5
5.0703	0.0740				
C51		J53	J2	CONDUIT	80.5
28.4005	0.0740				
C52		J57	J56	CONDUIT	67.1
34.7198	0.0740				
C53		J56	J55	CONDUIT	40.4
9.9571	0.0740				
C54		J55	J54	CONDUIT	81.9
27.8818	0.0740				
C55_1		J45	J152	CONDUIT	90.0
0.4889	0.0220				
C55_2		J152	SU4	CONDUIT	28.9
2.9723	0.0220				
C56		J86	J85	CONDUIT	120.0
0.4667	0.0220				
C56_1		J107	J47	CONDUIT	32.0
2.8136	0.0200				
C6		J17	J15	CONDUIT	25.0
24.7226	0.0740				
C60		J64	J63	CONDUIT	117.9
20.7903	0.0740				
C61		J63	J62	CONDUIT	86.6
26.2678	0.0740				
C62		J62	J61	CONDUIT	40.1
4.9939	0.0740				
C63		J61	J60	CONDUIT	65.6
35.5871	0.0740				
C64		J59	J18	CONDUIT	71.4
29.1824	0.0740				
C65		J60	J59	CONDUIT	43.5
9.2395	0.0740				
C69		J78	J77	CONDUIT	70.5
29.5760	0.0740				
C7		J15	J13	CONDUIT	60.1
31.3842	0.0740				
C70		J77	J76	CONDUIT	47.2
8.5043	0.0740				
C71		J76	J75	CONDUIT	55.8
34.0649	0.0740				
C72		J75	J74	CONDUIT	45.1
8.9009	0.0740				
C73		J74	J73	CONDUIT	63.9
36.6590	0.0740				
C74		J73	J72	CONDUIT	38.7
5.1741	0.0740				

C75		J72	J71	CONDUIT	69.7
33.2437	0.0740				
C76		J71	J70	CONDUIT	38.8
5.1583	0.0740				
C77		J70	J16	CONDUIT	66.2
28.2346	0.0740				
C78		J96	J98	CONDUIT	67.5
34.4523	0.0740				
C79		J98	J99	CONDUIT	44.1
9.1130	0.0740				
C8		J13	J12	CONDUIT	40.1
10.0281	0.0740				
C80		J99	J82	CONDUIT	80.3
25.7047	0.0740				
C81		J105	J104	CONDUIT	69.2
30.1873	0.0740				
C82		J104	J103	CONDUIT	34.6
5.7842	0.0740				
C83		J103	J102	CONDUIT	64.6
32.5506	0.0740				
C84		J102	J101	CONDUIT	43.4
4.6107	0.0740				
C85		J101	J100	CONDUIT	83.8
29.9100	0.0740				
C88		J109	J110	CONDUIT	127.9
19.1048	0.0740				
C89		J110	J111	CONDUIT	64.7
32.5183	0.0740				
C9		J12	J10	CONDUIT	45.0
49.6139	0.0740				
C90		J111	J112	CONDUIT	39.1
5.1255	0.0740				
C91		J112	J113	CONDUIT	64.9
32.4080	0.0740				
C92		J113	J114	CONDUIT	39.9
10.0822	0.0740				
C93		J114	J115	CONDUIT	65.6
32.0312	0.0740				
C94		J115	J116	CONDUIT	12.0
16.9031	0.0740				
C95		J116	J117	CONDUIT	63.6
33.1242	0.0740				
C96		J117	J118	CONDUIT	15.0
27.6686	0.0740				
C97		J118	J11	CONDUIT	89.1
25.4672	0.0740				
C99		J127	J126	CONDUIT	85.5
21.5287	0.0740				
OL1_2		J91	J84	CONDUIT	130.0
0.4923	0.0220				
W1		SU1	SU2	WEIR	
W2		SU3	SU4	WEIR	
W3		SU2	J3	WEIR	
W4		SU4	J36	WEIR	
C2_1		SU1	J90	OUTLET	
C41		SU3	J45	OUTLET	
OL1		SU4	J86	OUTLET	
OL1_1		SU2	J91	OUTLET	

 Cross Section Summary

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

C1 1827.23	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C1_1 1296.40	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C1_2 1767.72	TRAPEZOIDAL	2.00	80.00	1.33	60.00	1
C1_4 1813.29	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C10 217.24	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C10_1 709.36	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_2 477.06	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_3 775.68	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_5 1237.49	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C100 139.91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C101 274.22	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C102 101.52	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C103 146.55	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C104 259.34	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C105 246.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C106 145.12	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C107 231.53	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C109 206.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11 108.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11_3 860.62	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C11_4 1509.12	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C110 144.27	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C111 251.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C112 166.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C113 266.33	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

C114 238.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C115 241.10	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C116 238.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C117 229.57	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C118 112.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C119 267.53	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C12 1142.13	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C12_1 1510.09	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C120 99.20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C121 239.92	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C123 142.06	CIRCULAR	4.00	12.57	1.00	4.00	1
C13 103.94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C13_2 1088.04	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C13_4 1108.72	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14 129.23	CIRCULAR	4.00	12.57	1.00	4.00	1
C14_1 1398.09	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_2 1449.83	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_3 388.65	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_4 251.27	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_5 955.28	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_7 783.18	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C15 1070.07	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16 1045.10	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16_1 442.58	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16_2 783.76	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17 111.20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C17_1 6.83	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17_3 674.98	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17_4 479.17	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C18 601.61	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1

C19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
182.72						
C2	CIRCULAR	4.00	12.57	1.00	4.00	1
124.99						
C2_13	RECT_CLOSED	3.00	18.00	1.00	6.00	2
257.70						
C2_3	CIRCULAR	4.00	12.57	1.00	4.00	1
59.09						
C2_4	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
269.86						
C21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
238.73						
C22	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
203.65						
C23	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
112.47						
C24	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
754.11						
C25	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
127.59						
C26	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
252.47						
C27	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
101.43						
C28	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
255.59						
C29	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
108.00						
C3	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C3_7	RECT_CLOSED	3.00	18.00	1.00	6.00	3
149.53						
C30	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
257.13						
C31	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
144.92						
C32	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
232.87						
C33	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
200.38						
C34	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
110.76						
C35	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
251.11						
C36	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
117.31						
C37	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
263.16						
C38	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
117.31						
C39	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
214.91						
C4	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C40	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
162.62						
C41_1	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
271.84						

C41_2 190.70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C42 206.64	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C42_3 817.35	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C42_4 658.66	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C43 831.44	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C44 827.06	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45 274.18	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C45_1 657.51	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_2 707.24	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_3 573.82	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_4 519.29	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C46 258.43	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C47 209.39	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C48 139.68	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C49 266.89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C5 222.46	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C50 102.19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C51 241.86	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C52 267.42	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C53 143.21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C54 239.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C55_1 59.35	CIRCULAR	4.00	12.57	1.00	4.00	1
C55_2 0.00	DUMMY	0.00	0.00	0.00	0.00	1
C56 57.98	CIRCULAR	4.00	12.57	1.00	4.00	1
C56_1 358.59	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C6 225.66	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C60 206.94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C61 232.61	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C62 101.42	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C63 270.74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

C64	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
245.17						
C65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
137.95						
C69	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
246.82						
C7	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
254.25						
C70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
132.35						
C71	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
264.89						
C72	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
135.40						
C73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
274.79						
C74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
103.23						
C75	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
261.68						
C76	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
103.08						
C77	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
241.16						
C78	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
266.39						
C79	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
137.01						
C8	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
143.72						
C80	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
230.10						
C81	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
249.36						
C82	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
109.15						
C83	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.93						
C84	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
97.45						
C85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
248.21						
C88	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
198.37						
C89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.81						
C9	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
319.68						
C90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
102.75						
C91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.37						
C92	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
144.11						
C93	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
256.86						
C94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
186.59						
C95	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
261.21						

C96	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
238.73						
C97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
229.03						
C99	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
210.58						
OL1_2	CIRCULAR	3.00	7.07	0.75	3.00	1
27.65						

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

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
Infiltration Method CURVE_NUMBER
Flow Routing Method DYNWAVE
Surcharge Method EXTRAN
Starting Date 10/18/2022 00:00:00
Ending Date 10/19/2022 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00
Routing Time Step 5.00 sec
Variable Time Step YES
Maximum Trials 8
Number of Threads 8
Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	90.348	7.850
Evaporation Loss	0.000	0.000
Infiltration Loss	27.055	2.351
Surface Runoff	61.808	5.370
Final Storage	1.610	0.140
Continuity Error (%)	-0.139	

***** Volume Volume

Flow Routing Continuity	acre-feet	10 ⁶ gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	61.844	20.153
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	27.376	8.921
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	9.276	3.023
Final Stored Volume	43.749	14.256
Continuity Error (%)	-0.006	

Highest Continuity Errors

Node J90 (1.24%)

Time-Step Critical Elements

Link C116 (87.02%)

Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

Minimum Time Step	:	0.50 sec
Average Time Step	:	2.86 sec
Maximum Time Step	:	5.00 sec
Percent in Steady State	:	-0.00
Average Iterations per Step	:	2.00
Percent Not Converging	:	0.00
Time Step Frequencies	:	
5.000 - 3.155 sec	:	26.56 %
3.155 - 1.991 sec	:	53.93 %
1.991 - 1.256 sec	:	13.23 %
1.256 - 0.792 sec	:	6.28 %
0.792 - 0.500 sec	:	0.00 %

Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Runoff	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Precip	Runoff	Runoff	in	in	in
in	in	10 ⁶ gal	in	CFS	in	in	in
S1			7.85	0.00	0.00	2.16	0.00
5.54	5.54	0.13	5.06	0.706			
S10			7.85	0.00	0.00	2.60	0.00
5.19	5.19	0.08	4.32	0.661			
S10_3			7.85	0.00	0.00	2.43	0.00
5.36	5.36	0.09	5.12	0.682			
S10_5			7.85	0.00	0.00	2.43	0.00
5.36	5.36	0.09	5.02	0.683			
S10_6			7.85	0.00	0.00	2.60	0.00
5.19	5.19	0.05	2.81	0.662			
S11			7.85	0.00	0.00	1.81	0.00
5.96	5.96	0.16	8.16	0.759			
S11_10			7.85	0.00	0.00	2.60	0.00
5.19	5.19	0.10	5.41	0.661			
S11_3			7.85	0.00	0.00	2.60	0.00
5.18	5.18	0.11	5.97	0.660			
S11_4			7.85	0.00	0.00	2.60	0.00
5.18	5.18	0.10	5.73	0.660			
S11_8			7.85	0.00	0.00	2.60	0.00
5.18	5.18	0.09	4.72	0.659			
S12			7.85	0.00	0.00	2.60	0.00
5.15	5.15	0.13	5.87	0.655			
S12_3			7.85	0.00	0.00	2.51	0.00
5.28	5.28	0.05	3.05	0.672			
S12_4			7.85	0.00	0.00	2.51	0.00
5.28	5.28	0.05	2.71	0.672			
S13			7.85	0.00	0.00	2.69	0.00
5.02	5.02	0.67	26.70	0.640			
S14			7.85	0.00	0.00	2.69	0.00
5.05	5.05	0.15	6.55	0.643			
S15			7.85	0.00	0.00	2.60	0.00
5.13	5.13	0.21	9.06	0.653			
S16			7.85	0.00	0.00	2.16	0.00
5.53	5.53	2.07	78.79	0.705			
S16_2			7.85	0.00	0.00	2.60	0.00
5.02	5.02	2.02	55.52	0.639			
S16_3			7.85	0.00	0.00	2.43	0.00
5.25	5.25	2.42	84.18	0.668			
S16_4			7.85	0.00	0.00	2.43	0.00
5.28	5.28	0.25	10.19	0.673			
S16_5			7.85	0.00	0.00	2.34	0.00
5.41	5.41	0.06	2.61	0.689			
S18			7.85	0.00	0.00	2.60	0.00
5.13	5.13	0.13	5.42	0.654			
S18_1			7.85	0.00	0.00	2.60	0.00
5.19	5.19	0.09	4.96	0.662			
S19_3			7.85	0.00	0.00	2.43	0.00
5.36	5.36	0.07	3.75	0.683			
S2			7.85	0.00	0.00	2.69	0.00
5.09	5.09	0.10	5.26	0.648			
S20_1			7.85	0.00	0.00	2.34	0.00
5.45	5.45	0.11	6.14	0.694			

S21			7.85	0.00	0.00	1.89	1.95
3.94	5.89	0.07	3.72	0.750			
S21_1			7.85	0.00	0.00	1.16	0.00
6.63	6.63	0.12	6.56	0.845			
S22_2			7.85	0.00	0.00	2.69	0.00
5.09	5.09	0.10	5.34	0.649			
S23			7.85	0.00	0.00	2.69	0.00
4.95	4.95	0.18	5.26	0.630			
S23_1			7.85	0.00	0.00	2.69	0.00
5.07	5.07	0.13	5.97	0.645			
S23_10			7.85	0.00	0.00	2.43	0.00
5.31	5.31	0.11	4.56	0.677			
S23_11			7.85	0.00	0.00	2.60	0.00
5.14	5.14	0.20	8.93	0.655			
S23_12			7.85	0.00	0.00	2.34	0.00
5.39	5.39	0.08	3.52	0.687			
S23_13			7.85	0.00	0.00	2.60	0.00
5.12	5.12	0.12	4.83	0.652			
S23_15			7.85	0.00	0.00	2.69	0.00
5.06	5.06	0.17	7.53	0.645			
S23_2			7.85	0.00	0.00	2.43	0.00
5.31	5.31	0.14	6.05	0.677			
S23_3			7.85	0.00	0.00	2.60	0.00
5.14	5.14	0.15	6.36	0.655			
S23_4			7.85	0.00	0.00	2.60	0.00
5.15	5.15	0.10	4.61	0.656			
S23_7			7.85	0.00	0.00	2.51	0.00
5.23	5.23	0.12	5.44	0.666			
S23_8			7.85	0.00	0.00	2.69	0.00
5.07	5.07	0.10	4.83	0.646			
S23_9			7.85	0.00	0.00	2.43	0.00
5.29	5.29	0.21	8.60	0.674			
S24			7.85	0.00	0.00	1.82	1.95
4.00	5.96	0.12	6.21	0.759			
S24_1			7.85	0.00	0.00	1.44	0.00
6.34	6.34	0.08	4.46	0.807			
S25			7.85	0.00	0.00	1.82	1.95
4.00	5.95	0.18	8.69	0.758			
S25_2			7.85	0.00	0.00	2.60	0.00
5.14	5.14	0.18	7.72	0.654			
S25_3			7.85	0.00	0.00	2.34	0.00
5.38	5.38	0.10	4.04	0.685			
S26			7.85	0.00	0.00	2.60	0.00
5.13	5.13	0.10	4.26	0.654			
S27			7.85	0.00	0.00	1.62	1.95
4.19	6.15	0.19	9.13	0.783			
S28			7.85	0.00	0.00	1.82	1.95
4.00	5.95	0.09	4.34	0.758			
S29			7.85	0.00	0.00	1.75	1.95
4.09	6.05	0.03	1.65	0.770			
S3			7.85	0.00	0.00	2.01	1.95
3.77	5.72	0.38	15.56	0.729			
S3_1			7.85	0.00	0.00	2.51	0.00
5.24	5.24	0.16	7.53	0.668			
S3_2			7.85	0.00	0.00	1.82	1.95
3.97	5.93	0.46	19.90	0.755			
S30			7.85	0.00	0.00	1.75	1.95
4.09	6.04	0.06	3.47	0.769			
S32			7.85	0.00	0.00	1.82	1.95
4.00	5.95	0.12	5.73	0.758			

S33			7.85	0.00	0.00	1.95	1.95
3.85	5.80	0.12	5.36	0.739			
S34			7.85	0.00	0.00	2.01	1.95
3.80	5.75	0.08	4.05	0.733			
S35_1			7.85	0.00	0.00	1.82	1.95
3.97	5.93	0.49	21.39	0.755			
S35_2			7.85	0.00	0.00	1.89	1.95
3.89	5.84	0.17	6.57	0.744			
S35_3			7.85	0.00	0.00	1.89	1.95
3.88	5.84	0.07	2.82	0.743			
S35_4			7.85	0.00	0.00	1.75	1.95
4.04	5.99	0.11	4.96	0.763			
S35_6			7.85	0.00	0.00	2.01	1.95
3.77	5.72	0.09	3.60	0.729			
S4			7.85	0.00	0.00	2.69	0.00
5.00	5.00	0.10	3.69	0.637			
S4_2			7.85	0.00	0.00	1.16	0.00
6.54	6.54	0.58	22.81	0.834			
S4_4			7.85	0.00	0.00	2.51	0.00
5.28	5.28	0.12	6.62	0.672			
S5_1			7.85	0.00	0.00	2.34	0.00
5.45	5.45	0.11	6.20	0.695			
S5_3			7.85	0.00	0.00	2.51	0.00
5.27	5.27	0.21	11.77	0.671			
S6			7.85	0.00	0.00	2.43	0.00
5.25	5.25	0.26	9.10	0.669			
S6_11			7.85	0.00	0.00	2.16	0.00
5.61	5.61	0.10	5.44	0.715			
S6_2			7.85	0.00	0.00	2.51	0.00
5.26	5.26	0.14	7.22	0.670			
S6_3			7.85	0.00	0.00	2.43	0.00
5.36	5.36	0.32	17.27	0.682			
S6_4			7.85	0.00	0.00	2.43	0.00
5.37	5.37	0.12	6.69	0.684			
S6_6			7.85	0.00	0.00	2.69	0.00
5.10	5.10	0.09	4.87	0.650			
S7_2			7.85	0.00	0.00	2.43	0.00
5.32	5.32	0.11	4.75	0.677			
S7_3			7.85	0.00	0.00	2.34	0.00
5.43	5.43	0.19	9.80	0.691			
S7_4			7.85	0.00	0.00	2.51	0.00
5.22	5.22	0.20	8.32	0.665			
S8			7.85	0.00	0.00	2.43	0.00
5.35	5.35	0.33	17.57	0.681			
S8_11			7.85	0.00	0.00	2.43	0.00
5.35	5.35	0.14	7.48	0.681			
S8_12			7.85	0.00	0.00	2.25	0.00
5.51	5.51	0.23	11.21	0.702			
S8_13			7.85	0.00	0.00	2.60	0.00
5.18	5.18	0.13	6.88	0.659			
S8_15			7.85	0.00	0.00	2.51	0.00
5.25	5.25	0.13	6.19	0.668			
S8_16			7.85	0.00	0.00	2.60	0.00
5.18	5.18	0.07	3.84	0.660			
S8_18			7.85	0.00	0.00	2.51	0.00
5.27	5.27	0.06	3.51	0.671			
S8_2			7.85	0.00	0.00	2.51	0.00
5.25	5.25	0.10	5.02	0.669			
S8_3			7.85	0.00	0.00	2.51	0.00
5.24	5.24	0.14	6.41	0.668			

S8_4			7.85	0.00	0.00	2.60	0.00
5.16_4	5.16	0.09	4.21	0.657			
S8_5			7.85	0.00	0.00	2.34	0.00
5.40_5	5.40	0.06	2.79	0.688			
S8_7			7.85	0.00	0.00	2.69	0.00
5.08_7	5.08	0.11	5.48	0.647			
S8_8			7.85	0.00	0.00	2.43	0.00
5.37_8	5.37	0.06	3.32	0.684			
S8_9			7.85	0.00	0.00	2.34	0.00
5.46_9	5.46	0.04	2.58	0.695			
S9			7.85	0.00	0.00	2.69	0.00
5.09_9	5.09	0.22	11.27	0.648			
S9_2			7.85	0.00	0.00	2.69	0.00
5.08_2	5.08	0.13	6.66	0.647			
S9_3			7.85	0.00	0.00	2.60	0.00
5.16_3	5.16	0.13	6.24	0.658			
S9_4			7.85	0.00	0.00	2.16	0.00
5.60_4	5.60	0.16	7.98	0.713			
S9_5			7.85	0.00	0.00	2.51	0.00
5.26_5	5.26	0.13	7.14	0.671			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.15	0.88	708.88	0 12:00	0.88
J10	JUNCTION	0.12	0.71	736.71	0 12:00	0.71
J100	JUNCTION	0.44	2.30	680.30	0 11:58	2.30
J101	JUNCTION	0.07	0.50	702.50	0 11:54	0.49
J102	JUNCTION	0.16	0.87	704.87	0 11:54	0.87
J103	JUNCTION	0.06	0.39	724.39	0 11:54	0.39
J104	JUNCTION	0.11	0.65	726.65	0 11:54	0.65
J105	JUNCTION	0.04	0.28	746.28	0 11:54	0.28
J106	JUNCTION	0.47	2.64	627.64	0 12:00	2.64
J107	JUNCTION	0.04	0.25	828.95	0 11:54	0.25
J108	JUNCTION	0.03	0.18	825.40	0 11:54	0.18
J109	JUNCTION	0.04	0.28	820.28	0 12:00	0.28
J11	JUNCTION	0.32	1.82	683.82	0 11:57	1.82
J110	JUNCTION	0.04	0.23	796.23	0 12:00	0.23
J111	JUNCTION	0.06	0.39	776.39	0 12:00	0.39
J112	JUNCTION	0.07	0.42	774.42	0 12:00	0.42
J113	JUNCTION	0.12	0.74	754.74	0 11:55	0.74
J114	JUNCTION	0.08	0.52	750.52	0 11:55	0.52
J115	JUNCTION	0.12	0.75	730.75	0 11:54	0.75
J116	JUNCTION	0.09	0.61	728.61	0 11:55	0.61
J117	JUNCTION	0.12	0.75	708.75	0 11:54	0.75
J118	JUNCTION	0.12	0.76	704.76	0 11:54	0.76
J119	JUNCTION	0.10	0.62	710.62	0 11:55	0.62
J12	JUNCTION	0.07	0.40	756.40	0 12:00	0.40
J120	JUNCTION	0.13	0.82	714.82	0 11:55	0.82
J121	JUNCTION	0.08	0.49	732.49	0 11:55	0.49
J122	JUNCTION	0.11	0.68	736.68	0 11:55	0.68

J123	JUNCTION	0.06	0.39	754.39	0	11:55	0.39
J124	JUNCTION	0.13	0.70	756.70	0	11:55	0.70
J125	JUNCTION	0.05	0.29	778.29	0	12:00	0.29
J126	JUNCTION	0.08	0.45	782.45	0	12:00	0.45
J127	JUNCTION	0.04	0.25	800.25	0	12:00	0.25
J128	JUNCTION	0.11	0.64	730.64	0	11:55	0.64
J129	JUNCTION	0.13	0.86	694.86	0	11:57	0.86
J13	JUNCTION	0.12	0.66	760.66	0	12:00	0.66
J130	JUNCTION	0.30	1.72	691.72	0	11:55	1.72
J131	JUNCTION	0.10	0.54	759.81	0	11:54	0.54
J132	JUNCTION	0.10	0.54	767.21	0	11:54	0.54
J133	JUNCTION	0.13	0.77	804.77	0	11:54	0.77
J134	JUNCTION	0.18	1.07	785.07	0	11:54	1.07
J135	JUNCTION	0.13	0.78	780.78	0	11:54	0.77
J136	JUNCTION	0.19	1.11	763.11	0	11:54	1.11
J137	JUNCTION	0.14	0.86	760.86	0	11:54	0.86
J138	JUNCTION	0.16	0.98	738.98	0	11:54	0.97
J139	JUNCTION	0.16	0.96	734.96	0	11:54	0.96
J14	JUNCTION	0.00	0.00	734.00	0	00:00	0.00
J140	JUNCTION	0.17	1.02	717.02	0	11:54	1.02
J141	JUNCTION	0.18	1.07	713.07	0	11:54	1.07
J142	JUNCTION	0.07	0.49	716.49	0	11:54	0.49
J143	JUNCTION	0.12	0.69	718.69	0	11:54	0.69
J144	JUNCTION	0.04	0.24	738.24	0	11:54	0.24
J145	JUNCTION	0.04	0.28	740.28	0	11:54	0.28
J146	JUNCTION	0.09	0.55	824.55	0	11:54	0.55
J147	JUNCTION	0.49	2.66	623.66	0	12:00	2.66
J148	JUNCTION	0.00	0.01	651.63	1	00:00	0.01
J149	JUNCTION	0.03	0.24	814.24	0	11:54	0.24
J15	JUNCTION	0.08	0.45	778.45	0	12:00	0.45
J150	JUNCTION	0.18	1.08	725.08	0	11:54	1.08
J151	JUNCTION	0.09	0.52	814.52	0	11:54	0.52
J152	JUNCTION	0.00	0.02	658.88	0	13:01	0.02
J16	JUNCTION	0.23	1.43	677.43	0	11:55	1.43
J17	JUNCTION	0.04	0.27	784.27	0	11:54	0.27
J18	JUNCTION	0.14	0.90	686.90	0	11:55	0.90
J19	JUNCTION	0.04	0.27	804.27	0	11:54	0.27
J2	JUNCTION	0.10	0.64	716.64	0	11:54	0.64
J20	JUNCTION	0.01	0.02	674.02	0	11:56	0.02
J21	JUNCTION	0.18	1.03	693.03	0	11:57	1.03
J22	JUNCTION	0.04	0.24	740.24	0	12:00	0.24
J23	JUNCTION	0.03	0.20	738.20	0	12:00	0.20
J24	JUNCTION	0.14	0.80	714.80	0	12:00	0.80
J25	JUNCTION	0.07	0.47	713.47	0	12:00	0.47
J26	JUNCTION	0.21	1.24	707.24	0	11:55	1.24
J27	JUNCTION	0.11	0.63	726.63	0	12:00	0.63
J28	JUNCTION	0.13	0.71	730.71	0	12:00	0.71
J29	JUNCTION	0.07	0.40	750.40	0	12:00	0.40
J30	JUNCTION	0.14	0.67	752.67	0	12:00	0.67
J31	JUNCTION	0.05	0.26	768.26	0	12:00	0.26
J32	JUNCTION	0.11	0.50	770.50	0	12:00	0.50
J33	JUNCTION	0.06	0.29	788.29	0	12:00	0.29
J34	JUNCTION	0.11	0.73	678.73	0	11:56	0.73
J35	JUNCTION	0.14	0.87	740.87	0	11:54	0.87
J37	JUNCTION	0.15	0.92	762.92	0	11:54	0.92
J38	JUNCTION	0.23	1.25	765.25	0	11:54	1.25
J39	JUNCTION	0.12	0.74	782.74	0	11:54	0.74

J4	JUNCTION	0.23	1.99	691.99	0	11:56	1.99
J40	JUNCTION	0.21	1.15	785.15	0	11:54	1.15
J41	JUNCTION	0.11	0.67	802.67	0	11:54	0.67
J42	JUNCTION	0.20	1.06	805.06	0	11:54	1.05
J43	JUNCTION	0.09	0.60	682.60	0	11:56	0.60
J44	JUNCTION	0.17	1.09	681.13	0	11:55	1.08
J45	JUNCTION	0.52	1.47	660.77	0	13:01	1.47
J46	JUNCTION	0.15	0.91	774.91	0	11:54	0.90
J47	JUNCTION	0.04	0.21	828.01	0	11:54	0.21
J48	JUNCTION	0.10	0.55	796.93	0	11:54	0.55
J49	JUNCTION	0.09	0.50	789.77	0	11:54	0.50
J5	JUNCTION	0.23	1.22	695.22	0	11:56	1.22
J50	JUNCTION	0.07	0.40	762.40	0	11:54	0.40
J51	JUNCTION	0.04	0.26	758.26	0	11:54	0.26
J52	JUNCTION	0.14	0.81	740.81	0	11:54	0.81
J53	JUNCTION	0.10	0.68	738.68	0	11:54	0.68
J54	JUNCTION	0.12	0.84	696.84	0	11:55	0.84
J55	JUNCTION	0.07	0.54	718.54	0	11:54	0.54
J56	JUNCTION	0.07	0.56	722.56	0	11:54	0.56
J57	JUNCTION	0.03	0.25	744.25	0	11:54	0.25
J58	JUNCTION	0.07	0.47	746.47	0	11:54	0.47
J59	JUNCTION	0.11	0.69	706.69	0	11:54	0.69
J6	JUNCTION	0.12	0.71	712.71	0	12:00	0.71
J60	JUNCTION	0.14	0.85	710.85	0	11:54	0.85
J61	JUNCTION	0.08	0.49	732.49	0	11:55	0.49
J62	JUNCTION	0.17	0.87	734.87	0	11:55	0.87
J63	JUNCTION	0.07	0.46	756.46	0	12:00	0.46
J64	JUNCTION	0.08	0.50	780.50	0	12:00	0.50
J65	JUNCTION	0.04	0.32	816.32	0	11:54	0.32
J66	JUNCTION	0.08	0.53	794.53	0	11:54	0.53
J67	JUNCTION	0.12	0.76	750.76	0	11:54	0.76
J68	JUNCTION	0.13	0.87	730.87	0	11:54	0.87
J69	JUNCTION	0.15	0.91	728.91	0	11:55	0.91
J7	JUNCTION	0.19	1.15	719.15	0	11:55	1.15
J70	JUNCTION	0.12	0.78	694.78	0	11:54	0.78
J71	JUNCTION	0.20	1.13	697.13	0	11:54	1.13
J72	JUNCTION	0.10	0.68	718.68	0	11:54	0.68
J73	JUNCTION	0.18	1.03	721.03	0	11:54	1.03
J74	JUNCTION	0.09	0.60	742.60	0	11:54	0.60
J75	JUNCTION	0.13	0.78	746.78	0	11:54	0.78
J76	JUNCTION	0.08	0.53	764.53	0	11:54	0.53
J77	JUNCTION	0.10	0.66	768.66	0	11:54	0.66
J78	JUNCTION	0.07	0.46	788.46	0	11:54	0.45
J79	JUNCTION	0.09	0.56	826.56	0	11:54	0.55
J8	JUNCTION	0.11	0.67	732.67	0	12:00	0.67
J80	JUNCTION	0.12	0.66	738.98	0	11:54	0.66
J81	JUNCTION	0.09	0.62	772.62	0	11:54	0.61
J82	JUNCTION	0.23	1.38	677.38	0	11:58	1.38
J83	JUNCTION	0.06	0.38	724.38	0	11:54	0.38
J86	JUNCTION	0.50	1.64	659.14	0	13:06	1.64
J87	JUNCTION	0.09	0.60	688.60	0	11:56	0.60
J88	JUNCTION	0.01	0.11	671.88	0	11:57	0.11
J89	JUNCTION	0.13	0.78	676.72	0	11:56	0.78
J9	JUNCTION	0.30	1.74	689.74	0	11:56	1.74
J90	JUNCTION	0.02	0.57	652.82	1	00:00	0.57
J91	JUNCTION	0.00	0.00	649.00	0	00:00	0.00
J94	JUNCTION	0.46	2.14	633.14	0	12:00	2.14

J96	JUNCTION	0.03	0.20	722.20	0	11:54	0.20
J97	JUNCTION	0.25	1.91	673.95	0	11:57	1.91
J98	JUNCTION	0.08	0.53	700.53	0	11:54	0.52
J99	JUNCTION	0.05	0.38	696.38	0	11:54	0.37
J3	OUTFALL	0.00	0.00	648.36	0	00:00	0.00
J36	OUTFALL	0.00	0.00	656.94	0	00:00	0.00
J84	OUTFALL	0.00	0.00	648.36	0	00:00	0.00
J85	OUTFALL	0.41	1.38	658.32	0	13:06	1.38
J92	OUTFALL	0.45	2.22	622.22	0	12:00	2.21
J93	OUTFALL	0.44	2.26	626.26	0	12:00	2.25
J95	OUTFALL	0.43	1.87	631.87	0	12:00	1.86
SU1	STORAGE	10.45	14.08	668.08	1	00:00	14.08
SU2	STORAGE	5.45	6.76	656.76	1	00:00	6.76
SU3	STORAGE	7.20	10.67	670.67	0	13:01	10.67
SU4	STORAGE	3.82	7.67	665.67	0	13:06	7.67

Node Inflow Summary

Total Inflow Volume Node gal		Flow Balance Error Percent	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal
0.942	0.011		JUNCTION	8.93	38.32	0 12:00	0.203
0.573	0.013		JUNCTION	8.60	22.26	0 12:00	0.211
4.07	0.099		JUNCTION	5.06	185.73	0 11:57	0.13
0.321	0.007		JUNCTION	0.00	15.69	0 11:54	0
0.322	0.048		JUNCTION	5.26	15.72	0 11:54	0.101
0.22	0.020		JUNCTION	0.00	10.53	0 11:54	0
0.22	0.047		JUNCTION	4.72	10.56	0 11:54	0.089
0.131	0.019		JUNCTION	5.87	5.87	0 11:54	0.131
2.07	0.009		JUNCTION	78.79	78.79	0 12:00	2.07
0.0738	0.007		JUNCTION	2.82	2.82	0 11:54	0.0738
0.0738	0.026		JUNCTION	0.00	2.82	0 11:54	0
0.1	0.042		JUNCTION	4.26	4.26	0 12:00	0.1
3.63	0.075		JUNCTION	7.14	166.53	0 11:56	0.133

J110		JUNCTION	0.00	4.25	0	12:00	0
0.1	0.051						
J111		JUNCTION	0.00	4.25	0	12:00	0
0.1	0.052						
J112		JUNCTION	7.72	11.96	0	12:00	0.18
0.28	0.020						
J113		JUNCTION	6.24	17.83	0	11:55	0.126
0.406	0.026						
J114		JUNCTION	0.00	17.83	0	11:55	0
0.406	0.017						
J115		JUNCTION	6.66	24.31	0	11:54	0.131
0.537	0.013						
J116		JUNCTION	0.00	24.31	0	11:54	0
0.537	0.011						
J117		JUNCTION	7.98	32.14	0	11:54	0.16
0.697	0.010						
J118		JUNCTION	0.00	32.14	0	11:54	0
0.697	0.006						
J119		JUNCTION	0.00	21.88	0	11:55	0
0.485	0.015						
J12		JUNCTION	0.00	13.70	0	12:00	0
0.362	0.013						
J120		JUNCTION	6.41	21.89	0	11:55	0.136
0.485	0.023						
J121		JUNCTION	0.00	15.57	0	11:55	0
0.349	0.018						
J122		JUNCTION	5.02	15.57	0	11:54	0.0997
0.349	0.025						
J123		JUNCTION	0.00	10.68	0	11:55	0
0.25	0.020						
J124		JUNCTION	4.21	10.69	0	11:54	0.086
0.25	0.049						
J125		JUNCTION	0.00	6.79	0	12:00	0
0.164	0.024						
J126		JUNCTION	2.79	6.80	0	12:00	0.0642
0.164	0.049						
J127		JUNCTION	4.04	4.04	0	12:00	0.0998
0.0998	0.027						
J128		JUNCTION	3.05	36.12	0	11:55	0.0531
0.872	0.033						
J129		JUNCTION	11.27	34.68	0	11:55	0.216
0.707	0.178						
J13		JUNCTION	0.00	13.72	0	12:00	0
0.362	0.028						
J130		JUNCTION	4.32	99.82	0	11:55	0.0754
2.15	0.078						
J131		JUNCTION	0.00	28.36	0	11:54	0
0.704	0.016						
J132		JUNCTION	3.60	28.37	0	11:54	0.0874
0.705	0.022						
J133		JUNCTION	9.06	30.06	0	11:54	0.215
0.709	0.024						
J134		JUNCTION	6.88	36.81	0	11:54	0.129
0.838	0.025						
J135		JUNCTION	0.00	36.77	0	11:54	0
0.838	0.012						
J136		JUNCTION	11.21	47.85	0	11:54	0.228
1.07	0.011						
J137		JUNCTION	0.00	47.84	0	11:54	0
1.07	0.009						

J138		JUNCTION	5.48	53.24	0	11:54	0.108
1.17	0.009						
J139		JUNCTION	0.00	53.23	0	11:54	0
1.17	0.009						
J14		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J140		JUNCTION	6.19	59.34	0	11:54	0.126
1.3	0.008						
J141		JUNCTION	3.84	63.08	0	11:54	0.0715
1.37	0.007						
J142		JUNCTION	4.83	14.81	0	11:54	0.103
0.328	0.018						
J143		JUNCTION	5.44	10.03	0	11:54	0.124
0.225	0.046						
J144		JUNCTION	0.00	4.61	0	11:54	0
0.101	0.033						
J145		JUNCTION	4.61	4.61	0	11:54	0.101
0.101	0.020						
J146		JUNCTION	19.90	19.90	0	11:54	0.457
0.457	0.007						
J147		JUNCTION	84.18	84.18	0	12:00	2.42
2.42	0.007						
J148		JUNCTION	0.00	2.14	1	00:00	0
0.036	0.016						
J149		JUNCTION	3.72	3.72	0	11:54	0.0743
0.0743	0.036						
J15		JUNCTION	9.10	13.73	0	12:00	0.255
0.362	0.015						
J150		JUNCTION	3.47	53.09	0	11:54	0.0637
1.15	0.010						
J151		JUNCTION	15.56	18.34	0	11:54	0.376
0.45	0.028						
J152		JUNCTION	0.00	22.13	0	13:01	0
2.5	-0.000						
J16		JUNCTION	2.58	121.62	0	11:55	0.0446
2.44	0.021						
J17		JUNCTION	0.00	4.75	0	11:54	0
0.107	0.030						
J18		JUNCTION	2.81	84.28	0	11:55	0.0482
1.7	0.035						
J19		JUNCTION	4.75	4.75	0	11:54	0.107
0.107	0.024						
J2		JUNCTION	6.69	33.37	0	11:54	0.116
0.651	0.133						
J20		JUNCTION	22.81	248.47	0	11:57	0.584
5.83	0.000						
J21		JUNCTION	0.00	56.86	0	11:57	0
1.41	0.085						
J22		JUNCTION	3.52	3.52	0	12:00	0.083
0.083	0.023						
J23		JUNCTION	0.00	3.52	0	12:00	0
0.0829	0.034						
J24		JUNCTION	4.83	8.34	0	12:00	0.119
0.202	0.070						
J25		JUNCTION	4.56	12.87	0	12:00	0.106
0.308	0.021						
J26		JUNCTION	4.87	152.58	0	11:55	0.0855
3.43	0.040						
J27		JUNCTION	5.97	23.05	0	12:00	0.128
0.592	0.020						

J28		JUNCTION	6.36	17.42	0	12:00	0.146
0.464	0.024						
J29		JUNCTION	0.00	11.11	0	12:00	0
0.318	0.019						
J30		JUNCTION	6.05	11.13	0	12:00	0.138
0.318	0.034						
J31		JUNCTION	0.00	5.22	0	12:00	0
0.18	0.025						
J32		JUNCTION	0.00	5.25	0	12:00	0
0.18	0.069						
J33		JUNCTION	5.26	5.26	0	12:00	0.18
0.18	0.021						
J34		JUNCTION	0.00	226.09	0	11:56	0
5.24	0.011						
J35		JUNCTION	7.48	49.77	0	11:54	0.141
1.08	0.015						
J37		JUNCTION	0.00	42.48	0	11:54	0
0.942	0.017						
J38		JUNCTION	7.22	42.49	0	11:54	0.136
0.943	0.018						
J39		JUNCTION	0.00	35.41	0	11:54	0
0.807	0.011						
J4		JUNCTION	4.46	211.91	0	11:56	0.0847
4.93	0.038						
J40		JUNCTION	7.53	35.43	0	11:54	0.155
0.807	0.021						
J41		JUNCTION	0.00	27.96	0	11:54	0
0.652	0.012						
J42		JUNCTION	8.32	28.01	0	11:54	0.195
0.652	0.028						
J43		JUNCTION	0.00	226.09	0	11:56	0
5.24	0.006						
J44		JUNCTION	0.00	84.19	0	11:55	0
1.7	0.024						
J45		JUNCTION	0.00	22.13	0	13:01	0
2.5	0.015						
J46		JUNCTION	9.13	23.88	0	11:54	0.187
0.486	0.031						
J47		JUNCTION	0.00	2.82	0	11:54	0
0.0738	0.013						
J48		JUNCTION	6.57	24.82	0	11:54	0.168
0.617	0.020						
J49		JUNCTION	0.00	24.82	0	11:54	0
0.617	0.019						
J5		JUNCTION	17.57	53.94	0	11:54	0.329
1.27	0.186						
J50		JUNCTION	5.36	5.36	0	11:54	0.119
0.119	0.017						
J51		JUNCTION	0.00	5.35	0	11:54	0
0.119	0.024						
J52		JUNCTION	9.79	15.09	0	11:54	0.201
0.32	0.031						
J53		JUNCTION	11.77	26.74	0	11:54	0.215
0.535	0.014						
J54		JUNCTION	3.32	53.20	0	11:54	0.057
1.02	0.090						
J55		JUNCTION	6.62	17.67	0	11:54	0.116
0.31	0.015						
J56		JUNCTION	6.20	11.12	0	11:54	0.109
0.194	0.031						

J57		JUNCTION	0.00	4.95	0	11:54	0
0.0859	0.030						
J58		JUNCTION	4.96	4.96	0	11:54	0.0859
0.0859	0.025						
J59		JUNCTION	6.56	29.04	0	11:54	0.118
0.632	0.015						
J6		JUNCTION	0.00	29.51	0	12:00	0
0.739	0.010						
J60		JUNCTION	6.14	22.76	0	11:54	0.109
0.513	0.025						
J61		JUNCTION	0.00	16.89	0	11:55	0
0.405	0.018						
J62		JUNCTION	5.12	16.90	0	11:54	0.0933
0.405	0.048						
J63		JUNCTION	0.00	12.65	0	12:00	0
0.312	0.041						
J64		JUNCTION	12.67	12.67	0	12:00	0.312
0.312	0.023						
J65		JUNCTION	6.21	6.21	0	11:54	0.122
0.122	0.023						
J66		JUNCTION	8.69	14.87	0	11:54	0.177
0.299	0.037						
J67		JUNCTION	4.34	28.11	0	11:54	0.0879
0.574	0.027						
J68		JUNCTION	1.65	29.67	0	11:54	0.0295
0.603	0.020						
J69		JUNCTION	0.00	65.56	0	11:54	0
1.47	0.025						
J7		JUNCTION	7.73	125.87	0	11:54	0.138
2.76	0.035						
J70		JUNCTION	5.41	35.22	0	11:54	0.0969
0.703	0.013						
J71		JUNCTION	0.00	30.03	0	11:54	0
0.607	0.034						
J72		JUNCTION	5.73	30.03	0	11:54	0.103
0.607	0.014						
J73		JUNCTION	0.00	24.50	0	11:54	0
0.504	0.035						
J74		JUNCTION	5.97	24.51	0	11:54	0.109
0.504	0.014						
J75		JUNCTION	0.00	18.72	0	11:54	0
0.395	0.028						
J76		JUNCTION	5.42	18.72	0	11:54	0.127
0.395	0.016						
J77		JUNCTION	0.00	13.43	0	11:54	0
0.268	0.035						
J78		JUNCTION	9.80	13.48	0	11:54	0.194
0.268	0.035						
J79		JUNCTION	21.39	21.39	0	11:54	0.495
0.495	0.007						
J8		JUNCTION	7.53	29.52	0	12:00	0.166
0.739	0.010						
J80		JUNCTION	4.96	33.22	0	11:54	0.115
0.819	0.025						
J81		JUNCTION	0.00	23.84	0	11:54	0
0.486	0.014						
J82		JUNCTION	5.34	197.67	0	11:57	0.0987
4.33	0.038						
J83		JUNCTION	3.51	3.51	0	11:54	0.0635
0.0635	0.025						

J86		JUNCTION	0.00	22.00	0	13:06	0
2.3	0.025						
J87		JUNCTION	17.27	226.08	0	11:56	0.316
5.25	0.015						
J88		JUNCTION	0.00	317.03	0	11:57	0
6.84	-0.000						
J89		JUNCTION	0.00	226.08	0	11:56	0
5.24	0.010						
J9		JUNCTION	8.16	129.30	0	11:56	0.164
2.8	0.095						
J90		JUNCTION	0.00	2.15	1	00:00	0
0.0364	1.260						
J91		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J94		JUNCTION	55.52	55.52	0	12:00	2.02
2.02	0.011						
J96		JUNCTION	0.00	3.50	0	11:54	0
0.0635	0.032						
J97		JUNCTION	3.75	317.19	0	11:57	0.066
6.84	0.019						
J98		JUNCTION	5.44	8.91	0	11:54	0.102
0.165	0.041						
J99		JUNCTION	0.00	8.89	0	11:54	0
0.165	-0.001						
J3		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
J36		OUTFALL	3.69	3.69	0	12:00	0.103
0.103	0.000						
J84		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
J85		OUTFALL	0.00	22.00	0	13:06	0
2.3	0.000						
J92		OUTFALL	0.00	84.16	0	12:00	0
2.42	0.000						
J93		OUTFALL	0.00	78.74	0	12:00	0
2.07	0.000						
J95		OUTFALL	0.00	55.54	0	12:00	0
2.02	0.000						
SU1		STORAGE	26.70	342.52	0	11:57	0.673
10.2	-0.000						
SU2		STORAGE	6.55	6.55	0	12:00	0.152
0.432	0.000						
SU3		STORAGE	0.00	248.47	0	11:57	0
5.92	0.000						
SU4		STORAGE	0.00	22.13	0	13:01	0
2.5	0.000						

Node Surcharge Summary

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

 Storage Volume Summary

of Max Occurrence	Maximum Outflow Storage Unit	Average Volume	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume	Max Pcnt Full	Time days
hr:min	CFS	1000 ft3				1000 ft3		
SU1 00:00	2.15	862.159	36	0	0	1358.316	57	1
SU2 00:00	0.00	42.796	14	0	0	57.789	19	1
SU3 13:01	22.13	295.429	38	0	0	500.043	64	0
SU4 13:06	22.00	14.308	11	0	0	30.029	24	0

 Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
J3	0.00	0.00	0.00	0.000
J36	87.41	0.35	3.69	0.103
J84	0.00	0.00	0.00	0.000
J85	50.60	8.47	22.00	2.300
J92	88.85	8.02	84.16	2.423
J93	89.51	6.93	78.74	2.073
J95	88.30	6.43	55.54	2.021
System	57.81	30.20	222.04	8.920

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	226.09	0 11:56	17.25	0.12	0.30
C1_1	CONDUIT	226.08	0 11:56	13.37	0.17	0.38

C1_2	CONDUIT	226.09	0	11:56	23.32	0.13	0.20
C1_4	CONDUIT	226.09	0	11:56	15.37	0.12	0.33
C10	CONDUIT	6.19	0	11:54	2.77	0.03	0.21
C10_1	CONDUIT	165.92	0	11:57	7.92	0.23	0.59
C10_2	CONDUIT	185.23	0	11:58	10.57	0.39	0.53
C10_3	CONDUIT	0.00	0	00:00	0.00	0.00	0.09
C10_5	CONDUIT	36.07	0	11:55	7.32	0.03	0.22
C100	CONDUIT	6.79	0	12:00	3.55	0.05	0.19
C101	CONDUIT	6.79	0	12:00	2.51	0.02	0.25
C102	CONDUIT	10.68	0	11:55	3.48	0.11	0.27
C103	CONDUIT	15.57	0	11:55	4.58	0.11	0.29
C104	CONDUIT	10.68	0	11:55	3.58	0.04	0.27
C105	CONDUIT	15.57	0	11:55	3.98	0.06	0.33
C106	CONDUIT	21.88	0	11:55	4.97	0.15	0.36
C107	CONDUIT	21.88	0	11:55	2.55	0.09	0.59
C109	CONDUIT	30.00	0	11:54	4.81	0.15	0.46
C11	CONDUIT	3.50	0	11:54	2.46	0.03	0.15
C11_3	CONDUIT	121.49	0	11:55	8.64	0.14	0.47
C11_4	CONDUIT	197.58	0	11:58	13.96	0.13	0.47
C110	CONDUIT	36.77	0	11:54	5.88	0.25	0.46
C111	CONDUIT	36.76	0	11:54	5.69	0.15	0.47
C112	CONDUIT	47.84	0	11:54	6.94	0.29	0.49
C113	CONDUIT	47.84	0	11:54	7.69	0.18	0.46
C114	CONDUIT	53.23	0	11:54	7.96	0.22	0.48
C115	CONDUIT	53.23	0	11:54	7.69	0.22	0.50
C116	CONDUIT	59.34	0	11:54	7.92	0.25	0.52
C117	CONDUIT	63.07	0	11:54	5.59	0.27	0.70
C118	CONDUIT	2.30	0	11:54	1.88	0.02	0.13
C119	CONDUIT	4.60	0	11:54	1.83	0.02	0.23
C12	CONDUIT	65.50	0	11:55	8.96	0.06	0.29
C12_1	CONDUIT	84.19	0	11:55	12.15	0.06	0.28
C120	CONDUIT	10.02	0	11:54	2.94	0.10	0.30
C121	CONDUIT	14.81	0	11:54	3.80	0.06	0.34
C123	CONDUIT	84.16	0	12:00	10.54	0.59	0.61
C13	CONDUIT	4.95	0	11:54	2.71	0.05	0.18
C13_2	CONDUIT	52.69	0	11:55	9.17	0.05	0.25
C13_4	CONDUIT	32.64	0	11:55	7.08	0.03	0.21
C14	CONDUIT	78.74	0	12:00	9.82	0.61	0.61
C14_1	CONDUIT	125.61	0	11:55	13.93	0.09	0.34
C14_2	CONDUIT	152.14	0	11:55	11.42	0.10	0.46
C14_3	CONDUIT	1.76	0	12:00	1.71	0.00	0.06
C14_4	CONDUIT	8.32	0	12:00	2.22	0.03	0.18
C14_5	CONDUIT	3.52	0	12:00	1.30	0.00	0.14
C14_7	CONDUIT	12.86	0	12:00	2.79	0.02	0.21
C15	CONDUIT	0.00	0	00:00	0.00	0.00	0.09
C16	CONDUIT	84.14	0	11:55	8.60	0.08	0.36
C16_1	CONDUIT	44.23	0	11:56	5.35	0.10	0.32
C16_2	CONDUIT	56.81	0	11:57	4.96	0.07	0.43
C17	CONDUIT	1.76	0	12:00	1.71	0.02	0.11
C17_1	CONDUIT	9.23	0	11:56	1.25	1.35	0.30
C17_3	CONDUIT	34.10	0	11:57	3.38	0.05	0.37
C17_4	CONDUIT	99.76	0	11:56	6.27	0.21	0.50
C18	CONDUIT	128.48	0	11:56	7.73	0.21	0.51
C19	CONDUIT	22.25	0	12:00	5.30	0.12	0.35
C2	CONDUIT	55.54	0	12:00	8.86	0.44	0.50
C2_13	CONDUIT	210.67	0	11:56	13.54	0.41	0.43
C2_3	CONDUIT	2.14	1	00:00	5.27	0.04	0.07

C2_4	DUMMY	2.14	1	00:00			
C20	CONDUIT	29.51	0	12:00	7.04	0.11	0.35
C21	CONDUIT	29.51	0	12:00	5.79	0.12	0.40
C22	CONDUIT	38.30	0	12:00	5.12	0.19	0.52
C23	CONDUIT	2.30	0	11:54	1.88	0.02	0.13
C24	CONDUIT	5.25	0	12:00	2.58	0.01	0.11
C25	CONDUIT	23.84	0	11:54	4.98	0.19	0.38
C26	CONDUIT	23.83	0	11:54	5.72	0.09	0.34
C27	CONDUIT	5.22	0	12:00	2.68	0.05	0.19
C28	CONDUIT	5.21	0	12:00	2.09	0.02	0.23
C29	CONDUIT	11.11	0	12:00	3.68	0.10	0.27
C3	DUMMY	248.47	0	11:57			
C3_7	CONDUIT	317.03	0	11:57	17.42	0.71	0.34
C30	CONDUIT	11.10	0	12:00	3.52	0.04	0.28
C31	CONDUIT	17.39	0	12:00	4.31	0.12	0.34
C32	CONDUIT	23.03	0	12:00	3.75	0.10	0.47
C33	CONDUIT	28.07	0	11:54	5.35	0.14	0.41
C34	CONDUIT	27.96	0	11:54	4.90	0.25	0.43
C35	CONDUIT	27.95	0	11:54	4.55	0.11	0.46
C36	CONDUIT	35.41	0	11:54	5.46	0.30	0.47
C37	CONDUIT	35.41	0	11:54	5.09	0.13	0.50
C38	CONDUIT	42.48	0	11:54	5.40	0.36	0.54
C39	CONDUIT	42.46	0	11:54	7.08	0.20	0.45
C4	DUMMY	317.03	0	11:57			
C40	CONDUIT	29.65	0	11:54	5.00	0.18	0.45
C41_1	CONDUIT	49.75	0	11:54	7.36	0.18	0.49
C41_2	CONDUIT	53.08	0	11:54	6.52	0.28	0.56
C42	CONDUIT	14.81	0	11:54	3.35	0.07	0.36
C42_3	CONDUIT	28.35	0	11:54	12.48	0.03	0.24
C42_4	CONDUIT	33.23	0	11:55	13.00	0.05	0.26
C43	CONDUIT	28.36	0	11:54	14.54	0.03	0.22
C44	CONDUIT	24.81	0	11:54	13.38	0.03	0.21
C45	CONDUIT	21.37	0	11:54	5.38	0.08	0.33
C45_1	CONDUIT	2.81	0	11:54	2.65	0.00	0.14
C45_2	CONDUIT	24.82	0	11:54	13.09	0.04	0.21
C45_3	CONDUIT	18.28	0	11:54	9.43	0.03	0.21
C45_4	CONDUIT	2.82	0	11:54	5.70	0.01	0.08
C46	CONDUIT	19.87	0	11:54	3.86	0.08	0.40
C47	CONDUIT	3.70	0	11:54	2.10	0.02	0.17
C48	CONDUIT	5.35	0	11:54	3.27	0.04	0.16
C49	CONDUIT	5.34	0	11:54	1.78	0.02	0.27
C5	CONDUIT	4.75	0	11:54	3.66	0.02	0.13
C50	CONDUIT	15.05	0	11:54	3.22	0.15	0.37
C51	CONDUIT	26.74	0	11:54	6.76	0.11	0.33
C52	CONDUIT	4.94	0	11:54	2.36	0.02	0.20
C53	CONDUIT	11.09	0	11:54	3.59	0.08	0.27
C54	CONDUIT	17.65	0	11:54	4.32	0.07	0.34
C55_1	CONDUIT	22.13	0	13:01	13.66	0.37	0.19
C55_2	DUMMY	22.13	0	13:01			
C56	CONDUIT	22.00	0	13:06	5.06	0.38	0.38
C56_1	CONDUIT	2.82	0	11:54	4.55	0.01	0.09
C6	CONDUIT	4.74	0	11:54	2.69	0.02	0.18
C60	CONDUIT	12.65	0	12:00	4.90	0.06	0.24
C61	CONDUIT	12.63	0	12:00	3.21	0.05	0.33
C62	CONDUIT	16.89	0	11:55	4.12	0.17	0.34
C63	CONDUIT	16.89	0	11:55	4.27	0.06	0.33
C64	CONDUIT	29.03	0	11:54	5.73	0.12	0.40

Conduit	Both Ends	Upstream	Dnstream	Normal Flow	Limited
C17_1	0.01	0.01	0.01	0.19	0.01
C85	0.01	0.01	0.20	0.01	0.01

Analysis begun on: Mon Jun 19 08:56:13 2023

Analysis ended on: Mon Jun 19 08:56:17 2023

Total elapsed time: 00:00:04

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.015)

 WARNING 04: minimum elevation drop used for Conduit C17_1
 WARNING 02: maximum depth increased for Node J32
 WARNING 02: maximum depth increased for Node J87

Element Count

Number of rain gages 3
 Number of subcatchments ... 96
 Number of nodes 156
 Number of links 157
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_3.77in	SCS_Type_II_3.77in	INTENSITY	6 min.
SCS_Type_II_6.29in	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_7.85in	SCS_Type_II_7.85in	INTENSITY	6 min.

Subcatchment Summary

Outlet	Name	Area	Width	%Imperv	%Slope	Rain Gage
	S1	0.86	115.00	0.00	1.2000	SCS_Type_II_6.29in
J100	S10	0.53	780.00	0.00	1.4000	SCS_Type_II_6.29in
J130	S10_3	0.64	275.00	0.00	4.7000	SCS_Type_II_6.29in
J62	S10_5	0.62	315.00	0.00	4.4000	SCS_Type_II_6.29in
J7	S10_6	0.34	520.00	0.00	3.4000	SCS_Type_II_6.29in
J18	S11	1.01	400.00	0.00	1.3000	SCS_Type_II_6.29in
J9	S11_10	0.69	375.00	0.00	4.4000	SCS_Type_II_6.29in
J70	S11_3	0.77	330.00	0.00	4.7000	SCS_Type_II_6.29in
J74	S11_4	0.73	355.00	0.00	4.6000	SCS_Type_II_6.29in
J72	S11_8	0.63	380.00	0.00	1.4000	SCS_Type_II_6.29in
J104	S12	0.94	255.00	0.00	1.3000	SCS_Type_II_6.29in
J105						

S12_3 J128	0.37	355.00	0.00	3.4000	SCS_Type_II_6.29in
S12_4 J7	0.33	315.00	0.00	3.4000	SCS_Type_II_6.29in
S13 SU1	4.93	800.00	0.00	1.0000	SCS_Type_II_6.29in
S14 SU2	1.11	290.00	0.00	1.0000	SCS_Type_II_6.29in
S15 J133	1.54	490.00	0.00	0.5000	SCS_Type_II_6.29in
S16 J106	13.80	980.00	0.00	3.4000	SCS_Type_II_6.29in
S16_2 J94	14.83	740.00	0.00	1.3000	SCS_Type_II_6.29in
S16_3 J147	17.01	970.00	0.00	3.0000	SCS_Type_II_6.29in
S16_4 J64	1.78	415.00	0.00	0.5000	SCS_Type_II_6.29in
S16_5 J64	0.39	180.00	0.00	0.5000	SCS_Type_II_6.29in
S18 J76	0.91	320.00	0.00	0.5000	SCS_Type_II_6.29in
S18_1 J58	0.61	570.00	0.00	4.7000	SCS_Type_II_6.29in
S19_3 J97	0.45	350.00	0.00	3.4000	SCS_Type_II_6.29in
S2 J102	0.73	415.00	0.00	1.2000	SCS_Type_II_6.29in
S20_1 J60	0.73	450.00	0.00	4.6000	SCS_Type_II_6.29in
S21 J149	0.46	230.00	25.00	0.5000	SCS_Type_II_6.29in
S21_1 J59	0.66	470.00	0.00	4.4000	SCS_Type_II_6.29in
S22_2 J82	0.71	540.00	0.00	1.2000	SCS_Type_II_6.29in
S23 J33	1.34	125.00	0.00	0.5000	SCS_Type_II_6.29in
S23_1 J27	0.93	485.00	0.00	0.5000	SCS_Type_II_6.29in
S23_10 J25	0.73	275.00	0.00	0.5000	SCS_Type_II_6.29in
S23_11 J1	1.45	600.00	0.00	0.5000	SCS_Type_II_6.29in
S23_12 J22	0.57	190.00	0.00	0.5000	SCS_Type_II_6.29in
S23_13 J24	0.86	215.00	0.00	0.5000	SCS_Type_II_6.29in
S23_15 J8	1.20	570.00	0.00	0.5000	SCS_Type_II_6.29in
S23_2 J30	0.96	380.00	0.00	0.5000	SCS_Type_II_6.29in
S23_3 J28	1.05	415.00	0.00	0.5000	SCS_Type_II_6.29in
S23_4 J145	0.72	340.00	0.00	0.5000	SCS_Type_II_6.29in
S23_7 J143	0.88	350.00	0.00	0.5000	SCS_Type_II_6.29in
S23_8 J142	0.75	400.00	0.00	0.5000	SCS_Type_II_6.29in

S23_9 J10	1.47	375.00	0.00	0.5000	SCS_Type_II_6.29in
S24 J65	0.76	415.00	25.00	0.5000	SCS_Type_II_6.29in
S24_1 J4	0.49	460.00	0.00	0.5000	SCS_Type_II_6.29in
S25 J66	1.09	470.00	25.00	0.5000	SCS_Type_II_6.29in
S25_2 J112	1.29	280.00	0.00	1.4000	SCS_Type_II_6.29in
S25_3 J127	0.68	170.00	0.00	0.5000	SCS_Type_II_6.29in
S26 J109	0.72	240.00	0.00	0.5000	SCS_Type_II_6.29in
S27 J46	1.12	450.00	25.00	0.5000	SCS_Type_II_6.29in
S28 J67	0.54	240.00	25.00	0.5000	SCS_Type_II_6.29in
S29 J68	0.18	500.00	25.00	0.5000	SCS_Type_II_6.29in
S3 J151	2.42	440.00	25.00	0.5000	SCS_Type_II_6.29in
S3_1 J40	1.09	650.00	0.00	0.5000	SCS_Type_II_6.29in
S3_2 J146	2.84	630.00	25.00	0.5000	SCS_Type_II_6.29in
S30 J150	0.39	500.00	25.00	0.5000	SCS_Type_II_6.29in
S32 J52	0.73	300.00	25.00	0.5000	SCS_Type_II_6.29in
S33 J50	0.76	200.00	25.00	0.5000	SCS_Type_II_6.29in
S34 J52	0.53	220.00	25.00	0.5000	SCS_Type_II_6.29in
S35_1 J79	3.07	660.00	25.00	0.5000	SCS_Type_II_6.29in
S35_2 J48	1.06	150.00	25.00	0.5000	SCS_Type_II_6.29in
S35_3 J107	0.47	60.00	25.00	0.5000	SCS_Type_II_6.29in
S35_4 J80	0.70	150.00	25.00	0.5000	SCS_Type_II_6.29in
S35_6 J132	0.56	100.00	25.00	0.5000	SCS_Type_II_6.29in
S4 J36	0.76	120.00	0.00	0.5000	SCS_Type_II_6.29in
S4_2 J20	3.29	515.00	0.00	1.0000	SCS_Type_II_6.29in
S4_4 J55	0.81	630.00	0.00	4.4000	SCS_Type_II_6.29in
S5_1 J56	0.73	540.00	0.00	4.6000	SCS_Type_II_6.29in
S5_3 J53	1.50	650.00	0.00	4.4000	SCS_Type_II_6.29in
S6 J15	1.79	270.00	0.00	0.5000	SCS_Type_II_6.29in
S6_11 J98	0.67	450.00	0.00	1.2000	SCS_Type_II_6.29in
S6_2 J38	0.95	315.00	0.00	4.7000	SCS_Type_II_6.29in

S6_3	2.17	990.00	0.00	3.9000	SCS_Type_II_6.29in
J87					
S6_4	0.80	870.00	0.00	3.4000	SCS_Type_II_6.29in
J2					
S6_6	0.62	515.00	0.00	3.4000	SCS_Type_II_6.29in
J26					
S7_2	0.74	310.00	0.00	0.5000	SCS_Type_II_6.29in
J19					
S7_3	1.31	300.00	0.00	5.0000	SCS_Type_II_6.29in
J78					
S7_4	1.38	470.00	0.00	0.5000	SCS_Type_II_6.29in
J42					
S8	2.27	950.00	0.00	3.0000	SCS_Type_II_6.29in
J5					
S8_11	0.97	315.00	0.00	4.6000	SCS_Type_II_6.29in
J35					
S8_12	1.53	580.00	0.00	1.3000	SCS_Type_II_6.29in
J136					
S8_13	0.91	580.00	0.00	1.4000	SCS_Type_II_6.29in
J134					
S8_15	0.88	365.00	0.00	1.2000	SCS_Type_II_6.29in
J140					
S8_16	0.51	365.00	0.00	1.2000	SCS_Type_II_6.29in
J141					
S8_18	0.44	380.00	0.00	1.4000	SCS_Type_II_6.29in
J83					
S8_2	0.70	300.00	0.00	1.4000	SCS_Type_II_6.29in
J122					
S8_3	0.95	330.00	0.00	1.2000	SCS_Type_II_6.29in
J120					
S8_4	0.61	240.00	0.00	1.3000	SCS_Type_II_6.29in
J124					
S8_5	0.44	100.00	0.00	1.4000	SCS_Type_II_6.29in
J126					
S8_7	0.78	365.00	0.00	1.4000	SCS_Type_II_6.29in
J138					
S8_8	0.39	620.00	0.00	3.4000	SCS_Type_II_6.29in
J54					
S8_9	0.30	385.00	0.00	3.4000	SCS_Type_II_6.29in
J16					
S9	1.57	840.00	0.00	1.4000	SCS_Type_II_6.29in
J129					
S9_2	0.95	445.00	0.00	1.4000	SCS_Type_II_6.29in
J115					
S9_3	0.90	370.00	0.00	1.3000	SCS_Type_II_6.29in
J113					
S9_4	1.05	445.00	0.00	1.2000	SCS_Type_II_6.29in
J117					
S9_5	0.93	640.00	0.00	1.2000	SCS_Type_II_6.29in
J11					

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	708.00	2.00	0.0	

J10	JUNCTION	736.00	2.00	0.0
J100	JUNCTION	678.00	3.50	0.0
J101	JUNCTION	702.00	2.00	0.0
J102	JUNCTION	704.00	2.00	0.0
J103	JUNCTION	724.00	2.00	0.0
J104	JUNCTION	726.00	2.00	0.0
J105	JUNCTION	746.00	2.00	0.0
J106	JUNCTION	625.00	4.00	0.0
J107	JUNCTION	828.70	2.50	0.0
J108	JUNCTION	825.22	2.50	0.0
J109	JUNCTION	820.00	2.00	0.0
J11	JUNCTION	682.00	3.50	0.0
J110	JUNCTION	796.00	2.00	0.0
J111	JUNCTION	776.00	2.00	0.0
J112	JUNCTION	774.00	2.00	0.0
J113	JUNCTION	754.00	2.00	0.0
J114	JUNCTION	750.00	2.00	0.0
J115	JUNCTION	730.00	2.00	0.0
J116	JUNCTION	728.00	2.00	0.0
J117	JUNCTION	708.00	2.00	0.0
J118	JUNCTION	704.00	2.00	0.0
J119	JUNCTION	710.00	2.00	0.0
J12	JUNCTION	756.00	2.00	0.0
J120	JUNCTION	714.00	2.00	0.0
J121	JUNCTION	732.00	2.00	0.0
J122	JUNCTION	736.00	2.00	0.0
J123	JUNCTION	754.00	2.00	0.0
J124	JUNCTION	756.00	2.00	0.0
J125	JUNCTION	778.00	2.00	0.0
J126	JUNCTION	782.00	2.00	0.0
J127	JUNCTION	800.00	2.00	0.0
J128	JUNCTION	730.00	3.50	0.0
J129	JUNCTION	694.00	3.50	0.0
J13	JUNCTION	760.00	2.00	0.0
J130	JUNCTION	690.00	3.50	0.0
J131	JUNCTION	759.27	2.50	0.0
J132	JUNCTION	766.67	2.50	0.0
J133	JUNCTION	804.00	2.00	0.0
J134	JUNCTION	784.00	2.00	0.0
J135	JUNCTION	780.00	2.00	0.0
J136	JUNCTION	762.00	2.00	0.0
J137	JUNCTION	760.00	2.00	0.0
J138	JUNCTION	738.00	2.00	0.0
J139	JUNCTION	734.00	2.00	0.0
J14	JUNCTION	734.00	3.50	0.0
J140	JUNCTION	716.00	2.00	0.0
J141	JUNCTION	712.00	2.00	0.0
J142	JUNCTION	716.00	2.00	0.0
J143	JUNCTION	718.00	2.00	0.0
J144	JUNCTION	738.00	2.00	0.0
J145	JUNCTION	740.00	2.00	0.0
J146	JUNCTION	824.00	2.00	0.0
J147	JUNCTION	621.00	4.00	0.0
J148	JUNCTION	651.62	22.38	0.0
J149	JUNCTION	814.00	2.00	0.0
J15	JUNCTION	778.00	2.00	0.0
J150	JUNCTION	724.00	2.00	0.0

J151	JUNCTION	814.00	2.50	0.0
J152	JUNCTION	658.86	15.14	0.0
J16	JUNCTION	676.00	3.50	0.0
J17	JUNCTION	784.00	2.00	0.0
J18	JUNCTION	686.00	3.50	0.0
J19	JUNCTION	804.00	2.00	0.0
J2	JUNCTION	716.00	3.50	0.0
J20	JUNCTION	674.00	2.00	0.0
J21	JUNCTION	692.00	3.50	0.0
J22	JUNCTION	740.00	3.50	0.0
J23	JUNCTION	738.00	3.50	0.0
J24	JUNCTION	714.00	3.50	0.0
J25	JUNCTION	713.00	3.50	0.0
J26	JUNCTION	706.00	3.50	0.0
J27	JUNCTION	726.00	2.00	0.0
J28	JUNCTION	730.00	2.00	0.0
J29	JUNCTION	750.00	2.00	0.0
J30	JUNCTION	752.00	2.00	0.0
J31	JUNCTION	768.00	2.00	0.0
J32	JUNCTION	770.00	3.50	0.0
J33	JUNCTION	788.00	3.50	0.0
J34	JUNCTION	678.00	2.00	0.0
J35	JUNCTION	740.00	2.00	0.0
J37	JUNCTION	762.00	2.00	0.0
J38	JUNCTION	764.00	2.00	0.0
J39	JUNCTION	782.00	2.00	0.0
J4	JUNCTION	690.00	3.50	0.0
J40	JUNCTION	784.00	2.00	0.0
J41	JUNCTION	802.00	2.00	0.0
J42	JUNCTION	804.00	2.00	0.0
J43	JUNCTION	682.00	2.00	0.0
J44	JUNCTION	680.04	3.50	0.0
J45	JUNCTION	659.30	14.70	0.0
J46	JUNCTION	774.00	2.00	0.0
J47	JUNCTION	827.80	2.50	0.0
J48	JUNCTION	796.38	2.50	0.0
J49	JUNCTION	789.27	2.50	0.0
J5	JUNCTION	694.00	3.50	0.0
J50	JUNCTION	762.00	2.00	0.0
J51	JUNCTION	758.00	2.00	0.0
J52	JUNCTION	740.00	2.00	0.0
J53	JUNCTION	738.00	2.00	0.0
J54	JUNCTION	696.00	3.50	0.0
J55	JUNCTION	718.00	2.00	0.0
J56	JUNCTION	722.00	2.00	0.0
J57	JUNCTION	744.00	2.00	0.0
J58	JUNCTION	746.00	2.00	0.0
J59	JUNCTION	706.00	2.00	0.0
J6	JUNCTION	712.00	2.00	0.0
J60	JUNCTION	710.00	2.00	0.0
J61	JUNCTION	732.00	2.00	0.0
J62	JUNCTION	734.00	2.00	0.0
J63	JUNCTION	756.00	2.00	0.0
J64	JUNCTION	780.00	2.00	0.0
J65	JUNCTION	816.00	2.00	0.0
J66	JUNCTION	794.00	2.00	0.0
J67	JUNCTION	750.00	2.00	0.0

J68	JUNCTION	730.00	2.00	0.0
J69	JUNCTION	728.00	3.50	0.0
J7	JUNCTION	718.00	3.50	0.0
J70	JUNCTION	694.00	2.00	0.0
J71	JUNCTION	696.00	2.00	0.0
J72	JUNCTION	718.00	2.00	0.0
J73	JUNCTION	720.00	2.00	0.0
J74	JUNCTION	742.00	2.00	0.0
J75	JUNCTION	746.00	2.00	0.0
J76	JUNCTION	764.00	2.00	0.0
J77	JUNCTION	768.00	2.00	0.0
J78	JUNCTION	788.00	2.00	0.0
J79	JUNCTION	826.00	2.00	0.0
J8	JUNCTION	732.00	2.00	0.0
J80	JUNCTION	738.32	2.50	0.0
J81	JUNCTION	772.00	2.00	0.0
J82	JUNCTION	676.00	3.50	0.0
J83	JUNCTION	724.00	2.00	0.0
J86	JUNCTION	657.50	16.50	0.0
J87	JUNCTION	688.00	3.00	0.0
J88	JUNCTION	671.77	3.50	0.0
J89	JUNCTION	675.94	2.00	0.0
J9	JUNCTION	688.00	3.50	0.0
J90	JUNCTION	652.25	21.75	0.0
J91	JUNCTION	649.00	19.00	0.0
J94	JUNCTION	631.00	4.00	0.0
J96	JUNCTION	722.00	2.00	0.0
J97	JUNCTION	672.04	3.50	0.0
J98	JUNCTION	700.00	2.00	0.0
J99	JUNCTION	696.00	2.00	0.0
J3	OUTFALL	648.36	0.00	0.0
J36	OUTFALL	656.94	0.00	0.0
J84	OUTFALL	648.36	3.00	0.0
J85	OUTFALL	656.94	4.00	0.0
J92	OUTFALL	620.00	4.00	0.0
J93	OUTFALL	624.00	4.00	0.0
J95	OUTFALL	630.00	4.00	0.0
SU1	STORAGE	654.00	20.00	0.0
SU2	STORAGE	650.00	18.00	0.0
SU3	STORAGE	660.00	14.00	0.0
SU4	STORAGE	658.00	16.00	0.0

Link Summary

Name		From Node	To Node	Type	Length	%
Slope Roughness						

C1		J87	J43	CONDUIT	88.9	
6.7642	0.0150					
C1_1		J34	J89	CONDUIT	60.7	
3.4049	0.0150					
C1_2		J89	J20	CONDUIT	56.9	
3.4051	0.0150					
C1_4		J43	J34	CONDUIT	60.2	
6.6613	0.0150					

C10		J65	J66	CONDUIT	98.5
22.9117	0.0740				
C10_1		J11	J100	CONDUIT	273.8
1.4609	0.0200				
C10_2		J100	J82	CONDUIT	538.1
0.3717	0.0150				
C10_3		J14	J128	CONDUIT	229.0
1.7468	0.0200				
C10_5		J128	J69	CONDUIT	45.0
4.4460	0.0200				
C100		J126	J125	CONDUIT	42.3
9.5034	0.0740				
C101		J125	J124	CONDUIT	64.2
36.5061	0.0740				
C102		J124	J123	CONDUIT	40.0
5.0036	0.0740				
C103		J122	J121	CONDUIT	38.6
10.4264	0.0740				
C104		J123	J122	CONDUIT	58.0
32.6527	0.0740				
C105		J121	J120	CONDUIT	63.5
29.5553	0.0740				
C106		J120	J119	CONDUIT	39.3
10.2247	0.0740				
C107		J119	J9	CONDUIT	87.3
26.0250	0.0740				
C109		J133	J134	CONDUIT	98.5
20.7356	0.0740				
C11		J83	J96	CONDUIT	35.1
5.7117	0.0740				
C11_3		J16	J97	CONDUIT	184.2
2.1504	0.0150				
C11_4		J82	J97	CONDUIT	106.5
3.7193	0.0150				
C110		J134	J135	CONDUIT	39.8
10.1045	0.0740				
C111		J135	J136	CONDUIT	61.2
30.7487	0.0740				
C112		J136	J137	CONDUIT	15.0
13.4535	0.0740				
C113		J137	J138	CONDUIT	67.6
34.4374	0.0740				
C114		J138	J139	CONDUIT	15.0
27.6686	0.0740				
C115		J139	J140	CONDUIT	66.3
28.2217	0.0740				
C116		J140	J141	CONDUIT	15.0
27.6686	0.0740				
C117		J141	J130	CONDUIT	88.8
25.5861	0.0740				
C118		J145	J144	CONDUIT	32.6
6.1407	0.0740				
C119		J144	J143	CONDUIT	60.9
34.7474	0.0740				
C12		J69	J7	CONDUIT	264.2
3.7872	0.0200				
C12_1		J18	J44	CONDUIT	160.2
3.7240	0.0150				
C120		J143	J142	CONDUIT	41.9
4.7772	0.0740				

C121		J142	J129	CONDUIT	81.7
27.9455	0.0740				
C123		J147	J92	CONDUIT	120.0
0.8334	0.0120				
C13		J58	J57	CONDUIT	38.2
5.2446	0.0740				
C13_2		J54	J18	CONDUIT	291.1
3.4370	0.0200				
C13_4		J2	J54	CONDUIT	560.8
3.5689	0.0200				
C14		J106	J93	CONDUIT	145.0
0.6897	0.0120				
C14_1		J7	J26	CONDUIT	376.1
3.1921	0.0150				
C14_2		J26	J4	CONDUIT	466.4
3.4328	0.0150				
C14_3		J22	J23	CONDUIT	33.4
6.0035	0.0740				
C14_4		J24	J25	CONDUIT	39.9
2.5094	0.0740				
C14_5		J23	J24	CONDUIT	70.4
36.2702	0.0740				
C14_7		J25	J21	CONDUIT	88.7
24.3786	0.0740				
C15		J14	J2	CONDUIT	541.8
3.3244	0.0200				
C16		J44	J16	CONDUIT	127.5
3.1710	0.0150				
C16_1		J5	J21	CONDUIT	351.7
0.5687	0.0200				
C16_2		J21	J4	CONDUIT	199.4
1.0032	0.0150				
C17		J22	J23	CONDUIT	33.4
6.0035	0.0740				
C17_1		J5	J129	CONDUIT	738.2
0.0001	0.0200				
C17_3		J129	J130	CONDUIT	302.4
1.3227	0.0200				
C17_4		J130	J9	CONDUIT	300.0
0.6666	0.0200				
C18		J9	J11	CONDUIT	571.0
1.0508	0.0200				
C19		J10	J8	CONDUIT	25.0
16.2088	0.0740				
C2		J94	J95	CONDUIT	155.0
0.6452	0.0120				
C2_13		J4	J87	CONDUIT	149.6
1.3366	0.0120				
C2_3		J90	J148	CONDUIT	130.0
0.4846	0.0220				
C2_4		J148	SU2	CONDUIT	50.0
3.2417	0.0220				
C20		J8	J6	CONDUIT	60.0
35.3553	0.0740				
C21		J6	J1	CONDUIT	15.0
27.6686	0.0740				
C22		J1	J5	CONDUIT	70.9
20.1353	0.0740				
C23		J145	J144	CONDUIT	32.6
6.1407	0.0740				

C24		J33	J32	CONDUIT	81.6
22.6025	0.0740				
C25		J46	J81	CONDUIT	25.4
7.9029	0.0740				
C26		J81	J67	CONDUIT	74.4
30.9459	0.0740				
C27		J32	J31	CONDUIT	40.1
4.9949	0.0740				
C28		J31	J30	CONDUIT	52.9
31.7148	0.0740				
C29		J30	J29	CONDUIT	35.4
5.6631	0.0740				
C3		J20	SU3	CONDUIT	251.1
5.5847	0.0100				
C3_7		J97	J88	CONDUIT	60.0
0.4500	0.0120				
C30		J29	J28	CONDUIT	65.4
32.0987	0.0740				
C31		J28	J27	CONDUIT	39.4
10.1966	0.0740				
C32		J27	J26	CONDUIT	78.6
26.3282	0.0740				
C33		J67	J68	CONDUIT	104.5
19.4928	0.0740				
C34		J42	J41	CONDUIT	33.6
5.9562	0.0740				
C35		J41	J40	CONDUIT	61.5
30.6141	0.0740				
C36		J40	J39	CONDUIT	30.0
6.6815	0.0740				
C37		J39	J38	CONDUIT	56.5
33.6229	0.0740				
C38		J38	J37	CONDUIT	30.0
6.6815	0.0740				
C39		J37	J35	CONDUIT	100.6
22.4227	0.0740				
C4		J88	SU1	CONDUIT	212.9
8.3770	0.0010				
C40		J68	J69	CONDUIT	15.7
12.8393	0.0740				
C41_1		J35	J150	CONDUIT	47.4
35.8763	0.0740				
C41_2		J150	J7	CONDUIT	34.5
17.6562	0.0740				
C42		J66	J46	CONDUIT	98.5
20.7315	0.0740				
C42_3		J131	J80	CONDUIT	255.6
8.2227	0.0150				
C42_4		J80	J128	CONDUIT	156.0
5.3398	0.0150				
C43		J132	J131	CONDUIT	87.3
8.5086	0.0150				
C44		J49	J132	CONDUIT	269.4
8.4192	0.0150				
C45		J79	J133	CONDUIT	64.2
36.4971	0.0740				
C45_1		J108	J151	CONDUIT	119.1
9.4596	0.0200				
C45_2		J48	J49	CONDUIT	65.3
10.9448	0.0200				

C45_3		J151	J48	CONDUIT	245.2
7.2048	0.0150				
C45_4		J47	J108	CONDUIT	43.8
5.9007	0.0200				
C46		J146	J42	CONDUIT	64.8
32.4246	0.0740				
C47		J149	J78	CONDUIT	124.9
21.2854	0.0740				
C48		J50	J51	CONDUIT	42.4
9.4717	0.0740				
C49		J51	J52	CONDUIT	55.1
34.5825	0.0740				
C5		J19	J17	CONDUIT	85.6
24.0269	0.0740				
C50		J52	J53	CONDUIT	39.5
5.0703	0.0740				
C51		J53	J2	CONDUIT	80.5
28.4005	0.0740				
C52		J57	J56	CONDUIT	67.1
34.7198	0.0740				
C53		J56	J55	CONDUIT	40.4
9.9571	0.0740				
C54		J55	J54	CONDUIT	81.9
27.8818	0.0740				
C55_1		J45	J152	CONDUIT	90.0
0.4889	0.0220				
C55_2		J152	SU4	CONDUIT	28.9
2.9723	0.0220				
C56		J86	J85	CONDUIT	120.0
0.4667	0.0220				
C56_1		J107	J47	CONDUIT	32.0
2.8136	0.0200				
C6		J17	J15	CONDUIT	25.0
24.7226	0.0740				
C60		J64	J63	CONDUIT	117.9
20.7903	0.0740				
C61		J63	J62	CONDUIT	86.6
26.2678	0.0740				
C62		J62	J61	CONDUIT	40.1
4.9939	0.0740				
C63		J61	J60	CONDUIT	65.6
35.5871	0.0740				
C64		J59	J18	CONDUIT	71.4
29.1824	0.0740				
C65		J60	J59	CONDUIT	43.5
9.2395	0.0740				
C69		J78	J77	CONDUIT	70.5
29.5760	0.0740				
C7		J15	J13	CONDUIT	60.1
31.3842	0.0740				
C70		J77	J76	CONDUIT	47.2
8.5043	0.0740				
C71		J76	J75	CONDUIT	55.8
34.0649	0.0740				
C72		J75	J74	CONDUIT	45.1
8.9009	0.0740				
C73		J74	J73	CONDUIT	63.9
36.6590	0.0740				
C74		J73	J72	CONDUIT	38.7
5.1741	0.0740				

C75		J72	J71	CONDUIT	69.7
33.2437	0.0740				
C76		J71	J70	CONDUIT	38.8
5.1583	0.0740				
C77		J70	J16	CONDUIT	66.2
28.2346	0.0740				
C78		J96	J98	CONDUIT	67.5
34.4523	0.0740				
C79		J98	J99	CONDUIT	44.1
9.1130	0.0740				
C8		J13	J12	CONDUIT	40.1
10.0281	0.0740				
C80		J99	J82	CONDUIT	80.3
25.7047	0.0740				
C81		J105	J104	CONDUIT	69.2
30.1873	0.0740				
C82		J104	J103	CONDUIT	34.6
5.7842	0.0740				
C83		J103	J102	CONDUIT	64.6
32.5506	0.0740				
C84		J102	J101	CONDUIT	43.4
4.6107	0.0740				
C85		J101	J100	CONDUIT	83.8
29.9100	0.0740				
C88		J109	J110	CONDUIT	127.9
19.1048	0.0740				
C89		J110	J111	CONDUIT	64.7
32.5183	0.0740				
C9		J12	J10	CONDUIT	45.0
49.6139	0.0740				
C90		J111	J112	CONDUIT	39.1
5.1255	0.0740				
C91		J112	J113	CONDUIT	64.9
32.4080	0.0740				
C92		J113	J114	CONDUIT	39.9
10.0822	0.0740				
C93		J114	J115	CONDUIT	65.6
32.0312	0.0740				
C94		J115	J116	CONDUIT	12.0
16.9031	0.0740				
C95		J116	J117	CONDUIT	63.6
33.1242	0.0740				
C96		J117	J118	CONDUIT	15.0
27.6686	0.0740				
C97		J118	J11	CONDUIT	89.1
25.4672	0.0740				
C99		J127	J126	CONDUIT	85.5
21.5287	0.0740				
OL1_2		J91	J84	CONDUIT	130.0
0.4923	0.0220				
W1		SU1	SU2	WEIR	
W2		SU3	SU4	WEIR	
W3		SU2	J3	WEIR	
W4		SU4	J36	WEIR	
C2_1		SU1	J90	OUTLET	
C41		SU3	J45	OUTLET	
OL1		SU4	J86	OUTLET	
OL1_1		SU2	J91	OUTLET	

 Cross Section Summary

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

C1 1827.23	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C1_1 1296.40	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C1_2 1767.72	TRAPEZOIDAL	2.00	80.00	1.33	60.00	1
C1_4 1813.29	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C10 217.24	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C10_1 709.36	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_2 477.06	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_3 775.68	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_5 1237.49	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C100 139.91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C101 274.22	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C102 101.52	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C103 146.55	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C104 259.34	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C105 246.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C106 145.12	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C107 231.53	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C109 206.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11 108.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11_3 1147.50	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C11_4 1509.12	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C110 144.27	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C111 251.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C112 166.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C113 266.33	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

C114 238.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C115 241.10	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C116 238.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C117 229.57	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C118 112.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C119 267.53	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C12 1142.13	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C12_1 1510.09	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C120 99.20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C121 239.92	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C123 142.06	CIRCULAR	4.00	12.57	1.00	4.00	1
C13 103.94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C13_2 1088.04	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C13_4 1108.72	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14 129.23	CIRCULAR	4.00	12.57	1.00	4.00	1
C14_1 1398.09	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_2 1449.83	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_3 388.65	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_4 251.27	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_5 955.28	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_7 783.18	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C15 1070.07	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16 1393.46	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16_1 442.58	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16_2 783.76	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17 111.20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C17_1 6.83	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17_3 674.98	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17_4 479.17	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C18 601.61	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1

C19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
182.72						
C2	CIRCULAR	4.00	12.57	1.00	4.00	1
124.99						
C2_13	RECT_CLOSED	3.00	18.00	1.00	6.00	2
257.70						
C2_3	CIRCULAR	4.00	12.57	1.00	4.00	1
59.09						
C2_4	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
269.86						
C21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
238.73						
C22	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
203.65						
C23	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
112.47						
C24	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
754.11						
C25	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
127.59						
C26	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
252.47						
C27	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
101.43						
C28	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
255.59						
C29	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
108.00						
C3	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C3_7	RECT_CLOSED	3.00	18.00	1.00	6.00	3
149.53						
C30	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
257.13						
C31	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
144.92						
C32	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
232.87						
C33	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
200.38						
C34	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
110.76						
C35	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
251.11						
C36	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
117.31						
C37	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
263.16						
C38	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
117.31						
C39	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
214.91						
C4	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C40	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
162.62						
C41_1	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
271.84						

C41_2 190.70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C42 206.64	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C42_3 817.35	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C42_4 658.66	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C43 831.44	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C44 827.06	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45 274.18	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C45_1 657.51	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_2 707.24	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_3 765.09	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_4 519.29	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C46 258.43	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C47 209.39	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C48 139.68	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C49 266.89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C5 222.46	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C50 102.19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C51 241.86	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C52 267.42	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C53 143.21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C54 239.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C55_1 59.35	CIRCULAR	4.00	12.57	1.00	4.00	1
C55_2 0.00	DUMMY	0.00	0.00	0.00	0.00	1
C56 57.98	CIRCULAR	4.00	12.57	1.00	4.00	1
C56_1 358.59	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C6 225.66	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C60 206.94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C61 232.61	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C62 101.42	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C63 270.74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

C64	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
245.17						
C65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
137.95						
C69	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
246.82						
C7	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
254.25						
C70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
132.35						
C71	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
264.89						
C72	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
135.40						
C73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
274.79						
C74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
103.23						
C75	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
261.68						
C76	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
103.08						
C77	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
241.16						
C78	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
266.39						
C79	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
137.01						
C8	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
143.72						
C80	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
230.10						
C81	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
249.36						
C82	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
109.15						
C83	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.93						
C84	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
97.45						
C85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
248.21						
C88	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
198.37						
C89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.81						
C9	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
319.68						
C90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
102.75						
C91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.37						
C92	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
144.11						
C93	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
256.86						
C94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
186.59						
C95	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
261.21						

C96	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
238.73						
C97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
229.03						
C99	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
210.58						
OL1_2	CIRCULAR	3.00	7.07	0.75	3.00	1
27.65						

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

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
Infiltration Method CURVE_NUMBER
Flow Routing Method DYNWAVE
Surcharge Method EXTRAN
Starting Date 10/18/2022 00:00:00
Ending Date 10/19/2022 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00
Routing Time Step 5.00 sec
Variable Time Step YES
Maximum Trials 8
Number of Threads 8
Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	72.393	6.290
Evaporation Loss	0.000	0.000
Infiltration Loss	12.562	1.091
Surface Runoff	58.462	5.080
Final Storage	1.498	0.130
Continuity Error (%)	-0.178	

***** Volume Volume

Flow Routing Continuity	acre-feet	10 ⁶ gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	58.473	19.054
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	22.680	7.390
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	9.276	3.023
Final Stored Volume	45.075	14.688
Continuity Error (%)	-0.008	

Highest Continuity Errors

Node J91 (2.98%)

Time-Step Critical Elements

Link C116 (92.13%)

Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

Minimum Time Step	:	0.60 sec
Average Time Step	:	2.76 sec
Maximum Time Step	:	5.00 sec
Percent in Steady State	:	-0.00
Average Iterations per Step	:	2.00
Percent Not Converging	:	0.00
Time Step Frequencies	:	
5.000 - 3.155 sec	:	29.77 %
3.155 - 1.991 sec	:	50.79 %
1.991 - 1.256 sec	:	13.24 %
1.256 - 0.792 sec	:	6.20 %
0.792 - 0.500 sec	:	0.00 %

Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Runoff	Peak	Runoff	Evap	Infil	Runoff
Subcatchment	Runoff	Precip	Runoff	Runoff	in	in	in
in	in	10 ⁶ gal	in	CFS	in	in	in
S1			6.29	0.00	0.00	0.58	0.00
5.57	5.57	0.13	4.80	0.886			
S10			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.08	4.48	0.915			
S10_3			6.29	0.00	0.00	0.58	0.00
5.65	5.65	0.10	5.14	0.898			
S10_5			6.29	0.00	0.00	0.67	0.00
5.56	5.56	0.09	4.98	0.884			
S10_6			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.05	2.89	0.915			
S11			6.29	0.00	0.00	0.49	0.00
5.72	5.72	0.16	7.43	0.910			
S11_10			6.29	0.00	0.00	0.58	0.00
5.65	5.65	0.11	5.60	0.899			
S11_3			6.29	0.00	0.00	0.58	0.00
5.65	5.65	0.12	6.20	0.898			
S11_4			6.29	0.00	0.00	0.58	0.00
5.65	5.65	0.11	5.94	0.898			
S11_8			6.29	0.00	0.00	0.58	0.00
5.64	5.64	0.10	4.93	0.897			
S12			6.29	0.00	0.00	0.49	0.00
5.71	5.71	0.15	6.34	0.907			
S12_3			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.06	3.08	0.900			
S12_4			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.05	2.76	0.915			
S13			6.29	0.00	0.00	0.76	0.00
5.39	5.39	0.72	27.45	0.858			
S14			6.29	0.00	0.00	0.39	0.00
5.79	5.79	0.17	7.23	0.921			
S15			6.29	0.00	0.00	0.49	0.00
5.69	5.69	0.24	9.51	0.905			
S16			6.29	0.00	0.00	2.03	0.00
4.12	4.12	1.54	56.00	0.655			
S16_2			6.29	0.00	0.00	2.40	0.00
3.68	3.68	1.48	36.67	0.585			
S16_3			6.29	0.00	0.00	2.25	0.00
3.88	3.88	1.79	58.00	0.616			
S16_4			6.29	0.00	0.00	0.49	0.00
5.67	5.67	0.27	10.23	0.902			
S16_5			6.29	0.00	0.00	0.49	0.00
5.71	5.71	0.06	2.65	0.908			
S18			6.29	0.00	0.00	0.58	0.00
5.60	5.60	0.14	5.72	0.891			
S18_1			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.10	5.13	0.915			
S19_3			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.07	3.77	0.914			
S2			6.29	0.00	0.00	0.58	0.00
5.64	5.64	0.11	5.61	0.896			
S20_1			6.29	0.00	0.00	0.58	0.00
5.65	5.65	0.11	6.03	0.899			

S21			6.29	0.00	0.00	0.36	1.56
4.29	5.85	0.07	3.58	0.931			
S21_1			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.10	5.44	0.899			
S22_2			6.29	0.00	0.00	0.58	0.00
5.65	5.65	0.11	5.65	0.898			
S23			6.29	0.00	0.00	0.58	0.00
5.51	5.51	0.20	5.79	0.876			
S23_1			6.29	0.00	0.00	0.58	0.00
5.62	5.62	0.14	6.47	0.893			
S23_10			6.29	0.00	0.00	0.58	0.00
5.61	5.61	0.11	4.70	0.891			
S23_11			6.29	0.00	0.00	0.49	0.00
5.70	5.70	0.23	9.67	0.907			
S23_12			6.29	0.00	0.00	0.49	0.00
5.69	5.69	0.09	3.55	0.905			
S23_13			6.29	0.00	0.00	0.58	0.00
5.58	5.58	0.13	4.96	0.888			
S23_15			6.29	0.00	0.00	0.49	0.00
5.71	5.71	0.19	8.29	0.908			
S23_2			6.29	0.00	0.00	0.58	0.00
5.61	5.61	0.15	6.23	0.892			
S23_3			6.29	0.00	0.00	0.58	0.00
5.61	5.61	0.16	6.82	0.892			
S23_4			6.29	0.00	0.00	0.49	0.00
5.71	5.71	0.11	4.96	0.908			
S23_7			6.29	0.00	0.00	0.58	0.00
5.61	5.61	0.13	5.71	0.892			
S23_8			6.29	0.00	0.00	0.58	0.00
5.62	5.62	0.11	5.24	0.894			
S23_9			6.29	0.00	0.00	0.49	0.00
5.68	5.68	0.23	8.61	0.903			
S24			6.29	0.00	0.00	0.36	1.56
4.29	5.86	0.12	5.90	0.931			
S24_1			6.29	0.00	0.00	0.49	0.00
5.73	5.73	0.08	3.83	0.912			
S25			6.29	0.00	0.00	0.36	1.56
4.29	5.85	0.17	8.27	0.930			
S25_2			6.29	0.00	0.00	0.58	0.00
5.60	5.60	0.20	8.18	0.891			
S25_3			6.29	0.00	0.00	0.49	0.00
5.68	5.68	0.11	3.98	0.903			
S26			6.29	0.00	0.00	0.58	0.00
5.60	5.60	0.11	4.45	0.890			
S27			6.29	0.00	0.00	0.43	1.56
4.22	5.78	0.18	8.31	0.919			
S28			6.29	0.00	0.00	0.43	1.56
4.22	5.78	0.09	4.09	0.919			
S29			6.29	0.00	0.00	0.57	1.56
4.11	5.67	0.03	1.50	0.901			
S3			6.29	0.00	0.00	0.36	1.56
4.26	5.82	0.38	15.45	0.925			
S3_1			6.29	0.00	0.00	0.58	0.00
5.63	5.63	0.17	7.81	0.894			
S3_2			6.29	0.00	0.00	0.36	1.56
4.27	5.83	0.45	18.99	0.927			
S30			6.29	0.00	0.00	0.36	1.56
4.31	5.87	0.06	3.24	0.934			
S32			6.29	0.00	0.00	0.36	1.56
4.29	5.85	0.12	5.46	0.930			

S33			6.29	0.00	0.00	0.36	1.56
4.27	5.84	0.12	5.25	0.928			
S34			6.29	0.00	0.00	0.36	1.56
4.29	5.85	0.08	4.01	0.930			
S35_1			6.29	0.00	0.00	0.36	1.56
4.26	5.83	0.49	20.42	0.926			
S35_2			6.29	0.00	0.00	0.36	1.56
4.25	5.81	0.17	6.35	0.923			
S35_3			6.29	0.00	0.00	0.36	1.56
4.24	5.80	0.07	2.72	0.923			
S35_4			6.29	0.00	0.00	0.36	1.56
4.26	5.83	0.11	4.67	0.926			
S35_6			6.29	0.00	0.00	0.36	1.56
4.26	5.82	0.09	3.58	0.925			
S4			6.29	0.00	0.00	0.29	0.00
5.84	5.84	0.12	4.06	0.928			
S4_2			6.29	0.00	0.00	0.29	0.00
5.86	5.86	0.52	19.02	0.932			
S4_4			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.12	6.70	0.899			
S5_1			6.29	0.00	0.00	0.58	0.00
5.66	5.66	0.11	6.08	0.899			
S5_3			6.29	0.00	0.00	0.49	0.00
5.74	5.74	0.23	12.11	0.913			
S6			6.29	0.00	0.00	0.49	0.00
5.64	5.64	0.27	9.28	0.897			
S6_11			6.29	0.00	0.00	0.58	0.00
5.64	5.64	0.10	5.21	0.897			
S6_2			6.29	0.00	0.00	0.58	0.00
5.64	5.64	0.15	7.39	0.897			
S6_3			6.29	0.00	0.00	1.03	0.00
5.19	5.19	0.31	16.35	0.826			
S6_4			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.12	6.71	0.915			
S6_6			6.29	0.00	0.00	0.49	0.00
5.75	5.75	0.10	5.15	0.914			
S7_2			6.29	0.00	0.00	0.49	0.00
5.70	5.70	0.11	4.93	0.907			
S7_3			6.29	0.00	0.00	0.58	0.00
5.63	5.63	0.20	9.75	0.895			
S7_4			6.29	0.00	0.00	0.49	0.00
5.69	5.69	0.21	8.68	0.905			
S8			6.29	0.00	0.00	0.67	0.00
5.55	5.55	0.34	17.51	0.882			
S8_11			6.29	0.00	0.00	0.67	0.00
5.55	5.55	0.15	7.46	0.882			
S8_12			6.29	0.00	0.00	0.49	0.00
5.72	5.72	0.24	11.10	0.909			
S8_13			6.29	0.00	0.00	0.49	0.00
5.74	5.74	0.14	7.23	0.912			
S8_15			6.29	0.00	0.00	0.58	0.00
5.63	5.63	0.13	6.42	0.895			
S8_16			6.29	0.00	0.00	0.58	0.00
5.64	5.64	0.08	4.00	0.897			
S8_18			6.29	0.00	0.00	0.58	0.00
5.65	5.65	0.07	3.58	0.898			
S8_2			6.29	0.00	0.00	0.58	0.00
5.63	5.63	0.11	5.18	0.895			
S8_3			6.29	0.00	0.00	0.58	0.00
5.62	5.62	0.15	6.67	0.894			

S8_4			6.29	0.00	0.00	0.58	0.00
5.63_5	5.63	0.09	4.44	0.895			
S8_5			6.29	0.00	0.00	0.58	0.00
5.61_5	5.61	0.07	2.82	0.891			
S8_7			6.29	0.00	0.00	0.58	0.00
5.63_7	5.63	0.12	5.86	0.896			
S8_8			6.29	0.00	0.00	0.49	0.00
5.75_8	5.75	0.06	3.32	0.915			
S8_9			6.29	0.00	0.00	0.49	0.00
5.75_9	5.75	0.05	2.54	0.915			
S9			6.29	0.00	0.00	0.76	0.00
5.45_9	5.45	0.23	11.76	0.867			
S9_2			6.29	0.00	0.00	0.58	0.00
5.63_2	5.63	0.14	7.13	0.896			
S9_3			6.29	0.00	0.00	0.58	0.00
5.63_3	5.63	0.14	6.58	0.895			
S9_4			6.29	0.00	0.00	0.58	0.00
5.63_4	5.63	0.16	7.68	0.895			
S9_5			6.29	0.00	0.00	0.58	0.00
5.64_5	5.64	0.14	7.31	0.897			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.16	0.90	708.90	0 11:55	0.90
J10	JUNCTION	0.13	0.72	736.72	0 12:00	0.72
J100	JUNCTION	0.45	2.32	680.32	0 11:57	2.32
J101	JUNCTION	0.08	0.51	702.51	0 11:54	0.51
J102	JUNCTION	0.16	0.89	704.89	0 11:54	0.89
J103	JUNCTION	0.06	0.40	724.40	0 11:54	0.40
J104	JUNCTION	0.12	0.67	726.67	0 11:54	0.67
J105	JUNCTION	0.05	0.30	746.30	0 11:54	0.30
J106	JUNCTION	0.39	2.12	627.12	0 12:00	2.12
J107	JUNCTION	0.04	0.25	828.95	0 11:54	0.25
J108	JUNCTION	0.03	0.17	825.39	0 11:54	0.17
J109	JUNCTION	0.05	0.29	820.29	0 11:54	0.29
J11	JUNCTION	0.33	1.84	683.84	0 11:56	1.84
J110	JUNCTION	0.04	0.24	796.24	0 11:55	0.24
J111	JUNCTION	0.06	0.40	776.40	0 11:55	0.40
J112	JUNCTION	0.07	0.43	774.43	0 11:55	0.43
J113	JUNCTION	0.13	0.77	754.77	0 11:54	0.77
J114	JUNCTION	0.08	0.54	750.54	0 11:54	0.54
J115	JUNCTION	0.12	0.77	730.77	0 11:54	0.77
J116	JUNCTION	0.10	0.63	728.63	0 11:54	0.63
J117	JUNCTION	0.12	0.77	708.77	0 11:54	0.76
J118	JUNCTION	0.12	0.78	704.78	0 11:54	0.78
J119	JUNCTION	0.10	0.63	710.63	0 11:55	0.63
J12	JUNCTION	0.07	0.40	756.40	0 12:00	0.40
J120	JUNCTION	0.14	0.83	714.83	0 11:54	0.83
J121	JUNCTION	0.08	0.50	732.50	0 11:54	0.50
J122	JUNCTION	0.11	0.70	736.70	0 11:54	0.70

J123	JUNCTION	0.06	0.40	754.40	0	11:54	0.40
J124	JUNCTION	0.14	0.71	756.71	0	11:54	0.71
J125	JUNCTION	0.05	0.29	778.29	0	11:55	0.29
J126	JUNCTION	0.08	0.45	782.45	0	11:54	0.45
J127	JUNCTION	0.04	0.25	800.25	0	12:00	0.25
J128	JUNCTION	0.11	0.63	730.63	0	11:55	0.63
J129	JUNCTION	0.14	0.88	694.88	0	11:56	0.88
J13	JUNCTION	0.12	0.66	760.66	0	12:00	0.66
J130	JUNCTION	0.31	1.75	691.75	0	11:55	1.75
J131	JUNCTION	0.10	0.54	759.81	0	11:54	0.54
J132	JUNCTION	0.10	0.53	767.20	0	11:54	0.53
J133	JUNCTION	0.13	0.77	804.77	0	11:54	0.77
J134	JUNCTION	0.19	1.07	785.07	0	11:54	1.07
J135	JUNCTION	0.13	0.78	780.78	0	11:54	0.78
J136	JUNCTION	0.19	1.12	763.12	0	11:54	1.11
J137	JUNCTION	0.14	0.86	760.86	0	11:54	0.86
J138	JUNCTION	0.16	0.98	738.98	0	11:54	0.98
J139	JUNCTION	0.16	0.96	734.96	0	11:54	0.96
J14	JUNCTION	0.00	0.00	734.00	0	00:00	0.00
J140	JUNCTION	0.17	1.03	717.03	0	11:54	1.03
J141	JUNCTION	0.18	1.08	713.08	0	11:54	1.08
J142	JUNCTION	0.08	0.51	716.51	0	11:54	0.51
J143	JUNCTION	0.12	0.71	718.71	0	11:54	0.71
J144	JUNCTION	0.04	0.25	738.25	0	11:54	0.25
J145	JUNCTION	0.04	0.29	740.29	0	11:54	0.29
J146	JUNCTION	0.09	0.54	824.54	0	11:54	0.54
J147	JUNCTION	0.40	2.09	623.09	0	12:00	2.09
J148	JUNCTION	0.00	0.01	651.63	0	23:18	0.01
J149	JUNCTION	0.03	0.24	814.24	0	11:54	0.24
J15	JUNCTION	0.08	0.46	778.46	0	12:00	0.46
J150	JUNCTION	0.18	1.08	725.08	0	11:54	1.08
J151	JUNCTION	0.08	0.45	814.45	0	11:54	0.44
J152	JUNCTION	0.00	0.02	658.88	0	12:40	0.02
J16	JUNCTION	0.20	1.25	677.25	0	11:55	1.25
J17	JUNCTION	0.04	0.27	784.27	0	11:54	0.27
J18	JUNCTION	0.14	0.90	686.90	0	11:55	0.90
J19	JUNCTION	0.04	0.28	804.28	0	11:54	0.28
J2	JUNCTION	0.10	0.64	716.64	0	11:54	0.64
J20	JUNCTION	0.01	0.02	674.02	0	11:56	0.02
J21	JUNCTION	0.19	1.05	693.05	0	11:56	1.05
J22	JUNCTION	0.04	0.24	740.24	0	11:54	0.24
J23	JUNCTION	0.03	0.20	738.20	0	11:54	0.20
J24	JUNCTION	0.15	0.80	714.80	0	12:00	0.80
J25	JUNCTION	0.08	0.47	713.47	0	11:55	0.47
J26	JUNCTION	0.21	1.24	707.24	0	11:55	1.23
J27	JUNCTION	0.11	0.65	726.65	0	11:55	0.65
J28	JUNCTION	0.13	0.72	730.72	0	12:00	0.72
J29	JUNCTION	0.07	0.41	750.41	0	12:00	0.41
J30	JUNCTION	0.15	0.69	752.69	0	12:00	0.69
J31	JUNCTION	0.05	0.28	768.28	0	12:00	0.28
J32	JUNCTION	0.12	0.52	770.52	0	12:00	0.52
J33	JUNCTION	0.06	0.31	788.31	0	12:00	0.31
J34	JUNCTION	0.11	0.73	678.73	0	11:56	0.73
J35	JUNCTION	0.14	0.87	740.87	0	11:54	0.87
J37	JUNCTION	0.15	0.92	762.92	0	11:54	0.92
J38	JUNCTION	0.23	1.25	765.25	0	11:54	1.25
J39	JUNCTION	0.12	0.74	782.74	0	11:54	0.74

J4	JUNCTION	0.23	2.00	692.00	0	11:56	2.00
J40	JUNCTION	0.21	1.15	785.15	0	11:54	1.15
J41	JUNCTION	0.11	0.67	802.67	0	11:54	0.66
J42	JUNCTION	0.20	1.05	805.05	0	11:54	1.05
J43	JUNCTION	0.09	0.60	682.60	0	11:56	0.60
J44	JUNCTION	0.15	0.94	680.98	0	11:55	0.94
J45	JUNCTION	0.51	1.69	660.99	0	12:40	1.69
J46	JUNCTION	0.15	0.88	774.88	0	11:54	0.88
J47	JUNCTION	0.03	0.20	828.00	0	11:54	0.20
J48	JUNCTION	0.10	0.55	796.93	0	11:54	0.55
J49	JUNCTION	0.09	0.50	789.77	0	11:54	0.50
J5	JUNCTION	0.24	1.24	695.24	0	11:55	1.24
J50	JUNCTION	0.06	0.39	762.39	0	11:54	0.39
J51	JUNCTION	0.04	0.26	758.26	0	11:54	0.26
J52	JUNCTION	0.13	0.80	740.80	0	11:54	0.80
J53	JUNCTION	0.10	0.68	738.68	0	11:54	0.68
J54	JUNCTION	0.13	0.84	696.84	0	11:55	0.84
J55	JUNCTION	0.07	0.54	718.54	0	11:54	0.54
J56	JUNCTION	0.08	0.56	722.56	0	11:54	0.56
J57	JUNCTION	0.03	0.25	744.25	0	11:54	0.25
J58	JUNCTION	0.08	0.48	746.48	0	11:54	0.48
J59	JUNCTION	0.11	0.69	706.69	0	11:54	0.69
J6	JUNCTION	0.13	0.72	712.72	0	12:00	0.72
J60	JUNCTION	0.15	0.86	710.86	0	11:54	0.86
J61	JUNCTION	0.08	0.50	732.50	0	11:54	0.50
J62	JUNCTION	0.18	0.88	734.88	0	11:54	0.88
J63	JUNCTION	0.08	0.46	756.46	0	12:00	0.46
J64	JUNCTION	0.08	0.50	780.50	0	12:00	0.50
J65	JUNCTION	0.04	0.31	816.31	0	11:54	0.31
J66	JUNCTION	0.08	0.52	794.52	0	11:54	0.52
J67	JUNCTION	0.11	0.73	750.73	0	11:54	0.73
J68	JUNCTION	0.13	0.84	730.84	0	11:54	0.84
J69	JUNCTION	0.15	0.90	728.90	0	11:55	0.90
J7	JUNCTION	0.19	1.13	719.13	0	11:55	1.13
J70	JUNCTION	0.12	0.79	694.79	0	11:54	0.78
J71	JUNCTION	0.21	1.14	697.14	0	11:54	1.14
J72	JUNCTION	0.10	0.69	718.69	0	11:54	0.69
J73	JUNCTION	0.19	1.04	721.04	0	11:54	1.04
J74	JUNCTION	0.09	0.60	742.60	0	11:54	0.60
J75	JUNCTION	0.13	0.78	746.78	0	11:54	0.78
J76	JUNCTION	0.08	0.53	764.53	0	11:54	0.53
J77	JUNCTION	0.10	0.65	768.65	0	11:54	0.65
J78	JUNCTION	0.07	0.45	788.45	0	11:54	0.45
J79	JUNCTION	0.09	0.54	826.54	0	11:54	0.54
J8	JUNCTION	0.12	0.67	732.67	0	12:00	0.67
J80	JUNCTION	0.12	0.65	738.97	0	11:54	0.65
J81	JUNCTION	0.09	0.59	772.59	0	11:54	0.59
J82	JUNCTION	0.24	1.39	677.39	0	11:57	1.39
J83	JUNCTION	0.06	0.38	724.38	0	11:54	0.38
J86	JUNCTION	0.50	1.92	659.42	0	12:45	1.92
J87	JUNCTION	0.09	0.60	688.60	0	11:56	0.60
J88	JUNCTION	0.01	0.11	671.88	0	11:56	0.11
J89	JUNCTION	0.13	0.78	676.72	0	11:56	0.78
J9	JUNCTION	0.31	1.76	689.76	0	11:56	1.76
J90	JUNCTION	0.12	0.72	652.97	0	23:18	0.72
J91	JUNCTION	0.01	0.72	649.72	1	00:00	0.72
J94	JUNCTION	0.37	1.67	632.67	0	12:00	1.67

J96	JUNCTION	0.03	0.21	722.21	0	11:54	0.21
J97	JUNCTION	0.26	1.93	673.97	0	11:56	1.93
J98	JUNCTION	0.08	0.52	700.52	0	11:54	0.52
J99	JUNCTION	0.05	0.37	696.37	0	11:54	0.37
J3	OUTFALL	0.00	0.00	648.36	0	00:00	0.00
J36	OUTFALL	0.00	0.00	656.94	0	00:00	0.00
J84	OUTFALL	0.01	0.56	648.92	1	00:00	0.56
J85	OUTFALL	0.40	1.61	658.55	0	12:46	1.61
J92	OUTFALL	0.37	1.78	621.78	0	12:00	1.78
J93	OUTFALL	0.36	1.84	625.84	0	12:00	1.84
J95	OUTFALL	0.35	1.48	631.48	0	12:00	1.48
SU1	STORAGE	10.60	14.14	668.14	0	23:18	14.14
SU2	STORAGE	5.88	10.12	660.12	1	00:00	10.12
SU3	STORAGE	7.18	10.82	670.82	0	12:40	10.82
SU4	STORAGE	3.70	7.82	665.82	0	12:45	7.82

Node Inflow Summary

Total Inflow Volume Node gal		Flow Balance Error Percent	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal
1.03	0.009		JUNCTION	9.67	39.43	0 11:54	0.225
0.615	0.011		JUNCTION	8.61	22.43	0 12:00	0.227
4.33	0.087		JUNCTION	4.80	189.93	0 11:56	0.13
0.355	0.005		JUNCTION	0.00	16.71	0 11:54	0
0.355	0.040		JUNCTION	5.61	16.74	0 11:54	0.112
0.242	0.017		JUNCTION	0.00	11.20	0 11:54	0
0.243	0.040		JUNCTION	4.93	11.24	0 11:54	0.0969
0.146	0.016		JUNCTION	6.34	6.34	0 11:54	0.146
1.55	0.010		JUNCTION	56.00	56.00	0 12:00	1.55
0.0734	0.006		JUNCTION	2.72	2.72	0 11:54	0.0734
0.0734	0.025		JUNCTION	0.00	2.72	0 11:54	0
0.109	0.036		JUNCTION	4.45	4.45	0 11:54	0.109
3.84	0.065		JUNCTION	7.31	170.33	0 11:56	0.143

J110		JUNCTION	0.00	4.44	0	11:54	0
0.109	0.043						
J111		JUNCTION	0.00	4.44	0	11:55	0
0.109	0.045						
J112		JUNCTION	8.18	12.54	0	11:54	0.196
0.306	0.017						
J113		JUNCTION	6.58	18.98	0	11:54	0.138
0.443	0.022						
J114		JUNCTION	0.00	18.98	0	11:54	0
0.443	0.015						
J115		JUNCTION	7.13	25.96	0	11:54	0.145
0.588	0.011						
J116		JUNCTION	0.00	25.96	0	11:54	0
0.588	0.010						
J117		JUNCTION	7.68	33.52	0	11:54	0.161
0.749	0.008						
J118		JUNCTION	0.00	33.52	0	11:54	0
0.749	0.005						
J119		JUNCTION	0.00	22.62	0	11:54	0
0.517	0.012						
J12		JUNCTION	0.00	13.84	0	12:00	0
0.389	0.011						
J120		JUNCTION	6.67	22.63	0	11:54	0.145
0.518	0.020						
J121		JUNCTION	0.00	16.08	0	11:54	0
0.372	0.016						
J122		JUNCTION	5.18	16.08	0	11:54	0.107
0.372	0.021						
J123		JUNCTION	0.00	11.03	0	11:54	0
0.265	0.017						
J124		JUNCTION	4.44	11.04	0	11:54	0.0937
0.266	0.042						
J125		JUNCTION	0.00	6.69	0	11:55	0
0.172	0.022						
J126		JUNCTION	2.82	6.69	0	11:54	0.0666
0.172	0.042						
J127		JUNCTION	3.98	3.98	0	12:00	0.105
0.105	0.024						
J128		JUNCTION	3.08	35.42	0	11:54	0.0569
0.879	0.030						
J129		JUNCTION	11.76	36.58	0	11:54	0.232
0.765	0.150						
J13		JUNCTION	0.00	13.85	0	12:00	0
0.389	0.023						
J130		JUNCTION	4.48	102.73	0	11:55	0.0834
2.28	0.069						
J131		JUNCTION	0.00	27.92	0	11:54	0
0.711	0.015						
J132		JUNCTION	3.58	27.93	0	11:54	0.0889
0.711	0.020						
J133		JUNCTION	9.51	29.90	0	11:54	0.238
0.725	0.022						
J134		JUNCTION	7.23	36.99	0	11:54	0.143
0.867	0.022						
J135		JUNCTION	0.00	36.94	0	11:54	0
0.867	0.011						
J136		JUNCTION	11.10	47.90	0	11:54	0.237
1.1	0.010						
J137		JUNCTION	0.00	47.90	0	11:54	0
1.1	0.007						

J138		JUNCTION	5.86	53.65	0	11:54	0.119
1.22	0.008						
J139		JUNCTION	0.00	53.65	0	11:54	0
1.22	0.008						
J14		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J140		JUNCTION	6.42	59.95	0	11:54	0.135
1.36	0.007						
J141		JUNCTION	4.00	63.84	0	11:54	0.0778
1.44	0.007						
J142		JUNCTION	5.24	15.80	0	11:54	0.114
0.359	0.015						
J143		JUNCTION	5.71	10.64	0	11:54	0.133
0.245	0.040						
J144		JUNCTION	0.00	4.96	0	11:54	0
0.112	0.027						
J145		JUNCTION	4.96	4.96	0	11:54	0.112
0.112	0.017						
J146		JUNCTION	18.99	18.99	0	11:54	0.449
0.449	0.007						
J147		JUNCTION	58.00	58.00	0	12:00	1.79
1.79	0.008						
J148		JUNCTION	0.00	3.77	0	23:18	0
0.409	0.002						
J149		JUNCTION	3.58	3.58	0	11:54	0.0738
0.0738	0.033						
J15		JUNCTION	9.28	13.86	0	12:00	0.274
0.389	0.013						
J150		JUNCTION	3.24	52.91	0	11:54	0.0619
1.18	0.009						
J151		JUNCTION	15.45	18.14	0	11:54	0.382
0.455	0.021						
J152		JUNCTION	0.00	30.01	0	12:40	0
2.63	-0.001						
J16		JUNCTION	2.54	122.20	0	11:55	0.0469
2.56	0.013						
J17		JUNCTION	0.00	4.92	0	11:54	0
0.114	0.025						
J18		JUNCTION	2.89	84.05	0	11:54	0.0533
1.77	0.033						
J19		JUNCTION	4.93	4.93	0	11:54	0.115
0.115	0.021						
J2		JUNCTION	6.71	33.31	0	11:54	0.124
0.678	0.119						
J20		JUNCTION	19.02	244.83	0	11:56	0.523
5.95	0.000						
J21		JUNCTION	0.00	59.01	0	11:56	0
1.52	0.072						
J22		JUNCTION	3.55	3.55	0	11:54	0.0876
0.0876	0.020						
J23		JUNCTION	0.00	3.55	0	11:54	0
0.0875	0.029						
J24		JUNCTION	4.96	8.40	0	12:00	0.13
0.218	0.060						
J25		JUNCTION	4.70	13.03	0	11:55	0.112
0.329	0.018						
J26		JUNCTION	5.15	151.71	0	11:55	0.0962
3.53	0.036						
J27		JUNCTION	6.47	24.06	0	11:55	0.142
0.647	0.016						

J28		JUNCTION	6.82	17.94	0	12:00	0.16
0.505	0.021						
J29		JUNCTION	0.00	11.55	0	12:00	0
0.345	0.017						
J30		JUNCTION	6.23	11.56	0	12:00	0.146
0.346	0.029						
J31		JUNCTION	0.00	5.75	0	12:00	0
0.2	0.021						
J32		JUNCTION	0.00	5.77	0	12:00	0
0.2	0.058						
J33		JUNCTION	5.79	5.79	0	12:00	0.2
0.2	0.018						
J34		JUNCTION	0.00	226.21	0	11:56	0
5.43	0.010						
J35		JUNCTION	7.46	49.80	0	11:54	0.146
1.12	0.013						
J37		JUNCTION	0.00	42.54	0	11:54	0
0.973	0.015						
J38		JUNCTION	7.39	42.56	0	11:54	0.145
0.974	0.016						
J39		JUNCTION	0.00	35.31	0	11:54	0
0.828	0.010						
J4		JUNCTION	3.83	213.02	0	11:55	0.0767
5.12	0.034						
J40		JUNCTION	7.81	35.33	0	11:54	0.167
0.829	0.019						
J41		JUNCTION	0.00	27.60	0	11:54	0
0.662	0.011						
J42		JUNCTION	8.68	27.65	0	11:54	0.213
0.662	0.025						
J43		JUNCTION	0.00	226.22	0	11:56	0
5.43	0.005						
J44		JUNCTION	0.00	83.95	0	11:55	0
1.77	0.015						
J45		JUNCTION	0.00	30.01	0	12:40	0
2.63	0.013						
J46		JUNCTION	8.31	22.36	0	11:54	0.176
0.47	0.030						
J47		JUNCTION	0.00	2.72	0	11:54	0
0.0734	0.012						
J48		JUNCTION	6.35	24.42	0	11:54	0.167
0.622	0.018						
J49		JUNCTION	0.00	24.41	0	11:54	0
0.622	0.018						
J5		JUNCTION	17.51	56.47	0	11:54	0.341
1.37	0.161						
J50		JUNCTION	5.25	5.25	0	11:54	0.12
0.12	0.016						
J51		JUNCTION	0.00	5.24	0	11:54	0
0.12	0.022						
J52		JUNCTION	9.47	14.66	0	11:54	0.2
0.32	0.029						
J53		JUNCTION	12.11	26.67	0	11:54	0.234
0.554	0.013						
J54		JUNCTION	3.32	53.41	0	11:54	0.061
1.07	0.078						
J55		JUNCTION	6.70	17.86	0	11:54	0.124
0.331	0.013						
J56		JUNCTION	6.08	11.19	0	11:54	0.113
0.208	0.027						

J57		JUNCTION	0.00	5.13	0	11:54	0
0.095	0.024						
J58		JUNCTION	5.13	5.13	0	11:54	0.095
0.095	0.021						
J59		JUNCTION	5.44	28.48	0	11:54	0.101
0.645	0.014						
J6		JUNCTION	0.00	29.92	0	12:00	0
0.802	0.008						
J60		JUNCTION	6.03	23.25	0	11:54	0.113
0.544	0.022						
J61		JUNCTION	0.00	17.45	0	11:54	0
0.431	0.015						
J62		JUNCTION	5.14	17.48	0	11:54	0.0983
0.432	0.042						
J63		JUNCTION	0.00	12.62	0	12:00	0
0.333	0.035						
J64		JUNCTION	12.63	12.63	0	12:00	0.333
0.333	0.020						
J65		JUNCTION	5.90	5.90	0	11:54	0.12
0.12	0.022						
J66		JUNCTION	8.27	14.15	0	11:54	0.174
0.294	0.034						
J67		JUNCTION	4.09	26.36	0	11:54	0.0853
0.555	0.025						
J68		JUNCTION	1.50	27.78	0	11:54	0.0276
0.582	0.018						
J69		JUNCTION	0.00	62.98	0	11:54	0
1.46	0.024						
J7		JUNCTION	7.74	123.09	0	11:54	0.145
2.79	0.032						
J70		JUNCTION	5.60	36.05	0	11:54	0.106
0.749	0.011						
J71		JUNCTION	0.00	30.67	0	11:54	0
0.644	0.030						
J72		JUNCTION	5.94	30.68	0	11:54	0.113
0.644	0.012						
J73		JUNCTION	0.00	24.93	0	11:54	0
0.532	0.031						
J74		JUNCTION	6.20	24.94	0	11:54	0.119
0.532	0.012						
J75		JUNCTION	0.00	18.92	0	11:54	0
0.413	0.025						
J76		JUNCTION	5.72	18.93	0	11:54	0.138
0.413	0.014						
J77		JUNCTION	0.00	13.25	0	11:54	0
0.275	0.031						
J78		JUNCTION	9.75	13.31	0	11:54	0.201
0.275	0.032						
J79		JUNCTION	20.42	20.42	0	11:54	0.486
0.486	0.007						
J8		JUNCTION	8.29	29.92	0	12:00	0.187
0.802	0.008						
J80		JUNCTION	4.67	32.50	0	11:54	0.111
0.822	0.023						
J81		JUNCTION	0.00	22.32	0	11:54	0
0.469	0.013						
J82		JUNCTION	5.65	201.82	0	11:57	0.109
4.6	0.033						
J83		JUNCTION	3.58	3.58	0	11:54	0.068
0.068	0.022						

J86		JUNCTION	0.00	29.66	0	12:45	0
2.43	0.021						
J87		JUNCTION	16.35	226.20	0	11:56	0.306
5.43	0.014						
J88		JUNCTION	0.00	321.74	0	11:56	0
7.23	-0.000						
J89		JUNCTION	0.00	226.21	0	11:56	0
5.43	0.009						
J9		JUNCTION	7.43	132.13	0	11:55	0.158
2.96	0.084						
J90		JUNCTION	0.00	3.77	0	23:18	0
0.41	0.159						
J91		JUNCTION	0.00	3.31	1	00:00	0
0.0204	3.070						
J94		JUNCTION	36.67	36.67	0	12:00	1.48
1.48	0.012						
J96		JUNCTION	0.00	3.57	0	11:54	0
0.068	0.026						
J97		JUNCTION	3.77	321.92	0	11:56	0.0707
7.23	0.017						
J98		JUNCTION	5.21	8.76	0	11:54	0.102
0.17	0.037						
J99		JUNCTION	0.00	8.73	0	11:54	0
0.17	-0.001						
J3		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
J36		OUTFALL	4.06	4.06	0	12:00	0.12
0.12	0.000						
J84		OUTFALL	0.00	3.30	1	00:00	0
0.0198	0.000						
J85		OUTFALL	0.00	29.66	0	12:46	0
2.43	0.000						
J92		OUTFALL	0.00	58.00	0	12:00	0
1.79	0.000						
J93		OUTFALL	0.00	55.96	0	12:00	0
1.54	0.000						
J95		OUTFALL	0.00	36.70	0	12:00	0
1.48	0.000						
SU1		STORAGE	27.45	348.50	0	11:56	0.723
10.6	-0.000						
SU2		STORAGE	7.23	7.23	0	11:54	0.175
0.828	-0.001						
SU3		STORAGE	0.00	244.83	0	11:56	0
6.05	0.000						
SU4		STORAGE	0.00	30.01	0	12:40	0
2.63	0.000						

Node Surcharge Summary

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

 Storage Volume Summary

of Max Occurrence hr:min	Maximum Storage Unit Outflow CFS	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time days
23:18	3.77	884.011	37	0	0	1367.584	57	0
00:00	3.31	48.417	16	0	0	107.958	36	1
12:40	30.01	290.942	37	0	0	512.399	65	0
12:45	29.66	13.898	11	0	0	31.100	25	0

 Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
J3	0.00	0.00	0.00	0.000
J36	94.42	0.36	4.06	0.120
J84	1.20	2.13	3.30	0.020
J85	49.27	9.13	29.66	2.433
J92	85.74	5.81	58.00	1.790
J93	86.80	5.08	55.96	1.545
J95	84.87	4.60	36.70	1.482
System	57.47	27.11	154.64	7.390

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	226.22	0 11:56	17.25	0.12	0.30
C1_1	CONDUIT	226.21	0 11:56	13.37	0.17	0.38

C1_2	CONDUIT	226.22	0	11:56	23.33	0.13	0.20
C1_4	CONDUIT	226.21	0	11:56	15.38	0.12	0.33
C10	CONDUIT	5.88	0	11:54	2.73	0.03	0.21
C10_1	CONDUIT	169.52	0	11:56	7.96	0.24	0.59
C10_2	CONDUIT	189.26	0	11:57	10.63	0.40	0.53
C10_3	CONDUIT	0.00	0	00:00	0.00	0.00	0.09
C10_5	CONDUIT	35.37	0	11:55	7.34	0.03	0.22
C100	CONDUIT	6.69	0	11:55	3.54	0.05	0.19
C101	CONDUIT	6.69	0	11:55	2.48	0.02	0.25
C102	CONDUIT	11.03	0	11:54	3.52	0.11	0.28
C103	CONDUIT	16.08	0	11:54	4.63	0.11	0.30
C104	CONDUIT	11.02	0	11:54	3.58	0.04	0.27
C105	CONDUIT	16.07	0	11:54	4.01	0.07	0.33
C106	CONDUIT	22.62	0	11:54	5.01	0.16	0.36
C107	CONDUIT	22.62	0	11:55	2.58	0.10	0.60
C109	CONDUIT	29.83	0	11:54	4.78	0.14	0.46
C11	CONDUIT	3.57	0	11:54	2.48	0.03	0.15
C11_3	CONDUIT	122.11	0	11:55	9.36	0.11	0.45
C11_4	CONDUIT	201.70	0	11:57	14.00	0.13	0.47
C110	CONDUIT	36.94	0	11:54	5.89	0.26	0.46
C111	CONDUIT	36.93	0	11:54	5.70	0.15	0.47
C112	CONDUIT	47.90	0	11:54	6.94	0.29	0.49
C113	CONDUIT	47.89	0	11:54	7.67	0.18	0.46
C114	CONDUIT	53.65	0	11:54	7.98	0.22	0.49
C115	CONDUIT	53.64	0	11:54	7.70	0.22	0.50
C116	CONDUIT	59.95	0	11:54	7.94	0.25	0.53
C117	CONDUIT	63.83	0	11:54	5.55	0.28	0.71
C118	CONDUIT	2.48	0	11:54	1.93	0.02	0.13
C119	CONDUIT	4.95	0	11:54	1.89	0.02	0.24
C12	CONDUIT	62.92	0	11:55	8.80	0.06	0.29
C12_1	CONDUIT	83.95	0	11:55	13.54	0.06	0.26
C120	CONDUIT	10.62	0	11:54	2.99	0.11	0.30
C121	CONDUIT	15.79	0	11:54	3.87	0.07	0.34
C123	CONDUIT	58.00	0	12:00	9.66	0.41	0.48
C13	CONDUIT	5.13	0	11:54	2.74	0.05	0.18
C13_2	CONDUIT	52.90	0	11:55	9.21	0.05	0.25
C13_4	CONDUIT	32.63	0	11:54	7.07	0.03	0.21
C14	CONDUIT	55.96	0	12:00	9.07	0.43	0.49
C14_1	CONDUIT	122.82	0	11:55	13.75	0.09	0.34
C14_2	CONDUIT	151.25	0	11:55	11.25	0.10	0.46
C14_3	CONDUIT	1.77	0	11:54	1.71	0.00	0.06
C14_4	CONDUIT	8.40	0	12:00	2.23	0.03	0.18
C14_5	CONDUIT	3.54	0	11:54	1.29	0.00	0.14
C14_7	CONDUIT	13.02	0	11:55	2.81	0.02	0.22
C15	CONDUIT	0.00	0	00:00	0.00	0.00	0.09
C16	CONDUIT	83.92	0	11:55	10.56	0.06	0.31
C16_1	CONDUIT	46.00	0	11:56	5.41	0.10	0.33
C16_2	CONDUIT	58.86	0	11:56	4.99	0.08	0.44
C17	CONDUIT	1.77	0	11:54	1.71	0.02	0.11
C17_1	CONDUIT	9.65	0	11:56	1.27	1.41	0.30
C17_3	CONDUIT	35.76	0	11:56	3.45	0.05	0.37
C17_4	CONDUIT	102.57	0	11:55	6.33	0.21	0.50
C18	CONDUIT	131.04	0	11:56	7.76	0.22	0.51
C19	CONDUIT	22.42	0	12:00	5.30	0.12	0.35
C2	CONDUIT	36.70	0	12:00	8.01	0.29	0.39
C2_13	CONDUIT	211.59	0	11:56	13.55	0.41	0.43
C2_3	CONDUIT	3.77	0	23:18	6.48	0.06	0.09

C2_4	DUMMY	3.77	0	23:18			
C20	CONDUIT	29.92	0	12:00	7.07	0.11	0.35
C21	CONDUIT	29.92	0	12:00	5.81	0.13	0.40
C22	CONDUIT	39.42	0	11:55	5.17	0.19	0.53
C23	CONDUIT	2.48	0	11:54	1.93	0.02	0.13
C24	CONDUIT	5.77	0	12:00	2.67	0.01	0.12
C25	CONDUIT	22.32	0	11:54	4.89	0.17	0.37
C26	CONDUIT	22.31	0	11:54	5.61	0.09	0.33
C27	CONDUIT	5.75	0	12:00	2.77	0.06	0.20
C28	CONDUIT	5.75	0	12:00	2.20	0.02	0.24
C29	CONDUIT	11.55	0	12:00	3.72	0.11	0.27
C3	DUMMY	244.83	0	11:56			
C3_7	CONDUIT	321.74	0	11:56	17.48	0.72	0.34
C30	CONDUIT	11.54	0	12:00	3.58	0.04	0.28
C31	CONDUIT	17.93	0	12:00	4.35	0.12	0.34
C32	CONDUIT	24.06	0	11:55	3.88	0.10	0.47
C33	CONDUIT	26.32	0	11:54	5.25	0.13	0.39
C34	CONDUIT	27.60	0	11:54	4.89	0.25	0.43
C35	CONDUIT	27.59	0	11:54	4.51	0.11	0.45
C36	CONDUIT	35.31	0	11:54	5.46	0.30	0.47
C37	CONDUIT	35.30	0	11:54	5.08	0.13	0.50
C38	CONDUIT	42.54	0	11:54	5.40	0.36	0.54
C39	CONDUIT	42.52	0	11:54	7.08	0.20	0.45
C4	DUMMY	321.74	0	11:56			
C40	CONDUIT	27.76	0	11:54	4.86	0.17	0.43
C41_1	CONDUIT	49.78	0	11:54	7.37	0.18	0.49
C41_2	CONDUIT	52.90	0	11:54	6.56	0.28	0.55
C42	CONDUIT	14.09	0	11:54	3.32	0.07	0.35
C42_3	CONDUIT	27.91	0	11:54	12.46	0.03	0.24
C42_4	CONDUIT	32.50	0	11:55	12.92	0.05	0.26
C43	CONDUIT	27.92	0	11:54	14.47	0.03	0.21
C44	CONDUIT	24.39	0	11:54	13.31	0.03	0.21
C45	CONDUIT	20.39	0	11:54	5.22	0.07	0.33
C45_1	CONDUIT	2.72	0	11:54	2.99	0.00	0.12
C45_2	CONDUIT	24.41	0	11:54	13.03	0.03	0.21
C45_3	CONDUIT	18.09	0	11:54	10.40	0.02	0.20
C45_4	CONDUIT	2.72	0	11:54	5.64	0.01	0.08
C46	CONDUIT	18.97	0	11:54	3.75	0.07	0.40
C47	CONDUIT	3.56	0	11:54	2.05	0.02	0.17
C48	CONDUIT	5.24	0	11:54	3.25	0.04	0.16
C49	CONDUIT	5.23	0	11:54	1.78	0.02	0.26
C5	CONDUIT	4.92	0	11:54	3.71	0.02	0.14
C50	CONDUIT	14.62	0	11:54	3.17	0.14	0.37
C51	CONDUIT	26.66	0	11:54	6.74	0.11	0.33
C52	CONDUIT	5.12	0	11:54	2.42	0.02	0.20
C53	CONDUIT	11.17	0	11:54	3.59	0.08	0.28
C54	CONDUIT	17.83	0	11:54	4.35	0.07	0.34
C55_1	CONDUIT	30.01	0	12:40	15.33	0.51	0.21
C55_2	DUMMY	30.01	0	12:40			
C56	CONDUIT	29.66	0	12:46	5.55	0.51	0.44
C56_1	CONDUIT	2.72	0	11:54	4.50	0.01	0.09
C6	CONDUIT	4.92	0	11:54	2.70	0.02	0.18
C60	CONDUIT	12.62	0	12:00	4.89	0.06	0.24
C61	CONDUIT	12.62	0	12:00	3.22	0.05	0.33
C62	CONDUIT	17.45	0	11:54	4.16	0.17	0.35
C63	CONDUIT	17.45	0	11:54	4.27	0.06	0.34
C64	CONDUIT	28.48	0	11:54	5.65	0.12	0.40

Conduit	Both Ends	Upstream	Dnstream	Normal Flow	Limited
C17_1	0.01	0.01	0.01	0.20	0.01
C85	0.01	0.01	0.21	0.01	0.01

Analysis begun on: Wed Jun 21 13:55:55 2023

Analysis ended on: Wed Jun 21 13:55:57 2023

Total elapsed time: 00:00:02

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.015)

 WARNING 04: minimum elevation drop used for Conduit C17_1
 WARNING 02: maximum depth increased for Node J32
 WARNING 02: maximum depth increased for Node J87

Element Count

Number of rain gages 3
 Number of subcatchments ... 96
 Number of nodes 156
 Number of links 157
 Number of pollutants 0
 Number of land uses 0

Raingage Summary

Name	Data Source	Data Type	Recording Interval
SCS_Type_II_3.77in	SCS_Type_II_3.77in	INTENSITY	6 min.
SCS_Type_II_6.29in	SCS_Type_II_6.29in	INTENSITY	6 min.
SCS_Type_II_7.85in	SCS_Type_II_7.85in	INTENSITY	6 min.

Subcatchment Summary

Outlet	Name	Area	Width	%Imperv	%Slope	Rain Gage
	S1	0.86	115.00	0.00	1.2000	SCS_Type_II_7.85in
J100	S10	0.53	780.00	0.00	1.4000	SCS_Type_II_7.85in
J130	S10_3	0.64	275.00	0.00	4.7000	SCS_Type_II_7.85in
J62	S10_5	0.62	315.00	0.00	4.4000	SCS_Type_II_7.85in
J7	S10_6	0.34	520.00	0.00	3.4000	SCS_Type_II_7.85in
J18	S11	1.01	400.00	0.00	1.3000	SCS_Type_II_7.85in
J9	S11_10	0.69	375.00	0.00	4.4000	SCS_Type_II_7.85in
J70	S11_3	0.77	330.00	0.00	4.7000	SCS_Type_II_7.85in
J74	S11_4	0.73	355.00	0.00	4.6000	SCS_Type_II_7.85in
J72	S11_8	0.63	380.00	0.00	1.4000	SCS_Type_II_7.85in
J104	S12	0.94	255.00	0.00	1.3000	SCS_Type_II_7.85in
J105						

S12_3 J128	0.37	355.00	0.00	3.4000	SCS_Type_II_7.85in
S12_4 J7	0.33	315.00	0.00	3.4000	SCS_Type_II_7.85in
S13 SU1	4.93	800.00	0.00	1.0000	SCS_Type_II_7.85in
S14 SU2	1.11	290.00	0.00	1.0000	SCS_Type_II_7.85in
S15 J133	1.54	490.00	0.00	0.5000	SCS_Type_II_7.85in
S16 J106	13.80	980.00	0.00	3.4000	SCS_Type_II_7.85in
S16_2 J94	14.83	740.00	0.00	1.3000	SCS_Type_II_7.85in
S16_3 J147	17.01	970.00	0.00	3.0000	SCS_Type_II_7.85in
S16_4 J64	1.78	415.00	0.00	0.5000	SCS_Type_II_7.85in
S16_5 J64	0.39	180.00	0.00	0.5000	SCS_Type_II_7.85in
S18 J76	0.91	320.00	0.00	0.5000	SCS_Type_II_7.85in
S18_1 J58	0.61	570.00	0.00	4.7000	SCS_Type_II_7.85in
S19_3 J97	0.45	350.00	0.00	3.4000	SCS_Type_II_7.85in
S2 J102	0.73	415.00	0.00	1.2000	SCS_Type_II_7.85in
S20_1 J60	0.73	450.00	0.00	4.6000	SCS_Type_II_7.85in
S21 J149	0.46	230.00	25.00	0.5000	SCS_Type_II_7.85in
S21_1 J59	0.66	470.00	0.00	4.4000	SCS_Type_II_7.85in
S22_2 J82	0.71	540.00	0.00	1.2000	SCS_Type_II_7.85in
S23 J33	1.34	125.00	0.00	0.5000	SCS_Type_II_7.85in
S23_1 J27	0.93	485.00	0.00	0.5000	SCS_Type_II_7.85in
S23_10 J25	0.73	275.00	0.00	0.5000	SCS_Type_II_7.85in
S23_11 J1	1.45	600.00	0.00	0.5000	SCS_Type_II_7.85in
S23_12 J22	0.57	190.00	0.00	0.5000	SCS_Type_II_7.85in
S23_13 J24	0.86	215.00	0.00	0.5000	SCS_Type_II_7.85in
S23_15 J8	1.20	570.00	0.00	0.5000	SCS_Type_II_7.85in
S23_2 J30	0.96	380.00	0.00	0.5000	SCS_Type_II_7.85in
S23_3 J28	1.05	415.00	0.00	0.5000	SCS_Type_II_7.85in
S23_4 J145	0.72	340.00	0.00	0.5000	SCS_Type_II_7.85in
S23_7 J143	0.88	350.00	0.00	0.5000	SCS_Type_II_7.85in
S23_8 J142	0.75	400.00	0.00	0.5000	SCS_Type_II_7.85in

S23_9	1.47	375.00	0.00	0.5000	SCS_Type_II_7.85in
J10					
S24	0.76	415.00	25.00	0.5000	SCS_Type_II_7.85in
J65					
S24_1	0.49	460.00	0.00	0.5000	SCS_Type_II_7.85in
J4					
S25	1.09	470.00	25.00	0.5000	SCS_Type_II_7.85in
J66					
S25_2	1.29	280.00	0.00	1.4000	SCS_Type_II_7.85in
J112					
S25_3	0.68	170.00	0.00	0.5000	SCS_Type_II_7.85in
J127					
S26	0.72	240.00	0.00	0.5000	SCS_Type_II_7.85in
J109					
S27	1.12	450.00	25.00	0.5000	SCS_Type_II_7.85in
J46					
S28	0.54	240.00	25.00	0.5000	SCS_Type_II_7.85in
J67					
S29	0.18	500.00	25.00	0.5000	SCS_Type_II_7.85in
J68					
S3	2.42	440.00	25.00	0.5000	SCS_Type_II_7.85in
J151					
S3_1	1.09	650.00	0.00	0.5000	SCS_Type_II_7.85in
J40					
S3_2	2.84	630.00	25.00	0.5000	SCS_Type_II_7.85in
J146					
S30	0.39	500.00	25.00	0.5000	SCS_Type_II_7.85in
J150					
S32	0.73	300.00	25.00	0.5000	SCS_Type_II_7.85in
J52					
S33	0.76	200.00	25.00	0.5000	SCS_Type_II_7.85in
J50					
S34	0.53	220.00	25.00	0.5000	SCS_Type_II_7.85in
J52					
S35_1	3.07	660.00	25.00	0.5000	SCS_Type_II_7.85in
J79					
S35_2	1.06	150.00	25.00	0.5000	SCS_Type_II_7.85in
J48					
S35_3	0.47	60.00	25.00	0.5000	SCS_Type_II_7.85in
J107					
S35_4	0.70	150.00	25.00	0.5000	SCS_Type_II_7.85in
J80					
S35_6	0.56	100.00	25.00	0.5000	SCS_Type_II_7.85in
J132					
S4	0.76	120.00	0.00	0.5000	SCS_Type_II_7.85in
J36					
S4_2	3.29	515.00	0.00	1.0000	SCS_Type_II_7.85in
J20					
S4_4	0.81	630.00	0.00	4.4000	SCS_Type_II_7.85in
J55					
S5_1	0.73	540.00	0.00	4.6000	SCS_Type_II_7.85in
J56					
S5_3	1.50	650.00	0.00	4.4000	SCS_Type_II_7.85in
J53					
S6	1.79	270.00	0.00	0.5000	SCS_Type_II_7.85in
J15					
S6_11	0.67	450.00	0.00	1.2000	SCS_Type_II_7.85in
J98					
S6_2	0.95	315.00	0.00	4.7000	SCS_Type_II_7.85in
J38					

S6_3 J87	2.17	990.00	0.00	3.9000	SCS_Type_II_7.85in
S6_4 J2	0.80	870.00	0.00	3.4000	SCS_Type_II_7.85in
S6_6 J26	0.62	515.00	0.00	3.4000	SCS_Type_II_7.85in
S7_2 J19	0.74	310.00	0.00	0.5000	SCS_Type_II_7.85in
S7_3 J78	1.31	300.00	0.00	5.0000	SCS_Type_II_7.85in
S7_4 J42	1.38	470.00	0.00	0.5000	SCS_Type_II_7.85in
S8 J5	2.27	950.00	0.00	3.0000	SCS_Type_II_7.85in
S8_11 J35	0.97	315.00	0.00	4.6000	SCS_Type_II_7.85in
S8_12 J136	1.53	580.00	0.00	1.3000	SCS_Type_II_7.85in
S8_13 J134	0.91	580.00	0.00	1.4000	SCS_Type_II_7.85in
S8_15 J140	0.88	365.00	0.00	1.2000	SCS_Type_II_7.85in
S8_16 J141	0.51	365.00	0.00	1.2000	SCS_Type_II_7.85in
S8_18 J83	0.44	380.00	0.00	1.4000	SCS_Type_II_7.85in
S8_2 J122	0.70	300.00	0.00	1.4000	SCS_Type_II_7.85in
S8_3 J120	0.95	330.00	0.00	1.2000	SCS_Type_II_7.85in
S8_4 J124	0.61	240.00	0.00	1.3000	SCS_Type_II_7.85in
S8_5 J126	0.44	100.00	0.00	1.4000	SCS_Type_II_7.85in
S8_7 J138	0.78	365.00	0.00	1.4000	SCS_Type_II_7.85in
S8_8 J54	0.39	620.00	0.00	3.4000	SCS_Type_II_7.85in
S8_9 J16	0.30	385.00	0.00	3.4000	SCS_Type_II_7.85in
S9 J129	1.57	840.00	0.00	1.4000	SCS_Type_II_7.85in
S9_2 J115	0.95	445.00	0.00	1.4000	SCS_Type_II_7.85in
S9_3 J113	0.90	370.00	0.00	1.3000	SCS_Type_II_7.85in
S9_4 J117	1.05	445.00	0.00	1.2000	SCS_Type_II_7.85in
S9_5 J11	0.93	640.00	0.00	1.2000	SCS_Type_II_7.85in

Node Summary

Name	Type	Invert Elev.	Max. Depth	Ponded Area	External Inflow
J1	JUNCTION	708.00	2.00	0.0	

J10	JUNCTION	736.00	2.00	0.0
J100	JUNCTION	678.00	3.50	0.0
J101	JUNCTION	702.00	2.00	0.0
J102	JUNCTION	704.00	2.00	0.0
J103	JUNCTION	724.00	2.00	0.0
J104	JUNCTION	726.00	2.00	0.0
J105	JUNCTION	746.00	2.00	0.0
J106	JUNCTION	625.00	4.00	0.0
J107	JUNCTION	828.70	2.50	0.0
J108	JUNCTION	825.22	2.50	0.0
J109	JUNCTION	820.00	2.00	0.0
J11	JUNCTION	682.00	3.50	0.0
J110	JUNCTION	796.00	2.00	0.0
J111	JUNCTION	776.00	2.00	0.0
J112	JUNCTION	774.00	2.00	0.0
J113	JUNCTION	754.00	2.00	0.0
J114	JUNCTION	750.00	2.00	0.0
J115	JUNCTION	730.00	2.00	0.0
J116	JUNCTION	728.00	2.00	0.0
J117	JUNCTION	708.00	2.00	0.0
J118	JUNCTION	704.00	2.00	0.0
J119	JUNCTION	710.00	2.00	0.0
J12	JUNCTION	756.00	2.00	0.0
J120	JUNCTION	714.00	2.00	0.0
J121	JUNCTION	732.00	2.00	0.0
J122	JUNCTION	736.00	2.00	0.0
J123	JUNCTION	754.00	2.00	0.0
J124	JUNCTION	756.00	2.00	0.0
J125	JUNCTION	778.00	2.00	0.0
J126	JUNCTION	782.00	2.00	0.0
J127	JUNCTION	800.00	2.00	0.0
J128	JUNCTION	730.00	3.50	0.0
J129	JUNCTION	694.00	3.50	0.0
J13	JUNCTION	760.00	2.00	0.0
J130	JUNCTION	690.00	3.50	0.0
J131	JUNCTION	759.27	2.50	0.0
J132	JUNCTION	766.67	2.50	0.0
J133	JUNCTION	804.00	2.00	0.0
J134	JUNCTION	784.00	2.00	0.0
J135	JUNCTION	780.00	2.00	0.0
J136	JUNCTION	762.00	2.00	0.0
J137	JUNCTION	760.00	2.00	0.0
J138	JUNCTION	738.00	2.00	0.0
J139	JUNCTION	734.00	2.00	0.0
J14	JUNCTION	734.00	3.50	0.0
J140	JUNCTION	716.00	2.00	0.0
J141	JUNCTION	712.00	2.00	0.0
J142	JUNCTION	716.00	2.00	0.0
J143	JUNCTION	718.00	2.00	0.0
J144	JUNCTION	738.00	2.00	0.0
J145	JUNCTION	740.00	2.00	0.0
J146	JUNCTION	824.00	2.00	0.0
J147	JUNCTION	621.00	4.00	0.0
J148	JUNCTION	651.62	22.38	0.0
J149	JUNCTION	814.00	2.00	0.0
J15	JUNCTION	778.00	2.00	0.0
J150	JUNCTION	724.00	2.00	0.0

J151	JUNCTION	814.00	2.50	0.0
J152	JUNCTION	658.86	15.14	0.0
J16	JUNCTION	676.00	3.50	0.0
J17	JUNCTION	784.00	2.00	0.0
J18	JUNCTION	686.00	3.50	0.0
J19	JUNCTION	804.00	2.00	0.0
J2	JUNCTION	716.00	3.50	0.0
J20	JUNCTION	674.00	2.00	0.0
J21	JUNCTION	692.00	3.50	0.0
J22	JUNCTION	740.00	3.50	0.0
J23	JUNCTION	738.00	3.50	0.0
J24	JUNCTION	714.00	3.50	0.0
J25	JUNCTION	713.00	3.50	0.0
J26	JUNCTION	706.00	3.50	0.0
J27	JUNCTION	726.00	2.00	0.0
J28	JUNCTION	730.00	2.00	0.0
J29	JUNCTION	750.00	2.00	0.0
J30	JUNCTION	752.00	2.00	0.0
J31	JUNCTION	768.00	2.00	0.0
J32	JUNCTION	770.00	3.50	0.0
J33	JUNCTION	788.00	3.50	0.0
J34	JUNCTION	678.00	2.00	0.0
J35	JUNCTION	740.00	2.00	0.0
J37	JUNCTION	762.00	2.00	0.0
J38	JUNCTION	764.00	2.00	0.0
J39	JUNCTION	782.00	2.00	0.0
J4	JUNCTION	690.00	3.50	0.0
J40	JUNCTION	784.00	2.00	0.0
J41	JUNCTION	802.00	2.00	0.0
J42	JUNCTION	804.00	2.00	0.0
J43	JUNCTION	682.00	2.00	0.0
J44	JUNCTION	680.04	3.50	0.0
J45	JUNCTION	659.30	14.70	0.0
J46	JUNCTION	774.00	2.00	0.0
J47	JUNCTION	827.80	2.50	0.0
J48	JUNCTION	796.38	2.50	0.0
J49	JUNCTION	789.27	2.50	0.0
J5	JUNCTION	694.00	3.50	0.0
J50	JUNCTION	762.00	2.00	0.0
J51	JUNCTION	758.00	2.00	0.0
J52	JUNCTION	740.00	2.00	0.0
J53	JUNCTION	738.00	2.00	0.0
J54	JUNCTION	696.00	3.50	0.0
J55	JUNCTION	718.00	2.00	0.0
J56	JUNCTION	722.00	2.00	0.0
J57	JUNCTION	744.00	2.00	0.0
J58	JUNCTION	746.00	2.00	0.0
J59	JUNCTION	706.00	2.00	0.0
J6	JUNCTION	712.00	2.00	0.0
J60	JUNCTION	710.00	2.00	0.0
J61	JUNCTION	732.00	2.00	0.0
J62	JUNCTION	734.00	2.00	0.0
J63	JUNCTION	756.00	2.00	0.0
J64	JUNCTION	780.00	2.00	0.0
J65	JUNCTION	816.00	2.00	0.0
J66	JUNCTION	794.00	2.00	0.0
J67	JUNCTION	750.00	2.00	0.0

J68	JUNCTION	730.00	2.00	0.0
J69	JUNCTION	728.00	3.50	0.0
J7	JUNCTION	718.00	3.50	0.0
J70	JUNCTION	694.00	2.00	0.0
J71	JUNCTION	696.00	2.00	0.0
J72	JUNCTION	718.00	2.00	0.0
J73	JUNCTION	720.00	2.00	0.0
J74	JUNCTION	742.00	2.00	0.0
J75	JUNCTION	746.00	2.00	0.0
J76	JUNCTION	764.00	2.00	0.0
J77	JUNCTION	768.00	2.00	0.0
J78	JUNCTION	788.00	2.00	0.0
J79	JUNCTION	826.00	2.00	0.0
J8	JUNCTION	732.00	2.00	0.0
J80	JUNCTION	738.32	2.50	0.0
J81	JUNCTION	772.00	2.00	0.0
J82	JUNCTION	676.00	3.50	0.0
J83	JUNCTION	724.00	2.00	0.0
J86	JUNCTION	657.50	16.50	0.0
J87	JUNCTION	688.00	3.00	0.0
J88	JUNCTION	671.77	3.50	0.0
J89	JUNCTION	675.94	2.00	0.0
J9	JUNCTION	688.00	3.50	0.0
J90	JUNCTION	652.25	21.75	0.0
J91	JUNCTION	649.00	19.00	0.0
J94	JUNCTION	631.00	4.00	0.0
J96	JUNCTION	722.00	2.00	0.0
J97	JUNCTION	672.04	3.50	0.0
J98	JUNCTION	700.00	2.00	0.0
J99	JUNCTION	696.00	2.00	0.0
J3	OUTFALL	648.36	0.00	0.0
J36	OUTFALL	656.94	0.00	0.0
J84	OUTFALL	648.36	3.00	0.0
J85	OUTFALL	656.94	4.00	0.0
J92	OUTFALL	620.00	4.00	0.0
J93	OUTFALL	624.00	4.00	0.0
J95	OUTFALL	630.00	4.00	0.0
SU1	STORAGE	654.00	20.00	0.0
SU2	STORAGE	650.00	18.00	0.0
SU3	STORAGE	660.00	14.00	0.0
SU4	STORAGE	658.00	16.00	0.0

Link Summary

Name		From Node	To Node	Type	Length	%
Slope Roughness						

C1		J87	J43	CONDUIT	88.9	
6.7642	0.0150					
C1_1		J34	J89	CONDUIT	60.7	
3.4049	0.0150					
C1_2		J89	J20	CONDUIT	56.9	
3.4051	0.0150					
C1_4		J43	J34	CONDUIT	60.2	
6.6613	0.0150					

C10		J65	J66	CONDUIT	98.5
22.9117	0.0740				
C10_1		J11	J100	CONDUIT	273.8
1.4609	0.0200				
C10_2		J100	J82	CONDUIT	538.1
0.3717	0.0150				
C10_3		J14	J128	CONDUIT	229.0
1.7468	0.0200				
C10_5		J128	J69	CONDUIT	45.0
4.4460	0.0200				
C100		J126	J125	CONDUIT	42.3
9.5034	0.0740				
C101		J125	J124	CONDUIT	64.2
36.5061	0.0740				
C102		J124	J123	CONDUIT	40.0
5.0036	0.0740				
C103		J122	J121	CONDUIT	38.6
10.4264	0.0740				
C104		J123	J122	CONDUIT	58.0
32.6527	0.0740				
C105		J121	J120	CONDUIT	63.5
29.5553	0.0740				
C106		J120	J119	CONDUIT	39.3
10.2247	0.0740				
C107		J119	J9	CONDUIT	87.3
26.0250	0.0740				
C109		J133	J134	CONDUIT	98.5
20.7356	0.0740				
C11		J83	J96	CONDUIT	35.1
5.7117	0.0740				
C11_3		J16	J97	CONDUIT	184.2
2.1504	0.0150				
C11_4		J82	J97	CONDUIT	106.5
3.7193	0.0150				
C110		J134	J135	CONDUIT	39.8
10.1045	0.0740				
C111		J135	J136	CONDUIT	61.2
30.7487	0.0740				
C112		J136	J137	CONDUIT	15.0
13.4535	0.0740				
C113		J137	J138	CONDUIT	67.6
34.4374	0.0740				
C114		J138	J139	CONDUIT	15.0
27.6686	0.0740				
C115		J139	J140	CONDUIT	66.3
28.2217	0.0740				
C116		J140	J141	CONDUIT	15.0
27.6686	0.0740				
C117		J141	J130	CONDUIT	88.8
25.5861	0.0740				
C118		J145	J144	CONDUIT	32.6
6.1407	0.0740				
C119		J144	J143	CONDUIT	60.9
34.7474	0.0740				
C12		J69	J7	CONDUIT	264.2
3.7872	0.0200				
C12_1		J18	J44	CONDUIT	160.2
3.7240	0.0150				
C120		J143	J142	CONDUIT	41.9
4.7772	0.0740				

C121		J142	J129	CONDUIT	81.7
27.9455	0.0740				
C123		J147	J92	CONDUIT	120.0
0.8334	0.0120				
C13		J58	J57	CONDUIT	38.2
5.2446	0.0740				
C13_2		J54	J18	CONDUIT	291.1
3.4370	0.0200				
C13_4		J2	J54	CONDUIT	560.8
3.5689	0.0200				
C14		J106	J93	CONDUIT	145.0
0.6897	0.0120				
C14_1		J7	J26	CONDUIT	376.1
3.1921	0.0150				
C14_2		J26	J4	CONDUIT	466.4
3.4328	0.0150				
C14_3		J22	J23	CONDUIT	33.4
6.0035	0.0740				
C14_4		J24	J25	CONDUIT	39.9
2.5094	0.0740				
C14_5		J23	J24	CONDUIT	70.4
36.2702	0.0740				
C14_7		J25	J21	CONDUIT	88.7
24.3786	0.0740				
C15		J14	J2	CONDUIT	541.8
3.3244	0.0200				
C16		J44	J16	CONDUIT	127.5
3.1710	0.0150				
C16_1		J5	J21	CONDUIT	351.7
0.5687	0.0200				
C16_2		J21	J4	CONDUIT	199.4
1.0032	0.0150				
C17		J22	J23	CONDUIT	33.4
6.0035	0.0740				
C17_1		J5	J129	CONDUIT	738.2
0.0001	0.0200				
C17_3		J129	J130	CONDUIT	302.4
1.3227	0.0200				
C17_4		J130	J9	CONDUIT	300.0
0.6666	0.0200				
C18		J9	J11	CONDUIT	571.0
1.0508	0.0200				
C19		J10	J8	CONDUIT	25.0
16.2088	0.0740				
C2		J94	J95	CONDUIT	155.0
0.6452	0.0120				
C2_13		J4	J87	CONDUIT	149.6
1.3366	0.0120				
C2_3		J90	J148	CONDUIT	130.0
0.4846	0.0220				
C2_4		J148	SU2	CONDUIT	50.0
3.2417	0.0220				
C20		J8	J6	CONDUIT	60.0
35.3553	0.0740				
C21		J6	J1	CONDUIT	15.0
27.6686	0.0740				
C22		J1	J5	CONDUIT	70.9
20.1353	0.0740				
C23		J145	J144	CONDUIT	32.6
6.1407	0.0740				

C24		J33	J32	CONDUIT	81.6
22.6025	0.0740				
C25		J46	J81	CONDUIT	25.4
7.9029	0.0740				
C26		J81	J67	CONDUIT	74.4
30.9459	0.0740				
C27		J32	J31	CONDUIT	40.1
4.9949	0.0740				
C28		J31	J30	CONDUIT	52.9
31.7148	0.0740				
C29		J30	J29	CONDUIT	35.4
5.6631	0.0740				
C3		J20	SU3	CONDUIT	251.1
5.5847	0.0100				
C3_7		J97	J88	CONDUIT	60.0
0.4500	0.0120				
C30		J29	J28	CONDUIT	65.4
32.0987	0.0740				
C31		J28	J27	CONDUIT	39.4
10.1966	0.0740				
C32		J27	J26	CONDUIT	78.6
26.3282	0.0740				
C33		J67	J68	CONDUIT	104.5
19.4928	0.0740				
C34		J42	J41	CONDUIT	33.6
5.9562	0.0740				
C35		J41	J40	CONDUIT	61.5
30.6141	0.0740				
C36		J40	J39	CONDUIT	30.0
6.6815	0.0740				
C37		J39	J38	CONDUIT	56.5
33.6229	0.0740				
C38		J38	J37	CONDUIT	30.0
6.6815	0.0740				
C39		J37	J35	CONDUIT	100.6
22.4227	0.0740				
C4		J88	SU1	CONDUIT	212.9
8.3770	0.0010				
C40		J68	J69	CONDUIT	15.7
12.8393	0.0740				
C41_1		J35	J150	CONDUIT	47.4
35.8763	0.0740				
C41_2		J150	J7	CONDUIT	34.5
17.6562	0.0740				
C42		J66	J46	CONDUIT	98.5
20.7315	0.0740				
C42_3		J131	J80	CONDUIT	255.6
8.2227	0.0150				
C42_4		J80	J128	CONDUIT	156.0
5.3398	0.0150				
C43		J132	J131	CONDUIT	87.3
8.5086	0.0150				
C44		J49	J132	CONDUIT	269.4
8.4192	0.0150				
C45		J79	J133	CONDUIT	64.2
36.4971	0.0740				
C45_1		J108	J151	CONDUIT	119.1
9.4596	0.0200				
C45_2		J48	J49	CONDUIT	65.3
10.9448	0.0200				

C45_3		J151	J48	CONDUIT	245.2
7.2048	0.0150				
C45_4		J47	J108	CONDUIT	43.8
5.9007	0.0200				
C46		J146	J42	CONDUIT	64.8
32.4246	0.0740				
C47		J149	J78	CONDUIT	124.9
21.2854	0.0740				
C48		J50	J51	CONDUIT	42.4
9.4717	0.0740				
C49		J51	J52	CONDUIT	55.1
34.5825	0.0740				
C5		J19	J17	CONDUIT	85.6
24.0269	0.0740				
C50		J52	J53	CONDUIT	39.5
5.0703	0.0740				
C51		J53	J2	CONDUIT	80.5
28.4005	0.0740				
C52		J57	J56	CONDUIT	67.1
34.7198	0.0740				
C53		J56	J55	CONDUIT	40.4
9.9571	0.0740				
C54		J55	J54	CONDUIT	81.9
27.8818	0.0740				
C55_1		J45	J152	CONDUIT	90.0
0.4889	0.0220				
C55_2		J152	SU4	CONDUIT	28.9
2.9723	0.0220				
C56		J86	J85	CONDUIT	120.0
0.4667	0.0220				
C56_1		J107	J47	CONDUIT	32.0
2.8136	0.0200				
C6		J17	J15	CONDUIT	25.0
24.7226	0.0740				
C60		J64	J63	CONDUIT	117.9
20.7903	0.0740				
C61		J63	J62	CONDUIT	86.6
26.2678	0.0740				
C62		J62	J61	CONDUIT	40.1
4.9939	0.0740				
C63		J61	J60	CONDUIT	65.6
35.5871	0.0740				
C64		J59	J18	CONDUIT	71.4
29.1824	0.0740				
C65		J60	J59	CONDUIT	43.5
9.2395	0.0740				
C69		J78	J77	CONDUIT	70.5
29.5760	0.0740				
C7		J15	J13	CONDUIT	60.1
31.3842	0.0740				
C70		J77	J76	CONDUIT	47.2
8.5043	0.0740				
C71		J76	J75	CONDUIT	55.8
34.0649	0.0740				
C72		J75	J74	CONDUIT	45.1
8.9009	0.0740				
C73		J74	J73	CONDUIT	63.9
36.6590	0.0740				
C74		J73	J72	CONDUIT	38.7
5.1741	0.0740				

C75		J72	J71	CONDUIT	69.7
33.2437	0.0740				
C76		J71	J70	CONDUIT	38.8
5.1583	0.0740				
C77		J70	J16	CONDUIT	66.2
28.2346	0.0740				
C78		J96	J98	CONDUIT	67.5
34.4523	0.0740				
C79		J98	J99	CONDUIT	44.1
9.1130	0.0740				
C8		J13	J12	CONDUIT	40.1
10.0281	0.0740				
C80		J99	J82	CONDUIT	80.3
25.7047	0.0740				
C81		J105	J104	CONDUIT	69.2
30.1873	0.0740				
C82		J104	J103	CONDUIT	34.6
5.7842	0.0740				
C83		J103	J102	CONDUIT	64.6
32.5506	0.0740				
C84		J102	J101	CONDUIT	43.4
4.6107	0.0740				
C85		J101	J100	CONDUIT	83.8
29.9100	0.0740				
C88		J109	J110	CONDUIT	127.9
19.1048	0.0740				
C89		J110	J111	CONDUIT	64.7
32.5183	0.0740				
C9		J12	J10	CONDUIT	45.0
49.6139	0.0740				
C90		J111	J112	CONDUIT	39.1
5.1255	0.0740				
C91		J112	J113	CONDUIT	64.9
32.4080	0.0740				
C92		J113	J114	CONDUIT	39.9
10.0822	0.0740				
C93		J114	J115	CONDUIT	65.6
32.0312	0.0740				
C94		J115	J116	CONDUIT	12.0
16.9031	0.0740				
C95		J116	J117	CONDUIT	63.6
33.1242	0.0740				
C96		J117	J118	CONDUIT	15.0
27.6686	0.0740				
C97		J118	J11	CONDUIT	89.1
25.4672	0.0740				
C99		J127	J126	CONDUIT	85.5
21.5287	0.0740				
OL1_2		J91	J84	CONDUIT	130.0
0.4923	0.0220				
W1		SU1	SU2	WEIR	
W2		SU3	SU4	WEIR	
W3		SU2	J3	WEIR	
W4		SU4	J36	WEIR	
C2_1		SU1	J90	OUTLET	
C41		SU3	J45	OUTLET	
OL1		SU4	J86	OUTLET	
OL1_1		SU2	J91	OUTLET	

 Cross Section Summary

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

C1 1827.23	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C1_1 1296.40	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C1_2 1767.72	TRAPEZOIDAL	2.00	80.00	1.33	60.00	1
C1_4 1813.29	TRAPEZOIDAL	2.00	52.00	1.59	32.00	1
C10 217.24	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C10_1 709.36	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_2 477.06	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_3 775.68	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C10_5 1237.49	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C100 139.91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C101 274.22	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C102 101.52	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C103 146.55	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C104 259.34	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C105 246.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C106 145.12	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C107 231.53	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C109 206.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11 108.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C11_3 1147.50	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C11_4 1509.12	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C110 144.27	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C111 251.67	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C112 166.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C113 266.33	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

C114 238.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C115 241.10	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C116 238.73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C117 229.57	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C118 112.47	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C119 267.53	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C12 1142.13	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C12_1 1510.09	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C120 99.20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C121 239.92	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C123 142.06	CIRCULAR	4.00	12.57	1.00	4.00	1
C13 103.94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C13_2 1088.04	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C13_4 1108.72	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14 129.23	CIRCULAR	4.00	12.57	1.00	4.00	1
C14_1 1398.09	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_2 1449.83	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_3 388.65	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_4 251.27	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_5 955.28	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C14_7 783.18	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C15 1070.07	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16 1393.46	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16_1 442.58	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C16_2 783.76	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17 111.20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C17_1 6.83	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17_3 674.98	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C17_4 479.17	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
C18 601.61	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1

C19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
182.72						
C2	CIRCULAR	4.00	12.57	1.00	4.00	1
124.99						
C2_13	RECT_CLOSED	3.00	18.00	1.00	6.00	2
257.70						
C2_3	CIRCULAR	4.00	12.57	1.00	4.00	1
59.09						
C2_4	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C20	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
269.86						
C21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
238.73						
C22	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
203.65						
C23	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
112.47						
C24	TRAPEZOIDAL	3.50	50.75	1.94	25.00	1
754.11						
C25	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
127.59						
C26	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
252.47						
C27	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
101.43						
C28	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
255.59						
C29	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
108.00						
C3	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C3_7	RECT_CLOSED	3.00	18.00	1.00	6.00	3
149.53						
C30	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
257.13						
C31	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
144.92						
C32	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
232.87						
C33	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
200.38						
C34	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
110.76						
C35	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
251.11						
C36	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
117.31						
C37	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
263.16						
C38	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
117.31						
C39	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
214.91						
C4	DUMMY	0.00	0.00	0.00	0.00	1
0.00						
C40	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
162.62						
C41_1	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
271.84						

C41_2 190.70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C42 206.64	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C42_3 817.35	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C42_4 658.66	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C43 831.44	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C44 827.06	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45 274.18	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C45_1 657.51	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_2 707.24	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_3 765.09	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C45_4 519.29	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C46 258.43	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C47 209.39	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C48 139.68	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C49 266.89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C5 222.46	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C50 102.19	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C51 241.86	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C52 267.42	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C53 143.21	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C54 239.65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C55_1 59.35	CIRCULAR	4.00	12.57	1.00	4.00	1
C55_2 0.00	DUMMY	0.00	0.00	0.00	0.00	1
C56 57.98	CIRCULAR	4.00	12.57	1.00	4.00	1
C56_1 358.59	TRAPEZOIDAL	2.50	23.75	1.33	17.00	1
C6 225.66	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C60 206.94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C61 232.61	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C62 101.42	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
C63 270.74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1

C64	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
245.17						
C65	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
137.95						
C69	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
246.82						
C7	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
254.25						
C70	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
132.35						
C71	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
264.89						
C72	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
135.40						
C73	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
274.79						
C74	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
103.23						
C75	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
261.68						
C76	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
103.08						
C77	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
241.16						
C78	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
266.39						
C79	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
137.01						
C8	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
143.72						
C80	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
230.10						
C81	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
249.36						
C82	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
109.15						
C83	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.93						
C84	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
97.45						
C85	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
248.21						
C88	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
198.37						
C89	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.81						
C9	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
319.68						
C90	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
102.75						
C91	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
258.37						
C92	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
144.11						
C93	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
256.86						
C94	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
186.59						
C95	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
261.21						

C96	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
238.73						
C97	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
229.03						
C99	TRAPEZOIDAL	2.00	20.00	1.20	16.00	1
210.58						
OL1_2	CIRCULAR	3.00	7.07	0.75	3.00	1
27.65						

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

Analysis Options

Flow Units CFS
Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
Infiltration Method CURVE_NUMBER
Flow Routing Method DYNWAVE
Surcharge Method EXTRAN
Starting Date 10/18/2022 00:00:00
Ending Date 10/19/2022 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00
Routing Time Step 5.00 sec
Variable Time Step YES
Maximum Trials 8
Number of Threads 8
Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	90.348	7.850
Evaporation Loss	0.000	0.000
Infiltration Loss	13.287	1.154
Surface Runoff	75.597	6.568
Final Storage	1.640	0.142
Continuity Error (%)	-0.194	

***** Volume Volume

Flow Routing Continuity	acre-feet	10 ⁶ gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	75.609	24.638
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	39.560	12.891
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	9.276	3.023
Final Stored Volume	45.341	14.775
Continuity Error (%)	-0.019	

Time-Step Critical Elements

Link C116 (94.10%)

Highest Flow Instability Indexes

Link C55_1 (2)
Link C55_2 (2)
Link OL1 (1)

Routing Time Step Summary

Minimum Time Step : 0.50 sec
Average Time Step : 2.56 sec
Maximum Time Step : 5.00 sec
Percent in Steady State : 0.00
Average Iterations per Step : 2.02
Percent Not Converging : 0.24
Time Step Frequencies :
5.000 - 3.155 sec : 12.51 %
3.155 - 1.991 sec : 63.89 %
1.991 - 1.256 sec : 16.63 %
1.256 - 0.792 sec : 6.97 %
0.792 - 0.500 sec : 0.01 %

Subcatchment Runoff Summary

Perv	Total	Total	Total	Total	Total	Total	Imperv
Runoff	Runoff	Runoff	Peak	Runoff	Evap	Infil	Runoff
		Precip	Runoff	Runoff			
		Runoff	Runoff	Coeff			

Subcatchment	in	in	in	in	in	in	
in	in	10 ⁶ gal	in	in	in	in	
			CFS				
S1			7.85	0.00	0.00	0.59	0.00
7.11	7.11	0.17	6.23	0.906			
S10			7.85	0.00	0.00	0.49	0.00
7.31	7.31	0.11	5.66	0.931			
S10_3			7.85	0.00	0.00	0.59	0.00
7.20	7.20	0.13	6.55	0.917			
S10_5			7.85	0.00	0.00	0.69	0.00
7.11	7.11	0.12	6.36	0.905			
S10_6			7.85	0.00	0.00	0.49	0.00
7.31	7.31	0.07	3.64	0.931			
S11			7.85	0.00	0.00	0.49	0.00
7.27	7.27	0.20	9.59	0.926			
S11_10			7.85	0.00	0.00	0.59	0.00
7.20	7.20	0.13	7.12	0.918			
S11_3			7.85	0.00	0.00	0.59	0.00
7.20	7.20	0.15	7.91	0.917			
S11_4			7.85	0.00	0.00	0.59	0.00
7.20	7.20	0.14	7.56	0.917			
S11_8			7.85	0.00	0.00	0.59	0.00
7.19	7.19	0.12	6.31	0.916			
S12			7.85	0.00	0.00	0.49	0.00
7.26	7.26	0.19	8.27	0.924			
S12_3			7.85	0.00	0.00	0.59	0.00
7.21	7.21	0.07	3.90	0.918			
S12_4			7.85	0.00	0.00	0.49	0.00
7.31	7.31	0.07	3.48	0.931			
S13			7.85	0.00	0.00	0.78	0.00
6.93	6.93	0.93	35.76	0.882			
S14			7.85	0.00	0.00	0.40	0.00
7.34	7.34	0.22	9.45	0.936			
S15			7.85	0.00	0.00	0.49	0.00
7.24	7.24	0.30	12.52	0.922			
S16			7.85	0.00	0.00	2.16	0.00
5.53	5.53	2.07	78.79	0.705			
S16_2			7.85	0.00	0.00	2.60	0.00
5.02	5.02	2.02	55.52	0.639			
S16_3			7.85	0.00	0.00	2.43	0.00
5.25	5.25	2.42	84.18	0.668			
S16_4			7.85	0.00	0.00	0.49	0.00
7.22	7.22	0.35	13.18	0.919			
S16_5			7.85	0.00	0.00	0.49	0.00
7.26	7.26	0.08	3.44	0.925			
S18			7.85	0.00	0.00	0.59	0.00
7.15	7.15	0.18	7.53	0.910			
S18_1			7.85	0.00	0.00	0.49	0.00
7.31	7.31	0.12	6.47	0.931			
S19_3			7.85	0.00	0.00	0.49	0.00
7.30	7.30	0.09	4.77	0.930			
S2			7.85	0.00	0.00	0.59	0.00
7.19	7.19	0.14	7.21	0.916			
S20_1			7.85	0.00	0.00	0.59	0.00
7.21	7.21	0.14	7.66	0.918			
S21			7.85	0.00	0.00	0.37	1.95
5.46	7.41	0.09	4.58	0.944			
S21_1			7.85	0.00	0.00	0.59	0.00
7.21	7.21	0.13	6.89	0.918			

S22_2			7.85	0.00	0.00	0.59	0.00
7.20_	7.20	0.14	7.22	0.917			
S23			7.85	0.00	0.00	0.59	0.00
7.04	7.04	0.26	7.76	0.896			
S23_1			7.85	0.00	0.00	0.59	0.00
7.17	7.17	0.18	8.43	0.913			
S23_10			7.85	0.00	0.00	0.59	0.00
7.15	7.15	0.14	6.18	0.911			
S23_11			7.85	0.00	0.00	0.49	0.00
7.25	7.25	0.29	12.63	0.924			
S23_12			7.85	0.00	0.00	0.49	0.00
7.24	7.24	0.11	4.67	0.922			
S23_13			7.85	0.00	0.00	0.59	0.00
7.12	7.12	0.17	6.42	0.908			
S23_15			7.85	0.00	0.00	0.49	0.00
7.26	7.26	0.24	10.78	0.925			
S23_2			7.85	0.00	0.00	0.59	0.00
7.15	7.15	0.19	8.18	0.911			
S23_3			7.85	0.00	0.00	0.59	0.00
7.15	7.15	0.20	8.95	0.911			
S23_4			7.85	0.00	0.00	0.49	0.00
7.26	7.26	0.14	6.46	0.925			
S23_7			7.85	0.00	0.00	0.59	0.00
7.15	7.15	0.17	7.50	0.911			
S23_8			7.85	0.00	0.00	0.59	0.00
7.17	7.17	0.15	6.81	0.913			
S23_9			7.85	0.00	0.00	0.49	0.00
7.22	7.22	0.29	11.17	0.920			
S24			7.85	0.00	0.00	0.37	1.95
5.46	7.41	0.15	7.53	0.944			
S24_1			7.85	0.00	0.00	0.49	0.00
7.29	7.29	0.10	4.91	0.928			
S25			7.85	0.00	0.00	0.37	1.95
5.45	7.40	0.22	10.60	0.943			
S25_2			7.85	0.00	0.00	0.59	0.00
7.15	7.15	0.25	10.77	0.911			
S25_3			7.85	0.00	0.00	0.49	0.00
7.22	7.22	0.13	5.15	0.920			
S26			7.85	0.00	0.00	0.59	0.00
7.14	7.14	0.14	5.88	0.910			
S27			7.85	0.00	0.00	0.44	1.95
5.38	7.33	0.22	10.69	0.934			
S28			7.85	0.00	0.00	0.44	1.95
5.38	7.33	0.11	5.26	0.934			
S29			7.85	0.00	0.00	0.59	1.95
5.26	7.22	0.04	1.90	0.919			
S3			7.85	0.00	0.00	0.37	1.95
5.41	7.37	0.48	20.10	0.939			
S3_1			7.85	0.00	0.00	0.59	0.00
7.17	7.17	0.21	10.13	0.914			
S3_2			7.85	0.00	0.00	0.37	1.95
5.42	7.38	0.57	24.62	0.940			
S30			7.85	0.00	0.00	0.37	1.95
5.48	7.43	0.08	4.09	0.946			
S32			7.85	0.00	0.00	0.37	1.95
5.45	7.40	0.15	7.00	0.943			
S33			7.85	0.00	0.00	0.37	1.95
5.43	7.39	0.15	6.78	0.941			
S34			7.85	0.00	0.00	0.37	1.95
5.45	7.40	0.11	5.14	0.943			

S35_1			7.85	0.00	0.00	0.37	1.95
5.42	7.38	0.62	26.49	0.940			
S35_2			7.85	0.00	0.00	0.37	1.95
5.40	7.35	0.21	8.29	0.937			
S35_3			7.85	0.00	0.00	0.37	1.95
5.40	7.35	0.09	3.56	0.936			
S35_4			7.85	0.00	0.00	0.37	1.95
5.42	7.38	0.14	6.06	0.940			
S35_6			7.85	0.00	0.00	0.37	1.95
5.41	7.37	0.11	4.65	0.938			
S4			7.85	0.00	0.00	0.30	0.00
7.38	7.38	0.15	5.28	0.940			
S4_2			7.85	0.00	0.00	0.30	0.00
7.41	7.41	0.66	24.43	0.944			
S4_4			7.85	0.00	0.00	0.59	0.00
7.21	7.21	0.16	8.48	0.918			
S5_1			7.85	0.00	0.00	0.59	0.00
7.21	7.21	0.14	7.69	0.918			
S5_3			7.85	0.00	0.00	0.49	0.00
7.30	7.30	0.30	15.41	0.929			
S6			7.85	0.00	0.00	0.49	0.00
7.18	7.18	0.35	12.16	0.915			
S6_11			7.85	0.00	0.00	0.59	0.00
7.19	7.19	0.13	6.67	0.916			
S6_2			7.85	0.00	0.00	0.59	0.00
7.19	7.19	0.19	9.47	0.916			
S6_3			7.85	0.00	0.00	1.07	0.00
6.72	6.72	0.40	21.22	0.856			
S6_4			7.85	0.00	0.00	0.49	0.00
7.31	7.31	0.16	8.45	0.931			
S6_6			7.85	0.00	0.00	0.49	0.00
7.35	7.35	0.12	6.71	0.936			
S7_2			7.85	0.00	0.00	0.49	0.00
7.25	7.25	0.15	6.44	0.924			
S7_3			7.85	0.00	0.00	0.59	0.00
7.18	7.18	0.26	12.59	0.915			
S7_4			7.85	0.00	0.00	0.49	0.00
7.24	7.24	0.27	11.41	0.922			
S8			7.85	0.00	0.00	0.69	0.00
7.10	7.10	0.44	22.51	0.904			
S8_11			7.85	0.00	0.00	0.69	0.00
7.09	7.09	0.19	9.60	0.904			
S8_12			7.85	0.00	0.00	0.49	0.00
7.27	7.27	0.30	14.35	0.926			
S8_13			7.85	0.00	0.00	0.49	0.00
7.29	7.29	0.18	9.24	0.929			
S8_15			7.85	0.00	0.00	0.59	0.00
7.18	7.18	0.17	8.31	0.914			
S8_16			7.85	0.00	0.00	0.59	0.00
7.19	7.19	0.10	5.12	0.917			
S8_18			7.85	0.00	0.00	0.59	0.00
7.20	7.20	0.09	4.56	0.917			
S8_2			7.85	0.00	0.00	0.59	0.00
7.18	7.18	0.14	6.69	0.915			
S8_3			7.85	0.00	0.00	0.59	0.00
7.17	7.17	0.19	8.68	0.913			
S8_4			7.85	0.00	0.00	0.59	0.00
7.17	7.17	0.12	5.76	0.914			
S8_5			7.85	0.00	0.00	0.59	0.00
7.15	7.15	0.08	3.70	0.911			

S8_7			7.85	0.00	0.00	0.59	0.00
7.18	7.18	0.15	7.55	0.915			
S8_8			7.85	0.00	0.00	0.49	0.00
7.31	7.31	0.08	4.17	0.931			
S8_9			7.85	0.00	0.00	0.49	0.00
7.31	7.31	0.06	3.20	0.931			
S9			7.85	0.00	0.00	0.78	0.00
7.00	7.00	0.30	15.21	0.891			
S9_2			7.85	0.00	0.00	0.59	0.00
7.18	7.18	0.18	9.19	0.915			
S9_3			7.85	0.00	0.00	0.59	0.00
7.18	7.18	0.18	8.52	0.914			
S9_4			7.85	0.00	0.00	0.59	0.00
7.18	7.18	0.21	9.94	0.914			
S9_5			7.85	0.00	0.00	0.59	0.00
7.19	7.19	0.18	9.36	0.916			

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J1	JUNCTION	0.18	1.03	709.03	0 11:54	1.03
J10	JUNCTION	0.15	0.82	736.82	0 12:00	0.82
J100	JUNCTION	0.51	2.61	680.61	0 11:57	2.61
J101	JUNCTION	0.09	0.59	702.59	0 11:54	0.59
J102	JUNCTION	0.19	1.00	705.00	0 11:54	1.00
J103	JUNCTION	0.07	0.46	724.46	0 11:54	0.46
J104	JUNCTION	0.14	0.77	726.77	0 11:54	0.77
J105	JUNCTION	0.05	0.35	746.35	0 11:54	0.35
J106	JUNCTION	0.45	2.64	627.64	0 12:00	2.64
J107	JUNCTION	0.05	0.29	828.99	0 11:54	0.29
J108	JUNCTION	0.03	0.20	825.42	0 11:54	0.20
J109	JUNCTION	0.05	0.34	820.34	0 11:54	0.33
J11	JUNCTION	0.37	2.08	684.08	0 11:56	2.08
J110	JUNCTION	0.04	0.28	796.28	0 11:54	0.28
J111	JUNCTION	0.07	0.47	776.47	0 11:55	0.47
J112	JUNCTION	0.08	0.50	774.50	0 11:54	0.50
J113	JUNCTION	0.15	0.88	754.88	0 11:54	0.88
J114	JUNCTION	0.10	0.62	750.62	0 11:54	0.62
J115	JUNCTION	0.14	0.88	730.88	0 11:54	0.88
J116	JUNCTION	0.11	0.73	728.73	0 11:54	0.73
J117	JUNCTION	0.14	0.88	708.88	0 11:54	0.88
J118	JUNCTION	0.14	0.89	704.89	0 11:54	0.89
J119	JUNCTION	0.11	0.72	710.72	0 11:54	0.72
J12	JUNCTION	0.08	0.46	756.46	0 12:00	0.46
J120	JUNCTION	0.16	0.95	714.95	0 11:54	0.95
J121	JUNCTION	0.09	0.58	732.58	0 11:54	0.58
J122	JUNCTION	0.13	0.80	736.80	0 11:54	0.80
J123	JUNCTION	0.07	0.46	754.46	0 11:54	0.46
J124	JUNCTION	0.15	0.80	756.80	0 11:54	0.80
J125	JUNCTION	0.05	0.34	778.34	0 11:54	0.34
J126	JUNCTION	0.09	0.52	782.52	0 11:54	0.52

J127	JUNCTION	0.05	0.29	800.29	0	11:54	0.29
J128	JUNCTION	0.12	0.73	730.73	0	11:55	0.73
J129	JUNCTION	0.16	1.01	695.01	0	11:56	1.01
J13	JUNCTION	0.14	0.76	760.76	0	12:00	0.76
J130	JUNCTION	0.35	1.98	691.98	0	11:55	1.98
J131	JUNCTION	0.11	0.61	759.88	0	11:54	0.61
J132	JUNCTION	0.11	0.61	767.28	0	11:54	0.61
J133	JUNCTION	0.15	0.88	804.88	0	11:54	0.88
J134	JUNCTION	0.21	1.22	785.22	0	11:54	1.22
J135	JUNCTION	0.15	0.89	780.89	0	11:54	0.89
J136	JUNCTION	0.22	1.26	763.26	0	11:54	1.26
J137	JUNCTION	0.16	0.99	760.99	0	11:54	0.98
J138	JUNCTION	0.18	1.12	739.12	0	11:54	1.11
J139	JUNCTION	0.18	1.10	735.10	0	11:54	1.10
J14	JUNCTION	0.00	0.00	734.00	0	00:00	0.00
J140	JUNCTION	0.19	1.17	717.17	0	11:54	1.17
J141	JUNCTION	0.20	1.23	713.23	0	11:54	1.22
J142	JUNCTION	0.09	0.59	716.59	0	11:54	0.58
J143	JUNCTION	0.14	0.81	718.81	0	11:54	0.81
J144	JUNCTION	0.04	0.29	738.29	0	11:54	0.29
J145	JUNCTION	0.05	0.33	740.33	0	11:54	0.33
J146	JUNCTION	0.10	0.62	824.62	0	11:54	0.62
J147	JUNCTION	0.47	2.66	623.66	0	12:00	2.66
J148	JUNCTION	0.00	0.01	651.63	0	15:11	0.01
J149	JUNCTION	0.04	0.27	814.27	0	11:54	0.27
J15	JUNCTION	0.09	0.53	778.53	0	12:00	0.53
J150	JUNCTION	0.20	1.23	725.23	0	11:54	1.22
J151	JUNCTION	0.09	0.51	814.51	0	11:54	0.51
J152	JUNCTION	0.00	0.11	658.97	0	12:16	0.11
J16	JUNCTION	0.23	1.41	677.41	0	11:55	1.41
J17	JUNCTION	0.05	0.32	784.32	0	11:54	0.32
J18	JUNCTION	0.16	1.02	687.02	0	11:55	1.02
J19	JUNCTION	0.05	0.32	804.32	0	11:54	0.32
J2	JUNCTION	0.11	0.73	716.73	0	11:54	0.73
J20	JUNCTION	0.01	0.02	674.02	0	11:56	0.02
J21	JUNCTION	0.21	1.20	693.20	0	11:56	1.20
J22	JUNCTION	0.04	0.28	740.28	0	11:54	0.28
J23	JUNCTION	0.04	0.24	738.24	0	11:54	0.24
J24	JUNCTION	0.17	0.91	714.91	0	11:54	0.91
J25	JUNCTION	0.09	0.55	713.55	0	11:54	0.55
J26	JUNCTION	0.24	1.40	707.40	0	11:55	1.40
J27	JUNCTION	0.13	0.75	726.75	0	11:54	0.75
J28	JUNCTION	0.15	0.83	730.83	0	11:55	0.83
J29	JUNCTION	0.08	0.48	750.48	0	12:00	0.48
J30	JUNCTION	0.17	0.79	752.79	0	12:00	0.79
J31	JUNCTION	0.06	0.33	768.33	0	12:00	0.33
J32	JUNCTION	0.13	0.60	770.60	0	12:00	0.60
J33	JUNCTION	0.07	0.36	788.36	0	12:00	0.36
J34	JUNCTION	0.13	0.85	678.85	0	11:56	0.85
J35	JUNCTION	0.16	1.00	741.00	0	11:54	0.99
J37	JUNCTION	0.17	1.05	763.05	0	11:54	1.05
J38	JUNCTION	0.26	1.41	765.41	0	11:54	1.41
J39	JUNCTION	0.14	0.85	782.85	0	11:54	0.85
J4	JUNCTION	0.27	2.46	692.46	0	11:56	2.46
J40	JUNCTION	0.24	1.30	785.30	0	11:54	1.30
J41	JUNCTION	0.12	0.77	802.77	0	11:54	0.76
J42	JUNCTION	0.23	1.19	805.19	0	11:54	1.19

J43	JUNCTION	0.11	0.70	682.70	0	11:56	0.70
J44	JUNCTION	0.17	1.06	681.10	0	11:55	1.06
J45	JUNCTION	0.65	3.11	662.41	0	12:16	3.08
J46	JUNCTION	0.17	0.99	774.99	0	11:54	0.99
J47	JUNCTION	0.04	0.24	828.04	0	11:54	0.24
J48	JUNCTION	0.11	0.63	797.01	0	11:54	0.62
J49	JUNCTION	0.10	0.57	789.84	0	11:54	0.57
J5	JUNCTION	0.27	1.41	695.41	0	11:55	1.41
J50	JUNCTION	0.07	0.45	762.45	0	11:54	0.45
J51	JUNCTION	0.04	0.30	758.30	0	11:54	0.30
J52	JUNCTION	0.15	0.91	740.91	0	11:54	0.90
J53	JUNCTION	0.12	0.78	738.78	0	11:54	0.78
J54	JUNCTION	0.14	0.95	696.95	0	11:54	0.95
J55	JUNCTION	0.08	0.62	718.62	0	11:54	0.61
J56	JUNCTION	0.09	0.63	722.63	0	11:54	0.63
J57	JUNCTION	0.04	0.29	744.29	0	11:54	0.29
J58	JUNCTION	0.09	0.54	746.54	0	11:54	0.54
J59	JUNCTION	0.12	0.79	706.79	0	11:54	0.79
J6	JUNCTION	0.14	0.83	712.83	0	11:54	0.83
J60	JUNCTION	0.17	0.98	710.98	0	11:54	0.98
J61	JUNCTION	0.09	0.58	732.58	0	11:54	0.58
J62	JUNCTION	0.20	1.01	735.01	0	11:54	1.00
J63	JUNCTION	0.09	0.53	756.53	0	11:54	0.53
J64	JUNCTION	0.10	0.57	780.57	0	11:54	0.57
J65	JUNCTION	0.05	0.35	816.35	0	11:54	0.35
J66	JUNCTION	0.09	0.59	794.59	0	11:54	0.59
J67	JUNCTION	0.13	0.84	750.84	0	11:54	0.83
J68	JUNCTION	0.15	0.96	730.96	0	11:54	0.95
J69	JUNCTION	0.17	1.02	729.02	0	11:55	1.02
J7	JUNCTION	0.22	1.29	719.29	0	11:55	1.29
J70	JUNCTION	0.14	0.89	694.89	0	11:54	0.89
J71	JUNCTION	0.23	1.29	697.29	0	11:54	1.29
J72	JUNCTION	0.12	0.79	718.79	0	11:54	0.79
J73	JUNCTION	0.21	1.17	721.17	0	11:54	1.17
J74	JUNCTION	0.10	0.69	742.69	0	11:54	0.69
J75	JUNCTION	0.15	0.90	746.90	0	11:54	0.89
J76	JUNCTION	0.09	0.61	764.61	0	11:54	0.61
J77	JUNCTION	0.12	0.75	768.75	0	11:54	0.74
J78	JUNCTION	0.08	0.52	788.52	0	11:54	0.52
J79	JUNCTION	0.10	0.62	826.62	0	11:54	0.62
J8	JUNCTION	0.13	0.78	732.78	0	11:54	0.78
J80	JUNCTION	0.14	0.74	739.06	0	11:54	0.73
J81	JUNCTION	0.10	0.68	772.68	0	11:54	0.68
J82	JUNCTION	0.27	1.58	677.58	0	11:57	1.58
J83	JUNCTION	0.07	0.43	724.43	0	11:54	0.43
J86	JUNCTION	0.67	3.28	660.78	0	12:24	3.27
J87	JUNCTION	0.11	0.70	688.70	0	11:56	0.70
J88	JUNCTION	0.01	0.14	671.91	0	11:56	0.14
J89	JUNCTION	0.15	0.90	676.83	0	11:56	0.90
J9	JUNCTION	0.35	1.99	689.99	0	11:56	1.99
J90	JUNCTION	0.47	1.23	653.48	0	15:11	1.23
J91	JUNCTION	0.43	1.41	650.41	0	15:32	1.41
J94	JUNCTION	0.44	2.14	633.14	0	12:00	2.14
J96	JUNCTION	0.03	0.24	722.24	0	11:54	0.24
J97	JUNCTION	0.30	2.32	674.36	0	11:56	2.32
J98	JUNCTION	0.09	0.59	700.59	0	11:54	0.59
J99	JUNCTION	0.06	0.43	696.43	0	11:54	0.43

J3	OUTFALL	0.00	0.00	648.36	0	00:00	0.00
J36	OUTFALL	0.00	0.00	656.94	0	00:00	0.00
J84	OUTFALL	0.35	1.14	649.50	0	15:32	1.14
J85	OUTFALL	0.54	2.60	659.54	0	12:24	2.60
J92	OUTFALL	0.43	2.22	622.22	0	12:00	2.21
J93	OUTFALL	0.42	2.26	626.26	0	12:00	2.25
J95	OUTFALL	0.41	1.87	631.87	0	12:00	1.86
SU1	STORAGE	11.10	14.47	668.47	0	15:10	14.47
SU2	STORAGE	7.23	10.47	660.47	0	15:32	10.47
SU3	STORAGE	7.50	11.61	671.61	0	12:18	11.61
SU4	STORAGE	3.95	8.59	666.59	0	12:24	8.59

Node Inflow Summary

Total Inflow Volume Node gal		Flow Balance Error Percent	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	10^6
1.31	0.008		JUNCTION	12.63	51.85	0 11:54	0.286	
0.783	0.010		JUNCTION	11.17	28.99	0 12:00	0.289	
5.52	0.079		JUNCTION	6.23	247.15	0 11:56	0.166	
0.451	0.007		JUNCTION	0.00	21.59	0 11:54	0	
0.452	0.036		JUNCTION	7.21	21.62	0 11:54	0.143	
0.309	0.016		JUNCTION	0.00	14.51	0 11:54	0	
0.309	0.035		JUNCTION	6.31	14.55	0 11:54	0.124	
0.185	0.014		JUNCTION	8.27	8.27	0 11:54	0.185	
2.07	0.009		JUNCTION	78.79	78.79	0 12:00	2.07	
0.0929	0.006		JUNCTION	3.56	3.56	0 11:54	0.0929	
0.0929	0.022		JUNCTION	0.00	3.56	0 11:54	0	
0.14	0.032		JUNCTION	5.88	5.88	0 11:54	0.14	
4.9	0.059		JUNCTION	9.36	221.81	0 11:55	0.182	
0.14	0.039		JUNCTION	0.00	5.86	0 11:54	0	
0.14	0.040		JUNCTION	0.00	5.84	0 11:54	0	

J112		JUNCTION	10.77	16.48	0	11:54	0.25
0.39	0.015						
J113		JUNCTION	8.52	24.86	0	11:54	0.175
0.565	0.020						
J114		JUNCTION	0.00	24.85	0	11:54	0
0.565	0.014						
J115		JUNCTION	9.19	33.88	0	11:54	0.185
0.75	0.010						
J116		JUNCTION	0.00	33.87	0	11:54	0
0.75	0.009						
J117		JUNCTION	9.94	43.66	0	11:54	0.205
0.955	0.008						
J118		JUNCTION	0.00	43.66	0	11:54	0
0.955	0.004						
J119		JUNCTION	0.00	29.50	0	11:54	0
0.659	0.011						
J12		JUNCTION	0.00	17.95	0	12:00	0
0.494	0.010						
J120		JUNCTION	8.68	29.50	0	11:54	0.185
0.66	0.018						
J121		JUNCTION	0.00	20.98	0	11:54	0
0.474	0.014						
J122		JUNCTION	6.69	20.99	0	11:54	0.136
0.474	0.019						
J123		JUNCTION	0.00	14.45	0	11:54	0
0.338	0.016						
J124		JUNCTION	5.76	14.46	0	11:54	0.119
0.338	0.038						
J125		JUNCTION	0.00	8.81	0	11:54	0
0.219	0.020						
J126		JUNCTION	3.70	8.83	0	11:54	0.085
0.219	0.038						
J127		JUNCTION	5.15	5.15	0	11:54	0.134
0.134	0.021						
J128		JUNCTION	3.90	46.02	0	11:54	0.0724
1.11	0.027						
J129		JUNCTION	15.21	48.15	0	11:54	0.297
0.985	0.135						
J13		JUNCTION	0.00	17.95	0	12:00	0
0.494	0.021						
J130		JUNCTION	5.66	133.89	0	11:54	0.106
2.91	0.062						
J131		JUNCTION	0.00	36.38	0	11:54	0
0.9	0.013						
J132		JUNCTION	4.65	36.39	0	11:54	0.113
0.9	0.019						
J133		JUNCTION	12.52	38.97	0	11:54	0.303
0.919	0.020						
J134		JUNCTION	9.24	48.03	0	11:54	0.181
1.1	0.020						
J135		JUNCTION	0.00	47.97	0	11:54	0
1.1	0.010						
J136		JUNCTION	14.35	62.13	0	11:54	0.301
1.4	0.009						
J137		JUNCTION	0.00	62.12	0	11:54	0
1.4	0.007						
J138		JUNCTION	7.55	69.54	0	11:54	0.152
1.55	0.007						
J139		JUNCTION	0.00	69.53	0	11:54	0
1.55	0.007						

J14		JUNCTION	0.00	0.00	0	00:00	0
0	0.000 gal						
J140		JUNCTION	8.31	77.69	0	11:54	0.172
1.72	0.007						
J141		JUNCTION	5.12	82.68	0	11:54	0.0992
1.82	0.006						
J142		JUNCTION	6.81	20.62	0	11:54	0.146
0.458	0.013						
J143		JUNCTION	7.50	13.90	0	11:54	0.17
0.313	0.036						
J144		JUNCTION	0.00	6.45	0	11:54	0
0.142	0.024						
J145		JUNCTION	6.46	6.46	0	11:54	0.142
0.142	0.015						
J146		JUNCTION	24.62	24.62	0	11:54	0.568
0.568	0.006						
J147		JUNCTION	84.18	84.18	0	12:00	2.42
2.42	0.007						
J148		JUNCTION	0.00	12.77	0	15:11	0
2.54	-0.000						
J149		JUNCTION	4.58	4.58	0	11:54	0.0934
0.0934	0.031						
J15		JUNCTION	12.16	17.96	0	12:00	0.349
0.495	0.011						
J150		JUNCTION	4.09	68.49	0	11:54	0.0783
1.5	0.008						
J151		JUNCTION	20.10	23.61	0	11:54	0.484
0.577	0.019						
J152		JUNCTION	0.00	89.34	0	12:16	0
4.22	-0.084						
J16		JUNCTION	3.20	156.84	0	11:54	0.0596
3.26	0.010						
J17		JUNCTION	0.00	6.43	0	11:54	0
0.146	0.023						
J18		JUNCTION	3.64	107.77	0	11:54	0.0676
2.25	0.030						
J19		JUNCTION	6.44	6.44	0	11:54	0.146
0.146	0.018						
J2		JUNCTION	8.45	42.54	0	11:54	0.158
0.86	0.107						
J20		JUNCTION	24.43	317.33	0	11:56	0.662
7.56	0.000						
J21		JUNCTION	0.00	76.81	0	11:55	0
1.93	0.065						
J22		JUNCTION	4.67	4.67	0	11:54	0.111
0.111	0.018						
J23		JUNCTION	0.00	4.66	0	11:54	0
0.111	0.027						
J24		JUNCTION	6.42	11.07	0	11:54	0.166
0.277	0.054						
J25		JUNCTION	6.18	17.16	0	11:54	0.143
0.42	0.016						
J26		JUNCTION	6.71	196.71	0	11:55	0.123
4.48	0.031						
J27		JUNCTION	8.43	31.74	0	11:54	0.181
0.826	0.015						
J28		JUNCTION	8.95	23.50	0	11:55	0.204
0.645	0.018						
J29		JUNCTION	0.00	15.10	0	12:00	0
0.441	0.015						

J30		JUNCTION	8.18	15.11	0	12:00	0.186
0.441	0.026						
J31		JUNCTION	0.00	7.72	0	12:00	0
0.255	0.019						
J32		JUNCTION	0.00	7.74	0	12:00	0
0.255	0.052						
J33		JUNCTION	7.76	7.76	0	12:00	0.255
0.255	0.016						
J34		JUNCTION	0.00	293.05	0	11:56	0
6.9	0.009						
J35		JUNCTION	9.60	64.55	0	11:54	0.187
1.42	0.012						
J37		JUNCTION	0.00	55.21	0	11:54	0
1.24	0.014						
J38		JUNCTION	9.47	55.23	0	11:54	0.185
1.24	0.014						
J39		JUNCTION	0.00	45.94	0	11:54	0
1.05	0.009						
J4		JUNCTION	4.91	276.63	0	11:55	0.0974
6.51	0.032						
J40		JUNCTION	10.13	45.96	0	11:54	0.212
1.05	0.017						
J41		JUNCTION	0.00	35.93	0	11:54	0
0.839	0.010						
J42		JUNCTION	11.41	35.99	0	11:54	0.271
0.84	0.022						
J43		JUNCTION	0.00	293.06	0	11:56	0
6.9	0.004						
J44		JUNCTION	0.00	107.64	0	11:55	0
2.24	0.014						
J45		JUNCTION	0.00	74.57	0	12:18	0
4.23	0.051						
J46		JUNCTION	10.69	28.67	0	11:54	0.223
0.595	0.027						
J47		JUNCTION	0.00	3.56	0	11:54	0
0.0929	0.011						
J48		JUNCTION	8.29	31.81	0	11:54	0.211
0.788	0.016						
J49		JUNCTION	0.00	31.81	0	11:54	0
0.788	0.016						
J5		JUNCTION	22.51	73.87	0	11:54	0.437
1.74	0.144						
J50		JUNCTION	6.78	6.78	0	11:54	0.151
0.151	0.014						
J51		JUNCTION	0.00	6.77	0	11:54	0
0.151	0.020						
J52		JUNCTION	12.14	18.86	0	11:54	0.253
0.405	0.026						
J53		JUNCTION	15.41	34.15	0	11:54	0.297
0.702	0.011						
J54		JUNCTION	4.17	68.09	0	11:54	0.0774
1.36	0.071						
J55		JUNCTION	8.48	22.60	0	11:54	0.158
0.422	0.011						
J56		JUNCTION	7.69	14.15	0	11:54	0.143
0.264	0.025						
J57		JUNCTION	0.00	6.46	0	11:54	0
0.121	0.022						
J58		JUNCTION	6.47	6.47	0	11:54	0.121
0.121	0.019						

J59		JUNCTION	6.89	36.90	0	11:54	0.129
0.821	0.012						
J6		JUNCTION	0.00	39.39	0	11:54	0
1.02	0.008						
J60		JUNCTION	7.66	30.24	0	11:54	0.144
0.693	0.020						
J61		JUNCTION	0.00	22.85	0	11:54	0
0.549	0.014						
J62		JUNCTION	6.55	22.88	0	11:54	0.125
0.549	0.037						
J63		JUNCTION	0.00	16.53	0	11:54	0
0.424	0.032						
J64		JUNCTION	16.54	16.54	0	11:54	0.424
0.424	0.018						
J65		JUNCTION	7.53	7.53	0	11:54	0.152
0.152	0.019						
J66		JUNCTION	10.60	18.10	0	11:54	0.22
0.372	0.031						
J67		JUNCTION	5.26	33.81	0	11:54	0.108
0.703	0.023						
J68		JUNCTION	1.90	35.61	0	11:54	0.0351
0.738	0.017						
J69		JUNCTION	0.00	81.36	0	11:54	0
1.85	0.022						
J7		JUNCTION	9.84	159.04	0	11:54	0.185
3.54	0.028						
J70		JUNCTION	7.12	46.39	0	11:54	0.134
0.954	0.010						
J71		JUNCTION	0.00	39.54	0	11:54	0
0.82	0.026						
J72		JUNCTION	7.56	39.55	0	11:54	0.144
0.82	0.011						
J73		JUNCTION	0.00	32.23	0	11:54	0
0.677	0.027						
J74		JUNCTION	7.91	32.24	0	11:54	0.151
0.677	0.011						
J75		JUNCTION	0.00	24.53	0	11:54	0
0.526	0.022						
J76		JUNCTION	7.53	24.54	0	11:54	0.177
0.526	0.013						
J77		JUNCTION	0.00	17.07	0	11:54	0
0.35	0.028						
J78		JUNCTION	12.59	17.14	0	11:54	0.256
0.35	0.028						
J79		JUNCTION	26.49	26.49	0	11:54	0.616
0.616	0.006						
J8		JUNCTION	10.78	39.39	0	11:54	0.237
1.02	0.008						
J80		JUNCTION	6.06	42.30	0	11:54	0.141
1.04	0.021						
J81		JUNCTION	0.00	28.63	0	11:54	0
0.595	0.012						
J82		JUNCTION	7.22	261.93	0	11:57	0.139
5.87	0.030						
J83		JUNCTION	4.56	4.56	0	11:54	0.0866
0.0866	0.020						
J86		JUNCTION	0.00	73.96	0	12:24	0
4.03	0.014						
J87		JUNCTION	21.22	293.03	0	11:56	0.396
6.9	0.013						

J88		JUNCTION	0.00	415.65	0	11:56	0
9.22	-0.000						
J89		JUNCTION	0.00	293.05	0	11:56	0
6.9	0.007						
J9		JUNCTION	9.59	172.13	0	11:55	0.2
3.77	0.076						
J90		JUNCTION	0.00	12.77	0	15:10	0
2.54	0.031						
J91		JUNCTION	0.00	12.92	0	15:32	0
2.19	0.038						
J94		JUNCTION	55.52	55.52	0	12:00	2.02
2.02	0.011						
J96		JUNCTION	0.00	4.55	0	11:54	0
0.0866	0.024						
J97		JUNCTION	4.77	415.83	0	11:56	0.0898
9.22	0.015						
J98		JUNCTION	6.67	11.20	0	11:54	0.13
0.217	0.033						
J99		JUNCTION	0.00	11.17	0	11:54	0
0.216	-0.003						
J3		OUTFALL	0.00	0.00	0	00:00	0
0	0.000 gal						
J36		OUTFALL	5.28	5.28	0	12:00	0.152
0.152	0.000						
J84		OUTFALL	0.00	12.92	0	15:32	0
2.19	0.000						
J85		OUTFALL	0.00	73.88	0	12:24	0
4.03	0.000						
J92		OUTFALL	0.00	84.15	0	12:00	0
2.42	0.000						
J93		OUTFALL	0.00	78.74	0	12:00	0
2.07	0.000						
J95		OUTFALL	0.00	55.53	0	12:00	0
2.02	0.000						
SU1		STORAGE	35.76	451.05	0	11:56	0.928
12.8	0.000						
SU2		STORAGE	9.45	13.05	0	15:09	0.221
3.01	-0.000						
SU3		STORAGE	0.00	317.33	0	11:56	0
7.66	0.001						
SU4		STORAGE	0.00	89.81	0	12:16	0
4.23	-0.032						

Node Surcharge Summary

No nodes were surcharged.

Node Flooding Summary

No nodes were flooded.

Storage Volume Summary

of Max Occurrence hr:min	Maximum Outflow Storage Unit CFS	Average Volume 1000 ft3	Avg Pcnt Full	Evap Pcnt Loss	Exfil Pcnt Loss	Maximum Volume 1000 ft3	Max Pcnt Full	Time days
SU1 15:10	12.77	957.140	40	0	0	1419.211	59	0
SU2 15:32	12.92	68.372	23	0	0	114.158	38	0
SU3 12:18	74.57	308.107	39	0	0	575.981	73	0
SU4 12:24	73.96	15.112	12	0	0	36.887	29	0

 Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
J3	0.00	0.00	0.00	0.000
J36	95.77	0.44	5.28	0.152
J84	37.20	8.87	12.92	2.190
J85	52.16	16.16	73.88	4.031
J92	88.64	7.63	84.15	2.423
J93	89.54	6.60	78.74	2.073
J95	87.89	6.11	55.53	2.021
System	64.46	45.81	223.61	12.890

 Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C1	CONDUIT	293.06	0 11:56	18.93	0.16	0.35
C1_1	CONDUIT	293.05	0 11:56	14.79	0.23	0.44
C1_2	CONDUIT	293.07	0 11:56	25.87	0.17	0.23
C1_4	CONDUIT	293.05	0 11:56	16.87	0.16	0.39
C10	CONDUIT	7.51	0 11:54	2.94	0.03	0.24
C10_1	CONDUIT	220.65	0 11:56	8.55	0.31	0.67

C10_2	CONDUIT	245.84	0	11:57	11.39	0.52	0.60
C10_3	CONDUIT	0.00	0	00:00	0.00	0.00	0.10
C10_5	CONDUIT	45.96	0	11:55	7.93	0.04	0.25
C100	CONDUIT	8.81	0	11:54	3.86	0.06	0.22
C101	CONDUIT	8.81	0	11:54	2.72	0.03	0.29
C102	CONDUIT	14.45	0	11:54	3.87	0.14	0.32
C103	CONDUIT	20.98	0	11:54	5.01	0.14	0.35
C104	CONDUIT	14.44	0	11:54	3.89	0.06	0.32
C105	CONDUIT	20.98	0	11:54	4.34	0.09	0.38
C106	CONDUIT	29.50	0	11:54	5.41	0.20	0.42
C107	CONDUIT	29.49	0	11:54	2.77	0.13	0.68
C109	CONDUIT	38.87	0	11:54	5.16	0.19	0.53
C11	CONDUIT	4.55	0	11:54	2.71	0.04	0.17
C11_3	CONDUIT	156.72	0	11:55	9.40	0.14	0.53
C11_4	CONDUIT	261.74	0	11:57	14.29	0.17	0.56
C110	CONDUIT	47.97	0	11:54	6.34	0.33	0.53
C111	CONDUIT	47.95	0	11:54	6.15	0.19	0.54
C112	CONDUIT	62.12	0	11:54	7.48	0.37	0.56
C113	CONDUIT	62.11	0	11:54	8.25	0.23	0.53
C114	CONDUIT	69.53	0	11:54	8.57	0.29	0.55
C115	CONDUIT	69.52	0	11:54	8.26	0.29	0.57
C116	CONDUIT	77.69	0	11:54	8.52	0.33	0.60
C117	CONDUIT	82.66	0	11:54	5.92	0.36	0.80
C118	CONDUIT	3.23	0	11:54	2.10	0.03	0.16
C119	CONDUIT	6.44	0	11:54	2.07	0.02	0.28
C12	CONDUIT	81.29	0	11:55	9.44	0.07	0.33
C12_1	CONDUIT	107.64	0	11:55	14.50	0.07	0.30
C120	CONDUIT	13.87	0	11:54	3.25	0.14	0.35
C121	CONDUIT	20.61	0	11:54	4.15	0.09	0.40
C123	CONDUIT	84.15	0	12:00	10.54	0.59	0.61
C13	CONDUIT	6.46	0	11:54	2.99	0.06	0.21
C13_2	CONDUIT	67.48	0	11:54	9.83	0.06	0.28
C13_4	CONDUIT	41.75	0	11:54	7.59	0.04	0.24
C14	CONDUIT	78.74	0	12:00	9.82	0.61	0.61
C14_1	CONDUIT	158.72	0	11:55	14.71	0.11	0.38
C14_2	CONDUIT	196.12	0	11:55	11.23	0.14	0.55
C14_3	CONDUIT	2.33	0	11:54	1.88	0.01	0.07
C14_4	CONDUIT	11.05	0	11:54	2.45	0.04	0.21
C14_5	CONDUIT	4.65	0	11:54	1.42	0.00	0.16
C14_7	CONDUIT	17.16	0	11:54	3.05	0.02	0.25
C15	CONDUIT	0.00	0	00:00	0.00	0.00	0.10
C16	CONDUIT	107.60	0	11:55	11.29	0.08	0.35
C16_1	CONDUIT	59.73	0	11:55	5.82	0.13	0.37
C16_2	CONDUIT	76.56	0	11:56	5.00	0.10	0.52
C17	CONDUIT	2.33	0	11:54	1.88	0.02	0.13
C17_1	CONDUIT	13.06	0	11:55	1.42	1.91	0.35
C17_3	CONDUIT	47.02	0	11:56	3.73	0.07	0.43
C17_4	CONDUIT	133.72	0	11:55	6.78	0.28	0.57
C18	CONDUIT	170.76	0	11:56	8.32	0.28	0.58
C19	CONDUIT	28.99	0	12:00	5.72	0.16	0.40
C2	CONDUIT	55.53	0	12:00	8.86	0.44	0.50
C2_13	CONDUIT	274.13	0	11:56	14.46	0.53	0.53
C2_3	CONDUIT	12.77	0	15:11	10.27	0.22	0.16
C2_4	DUMMY	12.77	0	15:11			
C20	CONDUIT	39.39	0	11:54	7.65	0.15	0.40
C21	CONDUIT	39.38	0	11:54	6.24	0.16	0.46
C22	CONDUIT	51.84	0	11:54	5.60	0.25	0.61

C23	CONDUIT	3.23	0	11:54	2.10	0.03	0.16
C24	CONDUIT	7.74	0	12:00	2.96	0.01	0.14
C25	CONDUIT	28.63	0	11:54	5.26	0.22	0.42
C26	CONDUIT	28.62	0	11:54	6.03	0.11	0.38
C27	CONDUIT	7.72	0	12:00	3.08	0.08	0.23
C28	CONDUIT	7.71	0	12:00	2.45	0.03	0.28
C29	CONDUIT	15.10	0	12:00	4.05	0.14	0.32
C3	DUMMY	317.33	0	11:56			
C3_7	CONDUIT	415.65	0	11:56	18.75	0.93	0.41
C30	CONDUIT	15.09	0	12:00	3.89	0.06	0.33
C31	CONDUIT	23.50	0	11:55	4.69	0.16	0.39
C32	CONDUIT	31.73	0	11:54	4.19	0.14	0.54
C33	CONDUIT	33.77	0	11:54	5.64	0.17	0.45
C34	CONDUIT	35.93	0	11:54	5.28	0.32	0.49
C35	CONDUIT	35.91	0	11:54	4.88	0.14	0.52
C36	CONDUIT	45.94	0	11:54	5.89	0.39	0.54
C37	CONDUIT	45.92	0	11:54	5.48	0.17	0.57
C38	CONDUIT	55.21	0	11:54	5.82	0.47	0.62
C39	CONDUIT	55.19	0	11:54	7.61	0.26	0.51
C4	DUMMY	415.65	0	11:56			
C40	CONDUIT	35.59	0	11:54	5.19	0.22	0.49
C41_1	CONDUIT	64.53	0	11:54	7.92	0.24	0.56
C41_2	CONDUIT	68.48	0	11:54	7.04	0.36	0.63
C42	CONDUIT	18.03	0	11:54	3.57	0.09	0.40
C42_3	CONDUIT	36.35	0	11:54	13.40	0.04	0.27
C42_4	CONDUIT	42.31	0	11:54	13.77	0.06	0.29
C43	CONDUIT	36.38	0	11:54	15.55	0.04	0.24
C44	CONDUIT	31.78	0	11:54	14.31	0.04	0.24
C45	CONDUIT	26.46	0	11:54	5.61	0.10	0.38
C45_1	CONDUIT	3.55	0	11:54	3.25	0.01	0.14
C45_2	CONDUIT	31.81	0	11:54	14.01	0.04	0.24
C45_3	CONDUIT	23.55	0	11:54	11.18	0.03	0.23
C45_4	CONDUIT	3.56	0	11:54	6.13	0.01	0.09
C46	CONDUIT	24.59	0	11:54	4.05	0.10	0.45
C47	CONDUIT	4.55	0	11:54	2.21	0.02	0.20
C48	CONDUIT	6.77	0	11:54	3.53	0.05	0.19
C49	CONDUIT	6.76	0	11:54	1.93	0.03	0.30
C5	CONDUIT	6.43	0	11:54	4.05	0.03	0.16
C50	CONDUIT	18.81	0	11:54	3.42	0.18	0.42
C51	CONDUIT	34.14	0	11:54	7.23	0.14	0.38
C52	CONDUIT	6.46	0	11:54	2.60	0.02	0.23
C53	CONDUIT	14.13	0	11:54	3.85	0.10	0.31
C54	CONDUIT	22.57	0	11:54	4.64	0.09	0.39
C55_1	CONDUIT	89.34	0	12:16	24.01	1.51	0.40
C55_2	DUMMY	89.81	0	12:16			
C56	CONDUIT	73.88	0	12:24	7.47	1.27	0.73
C56_1	CONDUIT	3.56	0	11:54	4.89	0.01	0.10
C6	CONDUIT	6.42	0	11:54	2.91	0.03	0.21
C60	CONDUIT	16.53	0	11:54	5.32	0.08	0.28
C61	CONDUIT	16.51	0	11:54	3.49	0.07	0.38
C62	CONDUIT	22.85	0	11:54	4.52	0.23	0.40
C63	CONDUIT	22.85	0	11:54	4.61	0.08	0.39
C64	CONDUIT	36.89	0	11:54	6.10	0.15	0.45
C65	CONDUIT	30.23	0	11:54	5.13	0.22	0.44
C69	CONDUIT	17.07	0	11:54	4.58	0.07	0.32
C7	CONDUIT	17.95	0	12:00	4.72	0.07	0.32
C70	CONDUIT	17.04	0	11:54	4.17	0.13	0.34

C71	CONDUIT	24.53	0	11:54	5.22	0.09	0.38
C72	CONDUIT	24.51	0	11:54	4.84	0.18	0.40
C73	CONDUIT	32.23	0	11:54	5.11	0.12	0.46
C74	CONDUIT	32.21	0	11:54	4.75	0.31	0.49
C75	CONDUIT	39.54	0	11:54	5.36	0.15	0.52
C76	CONDUIT	39.52	0	11:54	4.98	0.38	0.55
C77	CONDUIT	46.38	0	11:54	5.43	0.19	0.58
C78	CONDUIT	4.54	0	11:54	2.08	0.02	0.21
C79	CONDUIT	11.17	0	11:54	3.95	0.08	0.26
C8	CONDUIT	17.95	0	12:00	5.04	0.12	0.31
C80	CONDUIT	11.15	0	11:54	1.76	0.05	0.50
C81	CONDUIT	8.26	0	11:54	2.61	0.03	0.28
C82	CONDUIT	14.51	0	11:54	4.02	0.13	0.31
C83	CONDUIT	14.50	0	11:54	3.20	0.06	0.37
C84	CONDUIT	21.59	0	11:54	4.26	0.22	0.40
C85	CONDUIT	21.57	0	11:54	2.11	0.09	0.65
C88	CONDUIT	5.86	0	11:54	3.89	0.03	0.15
C89	CONDUIT	5.84	0	11:54	3.07	0.02	0.19
C9	CONDUIT	17.95	0	12:00	4.73	0.06	0.32
C90	CONDUIT	5.83	0	11:55	2.22	0.06	0.24
C91	CONDUIT	16.48	0	11:54	3.94	0.06	0.34
C92	CONDUIT	24.85	0	11:54	5.28	0.17	0.38
C93	CONDUIT	24.85	0	11:54	5.27	0.10	0.38
C94	CONDUIT	33.87	0	11:54	6.54	0.18	0.40
C95	CONDUIT	33.87	0	11:54	6.57	0.13	0.40
C96	CONDUIT	43.66	0	11:54	7.42	0.18	0.44
C97	CONDUIT	43.65	0	11:54	3.67	0.19	0.72
C99	CONDUIT	5.14	0	11:54	2.45	0.02	0.20
OL1_2	CONDUIT	12.92	0	15:32	4.50	0.47	0.43
W1	WEIR	0.00	0	00:00			0.00
W2	WEIR	0.00	0	00:00			0.00
W3	WEIR	0.00	0	00:00			0.00
W4	WEIR	0.00	0	00:00			0.00
C2_1	DUMMY	12.77	0	15:10			
C41	DUMMY	74.57	0	12:18			
OL1	DUMMY	73.96	0	12:24			
OL1_1	DUMMY	12.92	0	15:32			

Flow Classification Summary

Inlet Conduit Ctrl	Adjusted /Actual Length	Fraction of Time in Flow Class								
		Up Dry	Down Dry	Sub Crit	Sup Crit	Up Crit	Down Crit	Norm Ltd		
C1 0.00	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.51	
C1_1 0.00	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.96	
C1_2	1.00	0.01	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.

C78	1.00	0.05	0.00	0.00	0.95	0.00	0.00	0.00	0.90
0.00									
C79	1.00	0.05	0.00	0.00	0.90	0.05	0.00	0.00	0.00
0.00									
C8	1.00	0.05	0.00	0.00	0.69	0.26	0.00	0.00	0.00
0.00									
C80	1.00	0.03	0.02	0.00	0.95	0.00	0.00	0.00	0.90
0.00									
C81	1.00	0.05	0.00	0.00	0.95	0.00	0.00	0.00	0.90
0.00									
C82	1.00	0.05	0.00	0.00	0.93	0.03	0.00	0.00	0.00
0.00									
C83	1.00	0.05	0.00	0.00	0.95	0.00	0.00	0.00	0.91
0.00									
C84	1.00	0.05	0.00	0.00	0.95	0.00	0.00	0.00	0.00
0.00									
C85	1.00	0.02	0.02	0.00	0.95	0.00	0.00	0.00	0.91
0.00									
C88	1.00	0.05	0.00	0.00	0.66	0.29	0.00	0.00	0.00
0.00									
C89	1.00	0.05	0.00	0.00	0.95	0.00	0.00	0.00	0.90
0.00									
C9	1.00	0.05	0.00	0.00	0.81	0.14	0.00	0.00	0.91
0.00									
C90	1.00	0.05	0.00	0.00	0.95	0.00	0.00	0.00	0.90
0.00									
C91	1.00	0.05	0.00	0.00	0.95	0.00	0.00	0.00	0.90
0.00									
C92	1.00	0.05	0.00	0.00	0.79	0.16	0.00	0.00	0.00
0.00									
C93	1.00	0.05	0.00	0.00	0.78	0.17	0.00	0.00	0.90
0.00									
C94	1.00	0.05	0.00	0.00	0.07	0.88	0.00	0.00	0.00
0.00									
C95	1.00	0.05	0.00	0.00	0.05	0.90	0.00	0.00	0.90
0.00									
C96	1.00	0.05	0.00	0.00	0.02	0.93	0.00	0.00	0.00
0.00									
C97	1.00	0.01	0.04	0.00	0.95	0.00	0.00	0.00	0.90
0.00									
C99	1.00	0.05	0.00	0.00	0.95	0.00	0.00	0.00	0.90
0.00									
OL1_2	1.00	0.63	0.00	0.00	0.37	0.00	0.00	0.00	0.00
0.00									

 Conduit Surcharge Summary

Conduit	Hours Full			Hours	
	Both Ends	Upstream	Dnstream	Above Full Normal Flow	Capacity Limited
C17_1	0.01	0.01	0.01	0.26	0.01
C55_1	0.01	0.01	0.01	0.51	0.01
C56	0.01	0.01	0.01	0.51	0.01
C85	0.01	0.01	0.27	0.01	0.01

C97 0.01 0.01 0.10 0.01 0.01

Analysis begun on: Mon Jun 19 08:38:07 2023
Analysis ended on: Mon Jun 19 08:38:11 2023
Total elapsed time: 00:00:04



Attachment F

Ditch Lining Evaluation Reference Tables

Table C-1 Graded Rip-Rap Stone

Flow Velocity (ft./sec.)	N.S.A. No. ¹	Size Inches (Sq. Opening) Avg. ²			Filter Stone N.S.A. No. ¹
		Max.		Min.	
2.5	R-1	1 1/2	3/4	No. 8	FS-1
4.5	R-2	3	1 1/2	1	FS-1
6.5	R-3	6	3	2	FS-2
9.0	R-4	12	6	3	FS-2
11.5	R-5	18	9	5	FS-2
13.0	R-6	24	12	7	FS-3
14.5	R-7	30	15	12	FS-3

¹ National Stone Association

² At least 50% of the individual stone particles must be equal or larger than this listed size

Table C-3. Graded Rip-Rap Stone

D.O.T. No. ¹	Size inches (Sq. opening)			Common Uses
	Max.	Avg.	Min.	
Type 3	12	9	5	Creek Banks Pipe Outlets
Type 1	24	12	7	Lakes & Shorelines Rivers
Georgia Department of Transportation				

Table 5.4-4 Manning's Roughness Coefficients (n) for Artificial Channels

Category	Lining Type	Depth Ranges		
		0-0.5 ft	0.5-2.0 ft	>2.0 ft
Rigid	Concrete	0.015	0.013	0.013
	Grouted Riprap	0.040	0.030	0.028
	Stone Masonry	0.042	0.032	0.030
	Soil Cement	0.025	0.022	0.020
	Asphalt	0.018	0.016	0.016
Unlined	Bare Soil	0.023	0.020	0.020
	Rock Cut	0.045	0.035	0.025
Temporary*	Woven Paper Net	0.016	0.015	0.015
	Jute Net	0.028	0.022	0.019
	Fiberglass Roving	0.028	0.022	0.019
	Straw with Net	0.065	0.033	0.025
	Curled Wood Mat	0.066	0.035	0.028
	Synthetic Mat	0.036	0.025	0.021
Gravel Riprap	1-inch D_{50}	0.044	0.033	0.030
	2-inch D_{50}	0.066	0.041	0.034
Rock Riprap	6-inch D_{50}	0.104	0.069	0.035
	12-inch D_{50}	-	0.078	0.040

Note: Values listed are representative values for the respective depth ranges. Manning's roughness coefficients, n, vary with the flow depth.

*Some "temporary" linings become permanent when buried.

Source: HEC-15, 2005.