STORMWATER MANAGEMENT REPORT

Pare Project No. 23099.01

Mt. Hope High School
199 Chestnut Street
Bristol, Rhode Island 02809

Assessors Map 117, Lot 3, 4, 5, 6, & 7

Prepared for:

Bristol Warren Regional School District
235 High Street
Bristol, RI 02809

Prepared by:

Pare Corporation
8 Blackstone Valley Place
Lincoln, RI 02865

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PARE CORPORATION

ENGINEERS SCIENTISTS PLANNERS

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PROJECT DESCRIPTION

Bristol Warren Regional School District is proposing the construction of Mt. Hope High School at their existing high school facility located at 199 Chestnut St. The project area encompasses 29.90 acres and is located on the Bristol Assessor's Plat 117, Lot 3, 4, 5, 6, & 7. The parcel is owned by Bristol Warren Regional School District and is approximately 44.40 acres.

The existing site includes the existing high school building and athletic fields. The site also includes auxiliary buildings, parking lots and drive aisles, wetlands, and a portion of Silver Creek. The proposed project includes a new high school building, athletic fields, parking areas and drive aisles, utility connections, and stormwater management areas. With over 10,000 sf of existing impervious area being altered and less than 40% of the site as existing impervious surfaces, the project qualifies as a new development project per Section 3.2.6 of the RISDISM.

METHODOLOGY

Hydrologic calculations for existing and proposed conditions were performed using HydroCAD Version 10.10 software, which uses TR-55 methodology to calculate runoff and TR-20 methodology for storm routing through the stormwater detention facilities. Site hydrology was evaluated for the 1.2" storm event as well as the 1-year, 2-year, 10-year, 25-year and 100-year frequency storms in accordance with the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM) and the Town of Bristol's Code of Ordinances. Existing and Proposed Watershed Maps, indicating the subwatersheds and associated stormwater flow paths may be found in Appendix D.

The hydraulic design calculations were completed using the Rational Method to calculate the accumulated flows to each structure. The stormwater conveyance system was designed using Manning's Equation. Autodesk Hydraflow Storm Sewer software was used to perform the design calculations. The stormwater conveyance system was designed to handle the runoff generated by a 25-year design storm.

The stormwater drainage design was developed in accordance with the State of Rhode Island Stormwater Design and Installations Standards Manual (RISDISM), which was amended March

2015. The Appendix A Checklist, revised September 2020, is applied to this project and included in Appendix C.

EXISTING CONDITIONS

The project area is bound by residential properties to the north, Naomi Street and residential properties to the west, Chestnut Street and an existing cemetery to the south, and a wetland complex and residential properties to the east. The watershed analyzed for the project has a total area of approximately 47.6 acres. The limit of disturbance for the project is 29.90 acres.

A delineation of freshwater wetlands within the vicinity of proposed building was completed on February 12 & 28, 2024 by LEC Environmental. The delineation was completed in accordance with the Rhode Island Fresh Water Wetlands Act (R.I.G.L. 2-1-18 et. Seq.), and consistent with Appendix 2 of the Rhode Island Department of Environmental Management (RIDEM) Rules and Regulations Governing the Administration and Enforcement of the Rhode Island Freshwater Wetlands Act (the Regulations). The wetland complex contains a stream, and a forested swamp, which receive a 100-foot buffer area and a 200-foot jurisdictional area. Silver Creek East Branch extends from the wetland complex northeast of the existing school, beneath the existing school to a pond. Water from the pond flows over a dam and to a culvert beneath Chestnut Street. There are three dual 48" dia culverts between the pond and northeast wetland. Silver Creek receives a 100-foot buffer zone and a 200-foot jurisdictional area. The wetland areas are depicted on the proposed site plans.

Per available RIDEM mapping, the project site is located within a natural heritage area. Refer to the Freshwater Wetlands Application regarding the natural heritage assessment for the project site.

According to the FEMA Flood Insurance Rate Map for Bristol County, Rhode Island (Community-Panel 44001C0014H, effective date July 7, 2014), Silver Creek and the wetland northeast of the existing school are located within Zone AE. The rest of the site is located within Zone X.

Within the Silver Creek Watershed the project site has contributing drainage areas to both the East Branch and West Branch. The Silver Creek West Branch subwatershed (West subwatershed)

includes runoff that flows to the wetland in the southwest corner of the site. A portion of the stormwater runoff directed to the southwest wetland enters an existing detention basin through a piped drainage system and is discharged through an outlet control structure into the southwest wetland.

The Silver Creek East Branch subwatershed (East subwatershed) includes runoff that flows to Silver Creek and the culvert beneath Chestnut Street. The northeast wetland flows into Silver Creek which flows to an existing pond on campus with a controlled outlet dam and two culverts. Stormwater runoff from the East subwatershed enters the stream through overland flow and a piped drainage system. The effective FIRM established in 2014 is the regulatory floodplain information currently available for the project site. Based on this information, compensatory storage calculations and culvert hydrology were assessed using the available published data.

According to the Soil Survey of Rhode Island (US Department of Agriculture Soil Conservation Service 1981), the soils located at the site are a mix of primarily Udorthents-Urban land complex (UD), Urban Land (Ur) and Stissing silt loam (Se). There are less significant sections of Pittstown silt loam (PmA), and Pittstown silt loam (PmB). The soils on-site are in hydrologic soil group C and D and are generally poorly drained.

Test pit labels represent the year excavated and numbering in that year. For example, TP10-02 would be TP-2 from the 2010 test pits. Refer to the updated test pit plan as part of Appendix A of the stormwater report for the note describing the nomenclature used for labeling the test pit data on site.

Ten test pits were excavated on July 18, 2024 to review below grade conditions at the site. Locations can be found on the plan and test pit logs found in Appendix A. The on-site soils generally consist of fill atop a layer of sandy loam atop a layer of silty loam. Fill material from previous grading and site development operations was observed at depths ranging from 6” to 70” throughout the site. Based upon the classification of soils surrounding the site and soil properties observed during the test pit excavations, the on-site soils are modeled within Hydrologic Group “C” in this analysis. The estimated seasonal high groundwater table varies across the site. Redoximorphic features were observed in all of the test pits with depths ranging from 10” to 38” below grade.

Additional test pits observed by Pare on October 9, 2020 were used as supplemental information for groundwater assessment. A total of six test pits were excavated and observations, including soil strata, redoximorphic features, and groundwater elevations, were logged. Test Pits 20-01, 20-02 and 20-03 have estimated seasonal high ground water tables (ESHGWT) at less than 2 feet below existing grade. Test pits 20-04, 20-05, and 20-06 showed the ESHGWT between 2 feet and 4 feet below existing grade. Additional test pit information was used as supplemental information for groundwater assessment. Historic test pits were completed on November 17, 2008, and February 22, 2010. Based on the test pit data collected to date, the estimated season high ground water table is influenced by the presence of a poorly draining restrictive soil type that consists of loamy sand and silty loam. Refer to Appendix A for test pit logs and the plan set for test pit locations.

The existing topography of the eastern side of the site generally slopes toward the northeast wetland and Silver Creek. The existing topography of the western side of the site generally slopes west toward Naomi Street and a wetland in the southwest corner of the property.

The existing site contains approximately 10.54 acres of impervious area within the limit of disturbance, which consists of the existing high school, parking lots, drive aisles, sidewalks, track and softball infield mix. The remaining portions of the site are grass, woods, and wetlands. The existing surface covers were modeled as-is in the hydrologic analysis.

Stormwater from the existing site ultimately flows to 6 design points: “DP 1.1 Culvert 1”, “DP 1.2 Culvert 2”, “DP 1.3 Culvert 3”, “DP 1.4 Silver Creek East Branch”, “DP 2.1 West Wetland”, “DP 2.2 Silver Creek West Branch”.

Design point “DP 1.1 Culvert 1” is located to the east of the project area northeast of the existing school upstream of the northernmost culvert. Runoff reaches this design point via overland flow.

Design point “DP 1.2 Culvert 2” is located to the east of the project area within the footprint of the existing school building. The design point is located upstream of the second culvert. Runoff reaches this design point via overland flow.

Design point “DP 1.3 Culvert 3” is located to the center of the project area west of the school. The design point is located upstream of the third culvert. Runoff reaches this design point via a piped network and overland flow.

Design point “DP 1.4 Silver Creek East Branch” is located to the south of the project area at the entrance to the culvert beneath Chestnut Street. Runoff reaches this design point via a piped network and overland flow.

Design point “DP 2.1 West Wetland” is located within the wetland west of the project area. Runoff reaches this design point via a piped network and overland flow.

Design point “DP 2.2 Silver Creek West Branch” is located at the southwest corner of the property where the wetland outlets to the public drainage system. Runoff reaches this design point via a pipe network and overland flow.

Under existing conditions, 11 subwatersheds were analyzed, EDA-1.1A, EDA-1.2A, EDA-1.3A, EDA-1.4A, EDA-1.4B, EDA-1.4C, EDA-1.4D, EDA-2.1A, EDA-2.1B, EDA-2.2A, and EDA-2.2B. Sheet XBT-1 included in Appendix D depicts the limits of the existing conditions hydrology.

EDA-1.1A is comprised of grassed and wooded area and a wetland, at the northwest of the property. Runoff flows toward the wetland and Silver Creek. EDA-1.1A contributes to Design Point “DP-1.1 Culvert 1”

EDA-1.2A is comprised of roof cover, grassed area, and a portion of Silver Creek, at the east of the property. Runoff flows north toward the culvert. EDA-1.2A contributes to Design Point “DP-1.2 Culvert 2”

EDA-1.3A is comprised of roof cover, paved parking, grassed area and a portion of Silver Creek, at the center of the property, west of the existing school building. Runoff flows southwest toward the culvert. EDA-1.3A contributes to Design Point “DP-1.3 Culvert 3”

EDA-1.4A is comprised of roof cover, grassed area, and paved parking, at the southeast of the property. Runoff flows toward catch basins where it is piped toward Silver Creek. EDA-1.4A contributes to Design Point "DP-1.4 Silver Creek East Branch"

EDA-1.4 B, C, & D are comprised of roof cover, paved parking, and grass cover, at the center and southern end of the property. Runoff flows overland toward Silver Creek. EDA-1.4 B, C, & D contributes to Design Point "DP-1.4 Silver Creek East Branch"

EDA-2.1A is comprised of grass cover, an asphalt walkway and athletic facilities at the north of the property. Runoff flows are captured in a pipe network or flows overland to an existing detention basin. The detention basin is modeled as Pond1P. The dimensions modeled were based upon recent field survey and the 2015 stormwater report from the "Mt. Hope High School Athletic Fields Drainage Improvement" project, RIDEM application no.10-0119. EDA-2.1A contributes to Design Point "DP-2.1 West Wetland"

EDA-2.1B is comprised of grassed cover and impervious cover from the existing track, at the center of the property. Runoff flows west toward the existing football field where it is captured and piped to the design point. EDA-2.1B contributes to Design Point "DP-2.1 West Wetland"

EDA-2.2A is comprised of grassed area and paved roadway, at the west of the property. Runoff flows overland toward the existing drainage system in the road. EDA-2.2A contributes to Design Point "DP-2.2 Silver Creek West Branch"

EDA-2.2B is comprised of roof cover, paved parking, grassed and wooded area, and an existing wetland, at the southwest of the property. Runoff flows overland toward the design point. EDA-2.2B contributes to Design Point "DP-2.1 West Wetland"

PROPOSED CONDITIONS

The proposed improvements include the construction of a new high school building with a total GFS of approximately 168,364 square feet. Exterior site improvements include parking lots, paved walks, access drives, new athletic fields, utility connections, and stormwater management areas. The proposed condition has approximately 12.55 acres of impervious surface within the limit of disturbance, resulting in a net increase of 2.05 acres of impervious area. These impervious surfaces include the building, parking areas, drive aisles, track, synthetic turf. The project is also proposes softball and athletic fields that include an infield mix, bleacher riprap and warning tracks which is approximately 1.28 acres of compacted material.

The proposed building is located northwest of Silver Creek outside the 100-yr floodplain per the 2014 effective floodplain limits. The building finished floor elevation is set at elevation 62.9 with a small southern section set at elevation 60.9. These elevations are above the flood elevation depicted on available FEMA mapping.

Parking is located north, west, and east of the building. Athletic fields surround the school building to the north, west, and east. To the south of the building is Silver Creek.

The proposed project will require stormwater management systems to handle the increase in stormwater runoff and pollutant loading to the discharge points. Stormwater best management practices are located throughout the site to treat stormwater as close to the source as practicable. All new stormwater collection, storage, and treatment systems are designed in accordance with the Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8), *State of Rhode Island Storm Water Design and Installation Standards Manual* prepared by the Rhode Island Department of Environmental Management (RIDEM) dated December 2010 and amended March 2015. Pre-development runoff rates will be maintained and released into existing drainage paths downstream of proposed improvements. Runoff from proposed impervious areas will be treated prior to leaving the site.

The grading scheme is designed to shed water as in the existing conditions to the maximum extent possible. Grades generally slope away from the building to protect the building from

stormwater runoff. Stormwater management and grading schemes were also designed to minimize impacts to the floodplain to the maximum extents practicable.

The proposed stormwater management system utilizes a combination of low-impact development (LID) design strategies and stormwater best management practices (BMP's) for conveyance, treatment and recharge of stormwater. The stormwater management system captures overland flow with either yard drains, area drains, or catch basins and conveys runoff through a closed drainage network to BMP's. The stormwater best management practices include sediment forebays, bioretention areas, sand filters, a wet swale, an infiltration basin, an underground infiltration system, and detention basins. Where feasible, sidewalks and athletic site features were designed to sheet flow across grassed areas for treatment as a qualifying pervious area (QPA).

Grading within the 100-year floodplain was minimized and includes construction of a stormwater best management practice, removal of an existing building, and establishment of a natural vegetated area, refer to Appendix D for Existing Flood Storage (Figure 1) and the Proposed Flood Storage (Figure 2). The 100-year floodplain was assessed to avoid impacts to the floodplain. Compensatory storage volume calculations are depicted in the table below:

Table 1: Compensatory Storage Volumes (CY)

Stage Elevation	Existing Available Storage Volume	Proposed Available Storage Volume	Delta
58-59	85 CY	87 CY	+2 CY
59-60	1,343 CY	1,343 CY	0 CY
60-61	2,688 CY	3,654 CY	+968 CY

The application does not include work within wetlands or within Silver Creek to minimize impact to resource areas. Existing culverts along Silver Creek are designated to remain. Site features and portions of the existing building above the culverts will be demolished. Walls forming the bank of Silver Creek will remain. Site improvements over the existing culverts include a paved access drive, guardrail, walks, and fencing. These improvements are designed to avoid impacts on Silver Creek.

The existing upstream culvert will remain following removal of the school. The grades will be lowered slightly to reduce the potential to impact upstream areas. Riprap is proposed over this culvert and the channel sides to reduce the potential for erosion during large storm events.

Several 48" diameter reinforced concrete culvert pipes are proposed upstream of the second and third culverts along Silver Creek. The inlet invert of these pipes is set four feet above the invert of the existing 48" culverts (same elevation as the crown of existing 48" culverts). The proposed pipes are not designed to alter or impact flow through Silver Creek under normal conditions. During large storm events where flow within Silver Creek may exceed the capacity of the existing culverts, the proposed piping will provide a route for water to bypass the downstream culverts and Silver Creek and reduce potential for on-site flooding. The bypass pipes discharge to the pond downstream. Flared end sections and riprap level spreaders are provided to promote sheet flow at the outlets and reduce the potential for erosion. The bypass pipes are proposed to minimize impacts and reduce the potential for flooding over the new roadway and the walk proposed over the existing culverts.

Under proposed conditions, the site was divided into a total of 27 subwatersheds: PDA 1.1A, PDA 1.1B, PDA 1.2A, PDA 1.3A, PDA 1.3C, PDA 1.3D, PDA ROOF 1.3, PDA 1.4A, PDA 1.4B, PDA 1.4C, PDA 1.4D, PDA 1.4E, PDA 1.4F, PDA 1.4G, PDA 1.4H, PDA 1.4I, PDA 1.4J, PDA 1.4K, PDA 1.4L, PDA ROOF 1.4, PDA 2.1A, PDA 2.1B, PDA ROOF 2.1, PDA 2.2A, PDA 2.2B, PDA 2.2C.a, and PDA 2.2C.b. The subwatersheds are depicted in XBT-2 which is included in Appendix D.

PDA-1.1A consists of athletic site features, athletic track material, grass area, woods, wetlands, and a portion of Silver Creek. Runoff from this drainage area flows overland to Design Point "DP 1.1 Culvert 1."

PDA-1.1B consists of athletic track material and grass area. Runoff from this drainage area flows overland to Design Point "DP 1.2 Culvert 2."

PDA-1.2A consists of paved parking, grass cover, and a portion of Silver Creek. Runoff from this drainage area flows overland to Design Point "DP 1.3 Culvert 3."

PDA-1.3A consists of grass area and paved parking. Runoff from this drainage area flows overland to the Wet Swale where it is treated, then is piped to Detention Basin 2. PDA-1.3A contributes to Design Point "DP1.4 Silver Creek East Branch". The emergency riprap spillway for the Wet Swale contributes to Design Point "DP 1.1 Culvert 1."

PDA-1.3C & D consists of paved parking and grass area. Runoff from this drainage area flows overland to Bioretention areas 3 & 4 respectively. PDA-1.3C & D contributes to Design Point "DP1.4 Silver Creek East Branch".

PDA-ROOF 1.3 consists of roof cover. Runoff from this drainage area is piped into Bioretention area 3 and contributes to Design Point "DP1.4 Silver Creek East Branch."

PDA-1.4A consists of athletic site features, sidewalks, athletic track material and grass cover. Runoff from this drainage area flows overland to Sand Filter 4 and contributes to Design Point "DP 1.2 Culvert 2."

PDA-1.4B consists of paved parking and grass cover. Runoff from this drainage area is captured and piped to Diversion structure 2 and then to Sand filter 2. PDA-1.4B contributes to Design Point "DP1.4 Silver Creek East Branch."

PDA-1.4C consists of paved parking and grass cover. Runoff from this drainage area flows overland to Bioretention Area 2 and contributes to Design Point "DP1.4 Silver Creek East Branch."

PDA-1.4D consists of paved parking and grass cover. Runoff from this drainage area is captured and piped to Bioretention area 1 and contributes to Design Point "DP1.4 Silver Creek East Branch."

PDA-1.4E consists of paved parking and grass area. Runoff from this drainage area flows overland to Sand Filter 2 and contributes to Design Point "DP1.4 Silver Creek East Branch."

PDA-1F, J, & L consists of paved parking and grass cover. Runoff from this drainage area flows overland to Design Point "DP1.4 Silver Creek East Branch."

PDA-1.4G consists of paved parking and grass. Runoff from this drainage area flows overland to Sand Filter 3 and contributes to Design Point "DP1.4 Silver Creek East Branch."

PDA-1.4H consists of paved parking and grass cover. Runoff from this drainage area flows overland to Detention Basin 2 and contributes to Design Point "DP1.4 Silver Creek East Branch."

PDA-1.4I and PDA ROOF 1.4 of paved parking, foor cover, and grass area. Runoff from this drainage area is piped to Infiltration Basin 1 and contributes to Design Point "DP1.4 Silver Creek East Branch."

PDA-1.4K consists of paved parking and grass area. Runoff from this drainage area flows overland to Sand Filter 5 and contributes to Design Point "DP1.4 Silver Creek East Branch."

PDA-2.1A & PDA-ROOF 2.1 consists of athletic site features, athletic track materials, paved parking, roof cover, and grass area. Runoff from this drainage area is captured and piped to Sand Filter 1 and overflows toward Detention Basin 1. These PDAs contribute to Design Point "DP2.1 West Wetland."

PDA-2.1B consists of paved parking and grass cover. Runoff from this drainage area is captured and piped toward Detention Basin 1. PDA -2.1B contributes to Design Point "DP2.1 West Wetland."

PDA-2.2A consists of paved parking, grass area, and woods. Runoff from this drainage area flows overland to Design Point "DP2.2 Silver Creek West Branch."

PDA-2.2B consists of paved parking, grass area, and woods. Runoff from this drainage area flows overland to Design Point "DP2.1 West Wetland."

PDA-2.2C.a & PDA-2.2C.b consists of the synthetic turf athletic field and track. Runoff from this drainage area is captured and piped to UGIS-1 and contributes Design Point "DP2.1 West Wetland."

STORMWATER MANAGEMENT STANDARDS

The stormwater management system is designed to meet the 11 Minimum Standards of the RISDISM. The Stormwater Checklist has been completed and is included in Appendix C. The following sections describe the approach to meeting the requirements for each Minimum Standard.

Minimum Standard 1: LID Site Planning and Design Strategies

The use of Low Impact Development (LID) techniques to treat, infiltrate, and reduce the stormwater runoff at the site were incorporated wherever possible. Localized small BMPS such as bioretention areas, sand filters, infiltration basins and wet swales are provided along with QPAs at or as close to the source as practicable to provide recharge, filtration, and water quality treatment.

The QPAs are proposed adjacent to the new impervious areas to treat stormwater runoff. The width of the QPA is equivalent to the width of the contributing impervious area and the slope across the QPA is limited to less than 5%. This area is modeled in the hydrologic model as unconnected pavement.

Minimum Standard 2: Groundwater Recharge

Minimum Standard 2 is met by providing QPAs, two bioretention areas, and four sand filters, an infiltration basin and an underground infiltration system that infiltrate runoff. Refer to Recharge Calculation in Appendix C and description in Minimum Standard 3.

Minimum Standard 3: Water Quality

The proposed bioretention areas, sand filters, infiltration basins, underground infiltration system, wet swale, and QPAs are designed to provide water quality treatment to runoff collected from upstream impervious surfaces to the maximum extents practicable while maintaining existing drainage patterns. The stormwater BMP's were designed in accordance with the RISDISM requirements to remove total suspended solids and other pollutants from the stormwater runoff. See Appendix C for calculations for the stormwater facilities.

Bioretention Area with Subdrains

The bioretention areas have been designed in accordance with RIDEM Standards to promote water quality. The bioretention areas include filter media with a mulch upper layer, vegetated side slopes, a raised outlet, and spillway. Stormwater is piped to the sediment forebay, which provides pretreatment, prior to entering the bioretention area. An impermeable liner with a stone layer and perforated subdrain is placed under the filter media to discharge the treated water for Bioretention Area-02 and Bioretention Area-03. The liner is provided because the minimum separation to groundwater is not provided. The raised outlet is elevated to store the water quality volume for 24-hours while it slowly drains through the subdrain system following the storm event. Any excess stormwater that enters the bioretention area will overflow into the catch basin and discharge into the drainage network.

Bioretention Area with Exfiltration

The bioretention areas have been designed in accordance with RIDEM Standards to promote water quality. The bioretention areas include filter media with a mulch upper layer, vegetated side slopes, a raised catch basin, and spillway. Stormwater for Bioretention -01 is piped to the sediment forebay, which provides pretreatment, prior to entering the bioretention area. The outlet is elevated to exfiltrate the entire water quality volume through the surrounding soils for Bioretention Area-01. Stormwater for Bioretention -04 is piped to the bioretention area for treatment. Bioretention -04 provides water quality treatment for non-vehicular traveled sidewalks, therefore no pretreatment was provided. The outlet is elevated to exfiltrate the entire water quality volume through the surrounding soils for Bioretention -04. Excess stormwater that enters Bioretention-04 during larger storm events will overflow into the catch basin and discharge into the drainage network. Bioretention Area-01 is designed offline with diversion structures upstream for larger storm events to bypass the BMP.

Per the RISDISM, exfiltration through the soils observed on-site would be modeled with a Rawls Rate of 1.02 in/hr (C Soils) or 0.27 in/hr (D Soils). In an effort to be conservative, an infiltration rate of 0.27 in/hr was used to model exfiltration from all BMP's that exfiltrate to existing soils.

Sand Filters with Subdrains

The sand filters have been designed in accordance with RIDEM Standards to promote water quality.. The sand filter includes a vegetated bottom, 36" deep layer of ASTM C-33 sand,

vegetated side slopes, a raised catch basin, and spillway. Stormwater is piped to the sediment forebay, which provides pretreatment, prior to entering the sand filter. An impermeable liner with a stone layer and perforated subdrain is placed under the filter media to discharge the treated water for Sand Filter-04. The liner is provided because the minimum separation to groundwater is not provided. The catch basin outlet is elevated to store the water quality volume for 24-hours while it slowly drains through the subdrain system following the storm event. Any excess stormwater that enters Sand Filter-04 will overflow into the catch basin and discharge into the drainage network.

Sand Filters with Exfiltration

The sand filters have been designed in accordance with RIDEM Standards to promote water quality, exfiltration, and recharge. The sand filter includes a vegetated bottom, 36" deep layer of ASTM C-33 sand, vegetated side slopes, a raised catch basin, and spillway. Stormwater is piped to the sediment forebay, which provides pretreatment, prior to entering the sand filter. The catch basin outlet is elevated to exfiltrate the entire water quality volume through the surrounding soils for Sand Filters 1, 2, 3 and 5. Excess stormwater that enters Sand Filter-03, and Sand Filter-05 during larger storm events will overflow into the catch basin and discharge into the drainage network. Sand Filter-01 and Sand Filter-02 are designed offline with diversion structures upstream for larger storm events to bypass the BMP.

Design infiltration rate for ASTM C-33 sand is 8.27 in/hr. Considering the presence of silt loam in the "C" horizon soils, an infiltration rate of 0.27 in/hr was used for conservative measures.

Infiltration Basin

The infiltration basin has been designed in accordance with RIDEM Standards to promote water quality, exfiltration, and recharge. The infiltration basin is sized to infiltrate the water quality volume from upstream impervious areas. The outlet structure is elevated to exfiltrate the entire water quality volume through the surrounding soils. A 10' long auxiliary drain pipe with a closed PVC ball valve is provided within Infiltration Basin-01 for maintenance needs only. The valve will remain closed per section 5.3 of the RISDISM. A riprap spillway is provided for large storm events. The bottom of the infiltration basin is set in native sandy loam soils and a minimum of 36" from the estimated seasonal high groundwater table or limiting layers. With the presence of sandy loam soils, an infiltration rate of 1.02 in/hr a stormwater infiltration practice was designed

to provide ground water recharge to the maximum extents practicable within the Silver Creek Watershed to reduce stormwater volume per the Town of Bristol's regulations for projects within Silver Creek.

Underground Infiltration System

The underground infiltration system (UGIS) has been designed in accordance with RIDEM Standards to promote water quality, and recharge. The UGIS is sized to infiltrate the water quality volume based on upstream impervious areas.

The bottom of the underground infiltration system is set in native soils, and a minimum of 36" from the estimated seasonal high groundwater table. Considering the presence of silt loam, an infiltration rate of 0.27 in/hr was used for conservative measures. A technical justification is requested to permit a stormwater infiltration practice within anticipated 0.27 in/hr soils based on the goal to provide ground water recharge to the maximum extents practicable within the Silver Creek Watershed to reduce stormwater volume per the Town of Bristol's regulations for projects within Silver Creek.

UGIS-01 has been designed to infiltrate the synthetic turf field impervious surface to provide water quality treatment. The synthetic turf field profile includes dual 15" HDPE pipes embedded within crushed stone reservoir to provide storage for the athletic field prior to entering the UGIS system. Larger stormwater events will bypass the UGIS system via a diversion structure upstream of the system. A pretreatment row is not provided for the UGIS system due to the UGIS's design intention to treat only the synthetic turf field with no other contributing drainage areas. Due to the infiltration practice being within 50 feet of a slope greater than 15%, a 40 mil PVC liner is proposed to limit potential for horizontal seepage. The liner will be installed along the southern and western boundaries of the underground system to prevent water seepage against the 3:1 slope.

Wet Swale

The wet swale along the east parking lot has been designed in accordance with the RISDISM to treat runoff for water quality requirements. The wet swale includes a 12" deep bioretention soil bed with a crushed stone sump. Soil media shall meet the specifications outlined for bioretention media to include a well-aged leaf compost per the RISDISM section 5.7.4. This wet swale also

includes a sediment forebay and check dams along the length of the swale to pretreat runoff from the roadway prior to entering the wet swale. Due to the presence of high groundwater within the northeast portions of the site, a modified wet swale is proposed to allow for limited recharge during the dry seasons while still providing water quality treatment through surface water ponding via overflow structure to the maximum extent practicable.

Minimum Standard 4: Conveyance and Natural Channel Protection

The new stormwater conveyance system has been designed to convey the runoff from the 25-year design storm event in accordance with general engineering practice. Refer to Appendix B Hydraulic Design Calculations.

Extended Detention Basin

The extended detention basins include an outlet control structure within the berm and a riprap spillway. Generally, the riprap spillway will direct runoff from the extended detention basins during events greater than the 100-year design storm. The extended detention basins will be vegetated with a grass mix capable of withstanding temporarily wet environments. The proposed detention basin does not discharge to a watershed draining to a cold-water fishery. Detention Basin -02 is within 20ft of a roadway structure, however a technical justification is requested based on the detention basin being designed with adequate maintenance access and protected via the proposed fence limits.

Detention Basin-01 and Detention Basin-02 are designed to retain the water quality volume and release it over a 24-hour period through a low flow orifice where the inflow in the 1-year design storm is greater than 2 cfs per the RISDISM. The low-flow orifice was designed in accordance with the RISDISM. Refer to the Channel Protection Volume calculations included in Appendix C.

Minimum Standard 5: Overbank Flood Protection

The existing and proposed hydrology was evaluated to determine the distribution of stormwater runoff to the design points. Hydrologic calculations were completed to confirm that the post-development runoff conditions are similar to pre-development conditions and that there are no significant changes to runoff directed to the design points. Hydrologic calculations were also completed to evaluate the performance of the bioretention areas, sand filters, infiltration basins,

underground infiltration systems, and wet swales during the design storm events. The hydrologic model shows a decrease in the peak flow rate and volumes discharged to the East and West Branches of the Silver Creek Watersheds for the 1-year, 2-year, 10-year, 25-year and 100-year storms. The table below provides a summary of the peak flow rates for the existing and proposed conditions at each design point.

Table 2: Peak Flow Rate (CFS)

DESIGN POINTS	1-YEAR	2-YEAR	10-YEAR	25-YEAR	100-YEAR
DP1.1 Silver Creek East-Culvert 1 Existing	8.83	12.03	23.08	31.76	50.14
DP1.1 Silver Creek East- Culvert 1 Proposed	7.45	10.49	21.30	29.98	48.60
Change	-1.38	-1.54	-1.78	-1.78	-1.54
DP1.2 Silver Creek East-Culvert 2 Existing	9.87	13.32	25.17	34.45	54.13
DP1.2 Silver Creek East- Culvert 2 Proposed	8.27	11.50	23.04	33.24	54.77
Change	-1.60	-1.82	-2.13	-1.21	0.64
DP1.3 Silver Creek East-Culvert 3 Existing	10.22	13.76	25.92	35.43	55.59
DP1.3 Silver Creek East- Culvert 3 Proposed	8.64	12.00	23.98	34.45	56.88
Change	-1.58	-1.76	-1.94	-0.98	1.29
DP1.4 Silver Creek East-Culvert 4 Existing	25.70	33.34	58.84	78.39	119.32
DP1.4 Silver Creek East- Culvert 4 Proposed	16.36	24.86	50.66	69.28	116.14
Change	-9.34	-8.48	-8.18	-9.11	-3.18
DP2.1 Silver Creek West Branch Existing	6.84	10.01	20.21	28.99	60.35
DP2.1 Silver Creek West Branch Proposed	3.09	7.17	20.15	29.10	60.02
Change	-3.75	-2.84	-0.06	0.11	-0.33
DP2.2 Silver Creek West Branch Existing	10.53	15.28	30.43	43.16	78.59
DP2.2 Silver Creek West Branch Proposed	4.44	8.72	24.67	35.88	71.23
Change	-6.09	-6.56	-5.76	-7.28	-7.36

Table 3: Peak Volumes (CF)

DESIGN POINTS	1-YEAR	10-YEAR
DP1.4 Silver Creek East Branch Total Existing	130,468	300,035
DP1.4 Silver Creek East Branch Total Proposed	91,018	247,294
Change	-39,450	-52,741
DP2.2 Silver Creek West Branch Total Existing	68,970	194,326
DP2.2 Silver Creek West Branch Total Proposed	63,452	194,060
Change	-5,518	-266

Table 4: Total Site Volumes (CF)

Silver Creek Watershed	1-YEAR	10-YEAR
Silver Creek Total Existing	199,438	494,361
Silver Creek Total Proposed	154,470	441,354
Change	-44,968	-53,007
Percent Reduction	23%	11%

While there is a slight increase in the peak flow rates at DP2.1 West Wetland for the 25-yr storm, DP1.2- Silver Creek East -Culvert 2 and DP1.3- Silver Creek East -Culvert 3 for the 100-year storm, the increase in peak flows at this location is negligible due to the upstream and downstream flow rate reductions.

Minimum Standard 6: Redevelopment and Infill Projects

The Water Quality Volume Calculation worksheet provided in Appendix C identifies the project as a new development due to the property being slightly less than 40% for impervious area. Per the RISDISM regulations this project does not qualify as a Redevelopment Project per Section 3.2.6 of the RISDISM. However, the existing condition for the property includes significant impervious surface that is untreated that discharges to the natural resources. This project provides a significant improvement for water quality treatment, ground water recharge and peak flow rate reduction compared to the existing condition while maintaining the existing drainage patterns and providing water quality treatment to the maximum extents practicable for the proposed impervious areas.

Minimum Standard 7: Pollution Prevention

A Long Term Pollution Prevention Plan is included under separate cover.

Minimum Standard 8: Land Uses with a Higher Potential Pollutant Load (LUHPPL)

This minimum standard is not applicable to the project as land use is not considered a LUHPPL.

Minimum Standard 9: Illicit Discharges

There are no illicit discharges proposed to the stormwater management system in accordance with State regulations.

Minimum Standard 10: Construction Erosion and Sedimentation Control

A Soil Erosion and Sediment Control Plan (SESC) plan was prepared to demonstrate which practices will be used to minimize land disturbance and conveyance. This report is included under separate cover.

Minimum Standard 11: Stormwater Management System Operation and Maintenance (O&M)

A Stormwater Management Operation and Maintenance plan was prepared to address routine upkeep tasks for maintaining the stormwater management system per the RISDISM and the Town of Bristol's Code of Ordinances. This report is included under separate cover.

CONCLUSION

In conclusion, the proposed development meets the 11 Minimum Standards as required by RIDEM. The stormwater management system provides reductions in peak runoff rate within the hydrologic analysis area for the design storm events evaluated to improve existing conditions. The stormwater management system has also been designed to provide groundwater recharge and promote total suspended solids removal and to improve the overall water quality to downstream resources and offsite areas.

Impact to areas upstream from the removal of the existing school and installation of the new culverts is minimal. The project increases storage volume within the floodplain upstream of the school, provides bypass piping to route flow during large storm events to the pond below. Impact

to downstream areas is improved through the reduction in stormwater volume and peak flow rate provided by the proposed stormwater management system.

Bristol Warren Regional School District

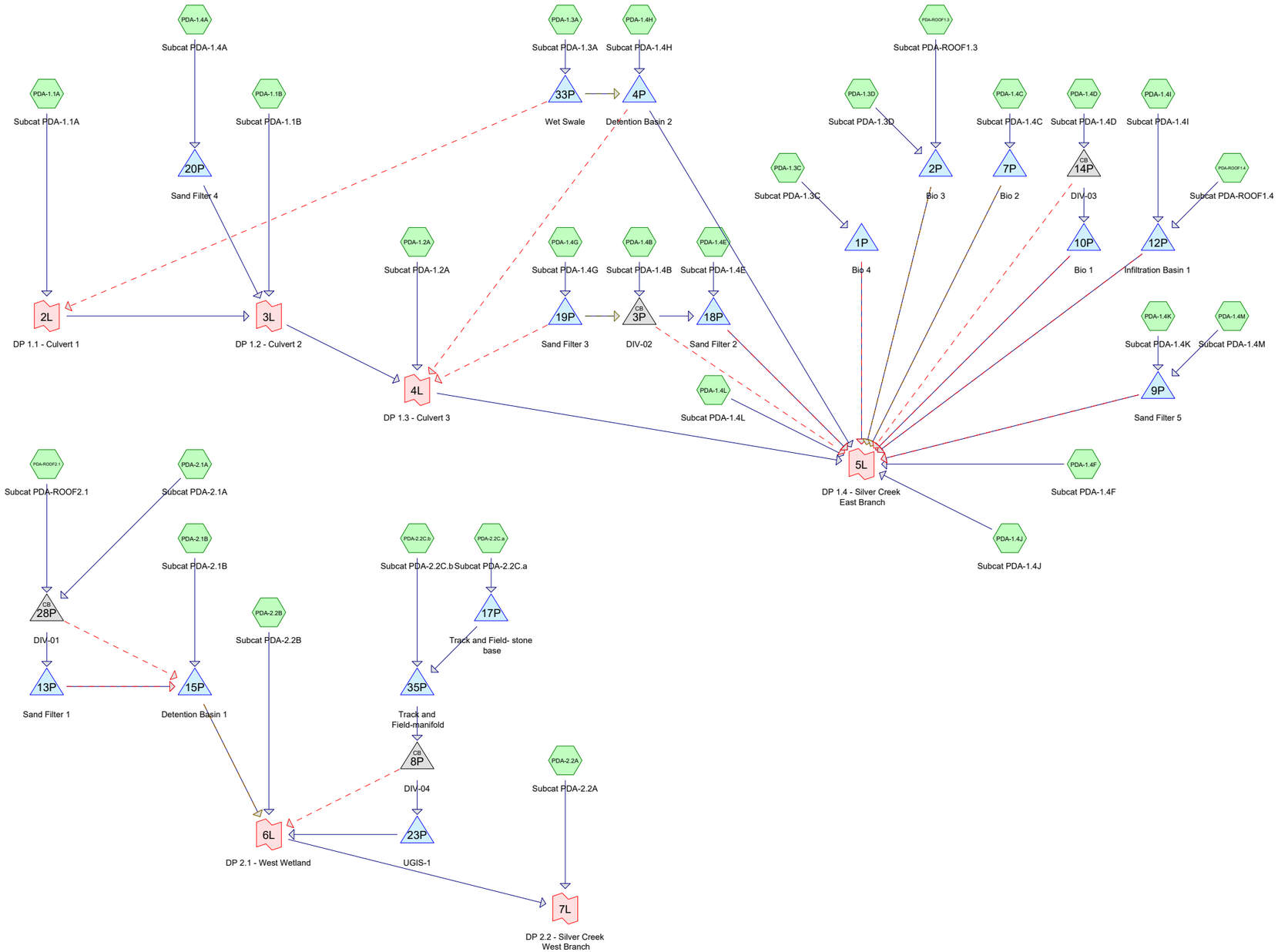
MT. HOPE HIGH SCHOOL

APPENDIX B

Hydrologic Calculations – Existing Conditions

Hydrologic Calculations – Proposed Conditions

Hydraulic Calculations – Pipe Analysis



Subcat | Reach | Pond | Link

Routing Diagram for Pro-Hydro

Prepared by Pare Corporation, Printed 6/3/2025

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Time span=0.00-240.00 hrs, dt=0.05 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PDA-1.1A: Subcat PDA-1.1A Runoff Area=475,005 sf 1.72% Impervious Runoff Depth=0.93"
Flow Length=451' Slope=0.0100 '/' Tc=21.1 min CN=77 Runoff=7.45 cfs 37,004 cf

Subcatchment PDA-1.1B: Subcat PDA-1.1B Runoff Area=30,333 sf 0.05% Impervious Runoff Depth=0.99"
Flow Length=126' Tc=13.1 min CN=78 Runoff=0.61 cfs 2,499 cf

Subcatchment PDA-1.2A: Subcat PDA-1.2A Runoff Area=25,845 sf 14.60% Impervious Runoff Depth=1.10"
Flow Length=73' Tc=7.3 min UI Adjusted CN=80 Runoff=0.71 cfs 2,374 cf

Subcatchment PDA-1.3A: Subcat PDA-1.3A Runoff Area=57,295 sf 71.89% Impervious Runoff Depth=1.97"
Flow Length=198' Slope=0.0100 '/' Tc=6.5 min CN=92 Runoff=2.89 cfs 9,419 cf

Subcatchment PDA-1.3C: Subcat PDA-1.3C Runoff Area=16,850 sf 41.68% Impervious Runoff Depth=1.35"
Flow Length=49' Tc=6.8 min CN=84 Runoff=0.59 cfs 1,900 cf

Subcatchment PDA-1.3D: Subcat PDA-1.3D Runoff Area=6,850 sf 45.03% Impervious Runoff Depth=1.42"
Tc=6.0 min CN=85 Runoff=0.26 cfs 812 cf

Subcatchment PDA-1.4A: Subcat PDA-1.4A Runoff Area=31,007 sf 23.95% Impervious Runoff Depth=1.29"
Flow Length=144' Tc=13.4 min CN=83 Runoff=0.83 cfs 3,326 cf

Subcatchment PDA-1.4B: Subcat PDA-1.4B Runoff Area=53,181 sf 37.23% Impervious Runoff Depth=1.42"
Flow Length=98' Tc=13.9 min CN=85 Runoff=1.57 cfs 6,301 cf

Subcatchment PDA-1.4C: Subcat PDA-1.4C Runoff Area=26,810 sf 63.81% Impervious Runoff Depth=1.72"
Tc=6.0 min CN=89 Runoff=1.21 cfs 3,843 cf

Subcatchment PDA-1.4D: Subcat PDA-1.4D Runoff Area=42,514 sf 59.10% Impervious Runoff Depth=1.72"
Tc=6.0 min CN=89 Runoff=1.92 cfs 6,094 cf

Subcatchment PDA-1.4E: Subcat PDA-1.4E Runoff Area=39,245 sf 62.30% Impervious Runoff Depth=1.72"
Tc=6.0 min CN=89 Runoff=1.77 cfs 5,625 cf

Subcatchment PDA-1.4F: Subcat PDA-1.4F Runoff Area=73,858 sf 54.96% Impervious Runoff Depth=1.57"
Flow Length=346' Tc=14.5 min CN=87 Runoff=2.37 cfs 9,637 cf

Subcatchment PDA-1.4G: Subcat PDA-1.4G Runoff Area=22,284 sf 61.76% Impervious Runoff Depth=1.72"
Tc=6.0 min CN=89 Runoff=1.01 cfs 3,194 cf

Subcatchment PDA-1.4H: Subcat PDA-1.4H Runoff Area=10,744 sf 5.59% Impervious Runoff Depth=0.83"
Tc=6.0 min CN=75 Runoff=0.22 cfs 745 cf

Subcatchment PDA-1.4I: Subcat PDA-1.4I Runoff Area=9,824 sf 27.06% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=81 Runoff=0.30 cfs 951 cf

Subcatchment PDA-1.4J: Subcat PDA-1.4J Runoff Area=59,466 sf 8.43% Impervious Runoff Depth=1.04"
Tc=6.0 min CN=79 Runoff=1.60 cfs 5,176 cf

Subcatchment PDA-1.4K: Subcat PDA-1.4K Runoff Area=18,876 sf 80.13% Impervious Runoff Depth=2.06"
Tc=6.0 min CN=93 Runoff=1.00 cfs 3,246 cf

Subcatchment PDA-1.4L: Subcat PDA-1.4L Runoff Area=11,978 sf 24.28% Impervious Runoff Depth=1.10"
Flow Length=75' Tc=8.5 min CN=80 Runoff=0.31 cfs 1,100 cf

Subcatchment PDA-1.4M: Subcat PDA-1.4M Runoff Area=4,734 sf 4.20% Impervious Runoff Depth=0.83"
Flow Length=166' Slope=0.0100 '/' Tc=14.3 min CN=75 Runoff=0.08 cfs 328 cf

Subcatchment PDA-2.1A: Subcat Runoff Area=348,138 sf 26.08% Impervious Runoff Depth=1.16"
Flow Length=269' Tc=16.3 min CN=81 Runoff=7.76 cfs 33,704 cf

Subcatchment PDA-2.1B: Subcat PDA-2.1B Runoff Area=151,957 sf 4.77% Impervious Runoff Depth=0.88"
Flow Length=123' Tc=17.0 min CN=76 Runoff=2.42 cfs 11,179 cf

Subcatchment PDA-2.2A: Subcat Runoff Area=156,051 sf 26.13% Impervious Runoff Depth=1.10"
Tc=12.9 min CN=80 Runoff=3.57 cfs 14,332 cf

Subcatchment PDA-2.2B: Subcat PDA-2.2B Runoff Area=152,340 sf 1.56% Impervious Runoff Depth=0.69"
Flow Length=565' Slope=0.0120 '/' Tc=40.0 min CN=72 Runoff=1.23 cfs 8,783 cf

Subcatchment PDA-2.2C.a: Subcat Runoff Area=90,671 sf 100.00% Impervious Runoff Depth=2.57"
Tc=6.0 min CN=98 Runoff=5.50 cfs 19,412 cf

Subcatchment PDA-2.2C.b: Subcat Runoff Area=61,186 sf 99.99% Impervious Runoff Depth=2.57"
Tc=6.0 min CN=98 Runoff=3.71 cfs 13,100 cf

Subcatchment PDA-ROOF1.3: Subcat Runoff Area=9,782 sf 100.00% Impervious Runoff Depth=2.57"
Tc=6.0 min CN=98 Runoff=0.59 cfs 2,094 cf

Subcatchment PDA-ROOF1.4: Subcat Runoff Area=58,210 sf 100.00% Impervious Runoff Depth=2.57"
Tc=6.0 min CN=98 Runoff=3.53 cfs 12,462 cf

Subcatchment PDA-ROOF2.1: Subcat Runoff Area=31,087 sf 100.00% Impervious Runoff Depth=2.57"
Tc=6.0 min CN=98 Runoff=1.89 cfs 6,656 cf

Pond 1P: Bio 4 Peak Elev=60.31' Storage=1,151 cf Inflow=0.59 cfs 1,900 cf
Discarded=0.01 cfs 1,446 cf Primary=0.04 cfs 455 cf Outflow=0.05 cfs 1,900 cf

Pond 2P: Bio 3 Peak Elev=59.78' Storage=1,130 cf Inflow=0.85 cfs 2,906 cf
Primary=0.63 cfs 774 cf Tertiary=0.02 cfs 2,132 cf Outflow=0.65 cfs 2,906 cf

Pond 3P: DIV-02 Peak Elev=56.91' Inflow=1.57 cfs 6,301 cf
Primary=0.87 cfs 5,677 cf Secondary=0.70 cfs 624 cf Outflow=1.57 cfs 6,301 cf

Pond 4P: Detention Basin 2 Peak Elev=56.91' Storage=3,230 cf Inflow=1.44 cfs 5,314 cf
Primary=0.07 cfs 5,310 cf Secondary=0.00 cfs 0 cf Outflow=0.07 cfs 5,310 cf

Pond 7P: Bio 2 Peak Elev=56.51' Storage=2,114 cf Inflow=1.21 cfs 3,843 cf
Primary=0.07 cfs 466 cf Secondary=0.00 cfs 0 cf Tertiary=0.03 cfs 3,377 cf Outflow=0.10 cfs 3,843 cf

Pond 8P: DIV-04 Peak Elev=48.47' Inflow=4.72 cfs 12,676 cf
Primary=4.72 cfs 11,744 cf Secondary=0.35 cfs 932 cf Outflow=4.72 cfs 12,677 cf

Pond 9P: Sand Filter 5 Peak Elev=49.80' Storage=1,425 cf Inflow=1.05 cfs 3,574 cf
Discarded=0.01 cfs 1,753 cf Primary=0.89 cfs 1,821 cf Secondary=0.00 cfs 0 cf Outflow=0.90 cfs 3,574 cf

Pond 10P: Bio 1 Peak Elev=44.55' Storage=1,829 cf Inflow=1.16 cfs 5,700 cf
Discarded=0.01 cfs 2,078 cf Primary=1.00 cfs 3,621 cf Secondary=0.00 cfs 0 cf Outflow=1.01 cfs 5,700 cf

Pond 12P: Infiltration Basin 1 Peak Elev=57.86' Storage=5,813 cf Inflow=3.83 cfs 13,414 cf
Discarded=0.07 cfs 8,817 cf Primary=1.85 cfs 4,596 cf Secondary=0.00 cfs 0 cf Outflow=1.92 cfs 13,414 cf

Pond 13P: Sand Filter 1 Peak Elev=47.00' Storage=12,989 cf Inflow=2.40 cfs 27,570 cf
Discarded=0.03 cfs 12,365 cf Primary=0.53 cfs 15,205 cf Secondary=0.00 cfs 0 cf Outflow=0.56 cfs 27,570 cf

Pond 14P: DIV-03 Peak Elev=44.97' Inflow=1.92 cfs 6,094 cf
Primary=1.16 cfs 5,700 cf Secondary=0.80 cfs 394 cf Outflow=1.92 cfs 6,094 cf

Pond 15P: Detention Basin 1 Peak Elev=44.98' Storage=12,766 cf Inflow=8.70 cfs 39,173 cf
Primary=1.87 cfs 39,110 cf Secondary=0.00 cfs 0 cf Tertiary=0.00 cfs 0 cf Outflow=1.87 cfs 39,110 cf

Pond 17P: Track and Field- stone base Peak Elev=50.60' Storage=3,057 cf Inflow=5.50 cfs 19,412 cf
Discarded=0.59 cfs 13,451 cf Primary=3.02 cfs 5,962 cf Outflow=3.62 cfs 19,412 cf

Pond 18P: Sand Filter 2 Peak Elev=55.29' Storage=4,409 cf Inflow=2.60 cfs 11,302 cf
Discarded=0.01 cfs 4,970 cf Primary=1.42 cfs 6,332 cf Secondary=0.00 cfs 0 cf Outflow=1.43 cfs 11,302 cf

Pond 19P: Sand Filter 3 Peak Elev=60.19' Storage=2,500 cf Inflow=1.01 cfs 3,194 cf
Discarded=0.01 cfs 3,194 cf Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Outflow=0.01 cfs 3,194 cf

Pond 20P: Sand Filter 4 Peak Elev=59.87' Storage=512 cf Inflow=0.83 cfs 3,326 cf
Outflow=0.34 cfs 3,326 cf

Pond 23P: UGIS-1 Peak Elev=48.47' Storage=10,125 cf Inflow=4.72 cfs 11,744 cf
Discarded=0.07 cfs 11,449 cf Primary=0.11 cfs 296 cf Outflow=0.19 cfs 11,744 cf

Pond 28P: DIV-01 Peak Elev=47.48' Inflow=8.74 cfs 40,359 cf
Primary=2.40 cfs 27,570 cf Secondary=6.33 cfs 12,790 cf Outflow=8.74 cfs 40,359 cf

Pond 33P: Wet Swale Peak Elev=59.79' Storage=4,443 cf Inflow=2.89 cfs 9,419 cf
Discarded=0.01 cfs 4,851 cf Primary=1.33 cfs 4,568 cf Secondary=0.00 cfs 0 cf Outflow=1.34 cfs 9,419 cf

Pond 35P: Track and Field-manifold Peak Elev=49.31' Storage=2,280 cf Inflow=6.18 cfs 19,061 cf
Discarded=0.47 cfs 6,385 cf Primary=4.72 cfs 12,676 cf Outflow=5.19 cfs 19,061 cf

Link 2L: DP 1.1 - Culvert 1 Inflow=7.45 cfs 37,004 cf
Primary=7.45 cfs 37,004 cf

Link 3L: DP 1.2 - Culvert 2 Inflow=8.27 cfs 42,830 cf
Primary=8.27 cfs 42,830 cf

Link 4L: DP 1.3 - Culvert 3 Inflow=8.64 cfs 45,203 cf
Primary=8.64 cfs 45,203 cf

Link 5L: DP 1.4 - Silver Creek East Branch Inflow=16.36 cfs 91,018 cf
Primary=16.36 cfs 91,018 cf

Link 6L: DP 2.1 - West Wetland Inflow=3.09 cfs 49,121 cf
Primary=3.09 cfs 49,121 cf

Link 7L: DP 2.2 - Silver Creek West Branch Inflow=4.44 cfs 63,452 cf
Primary=4.44 cfs 63,452 cf

Total Runoff Area = 2,076,121 sf Runoff Volume = 225,296 cf Average Runoff Depth = 1.30"
69.65% Pervious = 1,445,943 sf 30.35% Impervious = 630,178 sf

Summary for Subcatchment PDA-1.1A: Subcat PDA-1.1A

Runoff = 7.45 cfs @ 12.32 hrs, Volume= 37,004 cf, Depth= 0.93"
Routed to Link 2L : DP 1.1 - Culvert 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
90,334	74	>75% Grass cover, Good, HSG C
38,424	80	>75% Grass cover, Good, HSG D
4,538	87	Dirt roads, HSG C
1,510	89	Dirt roads, HSG D
1,040	98	Paved parking, HSG D
6,366	98	Unconnected pavement, HSG C
776	98	Unconnected pavement, HSG D
33,631	70	Woods, Good, HSG C
298,387	77	Woods, Good, HSG D
475,005	77	Weighted Average
466,824	76	98.28% Pervious Area
8,181	98	1.72% Impervious Area
7,142		87.29% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
8.4	351	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.1	451	Total			

Pro-Hydro
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Hydrograph for Subcatchment PDA-1.1A: Subcat PDA-1.1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.43	**5.89**
15.00	2.39	0.67	0.77
17.50	2.57	0.79	0.39
20.00	2.68	0.86	0.27
22.50	**2.76**	**0.91**	0.22
25.00	**2.80**	**0.93**	0.00
27.50	2.80	0.93	0.00
30.00	2.80	0.93	0.00
32.50	2.80	0.93	0.00
35.00	2.80	0.93	0.00
37.50	2.80	0.93	0.00
40.00	2.80	0.93	0.00
42.50	2.80	0.93	0.00
45.00	2.80	0.93	0.00
47.50	2.80	0.93	0.00
50.00	2.80	0.93	0.00
52.50	2.80	0.93	0.00
55.00	2.80	0.93	0.00
57.50	2.80	0.93	0.00
60.00	2.80	0.93	0.00
62.50	2.80	0.93	0.00
65.00	2.80	0.93	0.00
67.50	2.80	0.93	0.00
70.00	2.80	0.93	0.00
72.50	2.80	0.93	0.00
75.00	2.80	0.93	0.00
77.50	2.80	0.93	0.00
80.00	2.80	0.93	0.00
82.50	2.80	0.93	0.00
85.00	2.80	0.93	0.00
87.50	2.80	0.93	0.00
90.00	2.80	0.93	0.00
92.50	2.80	0.93	0.00
95.00	2.80	0.93	0.00
97.50	2.80	0.93	0.00
100.00	2.80	0.93	0.00
102.50	2.80	0.93	0.00
105.00	2.80	0.93	0.00
107.50	2.80	0.93	0.00
110.00	2.80	0.93	0.00
112.50	2.80	0.93	0.00
115.00	2.80	0.93	0.00
117.50	2.80	0.93	0.00
120.00	2.80	0.93	0.00
122.50	2.80	0.93	0.00
125.00	2.80	0.93	0.00
127.50	2.80	0.93	0.00
130.00	2.80	0.93	0.00
132.50	2.80	0.93	0.00
135.00	2.80	0.93	0.00
137.50	2.80	0.93	0.00
140.00	2.80	0.93	0.00
142.50	2.80	0.93	0.00
145.00	2.80	0.93	0.00
147.50	2.80	0.93	0.00
150.00	2.80	0.93	0.00
152.50	2.80	0.93	0.00
155.00	2.80	0.93	0.00
157.50	2.80	0.93	0.00
160.00	2.80	0.93	0.00
162.50	2.80	0.93	0.00
165.00	2.80	0.93	0.00
167.50	2.80	0.93	0.00
170.00	2.80	0.93	0.00
172.50	2.80	0.93	0.00
175.00	2.80	0.93	0.00
177.50	2.80	0.93	0.00
180.00	2.80	0.93	0.00
182.50	2.80	0.93	0.00
185.00	2.80	0.93	0.00
187.50	2.80	0.93	0.00
190.00	2.80	0.93	0.00
192.50	2.80	0.93	0.00
195.00	2.80	0.93	0.00
197.50	2.80	0.93	0.00
200.00	2.80	0.93	0.00
202.50	2.80	0.93	0.00
205.00	2.80	0.93	0.00
207.50	2.80	0.93	0.00
210.00	2.80	0.93	0.00
212.50	2.80	0.93	0.00
215.00	2.80	0.93	0.00
217.50	2.80	0.93	0.00
220.00	2.80	0.93	0.00
222.50	2.80	0.93	0.00
225.00	2.80	0.93	0.00
227.50	2.80	0.93	0.00
230.00	2.80	0.93	0.00
232.50	2.80	0.93	0.00
235.00	2.80	0.93	0.00
237.50	2.80	0.93	0.00
240.00	2.80	0.93	0.00

Summary for Subcatchment PDA-1.1B: Subcat PDA-1.1B

Runoff = 0.61 cfs @ 12.20 hrs, Volume= 2,499 cf, Depth= 0.99"
Routed to Link 3L : DP 1.2 - Culvert 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
19,238	74	>75% Grass cover, Good, HSG C
5,415	80	>75% Grass cover, Good, HSG D
5,665	87	Dirt roads, HSG C
8	98	Paved parking, HSG C
7	98	Paved parking, HSG D
30,333	78	Weighted Average
30,318	78	99.95% Pervious Area
15	98	0.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.4	26	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	126	Total			

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Hydrograph for Subcatchment PDA-1.1B: Subcat PDA-1.1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.47	**0.31**
15.00	2.39	0.72	0.05
17.50	2.57	0.84	0.03
20.00	2.68	0.91	0.02
22.50	**2.76**	**0.96**	0.01
25.00	**2.80**	**0.99**	0.00
27.50	2.80	0.99	0.00
30.00	2.80	0.99	0.00
32.50	2.80	0.99	0.00
35.00	2.80	0.99	0.00
37.50	2.80	0.99	0.00
40.00	2.80	0.99	0.00
42.50	2.80	0.99	0.00
45.00	2.80	0.99	0.00
47.50	2.80	0.99	0.00
50.00	2.80	0.99	0.00
52.50	2.80	0.99	0.00
55.00	2.80	0.99	0.00
57.50	2.80	0.99	0.00
60.00	2.80	0.99	0.00
62.50	2.80	0.99	0.00
65.00	2.80	0.99	0.00
67.50	2.80	0.99	0.00
70.00	2.80	0.99	0.00
72.50	2.80	0.99	0.00
75.00	2.80	0.99	0.00
77.50	2.80	0.99	0.00
80.00	2.80	0.99	0.00
82.50	2.80	0.99	0.00
85.00	2.80	0.99	0.00
87.50	2.80	0.99	0.00
90.00	2.80	0.99	0.00
92.50	2.80	0.99	0.00
95.00	2.80	0.99	0.00
97.50	2.80	0.99	0.00
100.00	2.80	0.99	0.00
102.50	2.80	0.99	0.00
105.00	2.80	0.99	0.00
107.50	2.80	0.99	0.00
110.00	2.80	0.99	0.00
112.50	2.80	0.99	0.00
115.00	2.80	0.99	0.00
117.50	2.80	0.99	0.00
120.00	2.80	0.99	0.00
122.50	2.80	0.99	0.00
125.00	2.80	0.99	0.00
127.50	2.80	0.99	0.00
130.00	2.80	0.99	0.00
132.50	2.80	0.99	0.00
135.00	2.80	0.99	0.00
137.50	2.80	0.99	0.00
140.00	2.80	0.99	0.00
142.50	2.80	0.99	0.00
145.00	2.80	0.99	0.00
147.50	2.80	0.99	0.00
150.00	2.80	0.99	0.00
152.50	2.80	0.99	0.00
155.00	2.80	0.99	0.00
157.50	2.80	0.99	0.00
160.00	2.80	0.99	0.00
162.50	2.80	0.99	0.00
165.00	2.80	0.99	0.00
167.50	2.80	0.99	0.00
170.00	2.80	0.99	0.00
172.50	2.80	0.99	0.00
175.00	2.80	0.99	0.00
177.50	2.80	0.99	0.00
180.00	2.80	0.99	0.00
182.50	2.80	0.99	0.00
185.00	2.80	0.99	0.00
187.50	2.80	0.99	0.00
190.00	2.80	0.99	0.00
192.50	2.80	0.99	0.00
195.00	2.80	0.99	0.00
197.50	2.80	0.99	0.00
200.00	2.80	0.99	0.00
202.50	2.80	0.99	0.00
205.00	2.80	0.99	0.00
207.50	2.80	0.99	0.00
210.00	2.80	0.99	0.00
212.50	2.80	0.99	0.00
215.00	2.80	0.99	0.00
217.50	2.80	0.99	0.00
220.00	2.80	0.99	0.00
222.50	2.80	0.99	0.00
225.00	2.80	0.99	0.00
227.50	2.80	0.99	0.00
230.00	2.80	0.99	0.00
232.50	2.80	0.99	0.00
235.00	2.80	0.99	0.00
237.50	2.80	0.99	0.00
240.00	2.80	0.99	0.00

Summary for Subcatchment PDA-1.2A: Subcat PDA-1.2A

Runoff = 0.71 cfs @ 12.11 hrs, Volume= 2,374 cf, Depth= 1.10"
Routed to Link 4L : DP 1.3 - Culvert 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Adj	Description
9,020	74		>75% Grass cover, Good, HSG C
13,051	80		>75% Grass cover, Good, HSG D
1,436	98		Paved parking, HSG C
1,771	98		Paved parking, HSG D
0	98		Roofs, HSG C
567	98		Unconnected pavement, HSG C
25,845	81	80	Weighted Average, UI Adjusted
22,071	78	78	85.40% Pervious Area
3,775	98	98	14.60% Impervious Area
567			15.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	54	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.3	6	0.3300	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.3	5	0.2000	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.8	8	0.5000	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.30"
7.3	73	Total			

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Hydrograph for Subcatchment PDA-1.2A: Subcat PDA-1.2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.54	**0.22**
15.00	2.39	0.81	0.04
17.50	2.57	0.94	0.02
20.00	2.68	1.02	0.02
22.50	**2.76**	**1.07**	0.01
25.00	**2.80**	**1.10**	0.00
27.50	2.80	1.10	0.00
30.00	2.80	1.10	0.00
32.50	2.80	1.10	0.00
35.00	2.80	1.10	0.00
37.50	2.80	1.10	0.00
40.00	2.80	1.10	0.00
42.50	2.80	1.10	0.00
45.00	2.80	1.10	0.00
47.50	2.80	1.10	0.00
50.00	2.80	1.10	0.00
52.50	2.80	1.10	0.00
55.00	2.80	1.10	0.00
57.50	2.80	1.10	0.00
60.00	2.80	1.10	0.00
62.50	2.80	1.10	0.00
65.00	2.80	1.10	0.00
67.50	2.80	1.10	0.00
70.00	2.80	1.10	0.00
72.50	2.80	1.10	0.00
75.00	2.80	1.10	0.00
77.50	2.80	1.10	0.00
80.00	2.80	1.10	0.00
82.50	2.80	1.10	0.00
85.00	2.80	1.10	0.00
87.50	2.80	1.10	0.00
90.00	2.80	1.10	0.00
92.50	2.80	1.10	0.00
95.00	2.80	1.10	0.00
97.50	2.80	1.10	0.00
100.00	2.80	1.10	0.00
102.50	2.80	1.10	0.00
105.00	2.80	1.10	0.00
107.50	2.80	1.10	0.00
110.00	2.80	1.10	0.00
112.50	2.80	1.10	0.00
115.00	2.80	1.10	0.00
117.50	2.80	1.10	0.00
120.00	2.80	1.10	0.00
122.50	2.80	1.10	0.00
125.00	2.80	1.10	0.00
127.50	2.80	1.10	0.00
130.00	2.80	1.10	0.00
132.50	2.80	1.10	0.00
135.00	2.80	1.10	0.00
137.50	2.80	1.10	0.00
140.00	2.80	1.10	0.00
142.50	2.80	1.10	0.00
145.00	2.80	1.10	0.00
147.50	2.80	1.10	0.00
150.00	2.80	1.10	0.00
152.50	2.80	1.10	0.00
155.00	2.80	1.10	0.00
157.50	2.80	1.10	0.00
160.00	2.80	1.10	0.00
162.50	2.80	1.10	0.00
165.00	2.80	1.10	0.00
167.50	2.80	1.10	0.00
170.00	2.80	1.10	0.00
172.50	2.80	1.10	0.00
175.00	2.80	1.10	0.00
177.50	2.80	1.10	0.00
180.00	2.80	1.10	0.00
182.50	2.80	1.10	0.00
185.00	2.80	1.10	0.00
187.50	2.80	1.10	0.00
190.00	2.80	1.10	0.00
192.50	2.80	1.10	0.00
195.00	2.80	1.10	0.00
197.50	2.80	1.10	0.00
200.00	2.80	1.10	0.00
202.50	2.80	1.10	0.00
205.00	2.80	1.10	0.00
207.50	2.80	1.10	0.00
210.00	2.80	1.10	0.00
212.50	2.80	1.10	0.00
215.00	2.80	1.10	0.00
217.50	2.80	1.10	0.00
220.00	2.80	1.10	0.00
222.50	2.80	1.10	0.00
225.00	2.80	1.10	0.00
227.50	2.80	1.10	0.00
230.00	2.80	1.10	0.00
232.50	2.80	1.10	0.00
235.00	2.80	1.10	0.00
237.50	2.80	1.10	0.00
240.00	2.80	1.10	0.00

Summary for Subcatchment PDA-1.3A: Subcat PDA-1.3A

Runoff = 2.89 cfs @ 12.10 hrs, Volume= 9,419 cf, Depth= 1.97"
Routed to Pond 33P : Wet Swale

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
10,911	74	>75% Grass cover, Good, HSG C
5,194	80	>75% Grass cover, Good, HSG D
41,056	98	Paved parking, HSG C
40	98	Paved parking, HSG D
0	98	Roofs, HSG C
94	98	Unconnected pavement, HSG C
57,295	92	Weighted Average
16,106	76	28.11% Pervious Area
41,189	98	71.89% Impervious Area
94		0.23% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	27	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
1.2	73	0.0100	0.99		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.30"
0.8	98	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.5	198	Total			

Hydrograph for Subcatchment PDA-1.3A: Subcat PDA-1.3A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.01	0.02
10.00	0.53	0.10	**0.09**
12.50	1.97	1.21	**0.68**
15.00	2.39	1.59	0.13
17.50	2.57	1.76	0.07
20.00	2.68	1.86	0.05
22.50	**2.76**	**1.94**	0.04
25.00	**2.80**	**1.97**	0.00
27.50	2.80	1.97	0.00
30.00	2.80	1.97	0.00
32.50	2.80	1.97	0.00
35.00	2.80	1.97	0.00
37.50	2.80	1.97	0.00
40.00	2.80	1.97	0.00
42.50	2.80	1.97	0.00
45.00	2.80	1.97	0.00
47.50	2.80	1.97	0.00
50.00	2.80	1.97	0.00
52.50	2.80	1.97	0.00
55.00	2.80	1.97	0.00
57.50	2.80	1.97	0.00
60.00	2.80	1.97	0.00
62.50	2.80	1.97	0.00
65.00	2.80	1.97	0.00
67.50	2.80	1.97	0.00
70.00	2.80	1.97	0.00
72.50	2.80	1.97	0.00
75.00	2.80	1.97	0.00
77.50	2.80	1.97	0.00
80.00	2.80	1.97	0.00
82.50	2.80	1.97	0.00
85.00	2.80	1.97	0.00
87.50	2.80	1.97	0.00
90.00	2.80	1.97	0.00
92.50	2.80	1.97	0.00
95.00	2.80	1.97	0.00
97.50	2.80	1.97	0.00
100.00	2.80	1.97	0.00
102.50	2.80	1.97	0.00
105.00	2.80	1.97	0.00
107.50	2.80	1.97	0.00
110.00	2.80	1.97	0.00
112.50	2.80	1.97	0.00
115.00	2.80	1.97	0.00
117.50	2.80	1.97	0.00
120.00	2.80	1.97	0.00
122.50	2.80	1.97	0.00
125.00	2.80	1.97	0.00
127.50	2.80	1.97	0.00
130.00	2.80	1.97	0.00
132.50	2.80	1.97	0.00
135.00	2.80	1.97	0.00
137.50	2.80	1.97	0.00
140.00	2.80	1.97	0.00
142.50	2.80	1.97	0.00
145.00	2.80	1.97	0.00
147.50	2.80	1.97	0.00
150.00	2.80	1.97	0.00
152.50	2.80	1.97	0.00
155.00	2.80	1.97	0.00
157.50	2.80	1.97	0.00
160.00	2.80	1.97	0.00
162.50	2.80	1.97	0.00
165.00	2.80	1.97	0.00
167.50	2.80	1.97	0.00
170.00	2.80	1.97	0.00
172.50	2.80	1.97	0.00
175.00	2.80	1.97	0.00
177.50	2.80	1.97	0.00
180.00	2.80	1.97	0.00
182.50	2.80	1.97	0.00
185.00	2.80	1.97	0.00
187.50	2.80	1.97	0.00
190.00	2.80	1.97	0.00
192.50	2.80	1.97	0.00
195.00	2.80	1.97	0.00
197.50	2.80	1.97	0.00
200.00	2.80	1.97	0.00
202.50	2.80	1.97	0.00
205.00	2.80	1.97	0.00
207.50	2.80	1.97	0.00
210.00	2.80	1.97	0.00
212.50	2.80	1.97	0.00
215.00	2.80	1.97	0.00
217.50	2.80	1.97	0.00
220.00	2.80	1.97	0.00
222.50	2.80	1.97	0.00
225.00	2.80	1.97	0.00
227.50	2.80	1.97	0.00
230.00	2.80	1.97	0.00
232.50	2.80	1.97	0.00
235.00	2.80	1.97	0.00
237.50	2.80	1.97	0.00
240.00	2.80	1.97	0.00

Summary for Subcatchment PDA-1.3C: Subcat PDA-1.3C

Runoff = 0.59 cfs @ 12.10 hrs, Volume= 1,900 cf, Depth= 1.35"
Routed to Pond 1P : Bio 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
9,827	74	>75% Grass cover, Good, HSG C
6,906	98	Paved parking, HSG C
0	98	Roofs, HSG C
117	98	Unconnected pavement, HSG C
16,850	84	Weighted Average
9,827	74	58.32% Pervious Area
7,023	98	41.68% Impervious Area
117		1.66% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	39	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.8	10	0.1000	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
6.8	49	Total			

Hydrograph for Subcatchment PDA-1.3C: Subcat PDA-1.3C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.01	**0.01**
12.50	1.97	0.72	**0.16**
15.00	2.39	1.03	0.03
17.50	2.57	1.17	0.02
20.00	2.68	1.26	0.01
22.50	**2.76**	**1.32**	0.01
25.00	**2.80**	**1.35**	0.00
27.50	2.80	1.35	0.00
30.00	2.80	1.35	0.00
32.50	2.80	1.35	0.00
35.00	2.80	1.35	0.00
37.50	2.80	1.35	0.00
40.00	2.80	1.35	0.00
42.50	2.80	1.35	0.00
45.00	2.80	1.35	0.00
47.50	2.80	1.35	0.00
50.00	2.80	1.35	0.00
52.50	2.80	1.35	0.00
55.00	2.80	1.35	0.00
57.50	2.80	1.35	0.00
60.00	2.80	1.35	0.00
62.50	2.80	1.35	0.00
65.00	2.80	1.35	0.00
67.50	2.80	1.35	0.00
70.00	2.80	1.35	0.00
72.50	2.80	1.35	0.00
75.00	2.80	1.35	0.00
77.50	2.80	1.35	0.00
80.00	2.80	1.35	0.00
82.50	2.80	1.35	0.00
85.00	2.80	1.35	0.00
87.50	2.80	1.35	0.00
90.00	2.80	1.35	0.00
92.50	2.80	1.35	0.00
95.00	2.80	1.35	0.00
97.50	2.80	1.35	0.00
100.00	2.80	1.35	0.00
102.50	2.80	1.35	0.00
105.00	2.80	1.35	0.00
107.50	2.80	1.35	0.00
110.00	2.80	1.35	0.00
112.50	2.80	1.35	0.00
115.00	2.80	1.35	0.00
117.50	2.80	1.35	0.00
120.00	2.80	1.35	0.00
122.50	2.80	1.35	0.00
125.00	2.80	1.35	0.00
127.50	2.80	1.35	0.00
130.00	2.80	1.35	0.00
132.50	2.80	1.35	0.00
135.00	2.80	1.35	0.00
137.50	2.80	1.35	0.00
140.00	2.80	1.35	0.00
142.50	2.80	1.35	0.00
145.00	2.80	1.35	0.00
147.50	2.80	1.35	0.00
150.00	2.80	1.35	0.00
152.50	2.80	1.35	0.00
155.00	2.80	1.35	0.00
157.50	2.80	1.35	0.00
160.00	2.80	1.35	0.00
162.50	2.80	1.35	0.00
165.00	2.80	1.35	0.00
167.50	2.80	1.35	0.00
170.00	2.80	1.35	0.00
172.50	2.80	1.35	0.00
175.00	2.80	1.35	0.00
177.50	2.80	1.35	0.00
180.00	2.80	1.35	0.00
182.50	2.80	1.35	0.00
185.00	2.80	1.35	0.00
187.50	2.80	1.35	0.00
190.00	2.80	1.35	0.00
192.50	2.80	1.35	0.00
195.00	2.80	1.35	0.00
197.50	2.80	1.35	0.00
200.00	2.80	1.35	0.00
202.50	2.80	1.35	0.00
205.00	2.80	1.35	0.00
207.50	2.80	1.35	0.00
210.00	2.80	1.35	0.00
212.50	2.80	1.35	0.00
215.00	2.80	1.35	0.00
217.50	2.80	1.35	0.00
220.00	2.80	1.35	0.00
222.50	2.80	1.35	0.00
225.00	2.80	1.35	0.00
227.50	2.80	1.35	0.00
230.00	2.80	1.35	0.00
232.50	2.80	1.35	0.00
235.00	2.80	1.35	0.00
237.50	2.80	1.35	0.00
240.00	2.80	1.35	0.00

Summary for Subcatchment PDA-1.3D: Subcat PDA-1.3D

Runoff = 0.26 cfs @ 12.09 hrs, Volume= 812 cf, Depth= 1.42"
Routed to Pond 2P : Bio 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
3,766	74	>75% Grass cover, Good, HSG C
3,085	98	Paved parking, HSG C
0	98	Roofs, HSG C
6,850	85	Weighted Average
3,766	74	54.97% Pervious Area
3,085	98	45.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Pro-Hydro
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Hydrograph for Subcatchment PDA-1.3D: Subcat PDA-1.3D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.02	**0.00**
12.50	1.97	0.77	**0.06**
15.00	2.39	1.09	0.01
17.50	2.57	1.24	0.01
20.00	2.68	1.32	0.00
22.50	**2.76**	**1.39**	0.00
25.00	**2.80**	**1.42**	0.00
27.50	2.80	1.42	0.00
30.00	2.80	1.42	0.00
32.50	2.80	1.42	0.00
35.00	2.80	1.42	0.00
37.50	2.80	1.42	0.00
40.00	2.80	1.42	0.00
42.50	2.80	1.42	0.00
45.00	2.80	1.42	0.00
47.50	2.80	1.42	0.00
50.00	2.80	1.42	0.00
52.50	2.80	1.42	0.00
55.00	2.80	1.42	0.00
57.50	2.80	1.42	0.00
60.00	2.80	1.42	0.00
62.50	2.80	1.42	0.00
65.00	2.80	1.42	0.00
67.50	2.80	1.42	0.00
70.00	2.80	1.42	0.00
72.50	2.80	1.42	0.00
75.00	2.80	1.42	0.00
77.50	2.80	1.42	0.00
80.00	2.80	1.42	0.00
82.50	2.80	1.42	0.00
85.00	2.80	1.42	0.00
87.50	2.80	1.42	0.00
90.00	2.80	1.42	0.00
92.50	2.80	1.42	0.00
95.00	2.80	1.42	0.00
97.50	2.80	1.42	0.00
100.00	2.80	1.42	0.00
102.50	2.80	1.42	0.00
105.00	2.80	1.42	0.00
107.50	2.80	1.42	0.00
110.00	2.80	1.42	0.00
112.50	2.80	1.42	0.00
115.00	2.80	1.42	0.00
117.50	2.80	1.42	0.00
120.00	2.80	1.42	0.00
122.50	2.80	1.42	0.00
125.00	2.80	1.42	0.00
127.50	2.80	1.42	0.00
130.00	2.80	1.42	0.00
132.50	2.80	1.42	0.00
135.00	2.80	1.42	0.00
137.50	2.80	1.42	0.00
140.00	2.80	1.42	0.00
142.50	2.80	1.42	0.00
145.00	2.80	1.42	0.00
147.50	2.80	1.42	0.00
150.00	2.80	1.42	0.00
152.50	2.80	1.42	0.00
155.00	2.80	1.42	0.00
157.50	2.80	1.42	0.00
160.00	2.80	1.42	0.00
162.50	2.80	1.42	0.00
165.00	2.80	1.42	0.00
167.50	2.80	1.42	0.00
170.00	2.80	1.42	0.00
172.50	2.80	1.42	0.00
175.00	2.80	1.42	0.00
177.50	2.80	1.42	0.00
180.00	2.80	1.42	0.00
182.50	2.80	1.42	0.00
185.00	2.80	1.42	0.00
187.50	2.80	1.42	0.00
190.00	2.80	1.42	0.00
192.50	2.80	1.42	0.00
195.00	2.80	1.42	0.00
197.50	2.80	1.42	0.00
200.00	2.80	1.42	0.00
202.50	2.80	1.42	0.00
205.00	2.80	1.42	0.00
207.50	2.80	1.42	0.00
210.00	2.80	1.42	0.00
212.50	2.80	1.42	0.00
215.00	2.80	1.42	0.00
217.50	2.80	1.42	0.00
220.00	2.80	1.42	0.00
222.50	2.80	1.42	0.00
225.00	2.80	1.42	0.00
227.50	2.80	1.42	0.00
230.00	2.80	1.42	0.00
232.50	2.80	1.42	0.00
235.00	2.80	1.42	0.00
237.50	2.80	1.42	0.00
240.00	2.80	1.42	0.00

Summary for Subcatchment PDA-1.4A: Subcat PDA-1.4A

Runoff = 0.83 cfs @ 12.19 hrs, Volume= 3,326 cf, Depth= 1.29"
Routed to Pond 20P : Sand Filter 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
14,884	74	>75% Grass cover, Good, HSG C
2,931	80	>75% Grass cover, Good, HSG D
5,758	87	Dirt roads, HSG C
6	89	Dirt roads, HSG D
2,675	98	Paved parking, HSG C
4,570	98	Paved parking, HSG D
183	98	Unconnected pavement, HSG C
31,007	83	Weighted Average
23,579	78	76.05% Pervious Area
7,428	98	23.95% Impervious Area
183		2.46% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.7	44	0.0250	1.11		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	144	Total			

Hydrograph for Subcatchment PDA-1.4A: Subcat PDA-1.4A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.01	**0.01**
12.50	1.97	0.67	**0.40**
15.00	2.39	0.97	0.06
17.50	2.57	1.11	0.03
20.00	2.68	1.19	0.02
22.50	**2.76**	**1.26**	0.02
25.00	**2.80**	**1.29**	0.00
27.50	2.80	1.29	0.00
30.00	2.80	1.29	0.00
32.50	2.80	1.29	0.00
35.00	2.80	1.29	0.00
37.50	2.80	1.29	0.00
40.00	2.80	1.29	0.00
42.50	2.80	1.29	0.00
45.00	2.80	1.29	0.00
47.50	2.80	1.29	0.00
50.00	2.80	1.29	0.00
52.50	2.80	1.29	0.00
55.00	2.80	1.29	0.00
57.50	2.80	1.29	0.00
60.00	2.80	1.29	0.00
62.50	2.80	1.29	0.00
65.00	2.80	1.29	0.00
67.50	2.80	1.29	0.00
70.00	2.80	1.29	0.00
72.50	2.80	1.29	0.00
75.00	2.80	1.29	0.00
77.50	2.80	1.29	0.00
80.00	2.80	1.29	0.00
82.50	2.80	1.29	0.00
85.00	2.80	1.29	0.00
87.50	2.80	1.29	0.00
90.00	2.80	1.29	0.00
92.50	2.80	1.29	0.00
95.00	2.80	1.29	0.00
97.50	2.80	1.29	0.00
100.00	2.80	1.29	0.00
102.50	2.80	1.29	0.00
105.00	2.80	1.29	0.00
107.50	2.80	1.29	0.00
110.00	2.80	1.29	0.00
112.50	2.80	1.29	0.00
115.00	2.80	1.29	0.00
117.50	2.80	1.29	0.00
120.00	2.80	1.29	0.00
122.50	2.80	1.29	0.00
125.00	2.80	1.29	0.00
127.50	2.80	1.29	0.00
130.00	2.80	1.29	0.00
132.50	2.80	1.29	0.00
135.00	2.80	1.29	0.00
137.50	2.80	1.29	0.00
140.00	2.80	1.29	0.00
142.50	2.80	1.29	0.00
145.00	2.80	1.29	0.00
147.50	2.80	1.29	0.00
150.00	2.80	1.29	0.00
152.50	2.80	1.29	0.00
155.00	2.80	1.29	0.00
157.50	2.80	1.29	0.00
160.00	2.80	1.29	0.00
162.50	2.80	1.29	0.00
165.00	2.80	1.29	0.00
167.50	2.80	1.29	0.00
170.00	2.80	1.29	0.00
172.50	2.80	1.29	0.00
175.00	2.80	1.29	0.00
177.50	2.80	1.29	0.00
180.00	2.80	1.29	0.00
182.50	2.80	1.29	0.00
185.00	2.80	1.29	0.00
187.50	2.80	1.29	0.00
190.00	2.80	1.29	0.00
192.50	2.80	1.29	0.00
195.00	2.80	1.29	0.00
197.50	2.80	1.29	0.00
200.00	2.80	1.29	0.00
202.50	2.80	1.29	0.00
205.00	2.80	1.29	0.00
207.50	2.80	1.29	0.00
210.00	2.80	1.29	0.00
212.50	2.80	1.29	0.00
215.00	2.80	1.29	0.00
217.50	2.80	1.29	0.00
220.00	2.80	1.29	0.00
222.50	2.80	1.29	0.00
225.00	2.80	1.29	0.00
227.50	2.80	1.29	0.00
230.00	2.80	1.29	0.00
232.50	2.80	1.29	0.00
235.00	2.80	1.29	0.00
237.50	2.80	1.29	0.00
240.00	2.80	1.29	0.00

Summary for Subcatchment PDA-1.4B: Subcat PDA-1.4B

Runoff = 1.57 cfs @ 12.20 hrs, Volume= 6,301 cf, Depth= 1.42"
Routed to Pond 3P : DIV-02

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
25,747	74	>75% Grass cover, Good, HSG C
7,636	87	Dirt roads, HSG C
17,354	98	Paved parking, HSG C
2,443	98	Unconnected pavement, HSG C
53,181	85	Weighted Average
33,383	77	62.77% Pervious Area
19,797	98	37.23% Impervious Area
2,443		12.34% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	58	0.0100	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
5.7	40	0.0120	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
13.9	98	Total			

Hydrograph for Subcatchment PDA-1.4B: Subcat PDA-1.4B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.02	**0.02**
12.50	1.97	0.77	**0.76**
15.00	2.39	1.09	0.11
17.50	2.57	1.24	0.05
20.00	2.68	1.32	0.04
22.50	**2.76**	**1.39**	0.03
25.00	**2.80**	**1.42**	0.00
27.50	2.80	1.42	0.00
30.00	2.80	1.42	0.00
32.50	2.80	1.42	0.00
35.00	2.80	1.42	0.00
37.50	2.80	1.42	0.00
40.00	2.80	1.42	0.00
42.50	2.80	1.42	0.00
45.00	2.80	1.42	0.00
47.50	2.80	1.42	0.00
50.00	2.80	1.42	0.00
52.50	2.80	1.42	0.00
55.00	2.80	1.42	0.00
57.50	2.80	1.42	0.00
60.00	2.80	1.42	0.00
62.50	2.80	1.42	0.00
65.00	2.80	1.42	0.00
67.50	2.80	1.42	0.00
70.00	2.80	1.42	0.00
72.50	2.80	1.42	0.00
75.00	2.80	1.42	0.00
77.50	2.80	1.42	0.00
80.00	2.80	1.42	0.00
82.50	2.80	1.42	0.00
85.00	2.80	1.42	0.00
87.50	2.80	1.42	0.00
90.00	2.80	1.42	0.00
92.50	2.80	1.42	0.00
95.00	2.80	1.42	0.00
97.50	2.80	1.42	0.00
100.00	2.80	1.42	0.00
102.50	2.80	1.42	0.00
105.00	2.80	1.42	0.00
107.50	2.80	1.42	0.00
110.00	2.80	1.42	0.00
112.50	2.80	1.42	0.00
115.00	2.80	1.42	0.00
117.50	2.80	1.42	0.00
120.00	2.80	1.42	0.00
122.50	2.80	1.42	0.00
125.00	2.80	1.42	0.00
127.50	2.80	1.42	0.00
130.00	2.80	1.42	0.00
132.50	2.80	1.42	0.00
135.00	2.80	1.42	0.00
137.50	2.80	1.42	0.00
140.00	2.80	1.42	0.00
142.50	2.80	1.42	0.00
145.00	2.80	1.42	0.00
147.50	2.80	1.42	0.00
150.00	2.80	1.42	0.00
152.50	2.80	1.42	0.00
155.00	2.80	1.42	0.00
157.50	2.80	1.42	0.00
160.00	2.80	1.42	0.00
162.50	2.80	1.42	0.00
165.00	2.80	1.42	0.00
167.50	2.80	1.42	0.00
170.00	2.80	1.42	0.00
172.50	2.80	1.42	0.00
175.00	2.80	1.42	0.00
177.50	2.80	1.42	0.00
180.00	2.80	1.42	0.00
182.50	2.80	1.42	0.00
185.00	2.80	1.42	0.00
187.50	2.80	1.42	0.00
190.00	2.80	1.42	0.00
192.50	2.80	1.42	0.00
195.00	2.80	1.42	0.00
197.50	2.80	1.42	0.00
200.00	2.80	1.42	0.00
202.50	2.80	1.42	0.00
205.00	2.80	1.42	0.00
207.50	2.80	1.42	0.00
210.00	2.80	1.42	0.00
212.50	2.80	1.42	0.00
215.00	2.80	1.42	0.00
217.50	2.80	1.42	0.00
220.00	2.80	1.42	0.00
222.50	2.80	1.42	0.00
225.00	2.80	1.42	0.00
227.50	2.80	1.42	0.00
230.00	2.80	1.42	0.00
232.50	2.80	1.42	0.00
235.00	2.80	1.42	0.00
237.50	2.80	1.42	0.00
240.00	2.80	1.42	0.00

Summary for Subcatchment PDA-1.4C: Subcat PDA-1.4C

Runoff = 1.21 cfs @ 12.09 hrs, Volume= 3,843 cf, Depth= 1.72"
Routed to Pond 7P : Bio 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
9,701	74	>75% Grass cover, Good, HSG C
17,108	98	Paved parking, HSG C
26,810	89	Weighted Average
9,701	74	36.19% Pervious Area
17,108	98	63.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4C: Subcat PDA-1.4C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.05	**0.03**
12.50	1.97	1.00	**0.29**
15.00	2.39	1.36	0.06
17.50	2.57	1.52	0.03
20.00	2.68	1.61	0.02
22.50	**2.76**	**1.69**	0.02
25.00	**2.80**	**1.72**	0.00
27.50	2.80	1.72	0.00
30.00	2.80	1.72	0.00
32.50	2.80	1.72	0.00
35.00	2.80	1.72	0.00
37.50	2.80	1.72	0.00
40.00	2.80	1.72	0.00
42.50	2.80	1.72	0.00
45.00	2.80	1.72	0.00
47.50	2.80	1.72	0.00
50.00	2.80	1.72	0.00
52.50	2.80	1.72	0.00
55.00	2.80	1.72	0.00
57.50	2.80	1.72	0.00
60.00	2.80	1.72	0.00
62.50	2.80	1.72	0.00
65.00	2.80	1.72	0.00
67.50	2.80	1.72	0.00
70.00	2.80	1.72	0.00
72.50	2.80	1.72	0.00
75.00	2.80	1.72	0.00
77.50	2.80	1.72	0.00
80.00	2.80	1.72	0.00
82.50	2.80	1.72	0.00
85.00	2.80	1.72	0.00
87.50	2.80	1.72	0.00
90.00	2.80	1.72	0.00
92.50	2.80	1.72	0.00
95.00	2.80	1.72	0.00
97.50	2.80	1.72	0.00
100.00	2.80	1.72	0.00
102.50	2.80	1.72	0.00
105.00	2.80	1.72	0.00
107.50	2.80	1.72	0.00
110.00	2.80	1.72	0.00
112.50	2.80	1.72	0.00
115.00	2.80	1.72	0.00
117.50	2.80	1.72	0.00
120.00	2.80	1.72	0.00
122.50	2.80	1.72	0.00
125.00	2.80	1.72	0.00
127.50	2.80	1.72	0.00
130.00	2.80	1.72	0.00
132.50	2.80	1.72	0.00
135.00	2.80	1.72	0.00
137.50	2.80	1.72	0.00
140.00	2.80	1.72	0.00
142.50	2.80	1.72	0.00
145.00	2.80	1.72	0.00
147.50	2.80	1.72	0.00
150.00	2.80	1.72	0.00
152.50	2.80	1.72	0.00
155.00	2.80	1.72	0.00
157.50	2.80	1.72	0.00
160.00	2.80	1.72	0.00
162.50	2.80	1.72	0.00
165.00	2.80	1.72	0.00
167.50	2.80	1.72	0.00
170.00	2.80	1.72	0.00
172.50	2.80	1.72	0.00
175.00	2.80	1.72	0.00
177.50	2.80	1.72	0.00
180.00	2.80	1.72	0.00
182.50	2.80	1.72	0.00
185.00	2.80	1.72	0.00
187.50	2.80	1.72	0.00
190.00	2.80	1.72	0.00
192.50	2.80	1.72	0.00
195.00	2.80	1.72	0.00
197.50	2.80	1.72	0.00
200.00	2.80	1.72	0.00
202.50	2.80	1.72	0.00
205.00	2.80	1.72	0.00
207.50	2.80	1.72	0.00
210.00	2.80	1.72	0.00
212.50	2.80	1.72	0.00
215.00	2.80	1.72	0.00
217.50	2.80	1.72	0.00
220.00	2.80	1.72	0.00
222.50	2.80	1.72	0.00
225.00	2.80	1.72	0.00
227.50	2.80	1.72	0.00
230.00	2.80	1.72	0.00
232.50	2.80	1.72	0.00
235.00	2.80	1.72	0.00
237.50	2.80	1.72	0.00
240.00	2.80	1.72	0.00

Summary for Subcatchment PDA-1.4D: Subcat PDA-1.4D

Runoff = 1.92 cfs @ 12.09 hrs, Volume= 6,094 cf, Depth= 1.72"
Routed to Pond 14P : DIV-03

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
14,109	74	>75% Grass cover, Good, HSG C
2,143	80	>75% Grass cover, Good, HSG D
1,138	96	Gravel surface, HSG C
25,125	98	Paved parking, HSG C
42,514	89	Weighted Average
17,389	76	40.90% Pervious Area
25,125	98	59.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Pro-Hydro
Prepared by Pare Corporation
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Hydrograph for Subcatchment PDA-1.4D: Subcat PDA-1.4D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.05	**0.04**
12.50	1.97	1.00	**0.45**
15.00	2.39	1.36	0.09
17.50	2.57	1.52	0.05
20.00	2.68	1.61	0.03
22.50	**2.76**	**1.69**	0.03
25.00	**2.80**	**1.72**	0.00
27.50	2.80	1.72	0.00
30.00	2.80	1.72	0.00
32.50	2.80	1.72	0.00
35.00	2.80	1.72	0.00
37.50	2.80	1.72	0.00
40.00	2.80	1.72	0.00
42.50	2.80	1.72	0.00
45.00	2.80	1.72	0.00
47.50	2.80	1.72	0.00
50.00	2.80	1.72	0.00
52.50	2.80	1.72	0.00
55.00	2.80	1.72	0.00
57.50	2.80	1.72	0.00
60.00	2.80	1.72	0.00
62.50	2.80	1.72	0.00
65.00	2.80	1.72	0.00
67.50	2.80	1.72	0.00
70.00	2.80	1.72	0.00
72.50	2.80	1.72	0.00
75.00	2.80	1.72	0.00
77.50	2.80	1.72	0.00
80.00	2.80	1.72	0.00
82.50	2.80	1.72	0.00
85.00	2.80	1.72	0.00
87.50	2.80	1.72	0.00
90.00	2.80	1.72	0.00
92.50	2.80	1.72	0.00
95.00	2.80	1.72	0.00
97.50	2.80	1.72	0.00
100.00	2.80	1.72	0.00
102.50	2.80	1.72	0.00
105.00	2.80	1.72	0.00
107.50	2.80	1.72	0.00
110.00	2.80	1.72	0.00
112.50	2.80	1.72	0.00
115.00	2.80	1.72	0.00
117.50	2.80	1.72	0.00
120.00	2.80	1.72	0.00
122.50	2.80	1.72	0.00
125.00	2.80	1.72	0.00
127.50	2.80	1.72	0.00
130.00	2.80	1.72	0.00
132.50	2.80	1.72	0.00
135.00	2.80	1.72	0.00
137.50	2.80	1.72	0.00
140.00	2.80	1.72	0.00
142.50	2.80	1.72	0.00
145.00	2.80	1.72	0.00
147.50	2.80	1.72	0.00
150.00	2.80	1.72	0.00
152.50	2.80	1.72	0.00
155.00	2.80	1.72	0.00
157.50	2.80	1.72	0.00
160.00	2.80	1.72	0.00
162.50	2.80	1.72	0.00
165.00	2.80	1.72	0.00
167.50	2.80	1.72	0.00
170.00	2.80	1.72	0.00
172.50	2.80	1.72	0.00
175.00	2.80	1.72	0.00
177.50	2.80	1.72	0.00
180.00	2.80	1.72	0.00
182.50	2.80	1.72	0.00
185.00	2.80	1.72	0.00
187.50	2.80	1.72	0.00
190.00	2.80	1.72	0.00
192.50	2.80	1.72	0.00
195.00	2.80	1.72	0.00
197.50	2.80	1.72	0.00
200.00	2.80	1.72	0.00
202.50	2.80	1.72	0.00
205.00	2.80	1.72	0.00
207.50	2.80	1.72	0.00
210.00	2.80	1.72	0.00
212.50	2.80	1.72	0.00
215.00	2.80	1.72	0.00
217.50	2.80	1.72	0.00
220.00	2.80	1.72	0.00
222.50	2.80	1.72	0.00
225.00	2.80	1.72	0.00
227.50	2.80	1.72	0.00
230.00	2.80	1.72	0.00
232.50	2.80	1.72	0.00
235.00	2.80	1.72	0.00
237.50	2.80	1.72	0.00
240.00	2.80	1.72	0.00

Summary for Subcatchment PDA-1.4E: Subcat PDA-1.4E

Runoff = 1.77 cfs @ 12.09 hrs, Volume= 5,625 cf, Depth= 1.72"
Routed to Pond 18P : Sand Filter 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
14,786	74	>75% Grass cover, Good, HSG C
7	80	>75% Grass cover, Good, HSG D
24,452	98	Paved parking, HSG C
39,245	89	Weighted Average
14,794	74	37.70% Pervious Area
24,452	98	62.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4E: Subcat PDA-1.4E

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.05	**0.04**
12.50	1.97	1.00	**0.42**
15.00	2.39	1.36	0.08
17.50	2.57	1.52	0.04
20.00	2.68	1.61	0.03
22.50	**2.76**	**1.69**	0.02
25.00	**2.80**	**1.72**	0.00
27.50	2.80	1.72	0.00
30.00	2.80	1.72	0.00
32.50	2.80	1.72	0.00
35.00	2.80	1.72	0.00
37.50	2.80	1.72	0.00
40.00	2.80	1.72	0.00
42.50	2.80	1.72	0.00
45.00	2.80	1.72	0.00
47.50	2.80	1.72	0.00
50.00	2.80	1.72	0.00
52.50	2.80	1.72	0.00
55.00	2.80	1.72	0.00
57.50	2.80	1.72	0.00
60.00	2.80	1.72	0.00
62.50	2.80	1.72	0.00
65.00	2.80	1.72	0.00
67.50	2.80	1.72	0.00
70.00	2.80	1.72	0.00
72.50	2.80	1.72	0.00
75.00	2.80	1.72	0.00
77.50	2.80	1.72	0.00
80.00	2.80	1.72	0.00
82.50	2.80	1.72	0.00
85.00	2.80	1.72	0.00
87.50	2.80	1.72	0.00
90.00	2.80	1.72	0.00
92.50	2.80	1.72	0.00
95.00	2.80	1.72	0.00
97.50	2.80	1.72	0.00
100.00	2.80	1.72	0.00
102.50	2.80	1.72	0.00
105.00	2.80	1.72	0.00
107.50	2.80	1.72	0.00
110.00	2.80	1.72	0.00
112.50	2.80	1.72	0.00
115.00	2.80	1.72	0.00
117.50	2.80	1.72	0.00
120.00	2.80	1.72	0.00
122.50	2.80	1.72	0.00
125.00	2.80	1.72	0.00
127.50	2.80	1.72	0.00
130.00	2.80	1.72	0.00
132.50	2.80	1.72	0.00
135.00	2.80	1.72	0.00
137.50	2.80	1.72	0.00
140.00	2.80	1.72	0.00
142.50	2.80	1.72	0.00
145.00	2.80	1.72	0.00
147.50	2.80	1.72	0.00
150.00	2.80	1.72	0.00
152.50	2.80	1.72	0.00
155.00	2.80	1.72	0.00
157.50	2.80	1.72	0.00
160.00	2.80	1.72	0.00
162.50	2.80	1.72	0.00
165.00	2.80	1.72	0.00
167.50	2.80	1.72	0.00
170.00	2.80	1.72	0.00
172.50	2.80	1.72	0.00
175.00	2.80	1.72	0.00
177.50	2.80	1.72	0.00
180.00	2.80	1.72	0.00
182.50	2.80	1.72	0.00
185.00	2.80	1.72	0.00
187.50	2.80	1.72	0.00
190.00	2.80	1.72	0.00
192.50	2.80	1.72	0.00
195.00	2.80	1.72	0.00
197.50	2.80	1.72	0.00
200.00	2.80	1.72	0.00
202.50	2.80	1.72	0.00
205.00	2.80	1.72	0.00
207.50	2.80	1.72	0.00
210.00	2.80	1.72	0.00
212.50	2.80	1.72	0.00
215.00	2.80	1.72	0.00
217.50	2.80	1.72	0.00
220.00	2.80	1.72	0.00
222.50	2.80	1.72	0.00
225.00	2.80	1.72	0.00
227.50	2.80	1.72	0.00
230.00	2.80	1.72	0.00
232.50	2.80	1.72	0.00
235.00	2.80	1.72	0.00
237.50	2.80	1.72	0.00
240.00	2.80	1.72	0.00

Summary for Subcatchment PDA-1.4F: Subcat PDA-1.4F

Runoff = 2.37 cfs @ 12.20 hrs, Volume= 9,637 cf, Depth= 1.57"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
33,264	74	>75% Grass cover, Good, HSG C
3	80	>75% Grass cover, Good, HSG D
36,167	98	Paved parking, HSG C
4,425	98	Paved parking, HSG D
73,858	87	Weighted Average
33,267	74	45.04% Pervious Area
40,591	98	54.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0105	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.2	42	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	204	0.0090	1.93		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.5	346	Total			

Hydrograph for Subcatchment PDA-1.4F: Subcat PDA-1.4F

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.03	**0.05**
12.50	1.97	0.88	**1.18**
15.00	2.39	1.22	0.16
17.50	2.57	1.37	0.08
20.00	2.68	1.46	0.05
22.50	**2.76**	**1.53**	0.04
25.00	**2.80**	**1.57**	0.00
27.50	2.80	1.57	0.00
30.00	2.80	1.57	0.00
32.50	2.80	1.57	0.00
35.00	2.80	1.57	0.00
37.50	2.80	1.57	0.00
40.00	2.80	1.57	0.00
42.50	2.80	1.57	0.00
45.00	2.80	1.57	0.00
47.50	2.80	1.57	0.00
50.00	2.80	1.57	0.00
52.50	2.80	1.57	0.00
55.00	2.80	1.57	0.00
57.50	2.80	1.57	0.00
60.00	2.80	1.57	0.00
62.50	2.80	1.57	0.00
65.00	2.80	1.57	0.00
67.50	2.80	1.57	0.00
70.00	2.80	1.57	0.00
72.50	2.80	1.57	0.00
75.00	2.80	1.57	0.00
77.50	2.80	1.57	0.00
80.00	2.80	1.57	0.00
82.50	2.80	1.57	0.00
85.00	2.80	1.57	0.00
87.50	2.80	1.57	0.00
90.00	2.80	1.57	0.00
92.50	2.80	1.57	0.00
95.00	2.80	1.57	0.00
97.50	2.80	1.57	0.00
100.00	2.80	1.57	0.00
102.50	2.80	1.57	0.00
105.00	2.80	1.57	0.00
107.50	2.80	1.57	0.00
110.00	2.80	1.57	0.00
112.50	2.80	1.57	0.00
115.00	2.80	1.57	0.00
117.50	2.80	1.57	0.00
120.00	2.80	1.57	0.00
122.50	2.80	1.57	0.00
125.00	2.80	1.57	0.00
127.50	2.80	1.57	0.00
130.00	2.80	1.57	0.00
132.50	2.80	1.57	0.00
135.00	2.80	1.57	0.00
137.50	2.80	1.57	0.00
140.00	2.80	1.57	0.00
142.50	2.80	1.57	0.00
145.00	2.80	1.57	0.00
147.50	2.80	1.57	0.00
150.00	2.80	1.57	0.00
152.50	2.80	1.57	0.00
155.00	2.80	1.57	0.00
157.50	2.80	1.57	0.00
160.00	2.80	1.57	0.00
162.50	2.80	1.57	0.00
165.00	2.80	1.57	0.00
167.50	2.80	1.57	0.00
170.00	2.80	1.57	0.00
172.50	2.80	1.57	0.00
175.00	2.80	1.57	0.00
177.50	2.80	1.57	0.00
180.00	2.80	1.57	0.00
182.50	2.80	1.57	0.00
185.00	2.80	1.57	0.00
187.50	2.80	1.57	0.00
190.00	2.80	1.57	0.00
192.50	2.80	1.57	0.00
195.00	2.80	1.57	0.00
197.50	2.80	1.57	0.00
200.00	2.80	1.57	0.00
202.50	2.80	1.57	0.00
205.00	2.80	1.57	0.00
207.50	2.80	1.57	0.00
210.00	2.80	1.57	0.00
212.50	2.80	1.57	0.00
215.00	2.80	1.57	0.00
217.50	2.80	1.57	0.00
220.00	2.80	1.57	0.00
222.50	2.80	1.57	0.00
225.00	2.80	1.57	0.00
227.50	2.80	1.57	0.00
230.00	2.80	1.57	0.00
232.50	2.80	1.57	0.00
235.00	2.80	1.57	0.00
237.50	2.80	1.57	0.00
240.00	2.80	1.57	0.00

Summary for Subcatchment PDA-1.4G: Subcat PDA-1.4G

Runoff = 1.01 cfs @ 12.09 hrs, Volume= 3,194 cf, Depth= 1.72"
Routed to Pond 19P : Sand Filter 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
8,361	74	>75% Grass cover, Good, HSG C
160	80	>75% Grass cover, Good, HSG D
13,763	98	Paved parking, HSG C
22,284	89	Weighted Average
8,521	74	38.24% Pervious Area
13,763	98	61.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4G: Subcat PDA-1.4G

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.05	**0.02**
12.50	1.97	1.00	**0.24**
15.00	2.39	1.36	0.05
17.50	2.57	1.52	0.02
20.00	2.68	1.61	0.02
22.50	**2.76**	**1.69**	0.01
25.00	**2.80**	**1.72**	0.00
27.50	2.80	1.72	0.00
30.00	2.80	1.72	0.00
32.50	2.80	1.72	0.00
35.00	2.80	1.72	0.00
37.50	2.80	1.72	0.00
40.00	2.80	1.72	0.00
42.50	2.80	1.72	0.00
45.00	2.80	1.72	0.00
47.50	2.80	1.72	0.00
50.00	2.80	1.72	0.00
52.50	2.80	1.72	0.00
55.00	2.80	1.72	0.00
57.50	2.80	1.72	0.00
60.00	2.80	1.72	0.00
62.50	2.80	1.72	0.00
65.00	2.80	1.72	0.00
67.50	2.80	1.72	0.00
70.00	2.80	1.72	0.00
72.50	2.80	1.72	0.00
75.00	2.80	1.72	0.00
77.50	2.80	1.72	0.00
80.00	2.80	1.72	0.00
82.50	2.80	1.72	0.00
85.00	2.80	1.72	0.00
87.50	2.80	1.72	0.00
90.00	2.80	1.72	0.00
92.50	2.80	1.72	0.00
95.00	2.80	1.72	0.00
97.50	2.80	1.72	0.00
100.00	2.80	1.72	0.00
102.50	2.80	1.72	0.00
105.00	2.80	1.72	0.00
107.50	2.80	1.72	0.00
110.00	2.80	1.72	0.00
112.50	2.80	1.72	0.00
115.00	2.80	1.72	0.00
117.50	2.80	1.72	0.00
120.00	2.80	1.72	0.00
122.50	2.80	1.72	0.00
125.00	2.80	1.72	0.00
127.50	2.80	1.72	0.00
130.00	2.80	1.72	0.00
132.50	2.80	1.72	0.00
135.00	2.80	1.72	0.00
137.50	2.80	1.72	0.00
140.00	2.80	1.72	0.00
142.50	2.80	1.72	0.00
145.00	2.80	1.72	0.00
147.50	2.80	1.72	0.00
150.00	2.80	1.72	0.00
152.50	2.80	1.72	0.00
155.00	2.80	1.72	0.00
157.50	2.80	1.72	0.00
160.00	2.80	1.72	0.00
162.50	2.80	1.72	0.00
165.00	2.80	1.72	0.00
167.50	2.80	1.72	0.00
170.00	2.80	1.72	0.00
172.50	2.80	1.72	0.00
175.00	2.80	1.72	0.00
177.50	2.80	1.72	0.00
180.00	2.80	1.72	0.00
182.50	2.80	1.72	0.00
185.00	2.80	1.72	0.00
187.50	2.80	1.72	0.00
190.00	2.80	1.72	0.00
192.50	2.80	1.72	0.00
195.00	2.80	1.72	0.00
197.50	2.80	1.72	0.00
200.00	2.80	1.72	0.00
202.50	2.80	1.72	0.00
205.00	2.80	1.72	0.00
207.50	2.80	1.72	0.00
210.00	2.80	1.72	0.00
212.50	2.80	1.72	0.00
215.00	2.80	1.72	0.00
217.50	2.80	1.72	0.00
220.00	2.80	1.72	0.00
222.50	2.80	1.72	0.00
225.00	2.80	1.72	0.00
227.50	2.80	1.72	0.00
230.00	2.80	1.72	0.00
232.50	2.80	1.72	0.00
235.00	2.80	1.72	0.00
237.50	2.80	1.72	0.00
240.00	2.80	1.72	0.00

Summary for Subcatchment PDA-1.4H: Subcat PDA-1.4H

Runoff = 0.22 cfs @ 12.10 hrs, Volume= 745 cf, Depth= 0.83"
Routed to Pond 4P : Detention Basin 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
9,974	74	>75% Grass cover, Good, HSG C
169	80	>75% Grass cover, Good, HSG D
600	98	Paved parking, HSG C
10,744	75	Weighted Average
10,143	74	94.41% Pervious Area
600	98	5.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Pro-Hydro
Prepared by Pare Corporation
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Hydrograph for Subcatchment PDA-1.4H: Subcat PDA-1.4H

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.36	**0.07**
15.00	2.39	0.59	0.02
17.50	2.57	0.69	0.01
20.00	2.68	0.76	0.01
22.50	**2.76**	**0.81**	0.00
25.00	**2.80**	**0.83**	0.00
27.50	2.80	0.83	0.00
30.00	2.80	0.83	0.00
32.50	2.80	0.83	0.00
35.00	2.80	0.83	0.00
37.50	2.80	0.83	0.00
40.00	2.80	0.83	0.00
42.50	2.80	0.83	0.00
45.00	2.80	0.83	0.00
47.50	2.80	0.83	0.00
50.00	2.80	0.83	0.00
52.50	2.80	0.83	0.00
55.00	2.80	0.83	0.00
57.50	2.80	0.83	0.00
60.00	2.80	0.83	0.00
62.50	2.80	0.83	0.00
65.00	2.80	0.83	0.00
67.50	2.80	0.83	0.00
70.00	2.80	0.83	0.00
72.50	2.80	0.83	0.00
75.00	2.80	0.83	0.00
77.50	2.80	0.83	0.00
80.00	2.80	0.83	0.00
82.50	2.80	0.83	0.00
85.00	2.80	0.83	0.00
87.50	2.80	0.83	0.00
90.00	2.80	0.83	0.00
92.50	2.80	0.83	0.00
95.00	2.80	0.83	0.00
97.50	2.80	0.83	0.00
100.00	2.80	0.83	0.00
102.50	2.80	0.83	0.00
105.00	2.80	0.83	0.00
107.50	2.80	0.83	0.00
110.00	2.80	0.83	0.00
112.50	2.80	0.83	0.00
115.00	2.80	0.83	0.00
117.50	2.80	0.83	0.00
120.00	2.80	0.83	0.00
122.50	2.80	0.83	0.00
125.00	2.80	0.83	0.00
127.50	2.80	0.83	0.00
130.00	2.80	0.83	0.00
132.50	2.80	0.83	0.00
135.00	2.80	0.83	0.00
137.50	2.80	0.83	0.00
140.00	2.80	0.83	0.00
142.50	2.80	0.83	0.00
145.00	2.80	0.83	0.00
147.50	2.80	0.83	0.00
150.00	2.80	0.83	0.00
152.50	2.80	0.83	0.00
155.00	2.80	0.83	0.00
157.50	2.80	0.83	0.00
160.00	2.80	0.83	0.00
162.50	2.80	0.83	0.00
165.00	2.80	0.83	0.00
167.50	2.80	0.83	0.00
170.00	2.80	0.83	0.00
172.50	2.80	0.83	0.00
175.00	2.80	0.83	0.00
177.50	2.80	0.83	0.00
180.00	2.80	0.83	0.00
182.50	2.80	0.83	0.00
185.00	2.80	0.83	0.00
187.50	2.80	0.83	0.00
190.00	2.80	0.83	0.00
192.50	2.80	0.83	0.00
195.00	2.80	0.83	0.00
197.50	2.80	0.83	0.00
200.00	2.80	0.83	0.00
202.50	2.80	0.83	0.00
205.00	2.80	0.83	0.00
207.50	2.80	0.83	0.00
210.00	2.80	0.83	0.00
212.50	2.80	0.83	0.00
215.00	2.80	0.83	0.00
217.50	2.80	0.83	0.00
220.00	2.80	0.83	0.00
222.50	2.80	0.83	0.00
225.00	2.80	0.83	0.00
227.50	2.80	0.83	0.00
230.00	2.80	0.83	0.00
232.50	2.80	0.83	0.00
235.00	2.80	0.83	0.00
237.50	2.80	0.83	0.00
240.00	2.80	0.83	0.00

Summary for Subcatchment PDA-1.4I: Subcat PDA-1.4I

Runoff = 0.30 cfs @ 12.10 hrs, Volume= 951 cf, Depth= 1.16"
Routed to Pond 12P : Infiltration Basin 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
6,972	74	>75% Grass cover, Good, HSG C
194	80	>75% Grass cover, Good, HSG D
2,658	98	Paved parking, HSG C
0	98	Roofs, HSG C
9,824	81	Weighted Average
7,166	74	72.94% Pervious Area
2,658	98	27.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4I: Subcat PDA-1.4I

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.58	**0.08**
15.00	2.39	0.87	0.02
17.50	2.57	1.00	0.01
20.00	2.68	1.07	0.01
22.50	**2.76**	**1.13**	0.00
25.00	**2.80**	**1.16**	0.00
27.50	2.80	1.16	0.00
30.00	2.80	1.16	0.00
32.50	2.80	1.16	0.00
35.00	2.80	1.16	0.00
37.50	2.80	1.16	0.00
40.00	2.80	1.16	0.00
42.50	2.80	1.16	0.00
45.00	2.80	1.16	0.00
47.50	2.80	1.16	0.00
50.00	2.80	1.16	0.00
52.50	2.80	1.16	0.00
55.00	2.80	1.16	0.00
57.50	2.80	1.16	0.00
60.00	2.80	1.16	0.00
62.50	2.80	1.16	0.00
65.00	2.80	1.16	0.00
67.50	2.80	1.16	0.00
70.00	2.80	1.16	0.00
72.50	2.80	1.16	0.00
75.00	2.80	1.16	0.00
77.50	2.80	1.16	0.00
80.00	2.80	1.16	0.00
82.50	2.80	1.16	0.00
85.00	2.80	1.16	0.00
87.50	2.80	1.16	0.00
90.00	2.80	1.16	0.00
92.50	2.80	1.16	0.00
95.00	2.80	1.16	0.00
97.50	2.80	1.16	0.00
100.00	2.80	1.16	0.00
102.50	2.80	1.16	0.00
105.00	2.80	1.16	0.00
107.50	2.80	1.16	0.00
110.00	2.80	1.16	0.00
112.50	2.80	1.16	0.00
115.00	2.80	1.16	0.00
117.50	2.80	1.16	0.00
120.00	2.80	1.16	0.00
122.50	2.80	1.16	0.00
125.00	2.80	1.16	0.00
127.50	2.80	1.16	0.00
130.00	2.80	1.16	0.00
132.50	2.80	1.16	0.00
135.00	2.80	1.16	0.00
137.50	2.80	1.16	0.00
140.00	2.80	1.16	0.00
142.50	2.80	1.16	0.00
145.00	2.80	1.16	0.00
147.50	2.80	1.16	0.00
150.00	2.80	1.16	0.00
152.50	2.80	1.16	0.00
155.00	2.80	1.16	0.00
157.50	2.80	1.16	0.00
160.00	2.80	1.16	0.00
162.50	2.80	1.16	0.00
165.00	2.80	1.16	0.00
167.50	2.80	1.16	0.00
170.00	2.80	1.16	0.00
172.50	2.80	1.16	0.00
175.00	2.80	1.16	0.00
177.50	2.80	1.16	0.00
180.00	2.80	1.16	0.00
182.50	2.80	1.16	0.00
185.00	2.80	1.16	0.00
187.50	2.80	1.16	0.00
190.00	2.80	1.16	0.00
192.50	2.80	1.16	0.00
195.00	2.80	1.16	0.00
197.50	2.80	1.16	0.00
200.00	2.80	1.16	0.00
202.50	2.80	1.16	0.00
205.00	2.80	1.16	0.00
207.50	2.80	1.16	0.00
210.00	2.80	1.16	0.00
212.50	2.80	1.16	0.00
215.00	2.80	1.16	0.00
217.50	2.80	1.16	0.00
220.00	2.80	1.16	0.00
222.50	2.80	1.16	0.00
225.00	2.80	1.16	0.00
227.50	2.80	1.16	0.00
230.00	2.80	1.16	0.00
232.50	2.80	1.16	0.00
235.00	2.80	1.16	0.00
237.50	2.80	1.16	0.00
240.00	2.80	1.16	0.00

Summary for Subcatchment PDA-1.4J: Subcat PDA-1.4J

Runoff = 1.60 cfs @ 12.10 hrs, Volume= 5,176 cf, Depth= 1.04"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
22,085	74	>75% Grass cover, Good, HSG C
32,367	80	>75% Grass cover, Good, HSG D
4,308	98	Paved parking, HSG C
392	98	Paved parking, HSG D
314	98	Unconnected pavement, HSG D
59,466	79	Weighted Average
54,452	78	91.57% Pervious Area
5,014	98	8.43% Impervious Area
314		6.27% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4J: Subcat PDA-1.4J

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.50	**0.44**
15.00	2.39	0.77	0.10
17.50	2.57	0.89	0.05
20.00	2.68	0.96	0.04
22.50	**2.76**	**1.02**	0.03
25.00	**2.80**	**1.04**	0.00
27.50	2.80	1.04	0.00
30.00	2.80	1.04	0.00
32.50	2.80	1.04	0.00
35.00	2.80	1.04	0.00
37.50	2.80	1.04	0.00
40.00	2.80	1.04	0.00
42.50	2.80	1.04	0.00
45.00	2.80	1.04	0.00
47.50	2.80	1.04	0.00
50.00	2.80	1.04	0.00
52.50	2.80	1.04	0.00
55.00	2.80	1.04	0.00
57.50	2.80	1.04	0.00
60.00	2.80	1.04	0.00
62.50	2.80	1.04	0.00
65.00	2.80	1.04	0.00
67.50	2.80	1.04	0.00
70.00	2.80	1.04	0.00
72.50	2.80	1.04	0.00
75.00	2.80	1.04	0.00
77.50	2.80	1.04	0.00
80.00	2.80	1.04	0.00
82.50	2.80	1.04	0.00
85.00	2.80	1.04	0.00
87.50	2.80	1.04	0.00
90.00	2.80	1.04	0.00
92.50	2.80	1.04	0.00
95.00	2.80	1.04	0.00
97.50	2.80	1.04	0.00
100.00	2.80	1.04	0.00
102.50	2.80	1.04	0.00
105.00	2.80	1.04	0.00
107.50	2.80	1.04	0.00
110.00	2.80	1.04	0.00
112.50	2.80	1.04	0.00
115.00	2.80	1.04	0.00
117.50	2.80	1.04	0.00
120.00	2.80	1.04	0.00
122.50	2.80	1.04	0.00
125.00	2.80	1.04	0.00
127.50	2.80	1.04	0.00
130.00	2.80	1.04	0.00
132.50	2.80	1.04	0.00
135.00	2.80	1.04	0.00
137.50	2.80	1.04	0.00
140.00	2.80	1.04	0.00
142.50	2.80	1.04	0.00
145.00	2.80	1.04	0.00
147.50	2.80	1.04	0.00
150.00	2.80	1.04	0.00
152.50	2.80	1.04	0.00
155.00	2.80	1.04	0.00
157.50	2.80	1.04	0.00
160.00	2.80	1.04	0.00
162.50	2.80	1.04	0.00
165.00	2.80	1.04	0.00
167.50	2.80	1.04	0.00
170.00	2.80	1.04	0.00
172.50	2.80	1.04	0.00
175.00	2.80	1.04	0.00
177.50	2.80	1.04	0.00
180.00	2.80	1.04	0.00
182.50	2.80	1.04	0.00
185.00	2.80	1.04	0.00
187.50	2.80	1.04	0.00
190.00	2.80	1.04	0.00
192.50	2.80	1.04	0.00
195.00	2.80	1.04	0.00
197.50	2.80	1.04	0.00
200.00	2.80	1.04	0.00
202.50	2.80	1.04	0.00
205.00	2.80	1.04	0.00
207.50	2.80	1.04	0.00
210.00	2.80	1.04	0.00
212.50	2.80	1.04	0.00
215.00	2.80	1.04	0.00
217.50	2.80	1.04	0.00
220.00	2.80	1.04	0.00
222.50	2.80	1.04	0.00
225.00	2.80	1.04	0.00
227.50	2.80	1.04	0.00
230.00	2.80	1.04	0.00
232.50	2.80	1.04	0.00
235.00	2.80	1.04	0.00
237.50	2.80	1.04	0.00
240.00	2.80	1.04	0.00

Summary for Subcatchment PDA-1.4K: Subcat PDA-1.4K

Runoff = 1.00 cfs @ 12.09 hrs, Volume= 3,246 cf, Depth= 2.06"
Routed to Pond 9P : Sand Filter 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
3,577	74	>75% Grass cover, Good, HSG C
173	80	>75% Grass cover, Good, HSG D
15,126	98	Paved parking, HSG C
18,876	93	Weighted Average
3,751	74	19.87% Pervious Area
15,126	98	80.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4K: Subcat PDA-1.4K

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.02	0.01
10.00	0.53	0.13	**0.03**
12.50	1.97	1.28	**0.22**
15.00	2.39	1.68	0.04
17.50	2.57	1.85	0.02
20.00	2.68	1.95	0.02
22.50	**2.76**	**2.03**	0.01
25.00	**2.80**	**2.06**	0.00
27.50	2.80	2.06	0.00
30.00	2.80	2.06	0.00
32.50	2.80	2.06	0.00
35.00	2.80	2.06	0.00
37.50	2.80	2.06	0.00
40.00	2.80	2.06	0.00
42.50	2.80	2.06	0.00
45.00	2.80	2.06	0.00
47.50	2.80	2.06	0.00
50.00	2.80	2.06	0.00
52.50	2.80	2.06	0.00
55.00	2.80	2.06	0.00
57.50	2.80	2.06	0.00
60.00	2.80	2.06	0.00
62.50	2.80	2.06	0.00
65.00	2.80	2.06	0.00
67.50	2.80	2.06	0.00
70.00	2.80	2.06	0.00
72.50	2.80	2.06	0.00
75.00	2.80	2.06	0.00
77.50	2.80	2.06	0.00
80.00	2.80	2.06	0.00
82.50	2.80	2.06	0.00
85.00	2.80	2.06	0.00
87.50	2.80	2.06	0.00
90.00	2.80	2.06	0.00
92.50	2.80	2.06	0.00
95.00	2.80	2.06	0.00
97.50	2.80	2.06	0.00
100.00	2.80	2.06	0.00
102.50	2.80	2.06	0.00
105.00	2.80	2.06	0.00
107.50	2.80	2.06	0.00
110.00	2.80	2.06	0.00
112.50	2.80	2.06	0.00
115.00	2.80	2.06	0.00
117.50	2.80	2.06	0.00
120.00	2.80	2.06	0.00
122.50	2.80	2.06	0.00
125.00	2.80	2.06	0.00
127.50	2.80	2.06	0.00
130.00	2.80	2.06	0.00
132.50	2.80	2.06	0.00
135.00	2.80	2.06	0.00
137.50	2.80	2.06	0.00
140.00	2.80	2.06	0.00
142.50	2.80	2.06	0.00
145.00	2.80	2.06	0.00
147.50	2.80	2.06	0.00
150.00	2.80	2.06	0.00
152.50	2.80	2.06	0.00
155.00	2.80	2.06	0.00
157.50	2.80	2.06	0.00
160.00	2.80	2.06	0.00
162.50	2.80	2.06	0.00
165.00	2.80	2.06	0.00
167.50	2.80	2.06	0.00
170.00	2.80	2.06	0.00
172.50	2.80	2.06	0.00
175.00	2.80	2.06	0.00
177.50	2.80	2.06	0.00
180.00	2.80	2.06	0.00
182.50	2.80	2.06	0.00
185.00	2.80	2.06	0.00
187.50	2.80	2.06	0.00
190.00	2.80	2.06	0.00
192.50	2.80	2.06	0.00
195.00	2.80	2.06	0.00
197.50	2.80	2.06	0.00
200.00	2.80	2.06	0.00
202.50	2.80	2.06	0.00
205.00	2.80	2.06	0.00
207.50	2.80	2.06	0.00
210.00	2.80	2.06	0.00
212.50	2.80	2.06	0.00
215.00	2.80	2.06	0.00
217.50	2.80	2.06	0.00
220.00	2.80	2.06	0.00
222.50	2.80	2.06	0.00
225.00	2.80	2.06	0.00
227.50	2.80	2.06	0.00
230.00	2.80	2.06	0.00
232.50	2.80	2.06	0.00
235.00	2.80	2.06	0.00
237.50	2.80	2.06	0.00
240.00	2.80	2.06	0.00

Summary for Subcatchment PDA-1.4L: Subcat PDA-1.4L

Runoff = 0.31 cfs @ 12.13 hrs, Volume= 1,100 cf, Depth= 1.10"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
9,069	74	>75% Grass cover, Good, HSG C
2,908	98	Paved parking, HSG C
1	98	Roofs, HSG C
11,978	80	Weighted Average
9,069	74	75.72% Pervious Area
2,909	98	24.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	32	0.0120	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
3.7	43	0.0400	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
8.5	75	Total			

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Hydrograph for Subcatchment PDA-1.4L: Subcat PDA-1.4L

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.54	**0.11**
15.00	2.39	0.81	0.02
17.50	2.57	0.94	0.01
20.00	2.68	1.02	0.01
22.50	**2.76**	**1.07**	0.01
25.00	**2.80**	**1.10**	0.00
27.50	2.80	1.10	0.00
30.00	2.80	1.10	0.00
32.50	2.80	1.10	0.00
35.00	2.80	1.10	0.00
37.50	2.80	1.10	0.00
40.00	2.80	1.10	0.00
42.50	2.80	1.10	0.00
45.00	2.80	1.10	0.00
47.50	2.80	1.10	0.00
50.00	2.80	1.10	0.00
52.50	2.80	1.10	0.00
55.00	2.80	1.10	0.00
57.50	2.80	1.10	0.00
60.00	2.80	1.10	0.00
62.50	2.80	1.10	0.00
65.00	2.80	1.10	0.00
67.50	2.80	1.10	0.00
70.00	2.80	1.10	0.00
72.50	2.80	1.10	0.00
75.00	2.80	1.10	0.00
77.50	2.80	1.10	0.00
80.00	2.80	1.10	0.00
82.50	2.80	1.10	0.00
85.00	2.80	1.10	0.00
87.50	2.80	1.10	0.00
90.00	2.80	1.10	0.00
92.50	2.80	1.10	0.00
95.00	2.80	1.10	0.00
97.50	2.80	1.10	0.00
100.00	2.80	1.10	0.00
102.50	2.80	1.10	0.00
105.00	2.80	1.10	0.00
107.50	2.80	1.10	0.00
110.00	2.80	1.10	0.00
112.50	2.80	1.10	0.00
115.00	2.80	1.10	0.00
117.50	2.80	1.10	0.00
120.00	2.80	1.10	0.00
122.50	2.80	1.10	0.00
125.00	2.80	1.10	0.00
127.50	2.80	1.10	0.00
130.00	2.80	1.10	0.00
132.50	2.80	1.10	0.00
135.00	2.80	1.10	0.00
137.50	2.80	1.10	0.00
140.00	2.80	1.10	0.00
142.50	2.80	1.10	0.00
145.00	2.80	1.10	0.00
147.50	2.80	1.10	0.00
150.00	2.80	1.10	0.00
152.50	2.80	1.10	0.00
155.00	2.80	1.10	0.00
157.50	2.80	1.10	0.00
160.00	2.80	1.10	0.00
162.50	2.80	1.10	0.00
165.00	2.80	1.10	0.00
167.50	2.80	1.10	0.00
170.00	2.80	1.10	0.00
172.50	2.80	1.10	0.00
175.00	2.80	1.10	0.00
177.50	2.80	1.10	0.00
180.00	2.80	1.10	0.00
182.50	2.80	1.10	0.00
185.00	2.80	1.10	0.00
187.50	2.80	1.10	0.00
190.00	2.80	1.10	0.00
192.50	2.80	1.10	0.00
195.00	2.80	1.10	0.00
197.50	2.80	1.10	0.00
200.00	2.80	1.10	0.00
202.50	2.80	1.10	0.00
205.00	2.80	1.10	0.00
207.50	2.80	1.10	0.00
210.00	2.80	1.10	0.00
212.50	2.80	1.10	0.00
215.00	2.80	1.10	0.00
217.50	2.80	1.10	0.00
220.00	2.80	1.10	0.00
222.50	2.80	1.10	0.00
225.00	2.80	1.10	0.00
227.50	2.80	1.10	0.00
230.00	2.80	1.10	0.00
232.50	2.80	1.10	0.00
235.00	2.80	1.10	0.00
237.50	2.80	1.10	0.00
240.00	2.80	1.10	0.00

Summary for Subcatchment PDA-1.4M: Subcat PDA-1.4M

Runoff = 0.08 cfs @ 12.22 hrs, Volume= 328 cf, Depth= 0.83"
Routed to Pond 9P : Sand Filter 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
4,536	74	>75% Grass cover, Good, HSG C
199	98	Paved parking, HSG C
4,734	75	Weighted Average
4,536	74	95.80% Pervious Area
199	98	4.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
1.6	66	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.3	166	Total			

Hydrograph for Subcatchment PDA-1.4M: Subcat PDA-1.4M

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.36	**0.04**
15.00	2.39	0.59	0.01
17.50	2.57	0.69	0.00
20.00	2.68	0.76	0.00
22.50	**2.76**	**0.81**	0.00
25.00	**2.80**	**0.83**	0.00
27.50	2.80	0.83	0.00
30.00	2.80	0.83	0.00
32.50	2.80	0.83	0.00
35.00	2.80	0.83	0.00
37.50	2.80	0.83	0.00
40.00	2.80	0.83	0.00
42.50	2.80	0.83	0.00
45.00	2.80	0.83	0.00
47.50	2.80	0.83	0.00
50.00	2.80	0.83	0.00
52.50	2.80	0.83	0.00
55.00	2.80	0.83	0.00
57.50	2.80	0.83	0.00
60.00	2.80	0.83	0.00
62.50	2.80	0.83	0.00
65.00	2.80	0.83	0.00
67.50	2.80	0.83	0.00
70.00	2.80	0.83	0.00
72.50	2.80	0.83	0.00
75.00	2.80	0.83	0.00
77.50	2.80	0.83	0.00
80.00	2.80	0.83	0.00
82.50	2.80	0.83	0.00
85.00	2.80	0.83	0.00
87.50	2.80	0.83	0.00
90.00	2.80	0.83	0.00
92.50	2.80	0.83	0.00
95.00	2.80	0.83	0.00
97.50	2.80	0.83	0.00
100.00	2.80	0.83	0.00
102.50	2.80	0.83	0.00
105.00	2.80	0.83	0.00
107.50	2.80	0.83	0.00
110.00	2.80	0.83	0.00
112.50	2.80	0.83	0.00
115.00	2.80	0.83	0.00
117.50	2.80	0.83	0.00
120.00	2.80	0.83	0.00
122.50	2.80	0.83	0.00
125.00	2.80	0.83	0.00
127.50	2.80	0.83	0.00
130.00	2.80	0.83	0.00
132.50	2.80	0.83	0.00
135.00	2.80	0.83	0.00
137.50	2.80	0.83	0.00
140.00	2.80	0.83	0.00
142.50	2.80	0.83	0.00
145.00	2.80	0.83	0.00
147.50	2.80	0.83	0.00
150.00	2.80	0.83	0.00
152.50	2.80	0.83	0.00
155.00	2.80	0.83	0.00
157.50	2.80	0.83	0.00
160.00	2.80	0.83	0.00
162.50	2.80	0.83	0.00
165.00	2.80	0.83	0.00
167.50	2.80	0.83	0.00
170.00	2.80	0.83	0.00
172.50	2.80	0.83	0.00
175.00	2.80	0.83	0.00
177.50	2.80	0.83	0.00
180.00	2.80	0.83	0.00
182.50	2.80	0.83	0.00
185.00	2.80	0.83	0.00
187.50	2.80	0.83	0.00
190.00	2.80	0.83	0.00
192.50	2.80	0.83	0.00
195.00	2.80	0.83	0.00
197.50	2.80	0.83	0.00
200.00	2.80	0.83	0.00
202.50	2.80	0.83	0.00
205.00	2.80	0.83	0.00
207.50	2.80	0.83	0.00
210.00	2.80	0.83	0.00
212.50	2.80	0.83	0.00
215.00	2.80	0.83	0.00
217.50	2.80	0.83	0.00
220.00	2.80	0.83	0.00
222.50	2.80	0.83	0.00
225.00	2.80	0.83	0.00
227.50	2.80	0.83	0.00
230.00	2.80	0.83	0.00
232.50	2.80	0.83	0.00
235.00	2.80	0.83	0.00
237.50	2.80	0.83	0.00
240.00	2.80	0.83	0.00

Summary for Subcatchment PDA-2.1A: Subcat PDA-2.1A

Runoff = 7.76 cfs @ 12.24 hrs, Volume= 33,704 cf, Depth= 1.16"
Routed to Pond 28P : DIV-01

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
244,846	74	>75% Grass cover, Good, HSG C
65	80	>75% Grass cover, Good, HSG D
7,583	87	Dirt roads, HSG C
4,725	96	Gravel surface, HSG C
86,246	98	Paved parking, HSG C
4,565	98	Unconnected pavement, HSG C
107	70	Woods, Good, HSG C
348,138	81	Weighted Average
257,327	75	73.92% Pervious Area
90,810	98	26.08% Impervious Area
4,565		5.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
2.5	103	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	66	0.0189	0.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.3	269	Total			

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Hydrograph for Subcatchment PDA-2.1A: Subcat PDA-2.1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.02**
12.50	1.97	0.58	**4.65**
15.00	2.39	0.87	0.63
17.50	2.57	1.00	0.32
20.00	2.68	1.07	0.22
22.50	**2.76**	**1.13**	0.18
25.00	**2.80**	**1.16**	0.00
27.50	2.80	1.16	0.00
30.00	2.80	1.16	0.00
32.50	2.80	1.16	0.00
35.00	2.80	1.16	0.00
37.50	2.80	1.16	0.00
40.00	2.80	1.16	0.00
42.50	2.80	1.16	0.00
45.00	2.80	1.16	0.00
47.50	2.80	1.16	0.00
50.00	2.80	1.16	0.00
52.50	2.80	1.16	0.00
55.00	2.80	1.16	0.00
57.50	2.80	1.16	0.00
60.00	2.80	1.16	0.00
62.50	2.80	1.16	0.00
65.00	2.80	1.16	0.00
67.50	2.80	1.16	0.00
70.00	2.80	1.16	0.00
72.50	2.80	1.16	0.00
75.00	2.80	1.16	0.00
77.50	2.80	1.16	0.00
80.00	2.80	1.16	0.00
82.50	2.80	1.16	0.00
85.00	2.80	1.16	0.00
87.50	2.80	1.16	0.00
90.00	2.80	1.16	0.00
92.50	2.80	1.16	0.00
95.00	2.80	1.16	0.00
97.50	2.80	1.16	0.00
100.00	2.80	1.16	0.00
102.50	2.80	1.16	0.00
105.00	2.80	1.16	0.00
107.50	2.80	1.16	0.00
110.00	2.80	1.16	0.00
112.50	2.80	1.16	0.00
115.00	2.80	1.16	0.00
117.50	2.80	1.16	0.00
120.00	2.80	1.16	0.00
122.50	2.80	1.16	0.00
125.00	2.80	1.16	0.00
127.50	2.80	1.16	0.00
130.00	2.80	1.16	0.00
132.50	2.80	1.16	0.00
135.00	2.80	1.16	0.00
137.50	2.80	1.16	0.00
140.00	2.80	1.16	0.00
142.50	2.80	1.16	0.00
145.00	2.80	1.16	0.00
147.50	2.80	1.16	0.00
150.00	2.80	1.16	0.00
152.50	2.80	1.16	0.00
155.00	2.80	1.16	0.00
157.50	2.80	1.16	0.00
160.00	2.80	1.16	0.00
162.50	2.80	1.16	0.00
165.00	2.80	1.16	0.00
167.50	2.80	1.16	0.00
170.00	2.80	1.16	0.00
172.50	2.80	1.16	0.00
175.00	2.80	1.16	0.00
177.50	2.80	1.16	0.00
180.00	2.80	1.16	0.00
182.50	2.80	1.16	0.00
185.00	2.80	1.16	0.00
187.50	2.80	1.16	0.00
190.00	2.80	1.16	0.00
192.50	2.80	1.16	0.00
195.00	2.80	1.16	0.00
197.50	2.80	1.16	0.00
200.00	2.80	1.16	0.00
202.50	2.80	1.16	0.00
205.00	2.80	1.16	0.00
207.50	2.80	1.16	0.00
210.00	2.80	1.16	0.00
212.50	2.80	1.16	0.00
215.00	2.80	1.16	0.00
217.50	2.80	1.16	0.00
220.00	2.80	1.16	0.00
222.50	2.80	1.16	0.00
225.00	2.80	1.16	0.00
227.50	2.80	1.16	0.00
230.00	2.80	1.16	0.00
232.50	2.80	1.16	0.00
235.00	2.80	1.16	0.00
237.50	2.80	1.16	0.00
240.00	2.80	1.16	0.00

Summary for Subcatchment PDA-2.1B: Subcat PDA-2.1B

Runoff = 2.42 cfs @ 12.26 hrs, Volume= 11,179 cf, Depth= 0.88"
Routed to Pond 15P : Detention Basin 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
135,152	74	>75% Grass cover, Good, HSG C
9,554	87	Dirt roads, HSG C
4,830	98	Paved parking, HSG C
2,421	98	Unconnected pavement, HSG C
151,957	76	Weighted Average
144,706	75	95.23% Pervious Area
7,251	98	4.77% Impervious Area
2,421		33.39% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.8	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.2	23	0.0500	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.0	123	Total			

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Hydrograph for Subcatchment PDA-2.1B: Subcat PDA-2.1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.40	**1.61**
15.00	2.39	0.63	0.23
17.50	2.57	0.74	0.12
20.00	2.68	0.81	0.08
22.50	**2.76**	**0.86**	0.07
25.00	**2.80**	**0.88**	0.00
27.50	2.80	0.88	0.00
30.00	2.80	0.88	0.00
32.50	2.80	0.88	0.00
35.00	2.80	0.88	0.00
37.50	2.80	0.88	0.00
40.00	2.80	0.88	0.00
42.50	2.80	0.88	0.00
45.00	2.80	0.88	0.00
47.50	2.80	0.88	0.00
50.00	2.80	0.88	0.00
52.50	2.80	0.88	0.00
55.00	2.80	0.88	0.00
57.50	2.80	0.88	0.00
60.00	2.80	0.88	0.00
62.50	2.80	0.88	0.00
65.00	2.80	0.88	0.00
67.50	2.80	0.88	0.00
70.00	2.80	0.88	0.00
72.50	2.80	0.88	0.00
75.00	2.80	0.88	0.00
77.50	2.80	0.88	0.00
80.00	2.80	0.88	0.00
82.50	2.80	0.88	0.00
85.00	2.80	0.88	0.00
87.50	2.80	0.88	0.00
90.00	2.80	0.88	0.00
92.50	2.80	0.88	0.00
95.00	2.80	0.88	0.00
97.50	2.80	0.88	0.00
100.00	2.80	0.88	0.00
102.50	2.80	0.88	0.00
105.00	2.80	0.88	0.00
107.50	2.80	0.88	0.00
110.00	2.80	0.88	0.00
112.50	2.80	0.88	0.00
115.00	2.80	0.88	0.00
117.50	2.80	0.88	0.00
120.00	2.80	0.88	0.00
122.50	2.80	0.88	0.00
125.00	2.80	0.88	0.00
127.50	2.80	0.88	0.00
130.00	2.80	0.88	0.00
132.50	2.80	0.88	0.00
135.00	2.80	0.88	0.00
137.50	2.80	0.88	0.00
140.00	2.80	0.88	0.00
142.50	2.80	0.88	0.00
145.00	2.80	0.88	0.00
147.50	2.80	0.88	0.00
150.00	2.80	0.88	0.00
152.50	2.80	0.88	0.00
155.00	2.80	0.88	0.00
157.50	2.80	0.88	0.00
160.00	2.80	0.88	0.00
162.50	2.80	0.88	0.00
165.00	2.80	0.88	0.00
167.50	2.80	0.88	0.00
170.00	2.80	0.88	0.00
172.50	2.80	0.88	0.00
175.00	2.80	0.88	0.00
177.50	2.80	0.88	0.00
180.00	2.80	0.88	0.00
182.50	2.80	0.88	0.00
185.00	2.80	0.88	0.00
187.50	2.80	0.88	0.00
190.00	2.80	0.88	0.00
192.50	2.80	0.88	0.00
195.00	2.80	0.88	0.00
197.50	2.80	0.88	0.00
200.00	2.80	0.88	0.00
202.50	2.80	0.88	0.00
205.00	2.80	0.88	0.00
207.50	2.80	0.88	0.00
210.00	2.80	0.88	0.00
212.50	2.80	0.88	0.00
215.00	2.80	0.88	0.00
217.50	2.80	0.88	0.00
220.00	2.80	0.88	0.00
222.50	2.80	0.88	0.00
225.00	2.80	0.88	0.00
227.50	2.80	0.88	0.00
230.00	2.80	0.88	0.00
232.50	2.80	0.88	0.00
235.00	2.80	0.88	0.00
237.50	2.80	0.88	0.00
240.00	2.80	0.88	0.00

Summary for Subcatchment PDA-2.2A: Subcat PDA-2.2A

Runoff = 3.57 cfs @ 12.19 hrs, Volume= 14,332 cf, Depth= 1.10"
Routed to Link 7L : DP 2.2 - Silver Creek West Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
115,003	74	>75% Grass cover, Good, HSG C
36,719	98	Paved parking, HSG C
4,050	98	Unconnected pavement, HSG C
279	70	Woods, Good, HSG C
156,051	80	Weighted Average
115,282	74	73.87% Pervious Area
40,769	98	26.13% Impervious Area
4,050		9.93% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9					**Direct Entry, PER EDA-2.2A**

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Hydrograph for Subcatchment PDA-2.2A: Subcat PDA-2.2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	**0.00**
12.50	1.97	0.54	**1.74**
15.00	2.39	0.81	0.27
17.50	2.57	0.94	0.14
20.00	2.68	1.02	0.10
22.50	**2.76**	**1.07**	0.08
25.00	**2.80**	**1.10**	0.00
27.50	2.80	1.10	0.00
30.00	2.80	1.10	0.00
32.50	2.80	1.10	0.00
35.00	2.80	1.10	0.00
37.50	2.80	1.10	0.00
40.00	2.80	1.10	0.00
42.50	2.80	1.10	0.00
45.00	2.80	1.10	0.00
47.50	2.80	1.10	0.00
50.00	2.80	1.10	0.00
52.50	2.80	1.10	0.00
55.00	2.80	1.10	0.00
57.50	2.80	1.10	0.00
60.00	2.80	1.10	0.00
62.50	2.80	1.10	0.00
65.00	2.80	1.10	0.00
67.50	2.80	1.10	0.00
70.00	2.80	1.10	0.00
72.50	2.80	1.10	0.00
75.00	2.80	1.10	0.00
77.50	2.80	1.10	0.00
80.00	2.80	1.10	0.00
82.50	2.80	1.10	0.00
85.00	2.80	1.10	0.00
87.50	2.80	1.10	0.00
90.00	2.80	1.10	0.00
92.50	2.80	1.10	0.00
95.00	2.80	1.10	0.00
97.50	2.80	1.10	0.00
100.00	2.80	1.10	0.00
102.50	2.80	1.10	0.00
105.00	2.80	1.10	0.00
107.50	2.80	1.10	0.00
110.00	2.80	1.10	0.00
112.50	2.80	1.10	0.00
115.00	2.80	1.10	0.00
117.50	2.80	1.10	0.00
120.00	2.80	1.10	0.00
122.50	2.80	1.10	0.00
125.00	2.80	1.10	0.00
127.50	2.80	1.10	0.00
130.00	2.80	1.10	0.00
132.50	2.80	1.10	0.00
135.00	2.80	1.10	0.00
137.50	2.80	1.10	0.00
140.00	2.80	1.10	0.00
142.50	2.80	1.10	0.00
145.00	2.80	1.10	0.00
147.50	2.80	1.10	0.00
150.00	2.80	1.10	0.00
152.50	2.80	1.10	0.00
155.00	2.80	1.10	0.00
157.50	2.80	1.10	0.00
160.00	2.80	1.10	0.00
162.50	2.80	1.10	0.00
165.00	2.80	1.10	0.00
167.50	2.80	1.10	0.00
170.00	2.80	1.10	0.00
172.50	2.80	1.10	0.00
175.00	2.80	1.10	0.00
177.50	2.80	1.10	0.00
180.00	2.80	1.10	0.00
182.50	2.80	1.10	0.00
185.00	2.80	1.10	0.00
187.50	2.80	1.10	0.00
190.00	2.80	1.10	0.00
192.50	2.80	1.10	0.00
195.00	2.80	1.10	0.00
197.50	2.80	1.10	0.00
200.00	2.80	1.10	0.00
202.50	2.80	1.10	0.00
205.00	2.80	1.10	0.00
207.50	2.80	1.10	0.00
210.00	2.80	1.10	0.00
212.50	2.80	1.10	0.00
215.00	2.80	1.10	0.00
217.50	2.80	1.10	0.00
220.00	2.80	1.10	0.00
222.50	2.80	1.10	0.00
225.00	2.80	1.10	0.00
227.50	2.80	1.10	0.00
230.00	2.80	1.10	0.00
232.50	2.80	1.10	0.00
235.00	2.80	1.10	0.00
237.50	2.80	1.10	0.00
240.00	2.80	1.10	0.00

Summary for Subcatchment PDA-2.2B: Subcat PDA-2.2B

Runoff = 1.23 cfs @ 12.63 hrs, Volume= 8,783 cf, Depth= 0.69"
Routed to Link 6L : DP 2.1 - West Wetland

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
51,518	74	>75% Grass cover, Good, HSG C
2,379	98	Paved parking, HSG C
98,443	70	Woods, Good, HSG C
152,340	72	Weighted Average
149,961	71	98.44% Pervious Area
2,379	98	1.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.9	100	0.0120	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.30"
14.1	465	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
40.0	565	Total			

Hydrograph for Subcatchment PDA-2.2B: Subcat PDA-2.2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.00	0.00
7.50	0.28	0.00	0.00
10.00	0.53	0.00	0.00
12.50	1.97	0.28	**1.14**
15.00	2.39	0.47	**0.22**
17.50	2.57	0.57	0.11
20.00	2.68	0.62	0.07
22.50	**2.76**	**0.67**	0.06
25.00	**2.80**	**0.69**	0.00
27.50	2.80	0.69	0.00
30.00	2.80	0.69	0.00
32.50	2.80	0.69	0.00
35.00	2.80	0.69	0.00
37.50	2.80	0.69	0.00
40.00	2.80	0.69	0.00
42.50	2.80	0.69	0.00
45.00	2.80	0.69	0.00
47.50	2.80	0.69	0.00
50.00	2.80	0.69	0.00
52.50	2.80	0.69	0.00
55.00	2.80	0.69	0.00
57.50	2.80	0.69	0.00
60.00	2.80	0.69	0.00
62.50	2.80	0.69	0.00
65.00	2.80	0.69	0.00
67.50	2.80	0.69	0.00
70.00	2.80	0.69	0.00
72.50	2.80	0.69	0.00
75.00	2.80	0.69	0.00
77.50	2.80	0.69	0.00
80.00	2.80	0.69	0.00
82.50	2.80	0.69	0.00
85.00	2.80	0.69	0.00
87.50	2.80	0.69	0.00
90.00	2.80	0.69	0.00
92.50	2.80	0.69	0.00
95.00	2.80	0.69	0.00
97.50	2.80	0.69	0.00
100.00	2.80	0.69	0.00
102.50	2.80	0.69	0.00
105.00	2.80	0.69	0.00
107.50	2.80	0.69	0.00
110.00	2.80	0.69	0.00
112.50	2.80	0.69	0.00
115.00	2.80	0.69	0.00
117.50	2.80	0.69	0.00
120.00	2.80	0.69	0.00
122.50	2.80	0.69	0.00
125.00	2.80	0.69	0.00
127.50	2.80	0.69	0.00
130.00	2.80	0.69	0.00
132.50	2.80	0.69	0.00
135.00	2.80	0.69	0.00
137.50	2.80	0.69	0.00
140.00	2.80	0.69	0.00
142.50	2.80	0.69	0.00
145.00	2.80	0.69	0.00
147.50	2.80	0.69	0.00
150.00	2.80	0.69	0.00
152.50	2.80	0.69	0.00
155.00	2.80	0.69	0.00
157.50	2.80	0.69	0.00
160.00	2.80	0.69	0.00
162.50	2.80	0.69	0.00
165.00	2.80	0.69	0.00
167.50	2.80	0.69	0.00
170.00	2.80	0.69	0.00
172.50	2.80	0.69	0.00
175.00	2.80	0.69	0.00
177.50	2.80	0.69	0.00
180.00	2.80	0.69	0.00
182.50	2.80	0.69	0.00
185.00	2.80	0.69	0.00
187.50	2.80	0.69	0.00
190.00	2.80	0.69	0.00
192.50	2.80	0.69	0.00
195.00	2.80	0.69	0.00
197.50	2.80	0.69	0.00
200.00	2.80	0.69	0.00
202.50	2.80	0.69	0.00
205.00	2.80	0.69	0.00
207.50	2.80	0.69	0.00
210.00	2.80	0.69	0.00
212.50	2.80	0.69	0.00
215.00	2.80	0.69	0.00
217.50	2.80	0.69	0.00
220.00	2.80	0.69	0.00
222.50	2.80	0.69	0.00
225.00	2.80	0.69	0.00
227.50	2.80	0.69	0.00
230.00	2.80	0.69	0.00
232.50	2.80	0.69	0.00
235.00	2.80	0.69	0.00
237.50	2.80	0.69	0.00
240.00	2.80	0.69	0.00

Summary for Subcatchment PDA-2.2C.a: Subcat PDA-2.2C.a

Runoff = 5.50 cfs @ 12.09 hrs, Volume= 19,412 cf, Depth= 2.57"
Routed to Pond 17P : Track and Field- stone base

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
90,671	98	Paved parking, HSG C
90,671	98	Weighted Average
0	74	0.00% Pervious Area
90,671	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

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Hydrograph for Subcatchment PDA-2.2C.a: Subcat PDA-2.2C.a

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.01
5.00	0.16	0.04	0.05
7.50	0.28	0.13	0.11
10.00	0.53	0.34	**0.26**
12.50	1.97	1.74	**1.17**
15.00	2.39	2.16	0.23
17.50	2.57	2.34	0.11
20.00	2.68	2.45	0.08
22.50	**2.76**	**2.53**	0.06
25.00	**2.80**	**2.57**	0.00
27.50	2.80	2.57	0.00
30.00	2.80	2.57	0.00
32.50	2.80	2.57	0.00
35.00	2.80	2.57	0.00
37.50	2.80	2.57	0.00
40.00	2.80	2.57	0.00
42.50	2.80	2.57	0.00
45.00	2.80	2.57	0.00
47.50	2.80	2.57	0.00
50.00	2.80	2.57	0.00
52.50	2.80	2.57	0.00
55.00	2.80	2.57	0.00
57.50	2.80	2.57	0.00
60.00	2.80	2.57	0.00
62.50	2.80	2.57	0.00
65.00	2.80	2.57	0.00
67.50	2.80	2.57	0.00
70.00	2.80	2.57	0.00
72.50	2.80	2.57	0.00
75.00	2.80	2.57	0.00
77.50	2.80	2.57	0.00
80.00	2.80	2.57	0.00
82.50	2.80	2.57	0.00
85.00	2.80	2.57	0.00
87.50	2.80	2.57	0.00
90.00	2.80	2.57	0.00
92.50	2.80	2.57	0.00
95.00	2.80	2.57	0.00
97.50	2.80	2.57	0.00
100.00	2.80	2.57	0.00
102.50	2.80	2.57	0.00
105.00	2.80	2.57	0.00
107.50	2.80	2.57	0.00
110.00	2.80	2.57	0.00
112.50	2.80	2.57	0.00
115.00	2.80	2.57	0.00
117.50	2.80	2.57	0.00
120.00	2.80	2.57	0.00
122.50	2.80	2.57	0.00
125.00	2.80	2.57	0.00
127.50	2.80	2.57	0.00
130.00	2.80	2.57	0.00
132.50	2.80	2.57	0.00
135.00	2.80	2.57	0.00
137.50	2.80	2.57	0.00
140.00	2.80	2.57	0.00
142.50	2.80	2.57	0.00
145.00	2.80	2.57	0.00
147.50	2.80	2.57	0.00
150.00	2.80	2.57	0.00
152.50	2.80	2.57	0.00
155.00	2.80	2.57	0.00
157.50	2.80	2.57	0.00
160.00	2.80	2.57	0.00
162.50	2.80	2.57	0.00
165.00	2.80	2.57	0.00
167.50	2.80	2.57	0.00
170.00	2.80	2.57	0.00
172.50	2.80	2.57	0.00
175.00	2.80	2.57	0.00
177.50	2.80	2.57	0.00
180.00	2.80	2.57	0.00
182.50	2.80	2.57	0.00
185.00	2.80	2.57	0.00
187.50	2.80	2.57	0.00
190.00	2.80	2.57	0.00
192.50	2.80	2.57	0.00
195.00	2.80	2.57	0.00
197.50	2.80	2.57	0.00
200.00	2.80	2.57	0.00
202.50	2.80	2.57	0.00
205.00	2.80	2.57	0.00
207.50	2.80	2.57	0.00
210.00	2.80	2.57	0.00
212.50	2.80	2.57	0.00
215.00	2.80	2.57	0.00
217.50	2.80	2.57	0.00
220.00	2.80	2.57	0.00
222.50	2.80	2.57	0.00
225.00	2.80	2.57	0.00
227.50	2.80	2.57	0.00
230.00	2.80	2.57	0.00
232.50	2.80	2.57	0.00
235.00	2.80	2.57	0.00
237.50	2.80	2.57	0.00
240.00	2.80	2.57	0.00

Summary for Subcatchment PDA-2.2C.b: Subcat PDA-2.2C.b

Runoff = 3.71 cfs @ 12.09 hrs, Volume= 13,100 cf, Depth= 2.57"
Routed to Pond 35P : Track and Field-manifold

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
4	74	>75% Grass cover, Good, HSG C
61,181	98	Paved parking, HSG C
61,186	98	Weighted Average
4	74	0.01% Pervious Area
61,181	98	99.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-2.2C.b: Subcat PDA-2.2C.b

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.01
5.00	0.16	0.04	0.03
7.50	0.28	0.13	0.07
10.00	0.53	0.34	**0.17**
12.50	1.97	1.74	**0.79**
15.00	2.39	2.16	0.15
17.50	2.57	2.34	0.07
20.00	2.68	2.45	0.05
22.50	**2.76**	**2.53**	0.04
25.00	**2.80**	**2.57**	0.00
27.50	2.80	2.57	0.00
30.00	2.80	2.57	0.00
32.50	2.80	2.57	0.00
35.00	2.80	2.57	0.00
37.50	2.80	2.57	0.00
40.00	2.80	2.57	0.00
42.50	2.80	2.57	0.00
45.00	2.80	2.57	0.00
47.50	2.80	2.57	0.00
50.00	2.80	2.57	0.00
52.50	2.80	2.57	0.00
55.00	2.80	2.57	0.00
57.50	2.80	2.57	0.00
60.00	2.80	2.57	0.00
62.50	2.80	2.57	0.00
65.00	2.80	2.57	0.00
67.50	2.80	2.57	0.00
70.00	2.80	2.57	0.00
72.50	2.80	2.57	0.00
75.00	2.80	2.57	0.00
77.50	2.80	2.57	0.00
80.00	2.80	2.57	0.00
82.50	2.80	2.57	0.00
85.00	2.80	2.57	0.00
87.50	2.80	2.57	0.00
90.00	2.80	2.57	0.00
92.50	2.80	2.57	0.00
95.00	2.80	2.57	0.00
97.50	2.80	2.57	0.00
100.00	2.80	2.57	0.00
102.50	2.80	2.57	0.00
105.00	2.80	2.57	0.00
107.50	2.80	2.57	0.00
110.00	2.80	2.57	0.00
112.50	2.80	2.57	0.00
115.00	2.80	2.57	0.00
117.50	2.80	2.57	0.00
120.00	2.80	2.57	0.00
122.50	2.80	2.57	0.00
125.00	2.80	2.57	0.00
127.50	2.80	2.57	0.00
130.00	2.80	2.57	0.00
132.50	2.80	2.57	0.00
135.00	2.80	2.57	0.00
137.50	2.80	2.57	0.00
140.00	2.80	2.57	0.00
142.50	2.80	2.57	0.00
145.00	2.80	2.57	0.00
147.50	2.80	2.57	0.00
150.00	2.80	2.57	0.00
152.50	2.80	2.57	0.00
155.00	2.80	2.57	0.00
157.50	2.80	2.57	0.00
160.00	2.80	2.57	0.00
162.50	2.80	2.57	0.00
165.00	2.80	2.57	0.00
167.50	2.80	2.57	0.00
170.00	2.80	2.57	0.00
172.50	2.80	2.57	0.00
175.00	2.80	2.57	0.00
177.50	2.80	2.57	0.00
180.00	2.80	2.57	0.00
182.50	2.80	2.57	0.00
185.00	2.80	2.57	0.00
187.50	2.80	2.57	0.00
190.00	2.80	2.57	0.00
192.50	2.80	2.57	0.00
195.00	2.80	2.57	0.00
197.50	2.80	2.57	0.00
200.00	2.80	2.57	0.00
202.50	2.80	2.57	0.00
205.00	2.80	2.57	0.00
207.50	2.80	2.57	0.00
210.00	2.80	2.57	0.00
212.50	2.80	2.57	0.00
215.00	2.80	2.57	0.00
217.50	2.80	2.57	0.00
220.00	2.80	2.57	0.00
222.50	2.80	2.57	0.00
225.00	2.80	2.57	0.00
227.50	2.80	2.57	0.00
230.00	2.80	2.57	0.00
232.50	2.80	2.57	0.00
235.00	2.80	2.57	0.00
237.50	2.80	2.57	0.00
240.00	2.80	2.57	0.00

Summary for Subcatchment PDA-ROOF1.3: Subcat PDA-ROOF1.3

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 2,094 cf, Depth= 2.57"
Routed to Pond 2P : Bio 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
0	98	Paved parking, HSG C
9,782	98	Roofs, HSG C
9,782	98	Weighted Average
0	74	0.00% Pervious Area
9,782	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF1.3: Subcat PDA-ROOF1.3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	127.50	2.80	2.57	0.00
2.50	0.07	0.00	0.00	130.00	2.80	2.57	0.00
5.00	0.16	0.04	0.01	132.50	2.80	2.57	0.00
7.50	0.28	0.13	0.01	135.00	2.80	2.57	0.00
10.00	0.53	0.34	**0.03**	137.50	2.80	2.57	0.00
12.50	1.97	1.74	**0.13**	140.00	2.80	2.57	0.00
15.00	2.39	2.16	0.02	142.50	2.80	2.57	0.00
17.50	2.57	2.34	0.01	145.00	2.80	2.57	0.00
20.00	2.68	2.45	0.01	147.50	2.80	2.57	0.00
22.50	**2.76**	**2.53**	0.01	150.00	2.80	2.57	0.00
25.00	**2.80**	**2.57**	0.00	152.50	2.80	2.57	0.00
27.50	2.80	2.57	0.00	155.00	2.80	2.57	0.00
30.00	2.80	2.57	0.00	157.50	2.80	2.57	0.00
32.50	2.80	2.57	0.00	160.00	2.80	2.57	0.00
35.00	2.80	2.57	0.00	162.50	2.80	2.57	0.00
37.50	2.80	2.57	0.00	165.00	2.80	2.57	0.00
40.00	2.80	2.57	0.00	167.50	2.80	2.57	0.00
42.50	2.80	2.57	0.00	170.00	2.80	2.57	0.00
45.00	2.80	2.57	0.00	172.50	2.80	2.57	0.00
47.50	2.80	2.57	0.00	175.00	2.80	2.57	0.00
50.00	2.80	2.57	0.00	177.50	2.80	2.57	0.00
52.50	2.80	2.57	0.00	180.00	2.80	2.57	0.00
55.00	2.80	2.57	0.00	182.50	2.80	2.57	0.00
57.50	2.80	2.57	0.00	185.00	2.80	2.57	0.00
60.00	2.80	2.57	0.00	187.50	2.80	2.57	0.00
62.50	2.80	2.57	0.00	190.00	2.80	2.57	0.00
65.00	2.80	2.57	0.00	192.50	2.80	2.57	0.00
67.50	2.80	2.57	0.00	195.00	2.80	2.57	0.00
70.00	2.80	2.57	0.00	197.50	2.80	2.57	0.00
72.50	2.80	2.57	0.00	200.00	2.80	2.57	0.00
75.00	2.80	2.57	0.00	202.50	2.80	2.57	0.00
77.50	2.80	2.57	0.00	205.00	2.80	2.57	0.00
80.00	2.80	2.57	0.00	207.50	2.80	2.57	0.00
82.50	2.80	2.57	0.00	210.00	2.80	2.57	0.00
85.00	2.80	2.57	0.00	212.50	2.80	2.57	0.00
87.50	2.80	2.57	0.00	215.00	2.80	2.57	0.00
90.00	2.80	2.57	0.00	217.50	2.80	2.57	0.00
92.50	2.80	2.57	0.00	220.00	2.80	2.57	0.00
95.00	2.80	2.57	0.00	222.50	2.80	2.57	0.00
97.50	2.80	2.57	0.00	225.00	2.80	2.57	0.00
100.00	2.80	2.57	0.00	227.50	2.80	2.57	0.00
102.50	2.80	2.57	0.00	230.00	2.80	2.57	0.00
105.00	2.80	2.57	0.00	232.50	2.80	2.57	0.00
107.50	2.80	2.57	0.00	235.00	2.80	2.57	0.00
110.00	2.80	2.57	0.00	237.50	2.80	2.57	0.00
112.50	2.80	2.57	0.00	240.00	2.80	2.57	0.00
115.00	2.80	2.57	0.00				
117.50	2.80	2.57	0.00				
120.00	2.80	2.57	0.00				
122.50	2.80	2.57	0.00				
125.00	2.80	2.57	0.00				

Summary for Subcatchment PDA-ROOF1.4: Subcat PDA-ROOF1.4

Runoff = 3.53 cfs @ 12.09 hrs, Volume= 12,462 cf, Depth= 2.57"
Routed to Pond 12P : Infiltration Basin 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
1	98	Paved parking, HSG C
58,209	98	Roofs, HSG C
58,210	98	Weighted Average
0	74	0.00% Pervious Area
58,210	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF1.4: Subcat PDA-ROOF1.4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	127.50	2.80	2.57	0.00
2.50	0.07	0.00	0.01	130.00	2.80	2.57	0.00
5.00	0.16	0.04	0.03	132.50	2.80	2.57	0.00
7.50	0.28	0.13	0.07	135.00	2.80	2.57	0.00
10.00	0.53	0.34	**0.16**	137.50	2.80	2.57	0.00
12.50	1.97	1.74	**0.75**	140.00	2.80	2.57	0.00
15.00	2.39	2.16	0.14	142.50	2.80	2.57	0.00
17.50	2.57	2.34	0.07	145.00	2.80	2.57	0.00
20.00	2.68	2.45	0.05	147.50	2.80	2.57	0.00
22.50	**2.76**	**2.53**	0.04	150.00	2.80	2.57	0.00
25.00	**2.80**	**2.57**	0.00	152.50	2.80	2.57	0.00
27.50	2.80	2.57	0.00	155.00	2.80	2.57	0.00
30.00	2.80	2.57	0.00	157.50	2.80	2.57	0.00
32.50	2.80	2.57	0.00	160.00	2.80	2.57	0.00
35.00	2.80	2.57	0.00	162.50	2.80	2.57	0.00
37.50	2.80	2.57	0.00	165.00	2.80	2.57	0.00
40.00	2.80	2.57	0.00	167.50	2.80	2.57	0.00
42.50	2.80	2.57	0.00	170.00	2.80	2.57	0.00
45.00	2.80	2.57	0.00	172.50	2.80	2.57	0.00
47.50	2.80	2.57	0.00	175.00	2.80	2.57	0.00
50.00	2.80	2.57	0.00	177.50	2.80	2.57	0.00
52.50	2.80	2.57	0.00	180.00	2.80	2.57	0.00
55.00	2.80	2.57	0.00	182.50	2.80	2.57	0.00
57.50	2.80	2.57	0.00	185.00	2.80	2.57	0.00
60.00	2.80	2.57	0.00	187.50	2.80	2.57	0.00
62.50	2.80	2.57	0.00	190.00	2.80	2.57	0.00
65.00	2.80	2.57	0.00	192.50	2.80	2.57	0.00
67.50	2.80	2.57	0.00	195.00	2.80	2.57	0.00
70.00	2.80	2.57	0.00	197.50	2.80	2.57	0.00
72.50	2.80	2.57	0.00	200.00	2.80	2.57	0.00
75.00	2.80	2.57	0.00	202.50	2.80	2.57	0.00
77.50	2.80	2.57	0.00	205.00	2.80	2.57	0.00
80.00	2.80	2.57	0.00	207.50	2.80	2.57	0.00
82.50	2.80	2.57	0.00	210.00	2.80	2.57	0.00
85.00	2.80	2.57	0.00	212.50	2.80	2.57	0.00
87.50	2.80	2.57	0.00	215.00	2.80	2.57	0.00
90.00	2.80	2.57	0.00	217.50	2.80	2.57	0.00
92.50	2.80	2.57	0.00	220.00	2.80	2.57	0.00
95.00	2.80	2.57	0.00	222.50	2.80	2.57	0.00
97.50	2.80	2.57	0.00	225.00	2.80	2.57	0.00
100.00	2.80	2.57	0.00	227.50	2.80	2.57	0.00
102.50	2.80	2.57	0.00	230.00	2.80	2.57	0.00
105.00	2.80	2.57	0.00	232.50	2.80	2.57	0.00
107.50	2.80	2.57	0.00	235.00	2.80	2.57	0.00
110.00	2.80	2.57	0.00	237.50	2.80	2.57	0.00
112.50	2.80	2.57	0.00	240.00	2.80	2.57	0.00
115.00	2.80	2.57	0.00				
117.50	2.80	2.57	0.00				
120.00	2.80	2.57	0.00				
122.50	2.80	2.57	0.00				
125.00	2.80	2.57	0.00				

Summary for Subcatchment PDA-ROOF2.1: Subcat PDA-ROOF2.1

Runoff = 1.89 cfs @ 12.09 hrs, Volume= 6,656 cf, Depth= 2.57"
Routed to Pond 28P : DIV-01

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-year Rainfall=2.80"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
31,087	98	Roofs, HSG C
31,087	98	Weighted Average
0	74	0.00% Pervious Area
31,087	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF2.1: Subcat PDA-ROOF2.1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.07	0.00	0.00
5.00	0.16	0.04	0.02
7.50	0.28	0.13	0.04
10.00	0.53	0.34	**0.09**
12.50	1.97	1.74	**0.40**
15.00	2.39	2.16	0.08
17.50	2.57	2.34	0.04
20.00	2.68	2.45	0.03
22.50	**2.76**	**2.53**	0.02
25.00	**2.80**	**2.57**	0.00
27.50	2.80	2.57	0.00
30.00	2.80	2.57	0.00
32.50	2.80	2.57	0.00
35.00	2.80	2.57	0.00
37.50	2.80	2.57	0.00
40.00	2.80	2.57	0.00
42.50	2.80	2.57	0.00
45.00	2.80	2.57	0.00
47.50	2.80	2.57	0.00
50.00	2.80	2.57	0.00
52.50	2.80	2.57	0.00
55.00	2.80	2.57	0.00
57.50	2.80	2.57	0.00
60.00	2.80	2.57	0.00
62.50	2.80	2.57	0.00
65.00	2.80	2.57	0.00
67.50	2.80	2.57	0.00
70.00	2.80	2.57	0.00
72.50	2.80	2.57	0.00
75.00	2.80	2.57	0.00
77.50	2.80	2.57	0.00
80.00	2.80	2.57	0.00
82.50	2.80	2.57	0.00
85.00	2.80	2.57	0.00
87.50	2.80	2.57	0.00
90.00	2.80	2.57	0.00
92.50	2.80	2.57	0.00
95.00	2.80	2.57	0.00
97.50	2.80	2.57	0.00
100.00	2.80	2.57	0.00
102.50	2.80	2.57	0.00
105.00	2.80	2.57	0.00
107.50	2.80	2.57	0.00
110.00	2.80	2.57	0.00
112.50	2.80	2.57	0.00
115.00	2.80	2.57	0.00
117.50	2.80	2.57	0.00
120.00	2.80	2.57	0.00
122.50	2.80	2.57	0.00
125.00	2.80	2.57	0.00
127.50	2.80	2.57	0.00
130.00	2.80	2.57	0.00
132.50	2.80	2.57	0.00
135.00	2.80	2.57	0.00
137.50	2.80	2.57	0.00
140.00	2.80	2.57	0.00
142.50	2.80	2.57	0.00
145.00	2.80	2.57	0.00
147.50	2.80	2.57	0.00
150.00	2.80	2.57	0.00
152.50	2.80	2.57	0.00
155.00	2.80	2.57	0.00
157.50	2.80	2.57	0.00
160.00	2.80	2.57	0.00
162.50	2.80	2.57	0.00
165.00	2.80	2.57	0.00
167.50	2.80	2.57	0.00
170.00	2.80	2.57	0.00
172.50	2.80	2.57	0.00
175.00	2.80	2.57	0.00
177.50	2.80	2.57	0.00
180.00	2.80	2.57	0.00
182.50	2.80	2.57	0.00
185.00	2.80	2.57	0.00
187.50	2.80	2.57	0.00
190.00	2.80	2.57	0.00
192.50	2.80	2.57	0.00
195.00	2.80	2.57	0.00
197.50	2.80	2.57	0.00
200.00	2.80	2.57	0.00
202.50	2.80	2.57	0.00
205.00	2.80	2.57	0.00
207.50	2.80	2.57	0.00
210.00	2.80	2.57	0.00
212.50	2.80	2.57	0.00
215.00	2.80	2.57	0.00
217.50	2.80	2.57	0.00
220.00	2.80	2.57	0.00
222.50	2.80	2.57	0.00
225.00	2.80	2.57	0.00
227.50	2.80	2.57	0.00
230.00	2.80	2.57	0.00
232.50	2.80	2.57	0.00
235.00	2.80	2.57	0.00
237.50	2.80	2.57	0.00
240.00	2.80	2.57	0.00

Summary for Pond 1P: Bio 4

Inflow Area = 16,850 sf, 41.68% Impervious, Inflow Depth = 1.35" for 1-year event
Inflow = 0.59 cfs @ 12.10 hrs, Volume= 1,900 cf
Outflow = 0.05 cfs @ 13.55 hrs, Volume= 1,900 cf, Atten= 92%, Lag= 86.8 min
Discarded = 0.01 cfs @ 13.55 hrs, Volume= 1,446 cf
Primary = 0.04 cfs @ 13.55 hrs, Volume= 455 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 60.31' @ 13.55 hrs Surf.Area= 974 sf Storage= 1,151 cf

Plug-Flow detention time= 1,588.1 min calculated for 1,900 cf (100% of inflow)
Center-of-Mass det. time= 1,588.6 min (2,425.2 - 836.6)

Volume	Invert	Avail.Storage	Storage Description
#1	56.79'	3,573 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.79	724	0.0	0	0
56.80	724	33.0	2	2
59.79	724	33.0	714	717
59.80	724	100.0	7	724
60.00	809	100.0	153	877
61.00	1,346	100.0	1,078	1,955
62.00	1,891	100.0	1,619	3,573

Device	Routing	Invert	Outlet Devices
#1	Discarded	56.79'	**0.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	60.30'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 13.55 hrs HW=60.31' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.04 cfs @ 13.55 hrs HW=60.31' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Weir Controls 0.04 cfs @ 0.27 fps)

Pro-Hydro
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Hydrograph for Pond 1P: Bio 4

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	56.79	0.00	0.00	0.00
5.00	0.00	0	56.79	0.00	0.00	0.00
10.00	**0.01**	**5**	**56.81**	**0.00**	**0.00**	**0.00**
15.00	**0.03**	**1,149**	**60.30**	**0.03**	**0.01**	**0.03**
20.00	0.01	1,146	60.30	0.01	0.01	0.01
25.00	0.00	1,126	60.28	0.01	0.01	0.00
30.00	0.00	1,021	60.17	0.01	0.01	0.00
35.00	0.00	923	60.06	0.01	0.01	0.00
40.00	0.00	832	59.94	0.00	0.00	0.00
45.00	0.00	746	59.83	0.00	0.00	0.00
50.00	0.00	665	59.57	0.00	0.00	0.00
55.00	0.00	583	59.23	0.00	0.00	0.00
60.00	0.00	502	58.89	0.00	0.00	0.00
65.00	0.00	420	58.55	0.00	0.00	0.00
70.00	0.00	339	58.21	0.00	0.00	0.00
75.00	0.00	258	57.87	0.00	0.00	0.00
80.00	0.00	176	57.53	0.00	0.00	0.00
85.00	0.00	95	57.19	0.00	0.00	0.00
90.00	0.00	13	56.85	0.00	0.00	0.00
95.00	0.00	0	56.79	0.00	0.00	0.00
100.00	0.00	0	56.79	0.00	0.00	0.00
105.00	0.00	0	56.79	0.00	0.00	0.00
110.00	0.00	0	56.79	0.00	0.00	0.00
115.00	0.00	0	56.79	0.00	0.00	0.00
120.00	0.00	0	56.79	0.00	0.00	0.00
125.00	0.00	0	56.79	0.00	0.00	0.00
130.00	0.00	0	56.79	0.00	0.00	0.00
135.00	0.00	0	56.79	0.00	0.00	0.00
140.00	0.00	0	56.79	0.00	0.00	0.00
145.00	0.00	0	56.79	0.00	0.00	0.00
150.00	0.00	0	56.79	0.00	0.00	0.00
155.00	0.00	0	56.79	0.00	0.00	0.00
160.00	0.00	0	56.79	0.00	0.00	0.00
165.00	0.00	0	56.79	0.00	0.00	0.00
170.00	0.00	0	56.79	0.00	0.00	0.00
175.00	0.00	0	56.79	0.00	0.00	0.00
180.00	0.00	0	56.79	0.00	0.00	0.00
185.00	0.00	0	56.79	0.00	0.00	0.00
190.00	0.00	0	56.79	0.00	0.00	0.00
195.00	0.00	0	56.79	0.00	0.00	0.00
200.00	0.00	0	56.79	0.00	0.00	0.00
205.00	0.00	0	56.79	0.00	0.00	0.00
210.00	0.00	0	56.79	0.00	0.00	0.00
215.00	0.00	0	56.79	0.00	0.00	0.00
220.00	0.00	0	56.79	0.00	0.00	0.00
225.00	0.00	0	56.79	0.00	0.00	0.00
230.00	0.00	0	56.79	0.00	0.00	0.00
235.00	0.00	0	56.79	0.00	0.00	0.00
240.00	0.00	0	56.79	0.00	0.00	0.00

Stage-Discharge for Pond 1P: Bio 4

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
56.79	0.00	0.00	0.00
56.89	0.00	0.00	0.00
56.99	0.00	0.00	0.00
57.09	0.00	0.00	0.00
57.19	0.00	0.00	0.00
57.29	0.00	0.00	0.00
57.39	0.00	0.00	0.00
57.49	0.00	0.00	0.00
57.59	0.00	0.00	0.00
57.69	0.00	0.00	0.00
57.79	0.00	0.00	0.00
57.89	0.00	0.00	0.00
57.99	0.00	0.00	0.00
58.09	0.00	0.00	0.00
58.19	0.00	0.00	0.00
58.29	0.00	0.00	0.00
58.39	0.00	0.00	0.00
58.49	0.00	0.00	0.00
58.59	0.00	0.00	0.00
58.69	0.00	0.00	0.00
58.79	0.00	0.00	0.00
58.89	0.00	0.00	0.00
58.99	0.00	0.00	0.00
59.09	0.00	0.00	0.00
59.19	0.00	0.00	0.00
59.29	0.00	0.00	0.00
59.39	0.00	0.00	0.00
59.49	0.00	0.00	0.00
59.59	0.00	0.00	0.00
59.69	0.00	0.00	0.00
59.79	0.00	0.00	0.00
59.89	0.00	0.00	0.00
59.99	0.01	0.01	0.00
60.09	0.01	0.01	0.00
60.19	0.01	0.01	0.00
60.29	0.01	0.01	0.00
60.39	1.45	0.01	1.44
60.49	2.11	0.01	2.10
60.59	2.60	0.01	2.59
60.69	3.01	0.01	3.01
60.79	3.38	0.01	3.37
60.89	3.71	0.01	3.70
60.99	4.01	0.01	4.00
61.09	4.29	0.01	4.28
61.19	4.55	0.01	4.54
61.29	4.80	0.01	4.79
61.39	5.04	0.01	5.03
61.49	5.26	0.01	5.25
61.59	5.48	0.01	5.47
61.69	5.69	0.01	5.68
61.79	5.89	0.01	5.88
61.89	6.08	0.01	6.07
61.99	**6.27**	**0.01**	**6.26**

Stage-Area-Storage for Pond 1P: Bio 4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.79	724	0
56.89	724	24
56.99	724	48
57.09	724	72
57.19	724	96
57.29	724	119
57.39	724	143
57.49	724	167
57.59	724	191
57.69	724	215
57.79	724	239
57.89	724	263
57.99	724	287
58.09	724	311
58.19	724	334
58.29	724	358
58.39	724	382
58.49	724	406
58.59	724	430
58.69	724	454
58.79	724	478
58.89	724	502
58.99	724	526
59.09	724	550
59.19	724	573
59.29	724	597
59.39	724	621
59.49	724	645
59.59	724	669
59.69	724	693
59.79	724	717
59.89	762	791
59.99	805	869
60.09	857	952
60.19	911	1,041
60.29	965	1,134
60.39	1,018	1,234
60.49	1,072	1,338
60.59	1,126	1,448
60.69	1,180	1,563
60.79	1,233	1,684
60.89	1,287	1,810
60.99	1,341	1,941
61.09	1,395	2,078
61.19	1,450	2,220
61.29	1,504	2,368
61.39	1,559	2,521
61.49	1,613	2,680
61.59	1,668	2,844
61.69	1,722	3,013
61.79	1,777	3,188
61.89	1,831	3,369
61.99	**1,886**	**3,554**

Summary for Pond 2P: Bio 3

Inflow Area = 16,632 sf, 77.36% Impervious, Inflow Depth = 2.10" for 1-year event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 2,906 cf
Outflow = 0.65 cfs @ 12.25 hrs, Volume= 2,906 cf, Atten= 24%, Lag= 9.9 min
Primary = 0.63 cfs @ 12.25 hrs, Volume= 774 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Tertiary = 0.02 cfs @ 12.26 hrs, Volume= 2,132 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 59.78' @ 12.26 hrs Surf.Area= 874 sf Storage= 1,130 cf

Plug-Flow detention time= 432.9 min calculated for 2,905 cf (100% of inflow)
Center-of-Mass det. time= 433.0 min (1,212.7 - 779.7)

Volume	Invert	Avail.Storage	Storage Description
#1	56.24'	3,220 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.24	606	0.0	0	0
56.25	606	33.0	2	2
58.99	606	33.0	548	550
59.00	606	100.0	6	556
60.00	951	100.0	779	1,335
61.00	1,354	100.0	1,153	2,487
61.50	1,576	100.0	733	3,220

Device	Routing	Invert	Outlet Devices
#1	Device 3	56.24'	**1.020 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	59.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Tertiary	55.50'	**6.0" Round 6" SUBDRAIN** L= 35.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.50' / 55.20' S= 0.0086 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.58 cfs @ 12.25 hrs HW=59.77' TW=0.00' (Dynamic Tailwater)
└**2=Orifice/Grate** (Weir Controls 0.58 cfs @ 0.51 fps)

Tertiary OutFlow Max=0.02 cfs @ 12.26 hrs HW=59.77' TW=0.00' (Dynamic Tailwater)
└**3=6" SUBDRAIN** (Passes 0.02 cfs of 1.50 cfs potential flow)
└**1=Exfiltration** (Exfiltration Controls 0.02 cfs)

Hydrograph for Pond 2P: Bio 3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Tertiary (cfs)
0.00	0.00	0	56.24	0.00	0.00	0.00
5.00	0.01	1	56.25	0.01	0.00	0.01
10.00	**0.03**	**54**	**56.51**	**0.01**	**0.00**	**0.01**
15.00	**0.04**	**1,110**	**59.75**	**0.04**	**0.02**	**0.02**
20.00	0.01	1,061	59.70	0.02	0.00	0.02
25.00	0.00	873	59.46	0.02	0.00	0.02
30.00	0.00	579	59.04	0.01	0.00	0.01
35.00	0.00	321	57.85	0.01	0.00	0.01
40.00	0.00	64	56.56	0.01	0.00	0.01
45.00	0.00	0	56.24	0.00	0.00	0.00
50.00	0.00	0	56.24	0.00	0.00	0.00
55.00	0.00	0	56.24	0.00	0.00	0.00
60.00	0.00	0	56.24	0.00	0.00	0.00
65.00	0.00	0	56.24	0.00	0.00	0.00
70.00	0.00	0	56.24	0.00	0.00	0.00
75.00	0.00	0	56.24	0.00	0.00	0.00
80.00	0.00	0	56.24	0.00	0.00	0.00
85.00	0.00	0	56.24	0.00	0.00	0.00
90.00	0.00	0	56.24	0.00	0.00	0.00
95.00	0.00	0	56.24	0.00	0.00	0.00
100.00	0.00	0	56.24	0.00	0.00	0.00
105.00	0.00	0	56.24	0.00	0.00	0.00
110.00	0.00	0	56.24	0.00	0.00	0.00
115.00	0.00	0	56.24	0.00	0.00	0.00
120.00	0.00	0	56.24	0.00	0.00	0.00
125.00	0.00	0	56.24	0.00	0.00	0.00
130.00	0.00	0	56.24	0.00	0.00	0.00
135.00	0.00	0	56.24	0.00	0.00	0.00
140.00	0.00	0	56.24	0.00	0.00	0.00
145.00	0.00	0	56.24	0.00	0.00	0.00
150.00	0.00	0	56.24	0.00	0.00	0.00
155.00	0.00	0	56.24	0.00	0.00	0.00
160.00	0.00	0	56.24	0.00	0.00	0.00
165.00	0.00	0	56.24	0.00	0.00	0.00
170.00	0.00	0	56.24	0.00	0.00	0.00
175.00	0.00	0	56.24	0.00	0.00	0.00
180.00	0.00	0	56.24	0.00	0.00	0.00
185.00	0.00	0	56.24	0.00	0.00	0.00
190.00	0.00	0	56.24	0.00	0.00	0.00
195.00	0.00	0	56.24	0.00	0.00	0.00
200.00	0.00	0	56.24	0.00	0.00	0.00
205.00	0.00	0	56.24	0.00	0.00	0.00
210.00	0.00	0	56.24	0.00	0.00	0.00
215.00	0.00	0	56.24	0.00	0.00	0.00
220.00	0.00	0	56.24	0.00	0.00	0.00
225.00	0.00	0	56.24	0.00	0.00	0.00
230.00	0.00	0	56.24	0.00	0.00	0.00
235.00	0.00	0	56.24	0.00	0.00	0.00
240.00	0.00	0	56.24	0.00	0.00	0.00

Stage-Discharge for Pond 2P: Bio 3

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Tertiary (cfs)
56.24	0.00	0.00	0.00
56.34	0.01	0.00	0.01
56.44	0.01	0.00	0.01
56.54	0.01	0.00	0.01
56.64	0.01	0.00	0.01
56.74	0.01	0.00	0.01
56.84	0.01	0.00	0.01
56.94	0.01	0.00	0.01
57.04	0.01	0.00	0.01
57.14	0.01	0.00	0.01
57.24	0.01	0.00	0.01
57.34	0.01	0.00	0.01
57.44	0.01	0.00	0.01
57.54	0.01	0.00	0.01
57.64	0.01	0.00	0.01
57.74	0.01	0.00	0.01
57.84	0.01	0.00	0.01
57.94	0.01	0.00	0.01
58.04	0.01	0.00	0.01
58.14	0.01	0.00	0.01
58.24	0.01	0.00	0.01
58.34	0.01	0.00	0.01
58.44	0.01	0.00	0.01
58.54	0.01	0.00	0.01
58.64	0.01	0.00	0.01
58.74	0.01	0.00	0.01
58.84	0.01	0.00	0.01
58.94	0.01	0.00	0.01
59.04	0.01	0.00	0.01
59.14	0.02	0.00	0.02
59.24	0.02	0.00	0.02
59.34	0.02	0.00	0.02
59.44	0.02	0.00	0.02
59.54	0.02	0.00	0.02
59.64	0.02	0.00	0.02
59.74	0.02	0.00	0.02
59.84	2.91	2.89	0.02
59.94	4.22	4.20	0.02
60.04	5.21	5.19	0.02
60.14	6.04	6.01	0.02
60.24	6.77	6.74	0.02
60.34	7.42	7.40	0.03
60.44	8.03	8.00	0.03
60.54	8.59	8.56	0.03
60.64	9.11	9.08	0.03
60.74	9.61	9.58	0.03
60.84	10.08	10.05	0.03
60.94	10.54	10.51	0.03
61.04	10.97	10.94	0.03
61.14	11.39	11.35	0.03
61.24	11.79	11.75	0.03
61.34	12.18	12.14	0.04
61.44	**12.56**	**12.52**	**0.04**

Pro-Hydro
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Stage-Area-Storage for Pond 2P: Bio 3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.24	606	0
56.34	606	20
56.44	606	40
56.54	606	60
56.64	606	80
56.74	606	100
56.84	606	120
56.94	606	140
57.04	606	160
57.14	606	180
57.24	606	200
57.34	606	220
57.44	606	240
57.54	606	260
57.64	606	280
57.74	606	300
57.84	606	320
57.94	606	340
58.04	606	360
58.14	606	380
58.24	606	400
58.34	606	420
58.44	606	440
58.54	606	460
58.64	606	480
58.74	606	500
58.84	606	520
58.94	606	540
59.04	620	581
59.14	654	644
59.24	689	711
59.34	723	782
59.44	758	856
59.54	792	934
59.64	827	1,015
59.74	861	1,099
59.84	896	1,187
59.94	930	1,278
60.04	967	1,373
60.14	1,007	1,472
60.24	1,048	1,574
60.34	1,088	1,681
60.44	1,128	1,792
60.54	1,169	1,907
60.64	1,209	2,026
60.74	1,249	2,149
60.84	1,290	2,276
60.94	1,330	2,406
61.04	1,372	2,542
61.14	1,416	2,681
61.24	1,461	2,825
61.34	1,505	2,973
61.44	**1,549**	**3,126**

Summary for Pond 3P: DIV-02

Inflow Area = 75,465 sf, 44.47% Impervious, Inflow Depth = 1.00" for 1-year event
Inflow = 1.57 cfs @ 12.20 hrs, Volume= 6,301 cf
Outflow = 1.57 cfs @ 12.20 hrs, Volume= 6,301 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.87 cfs @ 12.20 hrs, Volume= 5,677 cf
Routed to Pond 18P : Sand Filter 2
Secondary = 0.70 cfs @ 12.20 hrs, Volume= 624 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 56.91' @ 12.20 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.15'	**8.0" Round Culvert** L= 13.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.15' / 54.85' S= 0.1000 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.35 sf
#2	Device 3	56.80'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	56.15'	**15.0" Round Culvert** L= 19.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.15' / 55.00' S= 0.0605 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf

Primary OutFlow Max=0.87 cfs @ 12.20 hrs HW=56.91' TW=55.15' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 0.87 cfs @ 2.48 fps)

Secondary OutFlow Max=0.70 cfs @ 12.20 hrs HW=56.91' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.70 cfs of 1.83 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 0.70 cfs @ 1.08 fps)

Hydrograph for Pond 3P: DIV-02

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	56.15	0.00	0.00	0.00
5.00	0.00	56.15	0.00	0.00	0.00
10.00	**0.02**	**56.24**	**0.02**	**0.02**	**0.00**
15.00	**0.11**	**56.35**	**0.11**	**0.11**	**0.00**
20.00	0.04	56.27	0.04	0.04	0.00
25.00	0.00	56.15	0.00	0.00	0.00
30.00	0.00	56.15	0.00	0.00	0.00
35.00	0.00	56.15	0.00	0.00	0.00
40.00	0.00	56.15	0.00	0.00	0.00
45.00	0.00	56.15	0.00	0.00	0.00
50.00	0.00	56.15	0.00	0.00	0.00
55.00	0.00	56.15	0.00	0.00	0.00
60.00	0.00	56.15	0.00	0.00	0.00
65.00	0.00	56.15	0.00	0.00	0.00
70.00	0.00	56.15	0.00	0.00	0.00
75.00	0.00	56.15	0.00	0.00	0.00
80.00	0.00	56.15	0.00	0.00	0.00
85.00	0.00	56.15	0.00	0.00	0.00
90.00	0.00	56.15	0.00	0.00	0.00
95.00	0.00	56.15	0.00	0.00	0.00
100.00	0.00	56.15	0.00	0.00	0.00
105.00	0.00	56.15	0.00	0.00	0.00
110.00	0.00	56.15	0.00	0.00	0.00
115.00	0.00	56.15	0.00	0.00	0.00
120.00	0.00	56.15	0.00	0.00	0.00
125.00	0.00	56.15	0.00	0.00	0.00
130.00	0.00	56.15	0.00	0.00	0.00
135.00	0.00	56.15	0.00	0.00	0.00
140.00	0.00	56.15	0.00	0.00	0.00
145.00	0.00	56.15	0.00	0.00	0.00
150.00	0.00	56.15	0.00	0.00	0.00
155.00	0.00	56.15	0.00	0.00	0.00
160.00	0.00	56.15	0.00	0.00	0.00
165.00	0.00	56.15	0.00	0.00	0.00
170.00	0.00	56.15	0.00	0.00	0.00
175.00	0.00	56.15	0.00	0.00	0.00
180.00	0.00	56.15	0.00	0.00	0.00
185.00	0.00	56.15	0.00	0.00	0.00
190.00	0.00	56.15	0.00	0.00	0.00
195.00	0.00	56.15	0.00	0.00	0.00
200.00	0.00	56.15	0.00	0.00	0.00
205.00	0.00	56.15	0.00	0.00	0.00
210.00	0.00	56.15	0.00	0.00	0.00
215.00	0.00	56.15	0.00	0.00	0.00
220.00	0.00	56.15	0.00	0.00	0.00
225.00	0.00	56.15	0.00	0.00	0.00
230.00	0.00	56.15	0.00	0.00	0.00
235.00	0.00	56.15	0.00	0.00	0.00
240.00	0.00	56.15	0.00	0.00	0.00

Stage-Discharge for Pond 3P: DIV-02

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
56.15	0.00	0.00	0.00
56.17	0.00	0.00	0.00
56.19	0.00	0.00	0.00
56.21	0.01	0.01	0.00
56.23	0.02	0.02	0.00
56.25	0.03	0.03	0.00
56.27	0.04	0.04	0.00
56.29	0.05	0.05	0.00
56.31	0.07	0.07	0.00
56.33	0.09	0.09	0.00
56.35	0.11	0.11	0.00
56.37	0.13	0.13	0.00
56.39	0.15	0.15	0.00
56.41	0.17	0.17	0.00
56.43	0.20	0.20	0.00
56.45	0.22	0.22	0.00
56.47	0.25	0.25	0.00
56.49	0.28	0.28	0.00
56.51	0.31	0.31	0.00
56.53	0.34	0.34	0.00
56.55	0.37	0.37	0.00
56.57	0.40	0.40	0.00
56.59	0.44	0.44	0.00
56.61	0.47	0.47	0.00
56.63	0.50	0.50	0.00
56.65	0.53	0.53	0.00
56.67	0.57	0.57	0.00
56.69	0.60	0.60	0.00
56.71	0.63	0.63	0.00
56.73	0.66	0.66	0.00
56.75	0.69	0.69	0.00
56.77	0.72	0.72	0.00
56.79	0.74	0.74	0.00
56.81	0.78	0.76	0.02
56.83	0.88	0.78	0.10
56.85	1.02	0.80	0.22
56.87	1.19	0.83	0.36
56.89	1.37	0.85	0.53
56.91	1.58	0.87	0.71
56.93	1.80	0.89	0.92
56.95	2.04	0.91	1.13
56.97	2.29	0.93	1.37
56.99	2.56	0.94	1.61
57.01	2.84	0.96	1.87
57.03	3.13	0.98	2.15
57.05	3.41	1.00	2.41
57.07	3.51	1.02	2.50
57.09	3.61	1.03	2.58
57.11	3.71	1.05	2.66
57.13	3.81	1.07	2.75
57.15	3.91	1.08	2.83
57.17	4.01	1.10	2.91
57.19	4.11	1.12	2.99
57.21	4.20	1.13	3.07
57.23	4.29	1.15	3.15
57.25	4.39	1.16	3.22
57.27	4.48	1.18	3.30
57.29	4.56	1.19	3.37
57.31	4.65	1.21	3.44
57.33	4.72	1.22	3.50
57.35	4.80	1.24	3.56
57.37	4.87	1.25	3.62
57.39	**4.93**	**1.26**	**3.67**

Stage-Area-Storage for Pond 3P: DIV-02

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
56.15	**0**	56.66	0	57.17	0
56.16	0	56.67	0	57.18	0
56.17	0	56.68	0	57.19	0
56.18	0	56.69	0	57.20	0
56.19	0	56.70	0	57.21	0
56.20	0	56.71	0	57.22	0
56.21	0	56.72	0	57.23	0
56.22	0	56.73	0	57.24	0
56.23	0	56.74	0	57.25	0
56.24	0	56.75	0	57.26	0
56.25	0	56.76	0	57.27	0
56.26	0	56.77	0	57.28	0
56.27	0	56.78	0	57.29	0
56.28	0	56.79	0	57.30	0
56.29	0	56.80	0	57.31	0
56.30	0	56.81	0	57.32	0
56.31	0	56.82	0	57.33	0
56.32	0	56.83	0	57.34	0
56.33	0	56.84	0	57.35	0
56.34	0	56.85	0	57.36	0
56.35	0	56.86	0	57.37	0
56.36	0	56.87	0	57.38	0
56.37	0	56.88	0	57.39	0
56.38	0	56.89	0	57.40	0
56.39	0	56.90	0		
56.40	0	56.91	0		
56.41	0	56.92	0		
56.42	0	56.93	0		
56.43	0	56.94	0		
56.44	0	56.95	0		
56.45	0	56.96	0		
56.46	0	56.97	0		
56.47	0	56.98	0		
56.48	0	56.99	0		
56.49	0	57.00	0		
56.50	0	57.01	0		
56.51	0	57.02	0		
56.52	0	57.03	0		
56.53	0	57.04	0		
56.54	0	57.05	0		
56.55	0	57.06	0		
56.56	0	57.07	0		
56.57	0	57.08	0		
56.58	0	57.09	0		
56.59	0	57.10	0		
56.60	0	57.11	0		
56.61	0	57.12	0		
56.62	0	57.13	0		
56.63	0	57.14	0		
56.64	0	57.15	0		
56.65	0	57.16	0		

Summary for Pond 4P: Detention Basin 2

Inflow Area = 68,038 sf, 61.42% Impervious, Inflow Depth = 0.94" for 1-year event
Inflow = 1.44 cfs @ 12.32 hrs, Volume= 5,314 cf
Outflow = 0.07 cfs @ 17.47 hrs, Volume= 5,310 cf, Atten= 95%, Lag= 308.9 min
Primary = 0.07 cfs @ 17.47 hrs, Volume= 5,310 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 4L : DP 1.3 - Culvert 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 56.91' @ 17.47 hrs Surf.Area= 2,957 sf Storage= 3,230 cf

Plug-Flow detention time= 648.3 min calculated for 5,310 cf (100% of inflow)
Center-of-Mass det. time= 647.9 min (1,538.0 - 890.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.60'	26,026 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.60	1,952	0	0
56.00	2,295	849	849
57.00	3,025	2,660	3,509
58.00	3,843	3,434	6,943
59.00	4,717	4,280	11,223
60.00	5,662	5,190	16,413
61.50	7,155	9,613	26,026

Device	Routing	Invert	Outlet Devices
#1	Primary	55.60'	**24.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.60' / 52.60' S= 0.2500 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Device 1	55.60'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	57.50'	**1.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	58.25'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Secondary	60.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.07 cfs @ 17.47 hrs HW=56.91' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.07 cfs of 6.68 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.07 cfs @ 5.37 fps)
  ├─**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
  └─**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=55.60' TW=0.00' (Dynamic Tailwater)
└─**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 4P: Detention Basin 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	55.60	0.00	0.00	**0.00**
5.00	0.00	0	55.60	0.00	0.00	0.00
10.00	**0.00**	0	55.60	0.00	0.00	0.00
15.00	**0.14**	**2,959**	**56.81**	**0.06**	**0.06**	0.00
20.00	0.04	**3,096**	**56.86**	**0.06**	**0.06**	0.00
25.00	0.00	2,471	56.64	0.06	0.06	0.00
30.00	0.00	1,524	56.28	0.05	0.05	0.00
35.00	0.00	804	55.98	0.03	0.03	0.00
40.00	0.00	333	55.76	0.02	0.02	0.00
45.00	0.00	126	55.66	0.01	0.01	0.00
50.00	0.00	69	55.64	0.00	0.00	0.00
55.00	0.00	47	55.62	0.00	0.00	0.00
60.00	0.00	35	55.62	0.00	0.00	0.00
65.00	0.00	28	55.61	0.00	0.00	0.00
70.00	0.00	23	55.61	0.00	0.00	0.00
75.00	0.00	20	55.61	0.00	0.00	0.00
80.00	0.00	17	55.61	0.00	0.00	0.00
85.00	0.00	15	55.61	0.00	0.00	0.00
90.00	0.00	14	55.61	0.00	0.00	0.00
95.00	0.00	12	55.61	0.00	0.00	0.00
100.00	0.00	11	55.61	0.00	0.00	0.00
105.00	0.00	11	55.61	0.00	0.00	0.00
110.00	0.00	10	55.60	0.00	0.00	0.00
115.00	0.00	9	55.60	0.00	0.00	0.00
120.00	0.00	9	55.60	0.00	0.00	0.00
125.00	0.00	8	55.60	0.00	0.00	0.00
130.00	0.00	8	55.60	0.00	0.00	0.00
135.00	0.00	7	55.60	0.00	0.00	0.00
140.00	0.00	7	55.60	0.00	0.00	0.00
145.00	0.00	6	55.60	0.00	0.00	0.00
150.00	0.00	6	55.60	0.00	0.00	0.00
155.00	0.00	6	55.60	0.00	0.00	0.00
160.00	0.00	6	55.60	0.00	0.00	0.00
165.00	0.00	5	55.60	0.00	0.00	0.00
170.00	0.00	5	55.60	0.00	0.00	0.00
175.00	0.00	5	55.60	0.00	0.00	0.00
180.00	0.00	5	55.60	0.00	0.00	0.00
185.00	0.00	5	55.60	0.00	0.00	0.00
190.00	0.00	4	55.60	0.00	0.00	0.00
195.00	0.00	4	55.60	0.00	0.00	0.00
200.00	0.00	4	55.60	0.00	0.00	0.00
205.00	0.00	4	55.60	0.00	0.00	0.00
210.00	0.00	4	55.60	0.00	0.00	0.00
215.00	0.00	4	55.60	0.00	0.00	0.00
220.00	0.00	4	55.60	0.00	0.00	0.00
225.00	0.00	4	55.60	0.00	0.00	0.00
230.00	0.00	4	55.60	0.00	0.00	0.00
235.00	0.00	3	55.60	0.00	0.00	0.00
240.00	0.00	3	55.60	0.00	0.00	0.00

Stage-Discharge for Pond 4P: Detention Basin 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
55.60	0.00	0.00	0.00
55.70	0.01	0.01	0.00
55.80	0.02	0.02	0.00
55.90	0.03	0.03	0.00
56.00	0.03	0.03	0.00
56.10	0.04	0.04	0.00
56.20	0.04	0.04	0.00
56.30	0.05	0.05	0.00
56.40	0.05	0.05	0.00
56.50	0.05	0.05	0.00
56.60	0.06	0.06	0.00
56.70	0.06	0.06	0.00
56.80	0.06	0.06	0.00
56.90	0.07	0.07	0.00
57.00	0.07	0.07	0.00
57.10	0.07	0.07	0.00
57.20	0.07	0.07	0.00
57.30	0.08	0.08	0.00
57.40	0.08	0.08	0.00
57.50	0.08	0.08	0.00
57.60	0.18	0.18	0.00
57.70	0.37	0.37	0.00
57.80	0.59	0.59	0.00
57.90	0.85	0.85	0.00
58.00	1.13	1.13	0.00
58.10	1.43	1.43	0.00
58.20	1.74	1.74	0.00
58.30	2.24	2.24	0.00
58.40	3.33	3.33	0.00
58.50	4.74	4.74	0.00
58.60	6.38	6.38	0.00
58.70	8.22	8.22	0.00
58.80	10.21	10.21	0.00
58.90	12.35	12.35	0.00
59.00	14.61	14.61	0.00
59.10	16.99	16.99	0.00
59.20	19.26	19.26	0.00
59.30	19.62	19.62	0.00
59.40	19.98	19.98	0.00
59.50	20.34	20.34	0.00
59.60	20.68	20.68	0.00
59.70	21.03	21.03	0.00
59.80	21.36	21.36	0.00
59.90	21.69	21.69	0.00
60.00	22.02	22.02	0.00
60.10	22.34	22.34	0.00
60.20	23.69	22.66	1.03
60.30	25.88	22.97	2.91
60.40	28.62	23.28	5.34
60.50	31.79	23.58	8.21
60.60	35.33	23.88	11.45
60.70	39.20	24.18	15.02
60.80	43.36	24.47	18.88
60.90	47.79	24.76	23.02
61.00	52.47	25.05	27.42
61.10	57.38	25.33	32.05
61.20	62.51	25.61	36.90
61.30	67.84	25.89	41.95
61.40	73.37	26.16	47.21
61.50	**79.09**	**26.44**	**52.65**

Stage-Area-Storage for Pond 4P: Detention Basin 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.60	1,952	0
55.70	2,038	199
55.80	2,124	408
55.90	2,209	624
56.00	2,295	849
56.10	2,368	1,083
56.20	2,441	1,323
56.30	2,514	1,571
56.40	2,587	1,826
56.50	2,660	2,088
56.60	2,733	2,358
56.70	2,806	2,635
56.80	2,879	2,919
56.90	2,952	3,211
57.00	3,025	3,509
57.10	3,107	3,816
57.20	3,189	4,131
57.30	3,270	4,454
57.40	3,352	4,785
57.50	3,434	5,124
57.60	3,516	5,472
57.70	3,598	5,827
57.80	3,679	6,191
57.90	3,761	6,563
58.00	3,843	6,943
58.10	3,930	7,332
58.20	4,018	7,729
58.30	4,105	8,136
58.40	4,193	8,551
58.50	4,280	8,974
58.60	4,367	9,407
58.70	4,455	9,848
58.80	4,542	10,297
58.90	4,630	10,756
59.00	4,717	11,223
59.10	4,812	11,700
59.20	4,906	12,186
59.30	5,001	12,681
59.40	5,095	13,186
59.50	5,190	13,700
59.60	5,284	14,224
59.70	5,379	14,757
59.80	5,473	15,299
59.90	5,567	15,851
60.00	5,662	16,413
60.10	5,762	16,984
60.20	5,861	17,565
60.30	5,961	18,156
60.40	6,060	18,757
60.50	6,160	19,368
60.60	6,259	19,989
60.70	6,359	20,620
60.80	6,458	21,261
60.90	6,558	21,912
61.00	6,657	22,573
61.10	6,757	23,243
61.20	6,856	23,924
61.30	6,956	24,615
61.40	7,055	25,315
61.50	**7,155**	**26,026**

Summary for Pond 7P: Bio 2

Inflow Area = 26,810 sf, 63.81% Impervious, Inflow Depth = 1.72" for 1-year event
Inflow = 1.21 cfs @ 12.09 hrs, Volume= 3,843 cf
Outflow = 0.10 cfs @ 13.31 hrs, Volume= 3,843 cf, Atten= 92%, Lag= 73.0 min
Primary = 0.07 cfs @ 13.31 hrs, Volume= 466 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Tertiary = 0.03 cfs @ 10.55 hrs, Volume= 3,377 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 56.51' @ 13.31 hrs Surf.Area= 2,144 sf Storage= 2,114 cf

Plug-Flow detention time= 689.0 min calculated for 3,842 cf (100% of inflow)
Center-of-Mass det. time= 689.1 min (1,505.7 - 816.5)

Volume	Invert	Avail.Storage	Storage Description
#1	52.99'	8,230 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
52.99	1,128	0.0	0	0
53.00	1,128	33.0	4	4
55.99	1,128	33.0	1,113	1,117
56.00	1,742	100.0	14	1,131
57.00	2,537	100.0	2,140	3,271
58.00	3,569	100.0	3,053	6,324
58.50	4,058	100.0	1,907	8,230

Device	Routing	Invert	Outlet Devices
#1	Primary	56.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Device 3	52.99'	**1.020 in/hr Exfiltration over Surface area from 52.98' - 55.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#3	Tertiary	52.25'	**6.0" Vert. subdrain** C= 0.600 Limited to weir flow at low heads
#4	Secondary	57.50'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.07 cfs @ 13.31 hrs HW=56.51' TW=0.00' (Dynamic Tailwater)
└**1=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.25 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.99' TW=0.00' (Dynamic Tailwater)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.03 cfs @ 10.55 hrs HW=53.05' TW=0.00' (Dynamic Tailwater)
└**3=subdrain** (Passes 0.03 cfs of 0.70 cfs potential flow)
└**2=Exfiltration** (Exfiltration Controls 0.03 cfs)

Hydrograph for Pond 7P: Bio 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
0.00	0.00	0	52.99	0.00	0.00	**0.00**	0.00
5.00	0.00	0	52.99	0.00	0.00	0.00	0.00
10.00	**0.03**	**7**	**53.01**	**0.03**	**0.00**	0.00	**0.03**
15.00	**0.06**	**2,109**	**56.50**	**0.06**	**0.03**	0.00	**0.03**
20.00	0.02	2,072	56.49	0.03	0.00	0.00	0.03
25.00	0.00	1,838	56.37	0.03	0.00	0.00	0.03
30.00	0.00	1,359	56.13	0.03	0.00	0.00	0.03
35.00	0.00	880	55.35	0.03	0.00	0.00	0.03
40.00	0.00	400	54.06	0.03	0.00	0.00	0.03
45.00	0.00	0	52.99	0.00	0.00	0.00	0.00
50.00	0.00	0	52.99	0.00	0.00	0.00	0.00
55.00	0.00	0	52.99	0.00	0.00	0.00	0.00
60.00	0.00	0	52.99	0.00	0.00	0.00	0.00
65.00	0.00	0	52.99	0.00	0.00	0.00	0.00
70.00	0.00	0	52.99	0.00	0.00	0.00	0.00
75.00	0.00	0	52.99	0.00	0.00	0.00	0.00
80.00	0.00	0	52.99	0.00	0.00	0.00	0.00
85.00	0.00	0	52.99	0.00	0.00	0.00	0.00
90.00	0.00	0	52.99	0.00	0.00	0.00	0.00
95.00	0.00	0	52.99	0.00	0.00	0.00	0.00
100.00	0.00	0	52.99	0.00	0.00	0.00	0.00
105.00	0.00	0	52.99	0.00	0.00	0.00	0.00
110.00	0.00	0	52.99	0.00	0.00	0.00	0.00
115.00	0.00	0	52.99	0.00	0.00	0.00	0.00
120.00	0.00	0	52.99	0.00	0.00	0.00	0.00
125.00	0.00	0	52.99	0.00	0.00	0.00	0.00
130.00	0.00	0	52.99	0.00	0.00	0.00	0.00
135.00	0.00	0	52.99	0.00	0.00	0.00	0.00
140.00	0.00	0	52.99	0.00	0.00	0.00	0.00
145.00	0.00	0	52.99	0.00	0.00	0.00	0.00
150.00	0.00	0	52.99	0.00	0.00	0.00	0.00
155.00	0.00	0	52.99	0.00	0.00	0.00	0.00
160.00	0.00	0	52.99	0.00	0.00	0.00	0.00
165.00	0.00	0	52.99	0.00	0.00	0.00	0.00
170.00	0.00	0	52.99	0.00	0.00	0.00	0.00
175.00	0.00	0	52.99	0.00	0.00	0.00	0.00
180.00	0.00	0	52.99	0.00	0.00	0.00	0.00
185.00	0.00	0	52.99	0.00	0.00	0.00	0.00
190.00	0.00	0	52.99	0.00	0.00	0.00	0.00
195.00	0.00	0	52.99	0.00	0.00	0.00	0.00
200.00	0.00	0	52.99	0.00	0.00	0.00	0.00
205.00	0.00	0	52.99	0.00	0.00	0.00	0.00
210.00	0.00	0	52.99	0.00	0.00	0.00	0.00
215.00	0.00	0	52.99	0.00	0.00	0.00	0.00
220.00	0.00	0	52.99	0.00	0.00	0.00	0.00
225.00	0.00	0	52.99	0.00	0.00	0.00	0.00
230.00	0.00	0	52.99	0.00	0.00	0.00	0.00
235.00	0.00	0	52.99	0.00	0.00	0.00	0.00
240.00	0.00	0	52.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 7P: Bio 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
52.99	0.00	0.00	0.00	**0.00**
53.19	0.03	0.00	0.00	**0.03**
53.39	0.03	0.00	0.00	0.03
53.59	0.03	0.00	0.00	0.03
53.79	0.03	0.00	0.00	0.03
53.99	0.03	0.00	0.00	0.03
54.19	0.03	0.00	0.00	0.03
54.39	0.03	0.00	0.00	0.03
54.59	0.03	0.00	0.00	0.03
54.79	0.03	0.00	0.00	0.03
54.99	0.03	0.00	0.00	0.03
55.19	0.03	0.00	0.00	0.03
55.39	0.03	0.00	0.00	0.03
55.59	0.03	0.00	0.00	0.03
55.79	0.03	0.00	0.00	0.03
55.99	0.03	0.00	0.00	0.03
56.19	0.03	0.00	0.00	0.03
56.39	0.03	0.00	0.00	0.03
56.59	2.92	2.89	0.00	0.03
56.79	5.21	5.19	0.00	0.03
56.99	6.77	6.74	0.00	0.03
57.19	8.03	8.00	0.00	0.03
57.39	9.11	9.08	0.00	0.03
57.59	10.96	10.05	0.88	0.03
57.79	16.04	10.94	5.08	0.03
57.99	22.89	11.75	11.11	0.03
58.19	31.03	12.52	18.48	0.03
58.39	**40.23**	**13.24**	**26.97**	0.03

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Stage-Area-Storage for Pond 7P: Bio 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
52.99	1,128	0
53.09	1,128	37
53.19	1,128	74
53.29	1,128	112
53.39	1,128	149
53.49	1,128	186
53.59	1,128	223
53.69	1,128	261
53.79	1,128	298
53.89	1,128	335
53.99	1,128	372
54.09	1,128	409
54.19	1,128	447
54.29	1,128	484
54.39	1,128	521
54.49	1,128	558
54.59	1,128	596
54.69	1,128	633
54.79	1,128	670
54.89	1,128	707
54.99	1,128	744
55.09	1,128	782
55.19	1,128	819
55.29	1,128	856
55.39	1,128	893
55.49	1,128	931
55.59	1,128	968
55.69	1,128	1,005
55.79	1,128	1,042
55.89	1,128	1,079
55.99	1,128	1,117
56.09	1,814	1,291
56.19	1,893	1,476
56.29	1,973	1,670
56.39	2,052	1,871
56.49	2,132	2,080
56.59	2,211	2,297
56.69	2,291	2,522
56.79	2,370	2,755
56.89	2,450	2,996
56.99	2,529	3,245
57.09	2,630	3,503
57.19	2,733	3,771
57.29	2,836	4,050
57.39	2,939	4,338
57.49	3,043	4,638
57.59	3,146	4,947
57.69	3,249	5,267
57.79	3,352	5,597
57.89	3,455	5,937
57.99	3,559	6,288
58.09	3,657	6,649
58.19	3,755	7,019
58.29	3,853	7,400
58.39	3,950	7,790
58.49	**4,048**	**8,190**

Summary for Pond 8P: DIV-04

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 1.00" for 1-year event
Inflow = 4.72 cfs @ 12.21 hrs, Volume= 12,676 cf
Outflow = 4.72 cfs @ 12.21 hrs, Volume= 12,677 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.72 cfs @ 12.21 hrs, Volume= 11,744 cf
Routed to Pond 23P : UGIS-1
Secondary = 0.35 cfs @ 13.02 hrs, Volume= 932 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 48.47' @ 13.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.90'	**18.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.90' / 46.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf
#2	Device 3	48.40'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	46.90'	**24.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.90' / 46.70' S= 0.0067 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf

Primary OutFlow Max=4.70 cfs @ 12.21 hrs HW=48.25' TW=47.31' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 4.70 cfs @ 3.71 fps)

Secondary OutFlow Max=0.35 cfs @ 13.02 hrs HW=48.47' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.35 cfs of 7.94 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 0.35 cfs @ 0.85 fps)

Hydrograph for Pond 8P: DIV-04

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	46.90	0.00	0.00	0.00
5.00	0.00	46.92	0.00	0.00	0.00
10.00	**0.06**	**47.02**	**0.06**	**0.06**	**0.00**
15.00	**0.06**	**48.40**	**0.06**	**0.06**	**0.01**
20.00	0.00	48.20	0.00	0.00	0.00
25.00	0.00	47.96	0.00	0.00	0.00
30.00	0.00	47.74	0.00	0.00	0.00
35.00	0.00	47.54	0.00	0.00	0.00
40.00	0.00	47.36	0.00	0.00	0.00
45.00	0.00	47.18	0.00	0.00	0.00
50.00	0.00	47.02	0.00	0.00	0.00
55.00	0.00	46.90	0.00	0.00	0.00
60.00	0.00	46.90	0.00	0.00	0.00
65.00	0.00	46.90	0.00	0.00	0.00
70.00	0.00	46.90	0.00	0.00	0.00
75.00	0.00	46.90	0.00	0.00	0.00
80.00	0.00	46.90	0.00	0.00	0.00
85.00	0.00	46.90	0.00	0.00	0.00
90.00	0.00	46.90	0.00	0.00	0.00
95.00	0.00	46.90	0.00	0.00	0.00
100.00	0.00	46.90	0.00	0.00	0.00
105.00	0.00	46.90	0.00	0.00	0.00
110.00	0.00	46.90	0.00	0.00	0.00
115.00	0.00	46.90	0.00	0.00	0.00
120.00	0.00	46.90	0.00	0.00	0.00
125.00	0.00	46.90	0.00	0.00	0.00
130.00	0.00	46.90	0.00	0.00	0.00
135.00	0.00	46.90	0.00	0.00	0.00
140.00	0.00	46.90	0.00	0.00	0.00
145.00	0.00	46.90	0.00	0.00	0.00
150.00	0.00	46.90	0.00	0.00	0.00
155.00	0.00	46.90	0.00	0.00	0.00
160.00	0.00	46.90	0.00	0.00	0.00
165.00	0.00	46.90	0.00	0.00	0.00
170.00	0.00	46.90	0.00	0.00	0.00
175.00	0.00	46.90	0.00	0.00	0.00
180.00	0.00	46.90	0.00	0.00	0.00
185.00	0.00	46.90	0.00	0.00	0.00
190.00	0.00	46.90	0.00	0.00	0.00
195.00	0.00	46.90	0.00	0.00	0.00
200.00	0.00	46.90	0.00	0.00	0.00
205.00	0.00	46.90	0.00	0.00	0.00
210.00	0.00	46.90	0.00	0.00	0.00
215.00	0.00	46.90	0.00	0.00	0.00
220.00	0.00	46.90	0.00	0.00	0.00
225.00	0.00	46.90	0.00	0.00	0.00
230.00	0.00	46.90	0.00	0.00	0.00
235.00	0.00	46.90	0.00	0.00	0.00
240.00	0.00	46.90	0.00	0.00	0.00

Stage-Discharge for Pond 8P: DIV-04

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
46.90	0.00	0.00	0.00
46.92	0.00	0.00	0.00
46.94	0.01	0.01	0.00
46.96	0.02	0.02	0.00
46.98	0.03	0.03	0.00
47.00	0.04	0.04	0.00
47.02	0.06	0.06	0.00
47.04	0.08	0.08	0.00
47.06	0.11	0.11	0.00
47.08	0.13	0.13	0.00
47.10	0.16	0.16	0.00
47.12	0.20	0.20	0.00
47.14	0.23	0.23	0.00
47.16	0.27	0.27	0.00
47.18	0.31	0.31	0.00
47.20	0.35	0.35	0.00
47.22	0.39	0.39	0.00
47.24	0.44	0.44	0.00
47.26	0.48	0.48	0.00
47.28	0.53	0.53	0.00
47.30	0.58	0.58	0.00
47.32	0.64	0.64	0.00
47.34	0.69	0.69	0.00
47.36	0.75	0.75	0.00
47.38	0.81	0.81	0.00
47.40	0.87	0.87	0.00
47.42	0.94	0.94	0.00
47.44	1.00	1.00	0.00
47.46	1.07	1.07	0.00
47.48	1.14	1.14	0.00
47.50	1.21	1.21	0.00
47.52	1.28	1.28	0.00
47.54	1.35	1.35	0.00
47.56	1.42	1.42	0.00
47.58	1.50	1.50	0.00
47.60	1.58	1.58	0.00
47.62	1.66	1.66	0.00
47.64	1.74	1.74	0.00
47.66	1.82	1.82	0.00
47.68	1.91	1.91	0.00
47.70	1.99	1.99	0.00
47.72	2.08	2.08	0.00
47.74	2.16	2.16	0.00
47.76	2.25	2.25	0.00
47.78	2.34	2.34	0.00
47.80	2.43	2.43	0.00
47.82	2.53	2.53	0.00
47.84	2.62	2.62	0.00
47.86	2.71	2.71	0.00
47.88	2.81	2.81	0.00
47.90	2.91	2.91	0.00
47.92	3.00	3.00	0.00
47.94	3.10	3.10	0.00
47.96	3.20	3.20	0.00
47.98	3.30	3.30	0.00
48.00	3.40	3.40	0.00
48.02	3.50	3.50	0.00
48.04	3.61	3.61	0.00
48.06	3.71	3.71	0.00
48.08	3.81	3.81	0.00
48.10	3.92	3.92	0.00
48.12	4.02	4.02	0.00
48.14	4.12	4.12	0.00
48.16	4.23	4.23	0.00
48.18	4.34	4.34	0.00
48.20	4.44	4.44	0.00
48.22	4.55	4.55	0.00
48.24	4.65	4.65	0.00
48.26	4.76	4.76	0.00
48.28	4.87	4.87	0.00
48.30	4.97	4.97	0.00
48.32	5.08	5.08	0.00
48.34	5.19	5.19	0.00
48.36	5.29	5.29	0.00
48.38	5.40	5.40	0.00
48.40	5.50	5.50	0.00
48.42	5.66	5.61	0.06
48.44	5.87	5.71	0.16
48.46	6.10	5.81	0.29
48.48	6.36	5.92	0.44
48.50	6.64	6.02	0.62
48.52	6.93	6.12	0.81
48.54	7.24	6.22	1.02
48.56	7.57	6.32	1.25
48.58	7.91	6.42	1.49
48.60	8.26	6.52	1.74
48.62	8.62	6.61	2.01
48.64	8.97	6.68	2.29
48.66	9.33	6.75	2.58
48.68	9.70	6.82	2.88
48.70	10.07	6.88	3.19
48.72	10.46	6.95	3.51
48.74	10.86	7.01	3.85
48.76	11.26	7.08	4.19
48.78	11.68	7.14	4.54
48.80	12.10	7.20	4.90
48.82	12.53	7.27	5.27
48.84	12.97	7.33	5.64
48.86	13.42	7.39	6.03
48.88	13.87	7.45	6.42
48.90	**14.33**	**7.51**	**6.82**

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Stage-Area-Storage for Pond 8P: DIV-04

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
46.90	**0**	47.92	0
46.92	0	47.94	0
46.94	0	47.96	0
46.96	0	47.98	0
46.98	0	48.00	0
47.00	0	48.02	0
47.02	0	48.04	0
47.04	0	48.06	0
47.06	0	48.08	0
47.08	0	48.10	0
47.10	0	48.12	0
47.12	0	48.14	0
47.14	0	48.16	0
47.16	0	48.18	0
47.18	0	48.20	0
47.20	0	48.22	0
47.22	0	48.24	0
47.24	0	48.26	0
47.26	0	48.28	0
47.28	0	48.30	0
47.30	0	48.32	0
47.32	0	48.34	0
47.34	0	48.36	0
47.36	0	48.38	0
47.38	0	48.40	0
47.40	0	48.42	0
47.42	0	48.44	0
47.44	0	48.46	0
47.46	0	48.48	0
47.48	0	48.50	0
47.50	0	48.52	0
47.52	0	48.54	0
47.54	0	48.56	0
47.56	0	48.58	0
47.58	0	48.60	0
47.60	0	48.62	0
47.62	0	48.64	0
47.64	0	48.66	0
47.66	0	48.68	0
47.68	0	48.70	0
47.70	0	48.72	0
47.72	0	48.74	0
47.74	0	48.76	0
47.76	0	48.78	0
47.78	0	48.80	0
47.80	0	48.82	0
47.82	0	48.84	0
47.84	0	48.86	0
47.86	0	48.88	0
47.88	0	48.90	0
47.90	0		

Summary for Pond 9P: Sand Filter 5

Inflow Area = 23,611 sf, 64.90% Impervious, Inflow Depth = 1.82" for 1-year event
Inflow = 1.05 cfs @ 12.09 hrs, Volume= 3,574 cf
Outflow = 0.90 cfs @ 12.21 hrs, Volume= 3,574 cf, Atten= 14%, Lag= 7.1 min
Discarded = 0.01 cfs @ 12.21 hrs, Volume= 1,753 cf
Primary = 0.89 cfs @ 12.21 hrs, Volume= 1,821 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 49.80' @ 12.21 hrs Surf.Area= 1,089 sf Storage= 1,425 cf

Plug-Flow detention time= 1,124.0 min calculated for 3,574 cf (100% of inflow)
Center-of-Mass det. time= 1,124.0 min (1,928.5 - 804.5)

Volume	Invert	Avail.Storage	Storage Description
#1	45.99'	4,039 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
45.99	705	0.0	0	0
46.00	705	33.0	2	2
48.99	705	33.0	696	698
49.00	705	100.0	7	705
50.00	1,184	100.0	945	1,649
51.00	1,725	100.0	1,455	3,104
51.50	2,016	100.0	935	4,039

Device	Routing	Invert	Outlet Devices
#1	Discarded	45.99'	**0.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	49.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	50.20'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 12.21 hrs HW=49.80' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.79 cfs @ 12.21 hrs HW=49.80' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Weir Controls 0.79 cfs @ 0.71 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=45.99' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 9P: Sand Filter 5

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	45.99	0.00	0.00	0.00	**0.00**
5.00	0.00	0	45.99	0.00	0.00	0.00	0.00
10.00	**0.03**	**128**	**46.54**	**0.00**	**0.00**	**0.00**	0.00
15.00	**0.05**	**1,376**	**49.76**	**0.05**	**0.01**	**0.04**	0.00
20.00	0.02	1,371	49.75	0.02	0.01	0.01	0.00
25.00	0.00	1,349	49.73	0.01	0.01	0.00	0.00
30.00	0.00	1,233	49.62	0.01	0.01	0.00	0.00
35.00	0.00	1,124	49.51	0.01	0.01	0.00	0.00
40.00	0.00	1,020	49.39	0.01	0.01	0.00	0.00
45.00	0.00	923	49.28	0.01	0.01	0.00	0.00
50.00	0.00	831	49.17	0.00	0.00	0.00	0.00
55.00	0.00	746	49.06	0.00	0.00	0.00	0.00
60.00	0.00	666	48.85	0.00	0.00	0.00	0.00
65.00	0.00	586	48.51	0.00	0.00	0.00	0.00
70.00	0.00	507	48.17	0.00	0.00	0.00	0.00
75.00	0.00	428	47.83	0.00	0.00	0.00	0.00
80.00	0.00	348	47.49	0.00	0.00	0.00	0.00
85.00	0.00	269	47.15	0.00	0.00	0.00	0.00
90.00	0.00	190	46.81	0.00	0.00	0.00	0.00
95.00	0.00	111	46.47	0.00	0.00	0.00	0.00
100.00	0.00	31	46.12	0.00	0.00	0.00	0.00
105.00	0.00	0	45.99	0.00	0.00	0.00	0.00
110.00	0.00	0	45.99	0.00	0.00	0.00	0.00
115.00	0.00	0	45.99	0.00	0.00	0.00	0.00
120.00	0.00	0	45.99	0.00	0.00	0.00	0.00
125.00	0.00	0	45.99	0.00	0.00	0.00	0.00
130.00	0.00	0	45.99	0.00	0.00	0.00	0.00
135.00	0.00	0	45.99	0.00	0.00	0.00	0.00
140.00	0.00	0	45.99	0.00	0.00	0.00	0.00
145.00	0.00	0	45.99	0.00	0.00	0.00	0.00
150.00	0.00	0	45.99	0.00	0.00	0.00	0.00
155.00	0.00	0	45.99	0.00	0.00	0.00	0.00
160.00	0.00	0	45.99	0.00	0.00	0.00	0.00
165.00	0.00	0	45.99	0.00	0.00	0.00	0.00
170.00	0.00	0	45.99	0.00	0.00	0.00	0.00
175.00	0.00	0	45.99	0.00	0.00	0.00	0.00
180.00	0.00	0	45.99	0.00	0.00	0.00	0.00
185.00	0.00	0	45.99	0.00	0.00	0.00	0.00
190.00	0.00	0	45.99	0.00	0.00	0.00	0.00
195.00	0.00	0	45.99	0.00	0.00	0.00	0.00
200.00	0.00	0	45.99	0.00	0.00	0.00	0.00
205.00	0.00	0	45.99	0.00	0.00	0.00	0.00
210.00	0.00	0	45.99	0.00	0.00	0.00	0.00
215.00	0.00	0	45.99	0.00	0.00	0.00	0.00
220.00	0.00	0	45.99	0.00	0.00	0.00	0.00
225.00	0.00	0	45.99	0.00	0.00	0.00	0.00
230.00	0.00	0	45.99	0.00	0.00	0.00	0.00
235.00	0.00	0	45.99	0.00	0.00	0.00	0.00
240.00	0.00	0	45.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 9P: Sand Filter 5

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
45.99	0.00	0.00	0.00	0.00
46.19	0.00	0.00	0.00	0.00
46.39	0.00	0.00	0.00	0.00
46.59	0.00	0.00	0.00	0.00
46.79	0.00	0.00	0.00	0.00
46.99	0.00	0.00	0.00	0.00
47.19	0.00	0.00	0.00	0.00
47.39	0.00	0.00	0.00	0.00
47.59	0.00	0.00	0.00	0.00
47.79	0.00	0.00	0.00	0.00
47.99	0.00	0.00	0.00	0.00
48.19	0.00	0.00	0.00	0.00
48.39	0.00	0.00	0.00	0.00
48.59	0.00	0.00	0.00	0.00
48.79	0.00	0.00	0.00	0.00
48.99	0.00	0.00	0.00	0.00
49.19	0.00	0.00	0.00	0.00
49.39	0.01	0.01	0.00	0.00
49.59	0.01	0.01	0.00	0.00
49.79	0.63	0.01	0.63	0.00
49.99	2.37	0.01	2.36	0.00
50.19	3.20	0.01	3.19	0.00
50.39	6.56	0.01	3.85	2.70
50.59	12.32	0.01	4.41	7.90
50.79	19.56	0.01	4.91	14.64
50.99	27.97	0.01	5.36	22.60
51.19	37.36	0.01	5.78	31.57
51.39	**47.62**	**0.01**	**6.17**	**41.44**

Stage-Area-Storage for Pond 9P: Sand Filter 5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
45.99	705	0
46.09	705	23
46.19	705	47
46.29	705	70
46.39	705	93
46.49	705	116
46.59	705	140
46.69	705	163
46.79	705	186
46.89	705	209
46.99	705	233
47.09	705	256
47.19	705	279
47.29	705	302
47.39	705	326
47.49	705	349
47.59	705	372
47.69	705	396
47.79	705	419
47.89	705	442
47.99	705	465
48.09	705	489
48.19	705	512
48.29	705	535
48.39	705	558
48.49	705	582
48.59	705	605
48.69	705	628
48.79	705	651
48.89	705	675
48.99	705	698
49.09	748	770
49.19	796	848
49.29	844	930
49.39	892	1,016
49.49	940	1,108
49.59	988	1,204
49.69	1,036	1,305
49.79	1,083	1,411
49.89	1,131	1,522
49.99	1,179	1,638
50.09	1,233	1,758
50.19	1,287	1,884
50.29	1,341	2,016
50.39	1,395	2,152
50.49	1,449	2,295
50.59	1,503	2,442
50.69	1,557	2,595
50.79	1,611	2,754
50.89	1,665	2,918
50.99	1,720	3,087
51.09	1,777	3,262
51.19	1,836	3,442
51.29	1,894	3,629
51.39	1,952	3,821
51.49	**2,010**	**4,019**

Summary for Pond 10P: Bio 1

Inflow Area = 42,514 sf, 59.10% Impervious, Inflow Depth = 1.61" for 1-year event
Inflow = 1.16 cfs @ 12.06 hrs, Volume= 5,700 cf
Outflow = 1.01 cfs @ 12.20 hrs, Volume= 5,700 cf, Atten= 13%, Lag= 8.2 min
Discarded = 0.01 cfs @ 11.40 hrs, Volume= 2,078 cf
Primary = 1.00 cfs @ 12.20 hrs, Volume= 3,621 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 44.55' @ 12.20 hrs Surf.Area= 2,718 sf Storage= 1,829 cf

Plug-Flow detention time= 834.9 min calculated for 5,698 cf (100% of inflow)
Center-of-Mass det. time= 835.7 min (1,658.4 - 822.8)

Volume	Invert	Avail.Storage	Storage Description
#1	41.99'	6,655 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
41.99	725	0.0	0	0
42.00	725	33.0	2	2
43.99	725	33.0	476	479
44.00	1,147	33.0	3	482
44.01	2,171	100.0	17	498
45.00	3,166	100.0	2,642	3,140
46.00	3,865	100.0	3,516	6,655

Device	Routing	Invert	Outlet Devices
#1	Primary	44.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Discarded	41.99'	**0.270 in/hr Exfiltration over Surface area from 41.98' - 44.00'** Excluded Surface area = 0 sf Phase-In= 0.02'
#3	Secondary	45.00'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 11.40 hrs HW=44.01' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=1.00 cfs @ 12.20 hrs HW=44.55' TW=0.00' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Weir Controls 1.00 cfs @ 0.76 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=41.99' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 10P: Bio 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	41.99	0.00	0.00	0.00	**0.00**
5.00	0.00	0	41.99	0.00	0.00	0.00	0.00
10.00	**0.04**	**132**	**42.54**	**0.00**	**0.00**	**0.00**	0.00
15.00	**0.09**	**1,711**	**44.51**	**0.09**	**0.01**	**0.09**	0.00
20.00	0.03	1,695	44.50	0.03	0.01	0.03	0.00
25.00	0.00	1,665	44.49	0.01	0.01	0.00	0.00
30.00	0.00	1,536	44.44	0.01	0.01	0.00	0.00
35.00	0.00	1,407	44.39	0.01	0.01	0.00	0.00
40.00	0.00	1,278	44.34	0.01	0.01	0.00	0.00
45.00	0.00	1,149	44.29	0.01	0.01	0.00	0.00
50.00	0.00	1,020	44.24	0.01	0.01	0.00	0.00
55.00	0.00	891	44.18	0.01	0.01	0.00	0.00
60.00	0.00	762	44.13	0.01	0.01	0.00	0.00
65.00	0.00	632	44.07	0.01	0.01	0.00	0.00
70.00	0.00	503	44.01	0.01	0.01	0.00	0.00
75.00	0.00	413	43.72	0.00	0.00	0.00	0.00
80.00	0.00	332	43.38	0.00	0.00	0.00	0.00
85.00	0.00	250	43.03	0.00	0.00	0.00	0.00
90.00	0.00	168	42.69	0.00	0.00	0.00	0.00
95.00	0.00	87	42.35	0.00	0.00	0.00	0.00
100.00	0.00	5	42.01	0.00	0.00	0.00	0.00
105.00	0.00	0	41.99	0.00	0.00	0.00	0.00
110.00	0.00	0	41.99	0.00	0.00	0.00	0.00
115.00	0.00	0	41.99	0.00	0.00	0.00	0.00
120.00	0.00	0	41.99	0.00	0.00	0.00	0.00
125.00	0.00	0	41.99	0.00	0.00	0.00	0.00
130.00	0.00	0	41.99	0.00	0.00	0.00	0.00
135.00	0.00	0	41.99	0.00	0.00	0.00	0.00
140.00	0.00	0	41.99	0.00	0.00	0.00	0.00
145.00	0.00	0	41.99	0.00	0.00	0.00	0.00
150.00	0.00	0	41.99	0.00	0.00	0.00	0.00
155.00	0.00	0	41.99	0.00	0.00	0.00	0.00
160.00	0.00	0	41.99	0.00	0.00	0.00	0.00
165.00	0.00	0	41.99	0.00	0.00	0.00	0.00
170.00	0.00	0	41.99	0.00	0.00	0.00	0.00
175.00	0.00	0	41.99	0.00	0.00	0.00	0.00
180.00	0.00	0	41.99	0.00	0.00	0.00	0.00
185.00	0.00	0	41.99	0.00	0.00	0.00	0.00
190.00	0.00	0	41.99	0.00	0.00	0.00	0.00
195.00	0.00	0	41.99	0.00	0.00	0.00	0.00
200.00	0.00	0	41.99	0.00	0.00	0.00	0.00
205.00	0.00	0	41.99	0.00	0.00	0.00	0.00
210.00	0.00	0	41.99	0.00	0.00	0.00	0.00
215.00	0.00	0	41.99	0.00	0.00	0.00	0.00
220.00	0.00	0	41.99	0.00	0.00	0.00	0.00
225.00	0.00	0	41.99	0.00	0.00	0.00	0.00
230.00	0.00	0	41.99	0.00	0.00	0.00	0.00
235.00	0.00	0	41.99	0.00	0.00	0.00	0.00
240.00	0.00	0	41.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 10P: Bio 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
41.99	0.00	0.00	0.00	0.00
42.09	0.00	0.00	0.00	0.00
42.19	0.00	0.00	0.00	0.00
42.29	0.00	0.00	0.00	0.00
42.39	0.00	0.00	0.00	0.00
42.49	0.00	0.00	0.00	0.00
42.59	0.00	0.00	0.00	0.00
42.69	0.00	0.00	0.00	0.00
42.79	0.00	0.00	0.00	0.00
42.89	0.00	0.00	0.00	0.00
42.99	0.00	0.00	0.00	0.00
43.09	0.00	0.00	0.00	0.00
43.19	0.00	0.00	0.00	0.00
43.29	0.00	0.00	0.00	0.00
43.39	0.00	0.00	0.00	0.00
43.49	0.00	0.00	0.00	0.00
43.59	0.00	0.00	0.00	0.00
43.69	0.00	0.00	0.00	0.00
43.79	0.00	0.00	0.00	0.00
43.89	0.00	0.00	0.00	0.00
43.99	0.00	**0.00**	0.00	0.00
44.09	0.01	**0.01**	0.00	0.00
44.19	0.01	0.01	0.00	0.00
44.29	0.01	0.01	0.00	0.00
44.39	0.01	0.01	0.00	0.00
44.49	0.01	0.01	0.00	0.00
44.59	1.45	0.01	1.44	0.00
44.69	2.11	0.01	2.10	0.00
44.79	2.60	0.01	2.59	0.00
44.89	3.01	0.01	3.01	0.00
44.99	3.38	0.01	3.37	0.00
45.09	4.59	0.01	3.70	0.88
45.19	6.70	0.01	4.00	2.70
45.29	9.36	0.01	4.28	5.08
45.39	12.45	0.01	4.54	7.90
45.49	15.90	0.01	4.79	11.11
45.59	19.68	0.01	5.03	14.64
45.69	23.74	0.01	5.25	18.48
45.79	28.07	0.01	5.47	22.60
45.89	32.65	0.01	5.68	26.97
45.99	**37.46**	0.01	**5.88**	**31.57**

Stage-Area-Storage for Pond 10P: Bio 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
41.99	725	0
42.04	725	12
42.09	725	24
42.14	725	36
42.19	725	48
42.24	725	60
42.29	725	72
42.34	725	84
42.39	725	96
42.44	725	108
42.49	725	120
42.54	725	132
42.59	725	144
42.64	725	156
42.69	725	167
42.74	725	179
42.79	725	191
42.84	725	203
42.89	725	215
42.94	725	227
42.99	725	239
43.04	725	251
43.09	725	263
43.14	725	275
43.19	725	287
43.24	725	299
43.29	725	311
43.34	725	323
43.39	725	335
43.44	725	347
43.49	725	359
43.54	725	371
43.59	725	383
43.64	725	395
43.69	725	407
43.74	725	419
43.79	725	431
43.84	725	443
43.89	725	455
43.94	725	467
43.99	725	479
44.04	2,201	564
44.09	2,251	675
44.14	2,302	789
44.19	2,352	905
44.24	2,402	1,024
44.29	2,452	1,145
44.34	2,503	1,269
44.39	2,553	1,396
44.44	2,603	1,525
44.49	2,653	1,656
44.54	2,704	1,790
44.59	2,754	1,926
44.64	2,804	2,065
44.69	2,854	2,207
44.74	2,905	2,351
44.79	2,955	2,497
44.84	3,005	2,646
44.89	3,055	2,798
44.94	3,106	2,952
44.99	3,156	3,108
45.04	3,194	3,267
45.09	3,229	3,428
45.14	3,264	3,590
45.19	3,299	3,754
45.24	3,334	3,920
45.29	3,369	4,088
45.34	3,404	4,257
45.39	3,439	4,428
45.44	3,474	4,601
45.49	3,509	4,775
45.54	3,543	4,952
45.59	3,578	5,130
45.64	3,613	5,309
45.69	3,648	5,491
45.74	3,683	5,674
45.79	3,718	5,859
45.84	3,753	6,046
45.89	3,788	6,235
45.94	3,823	6,425
45.99	**3,858**	**6,617**

Summary for Pond 12P: Infiltration Basin 1

Inflow Area = 68,033 sf, 89.47% Impervious, Inflow Depth = 2.37" for 1-year event
Inflow = 3.83 cfs @ 12.09 hrs, Volume= 13,414 cf
Outflow = 1.92 cfs @ 12.25 hrs, Volume= 13,414 cf, Atten= 50%, Lag= 9.8 min
Discarded = 0.07 cfs @ 12.25 hrs, Volume= 8,817 cf
Primary = 1.85 cfs @ 12.25 hrs, Volume= 4,596 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 57.86' @ 12.25 hrs Surf.Area= 3,003 sf Storage= 5,813 cf

Plug-Flow detention time= 580.8 min calculated for 13,414 cf (100% of inflow)
Center-of-Mass det. time= 580.8 min (1,346.2 - 765.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	10,931 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.00	1,125	0	0
56.00	1,739	1,432	1,432
57.00	2,393	2,066	3,498
58.00	3,104	2,749	6,247
59.00	3,870	3,487	9,734
59.30	4,111	1,197	10,931

Device	Routing	Invert	Outlet Devices
#1	Primary	51.75'	**24.0" Round Culvert** L= 9.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.75' / 51.55' S= 0.0222 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Discarded	55.00'	**1.020 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#3	Secondary	58.40'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	57.65'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.07 cfs @ 12.25 hrs HW=57.86' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=1.85 cfs @ 12.25 hrs HW=57.86' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 1.85 cfs of 26.99 cfs potential flow)
└**4=Sharp-Crested Rectangular Weir** (Weir Controls 1.85 cfs @ 1.49 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=55.00' TW=0.00' (Dynamic Tailwater)
└**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 12P: Infiltration Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	55.00	0.00	0.00	0.00	**0.00**
5.00	0.03	27	55.02	0.03	0.03	0.00	0.00
10.00	**0.17**	**906**	**55.68**	**0.04**	**0.04**	**0.00**	0.00
15.00	**0.16**	**5,289**	**57.68**	**0.17**	**0.07**	**0.10**	0.00
20.00	0.06	5,170	57.64	0.07	0.07	0.00	0.00
25.00	0.00	4,652	57.45	0.06	0.06	0.00	0.00
30.00	0.00	3,563	57.03	0.06	0.06	0.00	0.00
35.00	0.00	2,597	56.60	0.05	0.05	0.00	0.00
40.00	0.00	1,750	56.18	0.04	0.04	0.00	0.00
45.00	0.00	1,020	55.75	0.04	0.04	0.00	0.00
50.00	0.00	401	55.33	0.03	0.03	0.00	0.00
55.00	0.00	0	55.00	0.00	0.00	0.00	0.00
60.00	0.00	0	55.00	0.00	0.00	0.00	0.00
65.00	0.00	0	55.00	0.00	0.00	0.00	0.00
70.00	0.00	0	55.00	0.00	0.00	0.00	0.00
75.00	0.00	0	55.00	0.00	0.00	0.00	0.00
80.00	0.00	0	55.00	0.00	0.00	0.00	0.00
85.00	0.00	0	55.00	0.00	0.00	0.00	0.00
90.00	0.00	0	55.00	0.00	0.00	0.00	0.00
95.00	0.00	0	55.00	0.00	0.00	0.00	0.00
100.00	0.00	0	55.00	0.00	0.00	0.00	0.00
105.00	0.00	0	55.00	0.00	0.00	0.00	0.00
110.00	0.00	0	55.00	0.00	0.00	0.00	0.00
115.00	0.00	0	55.00	0.00	0.00	0.00	0.00
120.00	0.00	0	55.00	0.00	0.00	0.00	0.00
125.00	0.00	0	55.00	0.00	0.00	0.00	0.00
130.00	0.00	0	55.00	0.00	0.00	0.00	0.00
135.00	0.00	0	55.00	0.00	0.00	0.00	0.00
140.00	0.00	0	55.00	0.00	0.00	0.00	0.00
145.00	0.00	0	55.00	0.00	0.00	0.00	0.00
150.00	0.00	0	55.00	0.00	0.00	0.00	0.00
155.00	0.00	0	55.00	0.00	0.00	0.00	0.00
160.00	0.00	0	55.00	0.00	0.00	0.00	0.00
165.00	0.00	0	55.00	0.00	0.00	0.00	0.00
170.00	0.00	0	55.00	0.00	0.00	0.00	0.00
175.00	0.00	0	55.00	0.00	0.00	0.00	0.00
180.00	0.00	0	55.00	0.00	0.00	0.00	0.00
185.00	0.00	0	55.00	0.00	0.00	0.00	0.00
190.00	0.00	0	55.00	0.00	0.00	0.00	0.00
195.00	0.00	0	55.00	0.00	0.00	0.00	0.00
200.00	0.00	0	55.00	0.00	0.00	0.00	0.00
205.00	0.00	0	55.00	0.00	0.00	0.00	0.00
210.00	0.00	0	55.00	0.00	0.00	0.00	0.00
215.00	0.00	0	55.00	0.00	0.00	0.00	0.00
220.00	0.00	0	55.00	0.00	0.00	0.00	0.00
225.00	0.00	0	55.00	0.00	0.00	0.00	0.00
230.00	0.00	0	55.00	0.00	0.00	0.00	0.00
235.00	0.00	0	55.00	0.00	0.00	0.00	0.00
240.00	0.00	0	55.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 12P: Infiltration Basin 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
55.00	0.00	0.00	0.00	0.00
55.10	0.03	0.03	0.00	0.00
55.20	0.03	0.03	0.00	0.00
55.30	0.03	0.03	0.00	0.00
55.40	0.03	0.03	0.00	0.00
55.50	0.03	0.03	0.00	0.00
55.60	0.04	0.04	0.00	0.00
55.70	0.04	0.04	0.00	0.00
55.80	0.04	0.04	0.00	0.00
55.90	0.04	0.04	0.00	0.00
56.00	0.04	0.04	0.00	0.00
56.10	0.04	0.04	0.00	0.00
56.20	0.04	0.04	0.00	0.00
56.30	0.05	0.05	0.00	0.00
56.40	0.05	0.05	0.00	0.00
56.50	0.05	0.05	0.00	0.00
56.60	0.05	0.05	0.00	0.00
56.70	0.05	0.05	0.00	0.00
56.80	0.05	0.05	0.00	0.00
56.90	0.05	0.05	0.00	0.00
57.00	0.06	0.06	0.00	0.00
57.10	0.06	0.06	0.00	0.00
57.20	0.06	0.06	0.00	0.00
57.30	0.06	0.06	0.00	0.00
57.40	0.06	0.06	0.00	0.00
57.50	0.06	0.06	0.00	0.00
57.60	0.07	0.07	0.00	0.00
57.70	0.29	0.07	0.22	0.00
57.80	1.20	0.07	1.13	0.00
57.90	2.50	0.07	2.43	0.00
58.00	4.09	0.07	4.02	0.00
58.10	5.91	0.08	5.83	0.00
58.20	7.93	0.08	7.86	0.00
58.30	10.14	0.08	10.06	0.00
58.40	12.51	0.08	12.42	0.00
58.50	16.05	0.08	14.94	1.03
58.60	20.59	0.08	17.59	2.91
58.70	25.80	0.09	20.37	5.34
58.80	31.56	0.09	23.27	8.21
58.90	37.81	0.09	26.28	11.45
59.00	44.50	0.09	29.39	15.02
59.10	49.07	0.09	30.09	18.88
59.20	53.45	0.10	30.33	23.02
59.30	**58.08**	**0.10**	**30.56**	**27.42**

Stage-Area-Storage for Pond 12P: Infiltration Basin 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.00	1,125	0
55.05	1,156	57
55.10	1,186	116
55.15	1,217	176
55.20	1,248	237
55.25	1,279	300
55.30	1,309	365
55.35	1,340	431
55.40	1,371	499
55.45	1,401	568
55.50	1,432	639
55.55	1,463	712
55.60	1,493	786
55.65	1,524	861
55.70	1,555	938
55.75	1,586	1,016
55.80	1,616	1,096
55.85	1,647	1,178
55.90	1,678	1,261
55.95	1,708	1,346
56.00	1,739	1,432
56.05	1,772	1,520
56.10	1,804	1,609
56.15	1,837	1,700
56.20	1,870	1,793
56.25	1,903	1,887
56.30	1,935	1,983
56.35	1,968	2,081
56.40	2,001	2,180
56.45	2,033	2,281
56.50	2,066	2,383
56.55	2,099	2,487
56.60	2,131	2,593
56.65	2,164	2,701
56.70	2,197	2,810
56.75	2,230	2,920
56.80	2,262	3,032
56.85	2,295	3,146
56.90	2,328	3,262
56.95	2,360	3,379
57.00	2,393	3,498
57.05	2,429	3,619
57.10	2,464	3,741
57.15	2,500	3,865
57.20	2,535	3,991
57.25	2,571	4,118
57.30	2,606	4,248
57.35	2,642	4,379
57.40	2,677	4,512
57.45	2,713	4,647
57.50	2,749	4,783
57.55	2,784	4,922
57.60	2,820	5,062
57.65	2,855	5,204
57.70	2,891	5,347
57.75	2,926	5,493
57.80	2,962	5,640
57.85	2,997	5,789
57.90	3,033	5,940
57.95	3,068	6,092
58.00	3,104	6,247
58.05	3,142	6,403
58.10	3,181	6,561
58.15	3,219	6,721
58.20	3,257	6,883
58.25	3,296	7,046
58.30	3,334	7,212
58.35	3,372	7,380
58.40	3,410	7,549
58.45	3,449	7,721
58.50	3,487	7,894
58.55	3,525	8,070
58.60	3,564	8,247
58.65	3,602	8,426
58.70	3,640	8,607
58.75	3,679	8,790
58.80	3,717	8,975
58.85	3,755	9,162
58.90	3,793	9,350
58.95	3,832	9,541
59.00	3,870	9,734
59.05	3,910	9,928
59.10	3,950	10,125
59.15	3,991	10,323
59.20	4,031	10,524
59.25	4,071	10,726
59.30	**4,111**	**10,931**

Summary for Pond 13P: Sand Filter 1

Inflow Area = 379,224 sf, 32.14% Impervious, Inflow Depth = 0.87" for 1-year event
Inflow = 2.40 cfs @ 12.22 hrs, Volume= 27,570 cf
Outflow = 0.56 cfs @ 14.79 hrs, Volume= 27,570 cf, Atten= 77%, Lag= 154.0 min
Discarded = 0.03 cfs @ 8.65 hrs, Volume= 12,365 cf
Primary = 0.53 cfs @ 14.79 hrs, Volume= 15,205 cf
Routed to Pond 15P : Detention Basin 1
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Pond 15P : Detention Basin 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 47.00' @ 14.79 hrs Surf.Area= 8,330 sf Storage= 12,989 cf

Plug-Flow detention time= 1,424.0 min calculated for 27,564 cf (100% of inflow)
Center-of-Mass det. time= 1,424.9 min (2,304.1 - 879.1)

Volume	Invert	Avail.Storage	Storage Description
#1	42.49'	32,650 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
42.49	4,630	0.0	0	0
42.50	4,630	33.0	15	15
45.99	4,630	33.0	5,332	5,348
46.00	6,904	100.0	58	5,405
47.00	8,336	100.0	7,620	13,025
48.00	9,925	100.0	9,131	22,156
49.00	11,063	100.0	10,494	32,650

Device	Routing	Invert	Outlet Devices
#1	Discarded	42.49'	**0.270 in/hr Exfiltration over Surface area from 42.48' - 45.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Secondary	48.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	46.65'	**1.5" x 1.5" Horiz. Orifice/Grate X 4.00 columns** X 3 rows C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.03 cfs @ 8.65 hrs HW=42.56' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.53 cfs @ 14.79 hrs HW=47.00' TW=44.81' (Dynamic Tailwater)
↑—**3=Orifice/Grate** (Orifice Controls 0.53 cfs @ 2.83 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=42.49' TW=44.00' (Dynamic Tailwater)
↑—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 13P: Sand Filter 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	42.49	0.00	0.00	0.00	**0.00**
5.00	0.02	17	42.50	0.02	**0.02**	0.00	0.00
10.00	**0.11**	**321**	**42.70**	**0.03**	**0.03**	**0.00**	0.00
15.00	**0.54**	**12,983**	**46.99**	**0.56**	0.03	**0.53**	0.00
20.00	0.25	11,145	46.77	0.34	0.03	0.31	0.00
25.00	0.00	10,259	46.66	0.04	0.03	0.01	0.00
30.00	0.00	9,728	46.59	0.03	0.03	0.00	0.00
35.00	0.00	9,208	46.52	0.03	0.03	0.00	0.00
40.00	0.00	8,687	46.45	0.03	0.03	0.00	0.00
45.00	0.00	8,166	46.38	0.03	0.03	0.00	0.00
50.00	0.00	7,645	46.31	0.03	0.03	0.00	0.00
55.00	0.00	7,124	46.24	0.03	0.03	0.00	0.00
60.00	0.00	6,603	46.17	0.03	0.03	0.00	0.00
65.00	0.00	6,082	46.10	0.03	0.03	0.00	0.00
70.00	0.00	5,561	46.02	0.03	0.03	0.00	0.00
75.00	0.00	5,041	45.79	0.03	0.03	0.00	0.00
80.00	0.00	4,520	45.45	0.03	0.03	0.00	0.00
85.00	0.00	3,999	45.11	0.03	0.03	0.00	0.00
90.00	0.00	3,478	44.77	0.03	0.03	0.00	0.00
95.00	0.00	2,957	44.43	0.03	0.03	0.00	0.00
100.00	0.00	2,436	44.08	0.03	0.03	0.00	0.00
105.00	0.00	1,915	43.74	0.03	0.03	0.00	0.00
110.00	0.00	1,394	43.40	0.03	0.03	0.00	0.00
115.00	0.00	874	43.06	0.03	0.03	0.00	0.00
120.00	0.00	353	42.72	0.03	0.03	0.00	0.00
125.00	0.00	0	42.49	0.00	0.00	0.00	0.00
130.00	0.00	0	42.49	0.00	0.00	0.00	0.00
135.00	0.00	0	42.49	0.00	0.00	0.00	0.00
140.00	0.00	0	42.49	0.00	0.00	0.00	0.00
145.00	0.00	0	42.49	0.00	0.00	0.00	0.00
150.00	0.00	0	42.49	0.00	0.00	0.00	0.00
155.00	0.00	0	42.49	0.00	0.00	0.00	0.00
160.00	0.00	0	42.49	0.00	0.00	0.00	0.00
165.00	0.00	0	42.49	0.00	0.00	0.00	0.00
170.00	0.00	0	42.49	0.00	0.00	0.00	0.00
175.00	0.00	0	42.49	0.00	0.00	0.00	0.00
180.00	0.00	0	42.49	0.00	0.00	0.00	0.00
185.00	0.00	0	42.49	0.00	0.00	0.00	0.00
190.00	0.00	0	42.49	0.00	0.00	0.00	0.00
195.00	0.00	0	42.49	0.00	0.00	0.00	0.00
200.00	0.00	0	42.49	0.00	0.00	0.00	0.00
205.00	0.00	0	42.49	0.00	0.00	0.00	0.00
210.00	0.00	0	42.49	0.00	0.00	0.00	0.00
215.00	0.00	0	42.49	0.00	0.00	0.00	0.00
220.00	0.00	0	42.49	0.00	0.00	0.00	0.00
225.00	0.00	0	42.49	0.00	0.00	0.00	0.00
230.00	0.00	0	42.49	0.00	0.00	0.00	0.00
235.00	0.00	0	42.49	0.00	0.00	0.00	0.00
240.00	0.00	0	42.49	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 13P: Sand Filter 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
42.49	0.00	**0.00**	0.00	0.00
42.69	0.03	**0.03**	0.00	0.00
42.89	0.03	0.03	0.00	0.00
43.09	0.03	0.03	0.00	0.00
43.29	0.03	0.03	0.00	0.00
43.49	0.03	0.03	0.00	0.00
43.69	0.03	0.03	0.00	0.00
43.89	0.03	0.03	0.00	0.00
44.09	0.03	0.03	0.00	0.00
44.29	0.03	0.03	0.00	0.00
44.49	0.03	0.03	0.00	0.00
44.69	0.03	0.03	0.00	0.00
44.89	0.03	0.03	0.00	0.00
45.09	0.03	0.03	0.00	0.00
45.29	0.03	0.03	0.00	0.00
45.49	0.03	0.03	0.00	0.00
45.69	0.03	0.03	0.00	0.00
45.89	0.03	0.03	0.00	0.00
46.09	0.03	0.03	0.00	0.00
46.29	0.03	0.03	0.00	0.00
46.49	0.03	0.03	0.00	0.00
46.69	0.19	0.03	0.16	0.00
46.89	0.47	0.03	0.44	0.00
47.09	0.63	0.03	0.60	0.00
47.29	0.75	0.03	0.72	0.00
47.49	0.86	0.03	0.83	0.00
47.69	0.95	0.03	0.92	0.00
47.89	1.03	0.03	1.01	0.00
48.09	1.11	0.03	1.08	0.00
48.29	3.88	0.03	1.16	2.70
48.49	9.16	0.03	1.22	7.90
48.69	15.96	0.03	1.29	14.64
48.89	**23.98**	0.03	**1.35**	**22.60**

Stage-Area-Storage for Pond 13P: Sand Filter 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
42.49	4,630	0
42.59	4,630	153
42.69	4,630	306
42.79	4,630	458
42.89	4,630	611
42.99	4,630	764
43.09	4,630	917
43.19	4,630	1,070
43.29	4,630	1,222
43.39	4,630	1,375
43.49	4,630	1,528
43.59	4,630	1,681
43.69	4,630	1,833
43.79	4,630	1,986
43.89	4,630	2,139
43.99	4,630	2,292
44.09	4,630	2,445
44.19	4,630	2,597
44.29	4,630	2,750
44.39	4,630	2,903
44.49	4,630	3,056
44.59	4,630	3,209
44.69	4,630	3,361
44.79	4,630	3,514
44.89	4,630	3,667
44.99	4,630	3,820
45.09	4,630	3,973
45.19	4,630	4,125
45.29	4,630	4,278
45.39	4,630	4,431
45.49	4,630	4,584
45.59	4,630	4,736
45.69	4,630	4,889
45.79	4,630	5,042
45.89	4,630	5,195
45.99	4,630	5,348
46.09	7,033	6,032
46.19	7,176	6,743
46.29	7,319	7,468
46.39	7,462	8,207
46.49	7,606	8,960
46.59	7,749	9,728
46.69	7,892	10,510
46.79	8,035	11,306
46.89	8,178	12,117
46.99	8,322	12,942
47.09	8,479	13,782
47.19	8,638	14,638
47.29	8,797	15,510
47.39	8,956	16,397
47.49	9,115	17,301
47.59	9,274	18,220
47.69	9,432	19,155
47.79	9,591	20,107
47.89	9,750	21,074
47.99	9,909	22,057
48.09	10,027	23,054
48.19	10,141	24,062
48.29	10,255	25,082
48.39	10,369	26,113
48.49	10,483	27,156
48.59	10,596	28,210
48.69	10,710	29,275
48.79	10,824	30,352
48.89	10,938	31,440
48.99	**11,052**	**32,539**

Summary for Pond 14P: DIV-03

Inflow Area = 42,514 sf, 59.10% Impervious, Inflow Depth = 1.72" for 1-year event
Inflow = 1.92 cfs @ 12.09 hrs, Volume= 6,094 cf
Outflow = 1.92 cfs @ 12.09 hrs, Volume= 6,094 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.16 cfs @ 12.06 hrs, Volume= 5,700 cf
Routed to Pond 10P : Bio 1
Secondary = 0.80 cfs @ 12.10 hrs, Volume= 394 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 44.97' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.10'	**9.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.10' / 44.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.44 sf
#2	Device 3	44.85'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	44.10'	**15.0" Round Culvert** L= 55.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.10' / 42.25' S= 0.0336 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.16 cfs @ 12.06 hrs HW=44.95' TW=44.47' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 1.16 cfs @ 2.62 fps)

Secondary OutFlow Max=0.78 cfs @ 12.10 hrs HW=44.97' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.78 cfs of 2.27 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 0.78 cfs @ 1.12 fps)

Hydrograph for Pond 14P: DIV-03

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	44.10	0.00	0.00	0.00
5.00	0.00	44.10	0.00	0.00	0.00
10.00	**0.04**	**44.22**	**0.04**	**0.04**	**0.00**
15.00	**0.09**	**44.52**	**0.09**	**0.09**	**0.00**
20.00	0.03	44.51	0.03	0.03	0.00
25.00	0.00	44.40	0.00	0.00	0.00
30.00	0.00	44.44	0.00	0.00	0.00
35.00	0.00	44.39	0.00	0.00	0.00
40.00	0.00	44.34	0.00	0.00	0.00
45.00	0.00	44.29	0.00	0.00	0.00
50.00	0.00	44.24	0.00	0.00	0.00
55.00	0.00	44.18	0.00	0.00	0.00
60.00	0.00	44.13	0.00	0.00	0.00
65.00	0.00	44.10	0.00	0.00	0.00
70.00	0.00	44.10	0.00	0.00	0.00
75.00	0.00	44.10	0.00	0.00	0.00
80.00	0.00	44.10	0.00	0.00	0.00
85.00	0.00	44.10	0.00	0.00	0.00
90.00	0.00	44.10	0.00	0.00	0.00
95.00	0.00	44.10	0.00	0.00	0.00
100.00	0.00	44.10	0.00	0.00	0.00
105.00	0.00	44.10	0.00	0.00	0.00
110.00	0.00	44.10	0.00	0.00	0.00
115.00	0.00	44.10	0.00	0.00	0.00
120.00	0.00	44.10	0.00	0.00	0.00
125.00	0.00	44.10	0.00	0.00	0.00
130.00	0.00	44.10	0.00	0.00	0.00
135.00	0.00	44.10	0.00	0.00	0.00
140.00	0.00	44.10	0.00	0.00	0.00
145.00	0.00	44.10	0.00	0.00	0.00
150.00	0.00	44.10	0.00	0.00	0.00
155.00	0.00	44.10	0.00	0.00	0.00
160.00	0.00	44.10	0.00	0.00	0.00
165.00	0.00	44.10	0.00	0.00	0.00
170.00	0.00	44.10	0.00	0.00	0.00
175.00	0.00	44.10	0.00	0.00	0.00
180.00	0.00	44.10	0.00	0.00	0.00
185.00	0.00	44.10	0.00	0.00	0.00
190.00	0.00	44.10	0.00	0.00	0.00
195.00	0.00	44.10	0.00	0.00	0.00
200.00	0.00	44.10	0.00	0.00	0.00
205.00	0.00	44.10	0.00	0.00	0.00
210.00	0.00	44.10	0.00	0.00	0.00
215.00	0.00	44.10	0.00	0.00	0.00
220.00	0.00	44.10	0.00	0.00	0.00
225.00	0.00	44.10	0.00	0.00	0.00
230.00	0.00	44.10	0.00	0.00	0.00
235.00	0.00	44.10	0.00	0.00	0.00
240.00	0.00	44.10	0.00	0.00	0.00

Stage-Discharge for Pond 14P: DIV-03

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
44.10	0.00	0.00	0.00
44.12	0.00	0.00	0.00
44.14	0.00	0.00	0.00
44.16	0.01	0.01	0.00
44.18	0.02	0.02	0.00
44.20	0.03	0.03	0.00
44.22	0.04	0.04	0.00
44.24	0.06	0.06	0.00
44.26	0.07	0.07	0.00
44.28	0.09	0.09	0.00
44.30	0.11	0.11	0.00
44.32	0.13	0.13	0.00
44.34	0.15	0.15	0.00
44.36	0.18	0.18	0.00
44.38	0.20	0.20	0.00
44.40	0.23	0.23	0.00
44.42	0.26	0.26	0.00
44.44	0.29	0.29	0.00
44.46	0.31	0.31	0.00
44.48	0.35	0.35	0.00
44.50	0.38	0.38	0.00
44.52	0.41	0.41	0.00
44.54	0.44	0.44	0.00
44.56	0.48	0.48	0.00
44.58	0.51	0.51	0.00
44.60	0.55	0.55	0.00
44.62	0.58	0.58	0.00
44.64	0.62	0.62	0.00
44.66	0.66	0.66	0.00
44.68	0.69	0.69	0.00
44.70	0.73	0.73	0.00
44.72	0.77	0.77	0.00
44.74	0.81	0.81	0.00
44.76	0.85	0.85	0.00
44.78	0.88	0.88	0.00
44.80	0.92	0.92	0.00
44.82	0.96	0.96	0.00
44.84	1.00	1.00	0.00
44.86	1.06	1.04	0.02
44.88	1.17	1.07	0.10
44.90	1.31	1.09	0.22
44.92	1.48	1.12	0.36
44.94	1.67	1.15	0.53
44.96	1.88	1.17	0.71
44.98	2.11	1.19	0.92
45.00	2.35	1.22	1.13
45.02	2.61	1.24	1.37
45.04	2.88	1.26	1.61
45.06	3.16	1.28	1.87
45.08	3.45	1.31	2.15
45.10	3.76	1.33	2.43
45.12	4.08	1.35	2.73
45.14	4.36	1.37	2.99
45.16	4.46	1.39	3.07
45.18	4.56	1.41	3.15
45.20	4.65	1.43	3.22
45.22	4.75	1.45	3.30
45.24	4.84	1.47	3.37
45.26	4.93	1.49	3.44
45.28	5.01	1.51	3.50
45.30	5.09	1.53	3.56
45.32	5.16	1.54	3.62
45.34	**5.23**	**1.56**	**3.67**

Pro-Hydro
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Stage-Area-Storage for Pond 14P: DIV-03

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
44.10	**0**	44.61	0	45.12	0
44.11	0	44.62	0	45.13	0
44.12	0	44.63	0	45.14	0
44.13	0	44.64	0	45.15	0
44.14	0	44.65	0	45.16	0
44.15	0	44.66	0	45.17	0
44.16	0	44.67	0	45.18	0
44.17	0	44.68	0	45.19	0
44.18	0	44.69	0	45.20	0
44.19	0	44.70	0	45.21	0
44.20	0	44.71	0	45.22	0
44.21	0	44.72	0	45.23	0
44.22	0	44.73	0	45.24	0
44.23	0	44.74	0	45.25	0
44.24	0	44.75	0	45.26	0
44.25	0	44.76	0	45.27	0
44.26	0	44.77	0	45.28	0
44.27	0	44.78	0	45.29	0
44.28	0	44.79	0	45.30	0
44.29	0	44.80	0	45.31	0
44.30	0	44.81	0	45.32	0
44.31	0	44.82	0	45.33	0
44.32	0	44.83	0	45.34	0
44.33	0	44.84	0	45.35	0
44.34	0	44.85	0		
44.35	0	44.86	0		
44.36	0	44.87	0		
44.37	0	44.88	0		
44.38	0	44.89	0		
44.39	0	44.90	0		
44.40	0	44.91	0		
44.41	0	44.92	0		
44.42	0	44.93	0		
44.43	0	44.94	0		
44.44	0	44.95	0		
44.45	0	44.96	0		
44.46	0	44.97	0		
44.47	0	44.98	0		
44.48	0	44.99	0		
44.49	0	45.00	0		
44.50	0	45.01	0		
44.51	0	45.02	0		
44.52	0	45.03	0		
44.53	0	45.04	0		
44.54	0	45.05	0		
44.55	0	45.06	0		
44.56	0	45.07	0		
44.57	0	45.08	0		
44.58	0	45.09	0		
44.59	0	45.10	0		
44.60	0	45.11	0		

Summary for Pond 15P: Detention Basin 1

Inflow Area = 531,182 sf, 24.31% Impervious, Inflow Depth = 0.88" for 1-year event
Inflow = 8.70 cfs @ 12.23 hrs, Volume= 39,173 cf
Outflow = 1.87 cfs @ 12.70 hrs, Volume= 39,110 cf, Atten= 79%, Lag= 28.1 min
Primary = 1.87 cfs @ 12.70 hrs, Volume= 39,110 cf
Routed to Link 6L : DP 2.1 - West Wetland
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 6L : DP 2.1 - West Wetland
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 44.98' @ 12.70 hrs Surf.Area= 14,208 sf Storage= 12,766 cf

Plug-Flow detention time= 247.7 min calculated for 39,102 cf (100% of inflow)
Center-of-Mass det. time= 249.2 min (1,154.3 - 905.1)

Volume	Invert	Avail.Storage	Storage Description
#1	44.00'	89,712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.00	11,920	0	0
45.00	14,261	13,091	13,091
46.00	16,659	15,460	28,551
47.00	19,113	17,886	46,437
48.00	21,623	20,368	66,805
49.00	24,191	22,907	89,712

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**24.0" Round Culvert** L= 15.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.00' / 43.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Device 1	44.00'	**5.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	44.55'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	47.20'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Tertiary	48.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Secondary	45.00'	**24.0" Round Culvert** L= 212.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 45.00' / 43.70' S= 0.0061 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#7	Device 6	47.15'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=1.87 cfs @ 12.70 hrs HW=44.98' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 1.87 cfs of 4.05 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.58 cfs @ 4.22 fps)
  ├─**3=Sharp-Crested Rectangular Weir** (Weir Controls 1.29 cfs @ 2.14 fps)
  └─**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.00' TW=0.00' (Dynamic Tailwater)
└─**6=Culvert** (Controls 0.00 cfs)
  └─**7=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.00' TW=0.00' (Dynamic Tailwater)
└─**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 15P: Detention Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
0.00	0.00	0	44.00	0.00	0.00	**0.00**	**0.00**
5.00	0.00	0	44.00	0.00	0.00	0.00	0.00
10.00	**0.00**	**0**	**44.00**	**0.00**	**0.00**	0.00	0.00
15.00	**0.93**	**10,246**	**44.80**	**1.09**	**1.09**	0.00	0.00
20.00	0.40	7,771	44.61	0.50	0.50	0.00	0.00
25.00	0.01	5,261	44.42	0.30	0.30	0.00	0.00
30.00	0.00	2,181	44.18	0.08	0.08	0.00	0.00
35.00	0.00	1,279	44.11	0.03	0.03	0.00	0.00
40.00	0.00	891	44.07	0.02	0.02	0.00	0.00
45.00	0.00	680	44.06	0.01	0.01	0.00	0.00
50.00	0.00	548	44.05	0.01	0.01	0.00	0.00
55.00	0.00	458	44.04	0.00	0.00	0.00	0.00
60.00	0.00	394	44.03	0.00	0.00	0.00	0.00
65.00	0.00	345	44.03	0.00	0.00	0.00	0.00
70.00	0.00	306	44.03	0.00	0.00	0.00	0.00
75.00	0.00	276	44.02	0.00	0.00	0.00	0.00
80.00	0.00	251	44.02	0.00	0.00	0.00	0.00
85.00	0.00	230	44.02	0.00	0.00	0.00	0.00
90.00	0.00	212	44.02	0.00	0.00	0.00	0.00
95.00	0.00	197	44.02	0.00	0.00	0.00	0.00
100.00	0.00	183	44.02	0.00	0.00	0.00	0.00
105.00	0.00	172	44.01	0.00	0.00	0.00	0.00
110.00	0.00	162	44.01	0.00	0.00	0.00	0.00
115.00	0.00	153	44.01	0.00	0.00	0.00	0.00
120.00	0.00	145	44.01	0.00	0.00	0.00	0.00
125.00	0.00	137	44.01	0.00	0.00	0.00	0.00
130.00	0.00	131	44.01	0.00	0.00	0.00	0.00
135.00	0.00	125	44.01	0.00	0.00	0.00	0.00
140.00	0.00	119	44.01	0.00	0.00	0.00	0.00
145.00	0.00	114	44.01	0.00	0.00	0.00	0.00
150.00	0.00	110	44.01	0.00	0.00	0.00	0.00
155.00	0.00	105	44.01	0.00	0.00	0.00	0.00
160.00	0.00	101	44.01	0.00	0.00	0.00	0.00
165.00	0.00	98	44.01	0.00	0.00	0.00	0.00
170.00	0.00	94	44.01	0.00	0.00	0.00	0.00
175.00	0.00	91	44.01	0.00	0.00	0.00	0.00
180.00	0.00	88	44.01	0.00	0.00	0.00	0.00
185.00	0.00	85	44.01	0.00	0.00	0.00	0.00
190.00	0.00	83	44.01	0.00	0.00	0.00	0.00
195.00	0.00	80	44.01	0.00	0.00	0.00	0.00
200.00	0.00	78	44.01	0.00	0.00	0.00	0.00
205.00	0.00	76	44.01	0.00	0.00	0.00	0.00
210.00	0.00	74	44.01	0.00	0.00	0.00	0.00
215.00	0.00	72	44.01	0.00	0.00	0.00	0.00
220.00	0.00	70	44.01	0.00	0.00	0.00	0.00
225.00	0.00	68	44.01	0.00	0.00	0.00	0.00
230.00	0.00	67	44.01	0.00	0.00	0.00	0.00
235.00	0.00	65	44.01	0.00	0.00	0.00	0.00
240.00	0.00	63	44.01	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 15P: Detention Basin 1

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
44.00	0.00	0.00	0.00	0.00
44.10	0.03	0.03	0.00	0.00
44.20	0.10	0.10	0.00	0.00
44.30	0.20	0.20	0.00	0.00
44.40	0.29	0.29	0.00	0.00
44.50	0.35	0.35	0.00	0.00
44.60	0.47	0.47	0.00	0.00
44.70	0.74	0.74	0.00	0.00
44.80	1.10	1.10	0.00	0.00
44.90	1.51	1.51	0.00	0.00
45.00	1.98	1.98	0.00	0.00
45.10	2.47	2.47	0.00	0.00
45.20	3.00	3.00	0.00	0.00
45.30	3.55	3.55	0.00	0.00
45.40	4.12	4.12	0.00	0.00
45.50	4.71	4.71	0.00	0.00
45.60	5.31	5.31	0.00	0.00
45.70	5.92	5.92	0.00	0.00
45.80	6.54	6.54	0.00	0.00
45.90	7.16	7.16	0.00	0.00
46.00	7.79	7.79	0.00	0.00
46.10	8.41	8.41	0.00	0.00
46.20	9.04	9.04	0.00	0.00
46.30	9.66	9.66	0.00	0.00
46.40	10.27	10.27	0.00	0.00
46.50	10.88	10.88	0.00	0.00
46.60	11.48	11.48	0.00	0.00
46.70	12.07	12.07	0.00	0.00
46.80	12.65	12.65	0.00	0.00
46.90	13.21	13.21	0.00	0.00
47.00	13.76	13.76	0.00	0.00
47.10	14.30	14.30	0.00	0.00
47.20	15.04	14.82	0.22	0.00
47.30	17.07	15.94	1.13	0.00
47.40	19.98	17.55	2.43	0.00
47.50	22.90	18.88	4.02	0.00
47.60	25.09	19.26	5.83	0.00
47.70	27.48	19.62	7.86	0.00
47.80	30.04	19.98	10.06	0.00
47.90	32.76	20.34	12.42	0.00
48.00	35.62	20.68	14.94	0.00
48.10	38.33	21.03	17.31	0.00
48.20	40.11	21.36	17.71	1.03
48.30	42.72	21.69	18.11	2.91
48.40	45.86	22.02	18.50	5.34
48.50	49.43	22.34	18.88	8.21
48.60	53.36	22.66	19.26	11.45
48.70	57.61	22.97	19.62	15.02
48.80	62.15	23.28	19.98	18.88
48.90	66.94	23.58	20.34	23.02
49.00	**71.99**	**23.88**	**20.68**	**27.42**

Stage-Area-Storage for Pond 15P: Detention Basin 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
44.00	11,920	0
44.05	12,037	599
44.10	12,154	1,204
44.15	12,271	1,814
44.20	12,388	2,431
44.25	12,505	3,053
44.30	12,622	3,681
44.35	12,739	4,315
44.40	12,856	4,955
44.45	12,973	5,601
44.50	13,091	6,253
44.55	13,208	6,910
44.60	13,325	7,573
44.65	13,442	8,243
44.70	13,559	8,918
44.75	13,676	9,598
44.80	13,793	10,285
44.85	13,910	10,978
44.90	14,027	11,676
44.95	14,144	12,380
45.00	14,261	13,091
45.05	14,381	13,807
45.10	14,501	14,529
45.15	14,621	15,257
45.20	14,741	15,991
45.25	14,861	16,731
45.30	14,980	17,477
45.35	15,100	18,229
45.40	15,220	18,987
45.45	15,340	19,751
45.50	15,460	20,521
45.55	15,580	21,297
45.60	15,700	22,079
45.65	15,820	22,867
45.70	15,940	23,661
45.75	16,060	24,461
45.80	16,179	25,267
45.85	16,299	26,079
45.90	16,419	26,897
45.95	16,539	27,721
46.00	16,659	28,551
46.05	16,782	29,387
46.10	16,904	30,229
46.15	17,027	31,077
46.20	17,150	31,931
46.25	17,273	32,792
46.30	17,395	33,659
46.35	17,518	34,531
46.40	17,641	35,410
46.45	17,763	36,296
46.50	17,886	37,187
46.55	18,009	38,084
46.60	18,131	38,988
46.65	18,254	39,897
46.70	18,377	40,813
46.75	18,500	41,735
46.80	18,622	42,663
46.85	18,745	43,597
46.90	18,868	44,537
46.95	18,990	45,484
47.00	19,113	46,437
47.05	19,238	47,395
47.10	19,364	48,360
47.15	19,489	49,332
47.20	19,615	50,309
47.25	19,741	51,293
47.30	19,866	52,283
47.35	19,992	53,280
47.40	20,117	54,282
47.45	20,243	55,291
47.50	20,368	56,307
47.55	20,493	57,328
47.60	20,619	58,356
47.65	20,744	59,390
47.70	20,870	60,431
47.75	20,996	61,477
47.80	21,121	62,530
47.85	21,247	63,589
47.90	21,372	64,655
47.95	21,498	65,726
48.00	21,623	66,805
48.05	21,751	67,889
48.10	21,880	68,980
48.15	22,008	70,077
48.20	22,137	71,180
48.25	22,265	72,291
48.30	22,393	73,407
48.35	22,522	74,530
48.40	22,650	75,659
48.45	22,779	76,795
48.50	22,907	77,937
48.55	23,035	79,086
48.60	23,164	80,241
48.65	23,292	81,402
48.70	23,421	82,570
48.75	23,549	83,744
48.80	23,677	84,925
48.85	23,806	86,112
48.90	23,934	87,305
48.95	24,063	88,505
49.00	**24,191**	**89,712**

Summary for Pond 17P: Track and Field- stone base

Inflow Area = 90,671 sf,100.00% Impervious, Inflow Depth = 2.57" for 1-year event
Inflow = 5.50 cfs @ 12.09 hrs, Volume= 19,412 cf
Outflow = 3.62 cfs @ 12.18 hrs, Volume= 19,412 cf, Atten= 34%, Lag= 5.9 min
Discarded = 0.59 cfs @ 12.18 hrs, Volume= 13,451 cf
Primary = 3.02 cfs @ 12.18 hrs, Volume= 5,962 cf
Routed to Pond 35P : Track and Field-manifold

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 50.60' @ 12.18 hrs Surf.Area= 90,671 sf Storage= 3,057 cf

Plug-Flow detention time= 17.4 min calculated for 19,412 cf (100% of inflow)
Center-of-Mass det. time= 17.4 min (776.7 - 759.3)

Volume	Invert	Avail.Storage	Storage Description
#1	50.50'	37,271 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 113,339 cf Overall - 397 cf Embedded = 112,942 cf x 33.0% Voids
#2	50.52'	274 cf	**12.0" W x 1.0" H Ellipse 1" flat drains** x 44 Inside #1 L= 95.2' 397 cf Overall - 0.2" Wall Thickness = 274 cf
		37,545 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
50.50	90,671	0	0
51.58	90,671	97,925	97,925
51.59	90,671	907	98,831
51.75	90,671	14,507	113,339

Device	Routing	Invert	Outlet Devices
#1	Discarded	50.50'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 48.40' Phase-In= 0.02'
#2	Primary	50.52'	**12.0" W x 1.0" H Vert. Orifice/Grate X 44.00** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.59 cfs @ 12.18 hrs HW=50.60' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.59 cfs)

Primary OutFlow Max=2.99 cfs @ 12.18 hrs HW=50.60' TW=49.30' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Orifice Controls 2.99 cfs @ 0.89 fps)

Hydrograph for Pond 17P: Track and Field- stone base

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	50.50	0.00	0.00	0.00
5.00	0.05	48	50.50	0.05	0.05	0.00
10.00	**0.26**	**246**	**50.51**	**0.24**	**0.24**	**0.00**
15.00	**0.23**	**256**	**50.51**	**0.25**	**0.25**	**0.00**
20.00	0.08	84	50.50	0.08	0.08	0.00
25.00	0.00	2	50.50	0.00	0.00	0.00
30.00	0.00	0	50.50	0.00	0.00	0.00
35.00	0.00	0	50.50	0.00	0.00	0.00
40.00	0.00	0	50.50	0.00	0.00	0.00
45.00	0.00	0	50.50	0.00	0.00	0.00
50.00	0.00	0	50.50	0.00	0.00	0.00
55.00	0.00	0	50.50	0.00	0.00	0.00
60.00	0.00	0	50.50	0.00	0.00	0.00
65.00	0.00	0	50.50	0.00	0.00	0.00
70.00	0.00	0	50.50	0.00	0.00	0.00
75.00	0.00	0	50.50	0.00	0.00	0.00
80.00	0.00	0	50.50	0.00	0.00	0.00
85.00	0.00	0	50.50	0.00	0.00	0.00
90.00	0.00	0	50.50	0.00	0.00	0.00
95.00	0.00	0	50.50	0.00	0.00	0.00
100.00	0.00	0	50.50	0.00	0.00	0.00
105.00	0.00	0	50.50	0.00	0.00	0.00
110.00	0.00	0	50.50	0.00	0.00	0.00
115.00	0.00	0	50.50	0.00	0.00	0.00
120.00	0.00	0	50.50	0.00	0.00	0.00
125.00	0.00	0	50.50	0.00	0.00	0.00
130.00	0.00	0	50.50	0.00	0.00	0.00
135.00	0.00	0	50.50	0.00	0.00	0.00
140.00	0.00	0	50.50	0.00	0.00	0.00
145.00	0.00	0	50.50	0.00	0.00	0.00
150.00	0.00	0	50.50	0.00	0.00	0.00
155.00	0.00	0	50.50	0.00	0.00	0.00
160.00	0.00	0	50.50	0.00	0.00	0.00
165.00	0.00	0	50.50	0.00	0.00	0.00
170.00	0.00	0	50.50	0.00	0.00	0.00
175.00	0.00	0	50.50	0.00	0.00	0.00
180.00	0.00	0	50.50	0.00	0.00	0.00
185.00	0.00	0	50.50	0.00	0.00	0.00
190.00	0.00	0	50.50	0.00	0.00	0.00
195.00	0.00	0	50.50	0.00	0.00	0.00
200.00	0.00	0	50.50	0.00	0.00	0.00
205.00	0.00	0	50.50	0.00	0.00	0.00
210.00	0.00	0	50.50	0.00	0.00	0.00
215.00	0.00	0	50.50	0.00	0.00	0.00
220.00	0.00	0	50.50	0.00	0.00	0.00
225.00	0.00	0	50.50	0.00	0.00	0.00
230.00	0.00	0	50.50	0.00	0.00	0.00
235.00	0.00	0	50.50	0.00	0.00	0.00
240.00	0.00	0	50.50	0.00	0.00	0.00

Stage-Discharge for Pond 17P: Track and Field- stone base

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
50.50	0.00	0.00	0.00
50.52	0.57	0.57	0.00
50.54	0.98	0.58	0.40
50.56	1.71	0.58	1.13
50.58	2.66	0.59	2.08
50.60	3.79	0.59	3.20
50.62	4.76	0.60	4.16
50.64	5.48	0.60	4.88
50.66	6.10	0.61	5.49
50.68	6.66	0.62	6.04
50.70	7.16	0.62	6.54
50.72	7.63	0.63	7.00
50.74	8.07	0.63	7.44
50.76	8.48	0.64	7.85
50.78	8.88	0.64	8.24
50.80	9.26	0.65	8.61
50.82	9.62	0.65	8.96
50.84	9.96	0.66	9.31
50.86	10.30	0.66	9.64
50.88	10.62	0.67	9.95
50.90	10.94	0.67	10.26
50.92	11.24	0.68	10.56
50.94	11.54	0.69	10.85
50.96	11.83	0.69	11.14
50.98	12.11	0.70	11.41
51.00	12.39	0.70	11.68
51.02	12.66	0.71	11.95
51.04	12.92	0.71	12.21
51.06	13.18	0.72	12.46
51.08	13.43	0.72	12.71
51.10	13.68	0.73	12.95
51.12	13.92	0.73	13.19
51.14	14.16	0.74	13.42
51.16	14.40	0.74	13.65
51.18	14.63	0.75	13.88
51.20	14.86	0.76	14.10
51.22	15.08	0.76	14.32
51.24	15.30	0.77	14.54
51.26	15.52	0.77	14.75
51.28	15.74	0.78	14.96
51.30	15.95	0.78	15.17
51.32	16.16	0.79	15.37
51.34	16.37	0.79	15.57
51.36	16.57	0.80	15.77
51.38	16.77	0.80	15.97
51.40	16.97	0.81	16.16
51.42	17.17	0.81	16.36
51.44	17.36	0.82	16.54
51.46	17.56	0.83	16.73
51.48	17.75	0.83	16.92
51.50	17.94	0.84	17.10
51.52	18.12	0.84	17.28
51.54	18.31	0.85	17.46
51.56	18.49	0.85	17.64
51.58	18.67	0.86	17.81
51.60	18.85	0.86	17.99
51.62	19.03	0.87	18.16
51.64	19.21	0.87	18.33
51.66	19.38	0.88	18.50
51.68	19.55	0.89	18.67
51.70	19.73	0.89	18.84
51.72	19.90	0.90	19.00
51.74	**20.06**	**0.90**	**19.16**

Stage-Area-Storage for Pond 17P: Track and Field- stone base

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
50.50	**90,671**	0
50.52	90,671	587
50.54	90,671	1,212
50.56	90,671	1,862
50.58	90,671	2,514
50.60	90,671	3,147
50.62	90,671	3,734
50.64	90,671	4,332
50.66	90,671	4,931
50.68	90,671	5,529
50.70	90,671	6,128
50.72	90,671	6,726
50.74	90,671	7,324
50.76	90,671	7,923
50.78	90,671	8,521
50.80	90,671	9,120
50.82	90,671	9,718
50.84	90,671	10,317
50.86	90,671	10,915
50.88	90,671	11,513
50.90	90,671	12,112
50.92	90,671	12,710
50.94	90,671	13,309
50.96	90,671	13,907
50.98	90,671	14,506
51.00	90,671	15,104
51.02	90,671	15,702
51.04	90,671	16,301
51.06	90,671	16,899
51.08	90,671	17,498
51.10	90,671	18,096
51.12	90,671	18,695
51.14	90,671	19,293
51.16	90,671	19,891
51.18	90,671	20,490
51.20	90,671	21,088
51.22	90,671	21,687
51.24	90,671	22,285
51.26	90,671	22,884
51.28	90,671	23,482
51.30	90,671	24,080
51.32	90,671	24,679
51.34	90,671	25,277
51.36	90,671	25,876
51.38	90,671	26,474
51.40	90,671	27,073
51.42	90,671	27,671
51.44	90,671	28,269
51.46	90,671	28,868
51.48	90,671	29,466
51.50	90,671	30,065
51.52	90,671	30,663
51.54	90,671	31,262
51.56	90,671	31,860
51.58	90,671	32,458
51.60	90,671	33,057
51.62	90,671	33,655
51.64	90,671	34,254
51.66	90,671	34,852
51.68	90,671	35,451
51.70	90,671	36,049
51.72	90,671	36,647
51.74	90,671	**37,246**

Summary for Pond 18P: Sand Filter 2

Inflow Area = 114,710 sf, 50.57% Impervious, Inflow Depth = 1.18" for 1-year event
Inflow = 2.60 cfs @ 12.10 hrs, Volume= 11,302 cf
Outflow = 1.43 cfs @ 12.41 hrs, Volume= 11,302 cf, Atten= 45%, Lag= 18.7 min
Discarded = 0.01 cfs @ 9.35 hrs, Volume= 4,970 cf
Primary = 1.42 cfs @ 12.41 hrs, Volume= 6,332 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 55.29' @ 12.41 hrs Surf.Area= 5,351 sf Storage= 4,409 cf

Plug-Flow detention time= 1,231.2 min calculated for 11,300 cf (100% of inflow)
Center-of-Mass det. time= 1,232.1 min (2,066.0 - 833.9)

Volume	Invert	Avail.Storage	Storage Description
#1	51.84'	15,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.84	2,171	0.0	0	0
51.85	2,171	33.0	7	7
54.84	2,171	33.0	2,142	2,149
54.85	4,561	100.0	34	2,183
55.00	4,959	100.0	714	2,897
56.00	6,294	100.0	5,627	8,523
57.00	7,438	100.0	6,866	15,389

Device	Routing	Invert	Outlet Devices
#1	Discarded	51.84'	**0.270 in/hr Exfiltration over Surface area from 51.83' - 54.84'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	55.25'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	56.00'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 9.35 hrs HW=51.89' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=1.41 cfs @ 12.41 hrs HW=55.29' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Weir Controls 1.41 cfs @ 0.68 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=51.84' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 18P: Sand Filter 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	51.84	0.00	0.00	0.00	**0.00**
5.00	0.00	0	51.84	0.00	**0.00**	0.00	0.00
10.00	**0.06**	**121**	**52.01**	**0.01**	**0.01**	**0.00**	0.00
15.00	**0.19**	**4,237**	**55.26**	**0.20**	0.01	**0.18**	0.00
20.00	0.07	4,204	55.25	0.07	0.01	0.05	0.00
25.00	0.00	4,150	55.24	0.01	0.01	0.00	0.00
30.00	0.00	3,906	55.20	0.01	0.01	0.00	0.00
35.00	0.00	3,662	55.15	0.01	0.01	0.00	0.00
40.00	0.00	3,418	55.10	0.01	0.01	0.00	0.00
45.00	0.00	3,173	55.06	0.01	0.01	0.00	0.00
50.00	0.00	2,929	55.01	0.01	0.01	0.00	0.00
55.00	0.00	2,685	54.96	0.01	0.01	0.00	0.00
60.00	0.00	2,441	54.91	0.01	0.01	0.00	0.00
65.00	0.00	2,196	54.85	0.01	0.01	0.00	0.00
70.00	0.00	1,952	54.56	0.01	0.01	0.00	0.00
75.00	0.00	1,708	54.22	0.01	0.01	0.00	0.00
80.00	0.00	1,464	53.88	0.01	0.01	0.00	0.00
85.00	0.00	1,219	53.54	0.01	0.01	0.00	0.00
90.00	0.00	975	53.20	0.01	0.01	0.00	0.00
95.00	0.00	731	52.86	0.01	0.01	0.00	0.00
100.00	0.00	487	52.52	0.01	0.01	0.00	0.00
105.00	0.00	242	52.18	0.01	0.01	0.00	0.00
110.00	0.00	5	51.85	0.00	0.00	0.00	0.00
115.00	0.00	0	51.84	0.00	0.00	0.00	0.00
120.00	0.00	0	51.84	0.00	0.00	0.00	0.00
125.00	0.00	0	51.84	0.00	0.00	0.00	0.00
130.00	0.00	0	51.84	0.00	0.00	0.00	0.00
135.00	0.00	0	51.84	0.00	0.00	0.00	0.00
140.00	0.00	0	51.84	0.00	0.00	0.00	0.00
145.00	0.00	0	51.84	0.00	0.00	0.00	0.00
150.00	0.00	0	51.84	0.00	0.00	0.00	0.00
155.00	0.00	0	51.84	0.00	0.00	0.00	0.00
160.00	0.00	0	51.84	0.00	0.00	0.00	0.00
165.00	0.00	0	51.84	0.00	0.00	0.00	0.00
170.00	0.00	0	51.84	0.00	0.00	0.00	0.00
175.00	0.00	0	51.84	0.00	0.00	0.00	0.00
180.00	0.00	0	51.84	0.00	0.00	0.00	0.00
185.00	0.00	0	51.84	0.00	0.00	0.00	0.00
190.00	0.00	0	51.84	0.00	0.00	0.00	0.00
195.00	0.00	0	51.84	0.00	0.00	0.00	0.00
200.00	0.00	0	51.84	0.00	0.00	0.00	0.00
205.00	0.00	0	51.84	0.00	0.00	0.00	0.00
210.00	0.00	0	51.84	0.00	0.00	0.00	0.00
215.00	0.00	0	51.84	0.00	0.00	0.00	0.00
220.00	0.00	0	51.84	0.00	0.00	0.00	0.00
225.00	0.00	0	51.84	0.00	0.00	0.00	0.00
230.00	0.00	0	51.84	0.00	0.00	0.00	0.00
235.00	0.00	0	51.84	0.00	0.00	0.00	0.00
240.00	0.00	0	51.84	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 18P: Sand Filter 2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
51.84	0.00	**0.00**	0.00	0.00
52.04	0.01	**0.01**	0.00	0.00
52.24	0.01	0.01	0.00	0.00
52.44	0.01	0.01	0.00	0.00
52.64	0.01	0.01	0.00	0.00
52.84	0.01	0.01	0.00	0.00
53.04	0.01	0.01	0.00	0.00
53.24	0.01	0.01	0.00	0.00
53.44	0.01	0.01	0.00	0.00
53.64	0.01	0.01	0.00	0.00
53.84	0.01	0.01	0.00	0.00
54.04	0.01	0.01	0.00	0.00
54.24	0.01	0.01	0.00	0.00
54.44	0.01	0.01	0.00	0.00
54.64	0.01	0.01	0.00	0.00
54.84	0.01	0.01	0.00	0.00
55.04	0.01	0.01	0.00	0.00
55.24	0.01	0.01	0.00	0.00
55.44	4.21	0.01	4.20	0.00
55.64	6.03	0.01	6.01	0.00
55.84	7.41	0.01	7.40	0.00
56.04	8.83	0.01	8.56	0.26
56.24	13.42	0.01	9.58	3.83
56.44	19.98	0.01	10.51	9.46
56.64	27.90	0.01	11.35	16.53
56.84	**36.91**	0.01	**12.14**	**24.75**

Stage-Area-Storage for Pond 18P: Sand Filter 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
51.84	2,171	0
51.94	2,171	72
52.04	2,171	143
52.14	2,171	215
52.24	2,171	287
52.34	2,171	358
52.44	2,171	430
52.54	2,171	502
52.64	2,171	573
52.74	2,171	645
52.84	2,171	716
52.94	2,171	788
53.04	2,171	860
53.14	2,171	931
53.24	2,171	1,003
53.34	2,171	1,075
53.44	2,171	1,146
53.54	2,171	1,218
53.64	2,171	1,290
53.74	2,171	1,361
53.84	2,171	1,433
53.94	2,171	1,505
54.04	2,171	1,576
54.14	2,171	1,648
54.24	2,171	1,719
54.34	2,171	1,791
54.44	2,171	1,863
54.54	2,171	1,934
54.64	2,171	2,006
54.74	2,171	2,078
54.84	2,171	2,149
54.94	4,800	2,604
55.04	5,012	3,096
55.14	5,146	3,604
55.24	5,279	4,126
55.34	5,413	4,660
55.44	5,546	5,208
55.54	5,680	5,769
55.64	5,813	6,344
55.74	5,947	6,932
55.84	6,080	7,533
55.94	6,214	8,148
56.04	6,340	8,776
56.14	6,454	9,416
56.24	6,569	10,067
56.34	6,683	10,730
56.44	6,797	11,404
56.54	6,912	12,089
56.64	7,026	12,786
56.74	7,141	13,494
56.84	7,255	14,214
56.94	**7,369**	**14,945**

Summary for Pond 19P: Sand Filter 3

Inflow Area = 22,284 sf, 61.76% Impervious, Inflow Depth = 1.72" for 1-year event
Inflow = 1.01 cfs @ 12.09 hrs, Volume= 3,194 cf
Outflow = 0.01 cfs @ 10.20 hrs, Volume= 3,194 cf, Atten= 99%, Lag= 0.0 min
Discarded = 0.01 cfs @ 10.20 hrs, Volume= 3,194 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Pond 3P : DIV-02
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 4L : DP 1.3 - Culvert 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 60.19' @ 23.03 hrs Surf.Area= 2,773 sf Storage= 2,500 cf

Plug-Flow detention time= 1,828.9 min calculated for 3,193 cf (100% of inflow)
Center-of-Mass det. time= 1,829.2 min (2,645.7 - 816.5)

Volume	Invert	Avail.Storage	Storage Description
#1	56.99'	10,312 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.99	1,999	0.0	0	0
57.00	1,999	33.0	7	7
59.99	1,999	33.0	1,972	1,979
60.00	2,449	100.0	22	2,001
61.00	4,147	100.0	3,298	5,299
62.00	5,878	100.0	5,013	10,312

Device	Routing	Invert	Outlet Devices
#1	Discarded	56.99'	**0.270 in/hr Exfiltration over Surface area from 56.98' - 59.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	60.65'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	61.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 10.20 hrs HW=57.04' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.99' TW=56.15' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.99' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 19P: Sand Filter 3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	56.99	0.00	0.00	**0.00**	**0.00**
5.00	0.00	0	56.99	0.00	0.00	0.00	0.00
10.00	**0.02**	26	57.03	**0.01**	**0.01**	0.00	0.00
15.00	**0.05**	2,222	60.09	**0.01**	**0.01**	0.00	0.00
20.00	0.02	**2,476**	**60.18**	0.01	0.01	0.00	0.00
25.00	0.00	**2,456**	**60.18**	0.01	0.01	0.00	0.00
30.00	0.00	2,231	60.09	0.01	0.01	0.00	0.00
35.00	0.00	2,006	60.00	0.01	0.01	0.00	0.00
40.00	0.00	1,781	59.69	0.01	0.01	0.00	0.00
45.00	0.00	1,556	59.35	0.01	0.01	0.00	0.00
50.00	0.00	1,332	59.01	0.01	0.01	0.00	0.00
55.00	0.00	1,107	58.67	0.01	0.01	0.00	0.00
60.00	0.00	882	58.33	0.01	0.01	0.00	0.00
65.00	0.00	657	57.99	0.01	0.01	0.00	0.00
70.00	0.00	432	57.64	0.01	0.01	0.00	0.00
75.00	0.00	207	57.30	0.01	0.01	0.00	0.00
80.00	0.00	1	56.99	0.00	0.00	0.00	0.00
85.00	0.00	0	56.99	0.00	0.00	0.00	0.00
90.00	0.00	0	56.99	0.00	0.00	0.00	0.00
95.00	0.00	0	56.99	0.00	0.00	0.00	0.00
100.00	0.00	0	56.99	0.00	0.00	0.00	0.00
105.00	0.00	0	56.99	0.00	0.00	0.00	0.00
110.00	0.00	0	56.99	0.00	0.00	0.00	0.00
115.00	0.00	0	56.99	0.00	0.00	0.00	0.00
120.00	0.00	0	56.99	0.00	0.00	0.00	0.00
125.00	0.00	0	56.99	0.00	0.00	0.00	0.00
130.00	0.00	0	56.99	0.00	0.00	0.00	0.00
135.00	0.00	0	56.99	0.00	0.00	0.00	0.00
140.00	0.00	0	56.99	0.00	0.00	0.00	0.00
145.00	0.00	0	56.99	0.00	0.00	0.00	0.00
150.00	0.00	0	56.99	0.00	0.00	0.00	0.00
155.00	0.00	0	56.99	0.00	0.00	0.00	0.00
160.00	0.00	0	56.99	0.00	0.00	0.00	0.00
165.00	0.00	0	56.99	0.00	0.00	0.00	0.00
170.00	0.00	0	56.99	0.00	0.00	0.00	0.00
175.00	0.00	0	56.99	0.00	0.00	0.00	0.00
180.00	0.00	0	56.99	0.00	0.00	0.00	0.00
185.00	0.00	0	56.99	0.00	0.00	0.00	0.00
190.00	0.00	0	56.99	0.00	0.00	0.00	0.00
195.00	0.00	0	56.99	0.00	0.00	0.00	0.00
200.00	0.00	0	56.99	0.00	0.00	0.00	0.00
205.00	0.00	0	56.99	0.00	0.00	0.00	0.00
210.00	0.00	0	56.99	0.00	0.00	0.00	0.00
215.00	0.00	0	56.99	0.00	0.00	0.00	0.00
220.00	0.00	0	56.99	0.00	0.00	0.00	0.00
225.00	0.00	0	56.99	0.00	0.00	0.00	0.00
230.00	0.00	0	56.99	0.00	0.00	0.00	0.00
235.00	0.00	0	56.99	0.00	0.00	0.00	0.00
240.00	0.00	0	56.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 19P: Sand Filter 3

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
56.99	0.00	**0.00**	0.00	0.00
57.09	0.01	**0.01**	0.00	0.00
57.19	0.01	0.01	0.00	0.00
57.29	0.01	0.01	0.00	0.00
57.39	0.01	0.01	0.00	0.00
57.49	0.01	0.01	0.00	0.00
57.59	0.01	0.01	0.00	0.00
57.69	0.01	0.01	0.00	0.00
57.79	0.01	0.01	0.00	0.00
57.89	0.01	0.01	0.00	0.00
57.99	0.01	0.01	0.00	0.00
58.09	0.01	0.01	0.00	0.00
58.19	0.01	0.01	0.00	0.00
58.29	0.01	0.01	0.00	0.00
58.39	0.01	0.01	0.00	0.00
58.49	0.01	0.01	0.00	0.00
58.59	0.01	0.01	0.00	0.00
58.69	0.01	0.01	0.00	0.00
58.79	0.01	0.01	0.00	0.00
58.89	0.01	0.01	0.00	0.00
58.99	0.01	0.01	0.00	0.00
59.09	0.01	0.01	0.00	0.00
59.19	0.01	0.01	0.00	0.00
59.29	0.01	0.01	0.00	0.00
59.39	0.01	0.01	0.00	0.00
59.49	0.01	0.01	0.00	0.00
59.59	0.01	0.01	0.00	0.00
59.69	0.01	0.01	0.00	0.00
59.79	0.01	0.01	0.00	0.00
59.89	0.01	0.01	0.00	0.00
59.99	0.01	0.01	0.00	0.00
60.09	0.01	0.01	0.00	0.00
60.19	0.01	0.01	0.00	0.00
60.29	0.01	0.01	0.00	0.00
60.39	0.01	0.01	0.00	0.00
60.49	0.01	0.01	0.00	0.00
60.59	0.01	0.01	0.00	0.00
60.69	0.64	0.01	0.63	0.00
60.79	1.81	0.01	1.80	0.00
60.89	2.37	0.01	2.36	0.00
60.99	2.82	0.01	2.81	0.00
61.09	3.21	0.01	3.19	0.00
61.19	4.43	0.01	3.54	0.88
61.29	6.56	0.01	3.85	2.70
61.39	9.23	0.01	4.14	5.08
61.49	12.33	0.01	4.41	7.90
61.59	15.79	0.01	4.67	11.11
61.69	19.57	0.01	4.91	14.64
61.79	23.64	0.01	5.14	18.48
61.89	27.97	0.01	5.36	22.60
61.99	**32.55**	0.01	**5.57**	**26.97**

Stage-Area-Storage for Pond 19P: Sand Filter 3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.99	1,999	0
57.04	1,999	33
57.09	1,999	66
57.14	1,999	99
57.19	1,999	132
57.24	1,999	165
57.29	1,999	198
57.34	1,999	231
57.39	1,999	264
57.44	1,999	297
57.49	1,999	330
57.54	1,999	363
57.59	1,999	396
57.64	1,999	429
57.69	1,999	462
57.74	1,999	495
57.79	1,999	528
57.84	1,999	561
57.89	1,999	594
57.94	1,999	627
57.99	1,999	660
58.04	1,999	693
58.09	1,999	726
58.14	1,999	759
58.19	1,999	792
58.24	1,999	825
58.29	1,999	858
58.34	1,999	891
58.39	1,999	924
58.44	1,999	957
58.49	1,999	990
58.54	1,999	1,022
58.59	1,999	1,055
58.64	1,999	1,088
58.69	1,999	1,121
58.74	1,999	1,154
58.79	1,999	1,187
58.84	1,999	1,220
58.89	1,999	1,253
58.94	1,999	1,286
58.99	1,999	1,319
59.04	1,999	1,352
59.09	1,999	1,385
59.14	1,999	1,418
59.19	1,999	1,451
59.24	1,999	1,484
59.29	1,999	1,517
59.34	1,999	1,550
59.39	1,999	1,583
59.44	1,999	1,616
59.49	1,999	1,649
59.54	1,999	1,682
59.59	1,999	1,715
59.64	1,999	1,748
59.69	1,999	1,781
59.74	1,999	1,814
59.79	1,999	1,847
59.84	1,999	1,880
59.89	1,999	1,913
59.94	1,999	1,946
59.99	1,999	1,979
60.04	2,517	2,101
60.09	2,602	2,229
60.14	2,687	2,361
60.19	2,772	2,497
60.24	2,857	2,638
60.29	2,941	2,783
60.34	3,026	2,932
60.39	3,111	3,085
60.44	3,196	3,243
60.49	3,281	3,405
60.54	3,366	3,571
60.59	3,451	3,742
60.64	3,536	3,916
60.69	3,621	4,095
60.74	3,706	4,278
60.79	3,790	4,466
60.84	3,875	4,657
60.89	3,960	4,853
60.94	4,045	5,053
60.99	4,130	5,258
61.04	4,216	5,467
61.09	4,303	5,679
61.14	4,389	5,897
61.19	4,476	6,118
61.24	4,562	6,344
61.29	4,649	6,575
61.34	4,736	6,809
61.39	4,822	7,048
61.44	4,909	7,291
61.49	4,995	7,539
61.54	5,082	7,791
61.59	5,168	8,047
61.64	5,255	8,308
61.69	5,341	8,573
61.74	5,428	8,842
61.79	5,514	9,116
61.84	5,601	9,393
61.89	5,688	9,676
61.94	5,774	9,962
61.99	**5,861**	**10,253**

Summary for Pond 20P: Sand Filter 4

Inflow Area = 31,007 sf, 23.95% Impervious, Inflow Depth = 1.29" for 1-year event
Inflow = 0.83 cfs @ 12.19 hrs, Volume= 3,326 cf
Outflow = 0.34 cfs @ 12.05 hrs, Volume= 3,326 cf, Atten= 59%, Lag= 0.0 min
Primary = 0.34 cfs @ 12.05 hrs, Volume= 3,326 cf
Routed to Link 3L : DP 1.2 - Culvert 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 59.87' @ 12.56 hrs Surf.Area= 1,767 sf Storage= 512 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 7.5 min (853.8 - 846.3)

Volume	Invert	Avail.Storage	Storage Description
#1	58.99'	3,660 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.99	1,767	0.0	0	0
59.00	1,767	33.0	6	6
60.99	1,767	33.0	1,160	1,166
61.00	1,767	100.0	18	1,184
62.00	3,186	100.0	2,477	3,660

Device	Routing	Invert	Outlet Devices
#1	Primary	61.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Device 3	58.99'	**8.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#3	Primary	58.25'	**6.0" Round subdrain** L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.25' / 56.90' S= 0.0270 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.34 cfs @ 12.05 hrs HW=59.03' TW=0.00' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Controls 0.00 cfs)
└─**3=subdrain** (Passes 0.34 cfs of 0.54 cfs potential flow)
└─**2=Exfiltration** (Exfiltration Controls 0.34 cfs)

Hydrograph for Pond 20P: Sand Filter 4

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	58.99	0.00
5.00	0.00	0	58.99	0.00
10.00	**0.01**	**0**	**58.99**	**0.01**
15.00	**0.06**	**2**	**58.99**	**0.06**
20.00	0.02	1	58.99	0.02
25.00	0.00	0	58.99	0.00
30.00	0.00	0	58.99	0.00
35.00	0.00	0	58.99	0.00
40.00	0.00	0	58.99	0.00
45.00	0.00	0	58.99	0.00
50.00	0.00	0	58.99	0.00
55.00	0.00	0	58.99	0.00
60.00	0.00	0	58.99	0.00
65.00	0.00	0	58.99	0.00
70.00	0.00	0	58.99	0.00
75.00	0.00	0	58.99	0.00
80.00	0.00	0	58.99	0.00
85.00	0.00	0	58.99	0.00
90.00	0.00	0	58.99	0.00
95.00	0.00	0	58.99	0.00
100.00	0.00	0	58.99	0.00
105.00	0.00	0	58.99	0.00
110.00	0.00	0	58.99	0.00
115.00	0.00	0	58.99	0.00
120.00	0.00	0	58.99	0.00
125.00	0.00	0	58.99	0.00
130.00	0.00	0	58.99	0.00
135.00	0.00	0	58.99	0.00
140.00	0.00	0	58.99	0.00
145.00	0.00	0	58.99	0.00
150.00	0.00	0	58.99	0.00
155.00	0.00	0	58.99	0.00
160.00	0.00	0	58.99	0.00
165.00	0.00	0	58.99	0.00
170.00	0.00	0	58.99	0.00
175.00	0.00	0	58.99	0.00
180.00	0.00	0	58.99	0.00
185.00	0.00	0	58.99	0.00
190.00	0.00	0	58.99	0.00
195.00	0.00	0	58.99	0.00
200.00	0.00	0	58.99	0.00
205.00	0.00	0	58.99	0.00
210.00	0.00	0	58.99	0.00
215.00	0.00	0	58.99	0.00
220.00	0.00	0	58.99	0.00
225.00	0.00	0	58.99	0.00
230.00	0.00	0	58.99	0.00
235.00	0.00	0	58.99	0.00
240.00	0.00	0	58.99	0.00

Stage-Discharge for Pond 20P: Sand Filter 4

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
58.99	0.00	60.01	0.34	61.03	0.35
59.01	0.34	60.03	0.34	61.05	0.35
59.03	0.34	60.05	0.34	61.07	0.36
59.05	0.34	60.07	0.34	61.09	0.36
59.07	0.34	60.09	0.34	61.11	0.37
59.09	0.34	60.11	0.34	61.13	0.37
59.11	0.34	60.13	0.34	61.15	0.38
59.13	0.34	60.15	0.34	61.17	0.38
59.15	0.34	60.17	0.34	61.19	0.39
59.17	0.34	60.19	0.34	61.21	0.40
59.19	0.34	60.21	0.34	61.23	0.40
59.21	0.34	60.23	0.34	61.25	0.41
59.23	0.34	60.25	0.34	61.27	0.41
59.25	0.34	60.27	0.34	61.29	0.42
59.27	0.34	60.29	0.34	61.31	0.42
59.29	0.34	60.31	0.34	61.33	0.43
59.31	0.34	60.33	0.34	61.35	0.43
59.33	0.34	60.35	0.34	61.37	0.44
59.35	0.34	60.37	0.34	61.39	0.44
59.37	0.34	60.39	0.34	61.41	0.45
59.39	0.34	60.41	0.34	61.43	0.46
59.41	0.34	60.43	0.34	61.45	0.46
59.43	0.34	60.45	0.34	61.47	0.47
59.45	0.34	60.47	0.34	61.49	0.47
59.47	0.34	60.49	0.34	61.51	0.56
59.49	0.34	60.51	0.34	61.53	0.89
59.51	0.34	60.53	0.34	61.55	1.37
59.53	0.34	60.55	0.34	61.57	1.77
59.55	0.34	60.57	0.34	61.59	1.94
59.57	0.34	60.59	0.34	61.61	2.10
59.59	0.34	60.61	0.34	61.63	2.25
59.61	0.34	60.63	0.34	61.65	2.38
59.63	0.34	60.65	0.34	61.67	2.51
59.65	0.34	60.67	0.34	61.69	2.62
59.67	0.34	60.69	0.34	61.71	2.74
59.69	0.34	60.71	0.34	61.73	2.85
59.71	0.34	60.73	0.34	61.75	2.95
59.73	0.34	60.75	0.34	61.77	3.05
59.75	0.34	60.77	0.34	61.79	3.15
59.77	0.34	60.79	0.34	61.81	3.24
59.79	0.34	60.81	0.34	61.83	3.33
59.81	0.34	60.83	0.34	61.85	3.42
59.83	0.34	60.85	0.34	61.87	3.50
59.85	0.34	60.87	0.34	61.89	3.59
59.87	0.34	60.89	0.34	61.91	3.67
59.89	0.34	60.91	0.34	61.93	3.75
59.91	0.34	60.93	0.34	61.95	3.83
59.93	0.34	60.95	0.34	61.97	3.90
59.95	0.34	60.97	0.34	61.99	**3.98**
59.97	0.34	60.99	0.34		
59.99	0.34	61.01	0.34		

Stage-Area-Storage for Pond 20P: Sand Filter 4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
58.99	1,767	0
59.04	1,767	29
59.09	1,767	58
59.14	1,767	87
59.19	1,767	117
59.24	1,767	146
59.29	1,767	175
59.34	1,767	204
59.39	1,767	233
59.44	1,767	262
59.49	1,767	292
59.54	1,767	321
59.59	1,767	350
59.64	1,767	379
59.69	1,767	408
59.74	1,767	437
59.79	1,767	466
59.84	1,767	496
59.89	1,767	525
59.94	1,767	554
59.99	1,767	583
60.04	1,767	612
60.09	1,767	641
60.14	1,767	671
60.19	1,767	700
60.24	1,767	729
60.29	1,767	758
60.34	1,767	787
60.39	1,767	816
60.44	1,767	846
60.49	1,767	875
60.54	1,767	904
60.59	1,767	933
60.64	1,767	962
60.69	1,767	991
60.74	1,767	1,020
60.79	1,767	1,050
60.84	1,767	1,079
60.89	1,767	1,108
60.94	1,767	1,137
60.99	1,767	1,166
61.04	1,824	1,256
61.09	1,895	1,349
61.14	1,966	1,445
61.19	2,037	1,545
61.24	2,108	1,649
61.29	2,179	1,756
61.34	2,249	1,867
61.39	2,320	1,981
61.44	2,391	2,099
61.49	2,462	2,220
61.54	2,533	2,345
61.59	2,604	2,473
61.64	2,675	2,605
61.69	2,746	2,741
61.74	2,817	2,880
61.79	2,888	3,023
61.84	2,959	3,169
61.89	3,030	3,319
61.94	3,101	3,472
61.99	**3,172**	**3,629**

Summary for Pond 23P: UGIS-1

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 0.93" for 1-year event
Inflow = 4.72 cfs @ 12.21 hrs, Volume= 11,744 cf
Outflow = 0.19 cfs @ 13.04 hrs, Volume= 11,744 cf, Atten= 96%, Lag= 50.0 min
Discarded = 0.07 cfs @ 13.04 hrs, Volume= 11,449 cf
Primary = 0.11 cfs @ 13.04 hrs, Volume= 296 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 48.47' @ 13.04 hrs Surf.Area= 6,719 sf Storage= 10,125 cf

Plug-Flow detention time= 1,323.9 min calculated for 11,742 cf (100% of inflow)
Center-of-Mass det. time= 1,324.1 min (2,066.1 - 742.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	46.30'	3,295 cf	**66.58'W x 80.00'L x 3.21'H Field A** 17,090 cf Overall - 7,104 cf Embedded = 9,986 cf x 33.0% Voids
#2A	46.80'	7,104 cf	**Cultec R-280HD** x 165 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 15 rows
#3B	46.30'	893 cf	**44.92'W x 31.00'L x 3.21'H Field B** 4,467 cf Overall - 1,761 cf Embedded = 2,707 cf x 33.0% Voids
#4B	46.80'	1,761 cf	**Cultec R-280HD** x 40 Inside #3 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 10 rows
		13,053 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	46.80'	**24.0" Round Culvert** L= 60.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 43.50' S= 0.0550 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Primary	48.40'	**2.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Device 1	49.00'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Discarded	46.30'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 43.30' Phase-In= 0.02'

Discarded OutFlow Max=0.07 cfs @ 13.04 hrs HW=48.47' (Free Discharge)
└**4=Exfiltration** (Controls 0.07 cfs)

Primary OutFlow Max=0.11 cfs @ 13.04 hrs HW=48.47' TW=0.00' (Dynamic Tailwater)
├**1=Culvert** (Passes 0.00 cfs of 9.71 cfs potential flow)
│└**3=Sharp-Crested Rectangular Weir**(Controls 0.00 cfs)
└**2=Sharp-Crested Rectangular Weir**(Weir Controls 0.11 cfs @ 0.85 fps)

Pond 23P: UGIS-1 - Chamber Wizard Field A

Chamber Model = Cultec R-280HD (Cultec Recharger®280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 15 rows

47.0" Wide + 5.0" Spacing = 52.0" C-C Row Spacing

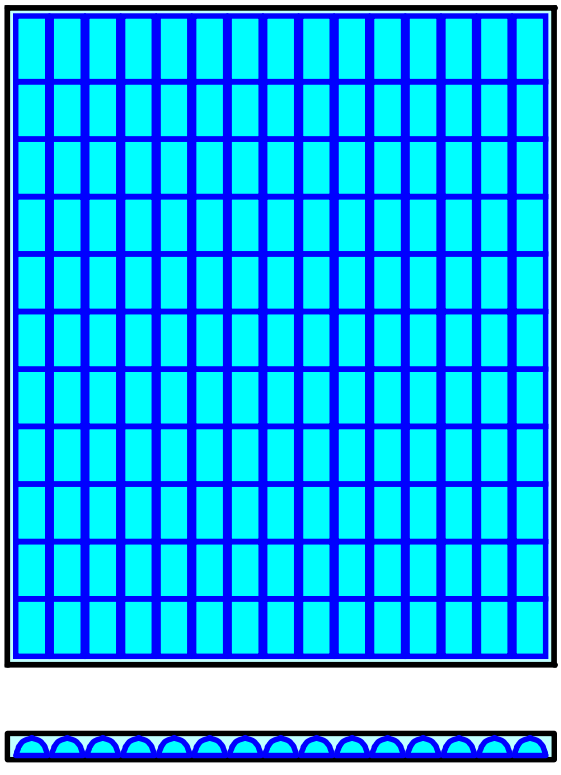
11 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 78.00' Row Length +12.0" End Stone x 2 = 80.00' Base Length
15 Rows x 47.0" Wide + 5.0" Spacing x 14 + 12.0" Side Stone x 2 = 66.58' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

165 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 15 Rows = 7,103.9 cf Chamber Storage

17,089.7 cf Field - 7,103.9 cf Chambers = 9,985.8 cf Stone x 33.0% Voids = 3,295.3 cf Stone Storage

Chamber Storage + Stone Storage = 10,399.3 cf = 0.239 af
Overall Storage Efficiency = 60.9%
Overall System Size = 80.00' x 66.58' x 3.21'

165 Chambers
633.0 cy Field
369.8 cy Stone



Pond 23P: UGIS-1 - Chamber Wizard Field B

Chamber Model = Cultec R-280HD (Cultec Recharger®280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 10 rows

47.0" Wide + 5.0" Spacing = 52.0" C-C Row Spacing

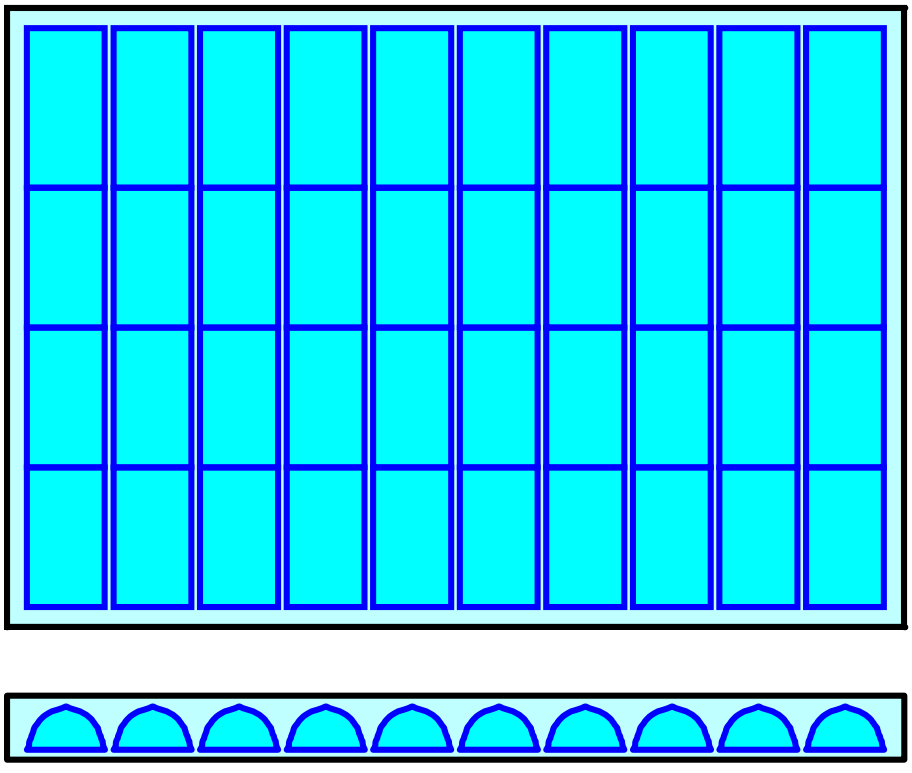
4 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 29.00' Row Length +12.0" End Stone x 2 = 31.00' Base Length
10 Rows x 47.0" Wide + 5.0" Spacing x 9 + 12.0" Side Stone x 2 = 44.92' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

40 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 10 Rows = 1,760.8 cf Chamber Storage

4,467.3 cf Field - 1,760.8 cf Chambers = 2,706.5 cf Stone x 33.0% Voids = 893.2 cf Stone Storage

Chamber Storage + Stone Storage = 2,654.0 cf = 0.061 af
Overall Storage Efficiency = 59.4%
Overall System Size = 31.00' x 44.92' x 3.21'

40 Chambers
165.5 cy Field
100.2 cy Stone



Hydrograph for Pond 23P: UGIS-1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	46.30	0.00	0.00	0.00
5.00	0.00	1	46.30	0.00	0.00	0.00
10.00	**0.06**	**51**	**46.32**	**0.04**	**0.04**	**0.00**
15.00	**0.06**	**9,846**	**48.40**	**0.07**	**0.07**	**0.00**
20.00	0.00	8,927	48.21	0.07	0.07	0.00
25.00	0.00	7,744	47.98	0.07	0.07	0.00
30.00	0.00	6,593	47.76	0.06	0.06	0.00
35.00	0.00	5,495	47.56	0.06	0.06	0.00
40.00	0.00	4,446	47.37	0.06	0.06	0.00
45.00	0.00	3,443	47.20	0.05	0.05	0.00
50.00	0.00	2,482	47.03	0.05	0.05	0.00
55.00	0.00	1,561	46.88	0.05	0.05	0.00
60.00	0.00	687	46.61	0.05	0.05	0.00
65.00	0.00	2	46.30	0.00	0.00	0.00
70.00	0.00	0	46.30	0.00	0.00	0.00
75.00	0.00	0	46.30	0.00	0.00	0.00
80.00	0.00	0	46.30	0.00	0.00	0.00
85.00	0.00	0	46.30	0.00	0.00	0.00
90.00	0.00	0	46.30	0.00	0.00	0.00
95.00	0.00	0	46.30	0.00	0.00	0.00
100.00	0.00	0	46.30	0.00	0.00	0.00
105.00	0.00	0	46.30	0.00	0.00	0.00
110.00	0.00	0	46.30	0.00	0.00	0.00
115.00	0.00	0	46.30	0.00	0.00	0.00
120.00	0.00	0	46.30	0.00	0.00	0.00
125.00	0.00	0	46.30	0.00	0.00	0.00
130.00	0.00	0	46.30	0.00	0.00	0.00
135.00	0.00	0	46.30	0.00	0.00	0.00
140.00	0.00	0	46.30	0.00	0.00	0.00
145.00	0.00	0	46.30	0.00	0.00	0.00
150.00	0.00	0	46.30	0.00	0.00	0.00
155.00	0.00	0	46.30	0.00	0.00	0.00
160.00	0.00	0	46.30	0.00	0.00	0.00
165.00	0.00	0	46.30	0.00	0.00	0.00
170.00	0.00	0	46.30	0.00	0.00	0.00
175.00	0.00	0	46.30	0.00	0.00	0.00
180.00	0.00	0	46.30	0.00	0.00	0.00
185.00	0.00	0	46.30	0.00	0.00	0.00
190.00	0.00	0	46.30	0.00	0.00	0.00
195.00	0.00	0	46.30	0.00	0.00	0.00
200.00	0.00	0	46.30	0.00	0.00	0.00
205.00	0.00	0	46.30	0.00	0.00	0.00
210.00	0.00	0	46.30	0.00	0.00	0.00
215.00	0.00	0	46.30	0.00	0.00	0.00
220.00	0.00	0	46.30	0.00	0.00	0.00
225.00	0.00	0	46.30	0.00	0.00	0.00
230.00	0.00	0	46.30	0.00	0.00	0.00
235.00	0.00	0	46.30	0.00	0.00	0.00
240.00	0.00	0	46.30	0.00	0.00	0.00

Pro-Hydro
Prepared by Pare Corporation
HydroCAD® 10.20-5c s/n 04883 © 2023 HydroCAD Software Solutions LLC

Stage-Discharge for Pond 23P: UGIS-1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
46.30	0.00	0.00	0.00
46.35	0.04	0.04	0.00
46.40	0.04	0.04	0.00
46.45	0.04	0.04	0.00
46.50	0.04	0.04	0.00
46.55	0.05	0.05	0.00
46.60	0.05	0.05	0.00
46.65	0.05	0.05	0.00
46.70	0.05	0.05	0.00
46.75	0.05	0.05	0.00
46.80	0.05	0.05	0.00
46.85	0.05	0.05	0.00
46.90	0.05	0.05	0.00
46.95	0.05	0.05	0.00
47.00	0.05	0.05	0.00
47.05	0.05	0.05	0.00
47.10	0.05	0.05	0.00
47.15	0.05	0.05	0.00
47.20	0.05	0.05	0.00
47.25	0.06	0.06	0.00
47.30	0.06	0.06	0.00
47.35	0.06	0.06	0.00
47.40	0.06	0.06	0.00
47.45	0.06	0.06	0.00
47.50	0.06	0.06	0.00
47.55	0.06	0.06	0.00
47.60	0.06	0.06	0.00
47.65	0.06	0.06	0.00
47.70	0.06	0.06	0.00
47.75	0.06	0.06	0.00
47.80	0.06	0.06	0.00
47.85	0.06	0.06	0.00
47.90	0.06	0.06	0.00
47.95	0.07	0.07	0.00
48.00	0.07	0.07	0.00
48.05	0.07	0.07	0.00
48.10	0.07	0.07	0.00
48.15	0.07	0.07	0.00
48.20	0.07	0.07	0.00
48.25	0.07	0.07	0.00
48.30	0.07	0.07	0.00
48.35	0.07	0.07	0.00
48.40	0.07	0.07	0.00
48.45	0.14	0.07	0.07
48.50	0.28	0.07	0.20
48.55	0.45	0.07	0.37
48.60	0.65	0.07	0.57
48.65	0.87	0.07	0.80
48.70	1.12	0.08	1.04
48.75	1.38	0.08	1.31
48.80	1.67	0.08	1.59
48.85	1.96	0.08	1.89
48.90	2.28	0.08	2.20
48.95	2.60	0.08	2.52
49.00	2.94	0.08	2.86
49.05	3.43	0.08	3.35
49.10	4.05	0.08	3.97
49.15	4.77	0.08	4.68
49.20	5.55	0.08	5.46
49.25	6.39	0.08	6.30
49.30	7.28	0.08	7.20
49.35	8.23	0.08	8.14
49.40	9.21	0.09	9.13
49.45	10.24	0.09	10.16
49.50	**11.31**	**0.09**	**11.22**

Stage-Area-Storage for Pond 23P: UGIS-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
46.30	**6,719**	0
46.35	6,719	111
46.40	6,719	222
46.45	6,719	333
46.50	6,719	443
46.55	6,719	554
46.60	6,719	665
46.65	6,719	776
46.70	6,719	887
46.75	6,719	998
46.80	6,719	1,109
46.85	6,719	1,410
46.90	6,719	1,708
46.95	6,719	2,004
47.00	6,719	2,297
47.05	6,719	2,590
47.10	6,719	2,882
47.15	6,719	3,173
47.20	6,719	3,463
47.25	6,719	3,753
47.30	6,719	4,041
47.35	6,719	4,326
47.40	6,719	4,610
47.45	6,719	4,891
47.50	6,719	5,172
47.55	6,719	5,450
47.60	6,719	5,726
47.65	6,719	6,000
47.70	6,719	6,272
47.75	6,719	6,543
47.80	6,719	6,812
47.85	6,719	7,080
47.90	6,719	7,347
47.95	6,719	7,611
48.00	6,719	7,871
48.05	6,719	8,128
48.10	6,719	8,381
48.15	6,719	8,631
48.20	6,719	8,878
48.25	6,719	9,121
48.30	6,719	9,360
48.35	6,719	9,595
48.40	6,719	9,825
48.45	6,719	10,050
48.50	6,719	10,269
48.55	6,719	10,482
48.60	6,719	10,689
48.65	6,719	10,887
48.70	6,719	11,075
48.75	6,719	11,252
48.80	6,719	11,413
48.85	6,719	11,560
48.90	6,719	11,693
48.95	6,719	11,814
49.00	6,719	11,926
49.05	6,719	12,037
49.10	6,719	12,148
49.15	6,719	12,259
49.20	6,719	12,370
49.25	6,719	12,480
49.30	6,719	12,591
49.35	6,719	12,702
49.40	6,719	12,813
49.45	6,719	12,924
49.50	6,719	**13,035**

Summary for Pond 28P: DIV-01

Inflow Area = 379,224 sf, 32.14% Impervious, Inflow Depth = 1.28" for 1-year event
Inflow = 8.74 cfs @ 12.22 hrs, Volume= 40,359 cf
Outflow = 8.74 cfs @ 12.22 hrs, Volume= 40,359 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.40 cfs @ 12.22 hrs, Volume= 27,570 cf
Routed to Pond 13P : Sand Filter 1
Secondary = 6.33 cfs @ 12.22 hrs, Volume= 12,790 cf
Routed to Pond 15P : Detention Basin 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 47.48' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.10'	**11.0" Round Culvert** L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.10' / 46.00' S= 0.0071 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.66 sf
#2	Device 3	47.00'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	46.10'	**36.0" Round Culvert** L= 56.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.10' / 44.00' S= 0.0375 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 7.07 sf

Primary OutFlow Max=2.40 cfs @ 12.22 hrs HW=47.47' TW=46.08' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 2.40 cfs @ 3.63 fps)

Secondary OutFlow Max=6.26 cfs @ 12.22 hrs HW=47.47' TW=44.47' (Dynamic Tailwater)
└**3=Culvert** (Passes 6.26 cfs of 9.92 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 6.26 cfs @ 2.25 fps)

Hydrograph for Pond 28P: DIV-01

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	46.10	0.00	0.00	0.00
5.00	0.02	46.18	0.02	0.02	0.00
10.00	**0.11**	**46.30**	**0.11**	**0.11**	**0.00**
15.00	**0.71**	**47.04**	**0.71**	**0.54**	**0.17**
20.00	0.25	46.79	0.25	0.25	0.00
25.00	0.00	46.16	0.00	0.00	0.00
30.00	0.00	46.58	0.00	0.00	0.00
35.00	0.00	46.52	0.00	0.00	0.00
40.00	0.00	46.43	0.00	0.00	0.00
45.00	0.00	46.37	0.00	0.00	0.00
50.00	0.00	46.31	0.00	0.00	0.00
55.00	0.00	46.22	0.00	0.00	0.00
60.00	0.00	46.16	0.00	0.00	0.00
65.00	0.00	46.10	0.00	0.00	0.00
70.00	0.00	46.10	0.00	0.00	0.00
75.00	0.00	46.10	0.00	0.00	0.00
80.00	0.00	46.10	0.00	0.00	0.00
85.00	0.00	46.10	0.00	0.00	0.00
90.00	0.00	46.10	0.00	0.00	0.00
95.00	0.00	46.10	0.00	0.00	0.00
100.00	0.00	46.10	0.00	0.00	0.00
105.00	0.00	46.10	0.00	0.00	0.00
110.00	0.00	46.10	0.00	0.00	0.00
115.00	0.00	46.10	0.00	0.00	0.00
120.00	0.00	46.10	0.00	0.00	0.00
125.00	0.00	46.10	0.00	0.00	0.00
130.00	0.00	46.10	0.00	0.00	0.00
135.00	0.00	46.10	0.00	0.00	0.00
140.00	0.00	46.10	0.00	0.00	0.00
145.00	0.00	46.10	0.00	0.00	0.00
150.00	0.00	46.10	0.00	0.00	0.00
155.00	0.00	46.10	0.00	0.00	0.00
160.00	0.00	46.10	0.00	0.00	0.00
165.00	0.00	46.10	0.00	0.00	0.00
170.00	0.00	46.10	0.00	0.00	0.00
175.00	0.00	46.10	0.00	0.00	0.00
180.00	0.00	46.10	0.00	0.00	0.00
185.00	0.00	46.10	0.00	0.00	0.00
190.00	0.00	46.10	0.00	0.00	0.00
195.00	0.00	46.10	0.00	0.00	0.00
200.00	0.00	46.10	0.00	0.00	0.00
205.00	0.00	46.10	0.00	0.00	0.00
210.00	0.00	46.10	0.00	0.00	0.00
215.00	0.00	46.10	0.00	0.00	0.00
220.00	0.00	46.10	0.00	0.00	0.00
225.00	0.00	46.10	0.00	0.00	0.00
230.00	0.00	46.10	0.00	0.00	0.00
235.00	0.00	46.10	0.00	0.00	0.00
240.00	0.00	46.10	0.00	0.00	0.00

Stage-Discharge for Pond 28P: DIV-01

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
46.10	0.00	0.00	0.00
46.15	0.01	0.01	0.00
46.20	0.03	0.03	0.00
46.25	0.07	0.07	0.00
46.30	0.12	0.12	0.00
46.35	0.18	0.18	0.00
46.40	0.25	0.25	0.00
46.45	0.33	0.33	0.00
46.50	0.41	0.41	0.00
46.55	0.51	0.51	0.00
46.60	0.61	0.61	0.00
46.65	0.72	0.72	0.00
46.70	0.83	0.83	0.00
46.75	0.95	0.95	0.00
46.80	1.07	1.07	0.00
46.85	1.20	1.20	0.00
46.90	1.32	1.32	0.00
46.95	1.45	1.45	0.00
47.00	1.58	1.58	0.00
47.05	1.92	1.70	0.22
47.10	2.44	1.82	0.62
47.15	3.06	1.93	1.13
47.20	3.75	2.01	1.74
47.25	4.52	2.09	2.43
47.30	5.35	2.16	3.19
47.35	6.25	2.23	4.02
47.40	7.20	2.30	4.90
47.45	8.20	2.37	5.83
47.50	9.26	2.43	6.82
47.55	10.35	2.50	7.86
47.60	11.50	2.56	8.94
47.65	12.68	2.62	10.06
47.70	13.90	2.68	11.22
47.75	15.16	2.74	12.42
47.80	16.46	2.80	13.66
47.85	17.79	2.85	14.94
47.90	18.88	2.91	15.97
47.95	19.68	2.96	16.72
48.00	20.50	3.01	17.49
48.05	21.32	3.06	18.26
48.10	22.14	3.11	19.03
48.15	22.97	3.16	19.81
48.20	23.80	3.21	20.59
48.25	24.63	3.26	21.37
48.30	25.46	3.31	22.15
48.35	26.29	3.36	22.93
48.40	27.11	3.40	23.70
48.45	27.93	3.45	24.48
48.50	28.74	3.50	25.24
48.55	29.54	3.54	26.00
48.60	30.33	3.58	26.75
48.65	31.11	3.63	27.49
48.70	31.88	3.67	28.21
48.75	32.63	3.71	28.91
48.80	33.35	3.76	29.60
48.85	34.05	3.80	30.25
48.90	34.72	3.84	30.88
48.95	35.36	3.88	31.48
49.00	35.94	3.92	32.02
49.05	36.47	3.96	32.51
49.10	**36.91**	**4.00**	**32.91**

Pro-Hydro
Prepared by Pare Corporation
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Stage-Area-Storage for Pond 28P: DIV-01

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
46.10	**0**	47.12	0	48.14	0
46.12	0	47.14	0	48.16	0
46.14	0	47.16	0	48.18	0
46.16	0	47.18	0	48.20	0
46.18	0	47.20	0	48.22	0
46.20	0	47.22	0	48.24	0
46.22	0	47.24	0	48.26	0
46.24	0	47.26	0	48.28	0
46.26	0	47.28	0	48.30	0
46.28	0	47.30	0	48.32	0
46.30	0	47.32	0	48.34	0
46.32	0	47.34	0	48.36	0
46.34	0	47.36	0	48.38	0
46.36	0	47.38	0	48.40	0
46.38	0	47.40	0	48.42	0
46.40	0	47.42	0	48.44	0
46.42	0	47.44	0	48.46	0
46.44	0	47.46	0	48.48	0
46.46	0	47.48	0	48.50	0
46.48	0	47.50	0	48.52	0
46.50	0	47.52	0	48.54	0
46.52	0	47.54	0	48.56	0
46.54	0	47.56	0	48.58	0
46.56	0	47.58	0	48.60	0
46.58	0	47.60	0	48.62	0
46.60	0	47.62	0	48.64	0
46.62	0	47.64	0	48.66	0
46.64	0	47.66	0	48.68	0
46.66	0	47.68	0	48.70	0
46.68	0	47.70	0	48.72	0
46.70	0	47.72	0	48.74	0
46.72	0	47.74	0	48.76	0
46.74	0	47.76	0	48.78	0
46.76	0	47.78	0	48.80	0
46.78	0	47.80	0	48.82	0
46.80	0	47.82	0	48.84	0
46.82	0	47.84	0	48.86	0
46.84	0	47.86	0	48.88	0
46.86	0	47.88	0	48.90	0
46.88	0	47.90	0	48.92	0
46.90	0	47.92	0	48.94	0
46.92	0	47.94	0	48.96	0
46.94	0	47.96	0	48.98	0
46.96	0	47.98	0	49.00	0
46.98	0	48.00	0	49.02	0
47.00	0	48.02	0	49.04	0
47.02	0	48.04	0	49.06	0
47.04	0	48.06	0	49.08	0
47.06	0	48.08	0	49.10	0
47.08	0	48.10	0		
47.10	0	48.12	0		

Summary for Pond 33P: Wet Swale

Inflow Area = 57,295 sf, 71.89% Impervious, Inflow Depth = 1.97" for 1-year event
Inflow = 2.89 cfs @ 12.10 hrs, Volume= 9,419 cf
Outflow = 1.34 cfs @ 12.32 hrs, Volume= 9,419 cf, Atten= 54%, Lag= 13.5 min
Discarded = 0.01 cfs @ 7.45 hrs, Volume= 4,851 cf
Primary = 1.33 cfs @ 12.32 hrs, Volume= 4,568 cf
Routed to Pond 4P : Detention Basin 2
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 2L : DP 1.1 - Culvert 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 59.79' @ 12.32 hrs Surf.Area= 4,809 sf Storage= 4,443 cf

Plug-Flow detention time= 2,033.6 min calculated for 9,417 cf (100% of inflow)
Center-of-Mass det. time= 2,034.7 min (2,837.8 - 803.1)

Volume	Invert	Avail.Storage	Storage Description
#1	57.69'	11,649 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.69	1,511	0.0	0	0
57.70	1,511	33.0	5	5
58.69	1,511	33.0	494	499
58.70	1,801	100.0	17	515
59.00	3,213	100.0	752	1,267
60.00	5,228	100.0	4,221	5,488
61.00	7,094	100.0	6,161	11,649

Device	Routing	Invert	Outlet Devices
#1	Discarded	57.69'	**0.270 in/hr Exfiltration over Surface area from 57.68' - 58.69'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	56.20'	**18.0" Round Culvert** L= 62.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.20' / 55.60' S= 0.0097 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#3	Device 2	59.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#4	Secondary	60.50'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 7.45 hrs HW=57.72' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=1.24 cfs @ 12.32 hrs HW=59.79' TW=55.86' (Dynamic Tailwater)
└**2=Culvert** (Passes 1.24 cfs of 11.32 cfs potential flow)
└**3=Orifice/Grate** (Weir Controls 1.24 cfs @ 0.65 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=57.69' TW=0.00' (Dynamic Tailwater)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 33P: Wet Swale

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	57.69	0.00	0.00	0.00	**0.00**
5.00	0.00	0	57.69	0.00	**0.00**	0.00	0.00
10.00	**0.09**	**340**	**58.37**	**0.01**	**0.01**	**0.00**	0.00
15.00	**0.13**	**4,284**	**59.76**	**0.13**	0.01	**0.12**	0.00
20.00	0.05	4,262	59.75	0.05	0.01	0.04	0.00
25.00	0.00	4,221	59.75	0.01	0.01	0.00	0.00
30.00	0.00	4,051	59.71	0.01	0.01	0.00	0.00
35.00	0.00	3,881	59.67	0.01	0.01	0.00	0.00
40.00	0.00	3,711	59.63	0.01	0.01	0.00	0.00
45.00	0.00	3,541	59.60	0.01	0.01	0.00	0.00
50.00	0.00	3,371	59.56	0.01	0.01	0.00	0.00
55.00	0.00	3,201	59.52	0.01	0.01	0.00	0.00
60.00	0.00	3,031	59.48	0.01	0.01	0.00	0.00
65.00	0.00	2,861	59.44	0.01	0.01	0.00	0.00
70.00	0.00	2,691	59.39	0.01	0.01	0.00	0.00
75.00	0.00	2,521	59.35	0.01	0.01	0.00	0.00
80.00	0.00	2,351	59.31	0.01	0.01	0.00	0.00
85.00	0.00	2,181	59.26	0.01	0.01	0.00	0.00
90.00	0.00	2,011	59.22	0.01	0.01	0.00	0.00
95.00	0.00	1,841	59.17	0.01	0.01	0.00	0.00
100.00	0.00	1,671	59.12	0.01	0.01	0.00	0.00
105.00	0.00	1,501	59.07	0.01	0.01	0.00	0.00
110.00	0.00	1,331	59.02	0.01	0.01	0.00	0.00
115.00	0.00	1,161	58.97	0.01	0.01	0.00	0.00
120.00	0.00	991	58.91	0.01	0.01	0.00	0.00
125.00	0.00	821	58.84	0.01	0.01	0.00	0.00
130.00	0.00	651	58.77	0.01	0.01	0.00	0.00
135.00	0.00	481	58.66	0.01	0.01	0.00	0.00
140.00	0.00	311	58.31	0.01	0.01	0.00	0.00
145.00	0.00	141	57.97	0.01	0.01	0.00	0.00
150.00	0.00	0	57.69	0.00	0.00	0.00	0.00
155.00	0.00	0	57.69	0.00	0.00	0.00	0.00
160.00	0.00	0	57.69	0.00	0.00	0.00	0.00
165.00	0.00	0	57.69	0.00	0.00	0.00	0.00
170.00	0.00	0	57.69	0.00	0.00	0.00	0.00
175.00	0.00	0	57.69	0.00	0.00	0.00	0.00
180.00	0.00	0	57.69	0.00	0.00	0.00	0.00
185.00	0.00	0	57.69	0.00	0.00	0.00	0.00
190.00	0.00	0	57.69	0.00	0.00	0.00	0.00
195.00	0.00	0	57.69	0.00	0.00	0.00	0.00
200.00	0.00	0	57.69	0.00	0.00	0.00	0.00
205.00	0.00	0	57.69	0.00	0.00	0.00	0.00
210.00	0.00	0	57.69	0.00	0.00	0.00	0.00
215.00	0.00	0	57.69	0.00	0.00	0.00	0.00
220.00	0.00	0	57.69	0.00	0.00	0.00	0.00
225.00	0.00	0	57.69	0.00	0.00	0.00	0.00
230.00	0.00	0	57.69	0.00	0.00	0.00	0.00
235.00	0.00	0	57.69	0.00	0.00	0.00	0.00
240.00	0.00	0	57.69	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 33P: Wet Swale

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
57.69	0.00	**0.00**	0.00	0.00
57.79	0.01	**0.01**	0.00	0.00
57.89	0.01	0.01	0.00	0.00
57.99	0.01	0.01	0.00	0.00
58.09	0.01	0.01	0.00	0.00
58.19	0.01	0.01	0.00	0.00
58.29	0.01	0.01	0.00	0.00
58.39	0.01	0.01	0.00	0.00
58.49	0.01	0.01	0.00	0.00
58.59	0.01	0.01	0.00	0.00
58.69	0.01	0.01	0.00	0.00
58.79	0.01	0.01	0.00	0.00
58.89	0.01	0.01	0.00	0.00
58.99	0.01	0.01	0.00	0.00
59.09	0.01	0.01	0.00	0.00
59.19	0.01	0.01	0.00	0.00
59.29	0.01	0.01	0.00	0.00
59.39	0.01	0.01	0.00	0.00
59.49	0.01	0.01	0.00	0.00
59.59	0.01	0.01	0.00	0.00
59.69	0.01	0.01	0.00	0.00
59.79	1.27	0.01	1.26	0.00
59.89	3.61	0.01	3.60	0.00
59.99	4.73	0.01	4.72	0.00
60.09	5.62	0.01	5.62	0.00
60.19	6.40	0.01	6.39	0.00
60.29	7.09	0.01	7.08	0.00
60.39	7.71	0.01	7.70	0.00
60.49	8.29	0.01	8.28	0.00
60.59	9.72	0.01	8.83	0.88
60.69	12.04	0.01	9.34	2.70
60.79	14.91	0.01	9.82	5.08
60.89	18.19	0.01	10.28	7.90
60.99	**21.84**	0.01	**10.72**	**11.11**

Stage-Area-Storage for Pond 33P: Wet Swale

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
57.69	1,511	0
57.74	1,511	25
57.79	1,511	50
57.84	1,511	75
57.89	1,511	100
57.94	1,511	125
57.99	1,511	150
58.04	1,511	175
58.09	1,511	199
58.14	1,511	224
58.19	1,511	249
58.24	1,511	274
58.29	1,511	299
58.34	1,511	324
58.39	1,511	349
58.44	1,511	374
58.49	1,511	399
58.54	1,511	424
58.59	1,511	449
58.64	1,511	474
58.69	1,511	499
58.74	1,989	591
58.79	2,225	696
58.84	2,460	813
58.89	2,695	942
58.94	2,931	1,083
58.99	3,166	1,235
59.04	3,294	1,397
59.09	3,394	1,565
59.14	3,495	1,737
59.19	3,596	1,914
59.24	3,697	2,096
59.29	3,797	2,284
59.34	3,898	2,476
59.39	3,999	2,674
59.44	4,100	2,876
59.49	4,200	3,084
59.54	4,301	3,296
59.59	4,402	3,514
59.64	4,503	3,736
59.69	4,603	3,964
59.74	4,704	4,197
59.79	4,805	4,434
59.84	4,906	4,677
59.89	5,006	4,925
59.94	5,107	5,178
59.99	5,208	5,436
60.04	5,303	5,698
60.09	5,396	5,966
60.14	5,489	6,238
60.19	5,583	6,515
60.24	5,676	6,796
60.29	5,769	7,082
60.34	5,862	7,373
60.39	5,956	7,669
60.44	6,049	7,969
60.49	6,142	8,274
60.54	6,236	8,583
60.59	6,329	8,897
60.64	6,422	9,216
60.69	6,516	9,539
60.74	6,609	9,867
60.79	6,702	10,200
60.84	6,795	10,538
60.89	6,889	10,880
60.94	6,982	11,227
60.99	**7,075**	**11,578**

Summary for Pond 35P: Track and Field-manifold

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 1.51" for 1-year event
Inflow = 6.18 cfs @ 12.11 hrs, Volume= 19,061 cf
Outflow = 5.19 cfs @ 12.21 hrs, Volume= 19,061 cf, Atten= 16%, Lag= 5.4 min
Discarded = 0.47 cfs @ 12.21 hrs, Volume= 6,385 cf
Primary = 4.72 cfs @ 12.21 hrs, Volume= 12,676 cf
Routed to Pond 8P : DIV-04

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 49.31' @ 12.21 hrs Surf.Area= 8,273 sf Storage= 2,280 cf

Plug-Flow detention time= 14.2 min calculated for 19,057 cf (100% of inflow)
Center-of-Mass det. time= 14.2 min (767.4 - 753.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	48.50'	4,898 cf	**7.00'W x 1,182.00'L x 2.25'H Field A** 18,608 cf Overall - 3,767 cf Embedded = 14,841 cf x 33.0% Voids
#2A	49.00'	2,832 cf	**ADS N-12 15"** x 118 Inside #1 Inside= 14.8"W x 14.8"H => 1.20 sf x 20.00'L = 24.0 cf Outside= 18.0"W x 18.0"H => 1.60 sf x 20.00'L = 31.9 cf 118 Chambers in 2 Rows
		7,730 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	48.50'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 48.40' Phase-In= 0.02'
#2	Primary	48.50'	**18.0" Round Culvert X 2.00** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 48.50' / 46.80' S= 0.0315 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf

Discarded OutFlow Max=0.47 cfs @ 12.21 hrs HW=49.31' (Free Discharge)
1=Exfiltration (Controls 0.47 cfs)

Primary OutFlow Max=4.70 cfs @ 12.21 hrs HW=49.31' TW=48.25' (Dynamic Tailwater)
2=Culvert (Inlet Controls 4.70 cfs @ 2.42 fps)

Pond 35P: Track and Field-manifold - Chamber Wizard Field A

Chamber Model = ADS N-12 15" (ADS N-12® Pipe)
Inside= 14.8"W x 14.8"H => 1.20 sf x 20.00'L = 24.0 cf
Outside= 18.0"W x 18.0"H => 1.60 sf x 20.00'L = 31.9 cf

18.0" Wide + 24.0" Spacing = 42.0" C-C Row Spacing

59 Chambers/Row x 20.00' Long = 1,180.00' Row Length +12.0" End Stone x 2 = 1,182.00' Base Length
2 Rows x 18.0" Wide + 24.0" Spacing x 1 + 12.0" Side Stone x 2 = 7.00' Base Width
6.0" Stone Base + 18.0" Chamber Height + 3.0" Stone Cover = 2.25' Field Height

118 Chambers x 24.0 cf = 2,832.0 cf Chamber Storage
118 Chambers x 31.9 cf = 3,767.1 cf Displacement

18,608.5 cf Field - 3,767.1 cf Chambers = 14,841.3 cf Stone x 33.0% Voids = 4,897.6 cf Stone Storage

Chamber Storage + Stone Storage = 7,729.6 cf = 0.177 af
Overall Storage Efficiency = 41.5%
Overall System Size = 1,182.00' x 7.00' x 2.25'

118 Chambers
689.2 cy Field
549.7 cy Stone

Hydrograph for Pond 35P: Track and Field-manifold

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	48.50	0.00	0.00	0.00
5.00	0.03	29	48.51	0.03	0.03	0.00
10.00	**0.17**	**224**	**48.58**	**0.15**	**0.09**	**0.06**
15.00	**0.15**	**289**	**48.61**	**0.17**	**0.11**	**0.06**
20.00	0.05	46	48.52	0.05	0.05	0.00
25.00	0.00	1	48.50	0.00	0.00	0.00
30.00	0.00	0	48.50	0.00	0.00	0.00
35.00	0.00	0	48.50	0.00	0.00	0.00
40.00	0.00	0	48.50	0.00	0.00	0.00
45.00	0.00	0	48.50	0.00	0.00	0.00
50.00	0.00	0	48.50	0.00	0.00	0.00
55.00	0.00	0	48.50	0.00	0.00	0.00
60.00	0.00	0	48.50	0.00	0.00	0.00
65.00	0.00	0	48.50	0.00	0.00	0.00
70.00	0.00	0	48.50	0.00	0.00	0.00
75.00	0.00	0	48.50	0.00	0.00	0.00
80.00	0.00	0	48.50	0.00	0.00	0.00
85.00	0.00	0	48.50	0.00	0.00	0.00
90.00	0.00	0	48.50	0.00	0.00	0.00
95.00	0.00	0	48.50	0.00	0.00	0.00
100.00	0.00	0	48.50	0.00	0.00	0.00
105.00	0.00	0	48.50	0.00	0.00	0.00
110.00	0.00	0	48.50	0.00	0.00	0.00
115.00	0.00	0	48.50	0.00	0.00	0.00
120.00	0.00	0	48.50	0.00	0.00	0.00
125.00	0.00	0	48.50	0.00	0.00	0.00
130.00	0.00	0	48.50	0.00	0.00	0.00
135.00	0.00	0	48.50	0.00	0.00	0.00
140.00	0.00	0	48.50	0.00	0.00	0.00
145.00	0.00	0	48.50	0.00	0.00	0.00
150.00	0.00	0	48.50	0.00	0.00	0.00
155.00	0.00	0	48.50	0.00	0.00	0.00
160.00	0.00	0	48.50	0.00	0.00	0.00
165.00	0.00	0	48.50	0.00	0.00	0.00
170.00	0.00	0	48.50	0.00	0.00	0.00
175.00	0.00	0	48.50	0.00	0.00	0.00
180.00	0.00	0	48.50	0.00	0.00	0.00
185.00	0.00	0	48.50	0.00	0.00	0.00
190.00	0.00	0	48.50	0.00	0.00	0.00
195.00	0.00	0	48.50	0.00	0.00	0.00
200.00	0.00	0	48.50	0.00	0.00	0.00
205.00	0.00	0	48.50	0.00	0.00	0.00
210.00	0.00	0	48.50	0.00	0.00	0.00
215.00	0.00	0	48.50	0.00	0.00	0.00
220.00	0.00	0	48.50	0.00	0.00	0.00
225.00	0.00	0	48.50	0.00	0.00	0.00
230.00	0.00	0	48.50	0.00	0.00	0.00
235.00	0.00	0	48.50	0.00	0.00	0.00
240.00	0.00	0	48.50	0.00	0.00	0.00

Stage-Discharge for Pond 35P: Track and Field-manifold

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
48.50	0.00	0.00	0.00
48.55	0.10	0.08	0.02
48.60	0.19	0.10	0.09
48.65	0.32	0.13	0.19
48.70	0.49	0.16	0.34
48.75	0.70	0.18	0.52
48.80	0.95	0.21	0.74
48.85	1.23	0.23	1.00
48.90	1.54	0.26	1.29
48.95	1.89	0.28	1.61
49.00	2.27	0.31	1.96
49.05	2.68	0.34	2.34
49.10	3.11	0.36	2.75
49.15	3.57	0.39	3.18
49.20	4.05	0.41	3.64
49.25	4.55	0.44	4.11
49.30	5.07	0.47	4.61
49.35	5.61	0.49	5.12
49.40	6.16	0.52	5.65
49.45	6.73	0.54	6.18
49.50	7.30	0.57	6.73
49.55	7.87	0.59	7.28
49.60	8.45	0.62	7.83
49.65	9.03	0.65	8.38
49.70	9.60	0.67	8.92
49.75	10.16	0.70	9.46
49.80	10.70	0.72	9.97
49.85	11.21	0.75	10.46
49.90	11.69	0.78	10.92
49.95	12.12	0.80	11.32
50.00	12.46	0.83	11.63
50.05	12.87	0.85	12.02
50.10	13.27	0.88	12.39
50.15	13.65	0.90	12.75
50.20	14.03	0.93	13.09
50.25	14.39	0.96	13.43
50.30	14.75	0.98	13.77
50.35	15.10	1.01	14.09
50.40	15.44	1.03	14.41
50.45	15.78	1.06	14.72
50.50	16.11	1.09	15.02
50.55	16.43	1.11	15.32
50.60	16.75	1.14	15.61
50.65	17.06	1.16	15.90
50.70	17.37	1.19	16.18
50.75	**17.67**	**1.22**	**16.45**

Stage-Area-Storage for Pond 35P: Track and Field-manifold

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
48.50	**8,273**	0
48.55	8,273	136
48.60	8,273	273
48.65	8,273	409
48.70	8,273	546
48.75	8,273	682
48.80	8,273	819
48.85	8,273	955
48.90	8,273	1,092
48.95	8,273	1,228
49.00	8,273	1,365
49.05	8,273	1,489
49.10	8,273	1,602
49.15	8,273	1,718
49.20	8,273	1,874
49.25	8,273	2,049
49.30	8,273	2,238
49.35	8,273	2,437
49.40	8,273	2,644
49.45	8,273	2,857
49.50	8,273	3,075
49.55	8,273	3,297
49.60	8,273	3,522
49.65	8,273	3,749
49.70	8,273	3,978
49.75	8,273	4,207
49.80	8,273	4,437
49.85	8,273	4,666
49.90	8,273	4,893
49.95	8,273	5,118
50.00	8,273	5,340
50.05	8,273	5,558
50.10	8,273	5,771
50.15	8,273	5,977
50.20	8,273	6,176
50.25	8,273	6,365
50.30	8,273	6,540
50.35	8,273	6,695
50.40	8,273	6,811
50.45	8,273	6,925
50.50	8,273	7,049
50.55	8,273	7,185
50.60	8,273	7,322
50.65	8,273	7,458
50.70	8,273	7,595
50.75	8,273	**7,730**

Summary for Link 2L: DP 1.1 - Culvert 1

Inflow Area = 475,005 sf, 1.72% Impervious, Inflow Depth = 0.93" for 1-year event
Inflow = 7.45 cfs @ 12.32 hrs, Volume= 37,004 cf
Primary = 7.45 cfs @ 12.32 hrs, Volume= 37,004 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 3L : DP 1.2 - Culvert 2

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 2L: DP 1.1 - Culvert 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	**0.00**	0.00	**0.00**	137.50	0.00	0.00	0.00
12.50	**5.89**	0.00	**5.89**	140.00	0.00	0.00	0.00
15.00	0.77	0.00	0.77	142.50	0.00	0.00	0.00
17.50	0.39	0.00	0.39	145.00	0.00	0.00	0.00
20.00	0.27	0.00	0.27	147.50	0.00	0.00	0.00
22.50	0.22	0.00	0.22	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 3L: DP 1.2 - Culvert 2

Inflow Area = 536,345 sf, 2.91% Impervious, Inflow Depth = 0.96" for 1-year event
Inflow = 8.27 cfs @ 12.31 hrs, Volume= 42,830 cf
Primary = 8.27 cfs @ 12.31 hrs, Volume= 42,830 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 4L : DP 1.3 - Culvert 3

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

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Hydrograph for Link 3L: DP 1.2 - Culvert 2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	**0.01**	0.00	**0.01**	137.50	0.00	0.00	0.00
12.50	**6.54**	0.00	**6.54**	140.00	0.00	0.00	0.00
15.00	0.88	0.00	0.88	142.50	0.00	0.00	0.00
17.50	0.45	0.00	0.45	145.00	0.00	0.00	0.00
20.00	0.31	0.00	0.31	147.50	0.00	0.00	0.00
22.50	0.25	0.00	0.25	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 4L: DP 1.3 - Culvert 3

Inflow Area = 562,190 sf, 3.45% Impervious, Inflow Depth = 0.96" for 1-year event
Inflow = 8.64 cfs @ 12.30 hrs, Volume= 45,203 cf
Primary = 8.64 cfs @ 12.30 hrs, Volume= 45,203 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

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Hydrograph for Link 4L: DP 1.3 - Culvert 3

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	**0.01**	0.00	**0.01**	137.50	0.00	0.00	0.00
12.50	**6.75**	0.00	**6.75**	140.00	0.00	0.00	0.00
15.00	0.92	0.00	0.92	142.50	0.00	0.00	0.00
17.50	0.47	0.00	0.47	145.00	0.00	0.00	0.00
20.00	0.32	0.00	0.32	147.50	0.00	0.00	0.00
22.50	0.26	0.00	0.26	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 5L: DP 1.4 - Silver Creek East Branch

Inflow Area = 1,084,691 sf, 28.21% Impervious, Inflow Depth = 1.01" for 1-year event
Inflow = 16.36 cfs @ 12.25 hrs, Volume= 91,018 cf
Primary = 16.36 cfs @ 12.25 hrs, Volume= 91,018 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 5L: DP 1.4 - Silver Creek East Branch

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.01	0.00	0.01	132.50	0.00	0.00	0.00
7.50	0.01	0.00	0.01	135.00	0.00	0.00	0.00
10.00	**0.10**	0.00	**0.10**	137.50	0.00	0.00	0.00
12.50	**11.77**	0.00	**11.77**	140.00	0.00	0.00	0.00
15.00	1.80	0.00	1.80	142.50	0.00	0.00	0.00
17.50	0.90	0.00	0.90	145.00	0.00	0.00	0.00
20.00	0.63	0.00	0.63	147.50	0.00	0.00	0.00
22.50	0.51	0.00	0.51	150.00	0.00	0.00	0.00
25.00	0.10	0.00	0.10	152.50	0.00	0.00	0.00
27.50	0.10	0.00	0.10	155.00	0.00	0.00	0.00
30.00	0.09	0.00	0.09	157.50	0.00	0.00	0.00
32.50	0.08	0.00	0.08	160.00	0.00	0.00	0.00
35.00	0.07	0.00	0.07	162.50	0.00	0.00	0.00
37.50	0.07	0.00	0.07	165.00	0.00	0.00	0.00
40.00	0.06	0.00	0.06	167.50	0.00	0.00	0.00
42.50	0.04	0.00	0.04	170.00	0.00	0.00	0.00
45.00	0.01	0.00	0.01	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 6L: DP 2.1 - West Wetland

Inflow Area = 835,379 sf, 33.92% Impervious, Inflow Depth = 0.71" for 1-year event
Inflow = 3.09 cfs @ 12.66 hrs, Volume= 49,121 cf
Primary = 3.09 cfs @ 12.66 hrs, Volume= 49,121 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 7L : DP 2.2 - Silver Creek West Branch

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 6L: DP 2.1 - West Wetland

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	137.50	0.00	0.00	0.00
12.50	**2.70**	0.00	**2.70**	140.00	0.00	0.00	0.00
15.00	**1.31**	0.00	**1.31**	142.50	0.00	0.00	0.00
17.50	0.82	0.00	0.82	145.00	0.00	0.00	0.00
20.00	0.57	0.00	0.57	147.50	0.00	0.00	0.00
22.50	0.44	0.00	0.44	150.00	0.00	0.00	0.00
25.00	0.31	0.00	0.31	152.50	0.00	0.00	0.00
27.50	0.16	0.00	0.16	155.00	0.00	0.00	0.00
30.00	0.08	0.00	0.08	157.50	0.00	0.00	0.00
32.50	0.05	0.00	0.05	160.00	0.00	0.00	0.00
35.00	0.03	0.00	0.03	162.50	0.00	0.00	0.00
37.50	0.02	0.00	0.02	165.00	0.00	0.00	0.00
40.00	0.02	0.00	0.02	167.50	0.00	0.00	0.00
42.50	0.01	0.00	0.01	170.00	0.00	0.00	0.00
45.00	0.01	0.00	0.01	172.50	0.00	0.00	0.00
47.50	0.01	0.00	0.01	175.00	0.00	0.00	0.00
50.00	0.01	0.00	0.01	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 7L: DP 2.2 - Silver Creek West Branch

Inflow Area = 991,430 sf, 32.70% Impervious, Inflow Depth = 0.77" for 1-year event
Inflow = 4.44 cfs @ 12.50 hrs, Volume= 63,452 cf
Primary = 4.44 cfs @ 12.50 hrs, Volume= 63,452 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 7L: DP 2.2 - Silver Creek West Branch

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00
2.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00
12.50	**4.44**	0.00	**4.44**
15.00	1.58	0.00	1.58
17.50	0.95	0.00	0.95
20.00	0.67	0.00	0.67
22.50	0.52	0.00	0.52
25.00	0.31	0.00	0.31
27.50	0.16	0.00	0.16
30.00	0.08	0.00	0.08
32.50	0.05	0.00	0.05
35.00	0.03	0.00	0.03
37.50	0.02	0.00	0.02
40.00	0.02	0.00	0.02
42.50	0.01	0.00	0.01
45.00	0.01	0.00	0.01
47.50	0.01	0.00	0.01
50.00	0.01	0.00	0.01
52.50	0.00	0.00	0.00
55.00	0.00	0.00	0.00
57.50	0.00	0.00	0.00
60.00	0.00	0.00	0.00
62.50	0.00	0.00	0.00
65.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00
70.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00
75.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00
80.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00
85.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00
90.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00
95.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00
100.00	0.00	0.00	0.00
102.50	0.00	0.00	0.00
105.00	0.00	0.00	0.00
107.50	0.00	0.00	0.00
110.00	0.00	0.00	0.00
112.50	0.00	0.00	0.00
115.00	0.00	0.00	0.00
117.50	0.00	0.00	0.00
120.00	0.00	0.00	0.00
122.50	0.00	0.00	0.00
125.00	0.00	0.00	0.00
127.50	0.00	0.00	0.00
130.00	0.00	0.00	0.00
132.50	0.00	0.00	0.00
135.00	0.00	0.00	0.00
137.50	0.00	0.00	0.00
140.00	0.00	0.00	0.00
142.50	0.00	0.00	0.00
145.00	0.00	0.00	0.00
147.50	0.00	0.00	0.00
150.00	0.00	0.00	0.00
152.50	0.00	0.00	0.00
155.00	0.00	0.00	0.00
157.50	0.00	0.00	0.00
160.00	0.00	0.00	0.00
162.50	0.00	0.00	0.00
165.00	0.00	0.00	0.00
167.50	0.00	0.00	0.00
170.00	0.00	0.00	0.00
172.50	0.00	0.00	0.00
175.00	0.00	0.00	0.00
177.50	0.00	0.00	0.00
180.00	0.00	0.00	0.00
182.50	0.00	0.00	0.00
185.00	0.00	0.00	0.00
187.50	0.00	0.00	0.00
190.00	0.00	0.00	0.00
192.50	0.00	0.00	0.00
195.00	0.00	0.00	0.00
197.50	0.00	0.00	0.00
200.00	0.00	0.00	0.00
202.50	0.00	0.00	0.00
205.00	0.00	0.00	0.00
207.50	0.00	0.00	0.00
210.00	0.00	0.00	0.00
212.50	0.00	0.00	0.00
215.00	0.00	0.00	0.00
217.50	0.00	0.00	0.00
220.00	0.00	0.00	0.00
222.50	0.00	0.00	0.00
225.00	0.00	0.00	0.00
227.50	0.00	0.00	0.00
230.00	0.00	0.00	0.00
232.50	0.00	0.00	0.00
235.00	0.00	0.00	0.00
237.50	0.00	0.00	0.00
240.00	0.00	0.00	0.00

Time span=0.00-240.00 hrs, dt=0.05 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PDA-1.1A: Subcat PDA-1.1A Runoff Area=475,005 sf 0.22% Impervious Runoff Depth=0.10"
Flow Length=451' Slope=0.0100 '/' Tc=21.1 min CN=77/98 Runoff=0.41 cfs 4,081 cf

Subcatchment PDA-1.1B: Subcat PDA-1.1B Runoff Area=30,333 sf 0.05% Impervious Runoff Depth=0.12"
Flow Length=126' Tc=13.1 min CN=78/98 Runoff=0.04 cfs 297 cf

Subcatchment PDA-1.2A: Subcat PDA-1.2A Runoff Area=25,845 sf 12.41% Impervious Runoff Depth=0.22"
Flow Length=73' Tc=7.3 min CN=78/98 Runoff=0.09 cfs 484 cf

Subcatchment PDA-1.3A: Subcat PDA-1.3A Runoff Area=57,295 sf 71.73% Impervious Runoff Depth=0.73"
Flow Length=198' Slope=0.0100 '/' Tc=6.5 min CN=76/98 Runoff=1.00 cfs 3,493 cf

Subcatchment PDA-1.3C: Subcat PDA-1.3C Runoff Area=16,850 sf 40.99% Impervious Runoff Depth=0.44"
Flow Length=49' Tc=6.8 min CN=74/98 Runoff=0.17 cfs 618 cf

Subcatchment PDA-1.3D: Subcat PDA-1.3D Runoff Area=6,850 sf 45.03% Impervious Runoff Depth=0.48"
Tc=6.0 min CN=74/98 Runoff=0.08 cfs 273 cf

Subcatchment PDA-1.4A: Subcat PDA-1.4A Runoff Area=31,007 sf 23.36% Impervious Runoff Depth=0.32"
Flow Length=144' Tc=13.4 min CN=78/98 Runoff=0.16 cfs 827 cf

Subcatchment PDA-1.4B: Subcat PDA-1.4B Runoff Area=53,181 sf 32.63% Impervious Runoff Depth=0.40"
Flow Length=98' Tc=13.9 min CN=78/98 Runoff=0.36 cfs 1,775 cf

Subcatchment PDA-1.4C: Subcat PDA-1.4C Runoff Area=26,810 sf 63.81% Impervious Runoff Depth=0.65"
Tc=6.0 min CN=74/98 Runoff=0.42 cfs 1,455 cf

Subcatchment PDA-1.4D: Subcat PDA-1.4D Runoff Area=42,514 sf 59.10% Impervious Runoff Depth=0.62"
Tc=6.0 min CN=76/98 Runoff=0.62 cfs 2,189 cf

Subcatchment PDA-1.4E: Subcat PDA-1.4E Runoff Area=39,245 sf 62.30% Impervious Runoff Depth=0.64"
Tc=6.0 min CN=74/98 Runoff=0.60 cfs 2,084 cf

Subcatchment PDA-1.4F: Subcat PDA-1.4F Runoff Area=73,858 sf 54.96% Impervious Runoff Depth=0.57"
Flow Length=346' Tc=14.5 min CN=74/98 Runoff=0.78 cfs 3,505 cf

Subcatchment PDA-1.4G: Subcat PDA-1.4G Runoff Area=22,284 sf 61.76% Impervious Runoff Depth=0.63"
Tc=6.0 min CN=74/98 Runoff=0.34 cfs 1,174 cf

Subcatchment PDA-1.4H: Subcat PDA-1.4H Runoff Area=10,744 sf 5.59% Impervious Runoff Depth=0.11"
Tc=6.0 min CN=74/98 Runoff=0.01 cfs 101 cf

Subcatchment PDA-1.4I: Subcat PDA-1.4I Runoff Area=9,824 sf 27.06% Impervious Runoff Depth=0.31"
Tc=6.0 min CN=74/98 Runoff=0.07 cfs 255 cf

Subcatchment PDA-1.4J: Subcat PDA-1.4J Runoff Area=59,466 sf 7.90% Impervious Runoff Depth=0.19"
Tc=6.0 min CN=78/98 Runoff=0.17 cfs 920 cf

Subcatchment PDA-1.4K: Subcat PDA-1.4K Runoff Area=18,876 sf 80.13% Impervious Runoff Depth=0.80"
Tc=6.0 min CN=74/98 Runoff=0.37 cfs 1,262 cf

Subcatchment PDA-1.4L: Subcat PDA-1.4L Runoff Area=11,978 sf 24.28% Impervious Runoff Depth=0.29"
Flow Length=75' Tc=8.5 min CN=74/98 Runoff=0.07 cfs 286 cf

Subcatchment PDA-1.4M: Subcat PDA-1.4M Runoff Area=4,734 sf 4.20% Impervious Runoff Depth=0.10"
Flow Length=166' Slope=0.0100 '/' Tc=14.3 min CN=74/98 Runoff=0.00 cfs 40 cf

Subcatchment PDA-2.1A: Subcat Runoff Area=348,138 sf 24.77% Impervious Runoff Depth=0.30"
Flow Length=269' Tc=16.3 min CN=75/98 Runoff=1.61 cfs 8,689 cf

Subcatchment PDA-2.1B: Subcat PDA-2.1B Runoff Area=151,957 sf 3.18% Impervious Runoff Depth=0.10"
Flow Length=123' Tc=17.0 min CN=75/98 Runoff=0.12 cfs 1,299 cf

Subcatchment PDA-2.2A: Subcat Runoff Area=156,051 sf 23.53% Impervious Runoff Depth=0.29"
Tc=12.9 min CN=75/98 Runoff=0.74 cfs 3,748 cf

Subcatchment PDA-2.2B: Subcat PDA-2.2B Runoff Area=152,340 sf 1.56% Impervious Runoff Depth=0.05"
Flow Length=565' Slope=0.0120 '/' Tc=40.0 min CN=71/98 Runoff=0.03 cfs 606 cf

Subcatchment PDA-2.2C.a: Subcat Runoff Area=90,671 sf 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=74/98 Runoff=2.23 cfs 7,448 cf

Subcatchment PDA-2.2C.b: Subcat Runoff Area=61,186 sf 99.99% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=74/98 Runoff=1.50 cfs 5,025 cf

Subcatchment PDA-ROOF1.3: Subcat Runoff Area=9,782 sf 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=74/98 Runoff=0.24 cfs 803 cf

Subcatchment PDA-ROOF1.4: Subcat Runoff Area=58,210 sf 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=74/98 Runoff=1.43 cfs 4,781 cf

Subcatchment PDA-ROOF2.1: Subcat Runoff Area=31,087 sf 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=74/98 Runoff=0.76 cfs 2,553 cf

Pond 1P: Bio 4 Peak Elev=58.39' Storage=382 cf Inflow=0.17 cfs 618 cf
Discarded=0.00 cfs 618 cf Primary=0.00 cfs 0 cf Outflow=0.00 cfs 618 cf

Pond 2P: Bio 3 Peak Elev=58.91' Storage=535 cf Inflow=0.32 cfs 1,076 cf
Primary=0.00 cfs 0 cf Tertiary=0.01 cfs 1,076 cf Outflow=0.01 cfs 1,076 cf

Pond 3P: DIV-02 Peak Elev=56.55' Inflow=0.36 cfs 1,775 cf
Primary=0.36 cfs 1,775 cf Secondary=0.00 cfs 0 cf Outflow=0.36 cfs 1,775 cf

Pond 4P: Detention Basin 2 Peak Elev=55.63' Storage=59 cf Inflow=0.01 cfs 101 cf
Primary=0.00 cfs 99 cf Secondary=0.00 cfs 0 cf Outflow=0.00 cfs 99 cf

Pond 7P: Bio 2 Peak Elev=54.66' Storage=620 cf Inflow=0.42 cfs 1,455 cf
Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Tertiary=0.03 cfs 1,455 cf Outflow=0.03 cfs 1,455 cf

Pond 8P: DIV-04 Peak Elev=47.46' Inflow=1.08 cfs 2,788 cf
Primary=1.08 cfs 2,788 cf Secondary=0.00 cfs 0 cf Outflow=1.08 cfs 2,788 cf

Pond 9P: Sand Filter 5 Peak Elev=49.35' Storage=985 cf Inflow=0.37 cfs 1,301 cf
Discarded=0.01 cfs 1,301 cf Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Outflow=0.01 cfs 1,301 cf

Pond 10P: Bio 1 Peak Elev=44.50' Storage=1,688 cf Inflow=0.62 cfs 2,189 cf
Discarded=0.01 cfs 2,105 cf Primary=0.01 cfs 85 cf Secondary=0.00 cfs 0 cf Outflow=0.02 cfs 2,189 cf

Pond 12P: Infiltration Basin 1 Peak Elev=56.81' Storage=3,047 cf Inflow=1.50 cfs 5,036 cf
Discarded=0.05 cfs 5,036 cf Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Outflow=0.05 cfs 5,036 cf

Pond 13P: Sand Filter 1 Peak Elev=46.51' Storage=9,104 cf Inflow=1.73 cfs 11,021 cf
Discarded=0.03 cfs 11,021 cf Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Outflow=0.03 cfs 11,021 cf

Pond 14P: DIV-03 Peak Elev=44.64' Inflow=0.62 cfs 2,189 cf
Primary=0.62 cfs 2,189 cf Secondary=0.00 cfs 0 cf Outflow=0.62 cfs 2,189 cf

Pond 15P: Detention Basin 1 Peak Elev=44.08' Storage=947 cf Inflow=0.41 cfs 1,521 cf
Primary=0.02 cfs 1,462 cf Secondary=0.00 cfs 0 cf Tertiary=0.00 cfs 0 cf Outflow=0.02 cfs 1,462 cf

Pond 17P: Track and Field- stone base Peak Elev=50.55' Storage=1,383 cf Inflow=2.23 cfs 7,448 cf
Discarded=0.58 cfs 6,543 cf Primary=0.57 cfs 904 cf Outflow=1.15 cfs 7,448 cf

Pond 18P: Sand Filter 2 Peak Elev=55.02' Storage=2,986 cf Inflow=0.88 cfs 3,859 cf
Discarded=0.01 cfs 3,859 cf Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Outflow=0.01 cfs 3,859 cf

Pond 19P: Sand Filter 3 Peak Elev=57.97' Storage=644 cf Inflow=0.34 cfs 1,174 cf
Discarded=0.01 cfs 1,174 cf Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Outflow=0.01 cfs 1,174 cf

Pond 20P: Sand Filter 4 Peak Elev=59.00' Storage=6 cf Inflow=0.16 cfs 827 cf
Outflow=0.16 cfs 827 cf

Pond 23P: UGIS-1 Peak Elev=46.99' Storage=2,250 cf Inflow=1.08 cfs 2,788 cf
Discarded=0.05 cfs 2,788 cf Primary=0.00 cfs 0 cf Outflow=0.05 cfs 2,788 cf

Pond 28P: DIV-01 Peak Elev=47.06' Inflow=2.06 cfs 11,243 cf
Primary=1.73 cfs 11,021 cf Secondary=0.32 cfs 222 cf Outflow=2.06 cfs 11,243 cf

Pond 33P: Wet Swale Peak Elev=59.44' Storage=2,866 cf Inflow=1.00 cfs 3,493 cf
Discarded=0.01 cfs 3,493 cf Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Outflow=0.01 cfs 3,493 cf

Pond 35P: Track and Field-manifold Peak Elev=48.86' Storage=995 cf Inflow=1.81 cfs 5,929 cf
Discarded=0.24 cfs 3,142 cf Primary=1.08 cfs 2,788 cf Outflow=1.32 cfs 5,929 cf

Link 2L: DP 1.1 - Culvert 1 Inflow=0.41 cfs 4,081 cf
Primary=0.41 cfs 4,081 cf

Link 3L: DP 1.2 - Culvert 2 Inflow=0.53 cfs 5,204 cf
Primary=0.53 cfs 5,204 cf

Link 4L: DP 1.3 - Culvert 3 Inflow=0.57 cfs 5,689 cf
Primary=0.57 cfs 5,689 cf

Link 5L: DP 1.4 - Silver Creek East Branch Inflow=1.36 cfs 13,114 cf
Primary=1.36 cfs 13,114 cf

Link 6L: DP 2.1 - West Wetland Inflow=0.03 cfs 2,068 cf
Primary=0.03 cfs 2,068 cf

Link 7L: DP 2.2 - Silver Creek West Branch Inflow=0.76 cfs 5,815 cf
Primary=0.76 cfs 5,815 cf

Total Runoff Area = 2,076,121 sf Runoff Volume = 60,071 cf Average Runoff Depth = 0.35"
70.70% Pervious = 1,467,838 sf 29.30% Impervious = 608,283 sf

Summary for Subcatchment PDA-1.1A: Subcat PDA-1.1A

Runoff = 0.41 cfs @ 12.54 hrs, Volume= 4,081 cf, Depth= 0.10"
Routed to Link 2L : DP 1.1 - Culvert 1

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
90,334	74	>75% Grass cover, Good, HSG C
38,424	80	>75% Grass cover, Good, HSG D
4,538	87	Dirt roads, HSG C
1,510	89	Dirt roads, HSG D
1,040	98	Paved parking, HSG D
6,366	98	Unconnected pavement, HSG C
776	98	Unconnected pavement, HSG D
33,631	70	Woods, Good, HSG C
298,387	77	Woods, Good, HSG D
475,005	77	Weighted Average
473,965	77	99.78% Pervious Area
1,040	98	0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
8.4	351	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.1	451	Total			

Hydrograph for Subcatchment PDA-1.1A: Subcat PDA-1.1A

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.05	0.82	**0.12**
20.00	**1.15**	**0.09**	**0.94**	0.05
25.00	**1.20**	**0.10**	**0.99**	0.00
30.00	1.20	0.10	0.99	0.00
35.00	1.20	0.10	0.99	0.00
40.00	1.20	0.10	0.99	0.00
45.00	1.20	0.10	0.99	0.00
50.00	1.20	0.10	0.99	0.00
55.00	1.20	0.10	0.99	0.00
60.00	1.20	0.10	0.99	0.00
65.00	1.20	0.10	0.99	0.00
70.00	1.20	0.10	0.99	0.00
75.00	1.20	0.10	0.99	0.00
80.00	1.20	0.10	0.99	0.00
85.00	1.20	0.10	0.99	0.00
90.00	1.20	0.10	0.99	0.00
95.00	1.20	0.10	0.99	0.00
100.00	1.20	0.10	0.99	0.00
105.00	1.20	0.10	0.99	0.00
110.00	1.20	0.10	0.99	0.00
115.00	1.20	0.10	0.99	0.00
120.00	1.20	0.10	0.99	0.00
125.00	1.20	0.10	0.99	0.00
130.00	1.20	0.10	0.99	0.00
135.00	1.20	0.10	0.99	0.00
140.00	1.20	0.10	0.99	0.00
145.00	1.20	0.10	0.99	0.00
150.00	1.20	0.10	0.99	0.00
155.00	1.20	0.10	0.99	0.00
160.00	1.20	0.10	0.99	0.00
165.00	1.20	0.10	0.99	0.00
170.00	1.20	0.10	0.99	0.00
175.00	1.20	0.10	0.99	0.00
180.00	1.20	0.10	0.99	0.00
185.00	1.20	0.10	0.99	0.00
190.00	1.20	0.10	0.99	0.00
195.00	1.20	0.10	0.99	0.00
200.00	1.20	0.10	0.99	0.00
205.00	1.20	0.10	0.99	0.00
210.00	1.20	0.10	0.99	0.00
215.00	1.20	0.10	0.99	0.00
220.00	1.20	0.10	0.99	0.00
225.00	1.20	0.10	0.99	0.00
230.00	1.20	0.10	0.99	0.00
235.00	1.20	0.10	0.99	0.00
240.00	1.20	0.10	0.99	0.00

Summary for Subcatchment PDA-1.1B: Subcat PDA-1.1B

Runoff = 0.04 cfs @ 12.39 hrs, Volume= 297 cf, Depth= 0.12"
Routed to Link 3L : DP 1.2 - Culvert 2

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
19,238	74	>75% Grass cover, Good, HSG C
5,415	80	>75% Grass cover, Good, HSG D
5,665	87	Dirt roads, HSG C
8	98	Paved parking, HSG C
7	98	Paved parking, HSG D
30,333	78	Weighted Average
30,318	78	99.95% Pervious Area
15	98	0.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.4	26	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	126	Total			

Hydrograph for Subcatchment PDA-1.1B: Subcat PDA-1.1B

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.06	0.82	**0.01**
20.00	**1.15**	**0.10**	**0.94**	0.00
25.00	**1.20**	**0.12**	**0.99**	0.00
30.00	1.20	0.12	0.99	0.00
35.00	1.20	0.12	0.99	0.00
40.00	1.20	0.12	0.99	0.00
45.00	1.20	0.12	0.99	0.00
50.00	1.20	0.12	0.99	0.00
55.00	1.20	0.12	0.99	0.00
60.00	1.20	0.12	0.99	0.00
65.00	1.20	0.12	0.99	0.00
70.00	1.20	0.12	0.99	0.00
75.00	1.20	0.12	0.99	0.00
80.00	1.20	0.12	0.99	0.00
85.00	1.20	0.12	0.99	0.00
90.00	1.20	0.12	0.99	0.00
95.00	1.20	0.12	0.99	0.00
100.00	1.20	0.12	0.99	0.00
105.00	1.20	0.12	0.99	0.00
110.00	1.20	0.12	0.99	0.00
115.00	1.20	0.12	0.99	0.00
120.00	1.20	0.12	0.99	0.00
125.00	1.20	0.12	0.99	0.00
130.00	1.20	0.12	0.99	0.00
135.00	1.20	0.12	0.99	0.00
140.00	1.20	0.12	0.99	0.00
145.00	1.20	0.12	0.99	0.00
150.00	1.20	0.12	0.99	0.00
155.00	1.20	0.12	0.99	0.00
160.00	1.20	0.12	0.99	0.00
165.00	1.20	0.12	0.99	0.00
170.00	1.20	0.12	0.99	0.00
175.00	1.20	0.12	0.99	0.00
180.00	1.20	0.12	0.99	0.00
185.00	1.20	0.12	0.99	0.00
190.00	1.20	0.12	0.99	0.00
195.00	1.20	0.12	0.99	0.00
200.00	1.20	0.12	0.99	0.00
205.00	1.20	0.12	0.99	0.00
210.00	1.20	0.12	0.99	0.00
215.00	1.20	0.12	0.99	0.00
220.00	1.20	0.12	0.99	0.00
225.00	1.20	0.12	0.99	0.00
230.00	1.20	0.12	0.99	0.00
235.00	1.20	0.12	0.99	0.00
240.00	1.20	0.12	0.99	0.00

Summary for Subcatchment PDA-1.2A: Subcat PDA-1.2A

Runoff = 0.09 cfs @ 12.13 hrs, Volume= 484 cf, Depth= 0.22"
Routed to Link 4L : DP 1.3 - Culvert 3

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
9,020	74	>75% Grass cover, Good, HSG C
13,051	80	>75% Grass cover, Good, HSG D
1,436	98	Paved parking, HSG C
1,771	98	Paved parking, HSG D
0	98	Roofs, HSG C
567	98	Unconnected pavement, HSG C
25,845	81	Weighted Average
22,638	78	87.59% Pervious Area
3,207	98	12.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	54	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.3	6	0.3300	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.3	5	0.2000	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.8	8	0.5000	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.30"
7.3	73	Total			

Hydrograph for Subcatchment PDA-1.2A: Subcat PDA-1.2A

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.06	0.82	**0.01**
20.00	**1.15**	**0.10**	**0.94**	0.00
25.00	**1.20**	**0.12**	**0.99**	0.00
30.00	1.20	0.12	0.99	0.00
35.00	1.20	0.12	0.99	0.00
40.00	1.20	0.12	0.99	0.00
45.00	1.20	0.12	0.99	0.00
50.00	1.20	0.12	0.99	0.00
55.00	1.20	0.12	0.99	0.00
60.00	1.20	0.12	0.99	0.00
65.00	1.20	0.12	0.99	0.00
70.00	1.20	0.12	0.99	0.00
75.00	1.20	0.12	0.99	0.00
80.00	1.20	0.12	0.99	0.00
85.00	1.20	0.12	0.99	0.00
90.00	1.20	0.12	0.99	0.00
95.00	1.20	0.12	0.99	0.00
100.00	1.20	0.12	0.99	0.00
105.00	1.20	0.12	0.99	0.00
110.00	1.20	0.12	0.99	0.00
115.00	1.20	0.12	0.99	0.00
120.00	1.20	0.12	0.99	0.00
125.00	1.20	0.12	0.99	0.00
130.00	1.20	0.12	0.99	0.00
135.00	1.20	0.12	0.99	0.00
140.00	1.20	0.12	0.99	0.00
145.00	1.20	0.12	0.99	0.00
150.00	1.20	0.12	0.99	0.00
155.00	1.20	0.12	0.99	0.00
160.00	1.20	0.12	0.99	0.00
165.00	1.20	0.12	0.99	0.00
170.00	1.20	0.12	0.99	0.00
175.00	1.20	0.12	0.99	0.00
180.00	1.20	0.12	0.99	0.00
185.00	1.20	0.12	0.99	0.00
190.00	1.20	0.12	0.99	0.00
195.00	1.20	0.12	0.99	0.00
200.00	1.20	0.12	0.99	0.00
205.00	1.20	0.12	0.99	0.00
210.00	1.20	0.12	0.99	0.00
215.00	1.20	0.12	0.99	0.00
220.00	1.20	0.12	0.99	0.00
225.00	1.20	0.12	0.99	0.00
230.00	1.20	0.12	0.99	0.00
235.00	1.20	0.12	0.99	0.00
240.00	1.20	0.12	0.99	0.00

Summary for Subcatchment PDA-1.3A: Subcat PDA-1.3A

Runoff = 1.00 cfs @ 12.09 hrs, Volume= 3,493 cf, Depth= 0.73"
Routed to Pond 33P : Wet Swale

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
10,911	74	>75% Grass cover, Good, HSG C
5,194	80	>75% Grass cover, Good, HSG D
41,056	98	Paved parking, HSG C
40	98	Paved parking, HSG D
0	98	Roofs, HSG C
94	98	Unconnected pavement, HSG C
57,295	92	Weighted Average
16,199	76	28.27% Pervious Area
41,096	98	71.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	27	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
1.2	73	0.0100	0.99		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.30"
0.8	98	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.5	198	Total			

Hydrograph for Subcatchment PDA-1.3A: Subcat PDA-1.3A

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.04**
15.00	1.03	0.04	0.82	**0.05**
20.00	**1.15**	**0.07**	**0.94**	0.02
25.00	**1.20**	**0.09**	**0.99**	0.00
30.00	1.20	0.09	0.99	0.00
35.00	1.20	0.09	0.99	0.00
40.00	1.20	0.09	0.99	0.00
45.00	1.20	0.09	0.99	0.00
50.00	1.20	0.09	0.99	0.00
55.00	1.20	0.09	0.99	0.00
60.00	1.20	0.09	0.99	0.00
65.00	1.20	0.09	0.99	0.00
70.00	1.20	0.09	0.99	0.00
75.00	1.20	0.09	0.99	0.00
80.00	1.20	0.09	0.99	0.00
85.00	1.20	0.09	0.99	0.00
90.00	1.20	0.09	0.99	0.00
95.00	1.20	0.09	0.99	0.00
100.00	1.20	0.09	0.99	0.00
105.00	1.20	0.09	0.99	0.00
110.00	1.20	0.09	0.99	0.00
115.00	1.20	0.09	0.99	0.00
120.00	1.20	0.09	0.99	0.00
125.00	1.20	0.09	0.99	0.00
130.00	1.20	0.09	0.99	0.00
135.00	1.20	0.09	0.99	0.00
140.00	1.20	0.09	0.99	0.00
145.00	1.20	0.09	0.99	0.00
150.00	1.20	0.09	0.99	0.00
155.00	1.20	0.09	0.99	0.00
160.00	1.20	0.09	0.99	0.00
165.00	1.20	0.09	0.99	0.00
170.00	1.20	0.09	0.99	0.00
175.00	1.20	0.09	0.99	0.00
180.00	1.20	0.09	0.99	0.00
185.00	1.20	0.09	0.99	0.00
190.00	1.20	0.09	0.99	0.00
195.00	1.20	0.09	0.99	0.00
200.00	1.20	0.09	0.99	0.00
205.00	1.20	0.09	0.99	0.00
210.00	1.20	0.09	0.99	0.00
215.00	1.20	0.09	0.99	0.00
220.00	1.20	0.09	0.99	0.00
225.00	1.20	0.09	0.99	0.00
230.00	1.20	0.09	0.99	0.00
235.00	1.20	0.09	0.99	0.00
240.00	1.20	0.09	0.99	0.00

Summary for Subcatchment PDA-1.3C: Subcat PDA-1.3C

Runoff = 0.17 cfs @ 12.10 hrs, Volume= 618 cf, Depth= 0.44"
Routed to Pond 1P : Bio 4

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
9,827	74	>75% Grass cover, Good, HSG C
6,906	98	Paved parking, HSG C
0	98	Roofs, HSG C
117	98	Unconnected pavement, HSG C
16,850	84	Weighted Average
9,944	74	59.01% Pervious Area
6,907	98	40.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	39	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.8	10	0.1000	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
6.8	49	Total			

Hydrograph for Subcatchment PDA-1.3C: Subcat PDA-1.3C

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.01**
15.00	1.03	0.03	0.82	**0.01**
20.00	**1.15**	**0.05**	**0.94**	0.00
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.3D: Subcat PDA-1.3D

Runoff = 0.08 cfs @ 12.09 hrs, Volume= 273 cf, Depth= 0.48"
Routed to Pond 2P : Bio 3

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
3,766	74	>75% Grass cover, Good, HSG C
3,085	98	Paved parking, HSG C
0	98	Roofs, HSG C
6,850	85	Weighted Average
3,766	74	54.97% Pervious Area
3,085	98	45.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.3D: Subcat PDA-1.3D

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.03	0.82	**0.00**
20.00	**1.15**	**0.05**	**0.94**	0.00
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.4A: Subcat PDA-1.4A

Runoff = 0.16 cfs @ 12.20 hrs, Volume= 827 cf, Depth= 0.32"
Routed to Pond 20P : Sand Filter 4

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
14,884	74	>75% Grass cover, Good, HSG C
2,931	80	>75% Grass cover, Good, HSG D
5,758	87	Dirt roads, HSG C
6	89	Dirt roads, HSG D
2,675	98	Paved parking, HSG C
4,570	98	Paved parking, HSG D
183	98	Unconnected pavement, HSG C
31,007	83	Weighted Average
23,762	78	76.64% Pervious Area
7,245	98	23.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.7	44	0.0250	1.11		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	144	Total			

Hydrograph for Subcatchment PDA-1.4A: Subcat PDA-1.4A

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.01**
15.00	1.03	0.06	0.82	**0.01**
20.00	**1.15**	**0.10**	**0.94**	0.01
25.00	**1.20**	**0.12**	**0.99**	0.00
30.00	1.20	0.12	0.99	0.00
35.00	1.20	0.12	0.99	0.00
40.00	1.20	0.12	0.99	0.00
45.00	1.20	0.12	0.99	0.00
50.00	1.20	0.12	0.99	0.00
55.00	1.20	0.12	0.99	0.00
60.00	1.20	0.12	0.99	0.00
65.00	1.20	0.12	0.99	0.00
70.00	1.20	0.12	0.99	0.00
75.00	1.20	0.12	0.99	0.00
80.00	1.20	0.12	0.99	0.00
85.00	1.20	0.12	0.99	0.00
90.00	1.20	0.12	0.99	0.00
95.00	1.20	0.12	0.99	0.00
100.00	1.20	0.12	0.99	0.00
105.00	1.20	0.12	0.99	0.00
110.00	1.20	0.12	0.99	0.00
115.00	1.20	0.12	0.99	0.00
120.00	1.20	0.12	0.99	0.00
125.00	1.20	0.12	0.99	0.00
130.00	1.20	0.12	0.99	0.00
135.00	1.20	0.12	0.99	0.00
140.00	1.20	0.12	0.99	0.00
145.00	1.20	0.12	0.99	0.00
150.00	1.20	0.12	0.99	0.00
155.00	1.20	0.12	0.99	0.00
160.00	1.20	0.12	0.99	0.00
165.00	1.20	0.12	0.99	0.00
170.00	1.20	0.12	0.99	0.00
175.00	1.20	0.12	0.99	0.00
180.00	1.20	0.12	0.99	0.00
185.00	1.20	0.12	0.99	0.00
190.00	1.20	0.12	0.99	0.00
195.00	1.20	0.12	0.99	0.00
200.00	1.20	0.12	0.99	0.00
205.00	1.20	0.12	0.99	0.00
210.00	1.20	0.12	0.99	0.00
215.00	1.20	0.12	0.99	0.00
220.00	1.20	0.12	0.99	0.00
225.00	1.20	0.12	0.99	0.00
230.00	1.20	0.12	0.99	0.00
235.00	1.20	0.12	0.99	0.00
240.00	1.20	0.12	0.99	0.00

Summary for Subcatchment PDA-1.4B: Subcat PDA-1.4B

Runoff = 0.36 cfs @ 12.20 hrs, Volume= 1,775 cf, Depth= 0.40"
Routed to Pond 3P : DIV-02

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
25,747	74	>75% Grass cover, Good, HSG C
7,636	87	Dirt roads, HSG C
17,354	98	Paved parking, HSG C
2,443	98	Unconnected pavement, HSG C
53,181	85	Weighted Average
35,826	78	67.37% Pervious Area
17,354	98	32.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	58	0.0100	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
5.7	40	0.0120	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
13.9	98	Total			

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Hydrograph for Subcatchment PDA-1.4B: Subcat PDA-1.4B

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.02**
15.00	1.03	0.06	0.82	**0.03**
20.00	**1.15**	**0.10**	**0.94**	0.01
25.00	**1.20**	**0.12**	**0.99**	0.00
30.00	1.20	0.12	0.99	0.00
35.00	1.20	0.12	0.99	0.00
40.00	1.20	0.12	0.99	0.00
45.00	1.20	0.12	0.99	0.00
50.00	1.20	0.12	0.99	0.00
55.00	1.20	0.12	0.99	0.00
60.00	1.20	0.12	0.99	0.00
65.00	1.20	0.12	0.99	0.00
70.00	1.20	0.12	0.99	0.00
75.00	1.20	0.12	0.99	0.00
80.00	1.20	0.12	0.99	0.00
85.00	1.20	0.12	0.99	0.00
90.00	1.20	0.12	0.99	0.00
95.00	1.20	0.12	0.99	0.00
100.00	1.20	0.12	0.99	0.00
105.00	1.20	0.12	0.99	0.00
110.00	1.20	0.12	0.99	0.00
115.00	1.20	0.12	0.99	0.00
120.00	1.20	0.12	0.99	0.00
125.00	1.20	0.12	0.99	0.00
130.00	1.20	0.12	0.99	0.00
135.00	1.20	0.12	0.99	0.00
140.00	1.20	0.12	0.99	0.00
145.00	1.20	0.12	0.99	0.00
150.00	1.20	0.12	0.99	0.00
155.00	1.20	0.12	0.99	0.00
160.00	1.20	0.12	0.99	0.00
165.00	1.20	0.12	0.99	0.00
170.00	1.20	0.12	0.99	0.00
175.00	1.20	0.12	0.99	0.00
180.00	1.20	0.12	0.99	0.00
185.00	1.20	0.12	0.99	0.00
190.00	1.20	0.12	0.99	0.00
195.00	1.20	0.12	0.99	0.00
200.00	1.20	0.12	0.99	0.00
205.00	1.20	0.12	0.99	0.00
210.00	1.20	0.12	0.99	0.00
215.00	1.20	0.12	0.99	0.00
220.00	1.20	0.12	0.99	0.00
225.00	1.20	0.12	0.99	0.00
230.00	1.20	0.12	0.99	0.00
235.00	1.20	0.12	0.99	0.00
240.00	1.20	0.12	0.99	0.00

Summary for Subcatchment PDA-1.4C: Subcat PDA-1.4C

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 1,455 cf, Depth= 0.65"
Routed to Pond 7P : Bio 2

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
9,701	74	>75% Grass cover, Good, HSG C
17,108	98	Paved parking, HSG C
26,810	89	Weighted Average
9,701	74	36.19% Pervious Area
17,108	98	63.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4C: Subcat PDA-1.4C

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.02**
15.00	1.03	0.03	0.82	**0.02**
20.00	**1.15**	**0.05**	**0.94**	0.01
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.4D: Subcat PDA-1.4D

Runoff = 0.62 cfs @ 12.09 hrs, Volume= 2,189 cf, Depth= 0.62"
Routed to Pond 14P : DIV-03

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
14,109	74	>75% Grass cover, Good, HSG C
2,143	80	>75% Grass cover, Good, HSG D
1,138	96	Gravel surface, HSG C
25,125	98	Paved parking, HSG C
42,514	89	Weighted Average
17,389	76	40.90% Pervious Area
25,125	98	59.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4D: Subcat PDA-1.4D

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.02**
15.00	1.03	0.04	0.82	**0.03**
20.00	**1.15**	**0.07**	**0.94**	0.01
25.00	**1.20**	**0.09**	**0.99**	0.00
30.00	1.20	0.09	0.99	0.00
35.00	1.20	0.09	0.99	0.00
40.00	1.20	0.09	0.99	0.00
45.00	1.20	0.09	0.99	0.00
50.00	1.20	0.09	0.99	0.00
55.00	1.20	0.09	0.99	0.00
60.00	1.20	0.09	0.99	0.00
65.00	1.20	0.09	0.99	0.00
70.00	1.20	0.09	0.99	0.00
75.00	1.20	0.09	0.99	0.00
80.00	1.20	0.09	0.99	0.00
85.00	1.20	0.09	0.99	0.00
90.00	1.20	0.09	0.99	0.00
95.00	1.20	0.09	0.99	0.00
100.00	1.20	0.09	0.99	0.00
105.00	1.20	0.09	0.99	0.00
110.00	1.20	0.09	0.99	0.00
115.00	1.20	0.09	0.99	0.00
120.00	1.20	0.09	0.99	0.00
125.00	1.20	0.09	0.99	0.00
130.00	1.20	0.09	0.99	0.00
135.00	1.20	0.09	0.99	0.00
140.00	1.20	0.09	0.99	0.00
145.00	1.20	0.09	0.99	0.00
150.00	1.20	0.09	0.99	0.00
155.00	1.20	0.09	0.99	0.00
160.00	1.20	0.09	0.99	0.00
165.00	1.20	0.09	0.99	0.00
170.00	1.20	0.09	0.99	0.00
175.00	1.20	0.09	0.99	0.00
180.00	1.20	0.09	0.99	0.00
185.00	1.20	0.09	0.99	0.00
190.00	1.20	0.09	0.99	0.00
195.00	1.20	0.09	0.99	0.00
200.00	1.20	0.09	0.99	0.00
205.00	1.20	0.09	0.99	0.00
210.00	1.20	0.09	0.99	0.00
215.00	1.20	0.09	0.99	0.00
220.00	1.20	0.09	0.99	0.00
225.00	1.20	0.09	0.99	0.00
230.00	1.20	0.09	0.99	0.00
235.00	1.20	0.09	0.99	0.00
240.00	1.20	0.09	0.99	0.00

Summary for Subcatchment PDA-1.4E: Subcat PDA-1.4E

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 2,084 cf, Depth= 0.64"
Routed to Pond 18P : Sand Filter 2

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
14,786	74	>75% Grass cover, Good, HSG C
7	80	>75% Grass cover, Good, HSG D
24,452	98	Paved parking, HSG C
39,245	89	Weighted Average
14,794	74	37.70% Pervious Area
24,452	98	62.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4E: Subcat PDA-1.4E

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.02**
15.00	1.03	0.03	0.82	**0.03**
20.00	**1.15**	**0.05**	**0.94**	0.01
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.4F: Subcat PDA-1.4F

Runoff = 0.78 cfs @ 12.19 hrs, Volume= 3,505 cf, Depth= 0.57"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
33,264	74	>75% Grass cover, Good, HSG C
3	80	>75% Grass cover, Good, HSG D
36,167	98	Paved parking, HSG C
4,425	98	Paved parking, HSG D
73,858	87	Weighted Average
33,267	74	45.04% Pervious Area
40,591	98	54.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0105	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.2	42	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	204	0.0090	1.93		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.5	346	Total			

Hydrograph for Subcatchment PDA-1.4F: Subcat PDA-1.4F

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.04**
15.00	1.03	0.03	0.82	**0.05**
20.00	**1.15**	**0.05**	**0.94**	0.02
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.4G: Subcat PDA-1.4G

Runoff = 0.34 cfs @ 12.09 hrs, Volume= 1,174 cf, Depth= 0.63"
Routed to Pond 19P : Sand Filter 3

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
8,361	74	>75% Grass cover, Good, HSG C
160	80	>75% Grass cover, Good, HSG D
13,763	98	Paved parking, HSG C
22,284	89	Weighted Average
8,521	74	38.24% Pervious Area
13,763	98	61.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4G: Subcat PDA-1.4G

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.01**
15.00	1.03	0.03	0.82	**0.02**
20.00	**1.15**	**0.05**	**0.94**	0.01
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.4H: Subcat PDA-1.4H

Runoff = 0.01 cfs @ 12.09 hrs, Volume= 101 cf, Depth= 0.11"
Routed to Pond 4P : Detention Basin 2

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
9,974	74	>75% Grass cover, Good, HSG C
169	80	>75% Grass cover, Good, HSG D
600	98	Paved parking, HSG C
10,744	75	Weighted Average
10,143	74	94.41% Pervious Area
600	98	5.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4H: Subcat PDA-1.4H

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.03	0.82	**0.00**
20.00	**1.15**	**0.05**	**0.94**	0.00
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.4I: Subcat PDA-1.4I

Runoff = 0.07 cfs @ 12.09 hrs, Volume= 255 cf, Depth= 0.31"
Routed to Pond 12P : Infiltration Basin 1

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
6,972	74	>75% Grass cover, Good, HSG C
194	80	>75% Grass cover, Good, HSG D
2,658	98	Paved parking, HSG C
0	98	Roofs, HSG C
9,824	81	Weighted Average
7,166	74	72.94% Pervious Area
2,658	98	27.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4I: Subcat PDA-1.4I

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.03	0.82	**0.00**
20.00	**1.15**	**0.05**	**0.94**	0.00
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.4J: Subcat PDA-1.4J

Runoff = 0.17 cfs @ 12.12 hrs, Volume= 920 cf, Depth= 0.19"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
22,085	74	>75% Grass cover, Good, HSG C
32,367	80	>75% Grass cover, Good, HSG D
4,308	98	Paved parking, HSG C
392	98	Paved parking, HSG D
314	98	Unconnected pavement, HSG D
59,466	79	Weighted Average
54,766	78	92.10% Pervious Area
4,700	98	7.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4J: Subcat PDA-1.4J

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.06	0.82	**0.02**
20.00	**1.15**	**0.10**	**0.94**	0.01
25.00	**1.20**	**0.12**	**0.99**	0.00
30.00	1.20	0.12	0.99	0.00
35.00	1.20	0.12	0.99	0.00
40.00	1.20	0.12	0.99	0.00
45.00	1.20	0.12	0.99	0.00
50.00	1.20	0.12	0.99	0.00
55.00	1.20	0.12	0.99	0.00
60.00	1.20	0.12	0.99	0.00
65.00	1.20	0.12	0.99	0.00
70.00	1.20	0.12	0.99	0.00
75.00	1.20	0.12	0.99	0.00
80.00	1.20	0.12	0.99	0.00
85.00	1.20	0.12	0.99	0.00
90.00	1.20	0.12	0.99	0.00
95.00	1.20	0.12	0.99	0.00
100.00	1.20	0.12	0.99	0.00
105.00	1.20	0.12	0.99	0.00
110.00	1.20	0.12	0.99	0.00
115.00	1.20	0.12	0.99	0.00
120.00	1.20	0.12	0.99	0.00
125.00	1.20	0.12	0.99	0.00
130.00	1.20	0.12	0.99	0.00
135.00	1.20	0.12	0.99	0.00
140.00	1.20	0.12	0.99	0.00
145.00	1.20	0.12	0.99	0.00
150.00	1.20	0.12	0.99	0.00
155.00	1.20	0.12	0.99	0.00
160.00	1.20	0.12	0.99	0.00
165.00	1.20	0.12	0.99	0.00
170.00	1.20	0.12	0.99	0.00
175.00	1.20	0.12	0.99	0.00
180.00	1.20	0.12	0.99	0.00
185.00	1.20	0.12	0.99	0.00
190.00	1.20	0.12	0.99	0.00
195.00	1.20	0.12	0.99	0.00
200.00	1.20	0.12	0.99	0.00
205.00	1.20	0.12	0.99	0.00
210.00	1.20	0.12	0.99	0.00
215.00	1.20	0.12	0.99	0.00
220.00	1.20	0.12	0.99	0.00
225.00	1.20	0.12	0.99	0.00
230.00	1.20	0.12	0.99	0.00
235.00	1.20	0.12	0.99	0.00
240.00	1.20	0.12	0.99	0.00

Summary for Subcatchment PDA-1.4K: Subcat PDA-1.4K

Runoff = 0.37 cfs @ 12.09 hrs, Volume= 1,262 cf, Depth= 0.80"
Routed to Pond 9P : Sand Filter 5

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
3,577	74	>75% Grass cover, Good, HSG C
173	80	>75% Grass cover, Good, HSG D
15,126	98	Paved parking, HSG C
18,876	93	Weighted Average
3,751	74	19.87% Pervious Area
15,126	98	80.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4K: Subcat PDA-1.4K

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.01**
15.00	1.03	0.03	0.82	**0.02**
20.00	**1.15**	**0.05**	**0.94**	0.01
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.4L: Subcat PDA-1.4L

Runoff = 0.07 cfs @ 12.12 hrs, Volume= 286 cf, Depth= 0.29"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
9,069	74	>75% Grass cover, Good, HSG C
2,908	98	Paved parking, HSG C
1	98	Roofs, HSG C
11,978	80	Weighted Average
9,069	74	75.72% Pervious Area
2,909	98	24.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	32	0.0120	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
3.7	43	0.0400	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
8.5	75	Total			

Hydrograph for Subcatchment PDA-1.4L: Subcat PDA-1.4L

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.03	0.82	**0.00**
20.00	**1.15**	**0.05**	**0.94**	0.00
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-1.4M: Subcat PDA-1.4M

Runoff = 0.00 cfs @ 12.20 hrs, Volume= 40 cf, Depth= 0.10"
Routed to Pond 9P : Sand Filter 5

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
4,536	74	>75% Grass cover, Good, HSG C
199	98	Paved parking, HSG C
4,734	75	Weighted Average
4,536	74	95.80% Pervious Area
199	98	4.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
1.6	66	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.3	166	Total			

Hydrograph for Subcatchment PDA-1.4M: Subcat PDA-1.4M

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.03	0.82	**0.00**
20.00	**1.15**	**0.05**	**0.94**	0.00
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-2.1A: Subcat PDA-2.1A

Runoff = 1.61 cfs @ 12.22 hrs, Volume= 8,689 cf, Depth= 0.30"
Routed to Pond 28P : DIV-01

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
244,846	74	>75% Grass cover, Good, HSG C
65	80	>75% Grass cover, Good, HSG D
7,583	87	Dirt roads, HSG C
4,725	96	Gravel surface, HSG C
86,246	98	Paved parking, HSG C
4,565	98	Unconnected pavement, HSG C
107	70	Woods, Good, HSG C
348,138	81	Weighted Average
261,892	75	75.23% Pervious Area
86,246	98	24.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
2.5	103	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	66	0.0189	0.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.3	269	Total			

Hydrograph for Subcatchment PDA-2.1A: Subcat PDA-2.1A

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.01
10.00	0.23	0.00	0.09	**0.08**
15.00	1.03	0.03	0.82	**0.15**
20.00	**1.15**	**0.06**	**0.94**	0.05
25.00	**1.20**	**0.07**	**0.99**	0.00
30.00	1.20	0.07	0.99	0.00
35.00	1.20	0.07	0.99	0.00
40.00	1.20	0.07	0.99	0.00
45.00	1.20	0.07	0.99	0.00
50.00	1.20	0.07	0.99	0.00
55.00	1.20	0.07	0.99	0.00
60.00	1.20	0.07	0.99	0.00
65.00	1.20	0.07	0.99	0.00
70.00	1.20	0.07	0.99	0.00
75.00	1.20	0.07	0.99	0.00
80.00	1.20	0.07	0.99	0.00
85.00	1.20	0.07	0.99	0.00
90.00	1.20	0.07	0.99	0.00
95.00	1.20	0.07	0.99	0.00
100.00	1.20	0.07	0.99	0.00
105.00	1.20	0.07	0.99	0.00
110.00	1.20	0.07	0.99	0.00
115.00	1.20	0.07	0.99	0.00
120.00	1.20	0.07	0.99	0.00
125.00	1.20	0.07	0.99	0.00
130.00	1.20	0.07	0.99	0.00
135.00	1.20	0.07	0.99	0.00
140.00	1.20	0.07	0.99	0.00
145.00	1.20	0.07	0.99	0.00
150.00	1.20	0.07	0.99	0.00
155.00	1.20	0.07	0.99	0.00
160.00	1.20	0.07	0.99	0.00
165.00	1.20	0.07	0.99	0.00
170.00	1.20	0.07	0.99	0.00
175.00	1.20	0.07	0.99	0.00
180.00	1.20	0.07	0.99	0.00
185.00	1.20	0.07	0.99	0.00
190.00	1.20	0.07	0.99	0.00
195.00	1.20	0.07	0.99	0.00
200.00	1.20	0.07	0.99	0.00
205.00	1.20	0.07	0.99	0.00
210.00	1.20	0.07	0.99	0.00
215.00	1.20	0.07	0.99	0.00
220.00	1.20	0.07	0.99	0.00
225.00	1.20	0.07	0.99	0.00
230.00	1.20	0.07	0.99	0.00
235.00	1.20	0.07	0.99	0.00
240.00	1.20	0.07	0.99	0.00

Summary for Subcatchment PDA-2.1B: Subcat PDA-2.1B

Runoff = 0.12 cfs @ 12.47 hrs, Volume= 1,299 cf, Depth= 0.10"
Routed to Pond 15P : Detention Basin 1

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
135,152	74	>75% Grass cover, Good, HSG C
9,554	87	Dirt roads, HSG C
4,830	98	Paved parking, HSG C
2,421	98	Unconnected pavement, HSG C
151,957	76	Weighted Average
147,127	75	96.82% Pervious Area
4,830	98	3.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.8	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.2	23	0.0500	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.0	123	Total			

Hydrograph for Subcatchment PDA-2.1B: Subcat PDA-2.1B

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.03	0.82	**0.03**
20.00	**1.15**	**0.06**	**0.94**	0.01
25.00	**1.20**	**0.07**	**0.99**	0.00
30.00	1.20	0.07	0.99	0.00
35.00	1.20	0.07	0.99	0.00
40.00	1.20	0.07	0.99	0.00
45.00	1.20	0.07	0.99	0.00
50.00	1.20	0.07	0.99	0.00
55.00	1.20	0.07	0.99	0.00
60.00	1.20	0.07	0.99	0.00
65.00	1.20	0.07	0.99	0.00
70.00	1.20	0.07	0.99	0.00
75.00	1.20	0.07	0.99	0.00
80.00	1.20	0.07	0.99	0.00
85.00	1.20	0.07	0.99	0.00
90.00	1.20	0.07	0.99	0.00
95.00	1.20	0.07	0.99	0.00
100.00	1.20	0.07	0.99	0.00
105.00	1.20	0.07	0.99	0.00
110.00	1.20	0.07	0.99	0.00
115.00	1.20	0.07	0.99	0.00
120.00	1.20	0.07	0.99	0.00
125.00	1.20	0.07	0.99	0.00
130.00	1.20	0.07	0.99	0.00
135.00	1.20	0.07	0.99	0.00
140.00	1.20	0.07	0.99	0.00
145.00	1.20	0.07	0.99	0.00
150.00	1.20	0.07	0.99	0.00
155.00	1.20	0.07	0.99	0.00
160.00	1.20	0.07	0.99	0.00
165.00	1.20	0.07	0.99	0.00
170.00	1.20	0.07	0.99	0.00
175.00	1.20	0.07	0.99	0.00
180.00	1.20	0.07	0.99	0.00
185.00	1.20	0.07	0.99	0.00
190.00	1.20	0.07	0.99	0.00
195.00	1.20	0.07	0.99	0.00
200.00	1.20	0.07	0.99	0.00
205.00	1.20	0.07	0.99	0.00
210.00	1.20	0.07	0.99	0.00
215.00	1.20	0.07	0.99	0.00
220.00	1.20	0.07	0.99	0.00
225.00	1.20	0.07	0.99	0.00
230.00	1.20	0.07	0.99	0.00
235.00	1.20	0.07	0.99	0.00
240.00	1.20	0.07	0.99	0.00

Summary for Subcatchment PDA-2.2A: Subcat PDA-2.2A

Runoff = 0.74 cfs @ 12.17 hrs, Volume= 3,748 cf, Depth= 0.29"
Routed to Link 7L : DP 2.2 - Silver Creek West Branch

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
115,003	74	>75% Grass cover, Good, HSG C
36,719	98	Paved parking, HSG C
4,050	98	Unconnected pavement, HSG C
279	70	Woods, Good, HSG C
156,051	80	Weighted Average
119,332	75	76.47% Pervious Area
36,719	98	23.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9					**Direct Entry, PER EDA-2.2A**

Hydrograph for Subcatchment PDA-2.2A: Subcat PDA-2.2A

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.03**
15.00	1.03	0.03	0.82	**0.06**
20.00	**1.15**	**0.06**	**0.94**	0.02
25.00	**1.20**	**0.07**	**0.99**	0.00
30.00	1.20	0.07	0.99	0.00
35.00	1.20	0.07	0.99	0.00
40.00	1.20	0.07	0.99	0.00
45.00	1.20	0.07	0.99	0.00
50.00	1.20	0.07	0.99	0.00
55.00	1.20	0.07	0.99	0.00
60.00	1.20	0.07	0.99	0.00
65.00	1.20	0.07	0.99	0.00
70.00	1.20	0.07	0.99	0.00
75.00	1.20	0.07	0.99	0.00
80.00	1.20	0.07	0.99	0.00
85.00	1.20	0.07	0.99	0.00
90.00	1.20	0.07	0.99	0.00
95.00	1.20	0.07	0.99	0.00
100.00	1.20	0.07	0.99	0.00
105.00	1.20	0.07	0.99	0.00
110.00	1.20	0.07	0.99	0.00
115.00	1.20	0.07	0.99	0.00
120.00	1.20	0.07	0.99	0.00
125.00	1.20	0.07	0.99	0.00
130.00	1.20	0.07	0.99	0.00
135.00	1.20	0.07	0.99	0.00
140.00	1.20	0.07	0.99	0.00
145.00	1.20	0.07	0.99	0.00
150.00	1.20	0.07	0.99	0.00
155.00	1.20	0.07	0.99	0.00
160.00	1.20	0.07	0.99	0.00
165.00	1.20	0.07	0.99	0.00
170.00	1.20	0.07	0.99	0.00
175.00	1.20	0.07	0.99	0.00
180.00	1.20	0.07	0.99	0.00
185.00	1.20	0.07	0.99	0.00
190.00	1.20	0.07	0.99	0.00
195.00	1.20	0.07	0.99	0.00
200.00	1.20	0.07	0.99	0.00
205.00	1.20	0.07	0.99	0.00
210.00	1.20	0.07	0.99	0.00
215.00	1.20	0.07	0.99	0.00
220.00	1.20	0.07	0.99	0.00
225.00	1.20	0.07	0.99	0.00
230.00	1.20	0.07	0.99	0.00
235.00	1.20	0.07	0.99	0.00
240.00	1.20	0.07	0.99	0.00

Summary for Subcatchment PDA-2.2B: Subcat PDA-2.2B

Runoff = 0.03 cfs @ 12.53 hrs, Volume= 606 cf, Depth= 0.05"
Routed to Link 6L : DP 2.1 - West Wetland

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
51,518	74	>75% Grass cover, Good, HSG C
2,379	98	Paved parking, HSG C
98,443	70	Woods, Good, HSG C
152,340	72	Weighted Average
149,961	71	98.44% Pervious Area
2,379	98	1.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.9	100	0.0120	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.30"
14.1	465	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
40.0	565	Total			

Hydrograph for Subcatchment PDA-2.2B: Subcat PDA-2.2B

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.00**
15.00	1.03	0.01	0.82	**0.02**
20.00	**1.15**	**0.02**	**0.94**	0.01
25.00	**1.20**	**0.03**	**0.99**	0.00
30.00	1.20	0.03	0.99	0.00
35.00	1.20	0.03	0.99	0.00
40.00	1.20	0.03	0.99	0.00
45.00	1.20	0.03	0.99	0.00
50.00	1.20	0.03	0.99	0.00
55.00	1.20	0.03	0.99	0.00
60.00	1.20	0.03	0.99	0.00
65.00	1.20	0.03	0.99	0.00
70.00	1.20	0.03	0.99	0.00
75.00	1.20	0.03	0.99	0.00
80.00	1.20	0.03	0.99	0.00
85.00	1.20	0.03	0.99	0.00
90.00	1.20	0.03	0.99	0.00
95.00	1.20	0.03	0.99	0.00
100.00	1.20	0.03	0.99	0.00
105.00	1.20	0.03	0.99	0.00
110.00	1.20	0.03	0.99	0.00
115.00	1.20	0.03	0.99	0.00
120.00	1.20	0.03	0.99	0.00
125.00	1.20	0.03	0.99	0.00
130.00	1.20	0.03	0.99	0.00
135.00	1.20	0.03	0.99	0.00
140.00	1.20	0.03	0.99	0.00
145.00	1.20	0.03	0.99	0.00
150.00	1.20	0.03	0.99	0.00
155.00	1.20	0.03	0.99	0.00
160.00	1.20	0.03	0.99	0.00
165.00	1.20	0.03	0.99	0.00
170.00	1.20	0.03	0.99	0.00
175.00	1.20	0.03	0.99	0.00
180.00	1.20	0.03	0.99	0.00
185.00	1.20	0.03	0.99	0.00
190.00	1.20	0.03	0.99	0.00
195.00	1.20	0.03	0.99	0.00
200.00	1.20	0.03	0.99	0.00
205.00	1.20	0.03	0.99	0.00
210.00	1.20	0.03	0.99	0.00
215.00	1.20	0.03	0.99	0.00
220.00	1.20	0.03	0.99	0.00
225.00	1.20	0.03	0.99	0.00
230.00	1.20	0.03	0.99	0.00
235.00	1.20	0.03	0.99	0.00
240.00	1.20	0.03	0.99	0.00

Summary for Subcatchment PDA-2.2C.a: Subcat PDA-2.2C.a

Runoff = 2.23 cfs @ 12.09 hrs, Volume= 7,448 cf, Depth= 0.99"
Routed to Pond 17P : Track and Field- stone base

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
90,671	98	Paved parking, HSG C
90,671	98	Weighted Average
0	74	0.00% Pervious Area
90,671	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-2.2C.a: Subcat PDA-2.2C.a

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.01
10.00	0.23	0.00	0.09	**0.09**
15.00	1.03	0.03	0.82	**0.09**
20.00	**1.15**	**0.05**	**0.94**	0.03
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-2.2C.b: Subcat PDA-2.2C.b

Runoff = 1.50 cfs @ 12.09 hrs, Volume= 5,025 cf, Depth= 0.99"
Routed to Pond 35P : Track and Field-manifold

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
4	74	>75% Grass cover, Good, HSG C
61,181	98	Paved parking, HSG C
61,186	98	Weighted Average
4	74	0.01% Pervious Area
61,181	98	99.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-2.2C.b: Subcat PDA-2.2C.b

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.01
10.00	0.23	0.00	0.09	**0.06**
15.00	1.03	0.03	0.82	**0.06**
20.00	**1.15**	**0.05**	**0.94**	0.02
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-ROOF1.3: Subcat PDA-ROOF1.3

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 803 cf, Depth= 0.99"
Routed to Pond 2P : Bio 3

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
0	98	Paved parking, HSG C
9,782	98	Roofs, HSG C
9,782	98	Weighted Average
0	74	0.00% Pervious Area
9,782	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF1.3: Subcat PDA-ROOF1.3

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.01**
15.00	1.03	0.03	0.82	**0.01**
20.00	**1.15**	**0.05**	**0.94**	0.00
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-ROOF1.4: Subcat PDA-ROOF1.4

Runoff = 1.43 cfs @ 12.09 hrs, Volume= 4,781 cf, Depth= 0.99"
Routed to Pond 12P : Infiltration Basin 1

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
1	98	Paved parking, HSG C
58,209	98	Roofs, HSG C
58,210	98	Weighted Average
0	74	0.00% Pervious Area
58,210	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF1.4: Subcat PDA-ROOF1.4

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.06**
15.00	1.03	0.03	0.82	**0.06**
20.00	**1.15**	**0.05**	**0.94**	0.02
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Subcatchment PDA-ROOF2.1: Subcat PDA-ROOF2.1

Runoff = 0.76 cfs @ 12.09 hrs, Volume= 2,553 cf, Depth= 0.99"
Routed to Pond 28P : DIV-01

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-240.00 hrs, dt= 0.05
Type III 24-hr WQv Rainfall=1.20"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
31,087	98	Roofs, HSG C
31,087	98	Weighted Average
0	74	0.00% Pervious Area
31,087	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF2.1: Subcat PDA-ROOF2.1

Time (hours)	Precip. (inches)	Perv.Excess (inches)	Imp.Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	0.00
5.00	0.07	0.00	0.00	0.00
10.00	0.23	0.00	0.09	**0.03**
15.00	1.03	0.03	0.82	**0.03**
20.00	**1.15**	**0.05**	**0.94**	0.01
25.00	**1.20**	**0.06**	**0.99**	0.00
30.00	1.20	0.06	0.99	0.00
35.00	1.20	0.06	0.99	0.00
40.00	1.20	0.06	0.99	0.00
45.00	1.20	0.06	0.99	0.00
50.00	1.20	0.06	0.99	0.00
55.00	1.20	0.06	0.99	0.00
60.00	1.20	0.06	0.99	0.00
65.00	1.20	0.06	0.99	0.00
70.00	1.20	0.06	0.99	0.00
75.00	1.20	0.06	0.99	0.00
80.00	1.20	0.06	0.99	0.00
85.00	1.20	0.06	0.99	0.00
90.00	1.20	0.06	0.99	0.00
95.00	1.20	0.06	0.99	0.00
100.00	1.20	0.06	0.99	0.00
105.00	1.20	0.06	0.99	0.00
110.00	1.20	0.06	0.99	0.00
115.00	1.20	0.06	0.99	0.00
120.00	1.20	0.06	0.99	0.00
125.00	1.20	0.06	0.99	0.00
130.00	1.20	0.06	0.99	0.00
135.00	1.20	0.06	0.99	0.00
140.00	1.20	0.06	0.99	0.00
145.00	1.20	0.06	0.99	0.00
150.00	1.20	0.06	0.99	0.00
155.00	1.20	0.06	0.99	0.00
160.00	1.20	0.06	0.99	0.00
165.00	1.20	0.06	0.99	0.00
170.00	1.20	0.06	0.99	0.00
175.00	1.20	0.06	0.99	0.00
180.00	1.20	0.06	0.99	0.00
185.00	1.20	0.06	0.99	0.00
190.00	1.20	0.06	0.99	0.00
195.00	1.20	0.06	0.99	0.00
200.00	1.20	0.06	0.99	0.00
205.00	1.20	0.06	0.99	0.00
210.00	1.20	0.06	0.99	0.00
215.00	1.20	0.06	0.99	0.00
220.00	1.20	0.06	0.99	0.00
225.00	1.20	0.06	0.99	0.00
230.00	1.20	0.06	0.99	0.00
235.00	1.20	0.06	0.99	0.00
240.00	1.20	0.06	0.99	0.00

Summary for Pond 1P: Bio 4

Inflow Area = 16,850 sf, 40.99% Impervious, Inflow Depth = 0.44" for WQv event
Inflow = 0.17 cfs @ 12.10 hrs, Volume= 618 cf
Outflow = 0.00 cfs @ 10.50 hrs, Volume= 618 cf, Atten= 97%, Lag= 0.0 min
Discarded = 0.00 cfs @ 10.50 hrs, Volume= 618 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 58.39' @ 17.54 hrs Surf.Area= 724 sf Storage= 382 cf

Plug-Flow detention time= 787.0 min calculated for 618 cf (100% of inflow)
Center-of-Mass det. time= 787.2 min (1,587.0 - 799.9)

Volume	Invert	Avail.Storage	Storage Description
#1	56.79'	3,573 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.79	724	0.0	0	0
56.80	724	33.0	2	2
59.79	724	33.0	714	717
59.80	724	100.0	7	724
60.00	809	100.0	153	877
61.00	1,346	100.0	1,078	1,955
62.00	1,891	100.0	1,619	3,573

Device	Routing	Invert	Outlet Devices
#1	Discarded	56.79'	**0.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	60.30'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.50 hrs HW=56.84' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.79' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Controls 0.00 cfs)

Hydrograph for Pond 1P: Bio 4

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	56.79	0.00	0.00	**0.00**
5.00	0.00	0	56.79	0.00	0.00	0.00
10.00	**0.01**	8	56.82	**0.00**	**0.00**	0.00
15.00	**0.01**	**366**	**58.32**	**0.00**	**0.00**	0.00
20.00	0.00	**375**	**58.36**	0.00	0.00	0.00
25.00	0.00	333	58.19	0.00	0.00	0.00
30.00	0.00	252	57.84	0.00	0.00	0.00
35.00	0.00	170	57.50	0.00	0.00	0.00
40.00	0.00	89	57.16	0.00	0.00	0.00
45.00	0.00	8	56.82	0.00	0.00	0.00
50.00	0.00	0	56.79	0.00	0.00	0.00
55.00	0.00	0	56.79	0.00	0.00	0.00
60.00	0.00	0	56.79	0.00	0.00	0.00
65.00	0.00	0	56.79	0.00	0.00	0.00
70.00	0.00	0	56.79	0.00	0.00	0.00
75.00	0.00	0	56.79	0.00	0.00	0.00
80.00	0.00	0	56.79	0.00	0.00	0.00
85.00	0.00	0	56.79	0.00	0.00	0.00
90.00	0.00	0	56.79	0.00	0.00	0.00
95.00	0.00	0	56.79	0.00	0.00	0.00
100.00	0.00	0	56.79	0.00	0.00	0.00
105.00	0.00	0	56.79	0.00	0.00	0.00
110.00	0.00	0	56.79	0.00	0.00	0.00
115.00	0.00	0	56.79	0.00	0.00	0.00
120.00	0.00	0	56.79	0.00	0.00	0.00
125.00	0.00	0	56.79	0.00	0.00	0.00
130.00	0.00	0	56.79	0.00	0.00	0.00
135.00	0.00	0	56.79	0.00	0.00	0.00
140.00	0.00	0	56.79	0.00	0.00	0.00
145.00	0.00	0	56.79	0.00	0.00	0.00
150.00	0.00	0	56.79	0.00	0.00	0.00
155.00	0.00	0	56.79	0.00	0.00	0.00
160.00	0.00	0	56.79	0.00	0.00	0.00
165.00	0.00	0	56.79	0.00	0.00	0.00
170.00	0.00	0	56.79	0.00	0.00	0.00
175.00	0.00	0	56.79	0.00	0.00	0.00
180.00	0.00	0	56.79	0.00	0.00	0.00
185.00	0.00	0	56.79	0.00	0.00	0.00
190.00	0.00	0	56.79	0.00	0.00	0.00
195.00	0.00	0	56.79	0.00	0.00	0.00
200.00	0.00	0	56.79	0.00	0.00	0.00
205.00	0.00	0	56.79	0.00	0.00	0.00
210.00	0.00	0	56.79	0.00	0.00	0.00
215.00	0.00	0	56.79	0.00	0.00	0.00
220.00	0.00	0	56.79	0.00	0.00	0.00
225.00	0.00	0	56.79	0.00	0.00	0.00
230.00	0.00	0	56.79	0.00	0.00	0.00
235.00	0.00	0	56.79	0.00	0.00	0.00
240.00	0.00	0	56.79	0.00	0.00	0.00

Stage-Discharge for Pond 1P: Bio 4

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
56.79	0.00	0.00	0.00
56.89	0.00	0.00	0.00
56.99	0.00	0.00	0.00
57.09	0.00	0.00	0.00
57.19	0.00	0.00	0.00
57.29	0.00	0.00	0.00
57.39	0.00	0.00	0.00
57.49	0.00	0.00	0.00
57.59	0.00	0.00	0.00
57.69	0.00	0.00	0.00
57.79	0.00	0.00	0.00
57.89	0.00	0.00	0.00
57.99	0.00	0.00	0.00
58.09	0.00	0.00	0.00
58.19	0.00	0.00	0.00
58.29	0.00	0.00	0.00
58.39	0.00	0.00	0.00
58.49	0.00	0.00	0.00
58.59	0.00	0.00	0.00
58.69	0.00	0.00	0.00
58.79	0.00	0.00	0.00
58.89	0.00	0.00	0.00
58.99	0.00	0.00	0.00
59.09	0.00	0.00	0.00
59.19	0.00	0.00	0.00
59.29	0.00	0.00	0.00
59.39	0.00	0.00	0.00
59.49	0.00	0.00	0.00
59.59	0.00	0.00	0.00
59.69	0.00	0.00	0.00
59.79	0.00	0.00	0.00
59.89	0.00	0.00	0.00
59.99	0.01	0.01	0.00
60.09	0.01	0.01	0.00
60.19	0.01	0.01	0.00
60.29	0.01	0.01	0.00
60.39	1.45	0.01	1.44
60.49	2.11	0.01	2.10
60.59	2.60	0.01	2.59
60.69	3.01	0.01	3.01
60.79	3.38	0.01	3.37
60.89	3.71	0.01	3.70
60.99	4.01	0.01	4.00
61.09	4.29	0.01	4.28
61.19	4.55	0.01	4.54
61.29	4.80	0.01	4.79
61.39	5.04	0.01	5.03
61.49	5.26	0.01	5.25
61.59	5.48	0.01	5.47
61.69	5.69	0.01	5.68
61.79	5.89	0.01	5.88
61.89	6.08	0.01	6.07
61.99	**6.27**	**0.01**	**6.26**

Stage-Area-Storage for Pond 1P: Bio 4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.79	724	0
56.89	724	24
56.99	724	48
57.09	724	72
57.19	724	96
57.29	724	119
57.39	724	143
57.49	724	167
57.59	724	191
57.69	724	215
57.79	724	239
57.89	724	263
57.99	724	287
58.09	724	311
58.19	724	334
58.29	724	358
58.39	724	382
58.49	724	406
58.59	724	430
58.69	724	454
58.79	724	478
58.89	724	502
58.99	724	526
59.09	724	550
59.19	724	573
59.29	724	597
59.39	724	621
59.49	724	645
59.59	724	669
59.69	724	693
59.79	724	717
59.89	762	791
59.99	805	869
60.09	857	952
60.19	911	1,041
60.29	965	1,134
60.39	1,018	1,234
60.49	1,072	1,338
60.59	1,126	1,448
60.69	1,180	1,563
60.79	1,233	1,684
60.89	1,287	1,810
60.99	1,341	1,941
61.09	1,395	2,078
61.19	1,450	2,220
61.29	1,504	2,368
61.39	1,559	2,521
61.49	1,613	2,680
61.59	1,668	2,844
61.69	1,722	3,013
61.79	1,777	3,188
61.89	1,831	3,369
61.99	**1,886**	**3,554**

Summary for Pond 2P: Bio 3

Inflow Area = 16,632 sf, 77.36% Impervious, Inflow Depth = 0.78" for WQv event
Inflow = 0.32 cfs @ 12.09 hrs, Volume= 1,076 cf
Outflow = 0.01 cfs @ 11.00 hrs, Volume= 1,076 cf, Atten= 95%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Tertiary = 0.01 cfs @ 11.00 hrs, Volume= 1,076 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 58.91' @ 14.93 hrs Surf.Area= 606 sf Storage= 535 cf

Plug-Flow detention time= 336.7 min calculated for 1,076 cf (100% of inflow)
Center-of-Mass det. time= 336.7 min (1,122.5 - 785.7)

Volume	Invert	Avail.Storage	Storage Description
#1	56.24'	3,220 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.24	606	0.0	0	0
56.25	606	33.0	2	2
58.99	606	33.0	548	550
59.00	606	100.0	6	556
60.00	951	100.0	779	1,335
61.00	1,354	100.0	1,153	2,487
61.50	1,576	100.0	733	3,220

Device	Routing	Invert	Outlet Devices
#1	Device 3	56.24'	**1.020 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	59.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Tertiary	55.50'	**6.0" Round 6" SUBDRAIN** L= 35.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.50' / 55.20' S= 0.0086 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.24' TW=0.00' (Dynamic Tailwater)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.01 cfs @ 11.00 hrs HW=56.30' TW=0.00' (Dynamic Tailwater)
└**3=6" SUBDRAIN** (Passes 0.01 cfs of 0.55 cfs potential flow)
└**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Hydrograph for Pond 2P: Bio 3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Tertiary (cfs)
0.00	0.00	0	56.24	0.00	**0.00**	0.00
5.00	0.00	0	56.24	0.00	0.00	0.00
10.00	**0.01**	**3**	**56.26**	**0.01**	0.00	**0.01**
15.00	**0.01**	**535**	**58.91**	**0.01**	0.00	**0.01**
20.00	0.00	416	58.32	0.01	0.00	0.01
25.00	0.00	218	57.33	0.01	0.00	0.01
30.00	0.00	0	56.24	0.00	0.00	0.00
35.00	0.00	0	56.24	0.00	0.00	0.00
40.00	0.00	0	56.24	0.00	0.00	0.00
45.00	0.00	0	56.24	0.00	0.00	0.00
50.00	0.00	0	56.24	0.00	0.00	0.00
55.00	0.00	0	56.24	0.00	0.00	0.00
60.00	0.00	0	56.24	0.00	0.00	0.00
65.00	0.00	0	56.24	0.00	0.00	0.00
70.00	0.00	0	56.24	0.00	0.00	0.00
75.00	0.00	0	56.24	0.00	0.00	0.00
80.00	0.00	0	56.24	0.00	0.00	0.00
85.00	0.00	0	56.24	0.00	0.00	0.00
90.00	0.00	0	56.24	0.00	0.00	0.00
95.00	0.00	0	56.24	0.00	0.00	0.00
100.00	0.00	0	56.24	0.00	0.00	0.00
105.00	0.00	0	56.24	0.00	0.00	0.00
110.00	0.00	0	56.24	0.00	0.00	0.00
115.00	0.00	0	56.24	0.00	0.00	0.00
120.00	0.00	0	56.24	0.00	0.00	0.00
125.00	0.00	0	56.24	0.00	0.00	0.00
130.00	0.00	0	56.24	0.00	0.00	0.00
135.00	0.00	0	56.24	0.00	0.00	0.00
140.00	0.00	0	56.24	0.00	0.00	0.00
145.00	0.00	0	56.24	0.00	0.00	0.00
150.00	0.00	0	56.24	0.00	0.00	0.00
155.00	0.00	0	56.24	0.00	0.00	0.00
160.00	0.00	0	56.24	0.00	0.00	0.00
165.00	0.00	0	56.24	0.00	0.00	0.00
170.00	0.00	0	56.24	0.00	0.00	0.00
175.00	0.00	0	56.24	0.00	0.00	0.00
180.00	0.00	0	56.24	0.00	0.00	0.00
185.00	0.00	0	56.24	0.00	0.00	0.00
190.00	0.00	0	56.24	0.00	0.00	0.00
195.00	0.00	0	56.24	0.00	0.00	0.00
200.00	0.00	0	56.24	0.00	0.00	0.00
205.00	0.00	0	56.24	0.00	0.00	0.00
210.00	0.00	0	56.24	0.00	0.00	0.00
215.00	0.00	0	56.24	0.00	0.00	0.00
220.00	0.00	0	56.24	0.00	0.00	0.00
225.00	0.00	0	56.24	0.00	0.00	0.00
230.00	0.00	0	56.24	0.00	0.00	0.00
235.00	0.00	0	56.24	0.00	0.00	0.00
240.00	0.00	0	56.24	0.00	0.00	0.00

Stage-Discharge for Pond 2P: Bio 3

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Tertiary (cfs)
56.24	0.00	0.00	0.00
56.34	0.01	0.00	0.01
56.44	0.01	0.00	0.01
56.54	0.01	0.00	0.01
56.64	0.01	0.00	0.01
56.74	0.01	0.00	0.01
56.84	0.01	0.00	0.01
56.94	0.01	0.00	0.01
57.04	0.01	0.00	0.01
57.14	0.01	0.00	0.01
57.24	0.01	0.00	0.01
57.34	0.01	0.00	0.01
57.44	0.01	0.00	0.01
57.54	0.01	0.00	0.01
57.64	0.01	0.00	0.01
57.74	0.01	0.00	0.01
57.84	0.01	0.00	0.01
57.94	0.01	0.00	0.01
58.04	0.01	0.00	0.01
58.14	0.01	0.00	0.01
58.24	0.01	0.00	0.01
58.34	0.01	0.00	0.01
58.44	0.01	0.00	0.01
58.54	0.01	0.00	0.01
58.64	0.01	0.00	0.01
58.74	0.01	0.00	0.01
58.84	0.01	0.00	0.01
58.94	0.01	0.00	0.01
59.04	0.01	0.00	0.01
59.14	0.02	0.00	0.02
59.24	0.02	0.00	0.02
59.34	0.02	0.00	0.02
59.44	0.02	0.00	0.02
59.54	0.02	0.00	0.02
59.64	0.02	0.00	0.02
59.74	0.02	0.00	0.02
59.84	2.91	2.89	0.02
59.94	4.22	4.20	0.02
60.04	5.21	5.19	0.02
60.14	6.04	6.01	0.02
60.24	6.77	6.74	0.02
60.34	7.42	7.40	0.03
60.44	8.03	8.00	0.03
60.54	8.59	8.56	0.03
60.64	9.11	9.08	0.03
60.74	9.61	9.58	0.03
60.84	10.08	10.05	0.03
60.94	10.54	10.51	0.03
61.04	10.97	10.94	0.03
61.14	11.39	11.35	0.03
61.24	11.79	11.75	0.03
61.34	12.18	12.14	0.04
61.44	**12.56**	**12.52**	**0.04**

Stage-Area-Storage for Pond 2P: Bio 3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.24	606	0
56.34	606	20
56.44	606	40
56.54	606	60
56.64	606	80
56.74	606	100
56.84	606	120
56.94	606	140
57.04	606	160
57.14	606	180
57.24	606	200
57.34	606	220
57.44	606	240
57.54	606	260
57.64	606	280
57.74	606	300
57.84	606	320
57.94	606	340
58.04	606	360
58.14	606	380
58.24	606	400
58.34	606	420
58.44	606	440
58.54	606	460
58.64	606	480
58.74	606	500
58.84	606	520
58.94	606	540
59.04	620	581
59.14	654	644
59.24	689	711
59.34	723	782
59.44	758	856
59.54	792	934
59.64	827	1,015
59.74	861	1,099
59.84	896	1,187
59.94	930	1,278
60.04	967	1,373
60.14	1,007	1,472
60.24	1,048	1,574
60.34	1,088	1,681
60.44	1,128	1,792
60.54	1,169	1,907
60.64	1,209	2,026
60.74	1,249	2,149
60.84	1,290	2,276
60.94	1,330	2,406
61.04	1,372	2,542
61.14	1,416	2,681
61.24	1,461	2,825
61.34	1,505	2,973
61.44	**1,549**	**3,126**

Summary for Pond 3P: DIV-02

Inflow Area = 75,465 sf, 41.23% Impervious, Inflow Depth = 0.28" for WQv event
Inflow = 0.36 cfs @ 12.20 hrs, Volume= 1,775 cf
Outflow = 0.36 cfs @ 12.20 hrs, Volume= 1,775 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.36 cfs @ 12.20 hrs, Volume= 1,775 cf
Routed to Pond 18P : Sand Filter 2
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 56.55' @ 12.20 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.15'	**8.0" Round Culvert** L= 13.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.15' / 54.85' S= 0.1000 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.35 sf
#2	Device 3	56.80'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	56.15'	**15.0" Round Culvert** L= 19.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.15' / 55.00' S= 0.0605 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf

Primary OutFlow Max=0.36 cfs @ 12.20 hrs HW=56.54' TW=53.69' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 0.36 cfs @ 1.69 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.15' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Controls 0.00 cfs)
└**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pro-Hydro
Prepared by Pare Corporation
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Hydrograph for Pond 3P: DIV-02

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	56.15	0.00	0.00	**0.00**
5.00	0.00	56.17	0.00	0.00	0.00
10.00	**0.02**	**56.22**	**0.02**	**0.02**	0.00
15.00	**0.03**	**56.25**	**0.03**	**0.03**	0.00
20.00	0.01	56.21	0.01	0.01	0.00
25.00	0.00	56.15	0.00	0.00	0.00
30.00	0.00	56.15	0.00	0.00	0.00
35.00	0.00	56.15	0.00	0.00	0.00
40.00	0.00	56.15	0.00	0.00	0.00
45.00	0.00	56.15	0.00	0.00	0.00
50.00	0.00	56.15	0.00	0.00	0.00
55.00	0.00	56.15	0.00	0.00	0.00
60.00	0.00	56.15	0.00	0.00	0.00
65.00	0.00	56.15	0.00	0.00	0.00
70.00	0.00	56.15	0.00	0.00	0.00
75.00	0.00	56.15	0.00	0.00	0.00
80.00	0.00	56.15	0.00	0.00	0.00
85.00	0.00	56.15	0.00	0.00	0.00
90.00	0.00	56.15	0.00	0.00	0.00
95.00	0.00	56.15	0.00	0.00	0.00
100.00	0.00	56.15	0.00	0.00	0.00
105.00	0.00	56.15	0.00	0.00	0.00
110.00	0.00	56.15	0.00	0.00	0.00
115.00	0.00	56.15	0.00	0.00	0.00
120.00	0.00	56.15	0.00	0.00	0.00
125.00	0.00	56.15	0.00	0.00	0.00
130.00	0.00	56.15	0.00	0.00	0.00
135.00	0.00	56.15	0.00	0.00	0.00
140.00	0.00	56.15	0.00	0.00	0.00
145.00	0.00	56.15	0.00	0.00	0.00
150.00	0.00	56.15	0.00	0.00	0.00
155.00	0.00	56.15	0.00	0.00	0.00
160.00	0.00	56.15	0.00	0.00	0.00
165.00	0.00	56.15	0.00	0.00	0.00
170.00	0.00	56.15	0.00	0.00	0.00
175.00	0.00	56.15	0.00	0.00	0.00
180.00	0.00	56.15	0.00	0.00	0.00
185.00	0.00	56.15	0.00	0.00	0.00
190.00	0.00	56.15	0.00	0.00	0.00
195.00	0.00	56.15	0.00	0.00	0.00
200.00	0.00	56.15	0.00	0.00	0.00
205.00	0.00	56.15	0.00	0.00	0.00
210.00	0.00	56.15	0.00	0.00	0.00
215.00	0.00	56.15	0.00	0.00	0.00
220.00	0.00	56.15	0.00	0.00	0.00
225.00	0.00	56.15	0.00	0.00	0.00
230.00	0.00	56.15	0.00	0.00	0.00
235.00	0.00	56.15	0.00	0.00	0.00
240.00	0.00	56.15	0.00	0.00	0.00

Stage-Discharge for Pond 3P: DIV-02

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
56.15	0.00	0.00	0.00
56.17	0.00	0.00	0.00
56.19	0.00	0.00	0.00
56.21	0.01	0.01	0.00
56.23	0.02	0.02	0.00
56.25	0.03	0.03	0.00
56.27	0.04	0.04	0.00
56.29	0.05	0.05	0.00
56.31	0.07	0.07	0.00
56.33	0.09	0.09	0.00
56.35	0.11	0.11	0.00
56.37	0.13	0.13	0.00
56.39	0.15	0.15	0.00
56.41	0.17	0.17	0.00
56.43	0.20	0.20	0.00
56.45	0.22	0.22	0.00
56.47	0.25	0.25	0.00
56.49	0.28	0.28	0.00
56.51	0.31	0.31	0.00
56.53	0.34	0.34	0.00
56.55	0.37	0.37	0.00
56.57	0.40	0.40	0.00
56.59	0.44	0.44	0.00
56.61	0.47	0.47	0.00
56.63	0.50	0.50	0.00
56.65	0.53	0.53	0.00
56.67	0.57	0.57	0.00
56.69	0.60	0.60	0.00
56.71	0.63	0.63	0.00
56.73	0.66	0.66	0.00
56.75	0.69	0.69	0.00
56.77	0.72	0.72	0.00
56.79	0.74	0.74	0.00
56.81	0.78	0.76	0.02
56.83	0.88	0.78	0.10
56.85	1.02	0.80	0.22
56.87	1.19	0.83	0.36
56.89	1.37	0.85	0.53
56.91	1.58	0.87	0.71
56.93	1.80	0.89	0.92
56.95	2.04	0.91	1.13
56.97	2.29	0.93	1.37
56.99	2.56	0.94	1.61
57.01	2.84	0.96	1.87
57.03	3.13	0.98	2.15
57.05	3.41	1.00	2.41
57.07	3.51	1.02	2.50
57.09	3.61	1.03	2.58
57.11	3.71	1.05	2.66
57.13	3.81	1.07	2.75
57.15	3.91	1.08	2.83
57.17	4.01	1.10	2.91
57.19	4.11	1.12	2.99
57.21	4.20	1.13	3.07
57.23	4.29	1.15	3.15
57.25	4.39	1.16	3.22
57.27	4.48	1.18	3.30
57.29	4.56	1.19	3.37
57.31	4.65	1.21	3.44
57.33	4.72	1.22	3.50
57.35	4.80	1.24	3.56
57.37	4.87	1.25	3.62
57.39	**4.93**	**1.26**	**3.67**

Stage-Area-Storage for Pond 3P: DIV-02

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
56.15	**0**	56.66	0	57.17	0
56.16	0	56.67	0	57.18	0
56.17	0	56.68	0	57.19	0
56.18	0	56.69	0	57.20	0
56.19	0	56.70	0	57.21	0
56.20	0	56.71	0	57.22	0
56.21	0	56.72	0	57.23	0
56.22	0	56.73	0	57.24	0
56.23	0	56.74	0	57.25	0
56.24	0	56.75	0	57.26	0
56.25	0	56.76	0	57.27	0
56.26	0	56.77	0	57.28	0
56.27	0	56.78	0	57.29	0
56.28	0	56.79	0	57.30	0
56.29	0	56.80	0	57.31	0
56.30	0	56.81	0	57.32	0
56.31	0	56.82	0	57.33	0
56.32	0	56.83	0	57.34	0
56.33	0	56.84	0	57.35	0
56.34	0	56.85	0	57.36	0
56.35	0	56.86	0	57.37	0
56.36	0	56.87	0	57.38	0
56.37	0	56.88	0	57.39	0
56.38	0	56.89	0	57.40	0
56.39	0	56.90	0		
56.40	0	56.91	0		
56.41	0	56.92	0		
56.42	0	56.93	0		
56.43	0	56.94	0		
56.44	0	56.95	0		
56.45	0	56.96	0		
56.46	0	56.97	0		
56.47	0	56.98	0		
56.48	0	56.99	0		
56.49	0	57.00	0		
56.50	0	57.01	0		
56.51	0	57.02	0		
56.52	0	57.03	0		
56.53	0	57.04	0		
56.54	0	57.05	0		
56.55	0	57.06	0		
56.56	0	57.07	0		
56.57	0	57.08	0		
56.58	0	57.09	0		
56.59	0	57.10	0		
56.60	0	57.11	0		
56.61	0	57.12	0		
56.62	0	57.13	0		
56.63	0	57.14	0		
56.64	0	57.15	0		
56.65	0	57.16	0		

Summary for Pond 4P: Detention Basin 2

Inflow Area = 68,038 sf, 61.28% Impervious, Inflow Depth = 0.02" for WQv event
Inflow = 0.01 cfs @ 12.09 hrs, Volume= 101 cf
Outflow = 0.00 cfs @ 17.53 hrs, Volume= 99 cf, Atten= 91%, Lag= 326.3 min
Primary = 0.00 cfs @ 17.53 hrs, Volume= 99 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 4L : DP 1.3 - Culvert 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 55.63' @ 17.53 hrs Surf.Area= 1,978 sf Storage= 59 cf

Plug-Flow detention time= 1,208.5 min calculated for 98 cf (97% of inflow)
Center-of-Mass det. time= 1,195.4 min (2,083.8 - 888.4)

Volume	Invert	Avail.Storage	Storage Description
#1	55.60'	26,026 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.60	1,952	0	0
56.00	2,295	849	849
57.00	3,025	2,660	3,509
58.00	3,843	3,434	6,943
59.00	4,717	4,280	11,223
60.00	5,662	5,190	16,413
61.50	7,155	9,613	26,026

Device	Routing	Invert	Outlet Devices
#1	Primary	55.60'	**24.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.60' / 52.60' S= 0.2500 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Device 1	55.60'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	57.50'	**1.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	58.25'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Secondary	60.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.00 cfs @ 17.53 hrs HW=55.63' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.00 cfs of 0.00 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.00 cfs @ 0.59 fps)
  ├─**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
  └─**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=55.60' TW=0.00' (Dynamic Tailwater)
└─**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 4P: Detention Basin 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	55.60	0.00	0.00	**0.00**
5.00	0.00	0	55.60	0.00	0.00	0.00
10.00	**0.00**	4	55.60	0.00	0.00	0.00
15.00	**0.00**	**54**	**55.63**	**0.00**	**0.00**	0.00
20.00	0.00	**57**	**55.63**	**0.00**	**0.00**	0.00
25.00	0.00	49	55.63	0.00	0.00	0.00
30.00	0.00	36	55.62	0.00	0.00	0.00
35.00	0.00	29	55.61	0.00	0.00	0.00
40.00	0.00	24	55.61	0.00	0.00	0.00
45.00	0.00	20	55.61	0.00	0.00	0.00
50.00	0.00	18	55.61	0.00	0.00	0.00
55.00	0.00	16	55.61	0.00	0.00	0.00
60.00	0.00	14	55.61	0.00	0.00	0.00
65.00	0.00	13	55.61	0.00	0.00	0.00
70.00	0.00	12	55.61	0.00	0.00	0.00
75.00	0.00	11	55.61	0.00	0.00	0.00
80.00	0.00	10	55.61	0.00	0.00	0.00
85.00	0.00	9	55.60	0.00	0.00	0.00
90.00	0.00	9	55.60	0.00	0.00	0.00
95.00	0.00	8	55.60	0.00	0.00	0.00
100.00	0.00	8	55.60	0.00	0.00	0.00
105.00	0.00	7	55.60	0.00	0.00	0.00
110.00	0.00	7	55.60	0.00	0.00	0.00
115.00	0.00	7	55.60	0.00	0.00	0.00
120.00	0.00	6	55.60	0.00	0.00	0.00
125.00	0.00	6	55.60	0.00	0.00	0.00
130.00	0.00	6	55.60	0.00	0.00	0.00
135.00	0.00	5	55.60	0.00	0.00	0.00
140.00	0.00	5	55.60	0.00	0.00	0.00
145.00	0.00	5	55.60	0.00	0.00	0.00
150.00	0.00	5	55.60	0.00	0.00	0.00
155.00	0.00	5	55.60	0.00	0.00	0.00
160.00	0.00	5	55.60	0.00	0.00	0.00
165.00	0.00	4	55.60	0.00	0.00	0.00
170.00	0.00	4	55.60	0.00	0.00	0.00
175.00	0.00	4	55.60	0.00	0.00	0.00
180.00	0.00	4	55.60	0.00	0.00	0.00
185.00	0.00	4	55.60	0.00	0.00	0.00
190.00	0.00	4	55.60	0.00	0.00	0.00
195.00	0.00	4	55.60	0.00	0.00	0.00
200.00	0.00	4	55.60	0.00	0.00	0.00
205.00	0.00	3	55.60	0.00	0.00	0.00
210.00	0.00	3	55.60	0.00	0.00	0.00
215.00	0.00	3	55.60	0.00	0.00	0.00
220.00	0.00	3	55.60	0.00	0.00	0.00
225.00	0.00	3	55.60	0.00	0.00	0.00
230.00	0.00	3	55.60	0.00	0.00	0.00
235.00	0.00	3	55.60	0.00	0.00	0.00
240.00	0.00	3	55.60	0.00	0.00	0.00

Stage-Discharge for Pond 4P: Detention Basin 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
55.60	0.00	0.00	0.00
55.70	0.01	0.01	0.00
55.80	0.02	0.02	0.00
55.90	0.03	0.03	0.00
56.00	0.03	0.03	0.00
56.10	0.04	0.04	0.00
56.20	0.04	0.04	0.00
56.30	0.05	0.05	0.00
56.40	0.05	0.05	0.00
56.50	0.05	0.05	0.00
56.60	0.06	0.06	0.00
56.70	0.06	0.06	0.00
56.80	0.06	0.06	0.00
56.90	0.07	0.07	0.00
57.00	0.07	0.07	0.00
57.10	0.07	0.07	0.00
57.20	0.07	0.07	0.00
57.30	0.08	0.08	0.00
57.40	0.08	0.08	0.00
57.50	0.08	0.08	0.00
57.60	0.18	0.18	0.00
57.70	0.37	0.37	0.00
57.80	0.59	0.59	0.00
57.90	0.85	0.85	0.00
58.00	1.13	1.13	0.00
58.10	1.43	1.43	0.00
58.20	1.74	1.74	0.00
58.30	2.24	2.24	0.00
58.40	3.33	3.33	0.00
58.50	4.74	4.74	0.00
58.60	6.38	6.38	0.00
58.70	8.22	8.22	0.00
58.80	10.21	10.21	0.00
58.90	12.35	12.35	0.00
59.00	14.61	14.61	0.00
59.10	16.99	16.99	0.00
59.20	19.26	19.26	0.00
59.30	19.62	19.62	0.00
59.40	19.98	19.98	0.00
59.50	20.34	20.34	0.00
59.60	20.68	20.68	0.00
59.70	21.03	21.03	0.00
59.80	21.36	21.36	0.00
59.90	21.69	21.69	0.00
60.00	22.02	22.02	0.00
60.10	22.34	22.34	0.00
60.20	23.69	22.66	1.03
60.30	25.88	22.97	2.91
60.40	28.62	23.28	5.34
60.50	31.79	23.58	8.21
60.60	35.33	23.88	11.45
60.70	39.20	24.18	15.02
60.80	43.36	24.47	18.88
60.90	47.79	24.76	23.02
61.00	52.47	25.05	27.42
61.10	57.38	25.33	32.05
61.20	62.51	25.61	36.90
61.30	67.84	25.89	41.95
61.40	73.37	26.16	47.21
61.50	**79.09**	**26.44**	**52.65**

Stage-Area-Storage for Pond 4P: Detention Basin 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.60	1,952	0
55.70	2,038	199
55.80	2,124	408
55.90	2,209	624
56.00	2,295	849
56.10	2,368	1,083
56.20	2,441	1,323
56.30	2,514	1,571
56.40	2,587	1,826
56.50	2,660	2,088
56.60	2,733	2,358
56.70	2,806	2,635
56.80	2,879	2,919
56.90	2,952	3,211
57.00	3,025	3,509
57.10	3,107	3,816
57.20	3,189	4,131
57.30	3,270	4,454
57.40	3,352	4,785
57.50	3,434	5,124
57.60	3,516	5,472
57.70	3,598	5,827
57.80	3,679	6,191
57.90	3,761	6,563
58.00	3,843	6,943
58.10	3,930	7,332
58.20	4,018	7,729
58.30	4,105	8,136
58.40	4,193	8,551
58.50	4,280	8,974
58.60	4,367	9,407
58.70	4,455	9,848
58.80	4,542	10,297
58.90	4,630	10,756
59.00	4,717	11,223
59.10	4,812	11,700
59.20	4,906	12,186
59.30	5,001	12,681
59.40	5,095	13,186
59.50	5,190	13,700
59.60	5,284	14,224
59.70	5,379	14,757
59.80	5,473	15,299
59.90	5,567	15,851
60.00	5,662	16,413
60.10	5,762	16,984
60.20	5,861	17,565
60.30	5,961	18,156
60.40	6,060	18,757
60.50	6,160	19,368
60.60	6,259	19,989
60.70	6,359	20,620
60.80	6,458	21,261
60.90	6,558	21,912
61.00	6,657	22,573
61.10	6,757	23,243
61.20	6,856	23,924
61.30	6,956	24,615
61.40	7,055	25,315
61.50	**7,155**	**26,026**

Summary for Pond 7P: Bio 2

Inflow Area = 26,810 sf, 63.81% Impervious, Inflow Depth = 0.65" for WQv event
Inflow = 0.42 cfs @ 12.09 hrs, Volume= 1,455 cf
Outflow = 0.03 cfs @ 11.50 hrs, Volume= 1,455 cf, Atten= 94%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Tertiary = 0.03 cfs @ 11.50 hrs, Volume= 1,455 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 54.66' @ 13.89 hrs Surf.Area= 1,128 sf Storage= 620 cf

Plug-Flow detention time= 200.5 min calculated for 1,455 cf (100% of inflow)
Center-of-Mass det. time= 200.5 min (989.6 - 789.1)

Volume	Invert	Avail.Storage	Storage Description
#1	52.99'	8,230 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
52.99	1,128	0.0	0	0
53.00	1,128	33.0	4	4
55.99	1,128	33.0	1,113	1,117
56.00	1,742	100.0	14	1,131
57.00	2,537	100.0	2,140	3,271
58.00	3,569	100.0	3,053	6,324
58.50	4,058	100.0	1,907	8,230

Device	Routing	Invert	Outlet Devices
#1	Primary	56.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Device 3	52.99'	**1.020 in/hr Exfiltration over Surface area from 52.98' - 55.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#3	Tertiary	52.25'	**6.0" Vert. subdrain** C= 0.600 Limited to weir flow at low heads
#4	Secondary	57.50'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.99' TW=0.00' (Dynamic Tailwater)
└**1=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.99' TW=0.00' (Dynamic Tailwater)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.03 cfs @ 11.50 hrs HW=53.05' TW=0.00' (Dynamic Tailwater)
└**3=subdrain** (Passes 0.03 cfs of 0.70 cfs potential flow)
└**2=Exfiltration** (Exfiltration Controls 0.03 cfs)

Hydrograph for Pond 7P: Bio 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
0.00	0.00	0	52.99	0.00	**0.00**	**0.00**	0.00
5.00	0.00	0	52.99	0.00	0.00	0.00	0.00
10.00	**0.02**	**4**	**53.00**	**0.02**	0.00	0.00	**0.02**
15.00	**0.02**	**604**	**54.61**	**0.03**	0.00	0.00	**0.03**
20.00	0.01	318	53.85	0.03	0.00	0.00	0.03
25.00	0.00	0	52.99	0.00	0.00	0.00	0.00
30.00	0.00	0	52.99	0.00	0.00	0.00	0.00
35.00	0.00	0	52.99	0.00	0.00	0.00	0.00
40.00	0.00	0	52.99	0.00	0.00	0.00	0.00
45.00	0.00	0	52.99	0.00	0.00	0.00	0.00
50.00	0.00	0	52.99	0.00	0.00	0.00	0.00
55.00	0.00	0	52.99	0.00	0.00	0.00	0.00
60.00	0.00	0	52.99	0.00	0.00	0.00	0.00
65.00	0.00	0	52.99	0.00	0.00	0.00	0.00
70.00	0.00	0	52.99	0.00	0.00	0.00	0.00
75.00	0.00	0	52.99	0.00	0.00	0.00	0.00
80.00	0.00	0	52.99	0.00	0.00	0.00	0.00
85.00	0.00	0	52.99	0.00	0.00	0.00	0.00
90.00	0.00	0	52.99	0.00	0.00	0.00	0.00
95.00	0.00	0	52.99	0.00	0.00	0.00	0.00
100.00	0.00	0	52.99	0.00	0.00	0.00	0.00
105.00	0.00	0	52.99	0.00	0.00	0.00	0.00
110.00	0.00	0	52.99	0.00	0.00	0.00	0.00
115.00	0.00	0	52.99	0.00	0.00	0.00	0.00
120.00	0.00	0	52.99	0.00	0.00	0.00	0.00
125.00	0.00	0	52.99	0.00	0.00	0.00	0.00
130.00	0.00	0	52.99	0.00	0.00	0.00	0.00
135.00	0.00	0	52.99	0.00	0.00	0.00	0.00
140.00	0.00	0	52.99	0.00	0.00	0.00	0.00
145.00	0.00	0	52.99	0.00	0.00	0.00	0.00
150.00	0.00	0	52.99	0.00	0.00	0.00	0.00
155.00	0.00	0	52.99	0.00	0.00	0.00	0.00
160.00	0.00	0	52.99	0.00	0.00	0.00	0.00
165.00	0.00	0	52.99	0.00	0.00	0.00	0.00
170.00	0.00	0	52.99	0.00	0.00	0.00	0.00
175.00	0.00	0	52.99	0.00	0.00	0.00	0.00
180.00	0.00	0	52.99	0.00	0.00	0.00	0.00
185.00	0.00	0	52.99	0.00	0.00	0.00	0.00
190.00	0.00	0	52.99	0.00	0.00	0.00	0.00
195.00	0.00	0	52.99	0.00	0.00	0.00	0.00
200.00	0.00	0	52.99	0.00	0.00	0.00	0.00
205.00	0.00	0	52.99	0.00	0.00	0.00	0.00
210.00	0.00	0	52.99	0.00	0.00	0.00	0.00
215.00	0.00	0	52.99	0.00	0.00	0.00	0.00
220.00	0.00	0	52.99	0.00	0.00	0.00	0.00
225.00	0.00	0	52.99	0.00	0.00	0.00	0.00
230.00	0.00	0	52.99	0.00	0.00	0.00	0.00
235.00	0.00	0	52.99	0.00	0.00	0.00	0.00
240.00	0.00	0	52.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 7P: Bio 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
52.99	0.00	0.00	0.00	**0.00**
53.19	0.03	0.00	0.00	**0.03**
53.39	0.03	0.00	0.00	0.03
53.59	0.03	0.00	0.00	0.03
53.79	0.03	0.00	0.00	0.03
53.99	0.03	0.00	0.00	0.03
54.19	0.03	0.00	0.00	0.03
54.39	0.03	0.00	0.00	0.03
54.59	0.03	0.00	0.00	0.03
54.79	0.03	0.00	0.00	0.03
54.99	0.03	0.00	0.00	0.03
55.19	0.03	0.00	0.00	0.03
55.39	0.03	0.00	0.00	0.03
55.59	0.03	0.00	0.00	0.03
55.79	0.03	0.00	0.00	0.03
55.99	0.03	0.00	0.00	0.03
56.19	0.03	0.00	0.00	0.03
56.39	0.03	0.00	0.00	0.03
56.59	2.92	2.89	0.00	0.03
56.79	5.21	5.19	0.00	0.03
56.99	6.77	6.74	0.00	0.03
57.19	8.03	8.00	0.00	0.03
57.39	9.11	9.08	0.00	0.03
57.59	10.96	10.05	0.88	0.03
57.79	16.04	10.94	5.08	0.03
57.99	22.89	11.75	11.11	0.03
58.19	31.03	12.52	18.48	0.03
58.39	**40.23**	**13.24**	**26.97**	0.03

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Stage-Area-Storage for Pond 7P: Bio 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
52.99	1,128	0
53.09	1,128	37
53.19	1,128	74
53.29	1,128	112
53.39	1,128	149
53.49	1,128	186
53.59	1,128	223
53.69	1,128	261
53.79	1,128	298
53.89	1,128	335
53.99	1,128	372
54.09	1,128	409
54.19	1,128	447
54.29	1,128	484
54.39	1,128	521
54.49	1,128	558
54.59	1,128	596
54.69	1,128	633
54.79	1,128	670
54.89	1,128	707
54.99	1,128	744
55.09	1,128	782
55.19	1,128	819
55.29	1,128	856
55.39	1,128	893
55.49	1,128	931
55.59	1,128	968
55.69	1,128	1,005
55.79	1,128	1,042
55.89	1,128	1,079
55.99	1,128	1,117
56.09	1,814	1,291
56.19	1,893	1,476
56.29	1,973	1,670
56.39	2,052	1,871
56.49	2,132	2,080
56.59	2,211	2,297
56.69	2,291	2,522
56.79	2,370	2,755
56.89	2,450	2,996
56.99	2,529	3,245
57.09	2,630	3,503
57.19	2,733	3,771
57.29	2,836	4,050
57.39	2,939	4,338
57.49	3,043	4,638
57.59	3,146	4,947
57.69	3,249	5,267
57.79	3,352	5,597
57.89	3,455	5,937
57.99	3,559	6,288
58.09	3,657	6,649
58.19	3,755	7,019
58.29	3,853	7,400
58.39	3,950	7,790
58.49	**4,048**	**8,190**

Summary for Pond 8P: DIV-04

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 0.22" for WQv event
Inflow = 1.08 cfs @ 12.24 hrs, Volume= 2,788 cf
Outflow = 1.08 cfs @ 12.24 hrs, Volume= 2,788 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.08 cfs @ 12.24 hrs, Volume= 2,788 cf
Routed to Pond 23P : UGIS-1
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 47.46' @ 12.24 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.90'	**18.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.90' / 46.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf
#2	Device 3	48.40'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	46.90'	**24.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.90' / 46.70' S= 0.0067 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf

Primary OutFlow Max=1.07 cfs @ 12.24 hrs HW=47.46' TW=46.65' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 1.07 cfs @ 2.64 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=46.90' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Controls 0.00 cfs)
└**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

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Hydrograph for Pond 8P: DIV-04

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	46.90	0.00	0.00	**0.00**
5.00	0.00	46.90	0.00	0.00	0.00
10.00	**0.00**	**46.93**	**0.00**	**0.00**	0.00
15.00	**0.01**	**46.98**	**0.01**	**0.01**	0.00
20.00	0.00	46.91	0.00	0.00	0.00
25.00	0.00	46.90	0.00	0.00	0.00
30.00	0.00	46.90	0.00	0.00	0.00
35.00	0.00	46.90	0.00	0.00	0.00
40.00	0.00	46.90	0.00	0.00	0.00
45.00	0.00	46.90	0.00	0.00	0.00
50.00	0.00	46.90	0.00	0.00	0.00
55.00	0.00	46.90	0.00	0.00	0.00
60.00	0.00	46.90	0.00	0.00	0.00
65.00	0.00	46.90	0.00	0.00	0.00
70.00	0.00	46.90	0.00	0.00	0.00
75.00	0.00	46.90	0.00	0.00	0.00
80.00	0.00	46.90	0.00	0.00	0.00
85.00	0.00	46.90	0.00	0.00	0.00
90.00	0.00	46.90	0.00	0.00	0.00
95.00	0.00	46.90	0.00	0.00	0.00
100.00	0.00	46.90	0.00	0.00	0.00
105.00	0.00	46.90	0.00	0.00	0.00
110.00	0.00	46.90	0.00	0.00	0.00
115.00	0.00	46.90	0.00	0.00	0.00
120.00	0.00	46.90	0.00	0.00	0.00
125.00	0.00	46.90	0.00	0.00	0.00
130.00	0.00	46.90	0.00	0.00	0.00
135.00	0.00	46.90	0.00	0.00	0.00
140.00	0.00	46.90	0.00	0.00	0.00
145.00	0.00	46.90	0.00	0.00	0.00
150.00	0.00	46.90	0.00	0.00	0.00
155.00	0.00	46.90	0.00	0.00	0.00
160.00	0.00	46.90	0.00	0.00	0.00
165.00	0.00	46.90	0.00	0.00	0.00
170.00	0.00	46.90	0.00	0.00	0.00
175.00	0.00	46.90	0.00	0.00	0.00
180.00	0.00	46.90	0.00	0.00	0.00
185.00	0.00	46.90	0.00	0.00	0.00
190.00	0.00	46.90	0.00	0.00	0.00
195.00	0.00	46.90	0.00	0.00	0.00
200.00	0.00	46.90	0.00	0.00	0.00
205.00	0.00	46.90	0.00	0.00	0.00
210.00	0.00	46.90	0.00	0.00	0.00
215.00	0.00	46.90	0.00	0.00	0.00
220.00	0.00	46.90	0.00	0.00	0.00
225.00	0.00	46.90	0.00	0.00	0.00
230.00	0.00	46.90	0.00	0.00	0.00
235.00	0.00	46.90	0.00	0.00	0.00
240.00	0.00	46.90	0.00	0.00	0.00

Stage-Discharge for Pond 8P: DIV-04

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
46.90	0.00	0.00	0.00
46.92	0.00	0.00	0.00
46.94	0.01	0.01	0.00
46.96	0.02	0.02	0.00
46.98	0.03	0.03	0.00
47.00	0.04	0.04	0.00
47.02	0.06	0.06	0.00
47.04	0.08	0.08	0.00
47.06	0.11	0.11	0.00
47.08	0.13	0.13	0.00
47.10	0.16	0.16	0.00
47.12	0.20	0.20	0.00
47.14	0.23	0.23	0.00
47.16	0.27	0.27	0.00
47.18	0.31	0.31	0.00
47.20	0.35	0.35	0.00
47.22	0.39	0.39	0.00
47.24	0.44	0.44	0.00
47.26	0.48	0.48	0.00
47.28	0.53	0.53	0.00
47.30	0.58	0.58	0.00
47.32	0.64	0.64	0.00
47.34	0.69	0.69	0.00
47.36	0.75	0.75	0.00
47.38	0.81	0.81	0.00
47.40	0.87	0.87	0.00
47.42	0.94	0.94	0.00
47.44	1.00	1.00	0.00
47.46	1.07	1.07	0.00
47.48	1.14	1.14	0.00
47.50	1.21	1.21	0.00
47.52	1.28	1.28	0.00
47.54	1.35	1.35	0.00
47.56	1.42	1.42	0.00
47.58	1.50	1.50	0.00
47.60	1.58	1.58	0.00
47.62	1.66	1.66	0.00
47.64	1.74	1.74	0.00
47.66	1.82	1.82	0.00
47.68	1.91	1.91	0.00
47.70	1.99	1.99	0.00
47.72	2.08	2.08	0.00
47.74	2.16	2.16	0.00
47.76	2.25	2.25	0.00
47.78	2.34	2.34	0.00
47.80	2.43	2.43	0.00
47.82	2.53	2.53	0.00
47.84	2.62	2.62	0.00
47.86	2.71	2.71	0.00
47.88	2.81	2.81	0.00
47.90	2.91	2.91	0.00
47.92	3.00	3.00	0.00
47.94	3.10	3.10	0.00
47.96	3.20	3.20	0.00
47.98	3.30	3.30	0.00
48.00	3.40	3.40	0.00
48.02	3.50	3.50	0.00
48.04	3.61	3.61	0.00
48.06	3.71	3.71	0.00
48.08	3.81	3.81	0.00
48.10	3.92	3.92	0.00
48.12	4.02	4.02	0.00
48.14	4.12	4.12	0.00
48.16	4.23	4.23	0.00
48.18	4.34	4.34	0.00
48.20	4.44	4.44	0.00
48.22	4.55	4.55	0.00
48.24	4.65	4.65	0.00
48.26	4.76	4.76	0.00
48.28	4.87	4.87	0.00
48.30	4.97	4.97	0.00
48.32	5.08	5.08	0.00
48.34	5.19	5.19	0.00
48.36	5.29	5.29	0.00
48.38	5.40	5.40	0.00
48.40	5.50	5.50	0.00
48.42	5.66	5.61	0.06
48.44	5.87	5.71	0.16
48.46	6.10	5.81	0.29
48.48	6.36	5.92	0.44
48.50	6.64	6.02	0.62
48.52	6.93	6.12	0.81
48.54	7.24	6.22	1.02
48.56	7.57	6.32	1.25
48.58	7.91	6.42	1.49
48.60	8.26	6.52	1.74
48.62	8.62	6.61	2.01
48.64	8.97	6.68	2.29
48.66	9.33	6.75	2.58
48.68	9.70	6.82	2.88
48.70	10.07	6.88	3.19
48.72	10.46	6.95	3.51
48.74	10.86	7.01	3.85
48.76	11.26	7.08	4.19
48.78	11.68	7.14	4.54
48.80	12.10	7.20	4.90
48.82	12.53	7.27	5.27
48.84	12.97	7.33	5.64
48.86	13.42	7.39	6.03
48.88	13.87	7.45	6.42
48.90	**14.33**	**7.51**	**6.82**

Stage-Area-Storage for Pond 8P: DIV-04

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
46.90	**0**	47.92	0
46.92	0	47.94	0
46.94	0	47.96	0
46.96	0	47.98	0
46.98	0	48.00	0
47.00	0	48.02	0
47.02	0	48.04	0
47.04	0	48.06	0
47.06	0	48.08	0
47.08	0	48.10	0
47.10	0	48.12	0
47.12	0	48.14	0
47.14	0	48.16	0
47.16	0	48.18	0
47.18	0	48.20	0
47.20	0	48.22	0
47.22	0	48.24	0
47.24	0	48.26	0
47.26	0	48.28	0
47.28	0	48.30	0
47.30	0	48.32	0
47.32	0	48.34	0
47.34	0	48.36	0
47.36	0	48.38	0
47.38	0	48.40	0
47.40	0	48.42	0
47.42	0	48.44	0
47.44	0	48.46	0
47.46	0	48.48	0
47.48	0	48.50	0
47.50	0	48.52	0
47.52	0	48.54	0
47.54	0	48.56	0
47.56	0	48.58	0
47.58	0	48.60	0
47.60	0	48.62	0
47.62	0	48.64	0
47.64	0	48.66	0
47.66	0	48.68	0
47.68	0	48.70	0
47.70	0	48.72	0
47.72	0	48.74	0
47.74	0	48.76	0
47.76	0	48.78	0
47.78	0	48.80	0
47.80	0	48.82	0
47.82	0	48.84	0
47.84	0	48.86	0
47.86	0	48.88	0
47.88	0	48.90	0
47.90	0		

Summary for Pond 9P: Sand Filter 5

Inflow Area = 23,611 sf, 64.90% Impervious, Inflow Depth = 0.66" for WQv event
Inflow = 0.37 cfs @ 12.09 hrs, Volume= 1,301 cf
Outflow = 0.01 cfs @ 21.23 hrs, Volume= 1,301 cf, Atten= 99%, Lag= 548.6 min
Discarded = 0.01 cfs @ 21.23 hrs, Volume= 1,301 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 49.35' @ 21.23 hrs Surf.Area= 875 sf Storage= 985 cf

Plug-Flow detention time= 1,842.1 min calculated for 1,301 cf (100% of inflow)
Center-of-Mass det. time= 1,842.5 min (2,631.5 - 789.0)

Volume	Invert	Avail.Storage	Storage Description
#1	45.99'	4,039 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
45.99	705	0.0	0	0
46.00	705	33.0	2	2
48.99	705	33.0	696	698
49.00	705	100.0	7	705
50.00	1,184	100.0	945	1,649
51.00	1,725	100.0	1,455	3,104
51.50	2,016	100.0	935	4,039

Device	Routing	Invert	Outlet Devices
#1	Discarded	45.99'	**0.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	49.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	50.20'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 21.23 hrs HW=49.35' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=45.99' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=45.99' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 9P: Sand Filter 5

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	45.99	0.00	0.00	**0.00**	**0.00**
5.00	0.00	1	45.99	0.00	0.00	0.00	0.00
10.00	**0.01**	45	46.18	0.00	0.00	0.00	0.00
15.00	**0.02**	907	49.26	0.01	0.01	0.00	0.00
20.00	0.01	**983**	**49.35**	**0.01**	**0.01**	0.00	0.00
25.00	0.00	**960**	**49.33**	**0.01**	**0.01**	0.00	0.00
30.00	0.00	866	49.21	0.01	0.01	0.00	0.00
35.00	0.00	778	49.10	0.00	0.00	0.00	0.00
40.00	0.00	696	48.98	0.00	0.00	0.00	0.00
45.00	0.00	617	48.64	0.00	0.00	0.00	0.00
50.00	0.00	538	48.30	0.00	0.00	0.00	0.00
55.00	0.00	458	47.96	0.00	0.00	0.00	0.00
60.00	0.00	379	47.62	0.00	0.00	0.00	0.00
65.00	0.00	300	47.28	0.00	0.00	0.00	0.00
70.00	0.00	220	46.94	0.00	0.00	0.00	0.00
75.00	0.00	141	46.60	0.00	0.00	0.00	0.00
80.00	0.00	62	46.26	0.00	0.00	0.00	0.00
85.00	0.00	0	45.99	0.00	0.00	0.00	0.00
90.00	0.00	0	45.99	0.00	0.00	0.00	0.00
95.00	0.00	0	45.99	0.00	0.00	0.00	0.00
100.00	0.00	0	45.99	0.00	0.00	0.00	0.00
105.00	0.00	0	45.99	0.00	0.00	0.00	0.00
110.00	0.00	0	45.99	0.00	0.00	0.00	0.00
115.00	0.00	0	45.99	0.00	0.00	0.00	0.00
120.00	0.00	0	45.99	0.00	0.00	0.00	0.00
125.00	0.00	0	45.99	0.00	0.00	0.00	0.00
130.00	0.00	0	45.99	0.00	0.00	0.00	0.00
135.00	0.00	0	45.99	0.00	0.00	0.00	0.00
140.00	0.00	0	45.99	0.00	0.00	0.00	0.00
145.00	0.00	0	45.99	0.00	0.00	0.00	0.00
150.00	0.00	0	45.99	0.00	0.00	0.00	0.00
155.00	0.00	0	45.99	0.00	0.00	0.00	0.00
160.00	0.00	0	45.99	0.00	0.00	0.00	0.00
165.00	0.00	0	45.99	0.00	0.00	0.00	0.00
170.00	0.00	0	45.99	0.00	0.00	0.00	0.00
175.00	0.00	0	45.99	0.00	0.00	0.00	0.00
180.00	0.00	0	45.99	0.00	0.00	0.00	0.00
185.00	0.00	0	45.99	0.00	0.00	0.00	0.00
190.00	0.00	0	45.99	0.00	0.00	0.00	0.00
195.00	0.00	0	45.99	0.00	0.00	0.00	0.00
200.00	0.00	0	45.99	0.00	0.00	0.00	0.00
205.00	0.00	0	45.99	0.00	0.00	0.00	0.00
210.00	0.00	0	45.99	0.00	0.00	0.00	0.00
215.00	0.00	0	45.99	0.00	0.00	0.00	0.00
220.00	0.00	0	45.99	0.00	0.00	0.00	0.00
225.00	0.00	0	45.99	0.00	0.00	0.00	0.00
230.00	0.00	0	45.99	0.00	0.00	0.00	0.00
235.00	0.00	0	45.99	0.00	0.00	0.00	0.00
240.00	0.00	0	45.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 9P: Sand Filter 5

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
45.99	0.00	0.00	0.00	0.00
46.19	0.00	0.00	0.00	0.00
46.39	0.00	0.00	0.00	0.00
46.59	0.00	0.00	0.00	0.00
46.79	0.00	0.00	0.00	0.00
46.99	0.00	0.00	0.00	0.00
47.19	0.00	0.00	0.00	0.00
47.39	0.00	0.00	0.00	0.00
47.59	0.00	0.00	0.00	0.00
47.79	0.00	0.00	0.00	0.00
47.99	0.00	0.00	0.00	0.00
48.19	0.00	0.00	0.00	0.00
48.39	0.00	0.00	0.00	0.00
48.59	0.00	0.00	0.00	0.00
48.79	0.00	0.00	0.00	0.00
48.99	0.00	0.00	0.00	0.00
49.19	0.00	0.00	0.00	0.00
49.39	0.01	0.01	0.00	0.00
49.59	0.01	0.01	0.00	0.00
49.79	0.63	0.01	0.63	0.00
49.99	2.37	0.01	2.36	0.00
50.19	3.20	0.01	3.19	0.00
50.39	6.56	0.01	3.85	2.70
50.59	12.32	0.01	4.41	7.90
50.79	19.56	0.01	4.91	14.64
50.99	27.97	0.01	5.36	22.60
51.19	37.36	0.01	5.78	31.57
51.39	**47.62**	**0.01**	**6.17**	**41.44**

Stage-Area-Storage for Pond 9P: Sand Filter 5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
45.99	705	0
46.09	705	23
46.19	705	47
46.29	705	70
46.39	705	93
46.49	705	116
46.59	705	140
46.69	705	163
46.79	705	186
46.89	705	209
46.99	705	233
47.09	705	256
47.19	705	279
47.29	705	302
47.39	705	326
47.49	705	349
47.59	705	372
47.69	705	396
47.79	705	419
47.89	705	442
47.99	705	465
48.09	705	489
48.19	705	512
48.29	705	535
48.39	705	558
48.49	705	582
48.59	705	605
48.69	705	628
48.79	705	651
48.89	705	675
48.99	705	698
49.09	748	770
49.19	796	848
49.29	844	930
49.39	892	1,016
49.49	940	1,108
49.59	988	1,204
49.69	1,036	1,305
49.79	1,083	1,411
49.89	1,131	1,522
49.99	1,179	1,638
50.09	1,233	1,758
50.19	1,287	1,884
50.29	1,341	2,016
50.39	1,395	2,152
50.49	1,449	2,295
50.59	1,503	2,442
50.69	1,557	2,595
50.79	1,611	2,754
50.89	1,665	2,918
50.99	1,720	3,087
51.09	1,777	3,262
51.19	1,836	3,442
51.29	1,894	3,629
51.39	1,952	3,821
51.49	**2,010**	**4,019**

Summary for Pond 10P: Bio 1

Inflow Area = 42,514 sf, 59.10% Impervious, Inflow Depth = 0.62" for WQv event
Inflow = 0.62 cfs @ 12.09 hrs, Volume= 2,189 cf
Outflow = 0.02 cfs @ 17.48 hrs, Volume= 2,189 cf, Atten= 98%, Lag= 323.6 min
Discarded = 0.01 cfs @ 11.95 hrs, Volume= 2,105 cf
Primary = 0.01 cfs @ 17.48 hrs, Volume= 85 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 44.50' @ 17.48 hrs Surf.Area= 2,666 sf Storage= 1,688 cf

Plug-Flow detention time= 2,118.6 min calculated for 2,189 cf (100% of inflow)
Center-of-Mass det. time= 2,119.1 min (2,911.5 - 792.3)

Volume	Invert	Avail.Storage	Storage Description
#1	41.99'	6,655 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
41.99	725	0.0	0	0
42.00	725	33.0	2	2
43.99	725	33.0	476	479
44.00	1,147	33.0	3	482
44.01	2,171	100.0	17	498
45.00	3,166	100.0	2,642	3,140
46.00	3,865	100.0	3,516	6,655

Device	Routing	Invert	Outlet Devices
#1	Primary	44.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Discarded	41.99'	**0.270 in/hr Exfiltration over Surface area from 41.98' - 44.00'** Excluded Surface area = 0 sf Phase-In= 0.02'
#3	Secondary	45.00'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 11.95 hrs HW=44.02' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.01 cfs @ 17.48 hrs HW=44.50' TW=0.00' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Weir Controls 0.01 cfs @ 0.15 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=41.99' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 10P: Bio 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	41.99	0.00	0.00	0.00	**0.00**
5.00	0.00	2	42.00	0.00	0.00	0.00	0.00
10.00	**0.02**	101	42.41	0.00	**0.00**	0.00	0.00
15.00	**0.03**	**1,573**	**44.46**	**0.01**	**0.01**	**0.00**	0.00
20.00	0.01	**1,686**	**44.50**	**0.01**	0.01	**0.00**	0.00
25.00	0.00	1,660	44.49	0.01	0.01	0.00	0.00
30.00	0.00	1,531	44.44	0.01	0.01	0.00	0.00
35.00	0.00	1,402	44.39	0.01	0.01	0.00	0.00
40.00	0.00	1,272	44.34	0.01	0.01	0.00	0.00
45.00	0.00	1,143	44.29	0.01	0.01	0.00	0.00
50.00	0.00	1,014	44.24	0.01	0.01	0.00	0.00
55.00	0.00	885	44.18	0.01	0.01	0.00	0.00
60.00	0.00	756	44.13	0.01	0.01	0.00	0.00
65.00	0.00	627	44.07	0.01	0.01	0.00	0.00
70.00	0.00	498	44.01	0.01	0.01	0.00	0.00
75.00	0.00	410	43.70	0.00	0.00	0.00	0.00
80.00	0.00	328	43.36	0.00	0.00	0.00	0.00
85.00	0.00	247	43.02	0.00	0.00	0.00	0.00
90.00	0.00	165	42.68	0.00	0.00	0.00	0.00
95.00	0.00	84	42.34	0.00	0.00	0.00	0.00
100.00	0.00	3	42.00	0.00	0.00	0.00	0.00
105.00	0.00	0	41.99	0.00	0.00	0.00	0.00
110.00	0.00	0	41.99	0.00	0.00	0.00	0.00
115.00	0.00	0	41.99	0.00	0.00	0.00	0.00
120.00	0.00	0	41.99	0.00	0.00	0.00	0.00
125.00	0.00	0	41.99	0.00	0.00	0.00	0.00
130.00	0.00	0	41.99	0.00	0.00	0.00	0.00
135.00	0.00	0	41.99	0.00	0.00	0.00	0.00
140.00	0.00	0	41.99	0.00	0.00	0.00	0.00
145.00	0.00	0	41.99	0.00	0.00	0.00	0.00
150.00	0.00	0	41.99	0.00	0.00	0.00	0.00
155.00	0.00	0	41.99	0.00	0.00	0.00	0.00
160.00	0.00	0	41.99	0.00	0.00	0.00	0.00
165.00	0.00	0	41.99	0.00	0.00	0.00	0.00
170.00	0.00	0	41.99	0.00	0.00	0.00	0.00
175.00	0.00	0	41.99	0.00	0.00	0.00	0.00
180.00	0.00	0	41.99	0.00	0.00	0.00	0.00
185.00	0.00	0	41.99	0.00	0.00	0.00	0.00
190.00	0.00	0	41.99	0.00	0.00	0.00	0.00
195.00	0.00	0	41.99	0.00	0.00	0.00	0.00
200.00	0.00	0	41.99	0.00	0.00	0.00	0.00
205.00	0.00	0	41.99	0.00	0.00	0.00	0.00
210.00	0.00	0	41.99	0.00	0.00	0.00	0.00
215.00	0.00	0	41.99	0.00	0.00	0.00	0.00
220.00	0.00	0	41.99	0.00	0.00	0.00	0.00
225.00	0.00	0	41.99	0.00	0.00	0.00	0.00
230.00	0.00	0	41.99	0.00	0.00	0.00	0.00
235.00	0.00	0	41.99	0.00	0.00	0.00	0.00
240.00	0.00	0	41.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 10P: Bio 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
41.99	0.00	0.00	0.00	0.00
42.09	0.00	0.00	0.00	0.00
42.19	0.00	0.00	0.00	0.00
42.29	0.00	0.00	0.00	0.00
42.39	0.00	0.00	0.00	0.00
42.49	0.00	0.00	0.00	0.00
42.59	0.00	0.00	0.00	0.00
42.69	0.00	0.00	0.00	0.00
42.79	0.00	0.00	0.00	0.00
42.89	0.00	0.00	0.00	0.00
42.99	0.00	0.00	0.00	0.00
43.09	0.00	0.00	0.00	0.00
43.19	0.00	0.00	0.00	0.00
43.29	0.00	0.00	0.00	0.00
43.39	0.00	0.00	0.00	0.00
43.49	0.00	0.00	0.00	0.00
43.59	0.00	0.00	0.00	0.00
43.69	0.00	0.00	0.00	0.00
43.79	0.00	0.00	0.00	0.00
43.89	0.00	0.00	0.00	0.00
43.99	0.00	**0.00**	0.00	0.00
44.09	0.01	**0.01**	0.00	0.00
44.19	0.01	0.01	0.00	0.00
44.29	0.01	0.01	0.00	0.00
44.39	0.01	0.01	0.00	0.00
44.49	0.01	0.01	0.00	0.00
44.59	1.45	0.01	1.44	0.00
44.69	2.11	0.01	2.10	0.00
44.79	2.60	0.01	2.59	0.00
44.89	3.01	0.01	3.01	0.00
44.99	3.38	0.01	3.37	0.00
45.09	4.59	0.01	3.70	0.88
45.19	6.70	0.01	4.00	2.70
45.29	9.36	0.01	4.28	5.08
45.39	12.45	0.01	4.54	7.90
45.49	15.90	0.01	4.79	11.11
45.59	19.68	0.01	5.03	14.64
45.69	23.74	0.01	5.25	18.48
45.79	28.07	0.01	5.47	22.60
45.89	32.65	0.01	5.68	26.97
45.99	**37.46**	0.01	**5.88**	**31.57**

Pro-Hydro
Prepared by Pare Corporation
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Stage-Area-Storage for Pond 10P: Bio 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
41.99	725	0
42.04	725	12
42.09	725	24
42.14	725	36
42.19	725	48
42.24	725	60
42.29	725	72
42.34	725	84
42.39	725	96
42.44	725	108
42.49	725	120
42.54	725	132
42.59	725	144
42.64	725	156
42.69	725	167
42.74	725	179
42.79	725	191
42.84	725	203
42.89	725	215
42.94	725	227
42.99	725	239
43.04	725	251
43.09	725	263
43.14	725	275
43.19	725	287
43.24	725	299
43.29	725	311
43.34	725	323
43.39	725	335
43.44	725	347
43.49	725	359
43.54	725	371
43.59	725	383
43.64	725	395
43.69	725	407
43.74	725	419
43.79	725	431
43.84	725	443
43.89	725	455
43.94	725	467
43.99	725	479
44.04	2,201	564
44.09	2,251	675
44.14	2,302	789
44.19	2,352	905
44.24	2,402	1,024
44.29	2,452	1,145
44.34	2,503	1,269
44.39	2,553	1,396
44.44	2,603	1,525
44.49	2,653	1,656
44.54	2,704	1,790
44.59	2,754	1,926
44.64	2,804	2,065
44.69	2,854	2,207
44.74	2,905	2,351
44.79	2,955	2,497
44.84	3,005	2,646
44.89	3,055	2,798
44.94	3,106	2,952
44.99	3,156	3,108
45.04	3,194	3,267
45.09	3,229	3,428
45.14	3,264	3,590
45.19	3,299	3,754
45.24	3,334	3,920
45.29	3,369	4,088
45.34	3,404	4,257
45.39	3,439	4,428
45.44	3,474	4,601
45.49	3,509	4,775
45.54	3,543	4,952
45.59	3,578	5,130
45.64	3,613	5,309
45.69	3,648	5,491
45.74	3,683	5,674
45.79	3,718	5,859
45.84	3,753	6,046
45.89	3,788	6,235
45.94	3,823	6,425
45.99	**3,858**	**6,617**

Summary for Pond 12P: Infiltration Basin 1

Inflow Area = 68,033 sf, 89.47% Impervious, Inflow Depth = 0.89" for WQv event
Inflow = 1.50 cfs @ 12.09 hrs, Volume= 5,036 cf
Outflow = 0.05 cfs @ 15.58 hrs, Volume= 5,036 cf, Atten= 96%, Lag= 209.4 min
Discarded = 0.05 cfs @ 15.58 hrs, Volume= 5,036 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 56.81' @ 15.58 hrs Surf.Area= 2,266 sf Storage= 3,047 cf

Plug-Flow detention time= 610.8 min calculated for 5,035 cf (100% of inflow)
Center-of-Mass det. time= 610.9 min (1,394.4 - 783.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	10,931 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.00	1,125	0	0
56.00	1,739	1,432	1,432
57.00	2,393	2,066	3,498
58.00	3,104	2,749	6,247
59.00	3,870	3,487	9,734
59.30	4,111	1,197	10,931

Device	Routing	Invert	Outlet Devices
#1	Primary	51.75'	**24.0" Round Culvert** L= 9.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.75' / 51.55' S= 0.0222 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Discarded	55.00'	**1.020 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#3	Secondary	58.40'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	57.65'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.05 cfs @ 15.58 hrs HW=56.81' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=55.00' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.00 cfs of 17.91 cfs potential flow)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=55.00' TW=0.00' (Dynamic Tailwater)
└**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 12P: Infiltration Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	55.00	0.00	0.00	**0.00**	**0.00**
5.00	0.01	4	55.00	0.00	0.00	0.00	0.00
10.00	**0.06**	110	55.10	0.03	0.03	0.00	0.00
15.00	**0.06**	**3,036**	**56.80**	**0.05**	**0.05**	0.00	0.00
20.00	0.02	**2,723**	**56.66**	**0.05**	**0.05**	0.00	0.00
25.00	0.00	2,107	56.36	0.05	0.05	0.00	0.00
30.00	0.00	1,326	55.94	0.04	0.04	0.00	0.00
35.00	0.00	659	55.51	0.03	0.03	0.00	0.00
40.00	0.00	102	55.09	0.03	0.03	0.00	0.00
45.00	0.00	0	55.00	0.00	0.00	0.00	0.00
50.00	0.00	0	55.00	0.00	0.00	0.00	0.00
55.00	0.00	0	55.00	0.00	0.00	0.00	0.00
60.00	0.00	0	55.00	0.00	0.00	0.00	0.00
65.00	0.00	0	55.00	0.00	0.00	0.00	0.00
70.00	0.00	0	55.00	0.00	0.00	0.00	0.00
75.00	0.00	0	55.00	0.00	0.00	0.00	0.00
80.00	0.00	0	55.00	0.00	0.00	0.00	0.00
85.00	0.00	0	55.00	0.00	0.00	0.00	0.00
90.00	0.00	0	55.00	0.00	0.00	0.00	0.00
95.00	0.00	0	55.00	0.00	0.00	0.00	0.00
100.00	0.00	0	55.00	0.00	0.00	0.00	0.00
105.00	0.00	0	55.00	0.00	0.00	0.00	0.00
110.00	0.00	0	55.00	0.00	0.00	0.00	0.00
115.00	0.00	0	55.00	0.00	0.00	0.00	0.00
120.00	0.00	0	55.00	0.00	0.00	0.00	0.00
125.00	0.00	0	55.00	0.00	0.00	0.00	0.00
130.00	0.00	0	55.00	0.00	0.00	0.00	0.00
135.00	0.00	0	55.00	0.00	0.00	0.00	0.00
140.00	0.00	0	55.00	0.00	0.00	0.00	0.00
145.00	0.00	0	55.00	0.00	0.00	0.00	0.00
150.00	0.00	0	55.00	0.00	0.00	0.00	0.00
155.00	0.00	0	55.00	0.00	0.00	0.00	0.00
160.00	0.00	0	55.00	0.00	0.00	0.00	0.00
165.00	0.00	0	55.00	0.00	0.00	0.00	0.00
170.00	0.00	0	55.00	0.00	0.00	0.00	0.00
175.00	0.00	0	55.00	0.00	0.00	0.00	0.00
180.00	0.00	0	55.00	0.00	0.00	0.00	0.00
185.00	0.00	0	55.00	0.00	0.00	0.00	0.00
190.00	0.00	0	55.00	0.00	0.00	0.00	0.00
195.00	0.00	0	55.00	0.00	0.00	0.00	0.00
200.00	0.00	0	55.00	0.00	0.00	0.00	0.00
205.00	0.00	0	55.00	0.00	0.00	0.00	0.00
210.00	0.00	0	55.00	0.00	0.00	0.00	0.00
215.00	0.00	0	55.00	0.00	0.00	0.00	0.00
220.00	0.00	0	55.00	0.00	0.00	0.00	0.00
225.00	0.00	0	55.00	0.00	0.00	0.00	0.00
230.00	0.00	0	55.00	0.00	0.00	0.00	0.00
235.00	0.00	0	55.00	0.00	0.00	0.00	0.00
240.00	0.00	0	55.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 12P: Infiltration Basin 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
55.00	0.00	0.00	0.00	0.00
55.10	0.03	0.03	0.00	0.00
55.20	0.03	0.03	0.00	0.00
55.30	0.03	0.03	0.00	0.00
55.40	0.03	0.03	0.00	0.00
55.50	0.03	0.03	0.00	0.00
55.60	0.04	0.04	0.00	0.00
55.70	0.04	0.04	0.00	0.00
55.80	0.04	0.04	0.00	0.00
55.90	0.04	0.04	0.00	0.00
56.00	0.04	0.04	0.00	0.00
56.10	0.04	0.04	0.00	0.00
56.20	0.04	0.04	0.00	0.00
56.30	0.05	0.05	0.00	0.00
56.40	0.05	0.05	0.00	0.00
56.50	0.05	0.05	0.00	0.00
56.60	0.05	0.05	0.00	0.00
56.70	0.05	0.05	0.00	0.00
56.80	0.05	0.05	0.00	0.00
56.90	0.05	0.05	0.00	0.00
57.00	0.06	0.06	0.00	0.00
57.10	0.06	0.06	0.00	0.00
57.20	0.06	0.06	0.00	0.00
57.30	0.06	0.06	0.00	0.00
57.40	0.06	0.06	0.00	0.00
57.50	0.06	0.06	0.00	0.00
57.60	0.07	0.07	0.00	0.00
57.70	0.29	0.07	0.22	0.00
57.80	1.20	0.07	1.13	0.00
57.90	2.50	0.07	2.43	0.00
58.00	4.09	0.07	4.02	0.00
58.10	5.91	0.08	5.83	0.00
58.20	7.93	0.08	7.86	0.00
58.30	10.14	0.08	10.06	0.00
58.40	12.51	0.08	12.42	0.00
58.50	16.05	0.08	14.94	1.03
58.60	20.59	0.08	17.59	2.91
58.70	25.80	0.09	20.37	5.34
58.80	31.56	0.09	23.27	8.21
58.90	37.81	0.09	26.28	11.45
59.00	44.50	0.09	29.39	15.02
59.10	49.07	0.09	30.09	18.88
59.20	53.45	0.10	30.33	23.02
59.30	**58.08**	**0.10**	**30.56**	**27.42**

Stage-Area-Storage for Pond 12P: Infiltration Basin 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.00	1,125	0
55.05	1,156	57
55.10	1,186	116
55.15	1,217	176
55.20	1,248	237
55.25	1,279	300
55.30	1,309	365
55.35	1,340	431
55.40	1,371	499
55.45	1,401	568
55.50	1,432	639
55.55	1,463	712
55.60	1,493	786
55.65	1,524	861
55.70	1,555	938
55.75	1,586	1,016
55.80	1,616	1,096
55.85	1,647	1,178
55.90	1,678	1,261
55.95	1,708	1,346
56.00	1,739	1,432
56.05	1,772	1,520
56.10	1,804	1,609
56.15	1,837	1,700
56.20	1,870	1,793
56.25	1,903	1,887
56.30	1,935	1,983
56.35	1,968	2,081
56.40	2,001	2,180
56.45	2,033	2,281
56.50	2,066	2,383
56.55	2,099	2,487
56.60	2,131	2,593
56.65	2,164	2,701
56.70	2,197	2,810
56.75	2,230	2,920
56.80	2,262	3,032
56.85	2,295	3,146
56.90	2,328	3,262
56.95	2,360	3,379
57.00	2,393	3,498
57.05	2,429	3,619
57.10	2,464	3,741
57.15	2,500	3,865
57.20	2,535	3,991
57.25	2,571	4,118
57.30	2,606	4,248
57.35	2,642	4,379
57.40	2,677	4,512
57.45	2,713	4,647
57.50	2,749	4,783
57.55	2,784	4,922
57.60	2,820	5,062
57.65	2,855	5,204
57.70	2,891	5,347
57.75	2,926	5,493
57.80	2,962	5,640
57.85	2,997	5,789
57.90	3,033	5,940
57.95	3,068	6,092
58.00	3,104	6,247
58.05	3,142	6,403
58.10	3,181	6,561
58.15	3,219	6,721
58.20	3,257	6,883
58.25	3,296	7,046
58.30	3,334	7,212
58.35	3,372	7,380
58.40	3,410	7,549
58.45	3,449	7,721
58.50	3,487	7,894
58.55	3,525	8,070
58.60	3,564	8,247
58.65	3,602	8,426
58.70	3,640	8,607
58.75	3,679	8,790
58.80	3,717	8,975
58.85	3,755	9,162
58.90	3,793	9,350
58.95	3,832	9,541
59.00	3,870	9,734
59.05	3,910	9,928
59.10	3,950	10,125
59.15	3,991	10,323
59.20	4,031	10,524
59.25	4,071	10,726
59.30	**4,111**	**10,931**

Summary for Pond 13P: Sand Filter 1

Inflow Area = 379,224 sf, 30.94% Impervious, Inflow Depth = 0.35" for WQv event
Inflow = 1.73 cfs @ 12.17 hrs, Volume= 11,021 cf
Outflow = 0.03 cfs @ 8.70 hrs, Volume= 11,021 cf, Atten= 98%, Lag= 0.0 min
Discarded = 0.03 cfs @ 8.70 hrs, Volume= 11,021 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Pond 15P : Detention Basin 1
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Pond 15P : Detention Basin 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 46.51' @ 24.16 hrs Surf.Area= 7,633 sf Storage= 9,104 cf

Plug-Flow detention time= 2,707.9 min calculated for 11,018 cf (100% of inflow)
Center-of-Mass det. time= 2,708.4 min (3,527.1 - 818.6)

Volume	Invert	Avail.Storage	Storage Description
#1	42.49'	32,650 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
42.49	4,630	0.0	0	0
42.50	4,630	33.0	15	15
45.99	4,630	33.0	5,332	5,348
46.00	6,904	100.0	58	5,405
47.00	8,336	100.0	7,620	13,025
48.00	9,925	100.0	9,131	22,156
49.00	11,063	100.0	10,494	32,650

Device	Routing	Invert	Outlet Devices
#1	Discarded	42.49'	**0.270 in/hr Exfiltration over Surface area from 42.48' - 45.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Secondary	48.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	46.65'	**1.5" x 1.5" Horiz. Orifice/Grate X 4.00 columns** X 3 rows C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.03 cfs @ 8.70 hrs HW=42.56' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=42.49' TW=44.00' (Dynamic Tailwater)
↑—**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=42.49' TW=44.00' (Dynamic Tailwater)
↑—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 13P: Sand Filter 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	42.49	0.00	0.00	**0.00**	**0.00**
5.00	0.01	8	42.50	**0.01**	**0.01**	0.00	0.00
10.00	**0.11**	356	42.72	**0.03**	**0.03**	0.00	0.00
15.00	**0.18**	7,419	46.28	0.03	0.03	0.00	0.00
20.00	0.07	**8,728**	**46.46**	0.03	0.03	0.00	0.00
25.00	0.00	**9,030**	**46.50**	0.03	0.03	0.00	0.00
30.00	0.00	8,510	46.43	0.03	0.03	0.00	0.00
35.00	0.00	7,989	46.36	0.03	0.03	0.00	0.00
40.00	0.00	7,468	46.29	0.03	0.03	0.00	0.00
45.00	0.00	6,947	46.22	0.03	0.03	0.00	0.00
50.00	0.00	6,426	46.15	0.03	0.03	0.00	0.00
55.00	0.00	5,905	46.07	0.03	0.03	0.00	0.00
60.00	0.00	5,384	46.00	0.03	0.03	0.00	0.00
65.00	0.00	4,863	45.67	0.03	0.03	0.00	0.00
70.00	0.00	4,343	45.33	0.03	0.03	0.00	0.00
75.00	0.00	3,822	44.99	0.03	0.03	0.00	0.00
80.00	0.00	3,301	44.65	0.03	0.03	0.00	0.00
85.00	0.00	2,780	44.31	0.03	0.03	0.00	0.00
90.00	0.00	2,259	43.97	0.03	0.03	0.00	0.00
95.00	0.00	1,738	43.63	0.03	0.03	0.00	0.00
100.00	0.00	1,217	43.29	0.03	0.03	0.00	0.00
105.00	0.00	696	42.95	0.03	0.03	0.00	0.00
110.00	0.00	176	42.60	0.03	0.03	0.00	0.00
115.00	0.00	0	42.49	0.00	0.00	0.00	0.00
120.00	0.00	0	42.49	0.00	0.00	0.00	0.00
125.00	0.00	0	42.49	0.00	0.00	0.00	0.00
130.00	0.00	0	42.49	0.00	0.00	0.00	0.00
135.00	0.00	0	42.49	0.00	0.00	0.00	0.00
140.00	0.00	0	42.49	0.00	0.00	0.00	0.00
145.00	0.00	0	42.49	0.00	0.00	0.00	0.00
150.00	0.00	0	42.49	0.00	0.00	0.00	0.00
155.00	0.00	0	42.49	0.00	0.00	0.00	0.00
160.00	0.00	0	42.49	0.00	0.00	0.00	0.00
165.00	0.00	0	42.49	0.00	0.00	0.00	0.00
170.00	0.00	0	42.49	0.00	0.00	0.00	0.00
175.00	0.00	0	42.49	0.00	0.00	0.00	0.00
180.00	0.00	0	42.49	0.00	0.00	0.00	0.00
185.00	0.00	0	42.49	0.00	0.00	0.00	0.00
190.00	0.00	0	42.49	0.00	0.00	0.00	0.00
195.00	0.00	0	42.49	0.00	0.00	0.00	0.00
200.00	0.00	0	42.49	0.00	0.00	0.00	0.00
205.00	0.00	0	42.49	0.00	0.00	0.00	0.00
210.00	0.00	0	42.49	0.00	0.00	0.00	0.00
215.00	0.00	0	42.49	0.00	0.00	0.00	0.00
220.00	0.00	0	42.49	0.00	0.00	0.00	0.00
225.00	0.00	0	42.49	0.00	0.00	0.00	0.00
230.00	0.00	0	42.49	0.00	0.00	0.00	0.00
235.00	0.00	0	42.49	0.00	0.00	0.00	0.00
240.00	0.00	0	42.49	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 13P: Sand Filter 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
42.49	0.00	**0.00**	0.00	0.00
42.69	0.03	**0.03**	0.00	0.00
42.89	0.03	0.03	0.00	0.00
43.09	0.03	0.03	0.00	0.00
43.29	0.03	0.03	0.00	0.00
43.49	0.03	0.03	0.00	0.00
43.69	0.03	0.03	0.00	0.00
43.89	0.03	0.03	0.00	0.00
44.09	0.03	0.03	0.00	0.00
44.29	0.03	0.03	0.00	0.00
44.49	0.03	0.03	0.00	0.00
44.69	0.03	0.03	0.00	0.00
44.89	0.03	0.03	0.00	0.00
45.09	0.03	0.03	0.00	0.00
45.29	0.03	0.03	0.00	0.00
45.49	0.03	0.03	0.00	0.00
45.69	0.03	0.03	0.00	0.00
45.89	0.03	0.03	0.00	0.00
46.09	0.03	0.03	0.00	0.00
46.29	0.03	0.03	0.00	0.00
46.49	0.03	0.03	0.00	0.00
46.69	0.19	0.03	0.16	0.00
46.89	0.47	0.03	0.44	0.00
47.09	0.63	0.03	0.60	0.00
47.29	0.75	0.03	0.72	0.00
47.49	0.86	0.03	0.83	0.00
47.69	0.95	0.03	0.92	0.00
47.89	1.03	0.03	1.01	0.00
48.09	1.11	0.03	1.08	0.00
48.29	3.88	0.03	1.16	2.70
48.49	9.16	0.03	1.22	7.90
48.69	15.96	0.03	1.29	14.64
48.89	**23.98**	0.03	**1.35**	**22.60**

Stage-Area-Storage for Pond 13P: Sand Filter 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
42.49	4,630	0
42.59	4,630	153
42.69	4,630	306
42.79	4,630	458
42.89	4,630	611
42.99	4,630	764
43.09	4,630	917
43.19	4,630	1,070
43.29	4,630	1,222
43.39	4,630	1,375
43.49	4,630	1,528
43.59	4,630	1,681
43.69	4,630	1,833
43.79	4,630	1,986
43.89	4,630	2,139
43.99	4,630	2,292
44.09	4,630	2,445
44.19	4,630	2,597
44.29	4,630	2,750
44.39	4,630	2,903
44.49	4,630	3,056
44.59	4,630	3,209
44.69	4,630	3,361
44.79	4,630	3,514
44.89	4,630	3,667
44.99	4,630	3,820
45.09	4,630	3,973
45.19	4,630	4,125
45.29	4,630	4,278
45.39	4,630	4,431
45.49	4,630	4,584
45.59	4,630	4,736
45.69	4,630	4,889
45.79	4,630	5,042
45.89	4,630	5,195
45.99	4,630	5,348
46.09	7,033	6,032
46.19	7,176	6,743
46.29	7,319	7,468
46.39	7,462	8,207
46.49	7,606	8,960
46.59	7,749	9,728
46.69	7,892	10,510
46.79	8,035	11,306
46.89	8,178	12,117
46.99	8,322	12,942
47.09	8,479	13,782
47.19	8,638	14,638
47.29	8,797	15,510
47.39	8,956	16,397
47.49	9,115	17,301
47.59	9,274	18,220
47.69	9,432	19,155
47.79	9,591	20,107
47.89	9,750	21,074
47.99	9,909	22,057
48.09	10,027	23,054
48.19	10,141	24,062
48.29	10,255	25,082
48.39	10,369	26,113
48.49	10,483	27,156
48.59	10,596	28,210
48.69	10,710	29,275
48.79	10,824	30,352
48.89	10,938	31,440
48.99	**11,052**	**32,539**

Summary for Pond 14P: DIV-03

Inflow Area = 42,514 sf, 59.10% Impervious, Inflow Depth = 0.62" for WQv event
Inflow = 0.62 cfs @ 12.09 hrs, Volume= 2,189 cf
Outflow = 0.62 cfs @ 12.09 hrs, Volume= 2,189 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.62 cfs @ 12.09 hrs, Volume= 2,189 cf
Routed to Pond 10P : Bio 1
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 44.64' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.10'	**9.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.10' / 44.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.44 sf
#2	Device 3	44.85'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	44.10'	**15.0" Round Culvert** L= 55.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.10' / 42.25' S= 0.0336 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.60 cfs @ 12.09 hrs HW=44.63' TW=44.12' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 0.60 cfs @ 2.53 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.10' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Controls 0.00 cfs)
└**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pro-Hydro
Prepared by Pare Corporation
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Hydrograph for Pond 14P: DIV-03

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	44.10	0.00	0.00	**0.00**
5.00	0.00	44.13	0.00	0.00	0.00
10.00	**0.02**	**44.19**	**0.02**	**0.02**	0.00
15.00	**0.03**	**44.46**	**0.03**	**0.03**	0.00
20.00	0.01	44.50	0.01	0.01	0.00
25.00	0.00	44.38	0.00	0.00	0.00
30.00	0.00	44.44	0.00	0.00	0.00
35.00	0.00	44.39	0.00	0.00	0.00
40.00	0.00	44.34	0.00	0.00	0.00
45.00	0.00	44.29	0.00	0.00	0.00
50.00	0.00	44.23	0.00	0.00	0.00
55.00	0.00	44.18	0.00	0.00	0.00
60.00	0.00	44.13	0.00	0.00	0.00
65.00	0.00	44.10	0.00	0.00	0.00
70.00	0.00	44.10	0.00	0.00	0.00
75.00	0.00	44.10	0.00	0.00	0.00
80.00	0.00	44.10	0.00	0.00	0.00
85.00	0.00	44.10	0.00	0.00	0.00
90.00	0.00	44.10	0.00	0.00	0.00
95.00	0.00	44.10	0.00	0.00	0.00
100.00	0.00	44.10	0.00	0.00	0.00
105.00	0.00	44.10	0.00	0.00	0.00
110.00	0.00	44.10	0.00	0.00	0.00
115.00	0.00	44.10	0.00	0.00	0.00
120.00	0.00	44.10	0.00	0.00	0.00
125.00	0.00	44.10	0.00	0.00	0.00
130.00	0.00	44.10	0.00	0.00	0.00
135.00	0.00	44.10	0.00	0.00	0.00
140.00	0.00	44.10	0.00	0.00	0.00
145.00	0.00	44.10	0.00	0.00	0.00
150.00	0.00	44.10	0.00	0.00	0.00
155.00	0.00	44.10	0.00	0.00	0.00
160.00	0.00	44.10	0.00	0.00	0.00
165.00	0.00	44.10	0.00	0.00	0.00
170.00	0.00	44.10	0.00	0.00	0.00
175.00	0.00	44.10	0.00	0.00	0.00
180.00	0.00	44.10	0.00	0.00	0.00
185.00	0.00	44.10	0.00	0.00	0.00
190.00	0.00	44.10	0.00	0.00	0.00
195.00	0.00	44.10	0.00	0.00	0.00
200.00	0.00	44.10	0.00	0.00	0.00
205.00	0.00	44.10	0.00	0.00	0.00
210.00	0.00	44.10	0.00	0.00	0.00
215.00	0.00	44.10	0.00	0.00	0.00
220.00	0.00	44.10	0.00	0.00	0.00
225.00	0.00	44.10	0.00	0.00	0.00
230.00	0.00	44.10	0.00	0.00	0.00
235.00	0.00	44.10	0.00	0.00	0.00
240.00	0.00	44.10	0.00	0.00	0.00

Stage-Discharge for Pond 14P: DIV-03

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
44.10	0.00	0.00	0.00
44.12	0.00	0.00	0.00
44.14	0.00	0.00	0.00
44.16	0.01	0.01	0.00
44.18	0.02	0.02	0.00
44.20	0.03	0.03	0.00
44.22	0.04	0.04	0.00
44.24	0.06	0.06	0.00
44.26	0.07	0.07	0.00
44.28	0.09	0.09	0.00
44.30	0.11	0.11	0.00
44.32	0.13	0.13	0.00
44.34	0.15	0.15	0.00
44.36	0.18	0.18	0.00
44.38	0.20	0.20	0.00
44.40	0.23	0.23	0.00
44.42	0.26	0.26	0.00
44.44	0.29	0.29	0.00
44.46	0.31	0.31	0.00
44.48	0.35	0.35	0.00
44.50	0.38	0.38	0.00
44.52	0.41	0.41	0.00
44.54	0.44	0.44	0.00
44.56	0.48	0.48	0.00
44.58	0.51	0.51	0.00
44.60	0.55	0.55	0.00
44.62	0.58	0.58	0.00
44.64	0.62	0.62	0.00
44.66	0.66	0.66	0.00
44.68	0.69	0.69	0.00
44.70	0.73	0.73	0.00
44.72	0.77	0.77	0.00
44.74	0.81	0.81	0.00
44.76	0.85	0.85	0.00
44.78	0.88	0.88	0.00
44.80	0.92	0.92	0.00
44.82	0.96	0.96	0.00
44.84	1.00	1.00	0.00
44.86	1.06	1.04	0.02
44.88	1.17	1.07	0.10
44.90	1.31	1.09	0.22
44.92	1.48	1.12	0.36
44.94	1.67	1.15	0.53
44.96	1.88	1.17	0.71
44.98	2.11	1.19	0.92
45.00	2.35	1.22	1.13
45.02	2.61	1.24	1.37
45.04	2.88	1.26	1.61
45.06	3.16	1.28	1.87
45.08	3.45	1.31	2.15
45.10	3.76	1.33	2.43
45.12	4.08	1.35	2.73
45.14	4.36	1.37	2.99
45.16	4.46	1.39	3.07
45.18	4.56	1.41	3.15
45.20	4.65	1.43	3.22
45.22	4.75	1.45	3.30
45.24	4.84	1.47	3.37
45.26	4.93	1.49	3.44
45.28	5.01	1.51	3.50
45.30	5.09	1.53	3.56
45.32	5.16	1.54	3.62
45.34	**5.23**	**1.56**	**3.67**

Stage-Area-Storage for Pond 14P: DIV-03

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
44.10	**0**	44.61	0	45.12	0
44.11	0	44.62	0	45.13	0
44.12	0	44.63	0	45.14	0
44.13	0	44.64	0	45.15	0
44.14	0	44.65	0	45.16	0
44.15	0	44.66	0	45.17	0
44.16	0	44.67	0	45.18	0
44.17	0	44.68	0	45.19	0
44.18	0	44.69	0	45.20	0
44.19	0	44.70	0	45.21	0
44.20	0	44.71	0	45.22	0
44.21	0	44.72	0	45.23	0
44.22	0	44.73	0	45.24	0
44.23	0	44.74	0	45.25	0
44.24	0	44.75	0	45.26	0
44.25	0	44.76	0	45.27	0
44.26	0	44.77	0	45.28	0
44.27	0	44.78	0	45.29	0
44.28	0	44.79	0	45.30	0
44.29	0	44.80	0	45.31	0
44.30	0	44.81	0	45.32	0
44.31	0	44.82	0	45.33	0
44.32	0	44.83	0	45.34	0
44.33	0	44.84	0	45.35	0
44.34	0	44.85	0		
44.35	0	44.86	0		
44.36	0	44.87	0		
44.37	0	44.88	0		
44.38	0	44.89	0		
44.39	0	44.90	0		
44.40	0	44.91	0		
44.41	0	44.92	0		
44.42	0	44.93	0		
44.43	0	44.94	0		
44.44	0	44.95	0		
44.45	0	44.96	0		
44.46	0	44.97	0		
44.47	0	44.98	0		
44.48	0	44.99	0		
44.49	0	45.00	0		
44.50	0	45.01	0		
44.51	0	45.02	0		
44.52	0	45.03	0		
44.53	0	45.04	0		
44.54	0	45.05	0		
44.55	0	45.06	0		
44.56	0	45.07	0		
44.57	0	45.08	0		
44.58	0	45.09	0		
44.59	0	45.10	0		
44.60	0	45.11	0		

Summary for Pond 15P: Detention Basin 1

Inflow Area = 531,182 sf, 23.00% Impervious, Inflow Depth = 0.03" for WQv event
Inflow = 0.41 cfs @ 12.18 hrs, Volume= 1,521 cf
Outflow = 0.02 cfs @ 18.16 hrs, Volume= 1,462 cf, Atten= 96%, Lag= 358.7 min
Primary = 0.02 cfs @ 18.16 hrs, Volume= 1,462 cf
Routed to Link 6L : DP 2.1 - West Wetland
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 6L : DP 2.1 - West Wetland
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 44.08' @ 18.16 hrs Surf.Area= 12,105 sf Storage= 947 cf

Plug-Flow detention time= 1,441.4 min calculated for 1,461 cf (96% of inflow)
Center-of-Mass det. time= 1,423.1 min (2,320.7 - 897.5)

Volume	Invert	Avail.Storage	Storage Description
#1	44.00'	89,712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.00	11,920	0	0
45.00	14,261	13,091	13,091
46.00	16,659	15,460	28,551
47.00	19,113	17,886	46,437
48.00	21,623	20,368	66,805
49.00	24,191	22,907	89,712

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**24.0" Round Culvert** L= 15.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.00' / 43.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Device 1	44.00'	**5.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	44.55'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	47.20'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Tertiary	48.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Secondary	45.00'	**24.0" Round Culvert** L= 212.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 45.00' / 43.70' S= 0.0061 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#7	Device 6	47.15'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.02 cfs @ 18.16 hrs HW=44.08' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.02 cfs of 0.03 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.02 cfs @ 0.96 fps)
  ├─**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
  └─**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.00' TW=0.00' (Dynamic Tailwater)
└─**6=Culvert** (Controls 0.00 cfs)
  └─**7=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.00' TW=0.00' (Dynamic Tailwater)
└─**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 15P: Detention Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
0.00	0.00	0	44.00	0.00	0.00	**0.00**	**0.00**
5.00	0.00	1	44.00	0.00	0.00	0.00	0.00
10.00	**0.00**	31	44.00	0.00	0.00	0.00	0.00
15.00	**0.03**	**849**	**44.07**	**0.01**	**0.01**	0.00	0.00
20.00	0.01	**939**	**44.08**	**0.02**	**0.02**	0.00	0.00
25.00	0.00	845	44.07	0.01	0.01	0.00	0.00
30.00	0.00	652	44.05	0.01	0.01	0.00	0.00
35.00	0.00	530	44.04	0.01	0.01	0.00	0.00
40.00	0.00	445	44.04	0.00	0.00	0.00	0.00
45.00	0.00	384	44.03	0.00	0.00	0.00	0.00
50.00	0.00	337	44.03	0.00	0.00	0.00	0.00
55.00	0.00	301	44.03	0.00	0.00	0.00	0.00
60.00	0.00	271	44.02	0.00	0.00	0.00	0.00
65.00	0.00	247	44.02	0.00	0.00	0.00	0.00
70.00	0.00	226	44.02	0.00	0.00	0.00	0.00
75.00	0.00	209	44.02	0.00	0.00	0.00	0.00
80.00	0.00	194	44.02	0.00	0.00	0.00	0.00
85.00	0.00	181	44.02	0.00	0.00	0.00	0.00
90.00	0.00	170	44.01	0.00	0.00	0.00	0.00
95.00	0.00	160	44.01	0.00	0.00	0.00	0.00
100.00	0.00	151	44.01	0.00	0.00	0.00	0.00
105.00	0.00	143	44.01	0.00	0.00	0.00	0.00
110.00	0.00	136	44.01	0.00	0.00	0.00	0.00
115.00	0.00	130	44.01	0.00	0.00	0.00	0.00
120.00	0.00	124	44.01	0.00	0.00	0.00	0.00
125.00	0.00	118	44.01	0.00	0.00	0.00	0.00
130.00	0.00	113	44.01	0.00	0.00	0.00	0.00
135.00	0.00	109	44.01	0.00	0.00	0.00	0.00
140.00	0.00	105	44.01	0.00	0.00	0.00	0.00
145.00	0.00	101	44.01	0.00	0.00	0.00	0.00
150.00	0.00	97	44.01	0.00	0.00	0.00	0.00
155.00	0.00	94	44.01	0.00	0.00	0.00	0.00
160.00	0.00	91	44.01	0.00	0.00	0.00	0.00
165.00	0.00	88	44.01	0.00	0.00	0.00	0.00
170.00	0.00	85	44.01	0.00	0.00	0.00	0.00
175.00	0.00	82	44.01	0.00	0.00	0.00	0.00
180.00	0.00	80	44.01	0.00	0.00	0.00	0.00
185.00	0.00	78	44.01	0.00	0.00	0.00	0.00
190.00	0.00	76	44.01	0.00	0.00	0.00	0.00
195.00	0.00	73	44.01	0.00	0.00	0.00	0.00
200.00	0.00	72	44.01	0.00	0.00	0.00	0.00
205.00	0.00	70	44.01	0.00	0.00	0.00	0.00
210.00	0.00	68	44.01	0.00	0.00	0.00	0.00
215.00	0.00	66	44.01	0.00	0.00	0.00	0.00
220.00	0.00	65	44.01	0.00	0.00	0.00	0.00
225.00	0.00	63	44.01	0.00	0.00	0.00	0.00
230.00	0.00	62	44.01	0.00	0.00	0.00	0.00
235.00	0.00	60	44.01	0.00	0.00	0.00	0.00
240.00	0.00	59	44.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 15P: Detention Basin 1

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
44.00	0.00	0.00	0.00	0.00
44.10	0.03	0.03	0.00	0.00
44.20	0.10	0.10	0.00	0.00
44.30	0.20	0.20	0.00	0.00
44.40	0.29	0.29	0.00	0.00
44.50	0.35	0.35	0.00	0.00
44.60	0.47	0.47	0.00	0.00
44.70	0.74	0.74	0.00	0.00
44.80	1.10	1.10	0.00	0.00
44.90	1.51	1.51	0.00	0.00
45.00	1.98	1.98	0.00	0.00
45.10	2.47	2.47	0.00	0.00
45.20	3.00	3.00	0.00	0.00
45.30	3.55	3.55	0.00	0.00
45.40	4.12	4.12	0.00	0.00
45.50	4.71	4.71	0.00	0.00
45.60	5.31	5.31	0.00	0.00
45.70	5.92	5.92	0.00	0.00
45.80	6.54	6.54	0.00	0.00
45.90	7.16	7.16	0.00	0.00
46.00	7.79	7.79	0.00	0.00
46.10	8.41	8.41	0.00	0.00
46.20	9.04	9.04	0.00	0.00
46.30	9.66	9.66	0.00	0.00
46.40	10.27	10.27	0.00	0.00
46.50	10.88	10.88	0.00	0.00
46.60	11.48	11.48	0.00	0.00
46.70	12.07	12.07	0.00	0.00
46.80	12.65	12.65	0.00	0.00
46.90	13.21	13.21	0.00	0.00
47.00	13.76	13.76	0.00	0.00
47.10	14.30	14.30	0.00	0.00
47.20	15.04	14.82	0.22	0.00
47.30	17.07	15.94	1.13	0.00
47.40	19.98	17.55	2.43	0.00
47.50	22.90	18.88	4.02	0.00
47.60	25.09	19.26	5.83	0.00
47.70	27.48	19.62	7.86	0.00
47.80	30.04	19.98	10.06	0.00
47.90	32.76	20.34	12.42	0.00
48.00	35.62	20.68	14.94	0.00
48.10	38.33	21.03	17.31	0.00
48.20	40.11	21.36	17.71	1.03
48.30	42.72	21.69	18.11	2.91
48.40	45.86	22.02	18.50	5.34
48.50	49.43	22.34	18.88	8.21
48.60	53.36	22.66	19.26	11.45
48.70	57.61	22.97	19.62	15.02
48.80	62.15	23.28	19.98	18.88
48.90	66.94	23.58	20.34	23.02
49.00	**71.99**	**23.88**	**20.68**	**27.42**

Stage-Area-Storage for Pond 15P: Detention Basin 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
44.00	11,920	0	46.55	18,009	38,084
44.05	12,037	599	46.60	18,131	38,988
44.10	12,154	1,204	46.65	18,254	39,897
44.15	12,271	1,814	46.70	18,377	40,813
44.20	12,388	2,431	46.75	18,500	41,735
44.25	12,505	3,053	46.80	18,622	42,663
44.30	12,622	3,681	46.85	18,745	43,597
44.35	12,739	4,315	46.90	18,868	44,537
44.40	12,856	4,955	46.95	18,990	45,484
44.45	12,973	5,601	47.00	19,113	46,437
44.50	13,091	6,253	47.05	19,238	47,395
44.55	13,208	6,910	47.10	19,364	48,360
44.60	13,325	7,573	47.15	19,489	49,332
44.65	13,442	8,243	47.20	19,615	50,309
44.70	13,559	8,918	47.25	19,741	51,293
44.75	13,676	9,598	47.30	19,866	52,283
44.80	13,793	10,285	47.35	19,992	53,280
44.85	13,910	10,978	47.40	20,117	54,282
44.90	14,027	11,676	47.45	20,243	55,291
44.95	14,144	12,380	47.50	20,368	56,307
45.00	14,261	13,091	47.55	20,493	57,328
45.05	14,381	13,807	47.60	20,619	58,356
45.10	14,501	14,529	47.65	20,744	59,390
45.15	14,621	15,257	47.70	20,870	60,431
45.20	14,741	15,991	47.75	20,996	61,477
45.25	14,861	16,731	47.80	21,121	62,530
45.30	14,980	17,477	47.85	21,247	63,589
45.35	15,100	18,229	47.90	21,372	64,655
45.40	15,220	18,987	47.95	21,498	65,726
45.45	15,340	19,751	48.00	21,623	66,805
45.50	15,460	20,521	48.05	21,751	67,889
45.55	15,580	21,297	48.10	21,880	68,980
45.60	15,700	22,079	48.15	22,008	70,077
45.65	15,820	22,867	48.20	22,137	71,180
45.70	15,940	23,661	48.25	22,265	72,291
45.75	16,060	24,461	48.30	22,393	73,407
45.80	16,179	25,267	48.35	22,522	74,530
45.85	16,299	26,079	48.40	22,650	75,659
45.90	16,419	26,897	48.45	22,779	76,795
45.95	16,539	27,721	48.50	22,907	77,937
46.00	16,659	28,551	48.55	23,035	79,086
46.05	16,782	29,387	48.60	23,164	80,241
46.10	16,904	30,229	48.65	23,292	81,402
46.15	17,027	31,077	48.70	23,421	82,570
46.20	17,150	31,931	48.75	23,549	83,744
46.25	17,273	32,792	48.80	23,677	84,925
46.30	17,395	33,659	48.85	23,806	86,112
46.35	17,518	34,531	48.90	23,934	87,305
46.40	17,641	35,410	48.95	24,063	88,505
46.45	17,763	36,296	49.00	**24,191**	**89,712**
46.50	17,886	37,187			

Summary for Pond 17P: Track and Field- stone base

Inflow Area = 90,671 sf,100.00% Impervious, Inflow Depth = 0.99" for WQv event
Inflow = 2.23 cfs @ 12.09 hrs, Volume= 7,448 cf
Outflow = 1.15 cfs @ 12.23 hrs, Volume= 7,448 cf, Atten= 49%, Lag= 8.8 min
Discarded = 0.58 cfs @ 12.23 hrs, Volume= 6,543 cf
Primary = 0.57 cfs @ 12.23 hrs, Volume= 904 cf
Routed to Pond 35P : Track and Field-manifold

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 50.55' @ 12.23 hrs Surf.Area= 90,671 sf Storage= 1,383 cf

Plug-Flow detention time= 18.6 min calculated for 7,448 cf (100% of inflow)
Center-of-Mass det. time= 18.5 min (800.5 - 782.0)

Volume	Invert	Avail.Storage	Storage Description
#1	50.50'	37,271 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 113,339 cf Overall - 397 cf Embedded = 112,942 cf x 33.0% Voids
#2	50.52'	274 cf	**12.0" W x 1.0" H Ellipse 1" flat drains** x 44 Inside #1 L= 95.2' 397 cf Overall - 0.2" Wall Thickness = 274 cf
		37,545 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
50.50	90,671	0	0
51.58	90,671	97,925	97,925
51.59	90,671	907	98,831
51.75	90,671	14,507	113,339

Device	Routing	Invert	Outlet Devices
#1	Discarded	50.50'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 48.40' Phase-In= 0.02'
#2	Primary	50.52'	**12.0" W x 1.0" H Vert. Orifice/Grate X 44.00** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.58 cfs @ 12.23 hrs HW=50.55' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.58 cfs)

Primary OutFlow Max=0.56 cfs @ 12.23 hrs HW=50.55' TW=48.86' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Orifice Controls 0.56 cfs @ 0.51 fps)

Hydrograph for Pond 17P: Track and Field- stone base

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	50.50	0.00	0.00	0.00
5.00	0.01	7	50.50	0.01	0.01	0.00
10.00	**0.09**	**82**	**50.50**	**0.08**	**0.08**	**0.00**
15.00	**0.09**	**108**	**50.50**	**0.10**	**0.10**	**0.00**
20.00	0.03	35	50.50	0.03	0.03	0.00
25.00	0.00	1	50.50	0.00	0.00	0.00
30.00	0.00	0	50.50	0.00	0.00	0.00
35.00	0.00	0	50.50	0.00	0.00	0.00
40.00	0.00	0	50.50	0.00	0.00	0.00
45.00	0.00	0	50.50	0.00	0.00	0.00
50.00	0.00	0	50.50	0.00	0.00	0.00
55.00	0.00	0	50.50	0.00	0.00	0.00
60.00	0.00	0	50.50	0.00	0.00	0.00
65.00	0.00	0	50.50	0.00	0.00	0.00
70.00	0.00	0	50.50	0.00	0.00	0.00
75.00	0.00	0	50.50	0.00	0.00	0.00
80.00	0.00	0	50.50	0.00	0.00	0.00
85.00	0.00	0	50.50	0.00	0.00	0.00
90.00	0.00	0	50.50	0.00	0.00	0.00
95.00	0.00	0	50.50	0.00	0.00	0.00
100.00	0.00	0	50.50	0.00	0.00	0.00
105.00	0.00	0	50.50	0.00	0.00	0.00
110.00	0.00	0	50.50	0.00	0.00	0.00
115.00	0.00	0	50.50	0.00	0.00	0.00
120.00	0.00	0	50.50	0.00	0.00	0.00
125.00	0.00	0	50.50	0.00	0.00	0.00
130.00	0.00	0	50.50	0.00	0.00	0.00
135.00	0.00	0	50.50	0.00	0.00	0.00
140.00	0.00	0	50.50	0.00	0.00	0.00
145.00	0.00	0	50.50	0.00	0.00	0.00
150.00	0.00	0	50.50	0.00	0.00	0.00
155.00	0.00	0	50.50	0.00	0.00	0.00
160.00	0.00	0	50.50	0.00	0.00	0.00
165.00	0.00	0	50.50	0.00	0.00	0.00
170.00	0.00	0	50.50	0.00	0.00	0.00
175.00	0.00	0	50.50	0.00	0.00	0.00
180.00	0.00	0	50.50	0.00	0.00	0.00
185.00	0.00	0	50.50	0.00	0.00	0.00
190.00	0.00	0	50.50	0.00	0.00	0.00
195.00	0.00	0	50.50	0.00	0.00	0.00
200.00	0.00	0	50.50	0.00	0.00	0.00
205.00	0.00	0	50.50	0.00	0.00	0.00
210.00	0.00	0	50.50	0.00	0.00	0.00
215.00	0.00	0	50.50	0.00	0.00	0.00
220.00	0.00	0	50.50	0.00	0.00	0.00
225.00	0.00	0	50.50	0.00	0.00	0.00
230.00	0.00	0	50.50	0.00	0.00	0.00
235.00	0.00	0	50.50	0.00	0.00	0.00
240.00	0.00	0	50.50	0.00	0.00	0.00

Stage-Discharge for Pond 17P: Track and Field- stone base

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
50.50	0.00	0.00	0.00
50.52	0.57	0.57	0.00
50.54	0.98	0.58	0.40
50.56	1.71	0.58	1.13
50.58	2.66	0.59	2.08
50.60	3.79	0.59	3.20
50.62	4.76	0.60	4.16
50.64	5.48	0.60	4.88
50.66	6.10	0.61	5.49
50.68	6.66	0.62	6.04
50.70	7.16	0.62	6.54
50.72	7.63	0.63	7.00
50.74	8.07	0.63	7.44
50.76	8.48	0.64	7.85
50.78	8.88	0.64	8.24
50.80	9.26	0.65	8.61
50.82	9.62	0.65	8.96
50.84	9.96	0.66	9.31
50.86	10.30	0.66	9.64
50.88	10.62	0.67	9.95
50.90	10.94	0.67	10.26
50.92	11.24	0.68	10.56
50.94	11.54	0.69	10.85
50.96	11.83	0.69	11.14
50.98	12.11	0.70	11.41
51.00	12.39	0.70	11.68
51.02	12.66	0.71	11.95
51.04	12.92	0.71	12.21
51.06	13.18	0.72	12.46
51.08	13.43	0.72	12.71
51.10	13.68	0.73	12.95
51.12	13.92	0.73	13.19
51.14	14.16	0.74	13.42
51.16	14.40	0.74	13.65
51.18	14.63	0.75	13.88
51.20	14.86	0.76	14.10
51.22	15.08	0.76	14.32
51.24	15.30	0.77	14.54
51.26	15.52	0.77	14.75
51.28	15.74	0.78	14.96
51.30	15.95	0.78	15.17
51.32	16.16	0.79	15.37
51.34	16.37	0.79	15.57
51.36	16.57	0.80	15.77
51.38	16.77	0.80	15.97
51.40	16.97	0.81	16.16
51.42	17.17	0.81	16.36
51.44	17.36	0.82	16.54
51.46	17.56	0.83	16.73
51.48	17.75	0.83	16.92
51.50	17.94	0.84	17.10
51.52	18.12	0.84	17.28
51.54	18.31	0.85	17.46
51.56	18.49	0.85	17.64
51.58	18.67	0.86	17.81
51.60	18.85	0.86	17.99
51.62	19.03	0.87	18.16
51.64	19.21	0.87	18.33
51.66	19.38	0.88	18.50
51.68	19.55	0.89	18.67
51.70	19.73	0.89	18.84
51.72	19.90	0.90	19.00
51.74	**20.06**	**0.90**	**19.16**

Stage-Area-Storage for Pond 17P: Track and Field- stone base

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
50.50	**90,671**	0
50.52	90,671	587
50.54	90,671	1,212
50.56	90,671	1,862
50.58	90,671	2,514
50.60	90,671	3,147
50.62	90,671	3,734
50.64	90,671	4,332
50.66	90,671	4,931
50.68	90,671	5,529
50.70	90,671	6,128
50.72	90,671	6,726
50.74	90,671	7,324
50.76	90,671	7,923
50.78	90,671	8,521
50.80	90,671	9,120
50.82	90,671	9,718
50.84	90,671	10,317
50.86	90,671	10,915
50.88	90,671	11,513
50.90	90,671	12,112
50.92	90,671	12,710
50.94	90,671	13,309
50.96	90,671	13,907
50.98	90,671	14,506
51.00	90,671	15,104
51.02	90,671	15,702
51.04	90,671	16,301
51.06	90,671	16,899
51.08	90,671	17,498
51.10	90,671	18,096
51.12	90,671	18,695
51.14	90,671	19,293
51.16	90,671	19,891
51.18	90,671	20,490
51.20	90,671	21,088
51.22	90,671	21,687
51.24	90,671	22,285
51.26	90,671	22,884
51.28	90,671	23,482
51.30	90,671	24,080
51.32	90,671	24,679
51.34	90,671	25,277
51.36	90,671	25,876
51.38	90,671	26,474
51.40	90,671	27,073
51.42	90,671	27,671
51.44	90,671	28,269
51.46	90,671	28,868
51.48	90,671	29,466
51.50	90,671	30,065
51.52	90,671	30,663
51.54	90,671	31,262
51.56	90,671	31,860
51.58	90,671	32,458
51.60	90,671	33,057
51.62	90,671	33,655
51.64	90,671	34,254
51.66	90,671	34,852
51.68	90,671	35,451
51.70	90,671	36,049
51.72	90,671	36,647
51.74	90,671	**37,246**

Summary for Pond 18P: Sand Filter 2

Inflow Area = 114,710 sf, 48.44% Impervious, Inflow Depth = 0.40" for WQv event
Inflow = 0.88 cfs @ 12.11 hrs, Volume= 3,859 cf
Outflow = 0.01 cfs @ 9.00 hrs, Volume= 3,859 cf, Atten= 98%, Lag= 0.0 min
Discarded = 0.01 cfs @ 9.00 hrs, Volume= 3,859 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 55.02' @ 24.00 hrs Surf.Area= 4,983 sf Storage= 2,986 cf

Plug-Flow detention time= 1,942.2 min calculated for 3,859 cf (100% of inflow)
Center-of-Mass det. time= 1,942.2 min (2,745.9 - 803.7)

Volume	Invert	Avail.Storage	Storage Description
#1	51.84'	15,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.84	2,171	0.0	0	0
51.85	2,171	33.0	7	7
54.84	2,171	33.0	2,142	2,149
54.85	4,561	100.0	34	2,183
55.00	4,959	100.0	714	2,897
56.00	6,294	100.0	5,627	8,523
57.00	7,438	100.0	6,866	15,389

Device	Routing	Invert	Outlet Devices
#1	Discarded	51.84'	**0.270 in/hr Exfiltration over Surface area from 51.83' - 54.84'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	55.25'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	56.00'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 9.00 hrs HW=51.89' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=51.84' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=51.84' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 18P: Sand Filter 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	51.84	0.00	0.00	**0.00**	**0.00**
5.00	0.00	3	51.84	**0.00**	**0.00**	0.00	0.00
10.00	**0.04**	106	51.99	**0.01**	**0.01**	0.00	0.00
15.00	**0.06**	2,609	54.94	0.01	0.01	0.00	0.00
20.00	0.02	**2,938**	**55.01**	0.01	0.01	0.00	0.00
25.00	0.00	**2,944**	**55.01**	0.01	0.01	0.00	0.00
30.00	0.00	2,700	54.96	0.01	0.01	0.00	0.00
35.00	0.00	2,456	54.91	0.01	0.01	0.00	0.00
40.00	0.00	2,212	54.86	0.01	0.01	0.00	0.00
45.00	0.00	1,967	54.59	0.01	0.01	0.00	0.00
50.00	0.00	1,723	54.25	0.01	0.01	0.00	0.00
55.00	0.00	1,479	53.90	0.01	0.01	0.00	0.00
60.00	0.00	1,235	53.56	0.01	0.01	0.00	0.00
65.00	0.00	990	53.22	0.01	0.01	0.00	0.00
70.00	0.00	746	52.88	0.01	0.01	0.00	0.00
75.00	0.00	502	52.54	0.01	0.01	0.00	0.00
80.00	0.00	258	52.20	0.01	0.01	0.00	0.00
85.00	0.00	14	51.86	0.01	0.01	0.00	0.00
90.00	0.00	0	51.84	0.00	0.00	0.00	0.00
95.00	0.00	0	51.84	0.00	0.00	0.00	0.00
100.00	0.00	0	51.84	0.00	0.00	0.00	0.00
105.00	0.00	0	51.84	0.00	0.00	0.00	0.00
110.00	0.00	0	51.84	0.00	0.00	0.00	0.00
115.00	0.00	0	51.84	0.00	0.00	0.00	0.00
120.00	0.00	0	51.84	0.00	0.00	0.00	0.00
125.00	0.00	0	51.84	0.00	0.00	0.00	0.00
130.00	0.00	0	51.84	0.00	0.00	0.00	0.00
135.00	0.00	0	51.84	0.00	0.00	0.00	0.00
140.00	0.00	0	51.84	0.00	0.00	0.00	0.00
145.00	0.00	0	51.84	0.00	0.00	0.00	0.00
150.00	0.00	0	51.84	0.00	0.00	0.00	0.00
155.00	0.00	0	51.84	0.00	0.00	0.00	0.00
160.00	0.00	0	51.84	0.00	0.00	0.00	0.00
165.00	0.00	0	51.84	0.00	0.00	0.00	0.00
170.00	0.00	0	51.84	0.00	0.00	0.00	0.00
175.00	0.00	0	51.84	0.00	0.00	0.00	0.00
180.00	0.00	0	51.84	0.00	0.00	0.00	0.00
185.00	0.00	0	51.84	0.00	0.00	0.00	0.00
190.00	0.00	0	51.84	0.00	0.00	0.00	0.00
195.00	0.00	0	51.84	0.00	0.00	0.00	0.00
200.00	0.00	0	51.84	0.00	0.00	0.00	0.00
205.00	0.00	0	51.84	0.00	0.00	0.00	0.00
210.00	0.00	0	51.84	0.00	0.00	0.00	0.00
215.00	0.00	0	51.84	0.00	0.00	0.00	0.00
220.00	0.00	0	51.84	0.00	0.00	0.00	0.00
225.00	0.00	0	51.84	0.00	0.00	0.00	0.00
230.00	0.00	0	51.84	0.00	0.00	0.00	0.00
235.00	0.00	0	51.84	0.00	0.00	0.00	0.00
240.00	0.00	0	51.84	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 18P: Sand Filter 2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
51.84	0.00	**0.00**	0.00	0.00
52.04	0.01	**0.01**	0.00	0.00
52.24	0.01	0.01	0.00	0.00
52.44	0.01	0.01	0.00	0.00
52.64	0.01	0.01	0.00	0.00
52.84	0.01	0.01	0.00	0.00
53.04	0.01	0.01	0.00	0.00
53.24	0.01	0.01	0.00	0.00
53.44	0.01	0.01	0.00	0.00
53.64	0.01	0.01	0.00	0.00
53.84	0.01	0.01	0.00	0.00
54.04	0.01	0.01	0.00	0.00
54.24	0.01	0.01	0.00	0.00
54.44	0.01	0.01	0.00	0.00
54.64	0.01	0.01	0.00	0.00
54.84	0.01	0.01	0.00	0.00
55.04	0.01	0.01	0.00	0.00
55.24	0.01	0.01	0.00	0.00
55.44	4.21	0.01	4.20	0.00
55.64	6.03	0.01	6.01	0.00
55.84	7.41	0.01	7.40	0.00
56.04	8.83	0.01	8.56	0.26
56.24	13.42	0.01	9.58	3.83
56.44	19.98	0.01	10.51	9.46
56.64	27.90	0.01	11.35	16.53
56.84	**36.91**	0.01	**12.14**	**24.75**

Stage-Area-Storage for Pond 18P: Sand Filter 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
51.84	2,171	0
51.94	2,171	72
52.04	2,171	143
52.14	2,171	215
52.24	2,171	287
52.34	2,171	358
52.44	2,171	430
52.54	2,171	502
52.64	2,171	573
52.74	2,171	645
52.84	2,171	716
52.94	2,171	788
53.04	2,171	860
53.14	2,171	931
53.24	2,171	1,003
53.34	2,171	1,075
53.44	2,171	1,146
53.54	2,171	1,218
53.64	2,171	1,290
53.74	2,171	1,361
53.84	2,171	1,433
53.94	2,171	1,505
54.04	2,171	1,576
54.14	2,171	1,648
54.24	2,171	1,719
54.34	2,171	1,791
54.44	2,171	1,863
54.54	2,171	1,934
54.64	2,171	2,006
54.74	2,171	2,078
54.84	2,171	2,149
54.94	4,800	2,604
55.04	5,012	3,096
55.14	5,146	3,604
55.24	5,279	4,126
55.34	5,413	4,660
55.44	5,546	5,208
55.54	5,680	5,769
55.64	5,813	6,344
55.74	5,947	6,932
55.84	6,080	7,533
55.94	6,214	8,148
56.04	6,340	8,776
56.14	6,454	9,416
56.24	6,569	10,067
56.34	6,683	10,730
56.44	6,797	11,404
56.54	6,912	12,089
56.64	7,026	12,786
56.74	7,141	13,494
56.84	7,255	14,214
56.94	**7,369**	**14,945**

Summary for Pond 19P: Sand Filter 3

Inflow Area = 22,284 sf, 61.76% Impervious, Inflow Depth = 0.63" for WQv event
Inflow = 0.34 cfs @ 12.09 hrs, Volume= 1,174 cf
Outflow = 0.01 cfs @ 11.15 hrs, Volume= 1,174 cf, Atten= 96%, Lag= 0.0 min
Discarded = 0.01 cfs @ 11.15 hrs, Volume= 1,174 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Pond 3P : DIV-02
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 4L : DP 1.3 - Culvert 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 57.97' @ 15.72 hrs Surf.Area= 1,999 sf Storage= 644 cf

Plug-Flow detention time= 477.6 min calculated for 1,174 cf (100% of inflow)
Center-of-Mass det. time= 477.6 min (1,267.3 - 789.7)

Volume	Invert	Avail.Storage	Storage Description
#1	56.99'	10,312 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.99	1,999	0.0	0	0
57.00	1,999	33.0	7	7
59.99	1,999	33.0	1,972	1,979
60.00	2,449	100.0	22	2,001
61.00	4,147	100.0	3,298	5,299
62.00	5,878	100.0	5,013	10,312

Device	Routing	Invert	Outlet Devices
#1	Discarded	56.99'	**0.270 in/hr Exfiltration over Surface area from 56.98' - 59.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	60.65'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	61.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 11.15 hrs HW=57.04' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.99' TW=56.15' (Dynamic Tailwater)
↑**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.99' TW=0.00' (Dynamic Tailwater)
↑**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 19P: Sand Filter 3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	56.99	0.00	0.00	**0.00**	**0.00**
5.00	0.00	1	56.99	0.00	0.00	0.00	0.00
10.00	**0.01**	12	57.01	**0.01**	**0.01**	0.00	0.00
15.00	**0.02**	**640**	**57.96**	**0.01**	**0.01**	0.00	0.00
20.00	0.01	**572**	**57.86**	0.01	0.01	0.00	0.00
25.00	0.00	415	57.62	0.01	0.01	0.00	0.00
30.00	0.00	190	57.28	0.01	0.01	0.00	0.00
35.00	0.00	0	56.99	0.00	0.00	0.00	0.00
40.00	0.00	0	56.99	0.00	0.00	0.00	0.00
45.00	0.00	0	56.99	0.00	0.00	0.00	0.00
50.00	0.00	0	56.99	0.00	0.00	0.00	0.00
55.00	0.00	0	56.99	0.00	0.00	0.00	0.00
60.00	0.00	0	56.99	0.00	0.00	0.00	0.00
65.00	0.00	0	56.99	0.00	0.00	0.00	0.00
70.00	0.00	0	56.99	0.00	0.00	0.00	0.00
75.00	0.00	0	56.99	0.00	0.00	0.00	0.00
80.00	0.00	0	56.99	0.00	0.00	0.00	0.00
85.00	0.00	0	56.99	0.00	0.00	0.00	0.00
90.00	0.00	0	56.99	0.00	0.00	0.00	0.00
95.00	0.00	0	56.99	0.00	0.00	0.00	0.00
100.00	0.00	0	56.99	0.00	0.00	0.00	0.00
105.00	0.00	0	56.99	0.00	0.00	0.00	0.00
110.00	0.00	0	56.99	0.00	0.00	0.00	0.00
115.00	0.00	0	56.99	0.00	0.00	0.00	0.00
120.00	0.00	0	56.99	0.00	0.00	0.00	0.00
125.00	0.00	0	56.99	0.00	0.00	0.00	0.00
130.00	0.00	0	56.99	0.00	0.00	0.00	0.00
135.00	0.00	0	56.99	0.00	0.00	0.00	0.00
140.00	0.00	0	56.99	0.00	0.00	0.00	0.00
145.00	0.00	0	56.99	0.00	0.00	0.00	0.00
150.00	0.00	0	56.99	0.00	0.00	0.00	0.00
155.00	0.00	0	56.99	0.00	0.00	0.00	0.00
160.00	0.00	0	56.99	0.00	0.00	0.00	0.00
165.00	0.00	0	56.99	0.00	0.00	0.00	0.00
170.00	0.00	0	56.99	0.00	0.00	0.00	0.00
175.00	0.00	0	56.99	0.00	0.00	0.00	0.00
180.00	0.00	0	56.99	0.00	0.00	0.00	0.00
185.00	0.00	0	56.99	0.00	0.00	0.00	0.00
190.00	0.00	0	56.99	0.00	0.00	0.00	0.00
195.00	0.00	0	56.99	0.00	0.00	0.00	0.00
200.00	0.00	0	56.99	0.00	0.00	0.00	0.00
205.00	0.00	0	56.99	0.00	0.00	0.00	0.00
210.00	0.00	0	56.99	0.00	0.00	0.00	0.00
215.00	0.00	0	56.99	0.00	0.00	0.00	0.00
220.00	0.00	0	56.99	0.00	0.00	0.00	0.00
225.00	0.00	0	56.99	0.00	0.00	0.00	0.00
230.00	0.00	0	56.99	0.00	0.00	0.00	0.00
235.00	0.00	0	56.99	0.00	0.00	0.00	0.00
240.00	0.00	0	56.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 19P: Sand Filter 3

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
56.99	0.00	**0.00**	0.00	0.00
57.09	0.01	**0.01**	0.00	0.00
57.19	0.01	0.01	0.00	0.00
57.29	0.01	0.01	0.00	0.00
57.39	0.01	0.01	0.00	0.00
57.49	0.01	0.01	0.00	0.00
57.59	0.01	0.01	0.00	0.00
57.69	0.01	0.01	0.00	0.00
57.79	0.01	0.01	0.00	0.00
57.89	0.01	0.01	0.00	0.00
57.99	0.01	0.01	0.00	0.00
58.09	0.01	0.01	0.00	0.00
58.19	0.01	0.01	0.00	0.00
58.29	0.01	0.01	0.00	0.00
58.39	0.01	0.01	0.00	0.00
58.49	0.01	0.01	0.00	0.00
58.59	0.01	0.01	0.00	0.00
58.69	0.01	0.01	0.00	0.00
58.79	0.01	0.01	0.00	0.00
58.89	0.01	0.01	0.00	0.00
58.99	0.01	0.01	0.00	0.00
59.09	0.01	0.01	0.00	0.00
59.19	0.01	0.01	0.00	0.00
59.29	0.01	0.01	0.00	0.00
59.39	0.01	0.01	0.00	0.00
59.49	0.01	0.01	0.00	0.00
59.59	0.01	0.01	0.00	0.00
59.69	0.01	0.01	0.00	0.00
59.79	0.01	0.01	0.00	0.00
59.89	0.01	0.01	0.00	0.00
59.99	0.01	0.01	0.00	0.00
60.09	0.01	0.01	0.00	0.00
60.19	0.01	0.01	0.00	0.00
60.29	0.01	0.01	0.00	0.00
60.39	0.01	0.01	0.00	0.00
60.49	0.01	0.01	0.00	0.00
60.59	0.01	0.01	0.00	0.00
60.69	0.64	0.01	0.63	0.00
60.79	1.81	0.01	1.80	0.00
60.89	2.37	0.01	2.36	0.00
60.99	2.82	0.01	2.81	0.00
61.09	3.21	0.01	3.19	0.00
61.19	4.43	0.01	3.54	0.88
61.29	6.56	0.01	3.85	2.70
61.39	9.23	0.01	4.14	5.08
61.49	12.33	0.01	4.41	7.90
61.59	15.79	0.01	4.67	11.11
61.69	19.57	0.01	4.91	14.64
61.79	23.64	0.01	5.14	18.48
61.89	27.97	0.01	5.36	22.60
61.99	**32.55**	0.01	**5.57**	**26.97**

Stage-Area-Storage for Pond 19P: Sand Filter 3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.99	1,999	0	59.54	1,999	1,682
57.04	1,999	33	59.59	1,999	1,715
57.09	1,999	66	59.64	1,999	1,748
57.14	1,999	99	59.69	1,999	1,781
57.19	1,999	132	59.74	1,999	1,814
57.24	1,999	165	59.79	1,999	1,847
57.29	1,999	198	59.84	1,999	1,880
57.34	1,999	231	59.89	1,999	1,913
57.39	1,999	264	59.94	1,999	1,946
57.44	1,999	297	59.99	1,999	1,979
57.49	1,999	330	60.04	2,517	2,101
57.54	1,999	363	60.09	2,602	2,229
57.59	1,999	396	60.14	2,687	2,361
57.64	1,999	429	60.19	2,772	2,497
57.69	1,999	462	60.24	2,857	2,638
57.74	1,999	495	60.29	2,941	2,783
57.79	1,999	528	60.34	3,026	2,932
57.84	1,999	561	60.39	3,111	3,085
57.89	1,999	594	60.44	3,196	3,243
57.94	1,999	627	60.49	3,281	3,405
57.99	1,999	660	60.54	3,366	3,571
58.04	1,999	693	60.59	3,451	3,742
58.09	1,999	726	60.64	3,536	3,916
58.14	1,999	759	60.69	3,621	4,095
58.19	1,999	792	60.74	3,706	4,278
58.24	1,999	825	60.79	3,790	4,466
58.29	1,999	858	60.84	3,875	4,657
58.34	1,999	891	60.89	3,960	4,853
58.39	1,999	924	60.94	4,045	5,053
58.44	1,999	957	60.99	4,130	5,258
58.49	1,999	990	61.04	4,216	5,467
58.54	1,999	1,022	61.09	4,303	5,679
58.59	1,999	1,055	61.14	4,389	5,897
58.64	1,999	1,088	61.19	4,476	6,118
58.69	1,999	1,121	61.24	4,562	6,344
58.74	1,999	1,154	61.29	4,649	6,575
58.79	1,999	1,187	61.34	4,736	6,809
58.84	1,999	1,220	61.39	4,822	7,048
58.89	1,999	1,253	61.44	4,909	7,291
58.94	1,999	1,286	61.49	4,995	7,539
58.99	1,999	1,319	61.54	5,082	7,791
59.04	1,999	1,352	61.59	5,168	8,047
59.09	1,999	1,385	61.64	5,255	8,308
59.14	1,999	1,418	61.69	5,341	8,573
59.19	1,999	1,451	61.74	5,428	8,842
59.24	1,999	1,484	61.79	5,514	9,116
59.29	1,999	1,517	61.84	5,601	9,393
59.34	1,999	1,550	61.89	5,688	9,676
59.39	1,999	1,583	61.94	5,774	9,962
59.44	1,999	1,616	61.99	**5,861**	**10,253**
59.49	1,999	1,649			

Summary for Pond 20P: Sand Filter 4

Inflow Area = 31,007 sf, 23.36% Impervious, Inflow Depth = 0.32" for WQv event
Inflow = 0.16 cfs @ 12.20 hrs, Volume= 827 cf
Outflow = 0.16 cfs @ 12.21 hrs, Volume= 827 cf, Atten= 0%, Lag= 0.6 min
Primary = 0.16 cfs @ 12.21 hrs, Volume= 827 cf
Routed to Link 3L : DP 1.2 - Culvert 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 59.00' @ 12.21 hrs Surf.Area= 1,767 sf Storage= 6 cf

Plug-Flow detention time= 0.6 min calculated for 827 cf (100% of inflow)
Center-of-Mass det. time= 0.6 min (833.5 - 832.9)

Volume	Invert	Avail.Storage	Storage Description
#1	58.99'	3,660 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.99	1,767	0.0	0	0
59.00	1,767	33.0	6	6
60.99	1,767	33.0	1,160	1,166
61.00	1,767	100.0	18	1,184
62.00	3,186	100.0	2,477	3,660

Device	Routing	Invert	Outlet Devices
#1	Primary	61.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Device 3	58.99'	**8.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#3	Primary	58.25'	**6.0" Round subdrain** L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.25' / 56.90' S= 0.0270 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.16 cfs @ 12.21 hrs HW=59.00' TW=0.00' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Controls 0.00 cfs)
└─**3=subdrain** (Passes 0.16 cfs of 0.53 cfs potential flow)
└─**2=Exfiltration** (Exfiltration Controls 0.16 cfs)

Hydrograph for Pond 20P: Sand Filter 4

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	58.99	0.00
5.00	0.00	0	58.99	0.00
10.00	**0.01**	**0**	**58.99**	**0.01**
15.00	**0.01**	**1**	**58.99**	**0.01**
20.00	0.01	0	58.99	0.01
25.00	0.00	0	58.99	0.00
30.00	0.00	0	58.99	0.00
35.00	0.00	0	58.99	0.00
40.00	0.00	0	58.99	0.00
45.00	0.00	0	58.99	0.00
50.00	0.00	0	58.99	0.00
55.00	0.00	0	58.99	0.00
60.00	0.00	0	58.99	0.00
65.00	0.00	0	58.99	0.00
70.00	0.00	0	58.99	0.00
75.00	0.00	0	58.99	0.00
80.00	0.00	0	58.99	0.00
85.00	0.00	0	58.99	0.00
90.00	0.00	0	58.99	0.00
95.00	0.00	0	58.99	0.00
100.00	0.00	0	58.99	0.00
105.00	0.00	0	58.99	0.00
110.00	0.00	0	58.99	0.00
115.00	0.00	0	58.99	0.00
120.00	0.00	0	58.99	0.00
125.00	0.00	0	58.99	0.00
130.00	0.00	0	58.99	0.00
135.00	0.00	0	58.99	0.00
140.00	0.00	0	58.99	0.00
145.00	0.00	0	58.99	0.00
150.00	0.00	0	58.99	0.00
155.00	0.00	0	58.99	0.00
160.00	0.00	0	58.99	0.00
165.00	0.00	0	58.99	0.00
170.00	0.00	0	58.99	0.00
175.00	0.00	0	58.99	0.00
180.00	0.00	0	58.99	0.00
185.00	0.00	0	58.99	0.00
190.00	0.00	0	58.99	0.00
195.00	0.00	0	58.99	0.00
200.00	0.00	0	58.99	0.00
205.00	0.00	0	58.99	0.00
210.00	0.00	0	58.99	0.00
215.00	0.00	0	58.99	0.00
220.00	0.00	0	58.99	0.00
225.00	0.00	0	58.99	0.00
230.00	0.00	0	58.99	0.00
235.00	0.00	0	58.99	0.00
240.00	0.00	0	58.99	0.00

Stage-Discharge for Pond 20P: Sand Filter 4

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
58.99	0.00	60.01	0.34	61.03	0.35
59.01	0.34	60.03	0.34	61.05	0.35
59.03	0.34	60.05	0.34	61.07	0.36
59.05	0.34	60.07	0.34	61.09	0.36
59.07	0.34	60.09	0.34	61.11	0.37
59.09	0.34	60.11	0.34	61.13	0.37
59.11	0.34	60.13	0.34	61.15	0.38
59.13	0.34	60.15	0.34	61.17	0.38
59.15	0.34	60.17	0.34	61.19	0.39
59.17	0.34	60.19	0.34	61.21	0.40
59.19	0.34	60.21	0.34	61.23	0.40
59.21	0.34	60.23	0.34	61.25	0.41
59.23	0.34	60.25	0.34	61.27	0.41
59.25	0.34	60.27	0.34	61.29	0.42
59.27	0.34	60.29	0.34	61.31	0.42
59.29	0.34	60.31	0.34	61.33	0.43
59.31	0.34	60.33	0.34	61.35	0.43
59.33	0.34	60.35	0.34	61.37	0.44
59.35	0.34	60.37	0.34	61.39	0.44
59.37	0.34	60.39	0.34	61.41	0.45
59.39	0.34	60.41	0.34	61.43	0.46
59.41	0.34	60.43	0.34	61.45	0.46
59.43	0.34	60.45	0.34	61.47	0.47
59.45	0.34	60.47	0.34	61.49	0.47
59.47	0.34	60.49	0.34	61.51	0.56
59.49	0.34	60.51	0.34	61.53	0.89
59.51	0.34	60.53	0.34	61.55	1.37
59.53	0.34	60.55	0.34	61.57	1.77
59.55	0.34	60.57	0.34	61.59	1.94
59.57	0.34	60.59	0.34	61.61	2.10
59.59	0.34	60.61	0.34	61.63	2.25
59.61	0.34	60.63	0.34	61.65	2.38
59.63	0.34	60.65	0.34	61.67	2.51
59.65	0.34	60.67	0.34	61.69	2.62
59.67	0.34	60.69	0.34	61.71	2.74
59.69	0.34	60.71	0.34	61.73	2.85
59.71	0.34	60.73	0.34	61.75	2.95
59.73	0.34	60.75	0.34	61.77	3.05
59.75	0.34	60.77	0.34	61.79	3.15
59.77	0.34	60.79	0.34	61.81	3.24
59.79	0.34	60.81	0.34	61.83	3.33
59.81	0.34	60.83	0.34	61.85	3.42
59.83	0.34	60.85	0.34	61.87	3.50
59.85	0.34	60.87	0.34	61.89	3.59
59.87	0.34	60.89	0.34	61.91	3.67
59.89	0.34	60.91	0.34	61.93	3.75
59.91	0.34	60.93	0.34	61.95	3.83
59.93	0.34	60.95	0.34	61.97	3.90
59.95	0.34	60.97	0.34	61.99	**3.98**
59.97	0.34	60.99	0.34		
59.99	0.34	61.01	0.34		

Stage-Area-Storage for Pond 20P: Sand Filter 4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
58.99	1,767	0
59.04	1,767	29
59.09	1,767	58
59.14	1,767	87
59.19	1,767	117
59.24	1,767	146
59.29	1,767	175
59.34	1,767	204
59.39	1,767	233
59.44	1,767	262
59.49	1,767	292
59.54	1,767	321
59.59	1,767	350
59.64	1,767	379
59.69	1,767	408
59.74	1,767	437
59.79	1,767	466
59.84	1,767	496
59.89	1,767	525
59.94	1,767	554
59.99	1,767	583
60.04	1,767	612
60.09	1,767	641
60.14	1,767	671
60.19	1,767	700
60.24	1,767	729
60.29	1,767	758
60.34	1,767	787
60.39	1,767	816
60.44	1,767	846
60.49	1,767	875
60.54	1,767	904
60.59	1,767	933
60.64	1,767	962
60.69	1,767	991
60.74	1,767	1,020
60.79	1,767	1,050
60.84	1,767	1,079
60.89	1,767	1,108
60.94	1,767	1,137
60.99	1,767	1,166
61.04	1,824	1,256
61.09	1,895	1,349
61.14	1,966	1,445
61.19	2,037	1,545
61.24	2,108	1,649
61.29	2,179	1,756
61.34	2,249	1,867
61.39	2,320	1,981
61.44	2,391	2,099
61.49	2,462	2,220
61.54	2,533	2,345
61.59	2,604	2,473
61.64	2,675	2,605
61.69	2,746	2,741
61.74	2,817	2,880
61.79	2,888	3,023
61.84	2,959	3,169
61.89	3,030	3,319
61.94	3,101	3,472
61.99	**3,172**	**3,629**

Summary for Pond 23P: UGIS-1

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 0.22" for WQv event
Inflow = 1.08 cfs @ 12.24 hrs, Volume= 2,788 cf
Outflow = 0.05 cfs @ 13.55 hrs, Volume= 2,788 cf, Atten= 95%, Lag= 78.3 min
Discarded = 0.05 cfs @ 13.55 hrs, Volume= 2,788 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 46.99' @ 13.55 hrs Surf.Area= 6,719 sf Storage= 2,250 cf

Plug-Flow detention time= 403.6 min calculated for 2,787 cf (100% of inflow)
Center-of-Mass det. time= 403.6 min (1,154.7 - 751.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	46.30'	3,295 cf	**66.58'W x 80.00'L x 3.21'H Field A** 17,090 cf Overall - 7,104 cf Embedded = 9,986 cf x 33.0% Voids
#2A	46.80'	7,104 cf	**Cultec R-280HD** x 165 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 15 rows
#3B	46.30'	893 cf	**44.92'W x 31.00'L x 3.21'H Field B** 4,467 cf Overall - 1,761 cf Embedded = 2,707 cf x 33.0% Voids
#4B	46.80'	1,761 cf	**Cultec R-280HD** x 40 Inside #3 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 10 rows
		13,053 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	46.80'	**24.0" Round Culvert** L= 60.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 43.50' S= 0.0550 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Primary	48.40'	**2.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Device 1	49.00'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Discarded	46.30'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 43.30' Phase-In= 0.02'

Discarded OutFlow Max=0.05 cfs @ 13.55 hrs HW=46.99' (Free Discharge)
└**4=Exfiltration** (Controls 0.05 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=46.30' TW=0.00' (Dynamic Tailwater)
├**1=Culvert** (Controls 0.00 cfs)
│ └**3=Sharp-Crested Rectangular Weir**(Controls 0.00 cfs)
└**2=Sharp-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 23P: UGIS-1 - Chamber Wizard Field A

Chamber Model = Cultec R-280HD (Cultec Recharger®280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 15 rows

47.0" Wide + 5.0" Spacing = 52.0" C-C Row Spacing

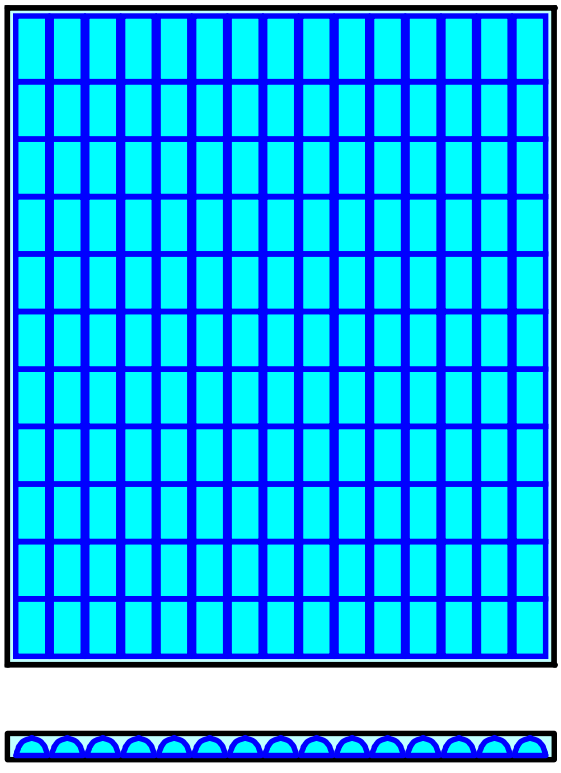
11 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 78.00' Row Length +12.0" End Stone x 2 = 80.00' Base Length
15 Rows x 47.0" Wide + 5.0" Spacing x 14 + 12.0" Side Stone x 2 = 66.58' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

165 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 15 Rows = 7,103.9 cf Chamber Storage

17,089.7 cf Field - 7,103.9 cf Chambers = 9,985.8 cf Stone x 33.0% Voids = 3,295.3 cf Stone Storage

Chamber Storage + Stone Storage = 10,399.3 cf = 0.239 af
Overall Storage Efficiency = 60.9%
Overall System Size = 80.00' x 66.58' x 3.21'

165 Chambers
633.0 cy Field
369.8 cy Stone



Pond 23P: UGIS-1 - Chamber Wizard Field B

Chamber Model = Cultec R-280HD (Cultec Recharger®280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 10 rows

47.0" Wide + 5.0" Spacing = 52.0" C-C Row Spacing

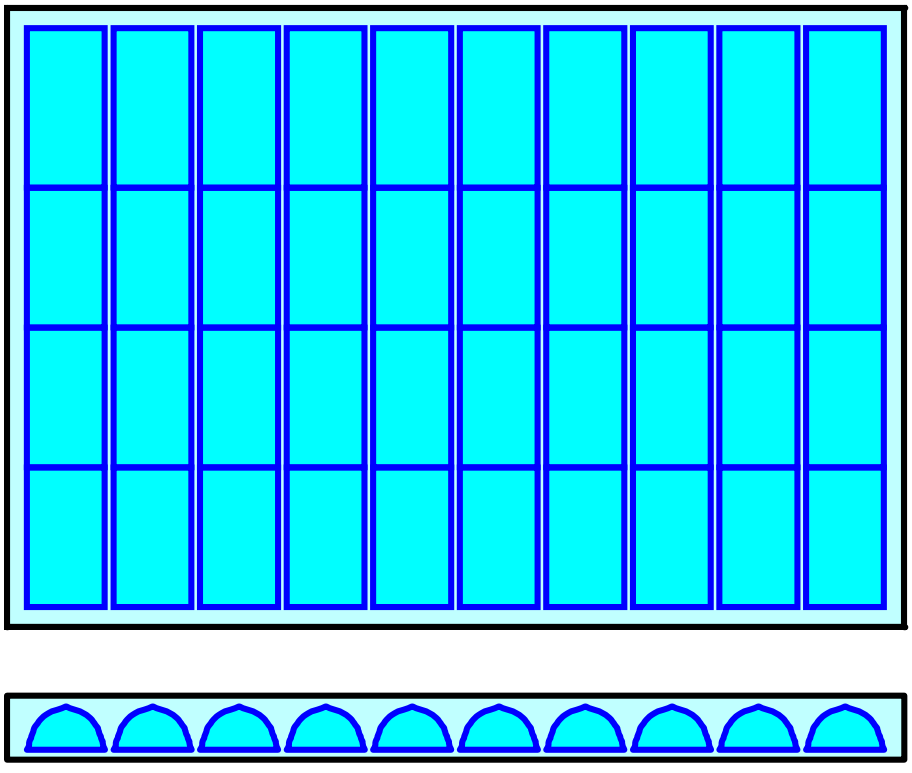
4 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 29.00' Row Length +12.0" End Stone x 2 = 31.00' Base Length
10 Rows x 47.0" Wide + 5.0" Spacing x 9 + 12.0" Side Stone x 2 = 44.92' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

40 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 10 Rows = 1,760.8 cf Chamber Storage

4,467.3 cf Field - 1,760.8 cf Chambers = 2,706.5 cf Stone x 33.0% Voids = 893.2 cf Stone Storage

Chamber Storage + Stone Storage = 2,654.0 cf = 0.061 af
Overall Storage Efficiency = 59.4%
Overall System Size = 31.00' x 44.92' x 3.21'

40 Chambers
165.5 cy Field
100.2 cy Stone



Hydrograph for Pond 23P: UGIS-1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	46.30	0.00	0.00	**0.00**
5.00	0.00	0	46.30	0.00	0.00	0.00
10.00	**0.00**	**2**	**46.30**	**0.00**	**0.00**	0.00
15.00	**0.01**	**2,107**	**46.97**	**0.05**	**0.05**	0.00
20.00	0.00	1,234	46.82	0.05	0.05	0.00
25.00	0.00	393	46.48	0.04	0.04	0.00
30.00	0.00	0	46.30	0.00	0.00	0.00
35.00	0.00	0	46.30	0.00	0.00	0.00
40.00	0.00	0	46.30	0.00	0.00	0.00
45.00	0.00	0	46.30	0.00	0.00	0.00
50.00	0.00	0	46.30	0.00	0.00	0.00
55.00	0.00	0	46.30	0.00	0.00	0.00
60.00	0.00	0	46.30	0.00	0.00	0.00
65.00	0.00	0	46.30	0.00	0.00	0.00
70.00	0.00	0	46.30	0.00	0.00	0.00
75.00	0.00	0	46.30	0.00	0.00	0.00
80.00	0.00	0	46.30	0.00	0.00	0.00
85.00	0.00	0	46.30	0.00	0.00	0.00
90.00	0.00	0	46.30	0.00	0.00	0.00
95.00	0.00	0	46.30	0.00	0.00	0.00
100.00	0.00	0	46.30	0.00	0.00	0.00
105.00	0.00	0	46.30	0.00	0.00	0.00
110.00	0.00	0	46.30	0.00	0.00	0.00
115.00	0.00	0	46.30	0.00	0.00	0.00
120.00	0.00	0	46.30	0.00	0.00	0.00
125.00	0.00	0	46.30	0.00	0.00	0.00
130.00	0.00	0	46.30	0.00	0.00	0.00
135.00	0.00	0	46.30	0.00	0.00	0.00
140.00	0.00	0	46.30	0.00	0.00	0.00
145.00	0.00	0	46.30	0.00	0.00	0.00
150.00	0.00	0	46.30	0.00	0.00	0.00
155.00	0.00	0	46.30	0.00	0.00	0.00
160.00	0.00	0	46.30	0.00	0.00	0.00
165.00	0.00	0	46.30	0.00	0.00	0.00
170.00	0.00	0	46.30	0.00	0.00	0.00
175.00	0.00	0	46.30	0.00	0.00	0.00
180.00	0.00	0	46.30	0.00	0.00	0.00
185.00	0.00	0	46.30	0.00	0.00	0.00
190.00	0.00	0	46.30	0.00	0.00	0.00
195.00	0.00	0	46.30	0.00	0.00	0.00
200.00	0.00	0	46.30	0.00	0.00	0.00
205.00	0.00	0	46.30	0.00	0.00	0.00
210.00	0.00	0	46.30	0.00	0.00	0.00
215.00	0.00	0	46.30	0.00	0.00	0.00
220.00	0.00	0	46.30	0.00	0.00	0.00
225.00	0.00	0	46.30	0.00	0.00	0.00
230.00	0.00	0	46.30	0.00	0.00	0.00
235.00	0.00	0	46.30	0.00	0.00	0.00
240.00	0.00	0	46.30	0.00	0.00	0.00

Stage-Discharge for Pond 23P: UGIS-1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
46.30	0.00	0.00	0.00
46.35	0.04	0.04	0.00
46.40	0.04	0.04	0.00
46.45	0.04	0.04	0.00
46.50	0.04	0.04	0.00
46.55	0.05	0.05	0.00
46.60	0.05	0.05	0.00
46.65	0.05	0.05	0.00
46.70	0.05	0.05	0.00
46.75	0.05	0.05	0.00
46.80	0.05	0.05	0.00
46.85	0.05	0.05	0.00
46.90	0.05	0.05	0.00
46.95	0.05	0.05	0.00
47.00	0.05	0.05	0.00
47.05	0.05	0.05	0.00
47.10	0.05	0.05	0.00
47.15	0.05	0.05	0.00
47.20	0.05	0.05	0.00
47.25	0.06	0.06	0.00
47.30	0.06	0.06	0.00
47.35	0.06	0.06	0.00
47.40	0.06	0.06	0.00
47.45	0.06	0.06	0.00
47.50	0.06	0.06	0.00
47.55	0.06	0.06	0.00
47.60	0.06	0.06	0.00
47.65	0.06	0.06	0.00
47.70	0.06	0.06	0.00
47.75	0.06	0.06	0.00
47.80	0.06	0.06	0.00
47.85	0.06	0.06	0.00
47.90	0.06	0.06	0.00
47.95	0.07	0.07	0.00
48.00	0.07	0.07	0.00
48.05	0.07	0.07	0.00
48.10	0.07	0.07	0.00
48.15	0.07	0.07	0.00
48.20	0.07	0.07	0.00
48.25	0.07	0.07	0.00
48.30	0.07	0.07	0.00
48.35	0.07	0.07	0.00
48.40	0.07	0.07	0.00
48.45	0.14	0.07	0.07
48.50	0.28	0.07	0.20
48.55	0.45	0.07	0.37
48.60	0.65	0.07	0.57
48.65	0.87	0.07	0.80
48.70	1.12	0.08	1.04
48.75	1.38	0.08	1.31
48.80	1.67	0.08	1.59
48.85	1.96	0.08	1.89
48.90	2.28	0.08	2.20
48.95	2.60	0.08	2.52
49.00	2.94	0.08	2.86
49.05	3.43	0.08	3.35
49.10	4.05	0.08	3.97
49.15	4.77	0.08	4.68
49.20	5.55	0.08	5.46
49.25	6.39	0.08	6.30
49.30	7.28	0.08	7.20
49.35	8.23	0.08	8.14
49.40	9.21	0.09	9.13
49.45	10.24	0.09	10.16
49.50	**11.31**	**0.09**	**11.22**

Stage-Area-Storage for Pond 23P: UGIS-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
46.30	**6,719**	0
46.35	6,719	111
46.40	6,719	222
46.45	6,719	333
46.50	6,719	443
46.55	6,719	554
46.60	6,719	665
46.65	6,719	776
46.70	6,719	887
46.75	6,719	998
46.80	6,719	1,109
46.85	6,719	1,410
46.90	6,719	1,708
46.95	6,719	2,004
47.00	6,719	2,297
47.05	6,719	2,590
47.10	6,719	2,882
47.15	6,719	3,173
47.20	6,719	3,463
47.25	6,719	3,753
47.30	6,719	4,041
47.35	6,719	4,326
47.40	6,719	4,610
47.45	6,719	4,891
47.50	6,719	5,172
47.55	6,719	5,450
47.60	6,719	5,726
47.65	6,719	6,000
47.70	6,719	6,272
47.75	6,719	6,543
47.80	6,719	6,812
47.85	6,719	7,080
47.90	6,719	7,347
47.95	6,719	7,611
48.00	6,719	7,871
48.05	6,719	8,128
48.10	6,719	8,381
48.15	6,719	8,631
48.20	6,719	8,878
48.25	6,719	9,121
48.30	6,719	9,360
48.35	6,719	9,595
48.40	6,719	9,825
48.45	6,719	10,050
48.50	6,719	10,269
48.55	6,719	10,482
48.60	6,719	10,689
48.65	6,719	10,887
48.70	6,719	11,075
48.75	6,719	11,252
48.80	6,719	11,413
48.85	6,719	11,560
48.90	6,719	11,693
48.95	6,719	11,814
49.00	6,719	11,926
49.05	6,719	12,037
49.10	6,719	12,148
49.15	6,719	12,259
49.20	6,719	12,370
49.25	6,719	12,480
49.30	6,719	12,591
49.35	6,719	12,702
49.40	6,719	12,813
49.45	6,719	12,924
49.50	6,719	**13,035**

Summary for Pond 28P: DIV-01

Inflow Area = 379,224 sf, 30.94% Impervious, Inflow Depth = 0.36" for WQv event
Inflow = 2.06 cfs @ 12.17 hrs, Volume= 11,243 cf
Outflow = 2.06 cfs @ 12.17 hrs, Volume= 11,243 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.73 cfs @ 12.17 hrs, Volume= 11,021 cf
Routed to Pond 13P : Sand Filter 1
Secondary = 0.32 cfs @ 12.17 hrs, Volume= 222 cf
Routed to Pond 15P : Detention Basin 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 47.06' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.10'	**11.0" Round Culvert** L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.10' / 46.00' S= 0.0071 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.66 sf
#2	Device 3	47.00'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	46.10'	**36.0" Round Culvert** L= 56.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.10' / 44.00' S= 0.0375 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 7.07 sf

Primary OutFlow Max=1.73 cfs @ 12.17 hrs HW=47.06' TW=44.49' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 1.73 cfs @ 3.10 fps)

Secondary OutFlow Max=0.31 cfs @ 12.17 hrs HW=47.06' TW=44.02' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.31 cfs of 5.17 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 0.31 cfs @ 0.82 fps)

Pro-Hydro
Prepared by Pare Corporation
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Hydrograph for Pond 28P: DIV-01

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	46.10	0.00	0.00	0.00
5.00	0.01	46.16	0.01	0.01	0.00
10.00	**0.11**	**46.29**	**0.11**	**0.11**	**0.00**
15.00	**0.18**	**46.39**	**0.18**	**0.18**	**0.00**
20.00	0.07	46.47	0.07	0.07	0.00
25.00	0.00	46.10	0.00	0.00	0.00
30.00	0.00	46.43	0.00	0.00	0.00
35.00	0.00	46.34	0.00	0.00	0.00
40.00	0.00	46.28	0.00	0.00	0.00
45.00	0.00	46.19	0.00	0.00	0.00
50.00	0.00	46.13	0.00	0.00	0.00
55.00	0.00	46.10	0.00	0.00	0.00
60.00	0.00	46.10	0.00	0.00	0.00
65.00	0.00	46.10	0.00	0.00	0.00
70.00	0.00	46.10	0.00	0.00	0.00
75.00	0.00	46.10	0.00	0.00	0.00
80.00	0.00	46.10	0.00	0.00	0.00
85.00	0.00	46.10	0.00	0.00	0.00
90.00	0.00	46.10	0.00	0.00	0.00
95.00	0.00	46.10	0.00	0.00	0.00
100.00	0.00	46.10	0.00	0.00	0.00
105.00	0.00	46.10	0.00	0.00	0.00
110.00	0.00	46.10	0.00	0.00	0.00
115.00	0.00	46.10	0.00	0.00	0.00
120.00	0.00	46.10	0.00	0.00	0.00
125.00	0.00	46.10	0.00	0.00	0.00
130.00	0.00	46.10	0.00	0.00	0.00
135.00	0.00	46.10	0.00	0.00	0.00
140.00	0.00	46.10	0.00	0.00	0.00
145.00	0.00	46.10	0.00	0.00	0.00
150.00	0.00	46.10	0.00	0.00	0.00
155.00	0.00	46.10	0.00	0.00	0.00
160.00	0.00	46.10	0.00	0.00	0.00
165.00	0.00	46.10	0.00	0.00	0.00
170.00	0.00	46.10	0.00	0.00	0.00
175.00	0.00	46.10	0.00	0.00	0.00
180.00	0.00	46.10	0.00	0.00	0.00
185.00	0.00	46.10	0.00	0.00	0.00
190.00	0.00	46.10	0.00	0.00	0.00
195.00	0.00	46.10	0.00	0.00	0.00
200.00	0.00	46.10	0.00	0.00	0.00
205.00	0.00	46.10	0.00	0.00	0.00
210.00	0.00	46.10	0.00	0.00	0.00
215.00	0.00	46.10	0.00	0.00	0.00
220.00	0.00	46.10	0.00	0.00	0.00
225.00	0.00	46.10	0.00	0.00	0.00
230.00	0.00	46.10	0.00	0.00	0.00
235.00	0.00	46.10	0.00	0.00	0.00
240.00	0.00	46.10	0.00	0.00	0.00

Stage-Discharge for Pond 28P: DIV-01

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
46.10	0.00	0.00	0.00
46.15	0.01	0.01	0.00
46.20	0.03	0.03	0.00
46.25	0.07	0.07	0.00
46.30	0.12	0.12	0.00
46.35	0.18	0.18	0.00
46.40	0.25	0.25	0.00
46.45	0.33	0.33	0.00
46.50	0.41	0.41	0.00
46.55	0.51	0.51	0.00
46.60	0.61	0.61	0.00
46.65	0.72	0.72	0.00
46.70	0.83	0.83	0.00
46.75	0.95	0.95	0.00
46.80	1.07	1.07	0.00
46.85	1.20	1.20	0.00
46.90	1.32	1.32	0.00
46.95	1.45	1.45	0.00
47.00	1.58	1.58	0.00
47.05	1.92	1.70	0.22
47.10	2.44	1.82	0.62
47.15	3.06	1.93	1.13
47.20	3.75	2.01	1.74
47.25	4.52	2.09	2.43
47.30	5.35	2.16	3.19
47.35	6.25	2.23	4.02
47.40	7.20	2.30	4.90
47.45	8.20	2.37	5.83
47.50	9.26	2.43	6.82
47.55	10.35	2.50	7.86
47.60	11.50	2.56	8.94
47.65	12.68	2.62	10.06
47.70	13.90	2.68	11.22
47.75	15.16	2.74	12.42
47.80	16.46	2.80	13.66
47.85	17.79	2.85	14.94
47.90	18.88	2.91	15.97
47.95	19.68	2.96	16.72
48.00	20.50	3.01	17.49
48.05	21.32	3.06	18.26
48.10	22.14	3.11	19.03
48.15	22.97	3.16	19.81
48.20	23.80	3.21	20.59
48.25	24.63	3.26	21.37
48.30	25.46	3.31	22.15
48.35	26.29	3.36	22.93
48.40	27.11	3.40	23.70
48.45	27.93	3.45	24.48
48.50	28.74	3.50	25.24
48.55	29.54	3.54	26.00
48.60	30.33	3.58	26.75
48.65	31.11	3.63	27.49
48.70	31.88	3.67	28.21
48.75	32.63	3.71	28.91
48.80	33.35	3.76	29.60
48.85	34.05	3.80	30.25
48.90	34.72	3.84	30.88
48.95	35.36	3.88	31.48
49.00	35.94	3.92	32.02
49.05	36.47	3.96	32.51
49.10	**36.91**	**4.00**	**32.91**

Stage-Area-Storage for Pond 28P: DIV-01

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
46.10	**0**	47.12	0	48.14	0
46.12	0	47.14	0	48.16	0
46.14	0	47.16	0	48.18	0
46.16	0	47.18	0	48.20	0
46.18	0	47.20	0	48.22	0
46.20	0	47.22	0	48.24	0
46.22	0	47.24	0	48.26	0
46.24	0	47.26	0	48.28	0
46.26	0	47.28	0	48.30	0
46.28	0	47.30	0	48.32	0
46.30	0	47.32	0	48.34	0
46.32	0	47.34	0	48.36	0
46.34	0	47.36	0	48.38	0
46.36	0	47.38	0	48.40	0
46.38	0	47.40	0	48.42	0
46.40	0	47.42	0	48.44	0
46.42	0	47.44	0	48.46	0
46.44	0	47.46	0	48.48	0
46.46	0	47.48	0	48.50	0
46.48	0	47.50	0	48.52	0
46.50	0	47.52	0	48.54	0
46.52	0	47.54	0	48.56	0
46.54	0	47.56	0	48.58	0
46.56	0	47.58	0	48.60	0
46.58	0	47.60	0	48.62	0
46.60	0	47.62	0	48.64	0
46.62	0	47.64	0	48.66	0
46.64	0	47.66	0	48.68	0
46.66	0	47.68	0	48.70	0
46.68	0	47.70	0	48.72	0
46.70	0	47.72	0	48.74	0
46.72	0	47.74	0	48.76	0
46.74	0	47.76	0	48.78	0
46.76	0	47.78	0	48.80	0
46.78	0	47.80	0	48.82	0
46.80	0	47.82	0	48.84	0
46.82	0	47.84	0	48.86	0
46.84	0	47.86	0	48.88	0
46.86	0	47.88	0	48.90	0
46.88	0	47.90	0	48.92	0
46.90	0	47.92	0	48.94	0
46.92	0	47.94	0	48.96	0
46.94	0	47.96	0	48.98	0
46.96	0	47.98	0	49.00	0
46.98	0	48.00	0	49.02	0
47.00	0	48.02	0	49.04	0
47.02	0	48.04	0	49.06	0
47.04	0	48.06	0	49.08	0
47.06	0	48.08	0	49.10	0
47.08	0	48.10	0		
47.10	0	48.12	0		

Summary for Pond 33P: Wet Swale

Inflow Area = 57,295 sf, 71.73% Impervious, Inflow Depth = 0.73" for WQv event
Inflow = 1.00 cfs @ 12.09 hrs, Volume= 3,493 cf
Outflow = 0.01 cfs @ 7.80 hrs, Volume= 3,493 cf, Atten= 99%, Lag= 0.0 min
Discarded = 0.01 cfs @ 7.80 hrs, Volume= 3,493 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Pond 4P : Detention Basin 2
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 2L : DP 1.1 - Culvert 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 59.44' @ 24.03 hrs Surf.Area= 4,095 sf Storage= 2,866 cf

Plug-Flow detention time= 2,633.5 min calculated for 3,492 cf (100% of inflow)
Center-of-Mass det. time= 2,634.0 min (3,422.5 - 788.5)

Volume	Invert	Avail.Storage	Storage Description
#1	57.69'	11,649 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.69	1,511	0.0	0	0
57.70	1,511	33.0	5	5
58.69	1,511	33.0	494	499
58.70	1,801	100.0	17	515
59.00	3,213	100.0	752	1,267
60.00	5,228	100.0	4,221	5,488
61.00	7,094	100.0	6,161	11,649

Device	Routing	Invert	Outlet Devices
#1	Discarded	57.69'	**0.270 in/hr Exfiltration over Surface area from 57.68' - 58.69'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	56.20'	**18.0" Round Culvert** L= 62.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.20' / 55.60' S= 0.0097 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#3	Device 2	59.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#4	Secondary	60.50'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 7.80 hrs HW=57.72' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=57.69' TW=55.60' (Dynamic Tailwater)
└**2=Culvert** (Passes 0.00 cfs of 5.79 cfs potential flow)
└**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=57.69' TW=0.00' (Dynamic Tailwater)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 33P: Wet Swale

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	57.69	0.00	0.00	**0.00**	**0.00**
5.00	0.00	3	57.70	**0.00**	**0.00**	0.00	0.00
10.00	**0.04**	143	57.98	**0.01**	**0.01**	0.00	0.00
15.00	**0.05**	2,517	59.35	0.01	0.01	0.00	0.00
20.00	0.02	**2,808**	**59.42**	0.01	0.01	0.00	0.00
25.00	0.00	**2,836**	**59.43**	0.01	0.01	0.00	0.00
30.00	0.00	2,666	59.39	0.01	0.01	0.00	0.00
35.00	0.00	2,496	59.35	0.01	0.01	0.00	0.00
40.00	0.00	2,326	59.30	0.01	0.01	0.00	0.00
45.00	0.00	2,156	59.26	0.01	0.01	0.00	0.00
50.00	0.00	1,986	59.21	0.01	0.01	0.00	0.00
55.00	0.00	1,816	59.16	0.01	0.01	0.00	0.00
60.00	0.00	1,646	59.11	0.01	0.01	0.00	0.00
65.00	0.00	1,476	59.06	0.01	0.01	0.00	0.00
70.00	0.00	1,306	59.01	0.01	0.01	0.00	0.00
75.00	0.00	1,136	58.96	0.01	0.01	0.00	0.00
80.00	0.00	966	58.90	0.01	0.01	0.00	0.00
85.00	0.00	796	58.83	0.01	0.01	0.00	0.00
90.00	0.00	626	58.76	0.01	0.01	0.00	0.00
95.00	0.00	456	58.60	0.01	0.01	0.00	0.00
100.00	0.00	286	58.26	0.01	0.01	0.00	0.00
105.00	0.00	116	57.92	0.01	0.01	0.00	0.00
110.00	0.00	0	57.69	0.00	0.00	0.00	0.00
115.00	0.00	0	57.69	0.00	0.00	0.00	0.00
120.00	0.00	0	57.69	0.00	0.00	0.00	0.00
125.00	0.00	0	57.69	0.00	0.00	0.00	0.00
130.00	0.00	0	57.69	0.00	0.00	0.00	0.00
135.00	0.00	0	57.69	0.00	0.00	0.00	0.00
140.00	0.00	0	57.69	0.00	0.00	0.00	0.00
145.00	0.00	0	57.69	0.00	0.00	0.00	0.00
150.00	0.00	0	57.69	0.00	0.00	0.00	0.00
155.00	0.00	0	57.69	0.00	0.00	0.00	0.00
160.00	0.00	0	57.69	0.00	0.00	0.00	0.00
165.00	0.00	0	57.69	0.00	0.00	0.00	0.00
170.00	0.00	0	57.69	0.00	0.00	0.00	0.00
175.00	0.00	0	57.69	0.00	0.00	0.00	0.00
180.00	0.00	0	57.69	0.00	0.00	0.00	0.00
185.00	0.00	0	57.69	0.00	0.00	0.00	0.00
190.00	0.00	0	57.69	0.00	0.00	0.00	0.00
195.00	0.00	0	57.69	0.00	0.00	0.00	0.00
200.00	0.00	0	57.69	0.00	0.00	0.00	0.00
205.00	0.00	0	57.69	0.00	0.00	0.00	0.00
210.00	0.00	0	57.69	0.00	0.00	0.00	0.00
215.00	0.00	0	57.69	0.00	0.00	0.00	0.00
220.00	0.00	0	57.69	0.00	0.00	0.00	0.00
225.00	0.00	0	57.69	0.00	0.00	0.00	0.00
230.00	0.00	0	57.69	0.00	0.00	0.00	0.00
235.00	0.00	0	57.69	0.00	0.00	0.00	0.00
240.00	0.00	0	57.69	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 33P: Wet Swale

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
57.69	0.00	**0.00**	0.00	0.00
57.79	0.01	**0.01**	0.00	0.00
57.89	0.01	0.01	0.00	0.00
57.99	0.01	0.01	0.00	0.00
58.09	0.01	0.01	0.00	0.00
58.19	0.01	0.01	0.00	0.00
58.29	0.01	0.01	0.00	0.00
58.39	0.01	0.01	0.00	0.00
58.49	0.01	0.01	0.00	0.00
58.59	0.01	0.01	0.00	0.00
58.69	0.01	0.01	0.00	0.00
58.79	0.01	0.01	0.00	0.00
58.89	0.01	0.01	0.00	0.00
58.99	0.01	0.01	0.00	0.00
59.09	0.01	0.01	0.00	0.00
59.19	0.01	0.01	0.00	0.00
59.29	0.01	0.01	0.00	0.00
59.39	0.01	0.01	0.00	0.00
59.49	0.01	0.01	0.00	0.00
59.59	0.01	0.01	0.00	0.00
59.69	0.01	0.01	0.00	0.00
59.79	1.27	0.01	1.26	0.00
59.89	3.61	0.01	3.60	0.00
59.99	4.73	0.01	4.72	0.00
60.09	5.62	0.01	5.62	0.00
60.19	6.40	0.01	6.39	0.00
60.29	7.09	0.01	7.08	0.00
60.39	7.71	0.01	7.70	0.00
60.49	8.29	0.01	8.28	0.00
60.59	9.72	0.01	8.83	0.88
60.69	12.04	0.01	9.34	2.70
60.79	14.91	0.01	9.82	5.08
60.89	18.19	0.01	10.28	7.90
60.99	**21.84**	0.01	**10.72**	**11.11**

Stage-Area-Storage for Pond 33P: Wet Swale

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
57.69	1,511	0
57.74	1,511	25
57.79	1,511	50
57.84	1,511	75
57.89	1,511	100
57.94	1,511	125
57.99	1,511	150
58.04	1,511	175
58.09	1,511	199
58.14	1,511	224
58.19	1,511	249
58.24	1,511	274
58.29	1,511	299
58.34	1,511	324
58.39	1,511	349
58.44	1,511	374
58.49	1,511	399
58.54	1,511	424
58.59	1,511	449
58.64	1,511	474
58.69	1,511	499
58.74	1,989	591
58.79	2,225	696
58.84	2,460	813
58.89	2,695	942
58.94	2,931	1,083
58.99	3,166	1,235
59.04	3,294	1,397
59.09	3,394	1,565
59.14	3,495	1,737
59.19	3,596	1,914
59.24	3,697	2,096
59.29	3,797	2,284
59.34	3,898	2,476
59.39	3,999	2,674
59.44	4,100	2,876
59.49	4,200	3,084
59.54	4,301	3,296
59.59	4,402	3,514
59.64	4,503	3,736
59.69	4,603	3,964
59.74	4,704	4,197
59.79	4,805	4,434
59.84	4,906	4,677
59.89	5,006	4,925
59.94	5,107	5,178
59.99	5,208	5,436
60.04	5,303	5,698
60.09	5,396	5,966
60.14	5,489	6,238
60.19	5,583	6,515
60.24	5,676	6,796
60.29	5,769	7,082
60.34	5,862	7,373
60.39	5,956	7,669
60.44	6,049	7,969
60.49	6,142	8,274
60.54	6,236	8,583
60.59	6,329	8,897
60.64	6,422	9,216
60.69	6,516	9,539
60.74	6,609	9,867
60.79	6,702	10,200
60.84	6,795	10,538
60.89	6,889	10,880
60.94	6,982	11,227
60.99	**7,075**	**11,578**

Summary for Pond 35P: Track and Field-manifold

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 0.47" for WQv event
Inflow = 1.81 cfs @ 12.11 hrs, Volume= 5,929 cf
Outflow = 1.32 cfs @ 12.24 hrs, Volume= 5,929 cf, Atten= 27%, Lag= 8.2 min
Discarded = 0.24 cfs @ 12.24 hrs, Volume= 3,142 cf
Primary = 1.08 cfs @ 12.24 hrs, Volume= 2,788 cf
Routed to Pond 8P : DIV-04

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 48.86' @ 12.24 hrs Surf.Area= 8,273 sf Storage= 995 cf

Plug-Flow detention time= 17.1 min calculated for 5,929 cf (100% of inflow)
Center-of-Mass det. time= 17.0 min (792.6 - 775.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	48.50'	4,898 cf	**7.00'W x 1,182.00'L x 2.25'H Field A** 18,608 cf Overall - 3,767 cf Embedded = 14,841 cf x 33.0% Voids
#2A	49.00'	2,832 cf	**ADS N-12 15"** x 118 Inside #1 Inside= 14.8"W x 14.8"H => 1.20 sf x 20.00'L = 24.0 cf Outside= 18.0"W x 18.0"H => 1.60 sf x 20.00'L = 31.9 cf 118 Chambers in 2 Rows
		7,730 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	48.50'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 48.40' Phase-In= 0.02'
#2	Primary	48.50'	**18.0" Round Culvert X 2.00** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 48.50' / 46.80' S= 0.0315 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf

Discarded OutFlow Max=0.24 cfs @ 12.24 hrs HW=48.86' (Free Discharge)
1=Exfiltration (Controls 0.24 cfs)

Primary OutFlow Max=1.07 cfs @ 12.24 hrs HW=48.86' TW=47.46' (Dynamic Tailwater)
2=Culvert (Inlet Controls 1.07 cfs @ 1.62 fps)

Pond 35P: Track and Field-manifold - Chamber Wizard Field A

Chamber Model = ADS N-12 15" (ADS N-12® Pipe)
Inside= 14.8"W x 14.8"H => 1.20 sf x 20.00'L = 24.0 cf
Outside= 18.0"W x 18.0"H => 1.60 sf x 20.00'L = 31.9 cf

18.0" Wide + 24.0" Spacing = 42.0" C-C Row Spacing

59 Chambers/Row x 20.00' Long = 1,180.00' Row Length +12.0" End Stone x 2 = 1,182.00' Base Length
2 Rows x 18.0" Wide + 24.0" Spacing x 1 + 12.0" Side Stone x 2 = 7.00' Base Width
6.0" Stone Base + 18.0" Chamber Height + 3.0" Stone Cover = 2.25' Field Height

118 Chambers x 24.0 cf = 2,832.0 cf Chamber Storage
118 Chambers x 31.9 cf = 3,767.1 cf Displacement

18,608.5 cf Field - 3,767.1 cf Chambers = 14,841.3 cf Stone x 33.0% Voids = 4,897.6 cf Stone Storage

Chamber Storage + Stone Storage = 7,729.6 cf = 0.177 af
Overall Storage Efficiency = 41.5%
Overall System Size = 1,182.00' x 7.00' x 2.25'

118 Chambers
689.2 cy Field
549.7 cy Stone

Hydrograph for Pond 35P: Track and Field-manifold

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	48.50	0.00	0.00	0.00
5.00	0.01	4	48.50	0.00	0.00	0.00
10.00	**0.06**	**47**	**48.52**	**0.05**	**0.05**	**0.00**
15.00	**0.06**	**90**	**48.53**	**0.08**	**0.07**	**0.01**
20.00	0.02	21	48.51	0.02	0.02	0.00
25.00	0.00	1	48.50	0.00	0.00	0.00
30.00	0.00	0	48.50	0.00	0.00	0.00
35.00	0.00	0	48.50	0.00	0.00	0.00
40.00	0.00	0	48.50	0.00	0.00	0.00
45.00	0.00	0	48.50	0.00	0.00	0.00
50.00	0.00	0	48.50	0.00	0.00	0.00
55.00	0.00	0	48.50	0.00	0.00	0.00
60.00	0.00	0	48.50	0.00	0.00	0.00
65.00	0.00	0	48.50	0.00	0.00	0.00
70.00	0.00	0	48.50	0.00	0.00	0.00
75.00	0.00	0	48.50	0.00	0.00	0.00
80.00	0.00	0	48.50	0.00	0.00	0.00
85.00	0.00	0	48.50	0.00	0.00	0.00
90.00	0.00	0	48.50	0.00	0.00	0.00
95.00	0.00	0	48.50	0.00	0.00	0.00
100.00	0.00	0	48.50	0.00	0.00	0.00
105.00	0.00	0	48.50	0.00	0.00	0.00
110.00	0.00	0	48.50	0.00	0.00	0.00
115.00	0.00	0	48.50	0.00	0.00	0.00
120.00	0.00	0	48.50	0.00	0.00	0.00
125.00	0.00	0	48.50	0.00	0.00	0.00
130.00	0.00	0	48.50	0.00	0.00	0.00
135.00	0.00	0	48.50	0.00	0.00	0.00
140.00	0.00	0	48.50	0.00	0.00	0.00
145.00	0.00	0	48.50	0.00	0.00	0.00
150.00	0.00	0	48.50	0.00	0.00	0.00
155.00	0.00	0	48.50	0.00	0.00	0.00
160.00	0.00	0	48.50	0.00	0.00	0.00
165.00	0.00	0	48.50	0.00	0.00	0.00
170.00	0.00	0	48.50	0.00	0.00	0.00
175.00	0.00	0	48.50	0.00	0.00	0.00
180.00	0.00	0	48.50	0.00	0.00	0.00
185.00	0.00	0	48.50	0.00	0.00	0.00
190.00	0.00	0	48.50	0.00	0.00	0.00
195.00	0.00	0	48.50	0.00	0.00	0.00
200.00	0.00	0	48.50	0.00	0.00	0.00
205.00	0.00	0	48.50	0.00	0.00	0.00
210.00	0.00	0	48.50	0.00	0.00	0.00
215.00	0.00	0	48.50	0.00	0.00	0.00
220.00	0.00	0	48.50	0.00	0.00	0.00
225.00	0.00	0	48.50	0.00	0.00	0.00
230.00	0.00	0	48.50	0.00	0.00	0.00
235.00	0.00	0	48.50	0.00	0.00	0.00
240.00	0.00	0	48.50	0.00	0.00	0.00

Stage-Discharge for Pond 35P: Track and Field-manifold

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
48.50	0.00	0.00	0.00
48.55	0.10	0.08	0.02
48.60	0.19	0.10	0.09
48.65	0.32	0.13	0.19
48.70	0.49	0.16	0.34
48.75	0.70	0.18	0.52
48.80	0.95	0.21	0.74
48.85	1.23	0.23	1.00
48.90	1.54	0.26	1.29
48.95	1.89	0.28	1.61
49.00	2.27	0.31	1.96
49.05	2.68	0.34	2.34
49.10	3.11	0.36	2.75
49.15	3.57	0.39	3.18
49.20	4.05	0.41	3.64
49.25	4.55	0.44	4.11
49.30	5.07	0.47	4.61
49.35	5.61	0.49	5.12
49.40	6.16	0.52	5.65
49.45	6.73	0.54	6.18
49.50	7.30	0.57	6.73
49.55	7.87	0.59	7.28
49.60	8.45	0.62	7.83
49.65	9.03	0.65	8.38
49.70	9.60	0.67	8.92
49.75	10.16	0.70	9.46
49.80	10.70	0.72	9.97
49.85	11.21	0.75	10.46
49.90	11.69	0.78	10.92
49.95	12.12	0.80	11.32
50.00	12.46	0.83	11.63
50.05	12.87	0.85	12.02
50.10	13.27	0.88	12.39
50.15	13.65	0.90	12.75
50.20	14.03	0.93	13.09
50.25	14.39	0.96	13.43
50.30	14.75	0.98	13.77
50.35	15.10	1.01	14.09
50.40	15.44	1.03	14.41
50.45	15.78	1.06	14.72
50.50	16.11	1.09	15.02
50.55	16.43	1.11	15.32
50.60	16.75	1.14	15.61
50.65	17.06	1.16	15.90
50.70	17.37	1.19	16.18
50.75	**17.67**	**1.22**	**16.45**

Stage-Area-Storage for Pond 35P: Track and Field-manifold

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
48.50	**8,273**	0
48.55	8,273	136
48.60	8,273	273
48.65	8,273	409
48.70	8,273	546
48.75	8,273	682
48.80	8,273	819
48.85	8,273	955
48.90	8,273	1,092
48.95	8,273	1,228
49.00	8,273	1,365
49.05	8,273	1,489
49.10	8,273	1,602
49.15	8,273	1,718
49.20	8,273	1,874
49.25	8,273	2,049
49.30	8,273	2,238
49.35	8,273	2,437
49.40	8,273	2,644
49.45	8,273	2,857
49.50	8,273	3,075
49.55	8,273	3,297
49.60	8,273	3,522
49.65	8,273	3,749
49.70	8,273	3,978
49.75	8,273	4,207
49.80	8,273	4,437
49.85	8,273	4,666
49.90	8,273	4,893
49.95	8,273	5,118
50.00	8,273	5,340
50.05	8,273	5,558
50.10	8,273	5,771
50.15	8,273	5,977
50.20	8,273	6,176
50.25	8,273	6,365
50.30	8,273	6,540
50.35	8,273	6,695
50.40	8,273	6,811
50.45	8,273	6,925
50.50	8,273	7,049
50.55	8,273	7,185
50.60	8,273	7,322
50.65	8,273	7,458
50.70	8,273	7,595
50.75	8,273	**7,730**

Summary for Link 2L: DP 1.1 - Culvert 1

Inflow Area = 475,005 sf, 0.22% Impervious, Inflow Depth = 0.10" for WQv event
Inflow = 0.41 cfs @ 12.54 hrs, Volume= 4,081 cf
Primary = 0.41 cfs @ 12.54 hrs, Volume= 4,081 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 3L : DP 1.2 - Culvert 2

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

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Hydrograph for Link 2L: DP 1.1 - Culvert 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	137.50	0.00	0.00	0.00
12.50	**0.40**	0.00	**0.40**	140.00	0.00	0.00	0.00
15.00	**0.12**	0.00	**0.12**	142.50	0.00	0.00	0.00
17.50	0.07	0.00	0.07	145.00	0.00	0.00	0.00
20.00	0.05	0.00	0.05	147.50	0.00	0.00	0.00
22.50	0.04	0.00	0.04	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 3L: DP 1.2 - Culvert 2

Inflow Area = 536,345 sf, 1.55% Impervious, Inflow Depth = 0.12" for WQv event
Inflow = 0.53 cfs @ 12.50 hrs, Volume= 5,204 cf
Primary = 0.53 cfs @ 12.50 hrs, Volume= 5,204 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 4L : DP 1.3 - Culvert 3

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

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Hydrograph for Link 3L: DP 1.2 - Culvert 2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	0.01	0.00	0.01	137.50	0.00	0.00	0.00
12.50	**0.53**	0.00	**0.53**	140.00	0.00	0.00	0.00
15.00	0.15	0.00	0.15	142.50	0.00	0.00	0.00
17.50	0.08	0.00	0.08	145.00	0.00	0.00	0.00
20.00	0.06	0.00	0.06	147.50	0.00	0.00	0.00
22.50	0.05	0.00	0.05	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 4L: DP 1.3 - Culvert 3

Inflow Area = 562,190 sf, 2.05% Impervious, Inflow Depth = 0.12" for WQv event
Inflow = 0.57 cfs @ 12.48 hrs, Volume= 5,689 cf
Primary = 0.57 cfs @ 12.48 hrs, Volume= 5,689 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

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Hydrograph for Link 4L: DP 1.3 - Culvert 3

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	0.01	0.00	0.01	137.50	0.00	0.00	0.00
12.50	**0.57**	0.00	**0.57**	140.00	0.00	0.00	0.00
15.00	0.16	0.00	0.16	142.50	0.00	0.00	0.00
17.50	0.09	0.00	0.09	145.00	0.00	0.00	0.00
20.00	0.06	0.00	0.06	147.50	0.00	0.00	0.00
22.50	0.05	0.00	0.05	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 5L: DP 1.4 - Silver Creek East Branch

Inflow Area = 1,084,691 sf, 27.21% Impervious, Inflow Depth = 0.15" for WQv event
Inflow = 1.36 cfs @ 12.21 hrs, Volume= 13,114 cf
Primary = 1.36 cfs @ 12.21 hrs, Volume= 13,114 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

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Hydrograph for Link 5L: DP 1.4 - Silver Creek East Branch

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00
2.50	0.00	0.00	0.00
5.00	0.01	0.00	0.01
7.50	0.03	0.00	0.03
10.00	**0.08**	0.00	**0.08**
12.50	**1.07**	0.00	**1.07**
15.00	0.27	0.00	0.27
17.50	0.18	0.00	0.18
20.00	0.14	0.00	0.14
22.50	0.12	0.00	0.12
25.00	0.02	0.00	0.02
27.50	0.02	0.00	0.02
30.00	0.00	0.00	0.00
32.50	0.00	0.00	0.00
35.00	0.00	0.00	0.00
37.50	0.00	0.00	0.00
40.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00
45.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00
50.00	0.00	0.00	0.00
52.50	0.00	0.00	0.00
55.00	0.00	0.00	0.00
57.50	0.00	0.00	0.00
60.00	0.00	0.00	0.00
62.50	0.00	0.00	0.00
65.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00
70.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00
75.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00
80.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00
85.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00
90.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00
95.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00
100.00	0.00	0.00	0.00
102.50	0.00	0.00	0.00
105.00	0.00	0.00	0.00
107.50	0.00	0.00	0.00
110.00	0.00	0.00	0.00
112.50	0.00	0.00	0.00
115.00	0.00	0.00	0.00
117.50	0.00	0.00	0.00
120.00	0.00	0.00	0.00
122.50	0.00	0.00	0.00
125.00	0.00	0.00	0.00
127.50	0.00	0.00	0.00
130.00	0.00	0.00	0.00
132.50	0.00	0.00	0.00
135.00	0.00	0.00	0.00
137.50	0.00	0.00	0.00
140.00	0.00	0.00	0.00
142.50	0.00	0.00	0.00
145.00	0.00	0.00	0.00
147.50	0.00	0.00	0.00
150.00	0.00	0.00	0.00
152.50	0.00	0.00	0.00
155.00	0.00	0.00	0.00
157.50	0.00	0.00	0.00
160.00	0.00	0.00	0.00
162.50	0.00	0.00	0.00
165.00	0.00	0.00	0.00
167.50	0.00	0.00	0.00
170.00	0.00	0.00	0.00
172.50	0.00	0.00	0.00
175.00	0.00	0.00	0.00
177.50	0.00	0.00	0.00
180.00	0.00	0.00	0.00
182.50	0.00	0.00	0.00
185.00	0.00	0.00	0.00
187.50	0.00	0.00	0.00
190.00	0.00	0.00	0.00
192.50	0.00	0.00	0.00
195.00	0.00	0.00	0.00
197.50	0.00	0.00	0.00
200.00	0.00	0.00	0.00
202.50	0.00	0.00	0.00
205.00	0.00	0.00	0.00
207.50	0.00	0.00	0.00
210.00	0.00	0.00	0.00
212.50	0.00	0.00	0.00
215.00	0.00	0.00	0.00
217.50	0.00	0.00	0.00
220.00	0.00	0.00	0.00
222.50	0.00	0.00	0.00
225.00	0.00	0.00	0.00
227.50	0.00	0.00	0.00
230.00	0.00	0.00	0.00
232.50	0.00	0.00	0.00
235.00	0.00	0.00	0.00
237.50	0.00	0.00	0.00
240.00	0.00	0.00	0.00

Summary for Link 6L: DP 2.1 - West Wetland

Inflow Area = 835,379 sf, 33.09% Impervious, Inflow Depth > 0.03" for WQv event
Inflow = 0.03 cfs @ 12.57 hrs, Volume= 2,068 cf
Primary = 0.03 cfs @ 12.57 hrs, Volume= 2,068 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 7L : DP 2.2 - Silver Creek West Branch

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

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Hydrograph for Link 6L: DP 2.1 - West Wetland

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	137.50	0.00	0.00	0.00
12.50	**0.03**	0.00	**0.03**	140.00	0.00	0.00	0.00
15.00	**0.03**	0.00	**0.03**	142.50	0.00	0.00	0.00
17.50	0.03	0.00	0.03	145.00	0.00	0.00	0.00
20.00	0.03	0.00	0.03	147.50	0.00	0.00	0.00
22.50	0.02	0.00	0.02	150.00	0.00	0.00	0.00
25.00	0.01	0.00	0.01	152.50	0.00	0.00	0.00
27.50	0.01	0.00	0.01	155.00	0.00	0.00	0.00
30.00	0.01	0.00	0.01	157.50	0.00	0.00	0.00
32.50	0.01	0.00	0.01	160.00	0.00	0.00	0.00
35.00	0.01	0.00	0.01	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 7L: DP 2.2 - Silver Creek West Branch

Inflow Area = 991,430 sf, 31.58% Impervious, Inflow Depth = 0.07" for WQv event
Inflow = 0.76 cfs @ 12.18 hrs, Volume= 5,815 cf
Primary = 0.76 cfs @ 12.18 hrs, Volume= 5,815 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

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Hydrograph for Link 7L: DP 2.2 - Silver Creek West Branch

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.01	0.00	0.01	135.00	0.00	0.00	0.00
10.00	**0.04**	0.00	**0.04**	137.50	0.00	0.00	0.00
12.50	**0.39**	0.00	**0.39**	140.00	0.00	0.00	0.00
15.00	0.10	0.00	0.10	142.50	0.00	0.00	0.00
17.50	0.06	0.00	0.06	145.00	0.00	0.00	0.00
20.00	0.05	0.00	0.05	147.50	0.00	0.00	0.00
22.50	0.04	0.00	0.04	150.00	0.00	0.00	0.00
25.00	0.01	0.00	0.01	152.50	0.00	0.00	0.00
27.50	0.01	0.00	0.01	155.00	0.00	0.00	0.00
30.00	0.01	0.00	0.01	157.50	0.00	0.00	0.00
32.50	0.01	0.00	0.01	160.00	0.00	0.00	0.00
35.00	0.01	0.00	0.01	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Time span=0.00-240.00 hrs, dt=0.05 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PDA-1.1A: Subcat PDA-1.1A Runoff Area=475,005 sf 1.72% Impervious Runoff Depth=1.28"
Flow Length=451' Slope=0.0100 '/' Tc=21.1 min CN=77 Runoff=10.49 cfs 50,816 cf

Subcatchment PDA-1.1B: Subcat PDA-1.1B Runoff Area=30,333 sf 0.05% Impervious Runoff Depth=1.35"
Flow Length=126' Tc=13.1 min CN=78 Runoff=0.85 cfs 3,405 cf

Subcatchment PDA-1.2A: Subcat PDA-1.2A Runoff Area=25,845 sf 14.60% Impervious Runoff Depth=1.48"
Flow Length=73' Tc=7.3 min UI Adjusted CN=80 Runoff=0.96 cfs 3,186 cf

Subcatchment PDA-1.3A: Subcat PDA-1.3A Runoff Area=57,295 sf 71.89% Impervious Runoff Depth=2.45"
Flow Length=198' Slope=0.0100 '/' Tc=6.5 min CN=92 Runoff=3.55 cfs 11,677 cf

Subcatchment PDA-1.3C: Subcat PDA-1.3C Runoff Area=16,850 sf 41.68% Impervious Runoff Depth=1.77"
Flow Length=49' Tc=6.8 min CN=84 Runoff=0.77 cfs 2,480 cf

Subcatchment PDA-1.3D: Subcat PDA-1.3D Runoff Area=6,850 sf 45.03% Impervious Runoff Depth=1.84"
Tc=6.0 min CN=85 Runoff=0.33 cfs 1,052 cf

Subcatchment PDA-1.4A: Subcat PDA-1.4A Runoff Area=31,007 sf 23.95% Impervious Runoff Depth=1.69"
Flow Length=144' Tc=13.4 min CN=83 Runoff=1.10 cfs 4,371 cf

Subcatchment PDA-1.4B: Subcat PDA-1.4B Runoff Area=53,181 sf 37.23% Impervious Runoff Depth=1.84"
Flow Length=98' Tc=13.9 min CN=85 Runoff=2.04 cfs 8,169 cf

Subcatchment PDA-1.4C: Subcat PDA-1.4C Runoff Area=26,810 sf 63.81% Impervious Runoff Depth=2.17"
Tc=6.0 min CN=89 Runoff=1.52 cfs 4,855 cf

Subcatchment PDA-1.4D: Subcat PDA-1.4D Runoff Area=42,514 sf 59.10% Impervious Runoff Depth=2.17"
Tc=6.0 min CN=89 Runoff=2.41 cfs 7,699 cf

Subcatchment PDA-1.4E: Subcat PDA-1.4E Runoff Area=39,245 sf 62.30% Impervious Runoff Depth=2.17"
Tc=6.0 min CN=89 Runoff=2.23 cfs 7,107 cf

Subcatchment PDA-1.4F: Subcat PDA-1.4F Runoff Area=73,858 sf 54.96% Impervious Runoff Depth=2.00"
Flow Length=346' Tc=14.5 min CN=87 Runoff=3.03 cfs 12,332 cf

Subcatchment PDA-1.4G: Subcat PDA-1.4G Runoff Area=22,284 sf 61.76% Impervious Runoff Depth=2.17"
Tc=6.0 min CN=89 Runoff=1.27 cfs 4,035 cf

Subcatchment PDA-1.4H: Subcat PDA-1.4H Runoff Area=10,744 sf 5.59% Impervious Runoff Depth=1.16"
Tc=6.0 min CN=75 Runoff=0.32 cfs 1,041 cf

Subcatchment PDA-1.4I: Subcat PDA-1.4I Runoff Area=9,824 sf 27.06% Impervious Runoff Depth=1.55"
Tc=6.0 min CN=81 Runoff=0.40 cfs 1,267 cf

Subcatchment PDA-1.4J: Subcat PDA-1.4J Runoff Area=59,466 sf 8.43% Impervious Runoff Depth=1.41"
Tc=6.0 min CN=79 Runoff=2.19 cfs 6,998 cf

Subcatchment PDA-1.4K: Subcat PDA-1.4K Runoff Area=18,876 sf 80.13% Impervious Runoff Depth=2.54"
Tc=6.0 min CN=93 Runoff=1.22 cfs 3,999 cf

Subcatchment PDA-1.4L: Subcat PDA-1.4L Runoff Area=11,978 sf 24.28% Impervious Runoff Depth=1.48"
Flow Length=75' Tc=8.5 min CN=80 Runoff=0.42 cfs 1,476 cf

Subcatchment PDA-1.4M: Subcat PDA-1.4M Runoff Area=4,734 sf 4.20% Impervious Runoff Depth=1.16"
Flow Length=166' Slope=0.0100 '/' Tc=14.3 min CN=75 Runoff=0.11 cfs 459 cf

Subcatchment PDA-2.1A: Subcat Runoff Area=348,138 sf 26.08% Impervious Runoff Depth=1.55"
Flow Length=269' Tc=16.3 min CN=81 Runoff=10.47 cfs 44,913 cf

Subcatchment PDA-2.1B: Subcat PDA-2.1B Runoff Area=151,957 sf 4.77% Impervious Runoff Depth=1.22"
Flow Length=123' Tc=17.0 min CN=76 Runoff=3.46 cfs 15,476 cf

Subcatchment PDA-2.2A: Subcat Runoff Area=156,051 sf 26.13% Impervious Runoff Depth=1.48"
Tc=12.9 min CN=80 Runoff=4.87 cfs 19,237 cf

Subcatchment PDA-2.2B: Subcat PDA-2.2B Runoff Area=152,340 sf 1.56% Impervious Runoff Depth=0.99"
Flow Length=565' Slope=0.0120 '/' Tc=40.0 min CN=72 Runoff=1.86 cfs 12,597 cf

Subcatchment PDA-2.2C.a: Subcat Runoff Area=90,671 sf 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=6.52 cfs 23,175 cf

Subcatchment PDA-2.2C.b: Subcat Runoff Area=61,186 sf 99.99% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=4.40 cfs 15,639 cf

Subcatchment PDA-ROOF1.3: Subcat Runoff Area=9,782 sf 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.70 cfs 2,500 cf

Subcatchment PDA-ROOF1.4: Subcat Runoff Area=58,210 sf 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=4.18 cfs 14,878 cf

Subcatchment PDA-ROOF2.1: Subcat Runoff Area=31,087 sf 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=2.23 cfs 7,946 cf

Pond 1P: Bio 4 Peak Elev=60.32' Storage=1,168 cf Inflow=0.77 cfs 2,480 cf
Discarded=0.01 cfs 1,459 cf Primary=0.29 cfs 1,021 cf Outflow=0.30 cfs 2,480 cf

Pond 2P: Bio 3 Peak Elev=59.79' Storage=1,143 cf Inflow=1.04 cfs 3,552 cf
Primary=1.30 cfs 1,323 cf Tertiary=0.02 cfs 2,229 cf Outflow=1.32 cfs 3,552 cf

Pond 3P: DIV-02 Peak Elev=56.95' Inflow=2.04 cfs 8,169 cf
Primary=0.91 cfs 6,968 cf Secondary=1.13 cfs 1,201 cf Outflow=2.04 cfs 8,169 cf

Pond 4P: Detention Basin 2 Peak Elev=57.52' Storage=5,180 cf Inflow=3.16 cfs 7,842 cf
Primary=0.09 cfs 7,838 cf Secondary=0.00 cfs 0 cf Outflow=0.09 cfs 7,838 cf

Pond 7P: Bio 2 Peak Elev=56.52' Storage=2,151 cf Inflow=1.52 cfs 4,855 cf
Primary=0.55 cfs 1,338 cf Secondary=0.00 cfs 0 cf Tertiary=0.03 cfs 3,517 cf Outflow=0.58 cfs 4,855 cf

Pond 8P: DIV-04 Peak Elev=48.56' Inflow=5.82 cfs 16,217 cf
Primary=5.69 cfs 12,617 cf Secondary=1.27 cfs 3,598 cf Outflow=5.82 cfs 16,215 cf

Pond 9P: Sand Filter 5 Peak Elev=49.83' Storage=1,453 cf Inflow=1.29 cfs 4,457 cf
Discarded=0.01 cfs 1,766 cf Primary=1.39 cfs 2,691 cf Secondary=0.00 cfs 0 cf Outflow=1.40 cfs 4,457 cf

Pond 10P: Bio 1 Peak Elev=44.56' Storage=1,841 cf Inflow=1.13 cfs 6,912 cf
Discarded=0.01 cfs 2,095 cf Primary=1.12 cfs 4,817 cf Secondary=0.00 cfs 0 cf Outflow=1.12 cfs 6,912 cf

Pond 12P: Infiltration Basin 1 Peak Elev=57.97' Storage=6,147 cf Inflow=4.58 cfs 16,145 cf
Discarded=0.07 cfs 9,101 cf Primary=3.47 cfs 7,045 cf Secondary=0.00 cfs 0 cf Outflow=3.54 cfs 16,145 cf

Pond 13P: Sand Filter 1 Peak Elev=47.03' Storage=13,298 cf Inflow=2.57 cfs 30,484 cf
Discarded=0.03 cfs 12,457 cf Primary=0.56 cfs 18,027 cf Secondary=0.00 cfs 0 cf Outflow=0.59 cfs 30,484 cf

Pond 14P: DIV-03 Peak Elev=45.01' Inflow=2.41 cfs 7,699 cf
Primary=1.13 cfs 6,912 cf Secondary=1.28 cfs 787 cf Outflow=2.41 cfs 7,699 cf

Pond 15P: Detention Basin 1 Peak Elev=45.33' Storage=17,890 cf Inflow=12.47 cfs 55,877 cf
Primary=3.71 cfs 55,813 cf Secondary=0.00 cfs 0 cf Tertiary=0.00 cfs 0 cf Outflow=3.71 cfs 55,813 cf

Pond 17P: Track and Field- stone base Peak Elev=50.61' Storage=3,486 cf Inflow=6.52 cfs 23,175 cf
Discarded=0.60 cfs 15,388 cf Primary=3.81 cfs 7,787 cf Outflow=4.41 cfs 23,175 cf

Pond 18P: Sand Filter 2 Peak Elev=55.31' Storage=4,512 cf Inflow=3.09 cfs 14,075 cf
Discarded=0.01 cfs 5,005 cf Primary=2.42 cfs 9,070 cf Secondary=0.00 cfs 0 cf Outflow=2.43 cfs 14,075 cf

Pond 19P: Sand Filter 3 Peak Elev=60.46' Storage=3,309 cf Inflow=1.27 cfs 4,035 cf
Discarded=0.01 cfs 4,035 cf Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Outflow=0.01 cfs 4,035 cf

Pond 20P: Sand Filter 4 Peak Elev=60.56' Storage=914 cf Inflow=1.10 cfs 4,371 cf
Outflow=0.34 cfs 4,371 cf

Pond 23P: UGIS-1 Peak Elev=48.55' Storage=10,490 cf Inflow=5.69 cfs 12,617 cf
Discarded=0.07 cfs 11,703 cf Primary=0.38 cfs 914 cf Outflow=0.45 cfs 12,617 cf

Pond 28P: DIV-01 Peak Elev=47.61' Inflow=11.65 cfs 52,858 cf
Primary=2.57 cfs 30,484 cf Secondary=9.08 cfs 22,374 cf Outflow=11.65 cfs 52,858 cf

Pond 33P: Wet Swale Peak Elev=59.83' Storage=4,637 cf Inflow=3.55 cfs 11,677 cf
Discarded=0.01 cfs 4,876 cf Primary=2.92 cfs 6,801 cf Secondary=0.00 cfs 0 cf Outflow=2.93 cfs 11,677 cf

Pond 35P: Track and Field-manifold Peak Elev=49.42' Storage=2,712 cf Inflow=7.64 cfs 23,426 cf
Discarded=0.53 cfs 7,208 cf Primary=5.82 cfs 16,217 cf Outflow=6.34 cfs 23,426 cf

Link 2L: DP 1.1 - Culvert 1 Inflow=10.49 cfs 50,816 cf
Primary=10.49 cfs 50,816 cf

Link 3L: DP 1.2 - Culvert 2 Inflow=11.50 cfs 58,592 cf
Primary=11.50 cfs 58,592 cf

Link 4L: DP 1.3 - Culvert 3 Inflow=12.00 cfs 61,778 cf
Primary=12.00 cfs 61,778 cf

Link 5L: DP 1.4 - Silver Creek East Branch Inflow=24.86 cfs 125,461 cf
Primary=24.86 cfs 125,461 cf

Link 6L: DP 2.1 - West Wetland Inflow=7.17 cfs 72,922 cf
Primary=7.17 cfs 72,922 cf

Link 7L: DP 2.2 - Silver Creek West Branch Inflow=8.72 cfs 92,158 cf
Primary=8.72 cfs 92,158 cf

Total Runoff Area = 2,076,121 sf Runoff Volume = 292,784 cf Average Runoff Depth = 1.69"
69.65% Pervious = 1,445,943 sf 30.35% Impervious = 630,178 sf

Time span=0.00-240.00 hrs, dt=0.05 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PDA-1.1A: Subcat PDA-1.1A Runoff Area=475,005 sf 1.72% Impervious Runoff Depth=2.54"
Flow Length=451' Slope=0.0100 '/' Tc=21.1 min CN=77 Runoff=21.30 cfs 100,525 cf

Subcatchment PDA-1.1B: Subcat PDA-1.1B Runoff Area=30,333 sf 0.05% Impervious Runoff Depth=2.63"
Flow Length=126' Tc=13.1 min CN=78 Runoff=1.69 cfs 6,640 cf

Subcatchment PDA-1.2A: Subcat PDA-1.2A Runoff Area=25,845 sf 14.60% Impervious Runoff Depth=2.81"
Flow Length=73' Tc=7.3 min UI Adjusted CN=80 Runoff=1.84 cfs 6,043 cf

Subcatchment PDA-1.3A: Subcat PDA-1.3A Runoff Area=57,295 sf 71.89% Impervious Runoff Depth=3.99"
Flow Length=198' Slope=0.0100 '/' Tc=6.5 min CN=92 Runoff=5.65 cfs 19,058 cf

Subcatchment PDA-1.3C: Subcat PDA-1.3C Runoff Area=16,850 sf 41.68% Impervious Runoff Depth=3.18"
Flow Length=49' Tc=6.8 min CN=84 Runoff=1.37 cfs 4,464 cf

Subcatchment PDA-1.3D: Subcat PDA-1.3D Runoff Area=6,850 sf 45.03% Impervious Runoff Depth=3.28"
Tc=6.0 min CN=85 Runoff=0.59 cfs 1,870 cf

Subcatchment PDA-1.4A: Subcat PDA-1.4A Runoff Area=31,007 sf 23.95% Impervious Runoff Depth=3.08"
Flow Length=144' Tc=13.4 min CN=83 Runoff=2.01 cfs 7,968 cf

Subcatchment PDA-1.4B: Subcat PDA-1.4B Runoff Area=53,181 sf 37.23% Impervious Runoff Depth=3.28"
Flow Length=98' Tc=13.9 min CN=85 Runoff=3.60 cfs 14,517 cf

Subcatchment PDA-1.4C: Subcat PDA-1.4C Runoff Area=26,810 sf 63.81% Impervious Runoff Depth=3.68"
Tc=6.0 min CN=89 Runoff=2.52 cfs 8,213 cf

Subcatchment PDA-1.4D: Subcat PDA-1.4D Runoff Area=42,514 sf 59.10% Impervious Runoff Depth=3.68"
Tc=6.0 min CN=89 Runoff=4.00 cfs 13,024 cf

Subcatchment PDA-1.4E: Subcat PDA-1.4E Runoff Area=39,245 sf 62.30% Impervious Runoff Depth=3.68"
Tc=6.0 min CN=89 Runoff=3.69 cfs 12,023 cf

Subcatchment PDA-1.4F: Subcat PDA-1.4F Runoff Area=73,858 sf 54.96% Impervious Runoff Depth=3.47"
Flow Length=346' Tc=14.5 min CN=87 Runoff=5.19 cfs 21,377 cf

Subcatchment PDA-1.4G: Subcat PDA-1.4G Runoff Area=22,284 sf 61.76% Impervious Runoff Depth=3.68"
Tc=6.0 min CN=89 Runoff=2.10 cfs 6,827 cf

Subcatchment PDA-1.4H: Subcat PDA-1.4H Runoff Area=10,744 sf 5.59% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=75 Runoff=0.67 cfs 2,120 cf

Subcatchment PDA-1.4I: Subcat PDA-1.4I Runoff Area=9,824 sf 27.06% Impervious Runoff Depth=2.90"
Tc=6.0 min CN=81 Runoff=0.75 cfs 2,372 cf

Subcatchment PDA-1.4J: Subcat PDA-1.4J Runoff Area=59,466 sf 8.43% Impervious Runoff Depth=2.72"
Tc=6.0 min CN=79 Runoff=4.26 cfs 13,458 cf

Subcatchment PDA-1.4K: Subcat PDA-1.4K Runoff Area=18,876 sf 80.13% Impervious Runoff Depth=4.10"
Tc=6.0 min CN=93 Runoff=1.92 cfs 6,449 cf

Subcatchment PDA-1.4L: Subcat PDA-1.4L Runoff Area=11,978 sf 24.28% Impervious Runoff Depth=2.81"
Flow Length=75' Tc=8.5 min CN=80 Runoff=0.82 cfs 2,801 cf

Subcatchment PDA-1.4M: Subcat PDA-1.4M Runoff Area=4,734 sf 4.20% Impervious Runoff Depth=2.37"
Flow Length=166' Slope=0.0100 '/' Tc=14.3 min CN=75 Runoff=0.23 cfs 934 cf

Subcatchment PDA-2.1A: Subcat Runoff Area=348,138 sf 26.08% Impervious Runoff Depth=2.90"
Flow Length=269' Tc=16.3 min CN=81 Runoff=19.82 cfs 84,050 cf

Subcatchment PDA-2.1B: Subcat PDA-2.1B Runoff Area=151,957 sf 4.77% Impervious Runoff Depth=2.45"
Flow Length=123' Tc=17.0 min CN=76 Runoff=7.16 cfs 31,067 cf

Subcatchment PDA-2.2A: Subcat Runoff Area=156,051 sf 26.13% Impervious Runoff Depth=2.81"
Tc=12.9 min CN=80 Runoff=9.33 cfs 36,487 cf

Subcatchment PDA-2.2B: Subcat PDA-2.2B Runoff Area=152,340 sf 1.56% Impervious Runoff Depth=2.12"
Flow Length=565' Slope=0.0120 '/' Tc=40.0 min CN=72 Runoff=4.22 cfs 26,928 cf

Subcatchment PDA-2.2C.a: Subcat Runoff Area=90,671 sf 100.00% Impervious Runoff Depth=4.66"
Tc=6.0 min CN=98 Runoff=9.74 cfs 35,236 cf

Subcatchment PDA-2.2C.b: Subcat Runoff Area=61,186 sf 99.99% Impervious Runoff Depth=4.66"
Tc=6.0 min CN=98 Runoff=6.57 cfs 23,777 cf

Subcatchment PDA-ROOF1.3: Subcat Runoff Area=9,782 sf 100.00% Impervious Runoff Depth=4.66"
Tc=6.0 min CN=98 Runoff=1.05 cfs 3,801 cf

Subcatchment PDA-ROOF1.4: Subcat Runoff Area=58,210 sf 100.00% Impervious Runoff Depth=4.66"
Tc=6.0 min CN=98 Runoff=6.25 cfs 22,621 cf

Subcatchment PDA-ROOF2.1: Subcat Runoff Area=31,087 sf 100.00% Impervious Runoff Depth=4.66"
Tc=6.0 min CN=98 Runoff=3.34 cfs 12,081 cf

Pond 1P: Bio 4 Peak Elev=60.40' Storage=1,240 cf Inflow=1.37 cfs 4,464 cf
Discarded=0.01 cfs 1,489 cf Primary=1.56 cfs 2,975 cf Outflow=1.57 cfs 4,464 cf

Pond 2P: Bio 3 Peak Elev=59.80' Storage=1,149 cf Inflow=1.64 cfs 5,671 cf
Primary=1.64 cfs 3,230 cf Tertiary=0.02 cfs 2,441 cf Outflow=1.66 cfs 5,671 cf

Pond 3P: DIV-02 Peak Elev=57.09' Inflow=3.60 cfs 16,583 cf
Primary=1.03 cfs 12,875 cf Secondary=2.57 cfs 3,708 cf Outflow=3.60 cfs 16,583 cf

Pond 4P: Detention Basin 2 Peak Elev=58.09' Storage=7,295 cf Inflow=4.97 cfs 16,248 cf
Primary=1.40 cfs 16,244 cf Secondary=0.00 cfs 0 cf Outflow=1.40 cfs 16,244 cf

Pond 7P: Bio 2 Peak Elev=56.58' Storage=2,269 cf Inflow=2.52 cfs 8,213 cf
Primary=2.73 cfs 4,447 cf Secondary=0.00 cfs 0 cf Tertiary=0.03 cfs 3,766 cf Outflow=2.75 cfs 8,213 cf

Pond 8P: DIV-04 Peak Elev=48.81' Inflow=8.84 cfs 28,730 cf
Primary=5.84 cfs 15,464 cf Secondary=5.06 cfs 13,262 cf Outflow=8.84 cfs 28,726 cf

Pond 9P: Sand Filter 5 Peak Elev=49.90' Storage=1,538 cf Inflow=2.08 cfs 7,383 cf
Discarded=0.01 cfs 1,798 cf Primary=1.89 cfs 5,586 cf Secondary=0.00 cfs 0 cf Outflow=1.90 cfs 7,383 cf

Pond 10P: Bio 1 Peak Elev=44.56' Storage=1,855 cf Inflow=1.25 cfs 10,551 cf
Discarded=0.01 cfs 2,138 cf Primary=1.22 cfs 8,413 cf Secondary=0.00 cfs 0 cf Outflow=1.23 cfs 10,551 cf

Pond 12P: Infiltration Basin 1 Peak Elev=58.12' Storage=6,624 cf Inflow=7.00 cfs 24,993 cf
Discarded=0.08 cfs 9,601 cf Primary=6.22 cfs 15,392 cf Secondary=0.00 cfs 0 cf Outflow=6.29 cfs 24,993 cf

Pond 13P: Sand Filter 1 Peak Elev=47.26' Storage=15,279 cf Inflow=2.60 cfs 37,812 cf
Discarded=0.03 cfs 12,703 cf Primary=0.71 cfs 25,109 cf Secondary=0.00 cfs 0 cf Outflow=0.74 cfs 37,812 cf

Pond 14P: DIV-03 Peak Elev=45.12' Inflow=4.00 cfs 13,024 cf
Primary=1.25 cfs 10,551 cf Secondary=2.74 cfs 2,473 cf Outflow=4.00 cfs 13,024 cf

Pond 15P: Detention Basin 1 Peak Elev=46.46' Storage=36,424 cf Inflow=26.67 cfs 114,495 cf
Primary=10.62 cfs 114,430 cf Secondary=0.00 cfs 0 cf Tertiary=0.00 cfs 0 cf Outflow=10.62 cfs 114,430 cf

Pond 17P: Track and Field- stone base Peak Elev=50.66' Storage=5,025 cf Inflow=9.74 cfs 35,236 cf
Discarded=0.61 cfs 20,879 cf Primary=5.58 cfs 14,357 cf Outflow=6.19 cfs 35,236 cf

Pond 18P: Sand Filter 2 Peak Elev=55.41' Storage=5,031 cf Inflow=4.65 cfs 24,898 cf
Discarded=0.01 cfs 5,092 cf Primary=3.83 cfs 19,806 cf Secondary=0.00 cfs 0 cf Outflow=3.84 cfs 24,898 cf

Pond 19P: Sand Filter 3 Peak Elev=60.67' Storage=4,025 cf Inflow=2.10 cfs 6,827 cf
Discarded=0.01 cfs 4,761 cf Primary=0.23 cfs 2,066 cf Secondary=0.00 cfs 0 cf Outflow=0.24 cfs 6,827 cf

Pond 20P: Sand Filter 4 Peak Elev=61.51' Storage=2,281 cf Inflow=2.01 cfs 7,968 cf
Outflow=0.61 cfs 7,968 cf

Pond 23P: UGIS-1 Peak Elev=48.74' Storage=11,219 cf Inflow=5.84 cfs 15,464 cf
Discarded=0.08 cfs 12,512 cf Primary=1.25 cfs 2,952 cf Outflow=1.33 cfs 15,464 cf

Pond 28P: DIV-01 Peak Elev=48.10' Inflow=21.56 cfs 96,131 cf
Primary=2.60 cfs 37,812 cf Secondary=18.97 cfs 58,319 cf Outflow=21.56 cfs 96,131 cf

Pond 33P: Wet Swale Peak Elev=59.96' Storage=5,292 cf Inflow=5.65 cfs 19,058 cf
Discarded=0.01 cfs 4,931 cf Primary=4.44 cfs 14,127 cf Secondary=0.00 cfs 0 cf Outflow=4.45 cfs 19,058 cf

Pond 35P: Track and Field-manifold Peak Elev=49.69' Storage=3,941 cf Inflow=11.52 cfs 38,134 cf
Discarded=0.67 cfs 9,404 cf Primary=8.84 cfs 28,730 cf Outflow=9.51 cfs 38,134 cf

Link 2L: DP 1.1 - Culvert 1 Inflow=21.30 cfs 100,525 cf
Primary=21.30 cfs 100,525 cf

Link 3L: DP 1.2 - Culvert 2 Inflow=23.04 cfs 115,134 cf
Primary=23.04 cfs 115,134 cf

Link 4L: DP 1.3 - Culvert 3 Inflow=23.98 cfs 121,177 cf
Primary=23.98 cfs 121,177 cf

Link 5L: DP 1.4 - Silver Creek East Branch Inflow=50.66 cfs 247,294 cf
Primary=50.66 cfs 247,294 cf

Link 6L: DP 2.1 - West Wetland Inflow=20.15 cfs 157,573 cf
Primary=20.15 cfs 157,573 cf

Link 7L: DP 2.2 - Silver Creek West Branch Inflow=24.67 cfs 194,060 cf
Primary=24.67 cfs 194,060 cf

Total Runoff Area = 2,076,121 sf Runoff Volume = 526,734 cf Average Runoff Depth = 3.04"
69.65% Pervious = 1,445,943 sf 30.35% Impervious = 630,178 sf

Summary for Subcatchment PDA-1.1A: Subcat PDA-1.1A

Runoff = 21.30 cfs @ 12.30 hrs, Volume= 100,525 cf, Depth= 2.54"
Routed to Link 2L : DP 1.1 - Culvert 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
90,334	74	>75% Grass cover, Good, HSG C
38,424	80	>75% Grass cover, Good, HSG D
4,538	87	Dirt roads, HSG C
1,510	89	Dirt roads, HSG D
1,040	98	Paved parking, HSG D
6,366	98	Unconnected pavement, HSG C
776	98	Unconnected pavement, HSG D
33,631	70	Woods, Good, HSG C
298,387	77	Woods, Good, HSG D
475,005	77	Weighted Average
466,824	76	98.28% Pervious Area
8,181	98	1.72% Impervious Area
7,142		87.29% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
8.4	351	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.1	451	Total			

Hydrograph for Subcatchment PDA-1.1A: Subcat PDA-1.1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.03	**0.37**
12.50	3.44	1.39	**15.63**
15.00	4.19	1.96	1.75
17.50	4.50	2.21	0.88
20.00	4.69	2.37	0.60
22.50	**4.83**	**2.48**	0.47
25.00	**4.90**	**2.54**	0.00
27.50	4.90	2.54	0.00
30.00	4.90	2.54	0.00
32.50	4.90	2.54	0.00
35.00	4.90	2.54	0.00
37.50	4.90	2.54	0.00
40.00	4.90	2.54	0.00
42.50	4.90	2.54	0.00
45.00	4.90	2.54	0.00
47.50	4.90	2.54	0.00
50.00	4.90	2.54	0.00
52.50	4.90	2.54	0.00
55.00	4.90	2.54	0.00
57.50	4.90	2.54	0.00
60.00	4.90	2.54	0.00
62.50	4.90	2.54	0.00
65.00	4.90	2.54	0.00
67.50	4.90	2.54	0.00
70.00	4.90	2.54	0.00
72.50	4.90	2.54	0.00
75.00	4.90	2.54	0.00
77.50	4.90	2.54	0.00
80.00	4.90	2.54	0.00
82.50	4.90	2.54	0.00
85.00	4.90	2.54	0.00
87.50	4.90	2.54	0.00
90.00	4.90	2.54	0.00
92.50	4.90	2.54	0.00
95.00	4.90	2.54	0.00
97.50	4.90	2.54	0.00
100.00	4.90	2.54	0.00
102.50	4.90	2.54	0.00
105.00	4.90	2.54	0.00
107.50	4.90	2.54	0.00
110.00	4.90	2.54	0.00
112.50	4.90	2.54	0.00
115.00	4.90	2.54	0.00
117.50	4.90	2.54	0.00
120.00	4.90	2.54	0.00
122.50	4.90	2.54	0.00
125.00	4.90	2.54	0.00
127.50	4.90	2.54	0.00
130.00	4.90	2.54	0.00
132.50	4.90	2.54	0.00
135.00	4.90	2.54	0.00
137.50	4.90	2.54	0.00
140.00	4.90	2.54	0.00
142.50	4.90	2.54	0.00
145.00	4.90	2.54	0.00
147.50	4.90	2.54	0.00
150.00	4.90	2.54	0.00
152.50	4.90	2.54	0.00
155.00	4.90	2.54	0.00
157.50	4.90	2.54	0.00
160.00	4.90	2.54	0.00
162.50	4.90	2.54	0.00
165.00	4.90	2.54	0.00
167.50	4.90	2.54	0.00
170.00	4.90	2.54	0.00
172.50	4.90	2.54	0.00
175.00	4.90	2.54	0.00
177.50	4.90	2.54	0.00
180.00	4.90	2.54	0.00
182.50	4.90	2.54	0.00
185.00	4.90	2.54	0.00
187.50	4.90	2.54	0.00
190.00	4.90	2.54	0.00
192.50	4.90	2.54	0.00
195.00	4.90	2.54	0.00
197.50	4.90	2.54	0.00
200.00	4.90	2.54	0.00
202.50	4.90	2.54	0.00
205.00	4.90	2.54	0.00
207.50	4.90	2.54	0.00
210.00	4.90	2.54	0.00
212.50	4.90	2.54	0.00
215.00	4.90	2.54	0.00
217.50	4.90	2.54	0.00
220.00	4.90	2.54	0.00
222.50	4.90	2.54	0.00
225.00	4.90	2.54	0.00
227.50	4.90	2.54	0.00
230.00	4.90	2.54	0.00
232.50	4.90	2.54	0.00
235.00	4.90	2.54	0.00
237.50	4.90	2.54	0.00
240.00	4.90	2.54	0.00

Summary for Subcatchment PDA-1.1B: Subcat PDA-1.1B

Runoff = 1.69 cfs @ 12.19 hrs, Volume= 6,640 cf, Depth= 2.63"
Routed to Link 3L : DP 1.2 - Culvert 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
19,238	74	>75% Grass cover, Good, HSG C
5,415	80	>75% Grass cover, Good, HSG D
5,665	87	Dirt roads, HSG C
8	98	Paved parking, HSG C
7	98	Paved parking, HSG D
30,333	78	Weighted Average
30,318	78	99.95% Pervious Area
15	98	0.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.4	26	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	126	Total			

Hydrograph for Subcatchment PDA-1.1B: Subcat PDA-1.1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.04	**0.03**
12.50	3.44	1.45	**0.77**
15.00	4.19	2.04	0.11
17.50	4.50	2.30	0.06
20.00	4.69	2.45	0.04
22.50	**4.83**	**2.57**	0.03
25.00	**4.90**	**2.63**	0.00
27.50	4.90	2.63	0.00
30.00	4.90	2.63	0.00
32.50	4.90	2.63	0.00
35.00	4.90	2.63	0.00
37.50	4.90	2.63	0.00
40.00	4.90	2.63	0.00
42.50	4.90	2.63	0.00
45.00	4.90	2.63	0.00
47.50	4.90	2.63	0.00
50.00	4.90	2.63	0.00
52.50	4.90	2.63	0.00
55.00	4.90	2.63	0.00
57.50	4.90	2.63	0.00
60.00	4.90	2.63	0.00
62.50	4.90	2.63	0.00
65.00	4.90	2.63	0.00
67.50	4.90	2.63	0.00
70.00	4.90	2.63	0.00
72.50	4.90	2.63	0.00
75.00	4.90	2.63	0.00
77.50	4.90	2.63	0.00
80.00	4.90	2.63	0.00
82.50	4.90	2.63	0.00
85.00	4.90	2.63	0.00
87.50	4.90	2.63	0.00
90.00	4.90	2.63	0.00
92.50	4.90	2.63	0.00
95.00	4.90	2.63	0.00
97.50	4.90	2.63	0.00
100.00	4.90	2.63	0.00
102.50	4.90	2.63	0.00
105.00	4.90	2.63	0.00
107.50	4.90	2.63	0.00
110.00	4.90	2.63	0.00
112.50	4.90	2.63	0.00
115.00	4.90	2.63	0.00
117.50	4.90	2.63	0.00
120.00	4.90	2.63	0.00
122.50	4.90	2.63	0.00
125.00	4.90	2.63	0.00
127.50	4.90	2.63	0.00
130.00	4.90	2.63	0.00
132.50	4.90	2.63	0.00
135.00	4.90	2.63	0.00
137.50	4.90	2.63	0.00
140.00	4.90	2.63	0.00
142.50	4.90	2.63	0.00
145.00	4.90	2.63	0.00
147.50	4.90	2.63	0.00
150.00	4.90	2.63	0.00
152.50	4.90	2.63	0.00
155.00	4.90	2.63	0.00
157.50	4.90	2.63	0.00
160.00	4.90	2.63	0.00
162.50	4.90	2.63	0.00
165.00	4.90	2.63	0.00
167.50	4.90	2.63	0.00
170.00	4.90	2.63	0.00
172.50	4.90	2.63	0.00
175.00	4.90	2.63	0.00
177.50	4.90	2.63	0.00
180.00	4.90	2.63	0.00
182.50	4.90	2.63	0.00
185.00	4.90	2.63	0.00
187.50	4.90	2.63	0.00
190.00	4.90	2.63	0.00
192.50	4.90	2.63	0.00
195.00	4.90	2.63	0.00
197.50	4.90	2.63	0.00
200.00	4.90	2.63	0.00
202.50	4.90	2.63	0.00
205.00	4.90	2.63	0.00
207.50	4.90	2.63	0.00
210.00	4.90	2.63	0.00
212.50	4.90	2.63	0.00
215.00	4.90	2.63	0.00
217.50	4.90	2.63	0.00
220.00	4.90	2.63	0.00
222.50	4.90	2.63	0.00
225.00	4.90	2.63	0.00
227.50	4.90	2.63	0.00
230.00	4.90	2.63	0.00
232.50	4.90	2.63	0.00
235.00	4.90	2.63	0.00
237.50	4.90	2.63	0.00
240.00	4.90	2.63	0.00

Summary for Subcatchment PDA-1.2A: Subcat PDA-1.2A

Runoff = 1.84 cfs @ 12.11 hrs, Volume= 6,043 cf, Depth= 2.81"
Routed to Link 4L : DP 1.3 - Culvert 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Adj	Description
9,020	74		>75% Grass cover, Good, HSG C
13,051	80		>75% Grass cover, Good, HSG D
1,436	98		Paved parking, HSG C
1,771	98		Paved parking, HSG D
0	98		Roofs, HSG C
567	98		Unconnected pavement, HSG C
25,845	81	80	Weighted Average, UI Adjusted
22,071	78	78	85.40% Pervious Area
3,775	98	98	14.60% Impervious Area
567			15.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	54	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.3	6	0.3300	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.3	5	0.2000	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.8	8	0.5000	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.30"
7.3	73	Total			

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Hydrograph for Subcatchment PDA-1.2A: Subcat PDA-1.2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.06	**0.04**
12.50	3.44	1.59	**0.50**
15.00	4.19	2.20	0.10
17.50	4.50	2.47	0.05
20.00	4.69	2.62	0.03
22.50	**4.83**	**2.75**	0.03
25.00	**4.90**	**2.81**	0.00
27.50	4.90	2.81	0.00
30.00	4.90	2.81	0.00
32.50	4.90	2.81	0.00
35.00	4.90	2.81	0.00
37.50	4.90	2.81	0.00
40.00	4.90	2.81	0.00
42.50	4.90	2.81	0.00
45.00	4.90	2.81	0.00
47.50	4.90	2.81	0.00
50.00	4.90	2.81	0.00
52.50	4.90	2.81	0.00
55.00	4.90	2.81	0.00
57.50	4.90	2.81	0.00
60.00	4.90	2.81	0.00
62.50	4.90	2.81	0.00
65.00	4.90	2.81	0.00
67.50	4.90	2.81	0.00
70.00	4.90	2.81	0.00
72.50	4.90	2.81	0.00
75.00	4.90	2.81	0.00
77.50	4.90	2.81	0.00
80.00	4.90	2.81	0.00
82.50	4.90	2.81	0.00
85.00	4.90	2.81	0.00
87.50	4.90	2.81	0.00
90.00	4.90	2.81	0.00
92.50	4.90	2.81	0.00
95.00	4.90	2.81	0.00
97.50	4.90	2.81	0.00
100.00	4.90	2.81	0.00
102.50	4.90	2.81	0.00
105.00	4.90	2.81	0.00
107.50	4.90	2.81	0.00
110.00	4.90	2.81	0.00
112.50	4.90	2.81	0.00
115.00	4.90	2.81	0.00
117.50	4.90	2.81	0.00
120.00	4.90	2.81	0.00
122.50	4.90	2.81	0.00
125.00	4.90	2.81	0.00
127.50	4.90	2.81	0.00
130.00	4.90	2.81	0.00
132.50	4.90	2.81	0.00
135.00	4.90	2.81	0.00
137.50	4.90	2.81	0.00
140.00	4.90	2.81	0.00
142.50	4.90	2.81	0.00
145.00	4.90	2.81	0.00
147.50	4.90	2.81	0.00
150.00	4.90	2.81	0.00
152.50	4.90	2.81	0.00
155.00	4.90	2.81	0.00
157.50	4.90	2.81	0.00
160.00	4.90	2.81	0.00
162.50	4.90	2.81	0.00
165.00	4.90	2.81	0.00
167.50	4.90	2.81	0.00
170.00	4.90	2.81	0.00
172.50	4.90	2.81	0.00
175.00	4.90	2.81	0.00
177.50	4.90	2.81	0.00
180.00	4.90	2.81	0.00
182.50	4.90	2.81	0.00
185.00	4.90	2.81	0.00
187.50	4.90	2.81	0.00
190.00	4.90	2.81	0.00
192.50	4.90	2.81	0.00
195.00	4.90	2.81	0.00
197.50	4.90	2.81	0.00
200.00	4.90	2.81	0.00
202.50	4.90	2.81	0.00
205.00	4.90	2.81	0.00
207.50	4.90	2.81	0.00
210.00	4.90	2.81	0.00
212.50	4.90	2.81	0.00
215.00	4.90	2.81	0.00
217.50	4.90	2.81	0.00
220.00	4.90	2.81	0.00
222.50	4.90	2.81	0.00
225.00	4.90	2.81	0.00
227.50	4.90	2.81	0.00
230.00	4.90	2.81	0.00
232.50	4.90	2.81	0.00
235.00	4.90	2.81	0.00
237.50	4.90	2.81	0.00
240.00	4.90	2.81	0.00

Summary for Subcatchment PDA-1.3A: Subcat PDA-1.3A

Runoff = 5.65 cfs @ 12.09 hrs, Volume= 19,058 cf, Depth= 3.99"
Routed to Pond 33P : Wet Swale

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
10,911	74	>75% Grass cover, Good, HSG C
5,194	80	>75% Grass cover, Good, HSG D
41,056	98	Paved parking, HSG C
40	98	Paved parking, HSG D
0	98	Roofs, HSG C
94	98	Unconnected pavement, HSG C
57,295	92	Weighted Average
16,106	76	28.11% Pervious Area
41,189	98	71.89% Impervious Area
94		0.23% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	27	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
1.2	73	0.0100	0.99		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.30"
0.8	98	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.5	198	Total			

Hydrograph for Subcatchment PDA-1.3A: Subcat PDA-1.3A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.01	0.02
7.50	0.50	0.09	0.07
10.00	0.93	0.35	**0.22**
12.50	3.44	2.58	**1.29**
15.00	4.19	3.30	0.24
17.50	4.50	3.61	0.12
20.00	4.69	3.79	0.08
22.50	**4.83**	**3.92**	0.07
25.00	**4.90**	**3.99**	0.00
27.50	4.90	3.99	0.00
30.00	4.90	3.99	0.00
32.50	4.90	3.99	0.00
35.00	4.90	3.99	0.00
37.50	4.90	3.99	0.00
40.00	4.90	3.99	0.00
42.50	4.90	3.99	0.00
45.00	4.90	3.99	0.00
47.50	4.90	3.99	0.00
50.00	4.90	3.99	0.00
52.50	4.90	3.99	0.00
55.00	4.90	3.99	0.00
57.50	4.90	3.99	0.00
60.00	4.90	3.99	0.00
62.50	4.90	3.99	0.00
65.00	4.90	3.99	0.00
67.50	4.90	3.99	0.00
70.00	4.90	3.99	0.00
72.50	4.90	3.99	0.00
75.00	4.90	3.99	0.00
77.50	4.90	3.99	0.00
80.00	4.90	3.99	0.00
82.50	4.90	3.99	0.00
85.00	4.90	3.99	0.00
87.50	4.90	3.99	0.00
90.00	4.90	3.99	0.00
92.50	4.90	3.99	0.00
95.00	4.90	3.99	0.00
97.50	4.90	3.99	0.00
100.00	4.90	3.99	0.00
102.50	4.90	3.99	0.00
105.00	4.90	3.99	0.00
107.50	4.90	3.99	0.00
110.00	4.90	3.99	0.00
112.50	4.90	3.99	0.00
115.00	4.90	3.99	0.00
117.50	4.90	3.99	0.00
120.00	4.90	3.99	0.00
122.50	4.90	3.99	0.00
125.00	4.90	3.99	0.00
127.50	4.90	3.99	0.00
130.00	4.90	3.99	0.00
132.50	4.90	3.99	0.00
135.00	4.90	3.99	0.00
137.50	4.90	3.99	0.00
140.00	4.90	3.99	0.00
142.50	4.90	3.99	0.00
145.00	4.90	3.99	0.00
147.50	4.90	3.99	0.00
150.00	4.90	3.99	0.00
152.50	4.90	3.99	0.00
155.00	4.90	3.99	0.00
157.50	4.90	3.99	0.00
160.00	4.90	3.99	0.00
162.50	4.90	3.99	0.00
165.00	4.90	3.99	0.00
167.50	4.90	3.99	0.00
170.00	4.90	3.99	0.00
172.50	4.90	3.99	0.00
175.00	4.90	3.99	0.00
177.50	4.90	3.99	0.00
180.00	4.90	3.99	0.00
182.50	4.90	3.99	0.00
185.00	4.90	3.99	0.00
187.50	4.90	3.99	0.00
190.00	4.90	3.99	0.00
192.50	4.90	3.99	0.00
195.00	4.90	3.99	0.00
197.50	4.90	3.99	0.00
200.00	4.90	3.99	0.00
202.50	4.90	3.99	0.00
205.00	4.90	3.99	0.00
207.50	4.90	3.99	0.00
210.00	4.90	3.99	0.00
212.50	4.90	3.99	0.00
215.00	4.90	3.99	0.00
217.50	4.90	3.99	0.00
220.00	4.90	3.99	0.00
222.50	4.90	3.99	0.00
225.00	4.90	3.99	0.00
227.50	4.90	3.99	0.00
230.00	4.90	3.99	0.00
232.50	4.90	3.99	0.00
235.00	4.90	3.99	0.00
237.50	4.90	3.99	0.00
240.00	4.90	3.99	0.00

Summary for Subcatchment PDA-1.3C: Subcat PDA-1.3C

Runoff = 1.37 cfs @ 12.10 hrs, Volume= 4,464 cf, Depth= 3.18"
Routed to Pond 1P : Bio 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
9,827	74	>75% Grass cover, Good, HSG C
6,906	98	Paved parking, HSG C
0	98	Roofs, HSG C
117	98	Unconnected pavement, HSG C
16,850	84	Weighted Average
9,827	74	58.32% Pervious Area
7,023	98	41.68% Impervious Area
117		1.66% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	39	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.8	10	0.1000	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
6.8	49	Total			

Hydrograph for Subcatchment PDA-1.3C: Subcat PDA-1.3C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.01	0.00
10.00	0.93	0.12	**0.03**
12.50	3.44	1.89	**0.34**
15.00	4.19	2.54	0.07
17.50	4.50	2.82	0.03
20.00	4.69	2.99	0.02
22.50	**4.83**	**3.12**	0.02
25.00	**4.90**	**3.18**	0.00
27.50	4.90	3.18	0.00
30.00	4.90	3.18	0.00
32.50	4.90	3.18	0.00
35.00	4.90	3.18	0.00
37.50	4.90	3.18	0.00
40.00	4.90	3.18	0.00
42.50	4.90	3.18	0.00
45.00	4.90	3.18	0.00
47.50	4.90	3.18	0.00
50.00	4.90	3.18	0.00
52.50	4.90	3.18	0.00
55.00	4.90	3.18	0.00
57.50	4.90	3.18	0.00
60.00	4.90	3.18	0.00
62.50	4.90	3.18	0.00
65.00	4.90	3.18	0.00
67.50	4.90	3.18	0.00
70.00	4.90	3.18	0.00
72.50	4.90	3.18	0.00
75.00	4.90	3.18	0.00
77.50	4.90	3.18	0.00
80.00	4.90	3.18	0.00
82.50	4.90	3.18	0.00
85.00	4.90	3.18	0.00
87.50	4.90	3.18	0.00
90.00	4.90	3.18	0.00
92.50	4.90	3.18	0.00
95.00	4.90	3.18	0.00
97.50	4.90	3.18	0.00
100.00	4.90	3.18	0.00
102.50	4.90	3.18	0.00
105.00	4.90	3.18	0.00
107.50	4.90	3.18	0.00
110.00	4.90	3.18	0.00
112.50	4.90	3.18	0.00
115.00	4.90	3.18	0.00
117.50	4.90	3.18	0.00
120.00	4.90	3.18	0.00
122.50	4.90	3.18	0.00
125.00	4.90	3.18	0.00
127.50	4.90	3.18	0.00
130.00	4.90	3.18	0.00
132.50	4.90	3.18	0.00
135.00	4.90	3.18	0.00
137.50	4.90	3.18	0.00
140.00	4.90	3.18	0.00
142.50	4.90	3.18	0.00
145.00	4.90	3.18	0.00
147.50	4.90	3.18	0.00
150.00	4.90	3.18	0.00
152.50	4.90	3.18	0.00
155.00	4.90	3.18	0.00
157.50	4.90	3.18	0.00
160.00	4.90	3.18	0.00
162.50	4.90	3.18	0.00
165.00	4.90	3.18	0.00
167.50	4.90	3.18	0.00
170.00	4.90	3.18	0.00
172.50	4.90	3.18	0.00
175.00	4.90	3.18	0.00
177.50	4.90	3.18	0.00
180.00	4.90	3.18	0.00
182.50	4.90	3.18	0.00
185.00	4.90	3.18	0.00
187.50	4.90	3.18	0.00
190.00	4.90	3.18	0.00
192.50	4.90	3.18	0.00
195.00	4.90	3.18	0.00
197.50	4.90	3.18	0.00
200.00	4.90	3.18	0.00
202.50	4.90	3.18	0.00
205.00	4.90	3.18	0.00
207.50	4.90	3.18	0.00
210.00	4.90	3.18	0.00
212.50	4.90	3.18	0.00
215.00	4.90	3.18	0.00
217.50	4.90	3.18	0.00
220.00	4.90	3.18	0.00
222.50	4.90	3.18	0.00
225.00	4.90	3.18	0.00
227.50	4.90	3.18	0.00
230.00	4.90	3.18	0.00
232.50	4.90	3.18	0.00
235.00	4.90	3.18	0.00
237.50	4.90	3.18	0.00
240.00	4.90	3.18	0.00

Summary for Subcatchment PDA-1.3D: Subcat PDA-1.3D

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 1,870 cf, Depth= 3.28"
Routed to Pond 2P : Bio 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
3,766	74	>75% Grass cover, Good, HSG C
3,085	98	Paved parking, HSG C
0	98	Roofs, HSG C
6,850	85	Weighted Average
3,766	74	54.97% Pervious Area
3,085	98	45.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.3D: Subcat PDA-1.3D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.01	0.00
10.00	0.93	0.14	**0.02**
12.50	3.44	1.96	**0.13**
15.00	4.19	2.62	0.03
17.50	4.50	2.91	0.01
20.00	4.69	3.08	0.01
22.50	**4.83**	**3.21**	0.01
25.00	**4.90**	**3.28**	0.00
27.50	4.90	3.28	0.00
30.00	4.90	3.28	0.00
32.50	4.90	3.28	0.00
35.00	4.90	3.28	0.00
37.50	4.90	3.28	0.00
40.00	4.90	3.28	0.00
42.50	4.90	3.28	0.00
45.00	4.90	3.28	0.00
47.50	4.90	3.28	0.00
50.00	4.90	3.28	0.00
52.50	4.90	3.28	0.00
55.00	4.90	3.28	0.00
57.50	4.90	3.28	0.00
60.00	4.90	3.28	0.00
62.50	4.90	3.28	0.00
65.00	4.90	3.28	0.00
67.50	4.90	3.28	0.00
70.00	4.90	3.28	0.00
72.50	4.90	3.28	0.00
75.00	4.90	3.28	0.00
77.50	4.90	3.28	0.00
80.00	4.90	3.28	0.00
82.50	4.90	3.28	0.00
85.00	4.90	3.28	0.00
87.50	4.90	3.28	0.00
90.00	4.90	3.28	0.00
92.50	4.90	3.28	0.00
95.00	4.90	3.28	0.00
97.50	4.90	3.28	0.00
100.00	4.90	3.28	0.00
102.50	4.90	3.28	0.00
105.00	4.90	3.28	0.00
107.50	4.90	3.28	0.00
110.00	4.90	3.28	0.00
112.50	4.90	3.28	0.00
115.00	4.90	3.28	0.00
117.50	4.90	3.28	0.00
120.00	4.90	3.28	0.00
122.50	4.90	3.28	0.00
125.00	4.90	3.28	0.00
127.50	4.90	3.28	0.00
130.00	4.90	3.28	0.00
132.50	4.90	3.28	0.00
135.00	4.90	3.28	0.00
137.50	4.90	3.28	0.00
140.00	4.90	3.28	0.00
142.50	4.90	3.28	0.00
145.00	4.90	3.28	0.00
147.50	4.90	3.28	0.00
150.00	4.90	3.28	0.00
152.50	4.90	3.28	0.00
155.00	4.90	3.28	0.00
157.50	4.90	3.28	0.00
160.00	4.90	3.28	0.00
162.50	4.90	3.28	0.00
165.00	4.90	3.28	0.00
167.50	4.90	3.28	0.00
170.00	4.90	3.28	0.00
172.50	4.90	3.28	0.00
175.00	4.90	3.28	0.00
177.50	4.90	3.28	0.00
180.00	4.90	3.28	0.00
182.50	4.90	3.28	0.00
185.00	4.90	3.28	0.00
187.50	4.90	3.28	0.00
190.00	4.90	3.28	0.00
192.50	4.90	3.28	0.00
195.00	4.90	3.28	0.00
197.50	4.90	3.28	0.00
200.00	4.90	3.28	0.00
202.50	4.90	3.28	0.00
205.00	4.90	3.28	0.00
207.50	4.90	3.28	0.00
210.00	4.90	3.28	0.00
212.50	4.90	3.28	0.00
215.00	4.90	3.28	0.00
217.50	4.90	3.28	0.00
220.00	4.90	3.28	0.00
222.50	4.90	3.28	0.00
225.00	4.90	3.28	0.00
227.50	4.90	3.28	0.00
230.00	4.90	3.28	0.00
232.50	4.90	3.28	0.00
235.00	4.90	3.28	0.00
237.50	4.90	3.28	0.00
240.00	4.90	3.28	0.00

Summary for Subcatchment PDA-1.4A: Subcat PDA-1.4A

Runoff = 2.01 cfs @ 12.19 hrs, Volume= 7,968 cf, Depth= 3.08"
Routed to Pond 20P : Sand Filter 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
14,884	74	>75% Grass cover, Good, HSG C
2,931	80	>75% Grass cover, Good, HSG D
5,758	87	Dirt roads, HSG C
6	89	Dirt roads, HSG D
2,675	98	Paved parking, HSG C
4,570	98	Paved parking, HSG D
183	98	Unconnected pavement, HSG C
31,007	83	Weighted Average
23,579	78	76.05% Pervious Area
7,428	98	23.95% Impervious Area
183		2.46% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.7	44	0.0250	1.11		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	144	Total			

Hydrograph for Subcatchment PDA-1.4A: Subcat PDA-1.4A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.10	**0.06**
12.50	3.44	1.81	**0.89**
15.00	4.19	2.45	0.12
17.50	4.50	2.73	0.06
20.00	4.69	2.89	0.04
22.50	**4.83**	**3.02**	0.03
25.00	**4.90**	**3.08**	0.00
27.50	4.90	3.08	0.00
30.00	4.90	3.08	0.00
32.50	4.90	3.08	0.00
35.00	4.90	3.08	0.00
37.50	4.90	3.08	0.00
40.00	4.90	3.08	0.00
42.50	4.90	3.08	0.00
45.00	4.90	3.08	0.00
47.50	4.90	3.08	0.00
50.00	4.90	3.08	0.00
52.50	4.90	3.08	0.00
55.00	4.90	3.08	0.00
57.50	4.90	3.08	0.00
60.00	4.90	3.08	0.00
62.50	4.90	3.08	0.00
65.00	4.90	3.08	0.00
67.50	4.90	3.08	0.00
70.00	4.90	3.08	0.00
72.50	4.90	3.08	0.00
75.00	4.90	3.08	0.00
77.50	4.90	3.08	0.00
80.00	4.90	3.08	0.00
82.50	4.90	3.08	0.00
85.00	4.90	3.08	0.00
87.50	4.90	3.08	0.00
90.00	4.90	3.08	0.00
92.50	4.90	3.08	0.00
95.00	4.90	3.08	0.00
97.50	4.90	3.08	0.00
100.00	4.90	3.08	0.00
102.50	4.90	3.08	0.00
105.00	4.90	3.08	0.00
107.50	4.90	3.08	0.00
110.00	4.90	3.08	0.00
112.50	4.90	3.08	0.00
115.00	4.90	3.08	0.00
117.50	4.90	3.08	0.00
120.00	4.90	3.08	0.00
122.50	4.90	3.08	0.00
125.00	4.90	3.08	0.00
127.50	4.90	3.08	0.00
130.00	4.90	3.08	0.00
132.50	4.90	3.08	0.00
135.00	4.90	3.08	0.00
137.50	4.90	3.08	0.00
140.00	4.90	3.08	0.00
142.50	4.90	3.08	0.00
145.00	4.90	3.08	0.00
147.50	4.90	3.08	0.00
150.00	4.90	3.08	0.00
152.50	4.90	3.08	0.00
155.00	4.90	3.08	0.00
157.50	4.90	3.08	0.00
160.00	4.90	3.08	0.00
162.50	4.90	3.08	0.00
165.00	4.90	3.08	0.00
167.50	4.90	3.08	0.00
170.00	4.90	3.08	0.00
172.50	4.90	3.08	0.00
175.00	4.90	3.08	0.00
177.50	4.90	3.08	0.00
180.00	4.90	3.08	0.00
182.50	4.90	3.08	0.00
185.00	4.90	3.08	0.00
187.50	4.90	3.08	0.00
190.00	4.90	3.08	0.00
192.50	4.90	3.08	0.00
195.00	4.90	3.08	0.00
197.50	4.90	3.08	0.00
200.00	4.90	3.08	0.00
202.50	4.90	3.08	0.00
205.00	4.90	3.08	0.00
207.50	4.90	3.08	0.00
210.00	4.90	3.08	0.00
212.50	4.90	3.08	0.00
215.00	4.90	3.08	0.00
217.50	4.90	3.08	0.00
220.00	4.90	3.08	0.00
222.50	4.90	3.08	0.00
225.00	4.90	3.08	0.00
227.50	4.90	3.08	0.00
230.00	4.90	3.08	0.00
232.50	4.90	3.08	0.00
235.00	4.90	3.08	0.00
237.50	4.90	3.08	0.00
240.00	4.90	3.08	0.00

Summary for Subcatchment PDA-1.4B: Subcat PDA-1.4B

Runoff = 3.60 cfs @ 12.19 hrs, Volume= 14,517 cf, Depth= 3.28"
Routed to Pond 3P : DIV-02

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
25,747	74	>75% Grass cover, Good, HSG C
7,636	87	Dirt roads, HSG C
17,354	98	Paved parking, HSG C
2,443	98	Unconnected pavement, HSG C
53,181	85	Weighted Average
33,383	77	62.77% Pervious Area
19,797	98	37.23% Impervious Area
2,443		12.34% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	58	0.0100	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
5.7	40	0.0120	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
13.9	98	Total			

Pro-Hydro
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Hydrograph for Subcatchment PDA-1.4B: Subcat PDA-1.4B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.01	0.02
10.00	0.93	0.14	**0.11**
12.50	3.44	1.96	**1.64**
15.00	4.19	2.62	0.22
17.50	4.50	2.91	0.11
20.00	4.69	3.08	0.07
22.50	**4.83**	**3.21**	0.06
25.00	**4.90**	**3.28**	0.00
27.50	4.90	3.28	0.00
30.00	4.90	3.28	0.00
32.50	4.90	3.28	0.00
35.00	4.90	3.28	0.00
37.50	4.90	3.28	0.00
40.00	4.90	3.28	0.00
42.50	4.90	3.28	0.00
45.00	4.90	3.28	0.00
47.50	4.90	3.28	0.00
50.00	4.90	3.28	0.00
52.50	4.90	3.28	0.00
55.00	4.90	3.28	0.00
57.50	4.90	3.28	0.00
60.00	4.90	3.28	0.00
62.50	4.90	3.28	0.00
65.00	4.90	3.28	0.00
67.50	4.90	3.28	0.00
70.00	4.90	3.28	0.00
72.50	4.90	3.28	0.00
75.00	4.90	3.28	0.00
77.50	4.90	3.28	0.00
80.00	4.90	3.28	0.00
82.50	4.90	3.28	0.00
85.00	4.90	3.28	0.00
87.50	4.90	3.28	0.00
90.00	4.90	3.28	0.00
92.50	4.90	3.28	0.00
95.00	4.90	3.28	0.00
97.50	4.90	3.28	0.00
100.00	4.90	3.28	0.00
102.50	4.90	3.28	0.00
105.00	4.90	3.28	0.00
107.50	4.90	3.28	0.00
110.00	4.90	3.28	0.00
112.50	4.90	3.28	0.00
115.00	4.90	3.28	0.00
117.50	4.90	3.28	0.00
120.00	4.90	3.28	0.00
122.50	4.90	3.28	0.00
125.00	4.90	3.28	0.00
127.50	4.90	3.28	0.00
130.00	4.90	3.28	0.00
132.50	4.90	3.28	0.00
135.00	4.90	3.28	0.00
137.50	4.90	3.28	0.00
140.00	4.90	3.28	0.00
142.50	4.90	3.28	0.00
145.00	4.90	3.28	0.00
147.50	4.90	3.28	0.00
150.00	4.90	3.28	0.00
152.50	4.90	3.28	0.00
155.00	4.90	3.28	0.00
157.50	4.90	3.28	0.00
160.00	4.90	3.28	0.00
162.50	4.90	3.28	0.00
165.00	4.90	3.28	0.00
167.50	4.90	3.28	0.00
170.00	4.90	3.28	0.00
172.50	4.90	3.28	0.00
175.00	4.90	3.28	0.00
177.50	4.90	3.28	0.00
180.00	4.90	3.28	0.00
182.50	4.90	3.28	0.00
185.00	4.90	3.28	0.00
187.50	4.90	3.28	0.00
190.00	4.90	3.28	0.00
192.50	4.90	3.28	0.00
195.00	4.90	3.28	0.00
197.50	4.90	3.28	0.00
200.00	4.90	3.28	0.00
202.50	4.90	3.28	0.00
205.00	4.90	3.28	0.00
207.50	4.90	3.28	0.00
210.00	4.90	3.28	0.00
212.50	4.90	3.28	0.00
215.00	4.90	3.28	0.00
217.50	4.90	3.28	0.00
220.00	4.90	3.28	0.00
222.50	4.90	3.28	0.00
225.00	4.90	3.28	0.00
227.50	4.90	3.28	0.00
230.00	4.90	3.28	0.00
232.50	4.90	3.28	0.00
235.00	4.90	3.28	0.00
237.50	4.90	3.28	0.00
240.00	4.90	3.28	0.00

Summary for Subcatchment PDA-1.4C: Subcat PDA-1.4C

Runoff = 2.52 cfs @ 12.09 hrs, Volume= 8,213 cf, Depth= 3.68"
Routed to Pond 7P : Bio 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
9,701	74	>75% Grass cover, Good, HSG C
17,108	98	Paved parking, HSG C
26,810	89	Weighted Average
9,701	74	36.19% Pervious Area
17,108	98	63.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4C: Subcat PDA-1.4C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.04	0.02
10.00	0.93	0.24	**0.08**
12.50	3.44	2.30	**0.56**
15.00	4.19	3.00	0.11
17.50	4.50	3.30	0.05
20.00	4.69	3.48	0.04
22.50	**4.83**	**3.61**	0.03
25.00	**4.90**	**3.68**	0.00
27.50	4.90	3.68	0.00
30.00	4.90	3.68	0.00
32.50	4.90	3.68	0.00
35.00	4.90	3.68	0.00
37.50	4.90	3.68	0.00
40.00	4.90	3.68	0.00
42.50	4.90	3.68	0.00
45.00	4.90	3.68	0.00
47.50	4.90	3.68	0.00
50.00	4.90	3.68	0.00
52.50	4.90	3.68	0.00
55.00	4.90	3.68	0.00
57.50	4.90	3.68	0.00
60.00	4.90	3.68	0.00
62.50	4.90	3.68	0.00
65.00	4.90	3.68	0.00
67.50	4.90	3.68	0.00
70.00	4.90	3.68	0.00
72.50	4.90	3.68	0.00
75.00	4.90	3.68	0.00
77.50	4.90	3.68	0.00
80.00	4.90	3.68	0.00
82.50	4.90	3.68	0.00
85.00	4.90	3.68	0.00
87.50	4.90	3.68	0.00
90.00	4.90	3.68	0.00
92.50	4.90	3.68	0.00
95.00	4.90	3.68	0.00
97.50	4.90	3.68	0.00
100.00	4.90	3.68	0.00
102.50	4.90	3.68	0.00
105.00	4.90	3.68	0.00
107.50	4.90	3.68	0.00
110.00	4.90	3.68	0.00
112.50	4.90	3.68	0.00
115.00	4.90	3.68	0.00
117.50	4.90	3.68	0.00
120.00	4.90	3.68	0.00
122.50	4.90	3.68	0.00
125.00	4.90	3.68	0.00
127.50	4.90	3.68	0.00
130.00	4.90	3.68	0.00
132.50	4.90	3.68	0.00
135.00	4.90	3.68	0.00
137.50	4.90	3.68	0.00
140.00	4.90	3.68	0.00
142.50	4.90	3.68	0.00
145.00	4.90	3.68	0.00
147.50	4.90	3.68	0.00
150.00	4.90	3.68	0.00
152.50	4.90	3.68	0.00
155.00	4.90	3.68	0.00
157.50	4.90	3.68	0.00
160.00	4.90	3.68	0.00
162.50	4.90	3.68	0.00
165.00	4.90	3.68	0.00
167.50	4.90	3.68	0.00
170.00	4.90	3.68	0.00
172.50	4.90	3.68	0.00
175.00	4.90	3.68	0.00
177.50	4.90	3.68	0.00
180.00	4.90	3.68	0.00
182.50	4.90	3.68	0.00
185.00	4.90	3.68	0.00
187.50	4.90	3.68	0.00
190.00	4.90	3.68	0.00
192.50	4.90	3.68	0.00
195.00	4.90	3.68	0.00
197.50	4.90	3.68	0.00
200.00	4.90	3.68	0.00
202.50	4.90	3.68	0.00
205.00	4.90	3.68	0.00
207.50	4.90	3.68	0.00
210.00	4.90	3.68	0.00
212.50	4.90	3.68	0.00
215.00	4.90	3.68	0.00
217.50	4.90	3.68	0.00
220.00	4.90	3.68	0.00
222.50	4.90	3.68	0.00
225.00	4.90	3.68	0.00
227.50	4.90	3.68	0.00
230.00	4.90	3.68	0.00
232.50	4.90	3.68	0.00
235.00	4.90	3.68	0.00
237.50	4.90	3.68	0.00
240.00	4.90	3.68	0.00

Summary for Subcatchment PDA-1.4D: Subcat PDA-1.4D

Runoff = 4.00 cfs @ 12.09 hrs, Volume= 13,024 cf, Depth= 3.68"
Routed to Pond 14P : DIV-03

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
14,109	74	>75% Grass cover, Good, HSG C
2,143	80	>75% Grass cover, Good, HSG D
1,138	96	Gravel surface, HSG C
25,125	98	Paved parking, HSG C
42,514	89	Weighted Average
17,389	76	40.90% Pervious Area
25,125	98	59.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4D: Subcat PDA-1.4D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.04	0.03
10.00	0.93	0.24	**0.13**
12.50	3.44	2.30	**0.89**
15.00	4.19	3.00	0.18
17.50	4.50	3.30	0.09
20.00	4.69	3.48	0.06
22.50	**4.83**	**3.61**	0.05
25.00	**4.90**	**3.68**	0.00
27.50	4.90	3.68	0.00
30.00	4.90	3.68	0.00
32.50	4.90	3.68	0.00
35.00	4.90	3.68	0.00
37.50	4.90	3.68	0.00
40.00	4.90	3.68	0.00
42.50	4.90	3.68	0.00
45.00	4.90	3.68	0.00
47.50	4.90	3.68	0.00
50.00	4.90	3.68	0.00
52.50	4.90	3.68	0.00
55.00	4.90	3.68	0.00
57.50	4.90	3.68	0.00
60.00	4.90	3.68	0.00
62.50	4.90	3.68	0.00
65.00	4.90	3.68	0.00
67.50	4.90	3.68	0.00
70.00	4.90	3.68	0.00
72.50	4.90	3.68	0.00
75.00	4.90	3.68	0.00
77.50	4.90	3.68	0.00
80.00	4.90	3.68	0.00
82.50	4.90	3.68	0.00
85.00	4.90	3.68	0.00
87.50	4.90	3.68	0.00
90.00	4.90	3.68	0.00
92.50	4.90	3.68	0.00
95.00	4.90	3.68	0.00
97.50	4.90	3.68	0.00
100.00	4.90	3.68	0.00
102.50	4.90	3.68	0.00
105.00	4.90	3.68	0.00
107.50	4.90	3.68	0.00
110.00	4.90	3.68	0.00
112.50	4.90	3.68	0.00
115.00	4.90	3.68	0.00
117.50	4.90	3.68	0.00
120.00	4.90	3.68	0.00
122.50	4.90	3.68	0.00
125.00	4.90	3.68	0.00
127.50	4.90	3.68	0.00
130.00	4.90	3.68	0.00
132.50	4.90	3.68	0.00
135.00	4.90	3.68	0.00
137.50	4.90	3.68	0.00
140.00	4.90	3.68	0.00
142.50	4.90	3.68	0.00
145.00	4.90	3.68	0.00
147.50	4.90	3.68	0.00
150.00	4.90	3.68	0.00
152.50	4.90	3.68	0.00
155.00	4.90	3.68	0.00
157.50	4.90	3.68	0.00
160.00	4.90	3.68	0.00
162.50	4.90	3.68	0.00
165.00	4.90	3.68	0.00
167.50	4.90	3.68	0.00
170.00	4.90	3.68	0.00
172.50	4.90	3.68	0.00
175.00	4.90	3.68	0.00
177.50	4.90	3.68	0.00
180.00	4.90	3.68	0.00
182.50	4.90	3.68	0.00
185.00	4.90	3.68	0.00
187.50	4.90	3.68	0.00
190.00	4.90	3.68	0.00
192.50	4.90	3.68	0.00
195.00	4.90	3.68	0.00
197.50	4.90	3.68	0.00
200.00	4.90	3.68	0.00
202.50	4.90	3.68	0.00
205.00	4.90	3.68	0.00
207.50	4.90	3.68	0.00
210.00	4.90	3.68	0.00
212.50	4.90	3.68	0.00
215.00	4.90	3.68	0.00
217.50	4.90	3.68	0.00
220.00	4.90	3.68	0.00
222.50	4.90	3.68	0.00
225.00	4.90	3.68	0.00
227.50	4.90	3.68	0.00
230.00	4.90	3.68	0.00
232.50	4.90	3.68	0.00
235.00	4.90	3.68	0.00
237.50	4.90	3.68	0.00
240.00	4.90	3.68	0.00

Summary for Subcatchment PDA-1.4E: Subcat PDA-1.4E

Runoff = 3.69 cfs @ 12.09 hrs, Volume= 12,023 cf, Depth= 3.68"
Routed to Pond 18P : Sand Filter 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
14,786	74	>75% Grass cover, Good, HSG C
7	80	>75% Grass cover, Good, HSG D
24,452	98	Paved parking, HSG C
39,245	89	Weighted Average
14,794	74	37.70% Pervious Area
24,452	98	62.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4E: Subcat PDA-1.4E

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.04	0.03
10.00	0.93	0.24	**0.12**
12.50	3.44	2.30	**0.82**
15.00	4.19	3.00	0.16
17.50	4.50	3.30	0.08
20.00	4.69	3.48	0.06
22.50	**4.83**	**3.61**	0.04
25.00	**4.90**	**3.68**	0.00
27.50	4.90	3.68	0.00
30.00	4.90	3.68	0.00
32.50	4.90	3.68	0.00
35.00	4.90	3.68	0.00
37.50	4.90	3.68	0.00
40.00	4.90	3.68	0.00
42.50	4.90	3.68	0.00
45.00	4.90	3.68	0.00
47.50	4.90	3.68	0.00
50.00	4.90	3.68	0.00
52.50	4.90	3.68	0.00
55.00	4.90	3.68	0.00
57.50	4.90	3.68	0.00
60.00	4.90	3.68	0.00
62.50	4.90	3.68	0.00
65.00	4.90	3.68	0.00
67.50	4.90	3.68	0.00
70.00	4.90	3.68	0.00
72.50	4.90	3.68	0.00
75.00	4.90	3.68	0.00
77.50	4.90	3.68	0.00
80.00	4.90	3.68	0.00
82.50	4.90	3.68	0.00
85.00	4.90	3.68	0.00
87.50	4.90	3.68	0.00
90.00	4.90	3.68	0.00
92.50	4.90	3.68	0.00
95.00	4.90	3.68	0.00
97.50	4.90	3.68	0.00
100.00	4.90	3.68	0.00
102.50	4.90	3.68	0.00
105.00	4.90	3.68	0.00
107.50	4.90	3.68	0.00
110.00	4.90	3.68	0.00
112.50	4.90	3.68	0.00
115.00	4.90	3.68	0.00
117.50	4.90	3.68	0.00
120.00	4.90	3.68	0.00
122.50	4.90	3.68	0.00
125.00	4.90	3.68	0.00
127.50	4.90	3.68	0.00
130.00	4.90	3.68	0.00
132.50	4.90	3.68	0.00
135.00	4.90	3.68	0.00
137.50	4.90	3.68	0.00
140.00	4.90	3.68	0.00
142.50	4.90	3.68	0.00
145.00	4.90	3.68	0.00
147.50	4.90	3.68	0.00
150.00	4.90	3.68	0.00
152.50	4.90	3.68	0.00
155.00	4.90	3.68	0.00
157.50	4.90	3.68	0.00
160.00	4.90	3.68	0.00
162.50	4.90	3.68	0.00
165.00	4.90	3.68	0.00
167.50	4.90	3.68	0.00
170.00	4.90	3.68	0.00
172.50	4.90	3.68	0.00
175.00	4.90	3.68	0.00
177.50	4.90	3.68	0.00
180.00	4.90	3.68	0.00
182.50	4.90	3.68	0.00
185.00	4.90	3.68	0.00
187.50	4.90	3.68	0.00
190.00	4.90	3.68	0.00
192.50	4.90	3.68	0.00
195.00	4.90	3.68	0.00
197.50	4.90	3.68	0.00
200.00	4.90	3.68	0.00
202.50	4.90	3.68	0.00
205.00	4.90	3.68	0.00
207.50	4.90	3.68	0.00
210.00	4.90	3.68	0.00
212.50	4.90	3.68	0.00
215.00	4.90	3.68	0.00
217.50	4.90	3.68	0.00
220.00	4.90	3.68	0.00
222.50	4.90	3.68	0.00
225.00	4.90	3.68	0.00
227.50	4.90	3.68	0.00
230.00	4.90	3.68	0.00
232.50	4.90	3.68	0.00
235.00	4.90	3.68	0.00
237.50	4.90	3.68	0.00
240.00	4.90	3.68	0.00

Summary for Subcatchment PDA-1.4F: Subcat PDA-1.4F

Runoff = 5.19 cfs @ 12.20 hrs, Volume= 21,377 cf, Depth= 3.47"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
33,264	74	>75% Grass cover, Good, HSG C
3	80	>75% Grass cover, Good, HSG D
36,167	98	Paved parking, HSG C
4,425	98	Paved parking, HSG D
73,858	87	Weighted Average
33,267	74	45.04% Pervious Area
40,591	98	54.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0105	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.2	42	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	204	0.0090	1.93		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.5	346	Total			

Hydrograph for Subcatchment PDA-1.4F: Subcat PDA-1.4F

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.02	0.04
10.00	0.93	0.19	**0.19**
12.50	3.44	2.13	**2.43**
15.00	4.19	2.81	0.31
17.50	4.50	3.10	0.15
20.00	4.69	3.28	0.10
22.50	**4.83**	**3.41**	0.08
25.00	**4.90**	**3.47**	0.00
27.50	4.90	3.47	0.00
30.00	4.90	3.47	0.00
32.50	4.90	3.47	0.00
35.00	4.90	3.47	0.00
37.50	4.90	3.47	0.00
40.00	4.90	3.47	0.00
42.50	4.90	3.47	0.00
45.00	4.90	3.47	0.00
47.50	4.90	3.47	0.00
50.00	4.90	3.47	0.00
52.50	4.90	3.47	0.00
55.00	4.90	3.47	0.00
57.50	4.90	3.47	0.00
60.00	4.90	3.47	0.00
62.50	4.90	3.47	0.00
65.00	4.90	3.47	0.00
67.50	4.90	3.47	0.00
70.00	4.90	3.47	0.00
72.50	4.90	3.47	0.00
75.00	4.90	3.47	0.00
77.50	4.90	3.47	0.00
80.00	4.90	3.47	0.00
82.50	4.90	3.47	0.00
85.00	4.90	3.47	0.00
87.50	4.90	3.47	0.00
90.00	4.90	3.47	0.00
92.50	4.90	3.47	0.00
95.00	4.90	3.47	0.00
97.50	4.90	3.47	0.00
100.00	4.90	3.47	0.00
102.50	4.90	3.47	0.00
105.00	4.90	3.47	0.00
107.50	4.90	3.47	0.00
110.00	4.90	3.47	0.00
112.50	4.90	3.47	0.00
115.00	4.90	3.47	0.00
117.50	4.90	3.47	0.00
120.00	4.90	3.47	0.00
122.50	4.90	3.47	0.00
125.00	4.90	3.47	0.00
127.50	4.90	3.47	0.00
130.00	4.90	3.47	0.00
132.50	4.90	3.47	0.00
135.00	4.90	3.47	0.00
137.50	4.90	3.47	0.00
140.00	4.90	3.47	0.00
142.50	4.90	3.47	0.00
145.00	4.90	3.47	0.00
147.50	4.90	3.47	0.00
150.00	4.90	3.47	0.00
152.50	4.90	3.47	0.00
155.00	4.90	3.47	0.00
157.50	4.90	3.47	0.00
160.00	4.90	3.47	0.00
162.50	4.90	3.47	0.00
165.00	4.90	3.47	0.00
167.50	4.90	3.47	0.00
170.00	4.90	3.47	0.00
172.50	4.90	3.47	0.00
175.00	4.90	3.47	0.00
177.50	4.90	3.47	0.00
180.00	4.90	3.47	0.00
182.50	4.90	3.47	0.00
185.00	4.90	3.47	0.00
187.50	4.90	3.47	0.00
190.00	4.90	3.47	0.00
192.50	4.90	3.47	0.00
195.00	4.90	3.47	0.00
197.50	4.90	3.47	0.00
200.00	4.90	3.47	0.00
202.50	4.90	3.47	0.00
205.00	4.90	3.47	0.00
207.50	4.90	3.47	0.00
210.00	4.90	3.47	0.00
212.50	4.90	3.47	0.00
215.00	4.90	3.47	0.00
217.50	4.90	3.47	0.00
220.00	4.90	3.47	0.00
222.50	4.90	3.47	0.00
225.00	4.90	3.47	0.00
227.50	4.90	3.47	0.00
230.00	4.90	3.47	0.00
232.50	4.90	3.47	0.00
235.00	4.90	3.47	0.00
237.50	4.90	3.47	0.00
240.00	4.90	3.47	0.00

Summary for Subcatchment PDA-1.4G: Subcat PDA-1.4G

Runoff = 2.10 cfs @ 12.09 hrs, Volume= 6,827 cf, Depth= 3.68"
Routed to Pond 19P : Sand Filter 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
8,361	74	>75% Grass cover, Good, HSG C
160	80	>75% Grass cover, Good, HSG D
13,763	98	Paved parking, HSG C
22,284	89	Weighted Average
8,521	74	38.24% Pervious Area
13,763	98	61.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4G: Subcat PDA-1.4G

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.04	0.02
10.00	0.93	0.24	**0.07**
12.50	3.44	2.30	**0.47**
15.00	4.19	3.00	0.09
17.50	4.50	3.30	0.05
20.00	4.69	3.48	0.03
22.50	**4.83**	**3.61**	0.02
25.00	**4.90**	**3.68**	0.00
27.50	4.90	3.68	0.00
30.00	4.90	3.68	0.00
32.50	4.90	3.68	0.00
35.00	4.90	3.68	0.00
37.50	4.90	3.68	0.00
40.00	4.90	3.68	0.00
42.50	4.90	3.68	0.00
45.00	4.90	3.68	0.00
47.50	4.90	3.68	0.00
50.00	4.90	3.68	0.00
52.50	4.90	3.68	0.00
55.00	4.90	3.68	0.00
57.50	4.90	3.68	0.00
60.00	4.90	3.68	0.00
62.50	4.90	3.68	0.00
65.00	4.90	3.68	0.00
67.50	4.90	3.68	0.00
70.00	4.90	3.68	0.00
72.50	4.90	3.68	0.00
75.00	4.90	3.68	0.00
77.50	4.90	3.68	0.00
80.00	4.90	3.68	0.00
82.50	4.90	3.68	0.00
85.00	4.90	3.68	0.00
87.50	4.90	3.68	0.00
90.00	4.90	3.68	0.00
92.50	4.90	3.68	0.00
95.00	4.90	3.68	0.00
97.50	4.90	3.68	0.00
100.00	4.90	3.68	0.00
102.50	4.90	3.68	0.00
105.00	4.90	3.68	0.00
107.50	4.90	3.68	0.00
110.00	4.90	3.68	0.00
112.50	4.90	3.68	0.00
115.00	4.90	3.68	0.00
117.50	4.90	3.68	0.00
120.00	4.90	3.68	0.00
122.50	4.90	3.68	0.00
125.00	4.90	3.68	0.00
127.50	4.90	3.68	0.00
130.00	4.90	3.68	0.00
132.50	4.90	3.68	0.00
135.00	4.90	3.68	0.00
137.50	4.90	3.68	0.00
140.00	4.90	3.68	0.00
142.50	4.90	3.68	0.00
145.00	4.90	3.68	0.00
147.50	4.90	3.68	0.00
150.00	4.90	3.68	0.00
152.50	4.90	3.68	0.00
155.00	4.90	3.68	0.00
157.50	4.90	3.68	0.00
160.00	4.90	3.68	0.00
162.50	4.90	3.68	0.00
165.00	4.90	3.68	0.00
167.50	4.90	3.68	0.00
170.00	4.90	3.68	0.00
172.50	4.90	3.68	0.00
175.00	4.90	3.68	0.00
177.50	4.90	3.68	0.00
180.00	4.90	3.68	0.00
182.50	4.90	3.68	0.00
185.00	4.90	3.68	0.00
187.50	4.90	3.68	0.00
190.00	4.90	3.68	0.00
192.50	4.90	3.68	0.00
195.00	4.90	3.68	0.00
197.50	4.90	3.68	0.00
200.00	4.90	3.68	0.00
202.50	4.90	3.68	0.00
205.00	4.90	3.68	0.00
207.50	4.90	3.68	0.00
210.00	4.90	3.68	0.00
212.50	4.90	3.68	0.00
215.00	4.90	3.68	0.00
217.50	4.90	3.68	0.00
220.00	4.90	3.68	0.00
222.50	4.90	3.68	0.00
225.00	4.90	3.68	0.00
227.50	4.90	3.68	0.00
230.00	4.90	3.68	0.00
232.50	4.90	3.68	0.00
235.00	4.90	3.68	0.00
237.50	4.90	3.68	0.00
240.00	4.90	3.68	0.00

Summary for Subcatchment PDA-1.4H: Subcat PDA-1.4H

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 2,120 cf, Depth= 2.37"
Routed to Pond 4P : Detention Basin 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
9,974	74	>75% Grass cover, Good, HSG C
169	80	>75% Grass cover, Good, HSG D
600	98	Paved parking, HSG C
10,744	75	Weighted Average
10,143	74	94.41% Pervious Area
600	98	5.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4H: Subcat PDA-1.4H

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.02	**0.01**
12.50	3.44	1.26	**0.17**
15.00	4.19	1.81	0.04
17.50	4.50	2.05	0.02
20.00	4.69	2.20	0.01
22.50	**4.83**	**2.31**	0.01
25.00	**4.90**	**2.37**	0.00
27.50	4.90	2.37	0.00
30.00	4.90	2.37	0.00
32.50	4.90	2.37	0.00
35.00	4.90	2.37	0.00
37.50	4.90	2.37	0.00
40.00	4.90	2.37	0.00
42.50	4.90	2.37	0.00
45.00	4.90	2.37	0.00
47.50	4.90	2.37	0.00
50.00	4.90	2.37	0.00
52.50	4.90	2.37	0.00
55.00	4.90	2.37	0.00
57.50	4.90	2.37	0.00
60.00	4.90	2.37	0.00
62.50	4.90	2.37	0.00
65.00	4.90	2.37	0.00
67.50	4.90	2.37	0.00
70.00	4.90	2.37	0.00
72.50	4.90	2.37	0.00
75.00	4.90	2.37	0.00
77.50	4.90	2.37	0.00
80.00	4.90	2.37	0.00
82.50	4.90	2.37	0.00
85.00	4.90	2.37	0.00
87.50	4.90	2.37	0.00
90.00	4.90	2.37	0.00
92.50	4.90	2.37	0.00
95.00	4.90	2.37	0.00
97.50	4.90	2.37	0.00
100.00	4.90	2.37	0.00
102.50	4.90	2.37	0.00
105.00	4.90	2.37	0.00
107.50	4.90	2.37	0.00
110.00	4.90	2.37	0.00
112.50	4.90	2.37	0.00
115.00	4.90	2.37	0.00
117.50	4.90	2.37	0.00
120.00	4.90	2.37	0.00
122.50	4.90	2.37	0.00
125.00	4.90	2.37	0.00
127.50	4.90	2.37	0.00
130.00	4.90	2.37	0.00
132.50	4.90	2.37	0.00
135.00	4.90	2.37	0.00
137.50	4.90	2.37	0.00
140.00	4.90	2.37	0.00
142.50	4.90	2.37	0.00
145.00	4.90	2.37	0.00
147.50	4.90	2.37	0.00
150.00	4.90	2.37	0.00
152.50	4.90	2.37	0.00
155.00	4.90	2.37	0.00
157.50	4.90	2.37	0.00
160.00	4.90	2.37	0.00
162.50	4.90	2.37	0.00
165.00	4.90	2.37	0.00
167.50	4.90	2.37	0.00
170.00	4.90	2.37	0.00
172.50	4.90	2.37	0.00
175.00	4.90	2.37	0.00
177.50	4.90	2.37	0.00
180.00	4.90	2.37	0.00
182.50	4.90	2.37	0.00
185.00	4.90	2.37	0.00
187.50	4.90	2.37	0.00
190.00	4.90	2.37	0.00
192.50	4.90	2.37	0.00
195.00	4.90	2.37	0.00
197.50	4.90	2.37	0.00
200.00	4.90	2.37	0.00
202.50	4.90	2.37	0.00
205.00	4.90	2.37	0.00
207.50	4.90	2.37	0.00
210.00	4.90	2.37	0.00
212.50	4.90	2.37	0.00
215.00	4.90	2.37	0.00
217.50	4.90	2.37	0.00
220.00	4.90	2.37	0.00
222.50	4.90	2.37	0.00
225.00	4.90	2.37	0.00
227.50	4.90	2.37	0.00
230.00	4.90	2.37	0.00
232.50	4.90	2.37	0.00
235.00	4.90	2.37	0.00
237.50	4.90	2.37	0.00
240.00	4.90	2.37	0.00

Summary for Subcatchment PDA-1.4I: Subcat PDA-1.4I

Runoff = 0.75 cfs @ 12.09 hrs, Volume= 2,372 cf, Depth= 2.90"
Routed to Pond 12P : Infiltration Basin 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
6,972	74	>75% Grass cover, Good, HSG C
194	80	>75% Grass cover, Good, HSG D
2,658	98	Paved parking, HSG C
0	98	Roofs, HSG C
9,824	81	Weighted Average
7,166	74	72.94% Pervious Area
2,658	98	27.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4I: Subcat PDA-1.4I

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.07	**0.02**
12.50	3.44	1.66	**0.18**
15.00	4.19	2.28	0.04
17.50	4.50	2.55	0.02
20.00	4.69	2.71	0.01
22.50	**4.83**	**2.84**	0.01
25.00	**4.90**	**2.90**	0.00
27.50	4.90	2.90	0.00
30.00	4.90	2.90	0.00
32.50	4.90	2.90	0.00
35.00	4.90	2.90	0.00
37.50	4.90	2.90	0.00
40.00	4.90	2.90	0.00
42.50	4.90	2.90	0.00
45.00	4.90	2.90	0.00
47.50	4.90	2.90	0.00
50.00	4.90	2.90	0.00
52.50	4.90	2.90	0.00
55.00	4.90	2.90	0.00
57.50	4.90	2.90	0.00
60.00	4.90	2.90	0.00
62.50	4.90	2.90	0.00
65.00	4.90	2.90	0.00
67.50	4.90	2.90	0.00
70.00	4.90	2.90	0.00
72.50	4.90	2.90	0.00
75.00	4.90	2.90	0.00
77.50	4.90	2.90	0.00
80.00	4.90	2.90	0.00
82.50	4.90	2.90	0.00
85.00	4.90	2.90	0.00
87.50	4.90	2.90	0.00
90.00	4.90	2.90	0.00
92.50	4.90	2.90	0.00
95.00	4.90	2.90	0.00
97.50	4.90	2.90	0.00
100.00	4.90	2.90	0.00
102.50	4.90	2.90	0.00
105.00	4.90	2.90	0.00
107.50	4.90	2.90	0.00
110.00	4.90	2.90	0.00
112.50	4.90	2.90	0.00
115.00	4.90	2.90	0.00
117.50	4.90	2.90	0.00
120.00	4.90	2.90	0.00
122.50	4.90	2.90	0.00
125.00	4.90	2.90	0.00
127.50	4.90	2.90	0.00
130.00	4.90	2.90	0.00
132.50	4.90	2.90	0.00
135.00	4.90	2.90	0.00
137.50	4.90	2.90	0.00
140.00	4.90	2.90	0.00
142.50	4.90	2.90	0.00
145.00	4.90	2.90	0.00
147.50	4.90	2.90	0.00
150.00	4.90	2.90	0.00
152.50	4.90	2.90	0.00
155.00	4.90	2.90	0.00
157.50	4.90	2.90	0.00
160.00	4.90	2.90	0.00
162.50	4.90	2.90	0.00
165.00	4.90	2.90	0.00
167.50	4.90	2.90	0.00
170.00	4.90	2.90	0.00
172.50	4.90	2.90	0.00
175.00	4.90	2.90	0.00
177.50	4.90	2.90	0.00
180.00	4.90	2.90	0.00
182.50	4.90	2.90	0.00
185.00	4.90	2.90	0.00
187.50	4.90	2.90	0.00
190.00	4.90	2.90	0.00
192.50	4.90	2.90	0.00
195.00	4.90	2.90	0.00
197.50	4.90	2.90	0.00
200.00	4.90	2.90	0.00
202.50	4.90	2.90	0.00
205.00	4.90	2.90	0.00
207.50	4.90	2.90	0.00
210.00	4.90	2.90	0.00
212.50	4.90	2.90	0.00
215.00	4.90	2.90	0.00
217.50	4.90	2.90	0.00
220.00	4.90	2.90	0.00
222.50	4.90	2.90	0.00
225.00	4.90	2.90	0.00
227.50	4.90	2.90	0.00
230.00	4.90	2.90	0.00
232.50	4.90	2.90	0.00
235.00	4.90	2.90	0.00
237.50	4.90	2.90	0.00
240.00	4.90	2.90	0.00

Summary for Subcatchment PDA-1.4J: Subcat PDA-1.4J

Runoff = 4.26 cfs @ 12.09 hrs, Volume= 13,458 cf, Depth= 2.72"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
22,085	74	>75% Grass cover, Good, HSG C
32,367	80	>75% Grass cover, Good, HSG D
4,308	98	Paved parking, HSG C
392	98	Paved parking, HSG D
314	98	Unconnected pavement, HSG D
59,466	79	Weighted Average
54,452	78	91.57% Pervious Area
5,014	98	8.43% Impervious Area
314		6.27% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4J: Subcat PDA-1.4J

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.05	**0.07**
12.50	3.44	1.52	**1.03**
15.00	4.19	2.12	0.21
17.50	4.50	2.38	0.11
20.00	4.69	2.54	0.08
22.50	**4.83**	**2.66**	0.06
25.00	**4.90**	**2.72**	0.00
27.50	4.90	2.72	0.00
30.00	4.90	2.72	0.00
32.50	4.90	2.72	0.00
35.00	4.90	2.72	0.00
37.50	4.90	2.72	0.00
40.00	4.90	2.72	0.00
42.50	4.90	2.72	0.00
45.00	4.90	2.72	0.00
47.50	4.90	2.72	0.00
50.00	4.90	2.72	0.00
52.50	4.90	2.72	0.00
55.00	4.90	2.72	0.00
57.50	4.90	2.72	0.00
60.00	4.90	2.72	0.00
62.50	4.90	2.72	0.00
65.00	4.90	2.72	0.00
67.50	4.90	2.72	0.00
70.00	4.90	2.72	0.00
72.50	4.90	2.72	0.00
75.00	4.90	2.72	0.00
77.50	4.90	2.72	0.00
80.00	4.90	2.72	0.00
82.50	4.90	2.72	0.00
85.00	4.90	2.72	0.00
87.50	4.90	2.72	0.00
90.00	4.90	2.72	0.00
92.50	4.90	2.72	0.00
95.00	4.90	2.72	0.00
97.50	4.90	2.72	0.00
100.00	4.90	2.72	0.00
102.50	4.90	2.72	0.00
105.00	4.90	2.72	0.00
107.50	4.90	2.72	0.00
110.00	4.90	2.72	0.00
112.50	4.90	2.72	0.00
115.00	4.90	2.72	0.00
117.50	4.90	2.72	0.00
120.00	4.90	2.72	0.00
122.50	4.90	2.72	0.00
125.00	4.90	2.72	0.00
127.50	4.90	2.72	0.00
130.00	4.90	2.72	0.00
132.50	4.90	2.72	0.00
135.00	4.90	2.72	0.00
137.50	4.90	2.72	0.00
140.00	4.90	2.72	0.00
142.50	4.90	2.72	0.00
145.00	4.90	2.72	0.00
147.50	4.90	2.72	0.00
150.00	4.90	2.72	0.00
152.50	4.90	2.72	0.00
155.00	4.90	2.72	0.00
157.50	4.90	2.72	0.00
160.00	4.90	2.72	0.00
162.50	4.90	2.72	0.00
165.00	4.90	2.72	0.00
167.50	4.90	2.72	0.00
170.00	4.90	2.72	0.00
172.50	4.90	2.72	0.00
175.00	4.90	2.72	0.00
177.50	4.90	2.72	0.00
180.00	4.90	2.72	0.00
182.50	4.90	2.72	0.00
185.00	4.90	2.72	0.00
187.50	4.90	2.72	0.00
190.00	4.90	2.72	0.00
192.50	4.90	2.72	0.00
195.00	4.90	2.72	0.00
197.50	4.90	2.72	0.00
200.00	4.90	2.72	0.00
202.50	4.90	2.72	0.00
205.00	4.90	2.72	0.00
207.50	4.90	2.72	0.00
210.00	4.90	2.72	0.00
212.50	4.90	2.72	0.00
215.00	4.90	2.72	0.00
217.50	4.90	2.72	0.00
220.00	4.90	2.72	0.00
222.50	4.90	2.72	0.00
225.00	4.90	2.72	0.00
227.50	4.90	2.72	0.00
230.00	4.90	2.72	0.00
232.50	4.90	2.72	0.00
235.00	4.90	2.72	0.00
237.50	4.90	2.72	0.00
240.00	4.90	2.72	0.00

Summary for Subcatchment PDA-1.4K: Subcat PDA-1.4K

Runoff = 1.92 cfs @ 12.09 hrs, Volume= 6,449 cf, Depth= 4.10"
Routed to Pond 9P : Sand Filter 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
3,577	74	>75% Grass cover, Good, HSG C
173	80	>75% Grass cover, Good, HSG D
15,126	98	Paved parking, HSG C
18,876	93	Weighted Average
3,751	74	19.87% Pervious Area
15,126	98	80.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4K: Subcat PDA-1.4K

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.02	0.01
7.50	0.50	0.11	0.03
10.00	0.93	0.39	**0.08**
12.50	3.44	2.68	**0.41**
15.00	4.19	3.40	0.08
17.50	4.50	3.71	0.04
20.00	4.69	3.89	0.03
22.50	**4.83**	**4.03**	0.02
25.00	**4.90**	**4.10**	0.00
27.50	4.90	4.10	0.00
30.00	4.90	4.10	0.00
32.50	4.90	4.10	0.00
35.00	4.90	4.10	0.00
37.50	4.90	4.10	0.00
40.00	4.90	4.10	0.00
42.50	4.90	4.10	0.00
45.00	4.90	4.10	0.00
47.50	4.90	4.10	0.00
50.00	4.90	4.10	0.00
52.50	4.90	4.10	0.00
55.00	4.90	4.10	0.00
57.50	4.90	4.10	0.00
60.00	4.90	4.10	0.00
62.50	4.90	4.10	0.00
65.00	4.90	4.10	0.00
67.50	4.90	4.10	0.00
70.00	4.90	4.10	0.00
72.50	4.90	4.10	0.00
75.00	4.90	4.10	0.00
77.50	4.90	4.10	0.00
80.00	4.90	4.10	0.00
82.50	4.90	4.10	0.00
85.00	4.90	4.10	0.00
87.50	4.90	4.10	0.00
90.00	4.90	4.10	0.00
92.50	4.90	4.10	0.00
95.00	4.90	4.10	0.00
97.50	4.90	4.10	0.00
100.00	4.90	4.10	0.00
102.50	4.90	4.10	0.00
105.00	4.90	4.10	0.00
107.50	4.90	4.10	0.00
110.00	4.90	4.10	0.00
112.50	4.90	4.10	0.00
115.00	4.90	4.10	0.00
117.50	4.90	4.10	0.00
120.00	4.90	4.10	0.00
122.50	4.90	4.10	0.00
125.00	4.90	4.10	0.00
127.50	4.90	4.10	0.00
130.00	4.90	4.10	0.00
132.50	4.90	4.10	0.00
135.00	4.90	4.10	0.00
137.50	4.90	4.10	0.00
140.00	4.90	4.10	0.00
142.50	4.90	4.10	0.00
145.00	4.90	4.10	0.00
147.50	4.90	4.10	0.00
150.00	4.90	4.10	0.00
152.50	4.90	4.10	0.00
155.00	4.90	4.10	0.00
157.50	4.90	4.10	0.00
160.00	4.90	4.10	0.00
162.50	4.90	4.10	0.00
165.00	4.90	4.10	0.00
167.50	4.90	4.10	0.00
170.00	4.90	4.10	0.00
172.50	4.90	4.10	0.00
175.00	4.90	4.10	0.00
177.50	4.90	4.10	0.00
180.00	4.90	4.10	0.00
182.50	4.90	4.10	0.00
185.00	4.90	4.10	0.00
187.50	4.90	4.10	0.00
190.00	4.90	4.10	0.00
192.50	4.90	4.10	0.00
195.00	4.90	4.10	0.00
197.50	4.90	4.10	0.00
200.00	4.90	4.10	0.00
202.50	4.90	4.10	0.00
205.00	4.90	4.10	0.00
207.50	4.90	4.10	0.00
210.00	4.90	4.10	0.00
212.50	4.90	4.10	0.00
215.00	4.90	4.10	0.00
217.50	4.90	4.10	0.00
220.00	4.90	4.10	0.00
222.50	4.90	4.10	0.00
225.00	4.90	4.10	0.00
227.50	4.90	4.10	0.00
230.00	4.90	4.10	0.00
232.50	4.90	4.10	0.00
235.00	4.90	4.10	0.00
237.50	4.90	4.10	0.00
240.00	4.90	4.10	0.00

Summary for Subcatchment PDA-1.4L: Subcat PDA-1.4L

Runoff = 0.82 cfs @ 12.12 hrs, Volume= 2,801 cf, Depth= 2.81"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
9,069	74	>75% Grass cover, Good, HSG C
2,908	98	Paved parking, HSG C
1	98	Roofs, HSG C
11,978	80	Weighted Average
9,069	74	75.72% Pervious Area
2,909	98	24.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	32	0.0120	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
3.7	43	0.0400	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
8.5	75	Total			

Pro-Hydro
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Hydrograph for Subcatchment PDA-1.4L: Subcat PDA-1.4L

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.06	**0.02**
12.50	3.44	1.59	**0.25**
15.00	4.19	2.20	0.04
17.50	4.50	2.47	0.02
20.00	4.69	2.62	0.02
22.50	**4.83**	**2.75**	0.01
25.00	**4.90**	**2.81**	0.00
27.50	4.90	2.81	0.00
30.00	4.90	2.81	0.00
32.50	4.90	2.81	0.00
35.00	4.90	2.81	0.00
37.50	4.90	2.81	0.00
40.00	4.90	2.81	0.00
42.50	4.90	2.81	0.00
45.00	4.90	2.81	0.00
47.50	4.90	2.81	0.00
50.00	4.90	2.81	0.00
52.50	4.90	2.81	0.00
55.00	4.90	2.81	0.00
57.50	4.90	2.81	0.00
60.00	4.90	2.81	0.00
62.50	4.90	2.81	0.00
65.00	4.90	2.81	0.00
67.50	4.90	2.81	0.00
70.00	4.90	2.81	0.00
72.50	4.90	2.81	0.00
75.00	4.90	2.81	0.00
77.50	4.90	2.81	0.00
80.00	4.90	2.81	0.00
82.50	4.90	2.81	0.00
85.00	4.90	2.81	0.00
87.50	4.90	2.81	0.00
90.00	4.90	2.81	0.00
92.50	4.90	2.81	0.00
95.00	4.90	2.81	0.00
97.50	4.90	2.81	0.00
100.00	4.90	2.81	0.00
102.50	4.90	2.81	0.00
105.00	4.90	2.81	0.00
107.50	4.90	2.81	0.00
110.00	4.90	2.81	0.00
112.50	4.90	2.81	0.00
115.00	4.90	2.81	0.00
117.50	4.90	2.81	0.00
120.00	4.90	2.81	0.00
122.50	4.90	2.81	0.00
125.00	4.90	2.81	0.00
127.50	4.90	2.81	0.00
130.00	4.90	2.81	0.00
132.50	4.90	2.81	0.00
135.00	4.90	2.81	0.00
137.50	4.90	2.81	0.00
140.00	4.90	2.81	0.00
142.50	4.90	2.81	0.00
145.00	4.90	2.81	0.00
147.50	4.90	2.81	0.00
150.00	4.90	2.81	0.00
152.50	4.90	2.81	0.00
155.00	4.90	2.81	0.00
157.50	4.90	2.81	0.00
160.00	4.90	2.81	0.00
162.50	4.90	2.81	0.00
165.00	4.90	2.81	0.00
167.50	4.90	2.81	0.00
170.00	4.90	2.81	0.00
172.50	4.90	2.81	0.00
175.00	4.90	2.81	0.00
177.50	4.90	2.81	0.00
180.00	4.90	2.81	0.00
182.50	4.90	2.81	0.00
185.00	4.90	2.81	0.00
187.50	4.90	2.81	0.00
190.00	4.90	2.81	0.00
192.50	4.90	2.81	0.00
195.00	4.90	2.81	0.00
197.50	4.90	2.81	0.00
200.00	4.90	2.81	0.00
202.50	4.90	2.81	0.00
205.00	4.90	2.81	0.00
207.50	4.90	2.81	0.00
210.00	4.90	2.81	0.00
212.50	4.90	2.81	0.00
215.00	4.90	2.81	0.00
217.50	4.90	2.81	0.00
220.00	4.90	2.81	0.00
222.50	4.90	2.81	0.00
225.00	4.90	2.81	0.00
227.50	4.90	2.81	0.00
230.00	4.90	2.81	0.00
232.50	4.90	2.81	0.00
235.00	4.90	2.81	0.00
237.50	4.90	2.81	0.00
240.00	4.90	2.81	0.00

Summary for Subcatchment PDA-1.4M: Subcat PDA-1.4M

Runoff = 0.23 cfs @ 12.20 hrs, Volume= 934 cf, Depth= 2.37"
Routed to Pond 9P : Sand Filter 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
4,536	74	>75% Grass cover, Good, HSG C
199	98	Paved parking, HSG C
4,734	75	Weighted Average
4,536	74	95.80% Pervious Area
199	98	4.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
1.6	66	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.3	166	Total			

Hydrograph for Subcatchment PDA-1.4M: Subcat PDA-1.4M

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.02	**0.00**
12.50	3.44	1.26	**0.12**
15.00	4.19	1.81	0.02
17.50	4.50	2.05	0.01
20.00	4.69	2.20	0.01
22.50	**4.83**	**2.31**	0.00
25.00	**4.90**	**2.37**	0.00
27.50	4.90	2.37	0.00
30.00	4.90	2.37	0.00
32.50	4.90	2.37	0.00
35.00	4.90	2.37	0.00
37.50	4.90	2.37	0.00
40.00	4.90	2.37	0.00
42.50	4.90	2.37	0.00
45.00	4.90	2.37	0.00
47.50	4.90	2.37	0.00
50.00	4.90	2.37	0.00
52.50	4.90	2.37	0.00
55.00	4.90	2.37	0.00
57.50	4.90	2.37	0.00
60.00	4.90	2.37	0.00
62.50	4.90	2.37	0.00
65.00	4.90	2.37	0.00
67.50	4.90	2.37	0.00
70.00	4.90	2.37	0.00
72.50	4.90	2.37	0.00
75.00	4.90	2.37	0.00
77.50	4.90	2.37	0.00
80.00	4.90	2.37	0.00
82.50	4.90	2.37	0.00
85.00	4.90	2.37	0.00
87.50	4.90	2.37	0.00
90.00	4.90	2.37	0.00
92.50	4.90	2.37	0.00
95.00	4.90	2.37	0.00
97.50	4.90	2.37	0.00
100.00	4.90	2.37	0.00
102.50	4.90	2.37	0.00
105.00	4.90	2.37	0.00
107.50	4.90	2.37	0.00
110.00	4.90	2.37	0.00
112.50	4.90	2.37	0.00
115.00	4.90	2.37	0.00
117.50	4.90	2.37	0.00
120.00	4.90	2.37	0.00
122.50	4.90	2.37	0.00
125.00	4.90	2.37	0.00
127.50	4.90	2.37	0.00
130.00	4.90	2.37	0.00
132.50	4.90	2.37	0.00
135.00	4.90	2.37	0.00
137.50	4.90	2.37	0.00
140.00	4.90	2.37	0.00
142.50	4.90	2.37	0.00
145.00	4.90	2.37	0.00
147.50	4.90	2.37	0.00
150.00	4.90	2.37	0.00
152.50	4.90	2.37	0.00
155.00	4.90	2.37	0.00
157.50	4.90	2.37	0.00
160.00	4.90	2.37	0.00
162.50	4.90	2.37	0.00
165.00	4.90	2.37	0.00
167.50	4.90	2.37	0.00
170.00	4.90	2.37	0.00
172.50	4.90	2.37	0.00
175.00	4.90	2.37	0.00
177.50	4.90	2.37	0.00
180.00	4.90	2.37	0.00
182.50	4.90	2.37	0.00
185.00	4.90	2.37	0.00
187.50	4.90	2.37	0.00
190.00	4.90	2.37	0.00
192.50	4.90	2.37	0.00
195.00	4.90	2.37	0.00
197.50	4.90	2.37	0.00
200.00	4.90	2.37	0.00
202.50	4.90	2.37	0.00
205.00	4.90	2.37	0.00
207.50	4.90	2.37	0.00
210.00	4.90	2.37	0.00
212.50	4.90	2.37	0.00
215.00	4.90	2.37	0.00
217.50	4.90	2.37	0.00
220.00	4.90	2.37	0.00
222.50	4.90	2.37	0.00
225.00	4.90	2.37	0.00
227.50	4.90	2.37	0.00
230.00	4.90	2.37	0.00
232.50	4.90	2.37	0.00
235.00	4.90	2.37	0.00
237.50	4.90	2.37	0.00
240.00	4.90	2.37	0.00

Summary for Subcatchment PDA-2.1A: Subcat PDA-2.1A

Runoff = 19.82 cfs @ 12.22 hrs, Volume= 84,050 cf, Depth= 2.90"
Routed to Pond 28P : DIV-01

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
244,846	74	>75% Grass cover, Good, HSG C
65	80	>75% Grass cover, Good, HSG D
7,583	87	Dirt roads, HSG C
4,725	96	Gravel surface, HSG C
86,246	98	Paved parking, HSG C
4,565	98	Unconnected pavement, HSG C
107	70	Woods, Good, HSG C
348,138	81	Weighted Average
257,327	75	73.92% Pervious Area
90,810	98	26.08% Impervious Area
4,565		5.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
2.5	103	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	66	0.0189	0.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.3	269	Total			

Hydrograph for Subcatchment PDA-2.1A: Subcat PDA-2.1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.07	**0.49**
12.50	3.44	1.66	**10.93**
15.00	4.19	2.28	1.35
17.50	4.50	2.55	0.67
20.00	4.69	2.71	0.46
22.50	**4.83**	**2.84**	0.36
25.00	**4.90**	**2.90**	0.00
27.50	4.90	2.90	0.00
30.00	4.90	2.90	0.00
32.50	4.90	2.90	0.00
35.00	4.90	2.90	0.00
37.50	4.90	2.90	0.00
40.00	4.90	2.90	0.00
42.50	4.90	2.90	0.00
45.00	4.90	2.90	0.00
47.50	4.90	2.90	0.00
50.00	4.90	2.90	0.00
52.50	4.90	2.90	0.00
55.00	4.90	2.90	0.00
57.50	4.90	2.90	0.00
60.00	4.90	2.90	0.00
62.50	4.90	2.90	0.00
65.00	4.90	2.90	0.00
67.50	4.90	2.90	0.00
70.00	4.90	2.90	0.00
72.50	4.90	2.90	0.00
75.00	4.90	2.90	0.00
77.50	4.90	2.90	0.00
80.00	4.90	2.90	0.00
82.50	4.90	2.90	0.00
85.00	4.90	2.90	0.00
87.50	4.90	2.90	0.00
90.00	4.90	2.90	0.00
92.50	4.90	2.90	0.00
95.00	4.90	2.90	0.00
97.50	4.90	2.90	0.00
100.00	4.90	2.90	0.00
102.50	4.90	2.90	0.00
105.00	4.90	2.90	0.00
107.50	4.90	2.90	0.00
110.00	4.90	2.90	0.00
112.50	4.90	2.90	0.00
115.00	4.90	2.90	0.00
117.50	4.90	2.90	0.00
120.00	4.90	2.90	0.00
122.50	4.90	2.90	0.00
125.00	4.90	2.90	0.00
127.50	4.90	2.90	0.00
130.00	4.90	2.90	0.00
132.50	4.90	2.90	0.00
135.00	4.90	2.90	0.00
137.50	4.90	2.90	0.00
140.00	4.90	2.90	0.00
142.50	4.90	2.90	0.00
145.00	4.90	2.90	0.00
147.50	4.90	2.90	0.00
150.00	4.90	2.90	0.00
152.50	4.90	2.90	0.00
155.00	4.90	2.90	0.00
157.50	4.90	2.90	0.00
160.00	4.90	2.90	0.00
162.50	4.90	2.90	0.00
165.00	4.90	2.90	0.00
167.50	4.90	2.90	0.00
170.00	4.90	2.90	0.00
172.50	4.90	2.90	0.00
175.00	4.90	2.90	0.00
177.50	4.90	2.90	0.00
180.00	4.90	2.90	0.00
182.50	4.90	2.90	0.00
185.00	4.90	2.90	0.00
187.50	4.90	2.90	0.00
190.00	4.90	2.90	0.00
192.50	4.90	2.90	0.00
195.00	4.90	2.90	0.00
197.50	4.90	2.90	0.00
200.00	4.90	2.90	0.00
202.50	4.90	2.90	0.00
205.00	4.90	2.90	0.00
207.50	4.90	2.90	0.00
210.00	4.90	2.90	0.00
212.50	4.90	2.90	0.00
215.00	4.90	2.90	0.00
217.50	4.90	2.90	0.00
220.00	4.90	2.90	0.00
222.50	4.90	2.90	0.00
225.00	4.90	2.90	0.00
227.50	4.90	2.90	0.00
230.00	4.90	2.90	0.00
232.50	4.90	2.90	0.00
235.00	4.90	2.90	0.00
237.50	4.90	2.90	0.00
240.00	4.90	2.90	0.00

Summary for Subcatchment PDA-2.1B: Subcat PDA-2.1B

Runoff = 7.16 cfs @ 12.24 hrs, Volume= 31,067 cf, Depth= 2.45"
Routed to Pond 15P : Detention Basin 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
135,152	74	>75% Grass cover, Good, HSG C
9,554	87	Dirt roads, HSG C
4,830	98	Paved parking, HSG C
2,421	98	Unconnected pavement, HSG C
151,957	76	Weighted Average
144,706	75	95.23% Pervious Area
7,251	98	4.77% Impervious Area
2,421		33.39% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.8	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.2	23	0.0500	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.0	123	Total			

Hydrograph for Subcatchment PDA-2.1B: Subcat PDA-2.1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.03	**0.11**
12.50	3.44	1.32	**4.29**
15.00	4.19	1.88	0.54
17.50	4.50	2.13	0.27
20.00	4.69	2.28	0.19
22.50	**4.83**	**2.40**	0.15
25.00	**4.90**	**2.45**	0.00
27.50	4.90	2.45	0.00
30.00	4.90	2.45	0.00
32.50	4.90	2.45	0.00
35.00	4.90	2.45	0.00
37.50	4.90	2.45	0.00
40.00	4.90	2.45	0.00
42.50	4.90	2.45	0.00
45.00	4.90	2.45	0.00
47.50	4.90	2.45	0.00
50.00	4.90	2.45	0.00
52.50	4.90	2.45	0.00
55.00	4.90	2.45	0.00
57.50	4.90	2.45	0.00
60.00	4.90	2.45	0.00
62.50	4.90	2.45	0.00
65.00	4.90	2.45	0.00
67.50	4.90	2.45	0.00
70.00	4.90	2.45	0.00
72.50	4.90	2.45	0.00
75.00	4.90	2.45	0.00
77.50	4.90	2.45	0.00
80.00	4.90	2.45	0.00
82.50	4.90	2.45	0.00
85.00	4.90	2.45	0.00
87.50	4.90	2.45	0.00
90.00	4.90	2.45	0.00
92.50	4.90	2.45	0.00
95.00	4.90	2.45	0.00
97.50	4.90	2.45	0.00
100.00	4.90	2.45	0.00
102.50	4.90	2.45	0.00
105.00	4.90	2.45	0.00
107.50	4.90	2.45	0.00
110.00	4.90	2.45	0.00
112.50	4.90	2.45	0.00
115.00	4.90	2.45	0.00
117.50	4.90	2.45	0.00
120.00	4.90	2.45	0.00
122.50	4.90	2.45	0.00
125.00	4.90	2.45	0.00
127.50	4.90	2.45	0.00
130.00	4.90	2.45	0.00
132.50	4.90	2.45	0.00
135.00	4.90	2.45	0.00
137.50	4.90	2.45	0.00
140.00	4.90	2.45	0.00
142.50	4.90	2.45	0.00
145.00	4.90	2.45	0.00
147.50	4.90	2.45	0.00
150.00	4.90	2.45	0.00
152.50	4.90	2.45	0.00
155.00	4.90	2.45	0.00
157.50	4.90	2.45	0.00
160.00	4.90	2.45	0.00
162.50	4.90	2.45	0.00
165.00	4.90	2.45	0.00
167.50	4.90	2.45	0.00
170.00	4.90	2.45	0.00
172.50	4.90	2.45	0.00
175.00	4.90	2.45	0.00
177.50	4.90	2.45	0.00
180.00	4.90	2.45	0.00
182.50	4.90	2.45	0.00
185.00	4.90	2.45	0.00
187.50	4.90	2.45	0.00
190.00	4.90	2.45	0.00
192.50	4.90	2.45	0.00
195.00	4.90	2.45	0.00
197.50	4.90	2.45	0.00
200.00	4.90	2.45	0.00
202.50	4.90	2.45	0.00
205.00	4.90	2.45	0.00
207.50	4.90	2.45	0.00
210.00	4.90	2.45	0.00
212.50	4.90	2.45	0.00
215.00	4.90	2.45	0.00
217.50	4.90	2.45	0.00
220.00	4.90	2.45	0.00
222.50	4.90	2.45	0.00
225.00	4.90	2.45	0.00
227.50	4.90	2.45	0.00
230.00	4.90	2.45	0.00
232.50	4.90	2.45	0.00
235.00	4.90	2.45	0.00
237.50	4.90	2.45	0.00
240.00	4.90	2.45	0.00

Summary for Subcatchment PDA-2.2A: Subcat PDA-2.2A

Runoff = 9.33 cfs @ 12.18 hrs, Volume= 36,487 cf, Depth= 2.81"
Routed to Link 7L : DP 2.2 - Silver Creek West Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
115,003	74	>75% Grass cover, Good, HSG C
36,719	98	Paved parking, HSG C
4,050	98	Unconnected pavement, HSG C
279	70	Woods, Good, HSG C
156,051	80	Weighted Average
115,282	74	73.87% Pervious Area
40,769	98	26.13% Impervious Area
4,050		9.93% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9					**Direct Entry, PER EDA-2.2A**

Hydrograph for Subcatchment PDA-2.2A: Subcat PDA-2.2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.06	**0.20**
12.50	3.44	1.59	**4.10**
15.00	4.19	2.20	0.59
17.50	4.50	2.47	0.29
20.00	4.69	2.62	0.20
22.50	**4.83**	**2.75**	0.16
25.00	**4.90**	**2.81**	0.00
27.50	4.90	2.81	0.00
30.00	4.90	2.81	0.00
32.50	4.90	2.81	0.00
35.00	4.90	2.81	0.00
37.50	4.90	2.81	0.00
40.00	4.90	2.81	0.00
42.50	4.90	2.81	0.00
45.00	4.90	2.81	0.00
47.50	4.90	2.81	0.00
50.00	4.90	2.81	0.00
52.50	4.90	2.81	0.00
55.00	4.90	2.81	0.00
57.50	4.90	2.81	0.00
60.00	4.90	2.81	0.00
62.50	4.90	2.81	0.00
65.00	4.90	2.81	0.00
67.50	4.90	2.81	0.00
70.00	4.90	2.81	0.00
72.50	4.90	2.81	0.00
75.00	4.90	2.81	0.00
77.50	4.90	2.81	0.00
80.00	4.90	2.81	0.00
82.50	4.90	2.81	0.00
85.00	4.90	2.81	0.00
87.50	4.90	2.81	0.00
90.00	4.90	2.81	0.00
92.50	4.90	2.81	0.00
95.00	4.90	2.81	0.00
97.50	4.90	2.81	0.00
100.00	4.90	2.81	0.00
102.50	4.90	2.81	0.00
105.00	4.90	2.81	0.00
107.50	4.90	2.81	0.00
110.00	4.90	2.81	0.00
112.50	4.90	2.81	0.00
115.00	4.90	2.81	0.00
117.50	4.90	2.81	0.00
120.00	4.90	2.81	0.00
122.50	4.90	2.81	0.00
125.00	4.90	2.81	0.00
127.50	4.90	2.81	0.00
130.00	4.90	2.81	0.00
132.50	4.90	2.81	0.00
135.00	4.90	2.81	0.00
137.50	4.90	2.81	0.00
140.00	4.90	2.81	0.00
142.50	4.90	2.81	0.00
145.00	4.90	2.81	0.00
147.50	4.90	2.81	0.00
150.00	4.90	2.81	0.00
152.50	4.90	2.81	0.00
155.00	4.90	2.81	0.00
157.50	4.90	2.81	0.00
160.00	4.90	2.81	0.00
162.50	4.90	2.81	0.00
165.00	4.90	2.81	0.00
167.50	4.90	2.81	0.00
170.00	4.90	2.81	0.00
172.50	4.90	2.81	0.00
175.00	4.90	2.81	0.00
177.50	4.90	2.81	0.00
180.00	4.90	2.81	0.00
182.50	4.90	2.81	0.00
185.00	4.90	2.81	0.00
187.50	4.90	2.81	0.00
190.00	4.90	2.81	0.00
192.50	4.90	2.81	0.00
195.00	4.90	2.81	0.00
197.50	4.90	2.81	0.00
200.00	4.90	2.81	0.00
202.50	4.90	2.81	0.00
205.00	4.90	2.81	0.00
207.50	4.90	2.81	0.00
210.00	4.90	2.81	0.00
212.50	4.90	2.81	0.00
215.00	4.90	2.81	0.00
217.50	4.90	2.81	0.00
220.00	4.90	2.81	0.00
222.50	4.90	2.81	0.00
225.00	4.90	2.81	0.00
227.50	4.90	2.81	0.00
230.00	4.90	2.81	0.00
232.50	4.90	2.81	0.00
235.00	4.90	2.81	0.00
237.50	4.90	2.81	0.00
240.00	4.90	2.81	0.00

Summary for Subcatchment PDA-2.2B: Subcat PDA-2.2B

Runoff = 4.22 cfs @ 12.58 hrs, Volume= 26,928 cf, Depth= 2.12"
Routed to Link 6L : DP 2.1 - West Wetland

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
51,518	74	>75% Grass cover, Good, HSG C
2,379	98	Paved parking, HSG C
98,443	70	Woods, Good, HSG C
152,340	72	Weighted Average
149,961	71	98.44% Pervious Area
2,379	98	1.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.9	100	0.0120	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.30"
14.1	465	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
40.0	565	Total			

Hydrograph for Subcatchment PDA-2.2B: Subcat PDA-2.2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.00	0.00
5.00	0.28	0.00	0.00
7.50	0.50	0.00	0.00
10.00	0.93	0.01	0.01
12.50	3.44	1.08	**4.11**
15.00	4.19	1.59	**0.55**
17.50	4.50	1.82	0.27
20.00	4.69	1.96	0.18
22.50	**4.83**	**2.07**	0.14
25.00	**4.90**	**2.12**	0.01
27.50	4.90	2.12	0.00
30.00	4.90	2.12	0.00
32.50	4.90	2.12	0.00
35.00	4.90	2.12	0.00
37.50	4.90	2.12	0.00
40.00	4.90	2.12	0.00
42.50	4.90	2.12	0.00
45.00	4.90	2.12	0.00
47.50	4.90	2.12	0.00
50.00	4.90	2.12	0.00
52.50	4.90	2.12	0.00
55.00	4.90	2.12	0.00
57.50	4.90	2.12	0.00
60.00	4.90	2.12	0.00
62.50	4.90	2.12	0.00
65.00	4.90	2.12	0.00
67.50	4.90	2.12	0.00
70.00	4.90	2.12	0.00
72.50	4.90	2.12	0.00
75.00	4.90	2.12	0.00
77.50	4.90	2.12	0.00
80.00	4.90	2.12	0.00
82.50	4.90	2.12	0.00
85.00	4.90	2.12	0.00
87.50	4.90	2.12	0.00
90.00	4.90	2.12	0.00
92.50	4.90	2.12	0.00
95.00	4.90	2.12	0.00
97.50	4.90	2.12	0.00
100.00	4.90	2.12	0.00
102.50	4.90	2.12	0.00
105.00	4.90	2.12	0.00
107.50	4.90	2.12	0.00
110.00	4.90	2.12	0.00
112.50	4.90	2.12	0.00
115.00	4.90	2.12	0.00
117.50	4.90	2.12	0.00
120.00	4.90	2.12	0.00
122.50	4.90	2.12	0.00
125.00	4.90	2.12	0.00
127.50	4.90	2.12	0.00
130.00	4.90	2.12	0.00
132.50	4.90	2.12	0.00
135.00	4.90	2.12	0.00
137.50	4.90	2.12	0.00
140.00	4.90	2.12	0.00
142.50	4.90	2.12	0.00
145.00	4.90	2.12	0.00
147.50	4.90	2.12	0.00
150.00	4.90	2.12	0.00
152.50	4.90	2.12	0.00
155.00	4.90	2.12	0.00
157.50	4.90	2.12	0.00
160.00	4.90	2.12	0.00
162.50	4.90	2.12	0.00
165.00	4.90	2.12	0.00
167.50	4.90	2.12	0.00
170.00	4.90	2.12	0.00
172.50	4.90	2.12	0.00
175.00	4.90	2.12	0.00
177.50	4.90	2.12	0.00
180.00	4.90	2.12	0.00
182.50	4.90	2.12	0.00
185.00	4.90	2.12	0.00
187.50	4.90	2.12	0.00
190.00	4.90	2.12	0.00
192.50	4.90	2.12	0.00
195.00	4.90	2.12	0.00
197.50	4.90	2.12	0.00
200.00	4.90	2.12	0.00
202.50	4.90	2.12	0.00
205.00	4.90	2.12	0.00
207.50	4.90	2.12	0.00
210.00	4.90	2.12	0.00
212.50	4.90	2.12	0.00
215.00	4.90	2.12	0.00
217.50	4.90	2.12	0.00
220.00	4.90	2.12	0.00
222.50	4.90	2.12	0.00
225.00	4.90	2.12	0.00
227.50	4.90	2.12	0.00
230.00	4.90	2.12	0.00
232.50	4.90	2.12	0.00
235.00	4.90	2.12	0.00
237.50	4.90	2.12	0.00
240.00	4.90	2.12	0.00

Summary for Subcatchment PDA-2.2C.a: Subcat PDA-2.2C.a

Runoff = 9.74 cfs @ 12.09 hrs, Volume= 35,236 cf, Depth= 4.66"
Routed to Pond 17P : Track and Field- stone base

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
90,671	98	Paved parking, HSG C
90,671	98	Weighted Average
0	74	0.00% Pervious Area
90,671	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-2.2C.a: Subcat PDA-2.2C.a

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.02	0.05
5.00	0.28	0.13	0.12
7.50	0.50	0.32	0.21
10.00	0.93	0.72	**0.47**
12.50	3.44	3.21	**2.06**
15.00	4.19	3.95	0.40
17.50	4.50	4.27	0.19
20.00	4.69	4.45	0.13
22.50	**4.83**	**4.59**	0.11
25.00	**4.90**	**4.66**	0.00
27.50	4.90	4.66	0.00
30.00	4.90	4.66	0.00
32.50	4.90	4.66	0.00
35.00	4.90	4.66	0.00
37.50	4.90	4.66	0.00
40.00	4.90	4.66	0.00
42.50	4.90	4.66	0.00
45.00	4.90	4.66	0.00
47.50	4.90	4.66	0.00
50.00	4.90	4.66	0.00
52.50	4.90	4.66	0.00
55.00	4.90	4.66	0.00
57.50	4.90	4.66	0.00
60.00	4.90	4.66	0.00
62.50	4.90	4.66	0.00
65.00	4.90	4.66	0.00
67.50	4.90	4.66	0.00
70.00	4.90	4.66	0.00
72.50	4.90	4.66	0.00
75.00	4.90	4.66	0.00
77.50	4.90	4.66	0.00
80.00	4.90	4.66	0.00
82.50	4.90	4.66	0.00
85.00	4.90	4.66	0.00
87.50	4.90	4.66	0.00
90.00	4.90	4.66	0.00
92.50	4.90	4.66	0.00
95.00	4.90	4.66	0.00
97.50	4.90	4.66	0.00
100.00	4.90	4.66	0.00
102.50	4.90	4.66	0.00
105.00	4.90	4.66	0.00
107.50	4.90	4.66	0.00
110.00	4.90	4.66	0.00
112.50	4.90	4.66	0.00
115.00	4.90	4.66	0.00
117.50	4.90	4.66	0.00
120.00	4.90	4.66	0.00
122.50	4.90	4.66	0.00
125.00	4.90	4.66	0.00
127.50	4.90	4.66	0.00
130.00	4.90	4.66	0.00
132.50	4.90	4.66	0.00
135.00	4.90	4.66	0.00
137.50	4.90	4.66	0.00
140.00	4.90	4.66	0.00
142.50	4.90	4.66	0.00
145.00	4.90	4.66	0.00
147.50	4.90	4.66	0.00
150.00	4.90	4.66	0.00
152.50	4.90	4.66	0.00
155.00	4.90	4.66	0.00
157.50	4.90	4.66	0.00
160.00	4.90	4.66	0.00
162.50	4.90	4.66	0.00
165.00	4.90	4.66	0.00
167.50	4.90	4.66	0.00
170.00	4.90	4.66	0.00
172.50	4.90	4.66	0.00
175.00	4.90	4.66	0.00
177.50	4.90	4.66	0.00
180.00	4.90	4.66	0.00
182.50	4.90	4.66	0.00
185.00	4.90	4.66	0.00
187.50	4.90	4.66	0.00
190.00	4.90	4.66	0.00
192.50	4.90	4.66	0.00
195.00	4.90	4.66	0.00
197.50	4.90	4.66	0.00
200.00	4.90	4.66	0.00
202.50	4.90	4.66	0.00
205.00	4.90	4.66	0.00
207.50	4.90	4.66	0.00
210.00	4.90	4.66	0.00
212.50	4.90	4.66	0.00
215.00	4.90	4.66	0.00
217.50	4.90	4.66	0.00
220.00	4.90	4.66	0.00
222.50	4.90	4.66	0.00
225.00	4.90	4.66	0.00
227.50	4.90	4.66	0.00
230.00	4.90	4.66	0.00
232.50	4.90	4.66	0.00
235.00	4.90	4.66	0.00
237.50	4.90	4.66	0.00
240.00	4.90	4.66	0.00

Summary for Subcatchment PDA-2.2C.b: Subcat PDA-2.2C.b

Runoff = 6.57 cfs @ 12.09 hrs, Volume= 23,777 cf, Depth= 4.66"
Routed to Pond 35P : Track and Field-manifold

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
4	74	>75% Grass cover, Good, HSG C
61,181	98	Paved parking, HSG C
61,186	98	Weighted Average
4	74	0.01% Pervious Area
61,181	98	99.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-2.2C.b: Subcat PDA-2.2C.b

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.02	0.04
5.00	0.28	0.13	0.08
7.50	0.50	0.32	0.14
10.00	0.93	0.72	**0.32**
12.50	3.44	3.21	**1.39**
15.00	4.19	3.95	0.27
17.50	4.50	4.27	0.13
20.00	4.69	4.45	0.09
22.50	**4.83**	**4.59**	0.07
25.00	**4.90**	**4.66**	0.00
27.50	4.90	4.66	0.00
30.00	4.90	4.66	0.00
32.50	4.90	4.66	0.00
35.00	4.90	4.66	0.00
37.50	4.90	4.66	0.00
40.00	4.90	4.66	0.00
42.50	4.90	4.66	0.00
45.00	4.90	4.66	0.00
47.50	4.90	4.66	0.00
50.00	4.90	4.66	0.00
52.50	4.90	4.66	0.00
55.00	4.90	4.66	0.00
57.50	4.90	4.66	0.00
60.00	4.90	4.66	0.00
62.50	4.90	4.66	0.00
65.00	4.90	4.66	0.00
67.50	4.90	4.66	0.00
70.00	4.90	4.66	0.00
72.50	4.90	4.66	0.00
75.00	4.90	4.66	0.00
77.50	4.90	4.66	0.00
80.00	4.90	4.66	0.00
82.50	4.90	4.66	0.00
85.00	4.90	4.66	0.00
87.50	4.90	4.66	0.00
90.00	4.90	4.66	0.00
92.50	4.90	4.66	0.00
95.00	4.90	4.66	0.00
97.50	4.90	4.66	0.00
100.00	4.90	4.66	0.00
102.50	4.90	4.66	0.00
105.00	4.90	4.66	0.00
107.50	4.90	4.66	0.00
110.00	4.90	4.66	0.00
112.50	4.90	4.66	0.00
115.00	4.90	4.66	0.00
117.50	4.90	4.66	0.00
120.00	4.90	4.66	0.00
122.50	4.90	4.66	0.00
125.00	4.90	4.66	0.00
127.50	4.90	4.66	0.00
130.00	4.90	4.66	0.00
132.50	4.90	4.66	0.00
135.00	4.90	4.66	0.00
137.50	4.90	4.66	0.00
140.00	4.90	4.66	0.00
142.50	4.90	4.66	0.00
145.00	4.90	4.66	0.00
147.50	4.90	4.66	0.00
150.00	4.90	4.66	0.00
152.50	4.90	4.66	0.00
155.00	4.90	4.66	0.00
157.50	4.90	4.66	0.00
160.00	4.90	4.66	0.00
162.50	4.90	4.66	0.00
165.00	4.90	4.66	0.00
167.50	4.90	4.66	0.00
170.00	4.90	4.66	0.00
172.50	4.90	4.66	0.00
175.00	4.90	4.66	0.00
177.50	4.90	4.66	0.00
180.00	4.90	4.66	0.00
182.50	4.90	4.66	0.00
185.00	4.90	4.66	0.00
187.50	4.90	4.66	0.00
190.00	4.90	4.66	0.00
192.50	4.90	4.66	0.00
195.00	4.90	4.66	0.00
197.50	4.90	4.66	0.00
200.00	4.90	4.66	0.00
202.50	4.90	4.66	0.00
205.00	4.90	4.66	0.00
207.50	4.90	4.66	0.00
210.00	4.90	4.66	0.00
212.50	4.90	4.66	0.00
215.00	4.90	4.66	0.00
217.50	4.90	4.66	0.00
220.00	4.90	4.66	0.00
222.50	4.90	4.66	0.00
225.00	4.90	4.66	0.00
227.50	4.90	4.66	0.00
230.00	4.90	4.66	0.00
232.50	4.90	4.66	0.00
235.00	4.90	4.66	0.00
237.50	4.90	4.66	0.00
240.00	4.90	4.66	0.00

Summary for Subcatchment PDA-ROOF1.3: Subcat PDA-ROOF1.3

Runoff = 1.05 cfs @ 12.09 hrs, Volume= 3,801 cf, Depth= 4.66"
Routed to Pond 2P : Bio 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
0	98	Paved parking, HSG C
9,782	98	Roofs, HSG C
9,782	98	Weighted Average
0	74	0.00% Pervious Area
9,782	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF1.3: Subcat PDA-ROOF1.3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.02	0.01
5.00	0.28	0.13	0.01
7.50	0.50	0.32	0.02
10.00	0.93	0.72	**0.05**
12.50	3.44	3.21	**0.22**
15.00	4.19	3.95	0.04
17.50	4.50	4.27	0.02
20.00	4.69	4.45	0.01
22.50	**4.83**	**4.59**	0.01
25.00	**4.90**	**4.66**	0.00
27.50	4.90	4.66	0.00
30.00	4.90	4.66	0.00
32.50	4.90	4.66	0.00
35.00	4.90	4.66	0.00
37.50	4.90	4.66	0.00
40.00	4.90	4.66	0.00
42.50	4.90	4.66	0.00
45.00	4.90	4.66	0.00
47.50	4.90	4.66	0.00
50.00	4.90	4.66	0.00
52.50	4.90	4.66	0.00
55.00	4.90	4.66	0.00
57.50	4.90	4.66	0.00
60.00	4.90	4.66	0.00
62.50	4.90	4.66	0.00
65.00	4.90	4.66	0.00
67.50	4.90	4.66	0.00
70.00	4.90	4.66	0.00
72.50	4.90	4.66	0.00
75.00	4.90	4.66	0.00
77.50	4.90	4.66	0.00
80.00	4.90	4.66	0.00
82.50	4.90	4.66	0.00
85.00	4.90	4.66	0.00
87.50	4.90	4.66	0.00
90.00	4.90	4.66	0.00
92.50	4.90	4.66	0.00
95.00	4.90	4.66	0.00
97.50	4.90	4.66	0.00
100.00	4.90	4.66	0.00
102.50	4.90	4.66	0.00
105.00	4.90	4.66	0.00
107.50	4.90	4.66	0.00
110.00	4.90	4.66	0.00
112.50	4.90	4.66	0.00
115.00	4.90	4.66	0.00
117.50	4.90	4.66	0.00
120.00	4.90	4.66	0.00
122.50	4.90	4.66	0.00
125.00	4.90	4.66	0.00
127.50	4.90	4.66	0.00
130.00	4.90	4.66	0.00
132.50	4.90	4.66	0.00
135.00	4.90	4.66	0.00
137.50	4.90	4.66	0.00
140.00	4.90	4.66	0.00
142.50	4.90	4.66	0.00
145.00	4.90	4.66	0.00
147.50	4.90	4.66	0.00
150.00	4.90	4.66	0.00
152.50	4.90	4.66	0.00
155.00	4.90	4.66	0.00
157.50	4.90	4.66	0.00
160.00	4.90	4.66	0.00
162.50	4.90	4.66	0.00
165.00	4.90	4.66	0.00
167.50	4.90	4.66	0.00
170.00	4.90	4.66	0.00
172.50	4.90	4.66	0.00
175.00	4.90	4.66	0.00
177.50	4.90	4.66	0.00
180.00	4.90	4.66	0.00
182.50	4.90	4.66	0.00
185.00	4.90	4.66	0.00
187.50	4.90	4.66	0.00
190.00	4.90	4.66	0.00
192.50	4.90	4.66	0.00
195.00	4.90	4.66	0.00
197.50	4.90	4.66	0.00
200.00	4.90	4.66	0.00
202.50	4.90	4.66	0.00
205.00	4.90	4.66	0.00
207.50	4.90	4.66	0.00
210.00	4.90	4.66	0.00
212.50	4.90	4.66	0.00
215.00	4.90	4.66	0.00
217.50	4.90	4.66	0.00
220.00	4.90	4.66	0.00
222.50	4.90	4.66	0.00
225.00	4.90	4.66	0.00
227.50	4.90	4.66	0.00
230.00	4.90	4.66	0.00
232.50	4.90	4.66	0.00
235.00	4.90	4.66	0.00
237.50	4.90	4.66	0.00
240.00	4.90	4.66	0.00

Summary for Subcatchment PDA-ROOF1.4: Subcat PDA-ROOF1.4

Runoff = 6.25 cfs @ 12.09 hrs, Volume= 22,621 cf, Depth= 4.66"
Routed to Pond 12P : Infiltration Basin 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
1	98	Paved parking, HSG C
58,209	98	Roofs, HSG C
58,210	98	Weighted Average
0	74	0.00% Pervious Area
58,210	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF1.4: Subcat PDA-ROOF1.4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.02	0.03
5.00	0.28	0.13	0.07
7.50	0.50	0.32	0.14
10.00	0.93	0.72	**0.30**
12.50	3.44	3.21	**1.32**
15.00	4.19	3.95	0.25
17.50	4.50	4.27	0.12
20.00	4.69	4.45	0.09
22.50	**4.83**	**4.59**	0.07
25.00	**4.90**	**4.66**	0.00
27.50	4.90	4.66	0.00
30.00	4.90	4.66	0.00
32.50	4.90	4.66	0.00
35.00	4.90	4.66	0.00
37.50	4.90	4.66	0.00
40.00	4.90	4.66	0.00
42.50	4.90	4.66	0.00
45.00	4.90	4.66	0.00
47.50	4.90	4.66	0.00
50.00	4.90	4.66	0.00
52.50	4.90	4.66	0.00
55.00	4.90	4.66	0.00
57.50	4.90	4.66	0.00
60.00	4.90	4.66	0.00
62.50	4.90	4.66	0.00
65.00	4.90	4.66	0.00
67.50	4.90	4.66	0.00
70.00	4.90	4.66	0.00
72.50	4.90	4.66	0.00
75.00	4.90	4.66	0.00
77.50	4.90	4.66	0.00
80.00	4.90	4.66	0.00
82.50	4.90	4.66	0.00
85.00	4.90	4.66	0.00
87.50	4.90	4.66	0.00
90.00	4.90	4.66	0.00
92.50	4.90	4.66	0.00
95.00	4.90	4.66	0.00
97.50	4.90	4.66	0.00
100.00	4.90	4.66	0.00
102.50	4.90	4.66	0.00
105.00	4.90	4.66	0.00
107.50	4.90	4.66	0.00
110.00	4.90	4.66	0.00
112.50	4.90	4.66	0.00
115.00	4.90	4.66	0.00
117.50	4.90	4.66	0.00
120.00	4.90	4.66	0.00
122.50	4.90	4.66	0.00
125.00	4.90	4.66	0.00
127.50	4.90	4.66	0.00
130.00	4.90	4.66	0.00
132.50	4.90	4.66	0.00
135.00	4.90	4.66	0.00
137.50	4.90	4.66	0.00
140.00	4.90	4.66	0.00
142.50	4.90	4.66	0.00
145.00	4.90	4.66	0.00
147.50	4.90	4.66	0.00
150.00	4.90	4.66	0.00
152.50	4.90	4.66	0.00
155.00	4.90	4.66	0.00
157.50	4.90	4.66	0.00
160.00	4.90	4.66	0.00
162.50	4.90	4.66	0.00
165.00	4.90	4.66	0.00
167.50	4.90	4.66	0.00
170.00	4.90	4.66	0.00
172.50	4.90	4.66	0.00
175.00	4.90	4.66	0.00
177.50	4.90	4.66	0.00
180.00	4.90	4.66	0.00
182.50	4.90	4.66	0.00
185.00	4.90	4.66	0.00
187.50	4.90	4.66	0.00
190.00	4.90	4.66	0.00
192.50	4.90	4.66	0.00
195.00	4.90	4.66	0.00
197.50	4.90	4.66	0.00
200.00	4.90	4.66	0.00
202.50	4.90	4.66	0.00
205.00	4.90	4.66	0.00
207.50	4.90	4.66	0.00
210.00	4.90	4.66	0.00
212.50	4.90	4.66	0.00
215.00	4.90	4.66	0.00
217.50	4.90	4.66	0.00
220.00	4.90	4.66	0.00
222.50	4.90	4.66	0.00
225.00	4.90	4.66	0.00
227.50	4.90	4.66	0.00
230.00	4.90	4.66	0.00
232.50	4.90	4.66	0.00
235.00	4.90	4.66	0.00
237.50	4.90	4.66	0.00
240.00	4.90	4.66	0.00

Summary for Subcatchment PDA-ROOF2.1: Subcat PDA-ROOF2.1

Runoff = 3.34 cfs @ 12.09 hrs, Volume= 12,081 cf, Depth= 4.66"
Routed to Pond 28P : DIV-01

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
31,087	98	Roofs, HSG C
31,087	98	Weighted Average
0	74	0.00% Pervious Area
31,087	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF2.1: Subcat PDA-ROOF2.1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.12	0.02	0.02
5.00	0.28	0.13	0.04
7.50	0.50	0.32	0.07
10.00	0.93	0.72	**0.16**
12.50	3.44	3.21	**0.70**
15.00	4.19	3.95	0.14
17.50	4.50	4.27	0.07
20.00	4.69	4.45	0.05
22.50	**4.83**	**4.59**	0.04
25.00	**4.90**	**4.66**	0.00
27.50	4.90	4.66	0.00
30.00	4.90	4.66	0.00
32.50	4.90	4.66	0.00
35.00	4.90	4.66	0.00
37.50	4.90	4.66	0.00
40.00	4.90	4.66	0.00
42.50	4.90	4.66	0.00
45.00	4.90	4.66	0.00
47.50	4.90	4.66	0.00
50.00	4.90	4.66	0.00
52.50	4.90	4.66	0.00
55.00	4.90	4.66	0.00
57.50	4.90	4.66	0.00
60.00	4.90	4.66	0.00
62.50	4.90	4.66	0.00
65.00	4.90	4.66	0.00
67.50	4.90	4.66	0.00
70.00	4.90	4.66	0.00
72.50	4.90	4.66	0.00
75.00	4.90	4.66	0.00
77.50	4.90	4.66	0.00
80.00	4.90	4.66	0.00
82.50	4.90	4.66	0.00
85.00	4.90	4.66	0.00
87.50	4.90	4.66	0.00
90.00	4.90	4.66	0.00
92.50	4.90	4.66	0.00
95.00	4.90	4.66	0.00
97.50	4.90	4.66	0.00
100.00	4.90	4.66	0.00
102.50	4.90	4.66	0.00
105.00	4.90	4.66	0.00
107.50	4.90	4.66	0.00
110.00	4.90	4.66	0.00
112.50	4.90	4.66	0.00
115.00	4.90	4.66	0.00
117.50	4.90	4.66	0.00
120.00	4.90	4.66	0.00
122.50	4.90	4.66	0.00
125.00	4.90	4.66	0.00
127.50	4.90	4.66	0.00
130.00	4.90	4.66	0.00
132.50	4.90	4.66	0.00
135.00	4.90	4.66	0.00
137.50	4.90	4.66	0.00
140.00	4.90	4.66	0.00
142.50	4.90	4.66	0.00
145.00	4.90	4.66	0.00
147.50	4.90	4.66	0.00
150.00	4.90	4.66	0.00
152.50	4.90	4.66	0.00
155.00	4.90	4.66	0.00
157.50	4.90	4.66	0.00
160.00	4.90	4.66	0.00
162.50	4.90	4.66	0.00
165.00	4.90	4.66	0.00
167.50	4.90	4.66	0.00
170.00	4.90	4.66	0.00
172.50	4.90	4.66	0.00
175.00	4.90	4.66	0.00
177.50	4.90	4.66	0.00
180.00	4.90	4.66	0.00
182.50	4.90	4.66	0.00
185.00	4.90	4.66	0.00
187.50	4.90	4.66	0.00
190.00	4.90	4.66	0.00
192.50	4.90	4.66	0.00
195.00	4.90	4.66	0.00
197.50	4.90	4.66	0.00
200.00	4.90	4.66	0.00
202.50	4.90	4.66	0.00
205.00	4.90	4.66	0.00
207.50	4.90	4.66	0.00
210.00	4.90	4.66	0.00
212.50	4.90	4.66	0.00
215.00	4.90	4.66	0.00
217.50	4.90	4.66	0.00
220.00	4.90	4.66	0.00
222.50	4.90	4.66	0.00
225.00	4.90	4.66	0.00
227.50	4.90	4.66	0.00
230.00	4.90	4.66	0.00
232.50	4.90	4.66	0.00
235.00	4.90	4.66	0.00
237.50	4.90	4.66	0.00
240.00	4.90	4.66	0.00

Summary for Pond 1P: Bio 4

Inflow Area = 16,850 sf, 41.68% Impervious, Inflow Depth = 3.18" for 10-year event
Inflow = 1.37 cfs @ 12.10 hrs, Volume= 4,464 cf
Outflow = 1.57 cfs @ 12.12 hrs, Volume= 4,464 cf, Atten= 0%, Lag= 1.1 min
Discarded = 0.01 cfs @ 12.11 hrs, Volume= 1,489 cf
Primary = 1.56 cfs @ 12.12 hrs, Volume= 2,975 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 60.40' @ 12.11 hrs Surf.Area= 1,022 sf Storage= 1,240 cf

Plug-Flow detention time= 691.2 min calculated for 4,464 cf (100% of inflow)
Center-of-Mass det. time= 691.2 min (1,503.2 - 812.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.79'	3,573 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.79	724	0.0	0	0
56.80	724	33.0	2	2
59.79	724	33.0	714	717
59.80	724	100.0	7	724
60.00	809	100.0	153	877
61.00	1,346	100.0	1,078	1,955
62.00	1,891	100.0	1,619	3,573

Device	Routing	Invert	Outlet Devices
#1	Discarded	56.79'	**0.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	60.30'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 12.11 hrs HW=60.39' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=1.41 cfs @ 12.12 hrs HW=60.39' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Orifice Controls 1.41 cfs @ 1.41 fps)

Hydrograph for Pond 1P: Bio 4

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	56.79	0.00	0.00	0.00
5.00	0.00	0	56.79	0.00	0.00	0.00
10.00	**0.03**	**112**	**57.26**	**0.00**	**0.00**	**0.00**
15.00	**0.07**	**1,152**	**60.31**	**0.07**	**0.01**	**0.06**
20.00	0.02	1,148	60.30	0.02	0.01	0.02
25.00	0.00	1,127	60.28	0.01	0.01	0.00
30.00	0.00	1,022	60.17	0.01	0.01	0.00
35.00	0.00	924	60.06	0.01	0.01	0.00
40.00	0.00	833	59.94	0.00	0.00	0.00
45.00	0.00	747	59.83	0.00	0.00	0.00
50.00	0.00	666	59.58	0.00	0.00	0.00
55.00	0.00	584	59.24	0.00	0.00	0.00
60.00	0.00	503	58.89	0.00	0.00	0.00
65.00	0.00	421	58.55	0.00	0.00	0.00
70.00	0.00	340	58.21	0.00	0.00	0.00
75.00	0.00	258	57.87	0.00	0.00	0.00
80.00	0.00	177	57.53	0.00	0.00	0.00
85.00	0.00	96	57.19	0.00	0.00	0.00
90.00	0.00	14	56.85	0.00	0.00	0.00
95.00	0.00	0	56.79	0.00	0.00	0.00
100.00	0.00	0	56.79	0.00	0.00	0.00
105.00	0.00	0	56.79	0.00	0.00	0.00
110.00	0.00	0	56.79	0.00	0.00	0.00
115.00	0.00	0	56.79	0.00	0.00	0.00
120.00	0.00	0	56.79	0.00	0.00	0.00
125.00	0.00	0	56.79	0.00	0.00	0.00
130.00	0.00	0	56.79	0.00	0.00	0.00
135.00	0.00	0	56.79	0.00	0.00	0.00
140.00	0.00	0	56.79	0.00	0.00	0.00
145.00	0.00	0	56.79	0.00	0.00	0.00
150.00	0.00	0	56.79	0.00	0.00	0.00
155.00	0.00	0	56.79	0.00	0.00	0.00
160.00	0.00	0	56.79	0.00	0.00	0.00
165.00	0.00	0	56.79	0.00	0.00	0.00
170.00	0.00	0	56.79	0.00	0.00	0.00
175.00	0.00	0	56.79	0.00	0.00	0.00
180.00	0.00	0	56.79	0.00	0.00	0.00
185.00	0.00	0	56.79	0.00	0.00	0.00
190.00	0.00	0	56.79	0.00	0.00	0.00
195.00	0.00	0	56.79	0.00	0.00	0.00
200.00	0.00	0	56.79	0.00	0.00	0.00
205.00	0.00	0	56.79	0.00	0.00	0.00
210.00	0.00	0	56.79	0.00	0.00	0.00
215.00	0.00	0	56.79	0.00	0.00	0.00
220.00	0.00	0	56.79	0.00	0.00	0.00
225.00	0.00	0	56.79	0.00	0.00	0.00
230.00	0.00	0	56.79	0.00	0.00	0.00
235.00	0.00	0	56.79	0.00	0.00	0.00
240.00	0.00	0	56.79	0.00	0.00	0.00

Stage-Discharge for Pond 1P: Bio 4

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
56.79	0.00	0.00	0.00
56.89	0.00	0.00	0.00
56.99	0.00	0.00	0.00
57.09	0.00	0.00	0.00
57.19	0.00	0.00	0.00
57.29	0.00	0.00	0.00
57.39	0.00	0.00	0.00
57.49	0.00	0.00	0.00
57.59	0.00	0.00	0.00
57.69	0.00	0.00	0.00
57.79	0.00	0.00	0.00
57.89	0.00	0.00	0.00
57.99	0.00	0.00	0.00
58.09	0.00	0.00	0.00
58.19	0.00	0.00	0.00
58.29	0.00	0.00	0.00
58.39	0.00	0.00	0.00
58.49	0.00	0.00	0.00
58.59	0.00	0.00	0.00
58.69	0.00	0.00	0.00
58.79	0.00	0.00	0.00
58.89	0.00	0.00	0.00
58.99	0.00	0.00	0.00
59.09	0.00	0.00	0.00
59.19	0.00	0.00	0.00
59.29	0.00	0.00	0.00
59.39	0.00	0.00	0.00
59.49	0.00	0.00	0.00
59.59	0.00	0.00	0.00
59.69	0.00	0.00	0.00
59.79	0.00	0.00	0.00
59.89	0.00	0.00	0.00
59.99	0.01	0.01	0.00
60.09	0.01	0.01	0.00
60.19	0.01	0.01	0.00
60.29	0.01	0.01	0.00
60.39	1.45	0.01	1.44
60.49	2.11	0.01	2.10
60.59	2.60	0.01	2.59
60.69	3.01	0.01	3.01
60.79	3.38	0.01	3.37
60.89	3.71	0.01	3.70
60.99	4.01	0.01	4.00
61.09	4.29	0.01	4.28
61.19	4.55	0.01	4.54
61.29	4.80	0.01	4.79
61.39	5.04	0.01	5.03
61.49	5.26	0.01	5.25
61.59	5.48	0.01	5.47
61.69	5.69	0.01	5.68
61.79	5.89	0.01	5.88
61.89	6.08	0.01	6.07
61.99	**6.27**	**0.01**	**6.26**

Stage-Area-Storage for Pond 1P: Bio 4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.79	724	0
56.89	724	24
56.99	724	48
57.09	724	72
57.19	724	96
57.29	724	119
57.39	724	143
57.49	724	167
57.59	724	191
57.69	724	215
57.79	724	239
57.89	724	263
57.99	724	287
58.09	724	311
58.19	724	334
58.29	724	358
58.39	724	382
58.49	724	406
58.59	724	430
58.69	724	454
58.79	724	478
58.89	724	502
58.99	724	526
59.09	724	550
59.19	724	573
59.29	724	597
59.39	724	621
59.49	724	645
59.59	724	669
59.69	724	693
59.79	724	717
59.89	762	791
59.99	805	869
60.09	857	952
60.19	911	1,041
60.29	965	1,134
60.39	1,018	1,234
60.49	1,072	1,338
60.59	1,126	1,448
60.69	1,180	1,563
60.79	1,233	1,684
60.89	1,287	1,810
60.99	1,341	1,941
61.09	1,395	2,078
61.19	1,450	2,220
61.29	1,504	2,368
61.39	1,559	2,521
61.49	1,613	2,680
61.59	1,668	2,844
61.69	1,722	3,013
61.79	1,777	3,188
61.89	1,831	3,369
61.99	**1,886**	**3,554**

Summary for Pond 2P: Bio 3

Inflow Area = 16,632 sf, 77.36% Impervious, Inflow Depth = 4.09" for 10-year event
Inflow = 1.64 cfs @ 12.09 hrs, Volume= 5,671 cf
Outflow = 1.66 cfs @ 12.09 hrs, Volume= 5,671 cf, Atten= 0%, Lag= 0.4 min
Primary = 1.64 cfs @ 12.09 hrs, Volume= 3,230 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Tertiary = 0.02 cfs @ 12.09 hrs, Volume= 2,441 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 59.80' @ 12.09 hrs Surf.Area= 881 sf Storage= 1,149 cf

Plug-Flow detention time= 263.1 min calculated for 5,670 cf (100% of inflow)
Center-of-Mass det. time= 263.3 min (1,031.4 - 768.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.24'	3,220 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.24	606	0.0	0	0
56.25	606	33.0	2	2
58.99	606	33.0	548	550
59.00	606	100.0	6	556
60.00	951	100.0	779	1,335
61.00	1,354	100.0	1,153	2,487
61.50	1,576	100.0	733	3,220

Device	Routing	Invert	Outlet Devices
#1	Device 3	56.24'	**1.020 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	59.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Tertiary	55.50'	**6.0" Round 6" SUBDRAIN** L= 35.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.50' / 55.20' S= 0.0086 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=1.61 cfs @ 12.09 hrs HW=59.80' TW=0.00' (Dynamic Tailwater)
└**2=Orifice/Grate** (Weir Controls 1.61 cfs @ 0.71 fps)

Tertiary OutFlow Max=0.02 cfs @ 12.09 hrs HW=59.80' TW=0.00' (Dynamic Tailwater)
└**3=6" SUBDRAIN** (Passes 0.02 cfs of 1.50 cfs potential flow)
└**1=Exfiltration** (Exfiltration Controls 0.02 cfs)

Hydrograph for Pond 2P: Bio 3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Tertiary (cfs)
0.00	0.00	0	56.24	0.00	0.00	0.00
5.00	0.01	3	56.26	0.01	0.00	0.01
10.00	**0.07**	**293**	**57.71**	**0.01**	**0.00**	**0.01**
15.00	**0.07**	**1,112**	**59.75**	**0.07**	**0.05**	**0.02**
20.00	0.02	1,108	59.75	0.02	0.00	0.02
25.00	0.00	1,022	59.65	0.02	0.00	0.02
30.00	0.00	700	59.22	0.02	0.00	0.02
35.00	0.00	434	58.41	0.01	0.00	0.01
40.00	0.00	177	57.12	0.01	0.00	0.01
45.00	0.00	0	56.24	0.00	0.00	0.00
50.00	0.00	0	56.24	0.00	0.00	0.00
55.00	0.00	0	56.24	0.00	0.00	0.00
60.00	0.00	0	56.24	0.00	0.00	0.00
65.00	0.00	0	56.24	0.00	0.00	0.00
70.00	0.00	0	56.24	0.00	0.00	0.00
75.00	0.00	0	56.24	0.00	0.00	0.00
80.00	0.00	0	56.24	0.00	0.00	0.00
85.00	0.00	0	56.24	0.00	0.00	0.00
90.00	0.00	0	56.24	0.00	0.00	0.00
95.00	0.00	0	56.24	0.00	0.00	0.00
100.00	0.00	0	56.24	0.00	0.00	0.00
105.00	0.00	0	56.24	0.00	0.00	0.00
110.00	0.00	0	56.24	0.00	0.00	0.00
115.00	0.00	0	56.24	0.00	0.00	0.00
120.00	0.00	0	56.24	0.00	0.00	0.00
125.00	0.00	0	56.24	0.00	0.00	0.00
130.00	0.00	0	56.24	0.00	0.00	0.00
135.00	0.00	0	56.24	0.00	0.00	0.00
140.00	0.00	0	56.24	0.00	0.00	0.00
145.00	0.00	0	56.24	0.00	0.00	0.00
150.00	0.00	0	56.24	0.00	0.00	0.00
155.00	0.00	0	56.24	0.00	0.00	0.00
160.00	0.00	0	56.24	0.00	0.00	0.00
165.00	0.00	0	56.24	0.00	0.00	0.00
170.00	0.00	0	56.24	0.00	0.00	0.00
175.00	0.00	0	56.24	0.00	0.00	0.00
180.00	0.00	0	56.24	0.00	0.00	0.00
185.00	0.00	0	56.24	0.00	0.00	0.00
190.00	0.00	0	56.24	0.00	0.00	0.00
195.00	0.00	0	56.24	0.00	0.00	0.00
200.00	0.00	0	56.24	0.00	0.00	0.00
205.00	0.00	0	56.24	0.00	0.00	0.00
210.00	0.00	0	56.24	0.00	0.00	0.00
215.00	0.00	0	56.24	0.00	0.00	0.00
220.00	0.00	0	56.24	0.00	0.00	0.00
225.00	0.00	0	56.24	0.00	0.00	0.00
230.00	0.00	0	56.24	0.00	0.00	0.00
235.00	0.00	0	56.24	0.00	0.00	0.00
240.00	0.00	0	56.24	0.00	0.00	0.00

Stage-Discharge for Pond 2P: Bio 3

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Tertiary (cfs)
56.24	0.00	0.00	0.00
56.34	0.01	0.00	0.01
56.44	0.01	0.00	0.01
56.54	0.01	0.00	0.01
56.64	0.01	0.00	0.01
56.74	0.01	0.00	0.01
56.84	0.01	0.00	0.01
56.94	0.01	0.00	0.01
57.04	0.01	0.00	0.01
57.14	0.01	0.00	0.01
57.24	0.01	0.00	0.01
57.34	0.01	0.00	0.01
57.44	0.01	0.00	0.01
57.54	0.01	0.00	0.01
57.64	0.01	0.00	0.01
57.74	0.01	0.00	0.01
57.84	0.01	0.00	0.01
57.94	0.01	0.00	0.01
58.04	0.01	0.00	0.01
58.14	0.01	0.00	0.01
58.24	0.01	0.00	0.01
58.34	0.01	0.00	0.01
58.44	0.01	0.00	0.01
58.54	0.01	0.00	0.01
58.64	0.01	0.00	0.01
58.74	0.01	0.00	0.01
58.84	0.01	0.00	0.01
58.94	0.01	0.00	0.01
59.04	0.01	0.00	0.01
59.14	0.02	0.00	0.02
59.24	0.02	0.00	0.02
59.34	0.02	0.00	0.02
59.44	0.02	0.00	0.02
59.54	0.02	0.00	0.02
59.64	0.02	0.00	0.02
59.74	0.02	0.00	0.02
59.84	2.91	2.89	0.02
59.94	4.22	4.20	0.02
60.04	5.21	5.19	0.02
60.14	6.04	6.01	0.02
60.24	6.77	6.74	0.02
60.34	7.42	7.40	0.03
60.44	8.03	8.00	0.03
60.54	8.59	8.56	0.03
60.64	9.11	9.08	0.03
60.74	9.61	9.58	0.03
60.84	10.08	10.05	0.03
60.94	10.54	10.51	0.03
61.04	10.97	10.94	0.03
61.14	11.39	11.35	0.03
61.24	11.79	11.75	0.03
61.34	12.18	12.14	0.04
61.44	**12.56**	**12.52**	**0.04**

Stage-Area-Storage for Pond 2P: Bio 3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.24	606	0
56.34	606	20
56.44	606	40
56.54	606	60
56.64	606	80
56.74	606	100
56.84	606	120
56.94	606	140
57.04	606	160
57.14	606	180
57.24	606	200
57.34	606	220
57.44	606	240
57.54	606	260
57.64	606	280
57.74	606	300
57.84	606	320
57.94	606	340
58.04	606	360
58.14	606	380
58.24	606	400
58.34	606	420
58.44	606	440
58.54	606	460
58.64	606	480
58.74	606	500
58.84	606	520
58.94	606	540
59.04	620	581
59.14	654	644
59.24	689	711
59.34	723	782
59.44	758	856
59.54	792	934
59.64	827	1,015
59.74	861	1,099
59.84	896	1,187
59.94	930	1,278
60.04	967	1,373
60.14	1,007	1,472
60.24	1,048	1,574
60.34	1,088	1,681
60.44	1,128	1,792
60.54	1,169	1,907
60.64	1,209	2,026
60.74	1,249	2,149
60.84	1,290	2,276
60.94	1,330	2,406
61.04	1,372	2,542
61.14	1,416	2,681
61.24	1,461	2,825
61.34	1,505	2,973
61.44	**1,549**	**3,126**

Summary for Pond 3P: DIV-02

Inflow Area = 75,465 sf, 44.47% Impervious, Inflow Depth = 2.64" for 10-year event
Inflow = 3.60 cfs @ 12.19 hrs, Volume= 16,583 cf
Outflow = 3.60 cfs @ 12.19 hrs, Volume= 16,583 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.03 cfs @ 12.19 hrs, Volume= 12,875 cf
Routed to Pond 18P : Sand Filter 2
Secondary = 2.57 cfs @ 12.19 hrs, Volume= 3,708 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 57.09' @ 12.19 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.15'	**8.0" Round Culvert** L= 13.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.15' / 54.85' S= 0.1000 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.35 sf
#2	Device 3	56.80'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	56.15'	**15.0" Round Culvert** L= 19.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.15' / 55.00' S= 0.0605 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf

Primary OutFlow Max=1.03 cfs @ 12.19 hrs HW=57.08' TW=55.40' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.03 cfs @ 2.94 fps)

Secondary OutFlow Max=2.54 cfs @ 12.19 hrs HW=57.08' TW=0.00' (Dynamic Tailwater)
└─**3=Culvert** (Inlet Controls 2.54 cfs @ 2.59 fps)
└─**2=Sharp-Crested Rectangular Weir** (Passes 2.54 cfs of 2.90 cfs potential flow)

Hydrograph for Pond 3P: DIV-02

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	56.15	0.00	0.00	0.00
5.00	0.00	56.15	0.00	0.00	0.00
10.00	**0.11**	**56.36**	**0.11**	**0.11**	**0.00**
15.00	**0.30**	**56.50**	**0.30**	**0.30**	**0.00**
20.00	0.09	56.34	0.09	0.09	0.00
25.00	0.00	56.15	0.00	0.00	0.00
30.00	0.00	56.15	0.00	0.00	0.00
35.00	0.00	56.15	0.00	0.00	0.00
40.00	0.00	56.15	0.00	0.00	0.00
45.00	0.00	56.15	0.00	0.00	0.00
50.00	0.00	56.15	0.00	0.00	0.00
55.00	0.00	56.15	0.00	0.00	0.00
60.00	0.00	56.15	0.00	0.00	0.00
65.00	0.00	56.15	0.00	0.00	0.00
70.00	0.00	56.15	0.00	0.00	0.00
75.00	0.00	56.15	0.00	0.00	0.00
80.00	0.00	56.15	0.00	0.00	0.00
85.00	0.00	56.15	0.00	0.00	0.00
90.00	0.00	56.15	0.00	0.00	0.00
95.00	0.00	56.15	0.00	0.00	0.00
100.00	0.00	56.15	0.00	0.00	0.00
105.00	0.00	56.15	0.00	0.00	0.00
110.00	0.00	56.15	0.00	0.00	0.00
115.00	0.00	56.15	0.00	0.00	0.00
120.00	0.00	56.15	0.00	0.00	0.00
125.00	0.00	56.15	0.00	0.00	0.00
130.00	0.00	56.15	0.00	0.00	0.00
135.00	0.00	56.15	0.00	0.00	0.00
140.00	0.00	56.15	0.00	0.00	0.00
145.00	0.00	56.15	0.00	0.00	0.00
150.00	0.00	56.15	0.00	0.00	0.00
155.00	0.00	56.15	0.00	0.00	0.00
160.00	0.00	56.15	0.00	0.00	0.00
165.00	0.00	56.15	0.00	0.00	0.00
170.00	0.00	56.15	0.00	0.00	0.00
175.00	0.00	56.15	0.00	0.00	0.00
180.00	0.00	56.15	0.00	0.00	0.00
185.00	0.00	56.15	0.00	0.00	0.00
190.00	0.00	56.15	0.00	0.00	0.00
195.00	0.00	56.15	0.00	0.00	0.00
200.00	0.00	56.15	0.00	0.00	0.00
205.00	0.00	56.15	0.00	0.00	0.00
210.00	0.00	56.15	0.00	0.00	0.00
215.00	0.00	56.15	0.00	0.00	0.00
220.00	0.00	56.15	0.00	0.00	0.00
225.00	0.00	56.15	0.00	0.00	0.00
230.00	0.00	56.15	0.00	0.00	0.00
235.00	0.00	56.15	0.00	0.00	0.00
240.00	0.00	56.15	0.00	0.00	0.00

Stage-Discharge for Pond 3P: DIV-02

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
56.15	0.00	0.00	0.00
56.17	0.00	0.00	0.00
56.19	0.00	0.00	0.00
56.21	0.01	0.01	0.00
56.23	0.02	0.02	0.00
56.25	0.03	0.03	0.00
56.27	0.04	0.04	0.00
56.29	0.05	0.05	0.00
56.31	0.07	0.07	0.00
56.33	0.09	0.09	0.00
56.35	0.11	0.11	0.00
56.37	0.13	0.13	0.00
56.39	0.15	0.15	0.00
56.41	0.17	0.17	0.00
56.43	0.20	0.20	0.00
56.45	0.22	0.22	0.00
56.47	0.25	0.25	0.00
56.49	0.28	0.28	0.00
56.51	0.31	0.31	0.00
56.53	0.34	0.34	0.00
56.55	0.37	0.37	0.00
56.57	0.40	0.40	0.00
56.59	0.44	0.44	0.00
56.61	0.47	0.47	0.00
56.63	0.50	0.50	0.00
56.65	0.53	0.53	0.00
56.67	0.57	0.57	0.00
56.69	0.60	0.60	0.00
56.71	0.63	0.63	0.00
56.73	0.66	0.66	0.00
56.75	0.69	0.69	0.00
56.77	0.72	0.72	0.00
56.79	0.74	0.74	0.00
56.81	0.78	0.76	0.02
56.83	0.88	0.78	0.10
56.85	1.02	0.80	0.22
56.87	1.19	0.83	0.36
56.89	1.37	0.85	0.53
56.91	1.58	0.87	0.71
56.93	1.80	0.89	0.92
56.95	2.04	0.91	1.13
56.97	2.29	0.93	1.37
56.99	2.56	0.94	1.61
57.01	2.84	0.96	1.87
57.03	3.13	0.98	2.15
57.05	3.41	1.00	2.41
57.07	3.51	1.02	2.50
57.09	3.61	1.03	2.58
57.11	3.71	1.05	2.66
57.13	3.81	1.07	2.75
57.15	3.91	1.08	2.83
57.17	4.01	1.10	2.91
57.19	4.11	1.12	2.99
57.21	4.20	1.13	3.07
57.23	4.29	1.15	3.15
57.25	4.39	1.16	3.22
57.27	4.48	1.18	3.30
57.29	4.56	1.19	3.37
57.31	4.65	1.21	3.44
57.33	4.72	1.22	3.50
57.35	4.80	1.24	3.56
57.37	4.87	1.25	3.62
57.39	**4.93**	**1.26**	**3.67**

Stage-Area-Storage for Pond 3P: DIV-02

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
56.15	**0**	56.66	0	57.17	0
56.16	0	56.67	0	57.18	0
56.17	0	56.68	0	57.19	0
56.18	0	56.69	0	57.20	0
56.19	0	56.70	0	57.21	0
56.20	0	56.71	0	57.22	0
56.21	0	56.72	0	57.23	0
56.22	0	56.73	0	57.24	0
56.23	0	56.74	0	57.25	0
56.24	0	56.75	0	57.26	0
56.25	0	56.76	0	57.27	0
56.26	0	56.77	0	57.28	0
56.27	0	56.78	0	57.29	0
56.28	0	56.79	0	57.30	0
56.29	0	56.80	0	57.31	0
56.30	0	56.81	0	57.32	0
56.31	0	56.82	0	57.33	0
56.32	0	56.83	0	57.34	0
56.33	0	56.84	0	57.35	0
56.34	0	56.85	0	57.36	0
56.35	0	56.86	0	57.37	0
56.36	0	56.87	0	57.38	0
56.37	0	56.88	0	57.39	0
56.38	0	56.89	0	57.40	0
56.39	0	56.90	0		
56.40	0	56.91	0		
56.41	0	56.92	0		
56.42	0	56.93	0		
56.43	0	56.94	0		
56.44	0	56.95	0		
56.45	0	56.96	0		
56.46	0	56.97	0		
56.47	0	56.98	0		
56.48	0	56.99	0		
56.49	0	57.00	0		
56.50	0	57.01	0		
56.51	0	57.02	0		
56.52	0	57.03	0		
56.53	0	57.04	0		
56.54	0	57.05	0		
56.55	0	57.06	0		
56.56	0	57.07	0		
56.57	0	57.08	0		
56.58	0	57.09	0		
56.59	0	57.10	0		
56.60	0	57.11	0		
56.61	0	57.12	0		
56.62	0	57.13	0		
56.63	0	57.14	0		
56.64	0	57.15	0		
56.65	0	57.16	0		

Summary for Pond 4P: Detention Basin 2

Inflow Area = 68,038 sf, 61.42% Impervious, Inflow Depth = 2.87" for 10-year event
Inflow = 4.97 cfs @ 12.15 hrs, Volume= 16,248 cf
Outflow = 1.40 cfs @ 12.53 hrs, Volume= 16,244 cf, Atten= 72%, Lag= 23.1 min
Primary = 1.40 cfs @ 12.53 hrs, Volume= 16,244 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 4L : DP 1.3 - Culvert 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 58.09' @ 12.53 hrs Surf.Area= 3,922 sf Storage= 7,295 cf

Plug-Flow detention time= 461.9 min calculated for 16,241 cf (100% of inflow)
Center-of-Mass det. time= 463.6 min (1,297.8 - 834.2)

Volume	Invert	Avail.Storage	Storage Description
#1	55.60'	26,026 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.60	1,952	0	0
56.00	2,295	849	849
57.00	3,025	2,660	3,509
58.00	3,843	3,434	6,943
59.00	4,717	4,280	11,223
60.00	5,662	5,190	16,413
61.50	7,155	9,613	26,026

Device	Routing	Invert	Outlet Devices
#1	Primary	55.60'	**24.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.60' / 52.60' S= 0.2500 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Device 1	55.60'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	57.50'	**1.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	58.25'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Secondary	60.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=1.40 cfs @ 12.53 hrs HW=58.09' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 1.40 cfs of 14.57 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 7.50 fps)
  ├─**3=Sharp-Crested Rectangular Weir** (Weir Controls 1.30 cfs @ 2.51 fps)
  └─**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=55.60' TW=0.00' (Dynamic Tailwater)
└─**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 4P: Detention Basin 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	55.60	0.00	0.00	**0.00**
5.00	0.00	0	55.60	0.00	0.00	0.00
10.00	**0.01**	**14**	**55.61**	**0.00**	**0.00**	0.00
15.00	**0.27**	**5,751**	**57.68**	**0.32**	**0.32**	0.00
20.00	0.09	5,236	57.53	0.10	0.10	0.00
25.00	0.00	4,770	57.40	0.08	0.08	0.00
30.00	0.00	3,458	56.98	0.07	0.07	0.00
35.00	0.00	2,333	56.59	0.06	0.06	0.00
40.00	0.00	1,415	56.24	0.04	0.04	0.00
45.00	0.00	727	55.95	0.03	0.03	0.00
50.00	0.00	290	55.74	0.02	0.02	0.00
55.00	0.00	114	55.66	0.00	0.00	0.00
60.00	0.00	65	55.63	0.00	0.00	0.00
65.00	0.00	45	55.62	0.00	0.00	0.00
70.00	0.00	34	55.62	0.00	0.00	0.00
75.00	0.00	27	55.61	0.00	0.00	0.00
80.00	0.00	23	55.61	0.00	0.00	0.00
85.00	0.00	19	55.61	0.00	0.00	0.00
90.00	0.00	17	55.61	0.00	0.00	0.00
95.00	0.00	15	55.61	0.00	0.00	0.00
100.00	0.00	14	55.61	0.00	0.00	0.00
105.00	0.00	12	55.61	0.00	0.00	0.00
110.00	0.00	11	55.61	0.00	0.00	0.00
115.00	0.00	10	55.61	0.00	0.00	0.00
120.00	0.00	10	55.60	0.00	0.00	0.00
125.00	0.00	9	55.60	0.00	0.00	0.00
130.00	0.00	8	55.60	0.00	0.00	0.00
135.00	0.00	8	55.60	0.00	0.00	0.00
140.00	0.00	7	55.60	0.00	0.00	0.00
145.00	0.00	7	55.60	0.00	0.00	0.00
150.00	0.00	7	55.60	0.00	0.00	0.00
155.00	0.00	6	55.60	0.00	0.00	0.00
160.00	0.00	6	55.60	0.00	0.00	0.00
165.00	0.00	6	55.60	0.00	0.00	0.00
170.00	0.00	6	55.60	0.00	0.00	0.00
175.00	0.00	5	55.60	0.00	0.00	0.00
180.00	0.00	5	55.60	0.00	0.00	0.00
185.00	0.00	5	55.60	0.00	0.00	0.00
190.00	0.00	5	55.60	0.00	0.00	0.00
195.00	0.00	5	55.60	0.00	0.00	0.00
200.00	0.00	4	55.60	0.00	0.00	0.00
205.00	0.00	4	55.60	0.00	0.00	0.00
210.00	0.00	4	55.60	0.00	0.00	0.00
215.00	0.00	4	55.60	0.00	0.00	0.00
220.00	0.00	4	55.60	0.00	0.00	0.00
225.00	0.00	4	55.60	0.00	0.00	0.00
230.00	0.00	4	55.60	0.00	0.00	0.00
235.00	0.00	4	55.60	0.00	0.00	0.00
240.00	0.00	4	55.60	0.00	0.00	0.00

Stage-Discharge for Pond 4P: Detention Basin 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
55.60	0.00	0.00	0.00
55.70	0.01	0.01	0.00
55.80	0.02	0.02	0.00
55.90	0.03	0.03	0.00
56.00	0.03	0.03	0.00
56.10	0.04	0.04	0.00
56.20	0.04	0.04	0.00
56.30	0.05	0.05	0.00
56.40	0.05	0.05	0.00
56.50	0.05	0.05	0.00
56.60	0.06	0.06	0.00
56.70	0.06	0.06	0.00
56.80	0.06	0.06	0.00
56.90	0.07	0.07	0.00
57.00	0.07	0.07	0.00
57.10	0.07	0.07	0.00
57.20	0.07	0.07	0.00
57.30	0.08	0.08	0.00
57.40	0.08	0.08	0.00
57.50	0.08	0.08	0.00
57.60	0.18	0.18	0.00
57.70	0.37	0.37	0.00
57.80	0.59	0.59	0.00
57.90	0.85	0.85	0.00
58.00	1.13	1.13	0.00
58.10	1.43	1.43	0.00
58.20	1.74	1.74	0.00
58.30	2.24	2.24	0.00
58.40	3.33	3.33	0.00
58.50	4.74	4.74	0.00
58.60	6.38	6.38	0.00
58.70	8.22	8.22	0.00
58.80	10.21	10.21	0.00
58.90	12.35	12.35	0.00
59.00	14.61	14.61	0.00
59.10	16.99	16.99	0.00
59.20	19.26	19.26	0.00
59.30	19.62	19.62	0.00
59.40	19.98	19.98	0.00
59.50	20.34	20.34	0.00
59.60	20.68	20.68	0.00
59.70	21.03	21.03	0.00
59.80	21.36	21.36	0.00
59.90	21.69	21.69	0.00
60.00	22.02	22.02	0.00
60.10	22.34	22.34	0.00
60.20	23.69	22.66	1.03
60.30	25.88	22.97	2.91
60.40	28.62	23.28	5.34
60.50	31.79	23.58	8.21
60.60	35.33	23.88	11.45
60.70	39.20	24.18	15.02
60.80	43.36	24.47	18.88
60.90	47.79	24.76	23.02
61.00	52.47	25.05	27.42
61.10	57.38	25.33	32.05
61.20	62.51	25.61	36.90
61.30	67.84	25.89	41.95
61.40	73.37	26.16	47.21
61.50	**79.09**	**26.44**	**52.65**

Stage-Area-Storage for Pond 4P: Detention Basin 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.60	1,952	0
55.70	2,038	199
55.80	2,124	408
55.90	2,209	624
56.00	2,295	849
56.10	2,368	1,083
56.20	2,441	1,323
56.30	2,514	1,571
56.40	2,587	1,826
56.50	2,660	2,088
56.60	2,733	2,358
56.70	2,806	2,635
56.80	2,879	2,919
56.90	2,952	3,211
57.00	3,025	3,509
57.10	3,107	3,816
57.20	3,189	4,131
57.30	3,270	4,454
57.40	3,352	4,785
57.50	3,434	5,124
57.60	3,516	5,472
57.70	3,598	5,827
57.80	3,679	6,191
57.90	3,761	6,563
58.00	3,843	6,943
58.10	3,930	7,332
58.20	4,018	7,729
58.30	4,105	8,136
58.40	4,193	8,551
58.50	4,280	8,974
58.60	4,367	9,407
58.70	4,455	9,848
58.80	4,542	10,297
58.90	4,630	10,756
59.00	4,717	11,223
59.10	4,812	11,700
59.20	4,906	12,186
59.30	5,001	12,681
59.40	5,095	13,186
59.50	5,190	13,700
59.60	5,284	14,224
59.70	5,379	14,757
59.80	5,473	15,299
59.90	5,567	15,851
60.00	5,662	16,413
60.10	5,762	16,984
60.20	5,861	17,565
60.30	5,961	18,156
60.40	6,060	18,757
60.50	6,160	19,368
60.60	6,259	19,989
60.70	6,359	20,620
60.80	6,458	21,261
60.90	6,558	21,912
61.00	6,657	22,573
61.10	6,757	23,243
61.20	6,856	23,924
61.30	6,956	24,615
61.40	7,055	25,315
61.50	**7,155**	**26,026**

Summary for Pond 7P: Bio 2

Inflow Area = 26,810 sf, 63.81% Impervious, Inflow Depth = 3.68" for 10-year event
Inflow = 2.52 cfs @ 12.09 hrs, Volume= 8,213 cf
Outflow = 2.75 cfs @ 12.11 hrs, Volume= 8,213 cf, Atten= 0%, Lag= 1.5 min
Primary = 2.73 cfs @ 12.11 hrs, Volume= 4,447 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Tertiary = 0.03 cfs @ 8.60 hrs, Volume= 3,766 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 56.58' @ 12.11 hrs Surf.Area= 2,201 sf Storage= 2,269 cf

Plug-Flow detention time= 364.6 min calculated for 8,212 cf (100% of inflow)
Center-of-Mass det. time= 364.8 min (1,159.9 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	52.99'	8,230 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
52.99	1,128	0.0	0	0
53.00	1,128	33.0	4	4
55.99	1,128	33.0	1,113	1,117
56.00	1,742	100.0	14	1,131
57.00	2,537	100.0	2,140	3,271
58.00	3,569	100.0	3,053	6,324
58.50	4,058	100.0	1,907	8,230

Device	Routing	Invert	Outlet Devices
#1	Primary	56.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Device 3	52.99'	**1.020 in/hr Exfiltration over Surface area from 52.98' - 55.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#3	Tertiary	52.25'	**6.0" Vert. subdrain** C= 0.600 Limited to weir flow at low heads
#4	Secondary	57.50'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=2.57 cfs @ 12.11 hrs HW=56.57' TW=0.00' (Dynamic Tailwater)
└**1=Orifice/Grate** (Orifice Controls 2.57 cfs @ 1.29 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.99' TW=0.00' (Dynamic Tailwater)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.03 cfs @ 8.60 hrs HW=53.05' TW=0.00' (Dynamic Tailwater)
└**3=subdrain** (Passes 0.03 cfs of 0.70 cfs potential flow)
└**2=Exfiltration** (Exfiltration Controls 0.03 cfs)

Hydrograph for Pond 7P: Bio 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
0.00	0.00	0	52.99	0.00	0.00	**0.00**	0.00
5.00	0.00	0	52.99	0.00	0.00	0.00	**0.00**
10.00	**0.08**	**194**	**53.51**	**0.03**	**0.00**	0.00	**0.03**
15.00	**0.11**	**2,116**	**56.51**	**0.11**	**0.08**	0.00	0.03
20.00	0.04	2,105	56.50	0.04	0.01	0.00	0.03
25.00	0.00	2,013	56.46	0.03	0.00	0.00	0.03
30.00	0.00	1,533	56.22	0.03	0.00	0.00	0.03
35.00	0.00	1,054	55.82	0.03	0.00	0.00	0.03
40.00	0.00	575	54.53	0.03	0.00	0.00	0.03
45.00	0.00	95	53.25	0.03	0.00	0.00	0.03
50.00	0.00	0	52.99	0.00	0.00	0.00	0.00
55.00	0.00	0	52.99	0.00	0.00	0.00	0.00
60.00	0.00	0	52.99	0.00	0.00	0.00	0.00
65.00	0.00	0	52.99	0.00	0.00	0.00	0.00
70.00	0.00	0	52.99	0.00	0.00	0.00	0.00
75.00	0.00	0	52.99	0.00	0.00	0.00	0.00
80.00	0.00	0	52.99	0.00	0.00	0.00	0.00
85.00	0.00	0	52.99	0.00	0.00	0.00	0.00
90.00	0.00	0	52.99	0.00	0.00	0.00	0.00
95.00	0.00	0	52.99	0.00	0.00	0.00	0.00
100.00	0.00	0	52.99	0.00	0.00	0.00	0.00
105.00	0.00	0	52.99	0.00	0.00	0.00	0.00
110.00	0.00	0	52.99	0.00	0.00	0.00	0.00
115.00	0.00	0	52.99	0.00	0.00	0.00	0.00
120.00	0.00	0	52.99	0.00	0.00	0.00	0.00
125.00	0.00	0	52.99	0.00	0.00	0.00	0.00
130.00	0.00	0	52.99	0.00	0.00	0.00	0.00
135.00	0.00	0	52.99	0.00	0.00	0.00	0.00
140.00	0.00	0	52.99	0.00	0.00	0.00	0.00
145.00	0.00	0	52.99	0.00	0.00	0.00	0.00
150.00	0.00	0	52.99	0.00	0.00	0.00	0.00
155.00	0.00	0	52.99	0.00	0.00	0.00	0.00
160.00	0.00	0	52.99	0.00	0.00	0.00	0.00
165.00	0.00	0	52.99	0.00	0.00	0.00	0.00
170.00	0.00	0	52.99	0.00	0.00	0.00	0.00
175.00	0.00	0	52.99	0.00	0.00	0.00	0.00
180.00	0.00	0	52.99	0.00	0.00	0.00	0.00
185.00	0.00	0	52.99	0.00	0.00	0.00	0.00
190.00	0.00	0	52.99	0.00	0.00	0.00	0.00
195.00	0.00	0	52.99	0.00	0.00	0.00	0.00
200.00	0.00	0	52.99	0.00	0.00	0.00	0.00
205.00	0.00	0	52.99	0.00	0.00	0.00	0.00
210.00	0.00	0	52.99	0.00	0.00	0.00	0.00
215.00	0.00	0	52.99	0.00	0.00	0.00	0.00
220.00	0.00	0	52.99	0.00	0.00	0.00	0.00
225.00	0.00	0	52.99	0.00	0.00	0.00	0.00
230.00	0.00	0	52.99	0.00	0.00	0.00	0.00
235.00	0.00	0	52.99	0.00	0.00	0.00	0.00
240.00	0.00	0	52.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 7P: Bio 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
52.99	0.00	0.00	0.00	**0.00**
53.19	0.03	0.00	0.00	**0.03**
53.39	0.03	0.00	0.00	0.03
53.59	0.03	0.00	0.00	0.03
53.79	0.03	0.00	0.00	0.03
53.99	0.03	0.00	0.00	0.03
54.19	0.03	0.00	0.00	0.03
54.39	0.03	0.00	0.00	0.03
54.59	0.03	0.00	0.00	0.03
54.79	0.03	0.00	0.00	0.03
54.99	0.03	0.00	0.00	0.03
55.19	0.03	0.00	0.00	0.03
55.39	0.03	0.00	0.00	0.03
55.59	0.03	0.00	0.00	0.03
55.79	0.03	0.00	0.00	0.03
55.99	0.03	0.00	0.00	0.03
56.19	0.03	0.00	0.00	0.03
56.39	0.03	0.00	0.00	0.03
56.59	2.92	2.89	0.00	0.03
56.79	5.21	5.19	0.00	0.03
56.99	6.77	6.74	0.00	0.03
57.19	8.03	8.00	0.00	0.03
57.39	9.11	9.08	0.00	0.03
57.59	10.96	10.05	0.88	0.03
57.79	16.04	10.94	5.08	0.03
57.99	22.89	11.75	11.11	0.03
58.19	31.03	12.52	18.48	0.03
58.39	**40.23**	**13.24**	**26.97**	0.03

Stage-Area-Storage for Pond 7P: Bio 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
52.99	1,128	0
53.09	1,128	37
53.19	1,128	74
53.29	1,128	112
53.39	1,128	149
53.49	1,128	186
53.59	1,128	223
53.69	1,128	261
53.79	1,128	298
53.89	1,128	335
53.99	1,128	372
54.09	1,128	409
54.19	1,128	447
54.29	1,128	484
54.39	1,128	521
54.49	1,128	558
54.59	1,128	596
54.69	1,128	633
54.79	1,128	670
54.89	1,128	707
54.99	1,128	744
55.09	1,128	782
55.19	1,128	819
55.29	1,128	856
55.39	1,128	893
55.49	1,128	931
55.59	1,128	968
55.69	1,128	1,005
55.79	1,128	1,042
55.89	1,128	1,079
55.99	1,128	1,117
56.09	1,814	1,291
56.19	1,893	1,476
56.29	1,973	1,670
56.39	2,052	1,871
56.49	2,132	2,080
56.59	2,211	2,297
56.69	2,291	2,522
56.79	2,370	2,755
56.89	2,450	2,996
56.99	2,529	3,245
57.09	2,630	3,503
57.19	2,733	3,771
57.29	2,836	4,050
57.39	2,939	4,338
57.49	3,043	4,638
57.59	3,146	4,947
57.69	3,249	5,267
57.79	3,352	5,597
57.89	3,455	5,937
57.99	3,559	6,288
58.09	3,657	6,649
58.19	3,755	7,019
58.29	3,853	7,400
58.39	3,950	7,790
58.49	**4,048**	**8,190**

Summary for Pond 8P: DIV-04

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 2.27" for 10-year event
Inflow = 8.84 cfs @ 12.20 hrs, Volume= 28,730 cf
Outflow = 8.84 cfs @ 12.20 hrs, Volume= 28,726 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.84 cfs @ 12.08 hrs, Volume= 15,464 cf
Routed to Pond 23P : UGIS-1
Secondary = 5.06 cfs @ 12.38 hrs, Volume= 13,262 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 48.81' @ 12.38 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.90'	**18.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.90' / 46.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf
#2	Device 3	48.40'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	46.90'	**24.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.90' / 46.70' S= 0.0067 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf

Primary OutFlow Max=5.90 cfs @ 12.08 hrs HW=48.54' TW=47.77' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 5.90 cfs @ 3.34 fps)

Secondary OutFlow Max=5.03 cfs @ 12.38 hrs HW=48.81' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 5.03 cfs of 10.71 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 5.03 cfs @ 2.09 fps)

Hydrograph for Pond 8P: DIV-04

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	46.90	0.00	0.00	0.00
5.00	0.01	46.94	0.01	0.01	0.00
10.00	**0.17**	**47.11**	**0.17**	**0.17**	**0.00**
15.00	**0.16**	**48.43**	**0.16**	**0.08**	**0.08**
20.00	0.02	48.31	0.01	0.01	0.00
25.00	0.00	46.90	0.00	0.00	0.00
30.00	0.00	46.90	0.00	0.00	0.00
35.00	0.00	47.64	0.00	0.00	0.00
40.00	0.00	47.46	0.00	0.00	0.00
45.00	0.00	46.90	0.00	0.00	0.00
50.00	0.00	46.90	0.00	0.00	0.00
55.00	0.00	46.90	0.00	0.00	0.00
60.00	0.00	46.90	0.00	0.00	0.00
65.00	0.00	46.90	0.00	0.00	0.00
70.00	0.00	46.90	0.00	0.00	0.00
75.00	0.00	46.90	0.00	0.00	0.00
80.00	0.00	46.90	0.00	0.00	0.00
85.00	0.00	46.90	0.00	0.00	0.00
90.00	0.00	46.90	0.00	0.00	0.00
95.00	0.00	46.90	0.00	0.00	0.00
100.00	0.00	46.90	0.00	0.00	0.00
105.00	0.00	46.90	0.00	0.00	0.00
110.00	0.00	46.90	0.00	0.00	0.00
115.00	0.00	46.90	0.00	0.00	0.00
120.00	0.00	46.90	0.00	0.00	0.00
125.00	0.00	46.90	0.00	0.00	0.00
130.00	0.00	46.90	0.00	0.00	0.00
135.00	0.00	46.90	0.00	0.00	0.00
140.00	0.00	46.90	0.00	0.00	0.00
145.00	0.00	46.90	0.00	0.00	0.00
150.00	0.00	46.90	0.00	0.00	0.00
155.00	0.00	46.90	0.00	0.00	0.00
160.00	0.00	46.90	0.00	0.00	0.00
165.00	0.00	46.90	0.00	0.00	0.00
170.00	0.00	46.90	0.00	0.00	0.00
175.00	0.00	46.90	0.00	0.00	0.00
180.00	0.00	46.90	0.00	0.00	0.00
185.00	0.00	46.90	0.00	0.00	0.00
190.00	0.00	46.90	0.00	0.00	0.00
195.00	0.00	46.90	0.00	0.00	0.00
200.00	0.00	46.90	0.00	0.00	0.00
205.00	0.00	46.90	0.00	0.00	0.00
210.00	0.00	46.90	0.00	0.00	0.00
215.00	0.00	46.90	0.00	0.00	0.00
220.00	0.00	46.90	0.00	0.00	0.00
225.00	0.00	46.90	0.00	0.00	0.00
230.00	0.00	46.90	0.00	0.00	0.00
235.00	0.00	46.90	0.00	0.00	0.00
240.00	0.00	46.90	0.00	0.00	0.00

Stage-Discharge for Pond 8P: DIV-04

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
46.90	0.00	0.00	0.00
46.92	0.00	0.00	0.00
46.94	0.01	0.01	0.00
46.96	0.02	0.02	0.00
46.98	0.03	0.03	0.00
47.00	0.04	0.04	0.00
47.02	0.06	0.06	0.00
47.04	0.08	0.08	0.00
47.06	0.11	0.11	0.00
47.08	0.13	0.13	0.00
47.10	0.16	0.16	0.00
47.12	0.20	0.20	0.00
47.14	0.23	0.23	0.00
47.16	0.27	0.27	0.00
47.18	0.31	0.31	0.00
47.20	0.35	0.35	0.00
47.22	0.39	0.39	0.00
47.24	0.44	0.44	0.00
47.26	0.48	0.48	0.00
47.28	0.53	0.53	0.00
47.30	0.58	0.58	0.00
47.32	0.64	0.64	0.00
47.34	0.69	0.69	0.00
47.36	0.75	0.75	0.00
47.38	0.81	0.81	0.00
47.40	0.87	0.87	0.00
47.42	0.94	0.94	0.00
47.44	1.00	1.00	0.00
47.46	1.07	1.07	0.00
47.48	1.14	1.14	0.00
47.50	1.21	1.21	0.00
47.52	1.28	1.28	0.00
47.54	1.35	1.35	0.00
47.56	1.42	1.42	0.00
47.58	1.50	1.50	0.00
47.60	1.58	1.58	0.00
47.62	1.66	1.66	0.00
47.64	1.74	1.74	0.00
47.66	1.82	1.82	0.00
47.68	1.91	1.91	0.00
47.70	1.99	1.99	0.00
47.72	2.08	2.08	0.00
47.74	2.16	2.16	0.00
47.76	2.25	2.25	0.00
47.78	2.34	2.34	0.00
47.80	2.43	2.43	0.00
47.82	2.53	2.53	0.00
47.84	2.62	2.62	0.00
47.86	2.71	2.71	0.00
47.88	2.81	2.81	0.00
47.90	2.91	2.91	0.00
47.92	3.00	3.00	0.00
47.94	3.10	3.10	0.00
47.96	3.20	3.20	0.00
47.98	3.30	3.30	0.00
48.00	3.40	3.40	0.00
48.02	3.50	3.50	0.00
48.04	3.61	3.61	0.00
48.06	3.71	3.71	0.00
48.08	3.81	3.81	0.00
48.10	3.92	3.92	0.00
48.12	4.02	4.02	0.00
48.14	4.12	4.12	0.00
48.16	4.23	4.23	0.00
48.18	4.34	4.34	0.00
48.20	4.44	4.44	0.00
48.22	4.55	4.55	0.00
48.24	4.65	4.65	0.00
48.26	4.76	4.76	0.00
48.28	4.87	4.87	0.00
48.30	4.97	4.97	0.00
48.32	5.08	5.08	0.00
48.34	5.19	5.19	0.00
48.36	5.29	5.29	0.00
48.38	5.40	5.40	0.00
48.40	5.50	5.50	0.00
48.42	5.66	5.61	0.06
48.44	5.87	5.71	0.16
48.46	6.10	5.81	0.29
48.48	6.36	5.92	0.44
48.50	6.64	6.02	0.62
48.52	6.93	6.12	0.81
48.54	7.24	6.22	1.02
48.56	7.57	6.32	1.25
48.58	7.91	6.42	1.49
48.60	8.26	6.52	1.74
48.62	8.62	6.61	2.01
48.64	8.97	6.68	2.29
48.66	9.33	6.75	2.58
48.68	9.70	6.82	2.88
48.70	10.07	6.88	3.19
48.72	10.46	6.95	3.51
48.74	10.86	7.01	3.85
48.76	11.26	7.08	4.19
48.78	11.68	7.14	4.54
48.80	12.10	7.20	4.90
48.82	12.53	7.27	5.27
48.84	12.97	7.33	5.64
48.86	13.42	7.39	6.03
48.88	13.87	7.45	6.42
48.90	**14.33**	**7.51**	**6.82**

Stage-Area-Storage for Pond 8P: DIV-04

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
46.90	**0**	47.92	0
46.92	0	47.94	0
46.94	0	47.96	0
46.96	0	47.98	0
46.98	0	48.00	0
47.00	0	48.02	0
47.02	0	48.04	0
47.04	0	48.06	0
47.06	0	48.08	0
47.08	0	48.10	0
47.10	0	48.12	0
47.12	0	48.14	0
47.14	0	48.16	0
47.16	0	48.18	0
47.18	0	48.20	0
47.20	0	48.22	0
47.22	0	48.24	0
47.24	0	48.26	0
47.26	0	48.28	0
47.28	0	48.30	0
47.30	0	48.32	0
47.32	0	48.34	0
47.34	0	48.36	0
47.36	0	48.38	0
47.38	0	48.40	0
47.40	0	48.42	0
47.42	0	48.44	0
47.44	0	48.46	0
47.46	0	48.48	0
47.48	0	48.50	0
47.50	0	48.52	0
47.52	0	48.54	0
47.54	0	48.56	0
47.56	0	48.58	0
47.58	0	48.60	0
47.60	0	48.62	0
47.62	0	48.64	0
47.64	0	48.66	0
47.66	0	48.68	0
47.68	0	48.70	0
47.70	0	48.72	0
47.72	0	48.74	0
47.74	0	48.76	0
47.76	0	48.78	0
47.78	0	48.80	0
47.80	0	48.82	0
47.82	0	48.84	0
47.84	0	48.86	0
47.86	0	48.88	0
47.88	0	48.90	0
47.90	0		

Summary for Pond 9P: Sand Filter 5

Inflow Area = 23,611 sf, 64.90% Impervious, Inflow Depth = 3.75" for 10-year event
Inflow = 2.08 cfs @ 12.09 hrs, Volume= 7,383 cf
Outflow = 1.90 cfs @ 12.13 hrs, Volume= 7,383 cf, Atten= 9%, Lag= 2.3 min
Discarded = 0.01 cfs @ 12.13 hrs, Volume= 1,798 cf
Primary = 1.89 cfs @ 12.13 hrs, Volume= 5,586 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 49.90' @ 12.13 hrs Surf.Area= 1,138 sf Storage= 1,538 cf

Plug-Flow detention time= 560.7 min calculated for 7,383 cf (100% of inflow)
Center-of-Mass det. time= 560.7 min (1,347.8 - 787.1)

Volume	Invert	Avail.Storage	Storage Description
#1	45.99'	4,039 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
45.99	705	0.0	0	0
46.00	705	33.0	2	2
48.99	705	33.0	696	698
49.00	705	100.0	7	705
50.00	1,184	100.0	945	1,649
51.00	1,725	100.0	1,455	3,104
51.50	2,016	100.0	935	4,039

Device	Routing	Invert	Outlet Devices
#1	Discarded	45.99'	**0.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	49.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	50.20'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 12.13 hrs HW=49.90' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=1.86 cfs @ 12.13 hrs HW=49.90' TW=0.00' (Dynamic Tailwater)
└**2=Orifice/Grate** (Orifice Controls 1.86 cfs @ 1.86 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=45.99' TW=0.00' (Dynamic Tailwater)
└**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 9P: Sand Filter 5

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	45.99	0.00	0.00	0.00	**0.00**
5.00	0.01	9	46.03	0.00	0.00	0.00	0.00
10.00	**0.08**	**501**	**48.15**	**0.00**	**0.00**	**0.00**	0.00
15.00	**0.10**	**1,380**	**49.76**	**0.10**	**0.01**	**0.09**	0.00
20.00	0.03	1,374	49.75	0.03	0.01	0.03	0.00
25.00	0.00	1,351	49.73	0.01	0.01	0.00	0.00
30.00	0.00	1,235	49.62	0.01	0.01	0.00	0.00
35.00	0.00	1,125	49.51	0.01	0.01	0.00	0.00
40.00	0.00	1,021	49.40	0.01	0.01	0.00	0.00
45.00	0.00	924	49.28	0.01	0.01	0.00	0.00
50.00	0.00	832	49.17	0.00	0.00	0.00	0.00
55.00	0.00	747	49.06	0.00	0.00	0.00	0.00
60.00	0.00	667	48.86	0.00	0.00	0.00	0.00
65.00	0.00	587	48.51	0.00	0.00	0.00	0.00
70.00	0.00	508	48.17	0.00	0.00	0.00	0.00
75.00	0.00	429	47.83	0.00	0.00	0.00	0.00
80.00	0.00	349	47.49	0.00	0.00	0.00	0.00
85.00	0.00	270	47.15	0.00	0.00	0.00	0.00
90.00	0.00	191	46.81	0.00	0.00	0.00	0.00
95.00	0.00	111	46.47	0.00	0.00	0.00	0.00
100.00	0.00	32	46.13	0.00	0.00	0.00	0.00
105.00	0.00	0	45.99	0.00	0.00	0.00	0.00
110.00	0.00	0	45.99	0.00	0.00	0.00	0.00
115.00	0.00	0	45.99	0.00	0.00	0.00	0.00
120.00	0.00	0	45.99	0.00	0.00	0.00	0.00
125.00	0.00	0	45.99	0.00	0.00	0.00	0.00
130.00	0.00	0	45.99	0.00	0.00	0.00	0.00
135.00	0.00	0	45.99	0.00	0.00	0.00	0.00
140.00	0.00	0	45.99	0.00	0.00	0.00	0.00
145.00	0.00	0	45.99	0.00	0.00	0.00	0.00
150.00	0.00	0	45.99	0.00	0.00	0.00	0.00
155.00	0.00	0	45.99	0.00	0.00	0.00	0.00
160.00	0.00	0	45.99	0.00	0.00	0.00	0.00
165.00	0.00	0	45.99	0.00	0.00	0.00	0.00
170.00	0.00	0	45.99	0.00	0.00	0.00	0.00
175.00	0.00	0	45.99	0.00	0.00	0.00	0.00
180.00	0.00	0	45.99	0.00	0.00	0.00	0.00
185.00	0.00	0	45.99	0.00	0.00	0.00	0.00
190.00	0.00	0	45.99	0.00	0.00	0.00	0.00
195.00	0.00	0	45.99	0.00	0.00	0.00	0.00
200.00	0.00	0	45.99	0.00	0.00	0.00	0.00
205.00	0.00	0	45.99	0.00	0.00	0.00	0.00
210.00	0.00	0	45.99	0.00	0.00	0.00	0.00
215.00	0.00	0	45.99	0.00	0.00	0.00	0.00
220.00	0.00	0	45.99	0.00	0.00	0.00	0.00
225.00	0.00	0	45.99	0.00	0.00	0.00	0.00
230.00	0.00	0	45.99	0.00	0.00	0.00	0.00
235.00	0.00	0	45.99	0.00	0.00	0.00	0.00
240.00	0.00	0	45.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 9P: Sand Filter 5

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
45.99	0.00	0.00	0.00	0.00
46.19	0.00	0.00	0.00	0.00
46.39	0.00	0.00	0.00	0.00
46.59	0.00	0.00	0.00	0.00
46.79	0.00	0.00	0.00	0.00
46.99	0.00	0.00	0.00	0.00
47.19	0.00	0.00	0.00	0.00
47.39	0.00	0.00	0.00	0.00
47.59	0.00	0.00	0.00	0.00
47.79	0.00	0.00	0.00	0.00
47.99	0.00	0.00	0.00	0.00
48.19	0.00	0.00	0.00	0.00
48.39	0.00	0.00	0.00	0.00
48.59	0.00	0.00	0.00	0.00
48.79	0.00	0.00	0.00	0.00
48.99	0.00	0.00	0.00	0.00
49.19	0.00	0.00	0.00	0.00
49.39	0.01	0.01	0.00	0.00
49.59	0.01	0.01	0.00	0.00
49.79	0.63	0.01	0.63	0.00
49.99	2.37	0.01	2.36	0.00
50.19	3.20	0.01	3.19	0.00
50.39	6.56	0.01	3.85	2.70
50.59	12.32	0.01	4.41	7.90
50.79	19.56	0.01	4.91	14.64
50.99	27.97	0.01	5.36	22.60
51.19	37.36	0.01	5.78	31.57
51.39	**47.62**	**0.01**	**6.17**	**41.44**

Stage-Area-Storage for Pond 9P: Sand Filter 5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
45.99	705	0
46.09	705	23
46.19	705	47
46.29	705	70
46.39	705	93
46.49	705	116
46.59	705	140
46.69	705	163
46.79	705	186
46.89	705	209
46.99	705	233
47.09	705	256
47.19	705	279
47.29	705	302
47.39	705	326
47.49	705	349
47.59	705	372
47.69	705	396
47.79	705	419
47.89	705	442
47.99	705	465
48.09	705	489
48.19	705	512
48.29	705	535
48.39	705	558
48.49	705	582
48.59	705	605
48.69	705	628
48.79	705	651
48.89	705	675
48.99	705	698
49.09	748	770
49.19	796	848
49.29	844	930
49.39	892	1,016
49.49	940	1,108
49.59	988	1,204
49.69	1,036	1,305
49.79	1,083	1,411
49.89	1,131	1,522
49.99	1,179	1,638
50.09	1,233	1,758
50.19	1,287	1,884
50.29	1,341	2,016
50.39	1,395	2,152
50.49	1,449	2,295
50.59	1,503	2,442
50.69	1,557	2,595
50.79	1,611	2,754
50.89	1,665	2,918
50.99	1,720	3,087
51.09	1,777	3,262
51.19	1,836	3,442
51.29	1,894	3,629
51.39	1,952	3,821
51.49	**2,010**	**4,019**

Summary for Pond 10P: Bio 1

Inflow Area = 42,514 sf, 59.10% Impervious, Inflow Depth = 2.98" for 10-year event
Inflow = 1.25 cfs @ 12.09 hrs, Volume= 10,551 cf
Outflow = 1.23 cfs @ 12.13 hrs, Volume= 10,551 cf, Atten= 2%, Lag= 2.3 min
Discarded = 0.01 cfs @ 9.40 hrs, Volume= 2,138 cf
Primary = 1.22 cfs @ 12.13 hrs, Volume= 8,413 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 44.56' @ 12.13 hrs Surf.Area= 2,728 sf Storage= 1,855 cf

Plug-Flow detention time= 467.3 min calculated for 10,549 cf (100% of inflow)
Center-of-Mass det. time= 468.2 min (1,279.4 - 811.2)

Volume	Invert	Avail.Storage	Storage Description
#1	41.99'	6,655 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
41.99	725	0.0	0	0
42.00	725	33.0	2	2
43.99	725	33.0	476	479
44.00	1,147	33.0	3	482
44.01	2,171	100.0	17	498
45.00	3,166	100.0	2,642	3,140
46.00	3,865	100.0	3,516	6,655

Device	Routing	Invert	Outlet Devices
#1	Primary	44.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Discarded	41.99'	**0.270 in/hr Exfiltration over Surface area from 41.98' - 44.00'** Excluded Surface area = 0 sf Phase-In= 0.02'
#3	Secondary	45.00'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 9.40 hrs HW=44.00' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=1.21 cfs @ 12.13 hrs HW=44.56' TW=0.00' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Orifice Controls 1.21 cfs @ 1.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=41.99' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 10P: Bio 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	41.99	0.00	0.00	0.00	**0.00**
5.00	0.00	1	41.99	0.00	**0.00**	0.00	0.00
10.00	**0.13**	**723**	**44.11**	**0.01**	**0.01**	**0.00**	0.00
15.00	**0.18**	**1,727**	**44.52**	**0.18**	0.01	**0.17**	0.00
20.00	0.06	1,703	44.51	0.06	0.01	0.05	0.00
25.00	0.00	1,666	44.49	0.01	0.01	0.00	0.00
30.00	0.00	1,537	44.44	0.01	0.01	0.00	0.00
35.00	0.00	1,408	44.39	0.01	0.01	0.00	0.00
40.00	0.00	1,279	44.34	0.01	0.01	0.00	0.00
45.00	0.00	1,150	44.29	0.01	0.01	0.00	0.00
50.00	0.00	1,021	44.24	0.01	0.01	0.00	0.00
55.00	0.00	892	44.18	0.01	0.01	0.00	0.00
60.00	0.00	763	44.13	0.01	0.01	0.00	0.00
65.00	0.00	634	44.07	0.01	0.01	0.00	0.00
70.00	0.00	505	44.01	0.01	0.01	0.00	0.00
75.00	0.00	414	43.72	0.00	0.00	0.00	0.00
80.00	0.00	333	43.38	0.00	0.00	0.00	0.00
85.00	0.00	251	43.04	0.00	0.00	0.00	0.00
90.00	0.00	169	42.70	0.00	0.00	0.00	0.00
95.00	0.00	88	42.36	0.00	0.00	0.00	0.00
100.00	0.00	6	42.02	0.00	0.00	0.00	0.00
105.00	0.00	0	41.99	0.00	0.00	0.00	0.00
110.00	0.00	0	41.99	0.00	0.00	0.00	0.00
115.00	0.00	0	41.99	0.00	0.00	0.00	0.00
120.00	0.00	0	41.99	0.00	0.00	0.00	0.00
125.00	0.00	0	41.99	0.00	0.00	0.00	0.00
130.00	0.00	0	41.99	0.00	0.00	0.00	0.00
135.00	0.00	0	41.99	0.00	0.00	0.00	0.00
140.00	0.00	0	41.99	0.00	0.00	0.00	0.00
145.00	0.00	0	41.99	0.00	0.00	0.00	0.00
150.00	0.00	0	41.99	0.00	0.00	0.00	0.00
155.00	0.00	0	41.99	0.00	0.00	0.00	0.00
160.00	0.00	0	41.99	0.00	0.00	0.00	0.00
165.00	0.00	0	41.99	0.00	0.00	0.00	0.00
170.00	0.00	0	41.99	0.00	0.00	0.00	0.00
175.00	0.00	0	41.99	0.00	0.00	0.00	0.00
180.00	0.00	0	41.99	0.00	0.00	0.00	0.00
185.00	0.00	0	41.99	0.00	0.00	0.00	0.00
190.00	0.00	0	41.99	0.00	0.00	0.00	0.00
195.00	0.00	0	41.99	0.00	0.00	0.00	0.00
200.00	0.00	0	41.99	0.00	0.00	0.00	0.00
205.00	0.00	0	41.99	0.00	0.00	0.00	0.00
210.00	0.00	0	41.99	0.00	0.00	0.00	0.00
215.00	0.00	0	41.99	0.00	0.00	0.00	0.00
220.00	0.00	0	41.99	0.00	0.00	0.00	0.00
225.00	0.00	0	41.99	0.00	0.00	0.00	0.00
230.00	0.00	0	41.99	0.00	0.00	0.00	0.00
235.00	0.00	0	41.99	0.00	0.00	0.00	0.00
240.00	0.00	0	41.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 10P: Bio 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
41.99	0.00	0.00	0.00	0.00
42.09	0.00	0.00	0.00	0.00
42.19	0.00	0.00	0.00	0.00
42.29	0.00	0.00	0.00	0.00
42.39	0.00	0.00	0.00	0.00
42.49	0.00	0.00	0.00	0.00
42.59	0.00	0.00	0.00	0.00
42.69	0.00	0.00	0.00	0.00
42.79	0.00	0.00	0.00	0.00
42.89	0.00	0.00	0.00	0.00
42.99	0.00	0.00	0.00	0.00
43.09	0.00	0.00	0.00	0.00
43.19	0.00	0.00	0.00	0.00
43.29	0.00	0.00	0.00	0.00
43.39	0.00	0.00	0.00	0.00
43.49	0.00	0.00	0.00	0.00
43.59	0.00	0.00	0.00	0.00
43.69	0.00	0.00	0.00	0.00
43.79	0.00	0.00	0.00	0.00
43.89	0.00	0.00	0.00	0.00
43.99	0.00	**0.00**	0.00	0.00
44.09	0.01	**0.01**	0.00	0.00
44.19	0.01	0.01	0.00	0.00
44.29	0.01	0.01	0.00	0.00
44.39	0.01	0.01	0.00	0.00
44.49	0.01	0.01	0.00	0.00
44.59	1.45	0.01	1.44	0.00
44.69	2.11	0.01	2.10	0.00
44.79	2.60	0.01	2.59	0.00
44.89	3.01	0.01	3.01	0.00
44.99	3.38	0.01	3.37	0.00
45.09	4.59	0.01	3.70	0.88
45.19	6.70	0.01	4.00	2.70
45.29	9.36	0.01	4.28	5.08
45.39	12.45	0.01	4.54	7.90
45.49	15.90	0.01	4.79	11.11
45.59	19.68	0.01	5.03	14.64
45.69	23.74	0.01	5.25	18.48
45.79	28.07	0.01	5.47	22.60
45.89	32.65	0.01	5.68	26.97
45.99	**37.46**	0.01	**5.88**	**31.57**

Stage-Area-Storage for Pond 10P: Bio 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
41.99	725	0
42.04	725	12
42.09	725	24
42.14	725	36
42.19	725	48
42.24	725	60
42.29	725	72
42.34	725	84
42.39	725	96
42.44	725	108
42.49	725	120
42.54	725	132
42.59	725	144
42.64	725	156
42.69	725	167
42.74	725	179
42.79	725	191
42.84	725	203
42.89	725	215
42.94	725	227
42.99	725	239
43.04	725	251
43.09	725	263
43.14	725	275
43.19	725	287
43.24	725	299
43.29	725	311
43.34	725	323
43.39	725	335
43.44	725	347
43.49	725	359
43.54	725	371
43.59	725	383
43.64	725	395
43.69	725	407
43.74	725	419
43.79	725	431
43.84	725	443
43.89	725	455
43.94	725	467
43.99	725	479
44.04	2,201	564
44.09	2,251	675
44.14	2,302	789
44.19	2,352	905
44.24	2,402	1,024
44.29	2,452	1,145
44.34	2,503	1,269
44.39	2,553	1,396
44.44	2,603	1,525
44.49	2,653	1,656
44.54	2,704	1,790
44.59	2,754	1,926
44.64	2,804	2,065
44.69	2,854	2,207
44.74	2,905	2,351
44.79	2,955	2,497
44.84	3,005	2,646
44.89	3,055	2,798
44.94	3,106	2,952
44.99	3,156	3,108
45.04	3,194	3,267
45.09	3,229	3,428
45.14	3,264	3,590
45.19	3,299	3,754
45.24	3,334	3,920
45.29	3,369	4,088
45.34	3,404	4,257
45.39	3,439	4,428
45.44	3,474	4,601
45.49	3,509	4,775
45.54	3,543	4,952
45.59	3,578	5,130
45.64	3,613	5,309
45.69	3,648	5,491
45.74	3,683	5,674
45.79	3,718	5,859
45.84	3,753	6,046
45.89	3,788	6,235
45.94	3,823	6,425
45.99	**3,858**	**6,617**

Summary for Pond 12P: Infiltration Basin 1

Inflow Area = 68,033 sf, 89.47% Impervious, Inflow Depth = 4.41" for 10-year event
Inflow = 7.00 cfs @ 12.09 hrs, Volume= 24,993 cf
Outflow = 6.29 cfs @ 12.13 hrs, Volume= 24,993 cf, Atten= 10%, Lag= 2.4 min
Discarded = 0.08 cfs @ 12.13 hrs, Volume= 9,601 cf
Primary = 6.22 cfs @ 12.13 hrs, Volume= 15,392 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 58.12' @ 12.13 hrs Surf.Area= 3,196 sf Storage= 6,624 cf

Plug-Flow detention time= 352.9 min calculated for 24,987 cf (100% of inflow)
Center-of-Mass det. time= 353.2 min (1,108.3 - 755.1)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	10,931 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.00	1,125	0	0
56.00	1,739	1,432	1,432
57.00	2,393	2,066	3,498
58.00	3,104	2,749	6,247
59.00	3,870	3,487	9,734
59.30	4,111	1,197	10,931

Device	Routing	Invert	Outlet Devices
#1	Primary	51.75'	**24.0" Round Culvert** L= 9.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.75' / 51.55' S= 0.0222 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Discarded	55.00'	**1.020 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#3	Secondary	58.40'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	57.65'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.08 cfs @ 12.13 hrs HW=58.11' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=6.09 cfs @ 12.13 hrs HW=58.11' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 6.09 cfs of 27.66 cfs potential flow)
└**4=Sharp-Crested Rectangular Weir** (Weir Controls 6.09 cfs @ 2.23 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=55.00' TW=0.00' (Dynamic Tailwater)
└**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 12P: Infiltration Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	55.00	0.00	0.00	0.00	**0.00**
5.00	0.07	263	55.22	0.03	0.03	0.00	0.00
10.00	**0.32**	**2,443**	**56.53**	**0.05**	**0.05**	**0.00**	0.00
15.00	**0.29**	**5,353**	**57.70**	**0.30**	**0.07**	**0.23**	0.00
20.00	0.10	5,245	57.66	0.10	0.07	0.03	0.00
25.00	0.00	4,990	57.57	0.07	0.07	0.00	0.00
30.00	0.00	3,863	57.15	0.06	0.06	0.00	0.00
35.00	0.00	2,863	56.72	0.05	0.05	0.00	0.00
40.00	0.00	1,982	56.30	0.05	0.05	0.00	0.00
45.00	0.00	1,218	55.87	0.04	0.04	0.00	0.00
50.00	0.00	568	55.45	0.03	0.03	0.00	0.00
55.00	0.00	28	55.02	0.03	0.03	0.00	0.00
60.00	0.00	0	55.00	0.00	0.00	0.00	0.00
65.00	0.00	0	55.00	0.00	0.00	0.00	0.00
70.00	0.00	0	55.00	0.00	0.00	0.00	0.00
75.00	0.00	0	55.00	0.00	0.00	0.00	0.00
80.00	0.00	0	55.00	0.00	0.00	0.00	0.00
85.00	0.00	0	55.00	0.00	0.00	0.00	0.00
90.00	0.00	0	55.00	0.00	0.00	0.00	0.00
95.00	0.00	0	55.00	0.00	0.00	0.00	0.00
100.00	0.00	0	55.00	0.00	0.00	0.00	0.00
105.00	0.00	0	55.00	0.00	0.00	0.00	0.00
110.00	0.00	0	55.00	0.00	0.00	0.00	0.00
115.00	0.00	0	55.00	0.00	0.00	0.00	0.00
120.00	0.00	0	55.00	0.00	0.00	0.00	0.00
125.00	0.00	0	55.00	0.00	0.00	0.00	0.00
130.00	0.00	0	55.00	0.00	0.00	0.00	0.00
135.00	0.00	0	55.00	0.00	0.00	0.00	0.00
140.00	0.00	0	55.00	0.00	0.00	0.00	0.00
145.00	0.00	0	55.00	0.00	0.00	0.00	0.00
150.00	0.00	0	55.00	0.00	0.00	0.00	0.00
155.00	0.00	0	55.00	0.00	0.00	0.00	0.00
160.00	0.00	0	55.00	0.00	0.00	0.00	0.00
165.00	0.00	0	55.00	0.00	0.00	0.00	0.00
170.00	0.00	0	55.00	0.00	0.00	0.00	0.00
175.00	0.00	0	55.00	0.00	0.00	0.00	0.00
180.00	0.00	0	55.00	0.00	0.00	0.00	0.00
185.00	0.00	0	55.00	0.00	0.00	0.00	0.00
190.00	0.00	0	55.00	0.00	0.00	0.00	0.00
195.00	0.00	0	55.00	0.00	0.00	0.00	0.00
200.00	0.00	0	55.00	0.00	0.00	0.00	0.00
205.00	0.00	0	55.00	0.00	0.00	0.00	0.00
210.00	0.00	0	55.00	0.00	0.00	0.00	0.00
215.00	0.00	0	55.00	0.00	0.00	0.00	0.00
220.00	0.00	0	55.00	0.00	0.00	0.00	0.00
225.00	0.00	0	55.00	0.00	0.00	0.00	0.00
230.00	0.00	0	55.00	0.00	0.00	0.00	0.00
235.00	0.00	0	55.00	0.00	0.00	0.00	0.00
240.00	0.00	0	55.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 12P: Infiltration Basin 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
55.00	0.00	0.00	0.00	0.00
55.10	0.03	0.03	0.00	0.00
55.20	0.03	0.03	0.00	0.00
55.30	0.03	0.03	0.00	0.00
55.40	0.03	0.03	0.00	0.00
55.50	0.03	0.03	0.00	0.00
55.60	0.04	0.04	0.00	0.00
55.70	0.04	0.04	0.00	0.00
55.80	0.04	0.04	0.00	0.00
55.90	0.04	0.04	0.00	0.00
56.00	0.04	0.04	0.00	0.00
56.10	0.04	0.04	0.00	0.00
56.20	0.04	0.04	0.00	0.00
56.30	0.05	0.05	0.00	0.00
56.40	0.05	0.05	0.00	0.00
56.50	0.05	0.05	0.00	0.00
56.60	0.05	0.05	0.00	0.00
56.70	0.05	0.05	0.00	0.00
56.80	0.05	0.05	0.00	0.00
56.90	0.05	0.05	0.00	0.00
57.00	0.06	0.06	0.00	0.00
57.10	0.06	0.06	0.00	0.00
57.20	0.06	0.06	0.00	0.00
57.30	0.06	0.06	0.00	0.00
57.40	0.06	0.06	0.00	0.00
57.50	0.06	0.06	0.00	0.00
57.60	0.07	0.07	0.00	0.00
57.70	0.29	0.07	0.22	0.00
57.80	1.20	0.07	1.13	0.00
57.90	2.50	0.07	2.43	0.00
58.00	4.09	0.07	4.02	0.00
58.10	5.91	0.08	5.83	0.00
58.20	7.93	0.08	7.86	0.00
58.30	10.14	0.08	10.06	0.00
58.40	12.51	0.08	12.42	0.00
58.50	16.05	0.08	14.94	1.03
58.60	20.59	0.08	17.59	2.91
58.70	25.80	0.09	20.37	5.34
58.80	31.56	0.09	23.27	8.21
58.90	37.81	0.09	26.28	11.45
59.00	44.50	0.09	29.39	15.02
59.10	49.07	0.09	30.09	18.88
59.20	53.45	0.10	30.33	23.02
59.30	**58.08**	**0.10**	**30.56**	**27.42**

Stage-Area-Storage for Pond 12P: Infiltration Basin 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.00	1,125	0
55.05	1,156	57
55.10	1,186	116
55.15	1,217	176
55.20	1,248	237
55.25	1,279	300
55.30	1,309	365
55.35	1,340	431
55.40	1,371	499
55.45	1,401	568
55.50	1,432	639
55.55	1,463	712
55.60	1,493	786
55.65	1,524	861
55.70	1,555	938
55.75	1,586	1,016
55.80	1,616	1,096
55.85	1,647	1,178
55.90	1,678	1,261
55.95	1,708	1,346
56.00	1,739	1,432
56.05	1,772	1,520
56.10	1,804	1,609
56.15	1,837	1,700
56.20	1,870	1,793
56.25	1,903	1,887
56.30	1,935	1,983
56.35	1,968	2,081
56.40	2,001	2,180
56.45	2,033	2,281
56.50	2,066	2,383
56.55	2,099	2,487
56.60	2,131	2,593
56.65	2,164	2,701
56.70	2,197	2,810
56.75	2,230	2,920
56.80	2,262	3,032
56.85	2,295	3,146
56.90	2,328	3,262
56.95	2,360	3,379
57.00	2,393	3,498
57.05	2,429	3,619
57.10	2,464	3,741
57.15	2,500	3,865
57.20	2,535	3,991
57.25	2,571	4,118
57.30	2,606	4,248
57.35	2,642	4,379
57.40	2,677	4,512
57.45	2,713	4,647
57.50	2,749	4,783
57.55	2,784	4,922
57.60	2,820	5,062
57.65	2,855	5,204
57.70	2,891	5,347
57.75	2,926	5,493
57.80	2,962	5,640
57.85	2,997	5,789
57.90	3,033	5,940
57.95	3,068	6,092
58.00	3,104	6,247
58.05	3,142	6,403
58.10	3,181	6,561
58.15	3,219	6,721
58.20	3,257	6,883
58.25	3,296	7,046
58.30	3,334	7,212
58.35	3,372	7,380
58.40	3,410	7,549
58.45	3,449	7,721
58.50	3,487	7,894
58.55	3,525	8,070
58.60	3,564	8,247
58.65	3,602	8,426
58.70	3,640	8,607
58.75	3,679	8,790
58.80	3,717	8,975
58.85	3,755	9,162
58.90	3,793	9,350
58.95	3,832	9,541
59.00	3,870	9,734
59.05	3,910	9,928
59.10	3,950	10,125
59.15	3,991	10,323
59.20	4,031	10,524
59.25	4,071	10,726
59.30	**4,111**	**10,931**

Summary for Pond 13P: Sand Filter 1

Inflow Area = 379,224 sf, 32.14% Impervious, Inflow Depth = 1.20" for 10-year event
Inflow = 2.60 cfs @ 12.20 hrs, Volume= 37,812 cf
Outflow = 0.74 cfs @ 12.80 hrs, Volume= 37,812 cf, Atten= 72%, Lag= 36.5 min
Discarded = 0.03 cfs @ 5.95 hrs, Volume= 12,703 cf
Primary = 0.71 cfs @ 12.80 hrs, Volume= 25,109 cf
Routed to Pond 15P : Detention Basin 1
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Pond 15P : Detention Basin 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 47.26' @ 12.80 hrs Surf.Area= 8,755 sf Storage= 15,279 cf

Plug-Flow detention time= 1,109.8 min calculated for 37,804 cf (100% of inflow)
Center-of-Mass det. time= 1,110.9 min (1,993.1 - 882.2)

Volume	Invert	Avail.Storage	Storage Description
#1	42.49'	32,650 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
42.49	4,630	0.0	0	0
42.50	4,630	33.0	15	15
45.99	4,630	33.0	5,332	5,348
46.00	6,904	100.0	58	5,405
47.00	8,336	100.0	7,620	13,025
48.00	9,925	100.0	9,131	22,156
49.00	11,063	100.0	10,494	32,650

Device	Routing	Invert	Outlet Devices
#1	Discarded	42.49'	**0.270 in/hr Exfiltration over Surface area from 42.48' - 45.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Secondary	48.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	46.65'	**1.5" x 1.5" Horiz. Orifice/Grate X 4.00 columns** X 3 rows C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.03 cfs @ 5.95 hrs HW=42.56' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.71 cfs @ 12.80 hrs HW=47.26' TW=46.37' (Dynamic Tailwater)
↑—**3=Orifice/Grate** (Orifice Controls 0.71 cfs @ 3.77 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=42.49' TW=44.00' (Dynamic Tailwater)
↑—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 13P: Sand Filter 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	42.49	0.00	0.00	0.00	**0.00**
5.00	0.04	54	42.53	0.03	**0.03**	0.00	0.00
10.00	**0.65**	**2,711**	**44.26**	**0.03**	**0.03**	**0.00**	0.00
15.00	**0.53**	**13,773**	**47.09**	**0.63**	0.03	**0.60**	0.00
20.00	0.50	12,723	46.96	0.53	0.03	0.51	0.00
25.00	0.00	10,722	46.72	0.26	0.03	0.23	0.00
30.00	0.00	9,836	46.60	0.03	0.03	0.00	0.00
35.00	0.00	9,315	46.54	0.03	0.03	0.00	0.00
40.00	0.00	8,794	46.47	0.03	0.03	0.00	0.00
45.00	0.00	8,273	46.40	0.03	0.03	0.00	0.00
50.00	0.00	7,752	46.33	0.03	0.03	0.00	0.00
55.00	0.00	7,232	46.26	0.03	0.03	0.00	0.00
60.00	0.00	6,711	46.19	0.03	0.03	0.00	0.00
65.00	0.00	6,190	46.11	0.03	0.03	0.00	0.00
70.00	0.00	5,669	46.04	0.03	0.03	0.00	0.00
75.00	0.00	5,148	45.86	0.03	0.03	0.00	0.00
80.00	0.00	4,627	45.52	0.03	0.03	0.00	0.00
85.00	0.00	4,106	45.18	0.03	0.03	0.00	0.00
90.00	0.00	3,585	44.84	0.03	0.03	0.00	0.00
95.00	0.00	3,065	44.50	0.03	0.03	0.00	0.00
100.00	0.00	2,544	44.15	0.03	0.03	0.00	0.00
105.00	0.00	2,023	43.81	0.03	0.03	0.00	0.00
110.00	0.00	1,502	43.47	0.03	0.03	0.00	0.00
115.00	0.00	981	43.13	0.03	0.03	0.00	0.00
120.00	0.00	460	42.79	0.03	0.03	0.00	0.00
125.00	0.00	2	42.49	0.00	0.00	0.00	0.00
130.00	0.00	0	42.49	0.00	0.00	0.00	0.00
135.00	0.00	0	42.49	0.00	0.00	0.00	0.00
140.00	0.00	0	42.49	0.00	0.00	0.00	0.00
145.00	0.00	0	42.49	0.00	0.00	0.00	0.00
150.00	0.00	0	42.49	0.00	0.00	0.00	0.00
155.00	0.00	0	42.49	0.00	0.00	0.00	0.00
160.00	0.00	0	42.49	0.00	0.00	0.00	0.00
165.00	0.00	0	42.49	0.00	0.00	0.00	0.00
170.00	0.00	0	42.49	0.00	0.00	0.00	0.00
175.00	0.00	0	42.49	0.00	0.00	0.00	0.00
180.00	0.00	0	42.49	0.00	0.00	0.00	0.00
185.00	0.00	0	42.49	0.00	0.00	0.00	0.00
190.00	0.00	0	42.49	0.00	0.00	0.00	0.00
195.00	0.00	0	42.49	0.00	0.00	0.00	0.00
200.00	0.00	0	42.49	0.00	0.00	0.00	0.00
205.00	0.00	0	42.49	0.00	0.00	0.00	0.00
210.00	0.00	0	42.49	0.00	0.00	0.00	0.00
215.00	0.00	0	42.49	0.00	0.00	0.00	0.00
220.00	0.00	0	42.49	0.00	0.00	0.00	0.00
225.00	0.00	0	42.49	0.00	0.00	0.00	0.00
230.00	0.00	0	42.49	0.00	0.00	0.00	0.00
235.00	0.00	0	42.49	0.00	0.00	0.00	0.00
240.00	0.00	0	42.49	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 13P: Sand Filter 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
42.49	0.00	**0.00**	0.00	0.00
42.69	0.03	**0.03**	0.00	0.00
42.89	0.03	0.03	0.00	0.00
43.09	0.03	0.03	0.00	0.00
43.29	0.03	0.03	0.00	0.00
43.49	0.03	0.03	0.00	0.00
43.69	0.03	0.03	0.00	0.00
43.89	0.03	0.03	0.00	0.00
44.09	0.03	0.03	0.00	0.00
44.29	0.03	0.03	0.00	0.00
44.49	0.03	0.03	0.00	0.00
44.69	0.03	0.03	0.00	0.00
44.89	0.03	0.03	0.00	0.00
45.09	0.03	0.03	0.00	0.00
45.29	0.03	0.03	0.00	0.00
45.49	0.03	0.03	0.00	0.00
45.69	0.03	0.03	0.00	0.00
45.89	0.03	0.03	0.00	0.00
46.09	0.03	0.03	0.00	0.00
46.29	0.03	0.03	0.00	0.00
46.49	0.03	0.03	0.00	0.00
46.69	0.19	0.03	0.16	0.00
46.89	0.47	0.03	0.44	0.00
47.09	0.63	0.03	0.60	0.00
47.29	0.75	0.03	0.72	0.00
47.49	0.86	0.03	0.83	0.00
47.69	0.95	0.03	0.92	0.00
47.89	1.03	0.03	1.01	0.00
48.09	1.11	0.03	1.08	0.00
48.29	3.88	0.03	1.16	2.70
48.49	9.16	0.03	1.22	7.90
48.69	15.96	0.03	1.29	14.64
48.89	**23.98**	0.03	**1.35**	**22.60**

Stage-Area-Storage for Pond 13P: Sand Filter 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
42.49	4,630	0
42.59	4,630	153
42.69	4,630	306
42.79	4,630	458
42.89	4,630	611
42.99	4,630	764
43.09	4,630	917
43.19	4,630	1,070
43.29	4,630	1,222
43.39	4,630	1,375
43.49	4,630	1,528
43.59	4,630	1,681
43.69	4,630	1,833
43.79	4,630	1,986
43.89	4,630	2,139
43.99	4,630	2,292
44.09	4,630	2,445
44.19	4,630	2,597
44.29	4,630	2,750
44.39	4,630	2,903
44.49	4,630	3,056
44.59	4,630	3,209
44.69	4,630	3,361
44.79	4,630	3,514
44.89	4,630	3,667
44.99	4,630	3,820
45.09	4,630	3,973
45.19	4,630	4,125
45.29	4,630	4,278
45.39	4,630	4,431
45.49	4,630	4,584
45.59	4,630	4,736
45.69	4,630	4,889
45.79	4,630	5,042
45.89	4,630	5,195
45.99	4,630	5,348
46.09	7,033	6,032
46.19	7,176	6,743
46.29	7,319	7,468
46.39	7,462	8,207
46.49	7,606	8,960
46.59	7,749	9,728
46.69	7,892	10,510
46.79	8,035	11,306
46.89	8,178	12,117
46.99	8,322	12,942
47.09	8,479	13,782
47.19	8,638	14,638
47.29	8,797	15,510
47.39	8,956	16,397
47.49	9,115	17,301
47.59	9,274	18,220
47.69	9,432	19,155
47.79	9,591	20,107
47.89	9,750	21,074
47.99	9,909	22,057
48.09	10,027	23,054
48.19	10,141	24,062
48.29	10,255	25,082
48.39	10,369	26,113
48.49	10,483	27,156
48.59	10,596	28,210
48.69	10,710	29,275
48.79	10,824	30,352
48.89	10,938	31,440
48.99	**11,052**	**32,539**

Summary for Pond 14P: DIV-03

Inflow Area = 42,514 sf, 59.10% Impervious, Inflow Depth = 3.68" for 10-year event
Inflow = 4.00 cfs @ 12.09 hrs, Volume= 13,024 cf
Outflow = 4.00 cfs @ 12.09 hrs, Volume= 13,024 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.25 cfs @ 12.09 hrs, Volume= 10,551 cf
Routed to Pond 10P : Bio 1
Secondary = 2.74 cfs @ 12.09 hrs, Volume= 2,473 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 45.12' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.10'	**9.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.10' / 44.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.44 sf
#2	Device 3	44.85'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	44.10'	**15.0" Round Culvert** L= 55.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.10' / 42.25' S= 0.0336 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.25 cfs @ 12.09 hrs HW=45.11' TW=44.56' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 1.25 cfs @ 2.82 fps)

Secondary OutFlow Max=2.65 cfs @ 12.09 hrs HW=45.12' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 2.65 cfs of 2.89 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 2.65 cfs @ 1.68 fps)

Hydrograph for Pond 14P: DIV-03

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	44.10	0.00	0.00	0.00
5.00	0.00	44.13	0.00	0.00	0.00
10.00	**0.13**	**44.32**	**0.13**	**0.13**	**0.00**
15.00	**0.18**	**44.55**	**0.18**	**0.18**	**0.00**
20.00	0.06	44.51	0.06	0.06	0.00
25.00	0.00	44.40	0.00	0.00	0.00
30.00	0.00	44.44	0.00	0.00	0.00
35.00	0.00	44.39	0.00	0.00	0.00
40.00	0.00	44.34	0.00	0.00	0.00
45.00	0.00	44.29	0.00	0.00	0.00
50.00	0.00	44.24	0.00	0.00	0.00
55.00	0.00	44.18	0.00	0.00	0.00
60.00	0.00	44.13	0.00	0.00	0.00
65.00	0.00	44.10	0.00	0.00	0.00
70.00	0.00	44.10	0.00	0.00	0.00
75.00	0.00	44.10	0.00	0.00	0.00
80.00	0.00	44.10	0.00	0.00	0.00
85.00	0.00	44.10	0.00	0.00	0.00
90.00	0.00	44.10	0.00	0.00	0.00
95.00	0.00	44.10	0.00	0.00	0.00
100.00	0.00	44.10	0.00	0.00	0.00
105.00	0.00	44.10	0.00	0.00	0.00
110.00	0.00	44.10	0.00	0.00	0.00
115.00	0.00	44.10	0.00	0.00	0.00
120.00	0.00	44.10	0.00	0.00	0.00
125.00	0.00	44.10	0.00	0.00	0.00
130.00	0.00	44.10	0.00	0.00	0.00
135.00	0.00	44.10	0.00	0.00	0.00
140.00	0.00	44.10	0.00	0.00	0.00
145.00	0.00	44.10	0.00	0.00	0.00
150.00	0.00	44.10	0.00	0.00	0.00
155.00	0.00	44.10	0.00	0.00	0.00
160.00	0.00	44.10	0.00	0.00	0.00
165.00	0.00	44.10	0.00	0.00	0.00
170.00	0.00	44.10	0.00	0.00	0.00
175.00	0.00	44.10	0.00	0.00	0.00
180.00	0.00	44.10	0.00	0.00	0.00
185.00	0.00	44.10	0.00	0.00	0.00
190.00	0.00	44.10	0.00	0.00	0.00
195.00	0.00	44.10	0.00	0.00	0.00
200.00	0.00	44.10	0.00	0.00	0.00
205.00	0.00	44.10	0.00	0.00	0.00
210.00	0.00	44.10	0.00	0.00	0.00
215.00	0.00	44.10	0.00	0.00	0.00
220.00	0.00	44.10	0.00	0.00	0.00
225.00	0.00	44.10	0.00	0.00	0.00
230.00	0.00	44.10	0.00	0.00	0.00
235.00	0.00	44.10	0.00	0.00	0.00
240.00	0.00	44.10	0.00	0.00	0.00

Stage-Discharge for Pond 14P: DIV-03

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
44.10	0.00	0.00	0.00
44.12	0.00	0.00	0.00
44.14	0.00	0.00	0.00
44.16	0.01	0.01	0.00
44.18	0.02	0.02	0.00
44.20	0.03	0.03	0.00
44.22	0.04	0.04	0.00
44.24	0.06	0.06	0.00
44.26	0.07	0.07	0.00
44.28	0.09	0.09	0.00
44.30	0.11	0.11	0.00
44.32	0.13	0.13	0.00
44.34	0.15	0.15	0.00
44.36	0.18	0.18	0.00
44.38	0.20	0.20	0.00
44.40	0.23	0.23	0.00
44.42	0.26	0.26	0.00
44.44	0.29	0.29	0.00
44.46	0.31	0.31	0.00
44.48	0.35	0.35	0.00
44.50	0.38	0.38	0.00
44.52	0.41	0.41	0.00
44.54	0.44	0.44	0.00
44.56	0.48	0.48	0.00
44.58	0.51	0.51	0.00
44.60	0.55	0.55	0.00
44.62	0.58	0.58	0.00
44.64	0.62	0.62	0.00
44.66	0.66	0.66	0.00
44.68	0.69	0.69	0.00
44.70	0.73	0.73	0.00
44.72	0.77	0.77	0.00
44.74	0.81	0.81	0.00
44.76	0.85	0.85	0.00
44.78	0.88	0.88	0.00
44.80	0.92	0.92	0.00
44.82	0.96	0.96	0.00
44.84	1.00	1.00	0.00
44.86	1.06	1.04	0.02
44.88	1.17	1.07	0.10
44.90	1.31	1.09	0.22
44.92	1.48	1.12	0.36
44.94	1.67	1.15	0.53
44.96	1.88	1.17	0.71
44.98	2.11	1.19	0.92
45.00	2.35	1.22	1.13
45.02	2.61	1.24	1.37
45.04	2.88	1.26	1.61
45.06	3.16	1.28	1.87
45.08	3.45	1.31	2.15
45.10	3.76	1.33	2.43
45.12	4.08	1.35	2.73
45.14	4.36	1.37	2.99
45.16	4.46	1.39	3.07
45.18	4.56	1.41	3.15
45.20	4.65	1.43	3.22
45.22	4.75	1.45	3.30
45.24	4.84	1.47	3.37
45.26	4.93	1.49	3.44
45.28	5.01	1.51	3.50
45.30	5.09	1.53	3.56
45.32	5.16	1.54	3.62
45.34	**5.23**	**1.56**	**3.67**

Stage-Area-Storage for Pond 14P: DIV-03

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
44.10	**0**	44.61	0	45.12	0
44.11	0	44.62	0	45.13	0
44.12	0	44.63	0	45.14	0
44.13	0	44.64	0	45.15	0
44.14	0	44.65	0	45.16	0
44.15	0	44.66	0	45.17	0
44.16	0	44.67	0	45.18	0
44.17	0	44.68	0	45.19	0
44.18	0	44.69	0	45.20	0
44.19	0	44.70	0	45.21	0
44.20	0	44.71	0	45.22	0
44.21	0	44.72	0	45.23	0
44.22	0	44.73	0	45.24	0
44.23	0	44.74	0	45.25	0
44.24	0	44.75	0	45.26	0
44.25	0	44.76	0	45.27	0
44.26	0	44.77	0	45.28	0
44.27	0	44.78	0	45.29	0
44.28	0	44.79	0	45.30	0
44.29	0	44.80	0	45.31	0
44.30	0	44.81	0	45.32	0
44.31	0	44.82	0	45.33	0
44.32	0	44.83	0	45.34	0
44.33	0	44.84	0	45.35	0
44.34	0	44.85	0		
44.35	0	44.86	0		
44.36	0	44.87	0		
44.37	0	44.88	0		
44.38	0	44.89	0		
44.39	0	44.90	0		
44.40	0	44.91	0		
44.41	0	44.92	0		
44.42	0	44.93	0		
44.43	0	44.94	0		
44.44	0	44.95	0		
44.45	0	44.96	0		
44.46	0	44.97	0		
44.47	0	44.98	0		
44.48	0	44.99	0		
44.49	0	45.00	0		
44.50	0	45.01	0		
44.51	0	45.02	0		
44.52	0	45.03	0		
44.53	0	45.04	0		
44.54	0	45.05	0		
44.55	0	45.06	0		
44.56	0	45.07	0		
44.57	0	45.08	0		
44.58	0	45.09	0		
44.59	0	45.10	0		
44.60	0	45.11	0		

Summary for Pond 15P: Detention Basin 1

Inflow Area = 531,182 sf, 24.31% Impervious, Inflow Depth = 2.59" for 10-year event
Inflow = 26.67 cfs @ 12.22 hrs, Volume= 114,495 cf
Outflow = 10.62 cfs @ 12.62 hrs, Volume= 114,430 cf, Atten= 60%, Lag= 23.7 min
Primary = 10.62 cfs @ 12.62 hrs, Volume= 114,430 cf
Routed to Link 6L : DP 2.1 - West Wetland
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 6L : DP 2.1 - West Wetland
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 46.46' @ 12.62 hrs Surf.Area= 17,781 sf Storage= 36,424 cf

Plug-Flow detention time= 127.6 min calculated for 114,430 cf (100% of inflow)
Center-of-Mass det. time= 127.1 min (988.4 - 861.3)

Volume	Invert	Avail.Storage	Storage Description
#1	44.00'	89,712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.00	11,920	0	0
45.00	14,261	13,091	13,091
46.00	16,659	15,460	28,551
47.00	19,113	17,886	46,437
48.00	21,623	20,368	66,805
49.00	24,191	22,907	89,712

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**24.0" Round Culvert** L= 15.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.00' / 43.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Device 1	44.00'	**5.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	44.55'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	47.20'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Tertiary	48.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Secondary	45.00'	**24.0" Round Culvert** L= 212.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 45.00' / 43.70' S= 0.0061 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#7	Device 6	47.15'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=10.61 cfs @ 12.62 hrs HW=46.46' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 10.61 cfs of 14.41 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.98 cfs @ 7.22 fps)
  ├─**3=Sharp-Crested Rectangular Weir** (Weir Controls 9.62 cfs @ 4.51 fps)
  └─**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.00' TW=0.00' (Dynamic Tailwater)
└─**6=Culvert** (Controls 0.00 cfs)
  └─**7=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.00' TW=0.00' (Dynamic Tailwater)
└─**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 15P: Detention Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
0.00	0.00	0	44.00	0.00	0.00	**0.00**	**0.00**
5.00	0.00	0	44.00	0.00	0.00	0.00	0.00
10.00	**0.11**	**206**	**44.02**	**0.00**	**0.00**	0.00	0.00
15.00	**2.10**	**15,990**	**45.20**	**3.00**	**3.00**	0.00	0.00
20.00	0.70	9,237	44.72	0.82	0.82	0.00	0.00
25.00	0.23	7,594	44.60	0.47	0.47	0.00	0.00
30.00	0.00	2,951	44.24	0.14	0.14	0.00	0.00
35.00	0.00	1,542	44.13	0.04	0.04	0.00	0.00
40.00	0.00	1,016	44.08	0.02	0.02	0.00	0.00
45.00	0.00	752	44.06	0.01	0.01	0.00	0.00
50.00	0.00	594	44.05	0.01	0.01	0.00	0.00
55.00	0.00	491	44.04	0.00	0.00	0.00	0.00
60.00	0.00	417	44.03	0.00	0.00	0.00	0.00
65.00	0.00	363	44.03	0.00	0.00	0.00	0.00
70.00	0.00	321	44.03	0.00	0.00	0.00	0.00
75.00	0.00	287	44.02	0.00	0.00	0.00	0.00
80.00	0.00	260	44.02	0.00	0.00	0.00	0.00
85.00	0.00	238	44.02	0.00	0.00	0.00	0.00
90.00	0.00	219	44.02	0.00	0.00	0.00	0.00
95.00	0.00	203	44.02	0.00	0.00	0.00	0.00
100.00	0.00	189	44.02	0.00	0.00	0.00	0.00
105.00	0.00	176	44.01	0.00	0.00	0.00	0.00
110.00	0.00	166	44.01	0.00	0.00	0.00	0.00
115.00	0.00	156	44.01	0.00	0.00	0.00	0.00
120.00	0.00	148	44.01	0.00	0.00	0.00	0.00
125.00	0.00	140	44.01	0.00	0.00	0.00	0.00
130.00	0.00	133	44.01	0.00	0.00	0.00	0.00
135.00	0.00	127	44.01	0.00	0.00	0.00	0.00
140.00	0.00	121	44.01	0.00	0.00	0.00	0.00
145.00	0.00	116	44.01	0.00	0.00	0.00	0.00
150.00	0.00	111	44.01	0.00	0.00	0.00	0.00
155.00	0.00	107	44.01	0.00	0.00	0.00	0.00
160.00	0.00	103	44.01	0.00	0.00	0.00	0.00
165.00	0.00	99	44.01	0.00	0.00	0.00	0.00
170.00	0.00	96	44.01	0.00	0.00	0.00	0.00
175.00	0.00	92	44.01	0.00	0.00	0.00	0.00
180.00	0.00	89	44.01	0.00	0.00	0.00	0.00
185.00	0.00	87	44.01	0.00	0.00	0.00	0.00
190.00	0.00	84	44.01	0.00	0.00	0.00	0.00
195.00	0.00	81	44.01	0.00	0.00	0.00	0.00
200.00	0.00	79	44.01	0.00	0.00	0.00	0.00
205.00	0.00	77	44.01	0.00	0.00	0.00	0.00
210.00	0.00	75	44.01	0.00	0.00	0.00	0.00
215.00	0.00	73	44.01	0.00	0.00	0.00	0.00
220.00	0.00	71	44.01	0.00	0.00	0.00	0.00
225.00	0.00	69	44.01	0.00	0.00	0.00	0.00
230.00	0.00	67	44.01	0.00	0.00	0.00	0.00
235.00	0.00	66	44.01	0.00	0.00	0.00	0.00
240.00	0.00	64	44.01	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 15P: Detention Basin 1

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
44.00	0.00	0.00	0.00	0.00
44.10	0.03	0.03	0.00	0.00
44.20	0.10	0.10	0.00	0.00
44.30	0.20	0.20	0.00	0.00
44.40	0.29	0.29	0.00	0.00
44.50	0.35	0.35	0.00	0.00
44.60	0.47	0.47	0.00	0.00
44.70	0.74	0.74	0.00	0.00
44.80	1.10	1.10	0.00	0.00
44.90	1.51	1.51	0.00	0.00
45.00	1.98	1.98	0.00	0.00
45.10	2.47	2.47	0.00	0.00
45.20	3.00	3.00	0.00	0.00
45.30	3.55	3.55	0.00	0.00
45.40	4.12	4.12	0.00	0.00
45.50	4.71	4.71	0.00	0.00
45.60	5.31	5.31	0.00	0.00
45.70	5.92	5.92	0.00	0.00
45.80	6.54	6.54	0.00	0.00
45.90	7.16	7.16	0.00	0.00
46.00	7.79	7.79	0.00	0.00
46.10	8.41	8.41	0.00	0.00
46.20	9.04	9.04	0.00	0.00
46.30	9.66	9.66	0.00	0.00
46.40	10.27	10.27	0.00	0.00
46.50	10.88	10.88	0.00	0.00
46.60	11.48	11.48	0.00	0.00
46.70	12.07	12.07	0.00	0.00
46.80	12.65	12.65	0.00	0.00
46.90	13.21	13.21	0.00	0.00
47.00	13.76	13.76	0.00	0.00
47.10	14.30	14.30	0.00	0.00
47.20	15.04	14.82	0.22	0.00
47.30	17.07	15.94	1.13	0.00
47.40	19.98	17.55	2.43	0.00
47.50	22.90	18.88	4.02	0.00
47.60	25.09	19.26	5.83	0.00
47.70	27.48	19.62	7.86	0.00
47.80	30.04	19.98	10.06	0.00
47.90	32.76	20.34	12.42	0.00
48.00	35.62	20.68	14.94	0.00
48.10	38.33	21.03	17.31	0.00
48.20	40.11	21.36	17.71	1.03
48.30	42.72	21.69	18.11	2.91
48.40	45.86	22.02	18.50	5.34
48.50	49.43	22.34	18.88	8.21
48.60	53.36	22.66	19.26	11.45
48.70	57.61	22.97	19.62	15.02
48.80	62.15	23.28	19.98	18.88
48.90	66.94	23.58	20.34	23.02
49.00	**71.99**	**23.88**	**20.68**	**27.42**

Stage-Area-Storage for Pond 15P: Detention Basin 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
44.00	11,920	0
44.05	12,037	599
44.10	12,154	1,204
44.15	12,271	1,814
44.20	12,388	2,431
44.25	12,505	3,053
44.30	12,622	3,681
44.35	12,739	4,315
44.40	12,856	4,955
44.45	12,973	5,601
44.50	13,091	6,253
44.55	13,208	6,910
44.60	13,325	7,573
44.65	13,442	8,243
44.70	13,559	8,918
44.75	13,676	9,598
44.80	13,793	10,285
44.85	13,910	10,978
44.90	14,027	11,676
44.95	14,144	12,380
45.00	14,261	13,091
45.05	14,381	13,807
45.10	14,501	14,529
45.15	14,621	15,257
45.20	14,741	15,991
45.25	14,861	16,731
45.30	14,980	17,477
45.35	15,100	18,229
45.40	15,220	18,987
45.45	15,340	19,751
45.50	15,460	20,521
45.55	15,580	21,297
45.60	15,700	22,079
45.65	15,820	22,867
45.70	15,940	23,661
45.75	16,060	24,461
45.80	16,179	25,267
45.85	16,299	26,079
45.90	16,419	26,897
45.95	16,539	27,721
46.00	16,659	28,551
46.05	16,782	29,387
46.10	16,904	30,229
46.15	17,027	31,077
46.20	17,150	31,931
46.25	17,273	32,792
46.30	17,395	33,659
46.35	17,518	34,531
46.40	17,641	35,410
46.45	17,763	36,296
46.50	17,886	37,187
46.55	18,009	38,084
46.60	18,131	38,988
46.65	18,254	39,897
46.70	18,377	40,813
46.75	18,500	41,735
46.80	18,622	42,663
46.85	18,745	43,597
46.90	18,868	44,537
46.95	18,990	45,484
47.00	19,113	46,437
47.05	19,238	47,395
47.10	19,364	48,360
47.15	19,489	49,332
47.20	19,615	50,309
47.25	19,741	51,293
47.30	19,866	52,283
47.35	19,992	53,280
47.40	20,117	54,282
47.45	20,243	55,291
47.50	20,368	56,307
47.55	20,493	57,328
47.60	20,619	58,356
47.65	20,744	59,390
47.70	20,870	60,431
47.75	20,996	61,477
47.80	21,121	62,530
47.85	21,247	63,589
47.90	21,372	64,655
47.95	21,498	65,726
48.00	21,623	66,805
48.05	21,751	67,889
48.10	21,880	68,980
48.15	22,008	70,077
48.20	22,137	71,180
48.25	22,265	72,291
48.30	22,393	73,407
48.35	22,522	74,530
48.40	22,650	75,659
48.45	22,779	76,795
48.50	22,907	77,937
48.55	23,035	79,086
48.60	23,164	80,241
48.65	23,292	81,402
48.70	23,421	82,570
48.75	23,549	83,744
48.80	23,677	84,925
48.85	23,806	86,112
48.90	23,934	87,305
48.95	24,063	88,505
49.00	**24,191**	**89,712**

Summary for Pond 17P: Track and Field- stone base

Inflow Area = 90,671 sf,100.00% Impervious, Inflow Depth = 4.66" for 10-year event
Inflow = 9.74 cfs @ 12.09 hrs, Volume= 35,236 cf
Outflow = 6.19 cfs @ 12.19 hrs, Volume= 35,236 cf, Atten= 36%, Lag= 6.2 min
Discarded = 0.61 cfs @ 12.19 hrs, Volume= 20,879 cf
Primary = 5.58 cfs @ 12.19 hrs, Volume= 14,357 cf
Routed to Pond 35P : Track and Field-manifold

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 50.66' @ 12.19 hrs Surf.Area= 90,671 sf Storage= 5,025 cf

Plug-Flow detention time= 16.7 min calculated for 35,228 cf (100% of inflow)
Center-of-Mass det. time= 16.7 min (765.0 - 748.4)

Volume	Invert	Avail.Storage	Storage Description
#1	50.50'	37,271 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 113,339 cf Overall - 397 cf Embedded = 112,942 cf x 33.0% Voids
#2	50.52'	274 cf	**12.0" W x 1.0" H Ellipse 1" flat drains** x 44 Inside #1 L= 95.2' 397 cf Overall - 0.2" Wall Thickness = 274 cf
		37,545 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
50.50	90,671	0	0
51.58	90,671	97,925	97,925
51.59	90,671	907	98,831
51.75	90,671	14,507	113,339

Device	Routing	Invert	Outlet Devices
#1	Discarded	50.50'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 48.40' Phase-In= 0.02'
#2	Primary	50.52'	**12.0" W x 1.0" H Vert. Orifice/Grate X 44.00** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.61 cfs @ 12.19 hrs HW=50.66' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.61 cfs)

Primary OutFlow Max=5.56 cfs @ 12.19 hrs HW=50.66' TW=49.69' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Orifice Controls 5.56 cfs @ 1.52 fps)

Hydrograph for Pond 17P: Track and Field- stone base

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	50.50	0.00	0.00	0.00
5.00	0.12	114	50.50	0.11	0.11	0.00
10.00	**0.47**	**455**	**50.52**	**0.44**	**0.44**	**0.00**
15.00	**0.40**	**455**	**50.52**	**0.44**	**0.44**	**0.00**
20.00	0.13	146	50.50	0.14	0.14	0.00
25.00	0.00	4	50.50	0.00	0.00	0.00
30.00	0.00	0	50.50	0.00	0.00	0.00
35.00	0.00	0	50.50	0.00	0.00	0.00
40.00	0.00	0	50.50	0.00	0.00	0.00
45.00	0.00	0	50.50	0.00	0.00	0.00
50.00	0.00	0	50.50	0.00	0.00	0.00
55.00	0.00	0	50.50	0.00	0.00	0.00
60.00	0.00	0	50.50	0.00	0.00	0.00
65.00	0.00	0	50.50	0.00	0.00	0.00
70.00	0.00	0	50.50	0.00	0.00	0.00
75.00	0.00	0	50.50	0.00	0.00	0.00
80.00	0.00	0	50.50	0.00	0.00	0.00
85.00	0.00	0	50.50	0.00	0.00	0.00
90.00	0.00	0	50.50	0.00	0.00	0.00
95.00	0.00	0	50.50	0.00	0.00	0.00
100.00	0.00	0	50.50	0.00	0.00	0.00
105.00	0.00	0	50.50	0.00	0.00	0.00
110.00	0.00	0	50.50	0.00	0.00	0.00
115.00	0.00	0	50.50	0.00	0.00	0.00
120.00	0.00	0	50.50	0.00	0.00	0.00
125.00	0.00	0	50.50	0.00	0.00	0.00
130.00	0.00	0	50.50	0.00	0.00	0.00
135.00	0.00	0	50.50	0.00	0.00	0.00
140.00	0.00	0	50.50	0.00	0.00	0.00
145.00	0.00	0	50.50	0.00	0.00	0.00
150.00	0.00	0	50.50	0.00	0.00	0.00
155.00	0.00	0	50.50	0.00	0.00	0.00
160.00	0.00	0	50.50	0.00	0.00	0.00
165.00	0.00	0	50.50	0.00	0.00	0.00
170.00	0.00	0	50.50	0.00	0.00	0.00
175.00	0.00	0	50.50	0.00	0.00	0.00
180.00	0.00	0	50.50	0.00	0.00	0.00
185.00	0.00	0	50.50	0.00	0.00	0.00
190.00	0.00	0	50.50	0.00	0.00	0.00
195.00	0.00	0	50.50	0.00	0.00	0.00
200.00	0.00	0	50.50	0.00	0.00	0.00
205.00	0.00	0	50.50	0.00	0.00	0.00
210.00	0.00	0	50.50	0.00	0.00	0.00
215.00	0.00	0	50.50	0.00	0.00	0.00
220.00	0.00	0	50.50	0.00	0.00	0.00
225.00	0.00	0	50.50	0.00	0.00	0.00
230.00	0.00	0	50.50	0.00	0.00	0.00
235.00	0.00	0	50.50	0.00	0.00	0.00
240.00	0.00	0	50.50	0.00	0.00	0.00

Stage-Discharge for Pond 17P: Track and Field- stone base

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
50.50	0.00	0.00	0.00
50.52	0.57	0.57	0.00
50.54	0.98	0.58	0.40
50.56	1.71	0.58	1.13
50.58	2.66	0.59	2.08
50.60	3.79	0.59	3.20
50.62	4.76	0.60	4.16
50.64	5.48	0.60	4.88
50.66	6.10	0.61	5.49
50.68	6.66	0.62	6.04
50.70	7.16	0.62	6.54
50.72	7.63	0.63	7.00
50.74	8.07	0.63	7.44
50.76	8.48	0.64	7.85
50.78	8.88	0.64	8.24
50.80	9.26	0.65	8.61
50.82	9.62	0.65	8.96
50.84	9.96	0.66	9.31
50.86	10.30	0.66	9.64
50.88	10.62	0.67	9.95
50.90	10.94	0.67	10.26
50.92	11.24	0.68	10.56
50.94	11.54	0.69	10.85
50.96	11.83	0.69	11.14
50.98	12.11	0.70	11.41
51.00	12.39	0.70	11.68
51.02	12.66	0.71	11.95
51.04	12.92	0.71	12.21
51.06	13.18	0.72	12.46
51.08	13.43	0.72	12.71
51.10	13.68	0.73	12.95
51.12	13.92	0.73	13.19
51.14	14.16	0.74	13.42
51.16	14.40	0.74	13.65
51.18	14.63	0.75	13.88
51.20	14.86	0.76	14.10
51.22	15.08	0.76	14.32
51.24	15.30	0.77	14.54
51.26	15.52	0.77	14.75
51.28	15.74	0.78	14.96
51.30	15.95	0.78	15.17
51.32	16.16	0.79	15.37
51.34	16.37	0.79	15.57
51.36	16.57	0.80	15.77
51.38	16.77	0.80	15.97
51.40	16.97	0.81	16.16
51.42	17.17	0.81	16.36
51.44	17.36	0.82	16.54
51.46	17.56	0.83	16.73
51.48	17.75	0.83	16.92
51.50	17.94	0.84	17.10
51.52	18.12	0.84	17.28
51.54	18.31	0.85	17.46
51.56	18.49	0.85	17.64
51.58	18.67	0.86	17.81
51.60	18.85	0.86	17.99
51.62	19.03	0.87	18.16
51.64	19.21	0.87	18.33
51.66	19.38	0.88	18.50
51.68	19.55	0.89	18.67
51.70	19.73	0.89	18.84
51.72	19.90	0.90	19.00
51.74	**20.06**	**0.90**	**19.16**

Stage-Area-Storage for Pond 17P: Track and Field- stone base

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
50.50	**90,671**	0
50.52	90,671	587
50.54	90,671	1,212
50.56	90,671	1,862
50.58	90,671	2,514
50.60	90,671	3,147
50.62	90,671	3,734
50.64	90,671	4,332
50.66	90,671	4,931
50.68	90,671	5,529
50.70	90,671	6,128
50.72	90,671	6,726
50.74	90,671	7,324
50.76	90,671	7,923
50.78	90,671	8,521
50.80	90,671	9,120
50.82	90,671	9,718
50.84	90,671	10,317
50.86	90,671	10,915
50.88	90,671	11,513
50.90	90,671	12,112
50.92	90,671	12,710
50.94	90,671	13,309
50.96	90,671	13,907
50.98	90,671	14,506
51.00	90,671	15,104
51.02	90,671	15,702
51.04	90,671	16,301
51.06	90,671	16,899
51.08	90,671	17,498
51.10	90,671	18,096
51.12	90,671	18,695
51.14	90,671	19,293
51.16	90,671	19,891
51.18	90,671	20,490
51.20	90,671	21,088
51.22	90,671	21,687
51.24	90,671	22,285
51.26	90,671	22,884
51.28	90,671	23,482
51.30	90,671	24,080
51.32	90,671	24,679
51.34	90,671	25,277
51.36	90,671	25,876
51.38	90,671	26,474
51.40	90,671	27,073
51.42	90,671	27,671
51.44	90,671	28,269
51.46	90,671	28,868
51.48	90,671	29,466
51.50	90,671	30,065
51.52	90,671	30,663
51.54	90,671	31,262
51.56	90,671	31,860
51.58	90,671	32,458
51.60	90,671	33,057
51.62	90,671	33,655
51.64	90,671	34,254
51.66	90,671	34,852
51.68	90,671	35,451
51.70	90,671	36,049
51.72	90,671	36,647
51.74	90,671	**37,246**

Summary for Pond 18P: Sand Filter 2

Inflow Area = 114,710 sf, 50.57% Impervious, Inflow Depth = 2.60" for 10-year event
Inflow = 4.65 cfs @ 12.09 hrs, Volume= 24,898 cf
Outflow = 3.84 cfs @ 12.16 hrs, Volume= 24,898 cf, Atten= 17%, Lag= 4.2 min
Discarded = 0.01 cfs @ 7.05 hrs, Volume= 5,092 cf
Primary = 3.83 cfs @ 12.16 hrs, Volume= 19,806 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 55.41' @ 12.16 hrs Surf.Area= 5,504 sf Storage= 5,031 cf

Plug-Flow detention time= 573.0 min calculated for 24,892 cf (100% of inflow)
Center-of-Mass det. time= 574.0 min (1,401.3 - 827.4)

Volume	Invert	Avail.Storage	Storage Description
#1	51.84'	15,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.84	2,171	0.0	0	0
51.85	2,171	33.0	7	7
54.84	2,171	33.0	2,142	2,149
54.85	4,561	100.0	34	2,183
55.00	4,959	100.0	714	2,897
56.00	6,294	100.0	5,627	8,523
57.00	7,438	100.0	6,866	15,389

Device	Routing	Invert	Outlet Devices
#1	Discarded	51.84'	**0.270 in/hr Exfiltration over Surface area from 51.83' - 54.84'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	55.25'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	56.00'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 7.05 hrs HW=51.89' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=3.80 cfs @ 12.16 hrs HW=55.41' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Orifice Controls 3.80 cfs @ 1.90 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=51.84' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 18P: Sand Filter 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	51.84	0.00	0.00	0.00	**0.00**
5.00	0.00	1	51.84	0.00	**0.00**	0.00	0.00
10.00	**0.24**	**1,072**	**53.34**	**0.01**	**0.01**	**0.00**	0.00
15.00	**0.46**	**4,286**	**55.27**	**0.47**	0.01	**0.45**	0.00
20.00	0.15	4,227	55.26	0.15	0.01	0.14	0.00
25.00	0.00	4,155	55.25	0.01	0.01	0.00	0.00
30.00	0.00	3,910	55.20	0.01	0.01	0.00	0.00
35.00	0.00	3,666	55.15	0.01	0.01	0.00	0.00
40.00	0.00	3,422	55.10	0.01	0.01	0.00	0.00
45.00	0.00	3,178	55.06	0.01	0.01	0.00	0.00
50.00	0.00	2,933	55.01	0.01	0.01	0.00	0.00
55.00	0.00	2,689	54.96	0.01	0.01	0.00	0.00
60.00	0.00	2,445	54.91	0.01	0.01	0.00	0.00
65.00	0.00	2,201	54.85	0.01	0.01	0.00	0.00
70.00	0.00	1,956	54.57	0.01	0.01	0.00	0.00
75.00	0.00	1,712	54.23	0.01	0.01	0.00	0.00
80.00	0.00	1,468	53.89	0.01	0.01	0.00	0.00
85.00	0.00	1,224	53.55	0.01	0.01	0.00	0.00
90.00	0.00	979	53.21	0.01	0.01	0.00	0.00
95.00	0.00	735	52.87	0.01	0.01	0.00	0.00
100.00	0.00	491	52.53	0.01	0.01	0.00	0.00
105.00	0.00	247	52.18	0.01	0.01	0.00	0.00
110.00	0.00	6	51.85	0.01	0.01	0.00	0.00
115.00	0.00	0	51.84	0.00	0.00	0.00	0.00
120.00	0.00	0	51.84	0.00	0.00	0.00	0.00
125.00	0.00	0	51.84	0.00	0.00	0.00	0.00
130.00	0.00	0	51.84	0.00	0.00	0.00	0.00
135.00	0.00	0	51.84	0.00	0.00	0.00	0.00
140.00	0.00	0	51.84	0.00	0.00	0.00	0.00
145.00	0.00	0	51.84	0.00	0.00	0.00	0.00
150.00	0.00	0	51.84	0.00	0.00	0.00	0.00
155.00	0.00	0	51.84	0.00	0.00	0.00	0.00
160.00	0.00	0	51.84	0.00	0.00	0.00	0.00
165.00	0.00	0	51.84	0.00	0.00	0.00	0.00
170.00	0.00	0	51.84	0.00	0.00	0.00	0.00
175.00	0.00	0	51.84	0.00	0.00	0.00	0.00
180.00	0.00	0	51.84	0.00	0.00	0.00	0.00
185.00	0.00	0	51.84	0.00	0.00	0.00	0.00
190.00	0.00	0	51.84	0.00	0.00	0.00	0.00
195.00	0.00	0	51.84	0.00	0.00	0.00	0.00
200.00	0.00	0	51.84	0.00	0.00	0.00	0.00
205.00	0.00	0	51.84	0.00	0.00	0.00	0.00
210.00	0.00	0	51.84	0.00	0.00	0.00	0.00
215.00	0.00	0	51.84	0.00	0.00	0.00	0.00
220.00	0.00	0	51.84	0.00	0.00	0.00	0.00
225.00	0.00	0	51.84	0.00	0.00	0.00	0.00
230.00	0.00	0	51.84	0.00	0.00	0.00	0.00
235.00	0.00	0	51.84	0.00	0.00	0.00	0.00
240.00	0.00	0	51.84	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 18P: Sand Filter 2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
51.84	0.00	**0.00**	0.00	0.00
52.04	0.01	**0.01**	0.00	0.00
52.24	0.01	0.01	0.00	0.00
52.44	0.01	0.01	0.00	0.00
52.64	0.01	0.01	0.00	0.00
52.84	0.01	0.01	0.00	0.00
53.04	0.01	0.01	0.00	0.00
53.24	0.01	0.01	0.00	0.00
53.44	0.01	0.01	0.00	0.00
53.64	0.01	0.01	0.00	0.00
53.84	0.01	0.01	0.00	0.00
54.04	0.01	0.01	0.00	0.00
54.24	0.01	0.01	0.00	0.00
54.44	0.01	0.01	0.00	0.00
54.64	0.01	0.01	0.00	0.00
54.84	0.01	0.01	0.00	0.00
55.04	0.01	0.01	0.00	0.00
55.24	0.01	0.01	0.00	0.00
55.44	4.21	0.01	4.20	0.00
55.64	6.03	0.01	6.01	0.00
55.84	7.41	0.01	7.40	0.00
56.04	8.83	0.01	8.56	0.26
56.24	13.42	0.01	9.58	3.83
56.44	19.98	0.01	10.51	9.46
56.64	27.90	0.01	11.35	16.53
56.84	**36.91**	0.01	**12.14**	**24.75**

Stage-Area-Storage for Pond 18P: Sand Filter 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
51.84	2,171	0
51.94	2,171	72
52.04	2,171	143
52.14	2,171	215
52.24	2,171	287
52.34	2,171	358
52.44	2,171	430
52.54	2,171	502
52.64	2,171	573
52.74	2,171	645
52.84	2,171	716
52.94	2,171	788
53.04	2,171	860
53.14	2,171	931
53.24	2,171	1,003
53.34	2,171	1,075
53.44	2,171	1,146
53.54	2,171	1,218
53.64	2,171	1,290
53.74	2,171	1,361
53.84	2,171	1,433
53.94	2,171	1,505
54.04	2,171	1,576
54.14	2,171	1,648
54.24	2,171	1,719
54.34	2,171	1,791
54.44	2,171	1,863
54.54	2,171	1,934
54.64	2,171	2,006
54.74	2,171	2,078
54.84	2,171	2,149
54.94	4,800	2,604
55.04	5,012	3,096
55.14	5,146	3,604
55.24	5,279	4,126
55.34	5,413	4,660
55.44	5,546	5,208
55.54	5,680	5,769
55.64	5,813	6,344
55.74	5,947	6,932
55.84	6,080	7,533
55.94	6,214	8,148
56.04	6,340	8,776
56.14	6,454	9,416
56.24	6,569	10,067
56.34	6,683	10,730
56.44	6,797	11,404
56.54	6,912	12,089
56.64	7,026	12,786
56.74	7,141	13,494
56.84	7,255	14,214
56.94	**7,369**	**14,945**

Summary for Pond 19P: Sand Filter 3

Inflow Area = 22,284 sf, 61.76% Impervious, Inflow Depth = 3.68" for 10-year event
Inflow = 2.10 cfs @ 12.09 hrs, Volume= 6,827 cf
Outflow = 0.24 cfs @ 12.77 hrs, Volume= 6,827 cf, Atten= 88%, Lag= 40.7 min
Discarded = 0.01 cfs @ 8.10 hrs, Volume= 4,761 cf
Primary = 0.23 cfs @ 12.77 hrs, Volume= 2,066 cf
Routed to Pond 3P : DIV-02
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 4L : DP 1.3 - Culvert 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 60.67' @ 12.77 hrs Surf.Area= 3,588 sf Storage= 4,025 cf

Plug-Flow detention time= 1,963.2 min calculated for 6,827 cf (100% of inflow)
Center-of-Mass det. time= 1,963.2 min (2,758.3 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.99'	10,312 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.99	1,999	0.0	0	0
57.00	1,999	33.0	7	7
59.99	1,999	33.0	1,972	1,979
60.00	2,449	100.0	22	2,001
61.00	4,147	100.0	3,298	5,299
62.00	5,878	100.0	5,013	10,312

Device	Routing	Invert	Outlet Devices
#1	Discarded	56.99'	**0.270 in/hr Exfiltration over Surface area from 56.98' - 59.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	60.65'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	61.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 8.10 hrs HW=57.04' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.23 cfs @ 12.77 hrs HW=60.67' TW=56.84' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Weir Controls 0.23 cfs @ 0.47 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.99' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 19P: Sand Filter 3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	56.99	0.00	0.00	0.00	**0.00**
5.00	0.00	1	56.99	0.00	**0.00**	0.00	0.00
10.00	**0.07**	**255**	**57.38**	**0.01**	**0.01**	**0.00**	0.00
15.00	**0.09**	**3,988**	**60.66**	**0.09**	0.01	**0.08**	0.00
20.00	0.03	3,966	60.65	0.03	0.01	0.02	0.00
25.00	0.00	3,918	60.64	0.01	0.01	0.00	0.00
30.00	0.00	3,693	60.58	0.01	0.01	0.00	0.00
35.00	0.00	3,468	60.51	0.01	0.01	0.00	0.00
40.00	0.00	3,243	60.44	0.01	0.01	0.00	0.00
45.00	0.00	3,018	60.37	0.01	0.01	0.00	0.00
50.00	0.00	2,793	60.29	0.01	0.01	0.00	0.00
55.00	0.00	2,568	60.22	0.01	0.01	0.00	0.00
60.00	0.00	2,344	60.13	0.01	0.01	0.00	0.00
65.00	0.00	2,119	60.05	0.01	0.01	0.00	0.00
70.00	0.00	1,894	59.86	0.01	0.01	0.00	0.00
75.00	0.00	1,669	59.52	0.01	0.01	0.00	0.00
80.00	0.00	1,444	59.18	0.01	0.01	0.00	0.00
85.00	0.00	1,219	58.84	0.01	0.01	0.00	0.00
90.00	0.00	994	58.50	0.01	0.01	0.00	0.00
95.00	0.00	769	58.16	0.01	0.01	0.00	0.00
100.00	0.00	544	57.82	0.01	0.01	0.00	0.00
105.00	0.00	320	57.47	0.01	0.01	0.00	0.00
110.00	0.00	95	57.13	0.01	0.01	0.00	0.00
115.00	0.00	0	56.99	0.00	0.00	0.00	0.00
120.00	0.00	0	56.99	0.00	0.00	0.00	0.00
125.00	0.00	0	56.99	0.00	0.00	0.00	0.00
130.00	0.00	0	56.99	0.00	0.00	0.00	0.00
135.00	0.00	0	56.99	0.00	0.00	0.00	0.00
140.00	0.00	0	56.99	0.00	0.00	0.00	0.00
145.00	0.00	0	56.99	0.00	0.00	0.00	0.00
150.00	0.00	0	56.99	0.00	0.00	0.00	0.00
155.00	0.00	0	56.99	0.00	0.00	0.00	0.00
160.00	0.00	0	56.99	0.00	0.00	0.00	0.00
165.00	0.00	0	56.99	0.00	0.00	0.00	0.00
170.00	0.00	0	56.99	0.00	0.00	0.00	0.00
175.00	0.00	0	56.99	0.00	0.00	0.00	0.00
180.00	0.00	0	56.99	0.00	0.00	0.00	0.00
185.00	0.00	0	56.99	0.00	0.00	0.00	0.00
190.00	0.00	0	56.99	0.00	0.00	0.00	0.00
195.00	0.00	0	56.99	0.00	0.00	0.00	0.00
200.00	0.00	0	56.99	0.00	0.00	0.00	0.00
205.00	0.00	0	56.99	0.00	0.00	0.00	0.00
210.00	0.00	0	56.99	0.00	0.00	0.00	0.00
215.00	0.00	0	56.99	0.00	0.00	0.00	0.00
220.00	0.00	0	56.99	0.00	0.00	0.00	0.00
225.00	0.00	0	56.99	0.00	0.00	0.00	0.00
230.00	0.00	0	56.99	0.00	0.00	0.00	0.00
235.00	0.00	0	56.99	0.00	0.00	0.00	0.00
240.00	0.00	0	56.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 19P: Sand Filter 3

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
56.99	0.00	**0.00**	0.00	0.00
57.09	0.01	**0.01**	0.00	0.00
57.19	0.01	0.01	0.00	0.00
57.29	0.01	0.01	0.00	0.00
57.39	0.01	0.01	0.00	0.00
57.49	0.01	0.01	0.00	0.00
57.59	0.01	0.01	0.00	0.00
57.69	0.01	0.01	0.00	0.00
57.79	0.01	0.01	0.00	0.00
57.89	0.01	0.01	0.00	0.00
57.99	0.01	0.01	0.00	0.00
58.09	0.01	0.01	0.00	0.00
58.19	0.01	0.01	0.00	0.00
58.29	0.01	0.01	0.00	0.00
58.39	0.01	0.01	0.00	0.00
58.49	0.01	0.01	0.00	0.00
58.59	0.01	0.01	0.00	0.00
58.69	0.01	0.01	0.00	0.00
58.79	0.01	0.01	0.00	0.00
58.89	0.01	0.01	0.00	0.00
58.99	0.01	0.01	0.00	0.00
59.09	0.01	0.01	0.00	0.00
59.19	0.01	0.01	0.00	0.00
59.29	0.01	0.01	0.00	0.00
59.39	0.01	0.01	0.00	0.00
59.49	0.01	0.01	0.00	0.00
59.59	0.01	0.01	0.00	0.00
59.69	0.01	0.01	0.00	0.00
59.79	0.01	0.01	0.00	0.00
59.89	0.01	0.01	0.00	0.00
59.99	0.01	0.01	0.00	0.00
60.09	0.01	0.01	0.00	0.00
60.19	0.01	0.01	0.00	0.00
60.29	0.01	0.01	0.00	0.00
60.39	0.01	0.01	0.00	0.00
60.49	0.01	0.01	0.00	0.00
60.59	0.01	0.01	0.00	0.00
60.69	0.64	0.01	0.63	0.00
60.79	1.81	0.01	1.80	0.00
60.89	2.37	0.01	2.36	0.00
60.99	2.82	0.01	2.81	0.00
61.09	3.21	0.01	3.19	0.00
61.19	4.43	0.01	3.54	0.88
61.29	6.56	0.01	3.85	2.70
61.39	9.23	0.01	4.14	5.08
61.49	12.33	0.01	4.41	7.90
61.59	15.79	0.01	4.67	11.11
61.69	19.57	0.01	4.91	14.64
61.79	23.64	0.01	5.14	18.48
61.89	27.97	0.01	5.36	22.60
61.99	**32.55**	0.01	**5.57**	**26.97**

Pro-Hydro
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Stage-Area-Storage for Pond 19P: Sand Filter 3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.99	1,999	0
57.04	1,999	33
57.09	1,999	66
57.14	1,999	99
57.19	1,999	132
57.24	1,999	165
57.29	1,999	198
57.34	1,999	231
57.39	1,999	264
57.44	1,999	297
57.49	1,999	330
57.54	1,999	363
57.59	1,999	396
57.64	1,999	429
57.69	1,999	462
57.74	1,999	495
57.79	1,999	528
57.84	1,999	561
57.89	1,999	594
57.94	1,999	627
57.99	1,999	660
58.04	1,999	693
58.09	1,999	726
58.14	1,999	759
58.19	1,999	792
58.24	1,999	825
58.29	1,999	858
58.34	1,999	891
58.39	1,999	924
58.44	1,999	957
58.49	1,999	990
58.54	1,999	1,022
58.59	1,999	1,055
58.64	1,999	1,088
58.69	1,999	1,121
58.74	1,999	1,154
58.79	1,999	1,187
58.84	1,999	1,220
58.89	1,999	1,253
58.94	1,999	1,286
58.99	1,999	1,319
59.04	1,999	1,352
59.09	1,999	1,385
59.14	1,999	1,418
59.19	1,999	1,451
59.24	1,999	1,484
59.29	1,999	1,517
59.34	1,999	1,550
59.39	1,999	1,583
59.44	1,999	1,616
59.49	1,999	1,649
59.54	1,999	1,682
59.59	1,999	1,715
59.64	1,999	1,748
59.69	1,999	1,781
59.74	1,999	1,814
59.79	1,999	1,847
59.84	1,999	1,880
59.89	1,999	1,913
59.94	1,999	1,946
59.99	1,999	1,979
60.04	2,517	2,101
60.09	2,602	2,229
60.14	2,687	2,361
60.19	2,772	2,497
60.24	2,857	2,638
60.29	2,941	2,783
60.34	3,026	2,932
60.39	3,111	3,085
60.44	3,196	3,243
60.49	3,281	3,405
60.54	3,366	3,571
60.59	3,451	3,742
60.64	3,536	3,916
60.69	3,621	4,095
60.74	3,706	4,278
60.79	3,790	4,466
60.84	3,875	4,657
60.89	3,960	4,853
60.94	4,045	5,053
60.99	4,130	5,258
61.04	4,216	5,467
61.09	4,303	5,679
61.14	4,389	5,897
61.19	4,476	6,118
61.24	4,562	6,344
61.29	4,649	6,575
61.34	4,736	6,809
61.39	4,822	7,048
61.44	4,909	7,291
61.49	4,995	7,539
61.54	5,082	7,791
61.59	5,168	8,047
61.64	5,255	8,308
61.69	5,341	8,573
61.74	5,428	8,842
61.79	5,514	9,116
61.84	5,601	9,393
61.89	5,688	9,676
61.94	5,774	9,962
61.99	**5,861**	**10,253**

Summary for Pond 20P: Sand Filter 4

Inflow Area = 31,007 sf, 23.95% Impervious, Inflow Depth = 3.08" for 10-year event
Inflow = 2.01 cfs @ 12.19 hrs, Volume= 7,968 cf
Outflow = 0.61 cfs @ 12.62 hrs, Volume= 7,968 cf, Atten= 70%, Lag= 26.1 min
Primary = 0.61 cfs @ 12.62 hrs, Volume= 7,968 cf
Routed to Link 3L : DP 1.2 - Culvert 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 61.51' @ 12.62 hrs Surf.Area= 2,497 sf Storage= 2,281 cf

Plug-Flow detention time= 36.3 min calculated for 7,966 cf (100% of inflow)
Center-of-Mass det. time= 36.2 min (857.4 - 821.1)

Volume	Invert	Avail.Storage	Storage Description
#1	58.99'	3,660 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.99	1,767	0.0	0	0
59.00	1,767	33.0	6	6
60.99	1,767	33.0	1,160	1,166
61.00	1,767	100.0	18	1,184
62.00	3,186	100.0	2,477	3,660

Device	Routing	Invert	Outlet Devices
#1	Primary	61.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Device 3	58.99'	**8.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#3	Primary	58.25'	**6.0" Round subdrain** L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.25' / 56.90' S= 0.0270 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.60 cfs @ 12.62 hrs HW=61.51' TW=0.00' (Dynamic Tailwater)
- **1=Orifice/Grate** (Weir Controls 0.12 cfs @ 0.38 fps)
- **3=subdrain** (Passes 0.48 cfs of 1.30 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.48 cfs)

Hydrograph for Pond 20P: Sand Filter 4

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	58.99	0.00
5.00	0.00	0	58.99	0.00
10.00	**0.06**	**2**	**58.99**	**0.06**
15.00	**0.12**	**639**	**60.09**	**0.34**
20.00	0.04	1	58.99	0.04
25.00	0.00	0	58.99	0.00
30.00	0.00	0	58.99	0.00
35.00	0.00	0	58.99	0.00
40.00	0.00	0	58.99	0.00
45.00	0.00	0	58.99	0.00
50.00	0.00	0	58.99	0.00
55.00	0.00	0	58.99	0.00
60.00	0.00	0	58.99	0.00
65.00	0.00	0	58.99	0.00
70.00	0.00	0	58.99	0.00
75.00	0.00	0	58.99	0.00
80.00	0.00	0	58.99	0.00
85.00	0.00	0	58.99	0.00
90.00	0.00	0	58.99	0.00
95.00	0.00	0	58.99	0.00
100.00	0.00	0	58.99	0.00
105.00	0.00	0	58.99	0.00
110.00	0.00	0	58.99	0.00
115.00	0.00	0	58.99	0.00
120.00	0.00	0	58.99	0.00
125.00	0.00	0	58.99	0.00
130.00	0.00	0	58.99	0.00
135.00	0.00	0	58.99	0.00
140.00	0.00	0	58.99	0.00
145.00	0.00	0	58.99	0.00
150.00	0.00	0	58.99	0.00
155.00	0.00	0	58.99	0.00
160.00	0.00	0	58.99	0.00
165.00	0.00	0	58.99	0.00
170.00	0.00	0	58.99	0.00
175.00	0.00	0	58.99	0.00
180.00	0.00	0	58.99	0.00
185.00	0.00	0	58.99	0.00
190.00	0.00	0	58.99	0.00
195.00	0.00	0	58.99	0.00
200.00	0.00	0	58.99	0.00
205.00	0.00	0	58.99	0.00
210.00	0.00	0	58.99	0.00
215.00	0.00	0	58.99	0.00
220.00	0.00	0	58.99	0.00
225.00	0.00	0	58.99	0.00
230.00	0.00	0	58.99	0.00
235.00	0.00	0	58.99	0.00
240.00	0.00	0	58.99	0.00

Stage-Discharge for Pond 20P: Sand Filter 4

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
58.99	0.00	60.01	0.34	61.03	0.35
59.01	0.34	60.03	0.34	61.05	0.35
59.03	0.34	60.05	0.34	61.07	0.36
59.05	0.34	60.07	0.34	61.09	0.36
59.07	0.34	60.09	0.34	61.11	0.37
59.09	0.34	60.11	0.34	61.13	0.37
59.11	0.34	60.13	0.34	61.15	0.38
59.13	0.34	60.15	0.34	61.17	0.38
59.15	0.34	60.17	0.34	61.19	0.39
59.17	0.34	60.19	0.34	61.21	0.40
59.19	0.34	60.21	0.34	61.23	0.40
59.21	0.34	60.23	0.34	61.25	0.41
59.23	0.34	60.25	0.34	61.27	0.41
59.25	0.34	60.27	0.34	61.29	0.42
59.27	0.34	60.29	0.34	61.31	0.42
59.29	0.34	60.31	0.34	61.33	0.43
59.31	0.34	60.33	0.34	61.35	0.43
59.33	0.34	60.35	0.34	61.37	0.44
59.35	0.34	60.37	0.34	61.39	0.44
59.37	0.34	60.39	0.34	61.41	0.45
59.39	0.34	60.41	0.34	61.43	0.46
59.41	0.34	60.43	0.34	61.45	0.46
59.43	0.34	60.45	0.34	61.47	0.47
59.45	0.34	60.47	0.34	61.49	0.47
59.47	0.34	60.49	0.34	61.51	0.56
59.49	0.34	60.51	0.34	61.53	0.89
59.51	0.34	60.53	0.34	61.55	1.37
59.53	0.34	60.55	0.34	61.57	1.77
59.55	0.34	60.57	0.34	61.59	1.94
59.57	0.34	60.59	0.34	61.61	2.10
59.59	0.34	60.61	0.34	61.63	2.25
59.61	0.34	60.63	0.34	61.65	2.38
59.63	0.34	60.65	0.34	61.67	2.51
59.65	0.34	60.67	0.34	61.69	2.62
59.67	0.34	60.69	0.34	61.71	2.74
59.69	0.34	60.71	0.34	61.73	2.85
59.71	0.34	60.73	0.34	61.75	2.95
59.73	0.34	60.75	0.34	61.77	3.05
59.75	0.34	60.77	0.34	61.79	3.15
59.77	0.34	60.79	0.34	61.81	3.24
59.79	0.34	60.81	0.34	61.83	3.33
59.81	0.34	60.83	0.34	61.85	3.42
59.83	0.34	60.85	0.34	61.87	3.50
59.85	0.34	60.87	0.34	61.89	3.59
59.87	0.34	60.89	0.34	61.91	3.67
59.89	0.34	60.91	0.34	61.93	3.75
59.91	0.34	60.93	0.34	61.95	3.83
59.93	0.34	60.95	0.34	61.97	3.90
59.95	0.34	60.97	0.34	61.99	**3.98**
59.97	0.34	60.99	0.34		
59.99	0.34	61.01	0.34		

Stage-Area-Storage for Pond 20P: Sand Filter 4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
58.99	1,767	0
59.04	1,767	29
59.09	1,767	58
59.14	1,767	87
59.19	1,767	117
59.24	1,767	146
59.29	1,767	175
59.34	1,767	204
59.39	1,767	233
59.44	1,767	262
59.49	1,767	292
59.54	1,767	321
59.59	1,767	350
59.64	1,767	379
59.69	1,767	408
59.74	1,767	437
59.79	1,767	466
59.84	1,767	496
59.89	1,767	525
59.94	1,767	554
59.99	1,767	583
60.04	1,767	612
60.09	1,767	641
60.14	1,767	671
60.19	1,767	700
60.24	1,767	729
60.29	1,767	758
60.34	1,767	787
60.39	1,767	816
60.44	1,767	846
60.49	1,767	875
60.54	1,767	904
60.59	1,767	933
60.64	1,767	962
60.69	1,767	991
60.74	1,767	1,020
60.79	1,767	1,050
60.84	1,767	1,079
60.89	1,767	1,108
60.94	1,767	1,137
60.99	1,767	1,166
61.04	1,824	1,256
61.09	1,895	1,349
61.14	1,966	1,445
61.19	2,037	1,545
61.24	2,108	1,649
61.29	2,179	1,756
61.34	2,249	1,867
61.39	2,320	1,981
61.44	2,391	2,099
61.49	2,462	2,220
61.54	2,533	2,345
61.59	2,604	2,473
61.64	2,675	2,605
61.69	2,746	2,741
61.74	2,817	2,880
61.79	2,888	3,023
61.84	2,959	3,169
61.89	3,030	3,319
61.94	3,101	3,472
61.99	**3,172**	**3,629**

Summary for Pond 23P: UGIS-1

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 1.22" for 10-year event
Inflow = 5.84 cfs @ 12.08 hrs, Volume= 15,464 cf
Outflow = 1.33 cfs @ 12.50 hrs, Volume= 15,464 cf, Atten= 77%, Lag= 24.8 min
Discarded = 0.08 cfs @ 12.50 hrs, Volume= 12,512 cf
Primary = 1.25 cfs @ 12.50 hrs, Volume= 2,952 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 48.74' @ 12.50 hrs Surf.Area= 6,719 sf Storage= 11,219 cf

Plug-Flow detention time= 1,121.7 min calculated for 15,461 cf (100% of inflow)
Center-of-Mass det. time= 1,122.0 min (1,853.6 - 731.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	46.30'	3,295 cf	**66.58'W x 80.00'L x 3.21'H Field A** 17,090 cf Overall - 7,104 cf Embedded = 9,986 cf x 33.0% Voids
#2A	46.80'	7,104 cf	**Cultec R-280HD** x 165 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 15 rows
#3B	46.30'	893 cf	**44.92'W x 31.00'L x 3.21'H Field B** 4,467 cf Overall - 1,761 cf Embedded = 2,707 cf x 33.0% Voids
#4B	46.80'	1,761 cf	**Cultec R-280HD** x 40 Inside #3 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 10 rows
		13,053 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	46.80'	**24.0" Round Culvert** L= 60.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 43.50' S= 0.0550 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Primary	48.40'	**2.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Device 1	49.00'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Discarded	46.30'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 43.30' Phase-In= 0.02'

Discarded OutFlow Max=0.08 cfs @ 12.50 hrs HW=48.74' (Free Discharge)
└**4=Exfiltration** (Controls 0.08 cfs)

Primary OutFlow Max=1.25 cfs @ 12.50 hrs HW=48.74' TW=0.00' (Dynamic Tailwater)
├**1=Culvert** (Passes 0.00 cfs of 11.66 cfs potential flow)
│└**3=Sharp-Crested Rectangular Weir**(Controls 0.00 cfs)
└**2=Sharp-Crested Rectangular Weir**(Weir Controls 1.25 cfs @ 1.91 fps)

Pond 23P: UGIS-1 - Chamber Wizard Field A

Chamber Model = Cultec R-280HD (Cultec Recharger®280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 15 rows

47.0" Wide + 5.0" Spacing = 52.0" C-C Row Spacing

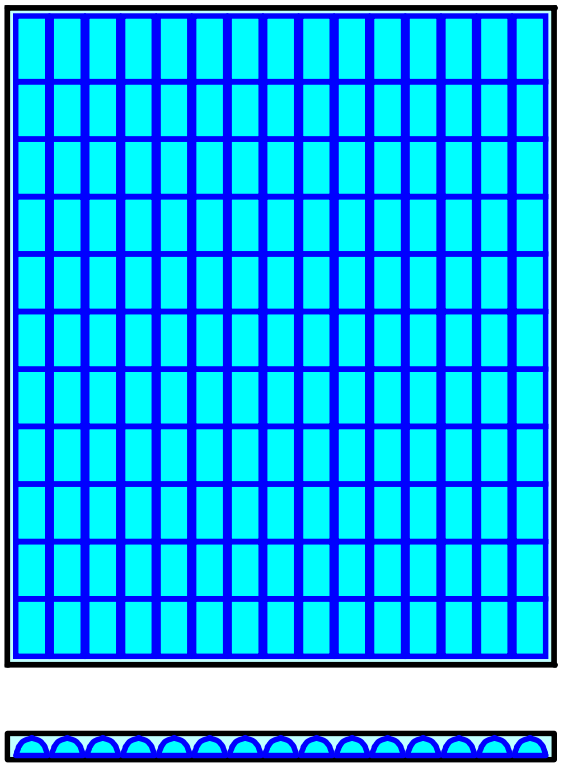
11 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 78.00' Row Length +12.0" End Stone x 2 = 80.00' Base Length
15 Rows x 47.0" Wide + 5.0" Spacing x 14 + 12.0" Side Stone x 2 = 66.58' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

165 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 15 Rows = 7,103.9 cf Chamber Storage

17,089.7 cf Field - 7,103.9 cf Chambers = 9,985.8 cf Stone x 33.0% Voids = 3,295.3 cf Stone Storage

Chamber Storage + Stone Storage = 10,399.3 cf = 0.239 af
Overall Storage Efficiency = 60.9%
Overall System Size = 80.00' x 66.58' x 3.21'

165 Chambers
633.0 cy Field
369.8 cy Stone



Pond 23P: UGIS-1 - Chamber Wizard Field B

Chamber Model = Cultec R-280HD (Cultec Recharger®280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 10 rows

47.0" Wide + 5.0" Spacing = 52.0" C-C Row Spacing

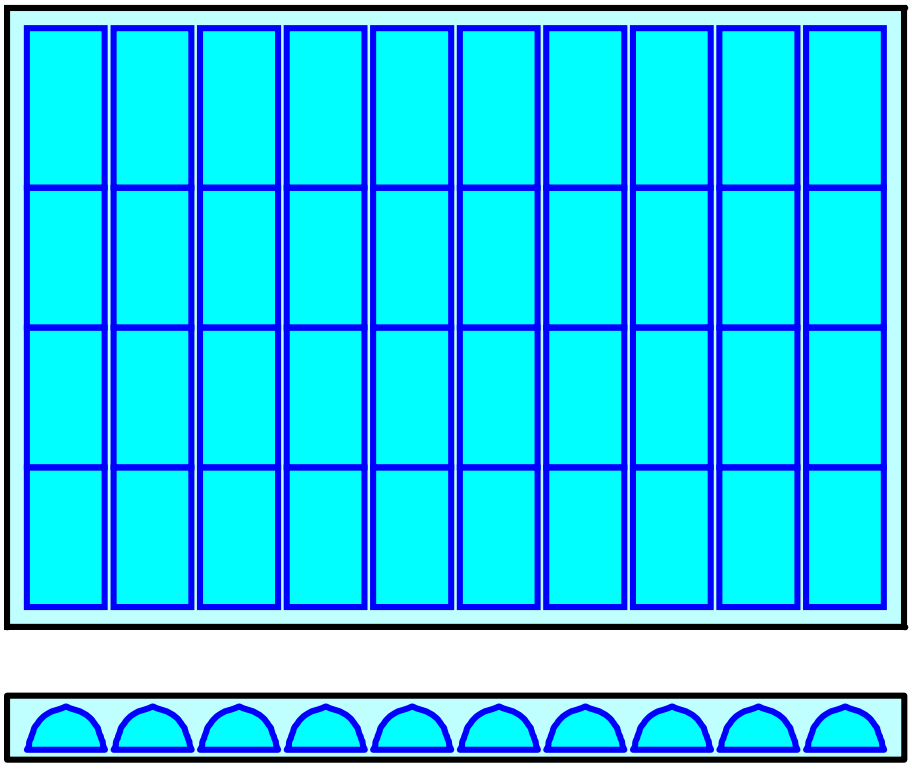
4 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 29.00' Row Length +12.0" End Stone x 2 = 31.00' Base Length
10 Rows x 47.0" Wide + 5.0" Spacing x 9 + 12.0" Side Stone x 2 = 44.92' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

40 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 10 Rows = 1,760.8 cf Chamber Storage

4,467.3 cf Field - 1,760.8 cf Chambers = 2,706.5 cf Stone x 33.0% Voids = 893.2 cf Stone Storage

Chamber Storage + Stone Storage = 2,654.0 cf = 0.061 af
Overall Storage Efficiency = 59.4%
Overall System Size = 31.00' x 44.92' x 3.21'

40 Chambers
165.5 cy Field
100.2 cy Stone



Hydrograph for Pond 23P: UGIS-1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	46.30	0.00	0.00	0.00
5.00	0.01	5	46.30	0.00	0.00	0.00
10.00	**0.17**	**505**	**46.53**	**0.05**	**0.05**	**0.00**
15.00	**0.08**	**9,939**	**48.43**	**0.10**	**0.07**	**0.03**
20.00	0.01	9,422	48.31	0.07	0.07	0.00
25.00	0.00	8,332	48.09	0.07	0.07	0.00
30.00	0.00	7,154	47.86	0.06	0.06	0.00
35.00	0.00	6,030	47.66	0.06	0.06	0.00
40.00	0.00	4,958	47.46	0.06	0.06	0.00
45.00	0.00	3,932	47.28	0.06	0.06	0.00
50.00	0.00	2,950	47.11	0.05	0.05	0.00
55.00	0.00	2,010	46.95	0.05	0.05	0.00
60.00	0.00	1,110	46.80	0.05	0.05	0.00
65.00	0.00	276	46.42	0.04	0.04	0.00
70.00	0.00	0	46.30	0.00	0.00	0.00
75.00	0.00	0	46.30	0.00	0.00	0.00
80.00	0.00	0	46.30	0.00	0.00	0.00
85.00	0.00	0	46.30	0.00	0.00	0.00
90.00	0.00	0	46.30	0.00	0.00	0.00
95.00	0.00	0	46.30	0.00	0.00	0.00
100.00	0.00	0	46.30	0.00	0.00	0.00
105.00	0.00	0	46.30	0.00	0.00	0.00
110.00	0.00	0	46.30	0.00	0.00	0.00
115.00	0.00	0	46.30	0.00	0.00	0.00
120.00	0.00	0	46.30	0.00	0.00	0.00
125.00	0.00	0	46.30	0.00	0.00	0.00
130.00	0.00	0	46.30	0.00	0.00	0.00
135.00	0.00	0	46.30	0.00	0.00	0.00
140.00	0.00	0	46.30	0.00	0.00	0.00
145.00	0.00	0	46.30	0.00	0.00	0.00
150.00	0.00	0	46.30	0.00	0.00	0.00
155.00	0.00	0	46.30	0.00	0.00	0.00
160.00	0.00	0	46.30	0.00	0.00	0.00
165.00	0.00	0	46.30	0.00	0.00	0.00
170.00	0.00	0	46.30	0.00	0.00	0.00
175.00	0.00	0	46.30	0.00	0.00	0.00
180.00	0.00	0	46.30	0.00	0.00	0.00
185.00	0.00	0	46.30	0.00	0.00	0.00
190.00	0.00	0	46.30	0.00	0.00	0.00
195.00	0.00	0	46.30	0.00	0.00	0.00
200.00	0.00	0	46.30	0.00	0.00	0.00
205.00	0.00	0	46.30	0.00	0.00	0.00
210.00	0.00	0	46.30	0.00	0.00	0.00
215.00	0.00	0	46.30	0.00	0.00	0.00
220.00	0.00	0	46.30	0.00	0.00	0.00
225.00	0.00	0	46.30	0.00	0.00	0.00
230.00	0.00	0	46.30	0.00	0.00	0.00
235.00	0.00	0	46.30	0.00	0.00	0.00
240.00	0.00	0	46.30	0.00	0.00	0.00

Stage-Discharge for Pond 23P: UGIS-1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
46.30	0.00	0.00	0.00
46.35	0.04	0.04	0.00
46.40	0.04	0.04	0.00
46.45	0.04	0.04	0.00
46.50	0.04	0.04	0.00
46.55	0.05	0.05	0.00
46.60	0.05	0.05	0.00
46.65	0.05	0.05	0.00
46.70	0.05	0.05	0.00
46.75	0.05	0.05	0.00
46.80	0.05	0.05	0.00
46.85	0.05	0.05	0.00
46.90	0.05	0.05	0.00
46.95	0.05	0.05	0.00
47.00	0.05	0.05	0.00
47.05	0.05	0.05	0.00
47.10	0.05	0.05	0.00
47.15	0.05	0.05	0.00
47.20	0.05	0.05	0.00
47.25	0.06	0.06	0.00
47.30	0.06	0.06	0.00
47.35	0.06	0.06	0.00
47.40	0.06	0.06	0.00
47.45	0.06	0.06	0.00
47.50	0.06	0.06	0.00
47.55	0.06	0.06	0.00
47.60	0.06	0.06	0.00
47.65	0.06	0.06	0.00
47.70	0.06	0.06	0.00
47.75	0.06	0.06	0.00
47.80	0.06	0.06	0.00
47.85	0.06	0.06	0.00
47.90	0.06	0.06	0.00
47.95	0.07	0.07	0.00
48.00	0.07	0.07	0.00
48.05	0.07	0.07	0.00
48.10	0.07	0.07	0.00
48.15	0.07	0.07	0.00
48.20	0.07	0.07	0.00
48.25	0.07	0.07	0.00
48.30	0.07	0.07	0.00
48.35	0.07	0.07	0.00
48.40	0.07	0.07	0.00
48.45	0.14	0.07	0.07
48.50	0.28	0.07	0.20
48.55	0.45	0.07	0.37
48.60	0.65	0.07	0.57
48.65	0.87	0.07	0.80
48.70	1.12	0.08	1.04
48.75	1.38	0.08	1.31
48.80	1.67	0.08	1.59
48.85	1.96	0.08	1.89
48.90	2.28	0.08	2.20
48.95	2.60	0.08	2.52
49.00	2.94	0.08	2.86
49.05	3.43	0.08	3.35
49.10	4.05	0.08	3.97
49.15	4.77	0.08	4.68
49.20	5.55	0.08	5.46
49.25	6.39	0.08	6.30
49.30	7.28	0.08	7.20
49.35	8.23	0.08	8.14
49.40	9.21	0.09	9.13
49.45	10.24	0.09	10.16
49.50	**11.31**	**0.09**	**11.22**

Stage-Area-Storage for Pond 23P: UGIS-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
46.30	**6,719**	0
46.35	6,719	111
46.40	6,719	222
46.45	6,719	333
46.50	6,719	443
46.55	6,719	554
46.60	6,719	665
46.65	6,719	776
46.70	6,719	887
46.75	6,719	998
46.80	6,719	1,109
46.85	6,719	1,410
46.90	6,719	1,708
46.95	6,719	2,004
47.00	6,719	2,297
47.05	6,719	2,590
47.10	6,719	2,882
47.15	6,719	3,173
47.20	6,719	3,463
47.25	6,719	3,753
47.30	6,719	4,041
47.35	6,719	4,326
47.40	6,719	4,610
47.45	6,719	4,891
47.50	6,719	5,172
47.55	6,719	5,450
47.60	6,719	5,726
47.65	6,719	6,000
47.70	6,719	6,272
47.75	6,719	6,543
47.80	6,719	6,812
47.85	6,719	7,080
47.90	6,719	7,347
47.95	6,719	7,611
48.00	6,719	7,871
48.05	6,719	8,128
48.10	6,719	8,381
48.15	6,719	8,631
48.20	6,719	8,878
48.25	6,719	9,121
48.30	6,719	9,360
48.35	6,719	9,595
48.40	6,719	9,825
48.45	6,719	10,050
48.50	6,719	10,269
48.55	6,719	10,482
48.60	6,719	10,689
48.65	6,719	10,887
48.70	6,719	11,075
48.75	6,719	11,252
48.80	6,719	11,413
48.85	6,719	11,560
48.90	6,719	11,693
48.95	6,719	11,814
49.00	6,719	11,926
49.05	6,719	12,037
49.10	6,719	12,148
49.15	6,719	12,259
49.20	6,719	12,370
49.25	6,719	12,480
49.30	6,719	12,591
49.35	6,719	12,702
49.40	6,719	12,813
49.45	6,719	12,924
49.50	6,719	**13,035**

Summary for Pond 28P: DIV-01

Inflow Area = 379,224 sf, 32.14% Impervious, Inflow Depth = 3.04" for 10-year event
Inflow = 21.56 cfs @ 12.21 hrs, Volume= 96,131 cf
Outflow = 21.56 cfs @ 12.21 hrs, Volume= 96,131 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.60 cfs @ 12.20 hrs, Volume= 37,812 cf
Routed to Pond 13P : Sand Filter 1
Secondary = 18.97 cfs @ 12.22 hrs, Volume= 58,319 cf
Routed to Pond 15P : Detention Basin 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 48.10' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.10'	**11.0" Round Culvert** L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.10' / 46.00' S= 0.0071 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.66 sf
#2	Device 3	47.00'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	46.10'	**36.0" Round Culvert** L= 56.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.10' / 44.00' S= 0.0375 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 7.07 sf

Primary OutFlow Max=2.59 cfs @ 12.20 hrs HW=48.08' TW=47.02' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 2.59 cfs @ 3.93 fps)

Secondary OutFlow Max=18.79 cfs @ 12.22 hrs HW=48.08' TW=45.62' (Dynamic Tailwater)
└**3=Culvert** (Inlet Controls 18.79 cfs @ 3.79 fps)
└**2=Sharp-Crested Rectangular Weir** (Passes 18.79 cfs of 21.36 cfs potential flow)

Hydrograph for Pond 28P: DIV-01

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	46.10	0.00	0.00	0.00
5.00	0.04	46.21	0.04	0.04	0.00
10.00	**0.65**	**46.62**	**0.65**	**0.65**	**0.00**
15.00	**1.49**	**47.13**	**1.49**	**0.53**	**0.96**
20.00	0.51	47.00	0.51	0.50	0.00
25.00	0.00	46.10	0.00	0.00	0.00
30.00	0.00	46.58	0.00	0.00	0.00
35.00	0.00	46.52	0.00	0.00	0.00
40.00	0.00	46.46	0.00	0.00	0.00
45.00	0.00	46.37	0.00	0.00	0.00
50.00	0.00	46.31	0.00	0.00	0.00
55.00	0.00	46.25	0.00	0.00	0.00
60.00	0.00	46.16	0.00	0.00	0.00
65.00	0.00	46.10	0.00	0.00	0.00
70.00	0.00	46.10	0.00	0.00	0.00
75.00	0.00	46.10	0.00	0.00	0.00
80.00	0.00	46.10	0.00	0.00	0.00
85.00	0.00	46.10	0.00	0.00	0.00
90.00	0.00	46.10	0.00	0.00	0.00
95.00	0.00	46.10	0.00	0.00	0.00
100.00	0.00	46.10	0.00	0.00	0.00
105.00	0.00	46.10	0.00	0.00	0.00
110.00	0.00	46.10	0.00	0.00	0.00
115.00	0.00	46.10	0.00	0.00	0.00
120.00	0.00	46.10	0.00	0.00	0.00
125.00	0.00	46.10	0.00	0.00	0.00
130.00	0.00	46.10	0.00	0.00	0.00
135.00	0.00	46.10	0.00	0.00	0.00
140.00	0.00	46.10	0.00	0.00	0.00
145.00	0.00	46.10	0.00	0.00	0.00
150.00	0.00	46.10	0.00	0.00	0.00
155.00	0.00	46.10	0.00	0.00	0.00
160.00	0.00	46.10	0.00	0.00	0.00
165.00	0.00	46.10	0.00	0.00	0.00
170.00	0.00	46.10	0.00	0.00	0.00
175.00	0.00	46.10	0.00	0.00	0.00
180.00	0.00	46.10	0.00	0.00	0.00
185.00	0.00	46.10	0.00	0.00	0.00
190.00	0.00	46.10	0.00	0.00	0.00
195.00	0.00	46.10	0.00	0.00	0.00
200.00	0.00	46.10	0.00	0.00	0.00
205.00	0.00	46.10	0.00	0.00	0.00
210.00	0.00	46.10	0.00	0.00	0.00
215.00	0.00	46.10	0.00	0.00	0.00
220.00	0.00	46.10	0.00	0.00	0.00
225.00	0.00	46.10	0.00	0.00	0.00
230.00	0.00	46.10	0.00	0.00	0.00
235.00	0.00	46.10	0.00	0.00	0.00
240.00	0.00	46.10	0.00	0.00	0.00

Stage-Discharge for Pond 28P: DIV-01

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
46.10	0.00	0.00	0.00
46.15	0.01	0.01	0.00
46.20	0.03	0.03	0.00
46.25	0.07	0.07	0.00
46.30	0.12	0.12	0.00
46.35	0.18	0.18	0.00
46.40	0.25	0.25	0.00
46.45	0.33	0.33	0.00
46.50	0.41	0.41	0.00
46.55	0.51	0.51	0.00
46.60	0.61	0.61	0.00
46.65	0.72	0.72	0.00
46.70	0.83	0.83	0.00
46.75	0.95	0.95	0.00
46.80	1.07	1.07	0.00
46.85	1.20	1.20	0.00
46.90	1.32	1.32	0.00
46.95	1.45	1.45	0.00
47.00	1.58	1.58	0.00
47.05	1.92	1.70	0.22
47.10	2.44	1.82	0.62
47.15	3.06	1.93	1.13
47.20	3.75	2.01	1.74
47.25	4.52	2.09	2.43
47.30	5.35	2.16	3.19
47.35	6.25	2.23	4.02
47.40	7.20	2.30	4.90
47.45	8.20	2.37	5.83
47.50	9.26	2.43	6.82
47.55	10.35	2.50	7.86
47.60	11.50	2.56	8.94
47.65	12.68	2.62	10.06
47.70	13.90	2.68	11.22
47.75	15.16	2.74	12.42
47.80	16.46	2.80	13.66
47.85	17.79	2.85	14.94
47.90	18.88	2.91	15.97
47.95	19.68	2.96	16.72
48.00	20.50	3.01	17.49
48.05	21.32	3.06	18.26
48.10	22.14	3.11	19.03
48.15	22.97	3.16	19.81
48.20	23.80	3.21	20.59
48.25	24.63	3.26	21.37
48.30	25.46	3.31	22.15
48.35	26.29	3.36	22.93
48.40	27.11	3.40	23.70
48.45	27.93	3.45	24.48
48.50	28.74	3.50	25.24
48.55	29.54	3.54	26.00
48.60	30.33	3.58	26.75
48.65	31.11	3.63	27.49
48.70	31.88	3.67	28.21
48.75	32.63	3.71	28.91
48.80	33.35	3.76	29.60
48.85	34.05	3.80	30.25
48.90	34.72	3.84	30.88
48.95	35.36	3.88	31.48
49.00	35.94	3.92	32.02
49.05	36.47	3.96	32.51
49.10	**36.91**	**4.00**	**32.91**

Stage-Area-Storage for Pond 28P: DIV-01

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
46.10	**0**	47.12	0	48.14	0
46.12	0	47.14	0	48.16	0
46.14	0	47.16	0	48.18	0
46.16	0	47.18	0	48.20	0
46.18	0	47.20	0	48.22	0
46.20	0	47.22	0	48.24	0
46.22	0	47.24	0	48.26	0
46.24	0	47.26	0	48.28	0
46.26	0	47.28	0	48.30	0
46.28	0	47.30	0	48.32	0
46.30	0	47.32	0	48.34	0
46.32	0	47.34	0	48.36	0
46.34	0	47.36	0	48.38	0
46.36	0	47.38	0	48.40	0
46.38	0	47.40	0	48.42	0
46.40	0	47.42	0	48.44	0
46.42	0	47.44	0	48.46	0
46.44	0	47.46	0	48.48	0
46.46	0	47.48	0	48.50	0
46.48	0	47.50	0	48.52	0
46.50	0	47.52	0	48.54	0
46.52	0	47.54	0	48.56	0
46.54	0	47.56	0	48.58	0
46.56	0	47.58	0	48.60	0
46.58	0	47.60	0	48.62	0
46.60	0	47.62	0	48.64	0
46.62	0	47.64	0	48.66	0
46.64	0	47.66	0	48.68	0
46.66	0	47.68	0	48.70	0
46.68	0	47.70	0	48.72	0
46.70	0	47.72	0	48.74	0
46.72	0	47.74	0	48.76	0
46.74	0	47.76	0	48.78	0
46.76	0	47.78	0	48.80	0
46.78	0	47.80	0	48.82	0
46.80	0	47.82	0	48.84	0
46.82	0	47.84	0	48.86	0
46.84	0	47.86	0	48.88	0
46.86	0	47.88	0	48.90	0
46.88	0	47.90	0	48.92	0
46.90	0	47.92	0	48.94	0
46.92	0	47.94	0	48.96	0
46.94	0	47.96	0	48.98	0
46.96	0	47.98	0	49.00	0
46.98	0	48.00	0	49.02	0
47.00	0	48.02	0	49.04	0
47.02	0	48.04	0	49.06	0
47.04	0	48.06	0	49.08	0
47.06	0	48.08	0	49.10	0
47.08	0	48.10	0		
47.10	0	48.12	0		

Summary for Pond 33P: Wet Swale

Inflow Area = 57,295 sf, 71.89% Impervious, Inflow Depth = 3.99" for 10-year event
Inflow = 5.65 cfs @ 12.09 hrs, Volume= 19,058 cf
Outflow = 4.45 cfs @ 12.16 hrs, Volume= 19,058 cf, Atten= 21%, Lag= 4.1 min
Discarded = 0.01 cfs @ 4.95 hrs, Volume= 4,931 cf
Primary = 4.44 cfs @ 12.16 hrs, Volume= 14,127 cf
Routed to Pond 4P : Detention Basin 2
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 2L : DP 1.1 - Culvert 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 59.96' @ 12.16 hrs Surf.Area= 5,152 sf Storage= 5,292 cf

Plug-Flow detention time= 1,023.6 min calculated for 19,054 cf (100% of inflow)
Center-of-Mass det. time= 1,025.0 min (1,808.8 - 783.8)

Volume	Invert	Avail.Storage	Storage Description
#1	57.69'	11,649 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.69	1,511	0.0	0	0
57.70	1,511	33.0	5	5
58.69	1,511	33.0	494	499
58.70	1,801	100.0	17	515
59.00	3,213	100.0	752	1,267
60.00	5,228	100.0	4,221	5,488
61.00	7,094	100.0	6,161	11,649

Device	Routing	Invert	Outlet Devices
#1	Discarded	57.69'	**0.270 in/hr Exfiltration over Surface area from 57.68' - 58.69'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	56.20'	**18.0" Round Culvert** L= 62.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.20' / 55.60' S= 0.0097 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#3	Device 2	59.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#4	Secondary	60.50'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 4.95 hrs HW=57.72' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=4.40 cfs @ 12.16 hrs HW=59.96' TW=57.19' (Dynamic Tailwater)
└**2=Culvert** (Passes 4.40 cfs of 11.18 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 4.40 cfs @ 2.20 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=57.69' TW=0.00' (Dynamic Tailwater)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 33P: Wet Swale

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	57.69	0.00	**0.00**	0.00	**0.00**
5.00	0.02	18	57.73	0.01	**0.01**	0.00	0.00
10.00	**0.22**	**1,387**	**59.04**	**0.01**	0.01	**0.00**	0.00
15.00	**0.24**	**4,306**	**59.76**	**0.25**	0.01	**0.24**	0.00
20.00	0.08	4,273	59.76	0.08	0.01	0.07	0.00
25.00	0.00	4,223	59.75	0.01	0.01	0.00	0.00
30.00	0.00	4,053	59.71	0.01	0.01	0.00	0.00
35.00	0.00	3,883	59.67	0.01	0.01	0.00	0.00
40.00	0.00	3,713	59.63	0.01	0.01	0.00	0.00
45.00	0.00	3,543	59.60	0.01	0.01	0.00	0.00
50.00	0.00	3,373	59.56	0.01	0.01	0.00	0.00
55.00	0.00	3,203	59.52	0.01	0.01	0.00	0.00
60.00	0.00	3,033	59.48	0.01	0.01	0.00	0.00
65.00	0.00	2,863	59.44	0.01	0.01	0.00	0.00
70.00	0.00	2,693	59.39	0.01	0.01	0.00	0.00
75.00	0.00	2,523	59.35	0.01	0.01	0.00	0.00
80.00	0.00	2,353	59.31	0.01	0.01	0.00	0.00
85.00	0.00	2,183	59.26	0.01	0.01	0.00	0.00
90.00	0.00	2,013	59.22	0.01	0.01	0.00	0.00
95.00	0.00	1,843	59.17	0.01	0.01	0.00	0.00
100.00	0.00	1,673	59.12	0.01	0.01	0.00	0.00
105.00	0.00	1,503	59.07	0.01	0.01	0.00	0.00
110.00	0.00	1,333	59.02	0.01	0.01	0.00	0.00
115.00	0.00	1,163	58.97	0.01	0.01	0.00	0.00
120.00	0.00	993	58.91	0.01	0.01	0.00	0.00
125.00	0.00	823	58.84	0.01	0.01	0.00	0.00
130.00	0.00	653	58.77	0.01	0.01	0.00	0.00
135.00	0.00	483	58.66	0.01	0.01	0.00	0.00
140.00	0.00	313	58.32	0.01	0.01	0.00	0.00
145.00	0.00	143	57.98	0.01	0.01	0.00	0.00
150.00	0.00	0	57.69	0.00	0.00	0.00	0.00
155.00	0.00	0	57.69	0.00	0.00	0.00	0.00
160.00	0.00	0	57.69	0.00	0.00	0.00	0.00
165.00	0.00	0	57.69	0.00	0.00	0.00	0.00
170.00	0.00	0	57.69	0.00	0.00	0.00	0.00
175.00	0.00	0	57.69	0.00	0.00	0.00	0.00
180.00	0.00	0	57.69	0.00	0.00	0.00	0.00
185.00	0.00	0	57.69	0.00	0.00	0.00	0.00
190.00	0.00	0	57.69	0.00	0.00	0.00	0.00
195.00	0.00	0	57.69	0.00	0.00	0.00	0.00
200.00	0.00	0	57.69	0.00	0.00	0.00	0.00
205.00	0.00	0	57.69	0.00	0.00	0.00	0.00
210.00	0.00	0	57.69	0.00	0.00	0.00	0.00
215.00	0.00	0	57.69	0.00	0.00	0.00	0.00
220.00	0.00	0	57.69	0.00	0.00	0.00	0.00
225.00	0.00	0	57.69	0.00	0.00	0.00	0.00
230.00	0.00	0	57.69	0.00	0.00	0.00	0.00
235.00	0.00	0	57.69	0.00	0.00	0.00	0.00
240.00	0.00	0	57.69	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 33P: Wet Swale

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
57.69	0.00	**0.00**	0.00	0.00
57.79	0.01	**0.01**	0.00	0.00
57.89	0.01	0.01	0.00	0.00
57.99	0.01	0.01	0.00	0.00
58.09	0.01	0.01	0.00	0.00
58.19	0.01	0.01	0.00	0.00
58.29	0.01	0.01	0.00	0.00
58.39	0.01	0.01	0.00	0.00
58.49	0.01	0.01	0.00	0.00
58.59	0.01	0.01	0.00	0.00
58.69	0.01	0.01	0.00	0.00
58.79	0.01	0.01	0.00	0.00
58.89	0.01	0.01	0.00	0.00
58.99	0.01	0.01	0.00	0.00
59.09	0.01	0.01	0.00	0.00
59.19	0.01	0.01	0.00	0.00
59.29	0.01	0.01	0.00	0.00
59.39	0.01	0.01	0.00	0.00
59.49	0.01	0.01	0.00	0.00
59.59	0.01	0.01	0.00	0.00
59.69	0.01	0.01	0.00	0.00
59.79	1.27	0.01	1.26	0.00
59.89	3.61	0.01	3.60	0.00
59.99	4.73	0.01	4.72	0.00
60.09	5.62	0.01	5.62	0.00
60.19	6.40	0.01	6.39	0.00
60.29	7.09	0.01	7.08	0.00
60.39	7.71	0.01	7.70	0.00
60.49	8.29	0.01	8.28	0.00
60.59	9.72	0.01	8.83	0.88
60.69	12.04	0.01	9.34	2.70
60.79	14.91	0.01	9.82	5.08
60.89	18.19	0.01	10.28	7.90
60.99	**21.84**	0.01	**10.72**	**11.11**

Stage-Area-Storage for Pond 33P: Wet Swale

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
57.69	1,511	0
57.74	1,511	25
57.79	1,511	50
57.84	1,511	75
57.89	1,511	100
57.94	1,511	125
57.99	1,511	150
58.04	1,511	175
58.09	1,511	199
58.14	1,511	224
58.19	1,511	249
58.24	1,511	274
58.29	1,511	299
58.34	1,511	324
58.39	1,511	349
58.44	1,511	374
58.49	1,511	399
58.54	1,511	424
58.59	1,511	449
58.64	1,511	474
58.69	1,511	499
58.74	1,989	591
58.79	2,225	696
58.84	2,460	813
58.89	2,695	942
58.94	2,931	1,083
58.99	3,166	1,235
59.04	3,294	1,397
59.09	3,394	1,565
59.14	3,495	1,737
59.19	3,596	1,914
59.24	3,697	2,096
59.29	3,797	2,284
59.34	3,898	2,476
59.39	3,999	2,674
59.44	4,100	2,876
59.49	4,200	3,084
59.54	4,301	3,296
59.59	4,402	3,514
59.64	4,503	3,736
59.69	4,603	3,964
59.74	4,704	4,197
59.79	4,805	4,434
59.84	4,906	4,677
59.89	5,006	4,925
59.94	5,107	5,178
59.99	5,208	5,436
60.04	5,303	5,698
60.09	5,396	5,966
60.14	5,489	6,238
60.19	5,583	6,515
60.24	5,676	6,796
60.29	5,769	7,082
60.34	5,862	7,373
60.39	5,956	7,669
60.44	6,049	7,969
60.49	6,142	8,274
60.54	6,236	8,583
60.59	6,329	8,897
60.64	6,422	9,216
60.69	6,516	9,539
60.74	6,609	9,867
60.79	6,702	10,200
60.84	6,795	10,538
60.89	6,889	10,880
60.94	6,982	11,227
60.99	**7,075**	**11,578**

Summary for Pond 35P: Track and Field-manifold

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 3.01" for 10-year event
Inflow = 11.52 cfs @ 12.10 hrs, Volume= 38,134 cf
Outflow = 9.51 cfs @ 12.20 hrs, Volume= 38,134 cf, Atten= 17%, Lag= 5.9 min
Discarded = 0.67 cfs @ 12.20 hrs, Volume= 9,404 cf
Primary = 8.84 cfs @ 12.20 hrs, Volume= 28,730 cf
Routed to Pond 8P : DIV-04

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 49.69' @ 12.20 hrs Surf.Area= 8,273 sf Storage= 3,941 cf

Plug-Flow detention time= 12.7 min calculated for 38,126 cf (100% of inflow)
Center-of-Mass det. time= 12.7 min (758.1 - 745.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	48.50'	4,898 cf	**7.00'W x 1,182.00'L x 2.25'H Field A** 18,608 cf Overall - 3,767 cf Embedded = 14,841 cf x 33.0% Voids
#2A	49.00'	2,832 cf	**ADS N-12 15"** x 118 Inside #1 Inside= 14.8"W x 14.8"H => 1.20 sf x 20.00'L = 24.0 cf Outside= 18.0"W x 18.0"H => 1.60 sf x 20.00'L = 31.9 cf 118 Chambers in 2 Rows
		7,730 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	48.50'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 48.40' Phase-In= 0.02'
#2	Primary	48.50'	**18.0" Round Culvert X 2.00** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 48.50' / 46.80' S= 0.0315 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf

Discarded OutFlow Max=0.67 cfs @ 12.20 hrs HW=49.69' (Free Discharge)
1=Exfiltration (Controls 0.67 cfs)

Primary OutFlow Max=8.83 cfs @ 12.20 hrs HW=49.69' TW=48.75' (Dynamic Tailwater)
2=Culvert (Inlet Controls 8.83 cfs @ 2.93 fps)

Pond 35P: Track and Field-manifold - Chamber Wizard Field A

Chamber Model = ADS N-12 15" (ADS N-12® Pipe)
Inside= 14.8"W x 14.8"H => 1.20 sf x 20.00'L = 24.0 cf
Outside= 18.0"W x 18.0"H => 1.60 sf x 20.00'L = 31.9 cf

18.0" Wide + 24.0" Spacing = 42.0" C-C Row Spacing

59 Chambers/Row x 20.00' Long = 1,180.00' Row Length +12.0" End Stone x 2 = 1,182.00' Base Length
2 Rows x 18.0" Wide + 24.0" Spacing x 1 + 12.0" Side Stone x 2 = 7.00' Base Width
6.0" Stone Base + 18.0" Chamber Height + 3.0" Stone Cover = 2.25' Field Height

118 Chambers x 24.0 cf = 2,832.0 cf Chamber Storage
118 Chambers x 31.9 cf = 3,767.1 cf Displacement

18,608.5 cf Field - 3,767.1 cf Chambers = 14,841.3 cf Stone x 33.0% Voids = 4,897.6 cf Stone Storage

Chamber Storage + Stone Storage = 7,729.6 cf = 0.177 af
Overall Storage Efficiency = 41.5%
Overall System Size = 1,182.00' x 7.00' x 2.25'

118 Chambers
689.2 cy Field
549.7 cy Stone

Hydrograph for Pond 35P: Track and Field-manifold

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	48.50	0.00	0.00	0.00
5.00	0.08	67	48.52	0.07	0.06	0.01
10.00	**0.32**	**389**	**48.64**	**0.30**	**0.13**	**0.17**
15.00	**0.27**	**433**	**48.66**	**0.29**	**0.13**	**0.16**
20.00	0.09	150	48.56	0.10	0.08	0.02
25.00	0.00	2	48.50	0.00	0.00	0.00
30.00	0.00	0	48.50	0.00	0.00	0.00
35.00	0.00	0	48.50	0.00	0.00	0.00
40.00	0.00	0	48.50	0.00	0.00	0.00
45.00	0.00	0	48.50	0.00	0.00	0.00
50.00	0.00	0	48.50	0.00	0.00	0.00
55.00	0.00	0	48.50	0.00	0.00	0.00
60.00	0.00	0	48.50	0.00	0.00	0.00
65.00	0.00	0	48.50	0.00	0.00	0.00
70.00	0.00	0	48.50	0.00	0.00	0.00
75.00	0.00	0	48.50	0.00	0.00	0.00
80.00	0.00	0	48.50	0.00	0.00	0.00
85.00	0.00	0	48.50	0.00	0.00	0.00
90.00	0.00	0	48.50	0.00	0.00	0.00
95.00	0.00	0	48.50	0.00	0.00	0.00
100.00	0.00	0	48.50	0.00	0.00	0.00
105.00	0.00	0	48.50	0.00	0.00	0.00
110.00	0.00	0	48.50	0.00	0.00	0.00
115.00	0.00	0	48.50	0.00	0.00	0.00
120.00	0.00	0	48.50	0.00	0.00	0.00
125.00	0.00	0	48.50	0.00	0.00	0.00
130.00	0.00	0	48.50	0.00	0.00	0.00
135.00	0.00	0	48.50	0.00	0.00	0.00
140.00	0.00	0	48.50	0.00	0.00	0.00
145.00	0.00	0	48.50	0.00	0.00	0.00
150.00	0.00	0	48.50	0.00	0.00	0.00
155.00	0.00	0	48.50	0.00	0.00	0.00
160.00	0.00	0	48.50	0.00	0.00	0.00
165.00	0.00	0	48.50	0.00	0.00	0.00
170.00	0.00	0	48.50	0.00	0.00	0.00
175.00	0.00	0	48.50	0.00	0.00	0.00
180.00	0.00	0	48.50	0.00	0.00	0.00
185.00	0.00	0	48.50	0.00	0.00	0.00
190.00	0.00	0	48.50	0.00	0.00	0.00
195.00	0.00	0	48.50	0.00	0.00	0.00
200.00	0.00	0	48.50	0.00	0.00	0.00
205.00	0.00	0	48.50	0.00	0.00	0.00
210.00	0.00	0	48.50	0.00	0.00	0.00
215.00	0.00	0	48.50	0.00	0.00	0.00
220.00	0.00	0	48.50	0.00	0.00	0.00
225.00	0.00	0	48.50	0.00	0.00	0.00
230.00	0.00	0	48.50	0.00	0.00	0.00
235.00	0.00	0	48.50	0.00	0.00	0.00
240.00	0.00	0	48.50	0.00	0.00	0.00

Stage-Discharge for Pond 35P: Track and Field-manifold

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
48.50	0.00	0.00	0.00
48.55	0.10	0.08	0.02
48.60	0.19	0.10	0.09
48.65	0.32	0.13	0.19
48.70	0.49	0.16	0.34
48.75	0.70	0.18	0.52
48.80	0.95	0.21	0.74
48.85	1.23	0.23	1.00
48.90	1.54	0.26	1.29
48.95	1.89	0.28	1.61
49.00	2.27	0.31	1.96
49.05	2.68	0.34	2.34
49.10	3.11	0.36	2.75
49.15	3.57	0.39	3.18
49.20	4.05	0.41	3.64
49.25	4.55	0.44	4.11
49.30	5.07	0.47	4.61
49.35	5.61	0.49	5.12
49.40	6.16	0.52	5.65
49.45	6.73	0.54	6.18
49.50	7.30	0.57	6.73
49.55	7.87	0.59	7.28
49.60	8.45	0.62	7.83
49.65	9.03	0.65	8.38
49.70	9.60	0.67	8.92
49.75	10.16	0.70	9.46
49.80	10.70	0.72	9.97
49.85	11.21	0.75	10.46
49.90	11.69	0.78	10.92
49.95	12.12	0.80	11.32
50.00	12.46	0.83	11.63
50.05	12.87	0.85	12.02
50.10	13.27	0.88	12.39
50.15	13.65	0.90	12.75
50.20	14.03	0.93	13.09
50.25	14.39	0.96	13.43
50.30	14.75	0.98	13.77
50.35	15.10	1.01	14.09
50.40	15.44	1.03	14.41
50.45	15.78	1.06	14.72
50.50	16.11	1.09	15.02
50.55	16.43	1.11	15.32
50.60	16.75	1.14	15.61
50.65	17.06	1.16	15.90
50.70	17.37	1.19	16.18
50.75	**17.67**	**1.22**	**16.45**

Stage-Area-Storage for Pond 35P: Track and Field-manifold

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
48.50	**8,273**	0
48.55	8,273	136
48.60	8,273	273
48.65	8,273	409
48.70	8,273	546
48.75	8,273	682
48.80	8,273	819
48.85	8,273	955
48.90	8,273	1,092
48.95	8,273	1,228
49.00	8,273	1,365
49.05	8,273	1,489
49.10	8,273	1,602
49.15	8,273	1,718
49.20	8,273	1,874
49.25	8,273	2,049
49.30	8,273	2,238
49.35	8,273	2,437
49.40	8,273	2,644
49.45	8,273	2,857
49.50	8,273	3,075
49.55	8,273	3,297
49.60	8,273	3,522
49.65	8,273	3,749
49.70	8,273	3,978
49.75	8,273	4,207
49.80	8,273	4,437
49.85	8,273	4,666
49.90	8,273	4,893
49.95	8,273	5,118
50.00	8,273	5,340
50.05	8,273	5,558
50.10	8,273	5,771
50.15	8,273	5,977
50.20	8,273	6,176
50.25	8,273	6,365
50.30	8,273	6,540
50.35	8,273	6,695
50.40	8,273	6,811
50.45	8,273	6,925
50.50	8,273	7,049
50.55	8,273	7,185
50.60	8,273	7,322
50.65	8,273	7,458
50.70	8,273	7,595
50.75	8,273	**7,730**

Summary for Link 2L: DP 1.1 - Culvert 1

Inflow Area = 475,005 sf, 1.72% Impervious, Inflow Depth = 2.54" for 10-year event
Inflow = 21.30 cfs @ 12.30 hrs, Volume= 100,525 cf
Primary = 21.30 cfs @ 12.30 hrs, Volume= 100,525 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 3L : DP 1.2 - Culvert 2

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 2L: DP 1.1 - Culvert 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	**0.37**	0.00	**0.37**	137.50	0.00	0.00	0.00
12.50	**15.63**	0.00	**15.63**	140.00	0.00	0.00	0.00
15.00	1.75	0.00	1.75	142.50	0.00	0.00	0.00
17.50	0.88	0.00	0.88	145.00	0.00	0.00	0.00
20.00	0.60	0.00	0.60	147.50	0.00	0.00	0.00
22.50	0.47	0.00	0.47	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 3L: DP 1.2 - Culvert 2

Inflow Area = 536,345 sf, 2.91% Impervious, Inflow Depth = 2.58" for 10-year event
Inflow = 23.04 cfs @ 12.29 hrs, Volume= 115,134 cf
Primary = 23.04 cfs @ 12.29 hrs, Volume= 115,134 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 4L : DP 1.3 - Culvert 3

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 3L: DP 1.2 - Culvert 2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	**0.45**	0.00	**0.45**	137.50	0.00	0.00	0.00
12.50	**16.86**	0.00	**16.86**	140.00	0.00	0.00	0.00
15.00	2.20	0.00	2.20	142.50	0.00	0.00	0.00
17.50	1.00	0.00	1.00	145.00	0.00	0.00	0.00
20.00	0.68	0.00	0.68	147.50	0.00	0.00	0.00
22.50	0.53	0.00	0.53	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 4L: DP 1.3 - Culvert 3

Inflow Area = 562,190 sf, 3.45% Impervious, Inflow Depth = 2.59" for 10-year event
Inflow = 23.98 cfs @ 12.29 hrs, Volume= 121,177 cf
Primary = 23.98 cfs @ 12.29 hrs, Volume= 121,177 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

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Hydrograph for Link 4L: DP 1.3 - Culvert 3

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	**0.49**	0.00	**0.49**	137.50	0.00	0.00	0.00
12.50	**17.36**	0.00	**17.36**	140.00	0.00	0.00	0.00
15.00	2.30	0.00	2.30	142.50	0.00	0.00	0.00
17.50	1.04	0.00	1.04	145.00	0.00	0.00	0.00
20.00	0.71	0.00	0.71	147.50	0.00	0.00	0.00
22.50	0.56	0.00	0.56	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 5L: DP 1.4 - Silver Creek East Branch

Inflow Area = 1,084,691 sf, 28.21% Impervious, Inflow Depth = 2.74" for 10-year event
Inflow = 50.66 cfs @ 12.16 hrs, Volume= 247,294 cf
Primary = 50.66 cfs @ 12.16 hrs, Volume= 247,294 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 5L: DP 1.4 - Silver Creek East Branch

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00
2.50	0.01	0.00	0.01
5.00	0.01	0.00	0.01
7.50	0.08	0.00	0.08
10.00	**0.81**	0.00	**0.81**
12.50	**29.65**	0.00	**29.65**
15.00	4.38	0.00	4.38
17.50	2.02	0.00	2.02
20.00	1.33	0.00	1.33
22.50	1.03	0.00	1.03
25.00	0.13	0.00	0.13
27.50	0.12	0.00	0.12
30.00	0.11	0.00	0.11
32.50	0.10	0.00	0.10
35.00	0.10	0.00	0.10
37.50	0.09	0.00	0.09
40.00	0.09	0.00	0.09
42.50	0.08	0.00	0.08
45.00	0.06	0.00	0.06
47.50	0.02	0.00	0.02
50.00	0.02	0.00	0.02
52.50	0.01	0.00	0.01
55.00	0.00	0.00	0.00
57.50	0.00	0.00	0.00
60.00	0.00	0.00	0.00
62.50	0.00	0.00	0.00
65.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00
70.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00
75.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00
80.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00
85.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00
90.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00
95.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00
100.00	0.00	0.00	0.00
102.50	0.00	0.00	0.00
105.00	0.00	0.00	0.00
107.50	0.00	0.00	0.00
110.00	0.00	0.00	0.00
112.50	0.00	0.00	0.00
115.00	0.00	0.00	0.00
117.50	0.00	0.00	0.00
120.00	0.00	0.00	0.00
122.50	0.00	0.00	0.00
125.00	0.00	0.00	0.00
127.50	0.00	0.00	0.00
130.00	0.00	0.00	0.00
132.50	0.00	0.00	0.00
135.00	0.00	0.00	0.00
137.50	0.00	0.00	0.00
140.00	0.00	0.00	0.00
142.50	0.00	0.00	0.00
145.00	0.00	0.00	0.00
147.50	0.00	0.00	0.00
150.00	0.00	0.00	0.00
152.50	0.00	0.00	0.00
155.00	0.00	0.00	0.00
157.50	0.00	0.00	0.00
160.00	0.00	0.00	0.00
162.50	0.00	0.00	0.00
165.00	0.00	0.00	0.00
167.50	0.00	0.00	0.00
170.00	0.00	0.00	0.00
172.50	0.00	0.00	0.00
175.00	0.00	0.00	0.00
177.50	0.00	0.00	0.00
180.00	0.00	0.00	0.00
182.50	0.00	0.00	0.00
185.00	0.00	0.00	0.00
187.50	0.00	0.00	0.00
190.00	0.00	0.00	0.00
192.50	0.00	0.00	0.00
195.00	0.00	0.00	0.00
197.50	0.00	0.00	0.00
200.00	0.00	0.00	0.00
202.50	0.00	0.00	0.00
205.00	0.00	0.00	0.00
207.50	0.00	0.00	0.00
210.00	0.00	0.00	0.00
212.50	0.00	0.00	0.00
215.00	0.00	0.00	0.00
217.50	0.00	0.00	0.00
220.00	0.00	0.00	0.00
222.50	0.00	0.00	0.00
225.00	0.00	0.00	0.00
227.50	0.00	0.00	0.00
230.00	0.00	0.00	0.00
232.50	0.00	0.00	0.00
235.00	0.00	0.00	0.00
237.50	0.00	0.00	0.00
240.00	0.00	0.00	0.00

Summary for Link 6L: DP 2.1 - West Wetland

Inflow Area = 835,379 sf, 33.92% Impervious, Inflow Depth = 2.26" for 10-year event
Inflow = 20.15 cfs @ 12.50 hrs, Volume= 157,573 cf
Primary = 20.15 cfs @ 12.50 hrs, Volume= 157,573 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 7L : DP 2.2 - Silver Creek West Branch

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 6L: DP 2.1 - West Wetland

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	0.01	0.00	0.01	137.50	0.00	0.00	0.00
12.50	**20.15**	0.00	**20.15**	140.00	0.00	0.00	0.00
15.00	3.65	0.00	3.65	142.50	0.00	0.00	0.00
17.50	1.62	0.00	1.62	145.00	0.00	0.00	0.00
20.00	1.00	0.00	1.00	147.50	0.00	0.00	0.00
22.50	0.80	0.00	0.80	150.00	0.00	0.00	0.00
25.00	0.48	0.00	0.48	152.50	0.00	0.00	0.00
27.50	0.28	0.00	0.28	155.00	0.00	0.00	0.00
30.00	0.14	0.00	0.14	157.50	0.00	0.00	0.00
32.50	0.07	0.00	0.07	160.00	0.00	0.00	0.00
35.00	0.04	0.00	0.04	162.50	0.00	0.00	0.00
37.50	0.03	0.00	0.03	165.00	0.00	0.00	0.00
40.00	0.02	0.00	0.02	167.50	0.00	0.00	0.00
42.50	0.01	0.00	0.01	170.00	0.00	0.00	0.00
45.00	0.01	0.00	0.01	172.50	0.00	0.00	0.00
47.50	0.01	0.00	0.01	175.00	0.00	0.00	0.00
50.00	0.01	0.00	0.01	177.50	0.00	0.00	0.00
52.50	0.01	0.00	0.01	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 7L: DP 2.2 - Silver Creek West Branch

Inflow Area = 991,430 sf, 32.70% Impervious, Inflow Depth = 2.35" for 10-year event
Inflow = 24.67 cfs @ 12.44 hrs, Volume= 194,060 cf
Primary = 24.67 cfs @ 12.44 hrs, Volume= 194,060 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 7L: DP 2.2 - Silver Creek West Branch

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00
2.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00
10.00	**0.22**	0.00	**0.22**
12.50	**24.26**	0.00	**24.26**
15.00	4.24	0.00	4.24
17.50	1.92	0.00	1.92
20.00	1.20	0.00	1.20
22.50	0.96	0.00	0.96
25.00	0.48	0.00	0.48
27.50	0.28	0.00	0.28
30.00	0.14	0.00	0.14
32.50	0.07	0.00	0.07
35.00	0.04	0.00	0.04
37.50	0.03	0.00	0.03
40.00	0.02	0.00	0.02
42.50	0.01	0.00	0.01
45.00	0.01	0.00	0.01
47.50	0.01	0.00	0.01
50.00	0.01	0.00	0.01
52.50	0.01	0.00	0.01
55.00	0.00	0.00	0.00
57.50	0.00	0.00	0.00
60.00	0.00	0.00	0.00
62.50	0.00	0.00	0.00
65.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00
70.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00
75.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00
80.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00
85.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00
90.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00
95.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00
100.00	0.00	0.00	0.00
102.50	0.00	0.00	0.00
105.00	0.00	0.00	0.00
107.50	0.00	0.00	0.00
110.00	0.00	0.00	0.00
112.50	0.00	0.00	0.00
115.00	0.00	0.00	0.00
117.50	0.00	0.00	0.00
120.00	0.00	0.00	0.00
122.50	0.00	0.00	0.00
125.00	0.00	0.00	0.00
127.50	0.00	0.00	0.00
130.00	0.00	0.00	0.00
132.50	0.00	0.00	0.00
135.00	0.00	0.00	0.00
137.50	0.00	0.00	0.00
140.00	0.00	0.00	0.00
142.50	0.00	0.00	0.00
145.00	0.00	0.00	0.00
147.50	0.00	0.00	0.00
150.00	0.00	0.00	0.00
152.50	0.00	0.00	0.00
155.00	0.00	0.00	0.00
157.50	0.00	0.00	0.00
160.00	0.00	0.00	0.00
162.50	0.00	0.00	0.00
165.00	0.00	0.00	0.00
167.50	0.00	0.00	0.00
170.00	0.00	0.00	0.00
172.50	0.00	0.00	0.00
175.00	0.00	0.00	0.00
177.50	0.00	0.00	0.00
180.00	0.00	0.00	0.00
182.50	0.00	0.00	0.00
185.00	0.00	0.00	0.00
187.50	0.00	0.00	0.00
190.00	0.00	0.00	0.00
192.50	0.00	0.00	0.00
195.00	0.00	0.00	0.00
197.50	0.00	0.00	0.00
200.00	0.00	0.00	0.00
202.50	0.00	0.00	0.00
205.00	0.00	0.00	0.00
207.50	0.00	0.00	0.00
210.00	0.00	0.00	0.00
212.50	0.00	0.00	0.00
215.00	0.00	0.00	0.00
217.50	0.00	0.00	0.00
220.00	0.00	0.00	0.00
222.50	0.00	0.00	0.00
225.00	0.00	0.00	0.00
227.50	0.00	0.00	0.00
230.00	0.00	0.00	0.00
232.50	0.00	0.00	0.00
235.00	0.00	0.00	0.00
237.50	0.00	0.00	0.00
240.00	0.00	0.00	0.00

Time span=0.00-240.00 hrs, dt=0.05 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PDA-1.1A: Subcat PDA-1.1A Runoff Area=475,005 sf 1.72% Impervious Runoff Depth=3.57"
Flow Length=451' Slope=0.0100 '/' Tc=21.1 min CN=77 Runoff=29.98 cfs 141,177 cf

Subcatchment PDA-1.1B: Subcat PDA-1.1B Runoff Area=30,333 sf 0.05% Impervious Runoff Depth=3.67"
Flow Length=126' Tc=13.1 min CN=78 Runoff=2.36 cfs 9,270 cf

Subcatchment PDA-1.2A: Subcat PDA-1.2A Runoff Area=25,845 sf 14.60% Impervious Runoff Depth=3.87"
Flow Length=73' Tc=7.3 min UI Adjusted CN=80 Runoff=2.53 cfs 8,339 cf

Subcatchment PDA-1.3A: Subcat PDA-1.3A Runoff Area=57,295 sf 71.89% Impervious Runoff Depth=5.17"
Flow Length=198' Slope=0.0100 '/' Tc=6.5 min CN=92 Runoff=7.21 cfs 24,674 cf

Subcatchment PDA-1.3C: Subcat PDA-1.3C Runoff Area=16,850 sf 41.68% Impervious Runoff Depth=4.29"
Flow Length=49' Tc=6.8 min CN=84 Runoff=1.84 cfs 6,024 cf

Subcatchment PDA-1.3D: Subcat PDA-1.3D Runoff Area=6,850 sf 45.03% Impervious Runoff Depth=4.40"
Tc=6.0 min CN=85 Runoff=0.78 cfs 2,510 cf

Subcatchment PDA-1.4A: Subcat PDA-1.4A Runoff Area=31,007 sf 23.95% Impervious Runoff Depth=4.18"
Flow Length=144' Tc=13.4 min CN=83 Runoff=2.70 cfs 10,812 cf

Subcatchment PDA-1.4B: Subcat PDA-1.4B Runoff Area=53,181 sf 37.23% Impervious Runoff Depth=4.40"
Flow Length=98' Tc=13.9 min CN=85 Runoff=4.79 cfs 19,486 cf

Subcatchment PDA-1.4C: Subcat PDA-1.4C Runoff Area=26,810 sf 63.81% Impervious Runoff Depth=4.83"
Tc=6.0 min CN=89 Runoff=3.27 cfs 10,796 cf

Subcatchment PDA-1.4D: Subcat PDA-1.4D Runoff Area=42,514 sf 59.10% Impervious Runoff Depth=4.83"
Tc=6.0 min CN=89 Runoff=5.18 cfs 17,120 cf

Subcatchment PDA-1.4E: Subcat PDA-1.4E Runoff Area=39,245 sf 62.30% Impervious Runoff Depth=4.83"
Tc=6.0 min CN=89 Runoff=4.78 cfs 15,804 cf

Subcatchment PDA-1.4F: Subcat PDA-1.4F Runoff Area=73,858 sf 54.96% Impervious Runoff Depth=4.61"
Flow Length=346' Tc=14.5 min CN=87 Runoff=6.82 cfs 28,392 cf

Subcatchment PDA-1.4G: Subcat PDA-1.4G Runoff Area=22,284 sf 61.76% Impervious Runoff Depth=4.83"
Tc=6.0 min CN=89 Runoff=2.72 cfs 8,974 cf

Subcatchment PDA-1.4H: Subcat PDA-1.4H Runoff Area=10,744 sf 5.59% Impervious Runoff Depth=3.37"
Tc=6.0 min CN=75 Runoff=0.95 cfs 3,015 cf

Subcatchment PDA-1.4I: Subcat PDA-1.4I Runoff Area=9,824 sf 27.06% Impervious Runoff Depth=3.97"
Tc=6.0 min CN=81 Runoff=1.02 cfs 3,254 cf

Subcatchment PDA-1.4J: Subcat PDA-1.4J Runoff Area=59,466 sf 8.43% Impervious Runoff Depth=3.77"
Tc=6.0 min CN=79 Runoff=5.89 cfs 18,678 cf

Subcatchment PDA-1.4K: Subcat PDA-1.4K Runoff Area=18,876 sf 80.13% Impervious Runoff Depth=5.28"
Tc=6.0 min CN=93 Runoff=2.43 cfs 8,308 cf

Subcatchment PDA-1.4L: Subcat PDA-1.4L Runoff Area=11,978 sf 24.28% Impervious Runoff Depth=3.87"
Flow Length=75' Tc=8.5 min CN=80 Runoff=1.13 cfs 3,864 cf

Subcatchment PDA-1.4M: Subcat PDA-1.4M Runoff Area=4,734 sf 4.20% Impervious Runoff Depth=3.37"
Flow Length=166' Slope=0.0100 '/' Tc=14.3 min CN=75 Runoff=0.33 cfs 1,329 cf

Subcatchment PDA-2.1A: Subcat Runoff Area=348,138 sf 26.08% Impervious Runoff Depth=3.97"
Flow Length=269' Tc=16.3 min CN=81 Runoff=27.09 cfs 115,320 cf

Subcatchment PDA-2.1B: Subcat PDA-2.1B Runoff Area=151,957 sf 4.77% Impervious Runoff Depth=3.47"
Flow Length=123' Tc=17.0 min CN=76 Runoff=10.16 cfs 43,897 cf

Subcatchment PDA-2.2A: Subcat Runoff Area=156,051 sf 26.13% Impervious Runoff Depth=3.87"
Tc=12.9 min CN=80 Runoff=12.83 cfs 50,347 cf

Subcatchment PDA-2.2B: Subcat PDA-2.2B Runoff Area=152,340 sf 1.56% Impervious Runoff Depth=3.08"
Flow Length=565' Slope=0.0120 '/' Tc=40.0 min CN=72 Runoff=6.18 cfs 39,040 cf

Subcatchment PDA-2.2C.a: Subcat Runoff Area=90,671 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=12.15 cfs 44,291 cf

Subcatchment PDA-2.2C.b: Subcat Runoff Area=61,186 sf 99.99% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=8.20 cfs 29,888 cf

Subcatchment PDA-ROOF1.3: Subcat Runoff Area=9,782 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=1.31 cfs 4,778 cf

Subcatchment PDA-ROOF1.4: Subcat Runoff Area=58,210 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=7.80 cfs 28,434 cf

Subcatchment PDA-ROOF2.1: Subcat Runoff Area=31,087 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=4.17 cfs 15,185 cf

Pond 1P: Bio 4 Peak Elev=60.42' Storage=1,269 cf Inflow=1.84 cfs 6,024 cf
Discarded=0.01 cfs 1,506 cf Primary=1.70 cfs 4,518 cf Outflow=1.71 cfs 6,024 cf

Pond 2P: Bio 3 Peak Elev=59.81' Storage=1,156 cf Inflow=2.09 cfs 7,288 cf
Primary=2.07 cfs 4,769 cf Tertiary=0.02 cfs 2,519 cf Outflow=2.09 cfs 7,288 cf

Pond 3P: DIV-02 Peak Elev=57.60' Inflow=5.64 cfs 23,654 cf
Primary=1.40 cfs 16,523 cf Secondary=4.23 cfs 7,131 cf Outflow=5.64 cfs 23,654 cf

Pond 4P: Detention Basin 2 Peak Elev=58.45' Storage=8,743 cf Inflow=6.12 cfs 22,733 cf
Primary=3.94 cfs 22,729 cf Secondary=0.00 cfs 0 cf Outflow=3.94 cfs 22,729 cf

Pond 7P: Bio 2 Peak Elev=56.60' Storage=2,316 cf Inflow=3.27 cfs 10,796 cf
Primary=3.02 cfs 6,935 cf Secondary=0.00 cfs 0 cf Tertiary=0.03 cfs 3,861 cf Outflow=3.05 cfs 10,796 cf

Pond 8P: DIV-04 Peak Elev=48.94' Inflow=10.79 cfs 39,057 cf
Primary=4.97 cfs 18,058 cf Secondary=7.74 cfs 20,998 cf Outflow=10.79 cfs 39,057 cf

Pond 9P: Sand Filter 5 Peak Elev=49.99' Storage=1,640 cf Inflow=2.67 cfs 9,636 cf
Discarded=0.01 cfs 1,816 cf Primary=2.37 cfs 7,820 cf Secondary=0.00 cfs 0 cf Outflow=2.38 cfs 9,636 cf

Pond 10P: Bio 1 Peak Elev=44.58' Storage=1,891 cf Inflow=1.48 cfs 13,193 cf
Discarded=0.01 cfs 2,160 cf Primary=1.34 cfs 11,032 cf Secondary=0.00 cfs 0 cf Outflow=1.34 cfs 13,193 cf

Pond 12P: Infiltration Basin 1 Peak Elev=58.20' Storage=6,898 cf Inflow=8.82 cfs 31,688 cf
Discarded=0.08 cfs 9,801 cf Primary=7.95 cfs 21,887 cf Secondary=0.00 cfs 0 cf Outflow=8.03 cfs 31,688 cf

Pond 13P: Sand Filter 1 Peak Elev=47.52' Storage=17,607 cf Inflow=2.87 cfs 41,129 cf
Discarded=0.03 cfs 12,813 cf Primary=0.78 cfs 28,316 cf Secondary=0.00 cfs 0 cf Outflow=0.81 cfs 41,129 cf

Pond 14P: DIV-03 Peak Elev=45.35' Inflow=5.18 cfs 17,120 cf
Primary=1.48 cfs 13,193 cf Secondary=3.70 cfs 3,928 cf Outflow=5.18 cfs 17,120 cf

Pond 15P: Detention Basin 1 Peak Elev=47.25' Storage=51,322 cf Inflow=37.25 cfs 161,590 cf
Primary=15.31 cfs 161,107 cf Secondary=0.63 cfs 418 cf Tertiary=0.00 cfs 0 cf Outflow=15.94 cfs 161,526 cf

Pond 17P: Track and Field- stone base Peak Elev=50.71' Storage=6,315 cf Inflow=12.15 cfs 44,291 cf
Discarded=0.62 cfs 24,299 cf Primary=6.69 cfs 19,992 cf Outflow=7.31 cfs 44,291 cf

Pond 18P: Sand Filter 2 Peak Elev=55.48' Storage=5,430 cf Inflow=5.83 cfs 32,327 cf
Discarded=0.01 cfs 5,139 cf Primary=4.62 cfs 27,188 cf Secondary=0.00 cfs 0 cf Outflow=4.63 cfs 32,327 cf

Pond 19P: Sand Filter 3 Peak Elev=60.72' Storage=4,197 cf Inflow=2.72 cfs 8,974 cf
Discarded=0.01 cfs 4,806 cf Primary=1.30 cfs 4,168 cf Secondary=0.00 cfs 0 cf Outflow=1.31 cfs 8,974 cf

Pond 20P: Sand Filter 4 Peak Elev=61.58' Storage=2,437 cf Inflow=2.70 cfs 10,812 cf
Outflow=1.84 cfs 10,812 cf

Pond 23P: UGIS-1 Peak Elev=48.84' Storage=11,524 cf Inflow=4.97 cfs 18,058 cf
Discarded=0.08 cfs 13,090 cf Primary=1.81 cfs 4,968 cf Outflow=1.89 cfs 18,058 cf

Pond 28P: DIV-01 Peak Elev=48.58' Inflow=29.27 cfs 130,505 cf
Primary=2.87 cfs 41,129 cf Secondary=26.41 cfs 89,376 cf Outflow=29.27 cfs 130,505 cf

Pond 33P: Wet Swale Peak Elev=60.06' Storage=5,815 cf Inflow=7.21 cfs 24,674 cf
Discarded=0.01 cfs 4,956 cf Primary=5.38 cfs 19,718 cf Secondary=0.00 cfs 0 cf Outflow=5.39 cfs 24,674 cf

Pond 35P: Track and Field-manifold Peak Elev=49.88' Storage=4,825 cf Inflow=14.09 cfs 49,880 cf
Discarded=0.77 cfs 10,824 cf Primary=10.79 cfs 39,057 cf Outflow=11.55 cfs 49,880 cf

Link 2L: DP 1.1 - Culvert 1 Inflow=29.98 cfs 141,177 cf
Primary=29.98 cfs 141,177 cf

Link 3L: DP 1.2 - Culvert 2 Inflow=33.24 cfs 161,259 cf
Primary=33.24 cfs 161,259 cf

Link 4L: DP 1.3 - Culvert 3 Inflow=34.45 cfs 169,598 cf
Primary=34.45 cfs 169,598 cf

Link 5L: DP 1.4 - Silver Creek East Branch Inflow=69.28 cfs 344,849 cf
Primary=69.28 cfs 344,849 cf

Link 6L: DP 2.1 - West Wetland Inflow=29.10 cfs 226,532 cf
Primary=29.10 cfs 226,532 cf

Link 7L: DP 2.2 - Silver Creek West Branch Inflow=35.88 cfs 276,880 cf
Primary=35.88 cfs 276,880 cf

Total Runoff Area = 2,076,121 sf Runoff Volume = 713,006 cf Average Runoff Depth = 4.12"
69.65% Pervious = 1,445,943 sf 30.35% Impervious = 630,178 sf

Time span=0.00-240.00 hrs, dt=0.05 hrs, 4801 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PDA-1.1A: Subcat PDA-1.1A Runoff Area=475,005 sf 1.72% Impervious Runoff Depth=5.83"
Flow Length=451' Slope=0.0100 '/' Tc=21.1 min CN=77 Runoff=48.60 cfs 230,673 cf

Subcatchment PDA-1.1B: Subcat PDA-1.1B Runoff Area=30,333 sf 0.05% Impervious Runoff Depth=5.95"
Flow Length=126' Tc=13.1 min CN=78 Runoff=3.78 cfs 15,036 cf

Subcatchment PDA-1.2A: Subcat PDA-1.2A Runoff Area=25,845 sf 14.60% Impervious Runoff Depth=6.19"
Flow Length=73' Tc=7.3 min UI Adjusted CN=80 Runoff=3.99 cfs 13,331 cf

Subcatchment PDA-1.3A: Subcat PDA-1.3A Runoff Area=57,295 sf 71.89% Impervious Runoff Depth=7.64"
Flow Length=198' Slope=0.0100 '/' Tc=6.5 min CN=92 Runoff=10.42 cfs 36,468 cf

Subcatchment PDA-1.3C: Subcat PDA-1.3C Runoff Area=16,850 sf 41.68% Impervious Runoff Depth=6.67"
Flow Length=49' Tc=6.8 min CN=84 Runoff=2.80 cfs 9,370 cf

Subcatchment PDA-1.3D: Subcat PDA-1.3D Runoff Area=6,850 sf 45.03% Impervious Runoff Depth=6.79"
Tc=6.0 min CN=85 Runoff=1.17 cfs 3,878 cf

Subcatchment PDA-1.4A: Subcat PDA-1.4A Runoff Area=31,007 sf 23.95% Impervious Runoff Depth=6.55"
Flow Length=144' Tc=13.4 min CN=83 Runoff=4.16 cfs 16,930 cf

Subcatchment PDA-1.4B: Subcat PDA-1.4B Runoff Area=53,181 sf 37.23% Impervious Runoff Depth=6.79"
Flow Length=98' Tc=13.9 min CN=85 Runoff=7.25 cfs 30,106 cf

Subcatchment PDA-1.4C: Subcat PDA-1.4C Runoff Area=26,810 sf 63.81% Impervious Runoff Depth=7.28"
Tc=6.0 min CN=89 Runoff=4.81 cfs 16,256 cf

Subcatchment PDA-1.4D: Subcat PDA-1.4D Runoff Area=42,514 sf 59.10% Impervious Runoff Depth=7.28"
Tc=6.0 min CN=89 Runoff=7.62 cfs 25,778 cf

Subcatchment PDA-1.4E: Subcat PDA-1.4E Runoff Area=39,245 sf 62.30% Impervious Runoff Depth=7.28"
Tc=6.0 min CN=89 Runoff=7.04 cfs 23,796 cf

Subcatchment PDA-1.4F: Subcat PDA-1.4F Runoff Area=73,858 sf 54.96% Impervious Runoff Depth=7.03"
Flow Length=346' Tc=14.5 min CN=87 Runoff=10.18 cfs 43,298 cf

Subcatchment PDA-1.4G: Subcat PDA-1.4G Runoff Area=22,284 sf 61.76% Impervious Runoff Depth=7.28"
Tc=6.0 min CN=89 Runoff=4.00 cfs 13,512 cf

Subcatchment PDA-1.4H: Subcat PDA-1.4H Runoff Area=10,744 sf 5.59% Impervious Runoff Depth=5.59"
Tc=6.0 min CN=75 Runoff=1.57 cfs 5,001 cf

Subcatchment PDA-1.4I: Subcat PDA-1.4I Runoff Area=9,824 sf 27.06% Impervious Runoff Depth=6.31"
Tc=6.0 min CN=81 Runoff=1.59 cfs 5,166 cf

Subcatchment PDA-1.4J: Subcat PDA-1.4J Runoff Area=59,466 sf 8.43% Impervious Runoff Depth=6.07"
Tc=6.0 min CN=79 Runoff=9.35 cfs 30,074 cf

Subcatchment PDA-1.4K: Subcat PDA-1.4K Runoff Area=18,876 sf 80.13% Impervious Runoff Depth=7.76"
Tc=6.0 min CN=93 Runoff=3.50 cfs 12,204 cf

Subcatchment PDA-1.4L: Subcat PDA-1.4L Runoff Area=11,978 sf 24.28% Impervious Runoff Depth=6.19"
Flow Length=75' Tc=8.5 min CN=80 Runoff=1.77 cfs 6,178 cf

Subcatchment PDA-1.4M: Subcat PDA-1.4M Runoff Area=4,734 sf 4.20% Impervious Runoff Depth=5.59"
Flow Length=166' Slope=0.0100 '/' Tc=14.3 min CN=75 Runoff=0.54 cfs 2,204 cf

Subcatchment PDA-2.1A: Subcat Runoff Area=348,138 sf 26.08% Impervious Runoff Depth=6.31"
Flow Length=269' Tc=16.3 min CN=81 Runoff=42.39 cfs 183,073 cf

Subcatchment PDA-2.1B: Subcat PDA-2.1B Runoff Area=151,957 sf 4.77% Impervious Runoff Depth=5.71"
Flow Length=123' Tc=17.0 min CN=76 Runoff=16.62 cfs 72,266 cf

Subcatchment PDA-2.2A: Subcat Runoff Area=156,051 sf 26.13% Impervious Runoff Depth=6.19"
Tc=12.9 min CN=80 Runoff=20.34 cfs 80,492 cf

Subcatchment PDA-2.2B: Subcat PDA-2.2B Runoff Area=152,340 sf 1.56% Impervious Runoff Depth=5.22"
Flow Length=565' Slope=0.0120 '/' Tc=40.0 min CN=72 Runoff=10.53 cfs 66,328 cf

Subcatchment PDA-2.2C.a: Subcat Runoff Area=90,671 sf 100.00% Impervious Runoff Depth=8.36"
Tc=6.0 min CN=98 Runoff=17.17 cfs 63,166 cf

Subcatchment PDA-2.2C.b: Subcat Runoff Area=61,186 sf 99.99% Impervious Runoff Depth=8.36"
Tc=6.0 min CN=98 Runoff=11.58 cfs 42,625 cf

Subcatchment PDA-ROOF1.3: Subcat Runoff Area=9,782 sf 100.00% Impervious Runoff Depth=8.36"
Tc=6.0 min CN=98 Runoff=1.85 cfs 6,815 cf

Subcatchment PDA-ROOF1.4: Subcat Runoff Area=58,210 sf 100.00% Impervious Runoff Depth=8.36"
Tc=6.0 min CN=98 Runoff=11.02 cfs 40,552 cf

Subcatchment PDA-ROOF2.1: Subcat Runoff Area=31,087 sf 100.00% Impervious Runoff Depth=8.36"
Tc=6.0 min CN=98 Runoff=5.89 cfs 21,657 cf

Pond 1P: Bio 4 Peak Elev=60.57' Storage=1,420 cf Inflow=2.80 cfs 9,370 cf
Discarded=0.01 cfs 1,537 cf Primary=2.48 cfs 7,833 cf Outflow=2.49 cfs 9,370 cf

Pond 2P: Bio 3 Peak Elev=59.84' Storage=1,190 cf Inflow=3.03 cfs 10,693 cf
Primary=2.94 cfs 8,092 cf Tertiary=0.02 cfs 2,601 cf Outflow=2.96 cfs 10,693 cf

Pond 3P: DIV-02 Peak Elev=59.39' Inflow=9.81 cfs 38,749 cf
Primary=2.26 cfs 23,999 cf Secondary=7.55 cfs 14,750 cf Outflow=9.81 cfs 38,749 cf

Pond 4P: Detention Basin 2 Peak Elev=58.67' Storage=9,716 cf Inflow=8.27 cfs 36,480 cf
Primary=7.65 cfs 36,477 cf Secondary=0.00 cfs 0 cf Outflow=7.65 cfs 36,477 cf

Pond 7P: Bio 2 Peak Elev=56.70' Storage=2,540 cf Inflow=4.81 cfs 16,256 cf
Primary=4.29 cfs 12,249 cf Secondary=0.00 cfs 0 cf Tertiary=0.03 cfs 4,007 cf Outflow=4.31 cfs 16,256 cf

Pond 8P: DIV-04 Peak Elev=49.11' Inflow=14.35 cfs 62,243 cf
Primary=3.11 cfs 23,765 cf Secondary=11.57 cfs 38,479 cf Outflow=14.35 cfs 62,243 cf

Pond 9P: Sand Filter 5 Peak Elev=50.21' Storage=1,913 cf Inflow=3.90 cfs 14,408 cf
Discarded=0.01 cfs 1,843 cf Primary=3.27 cfs 12,558 cf Secondary=0.04 cfs 8 cf Outflow=3.32 cfs 14,408 cf

Pond 10P: Bio 1 Peak Elev=44.63' Storage=2,031 cf Inflow=2.08 cfs 18,713 cf
Discarded=0.01 cfs 2,193 cf Primary=1.72 cfs 16,520 cf Secondary=0.00 cfs 0 cf Outflow=1.73 cfs 18,713 cf

Pond 12P: Infiltration Basin 1 Peak Elev=58.36' Storage=7,424 cf Inflow=12.61 cfs 45,718 cf
Discarded=0.08 cfs 10,099 cf Primary=11.52 cfs 35,619 cf Secondary=0.00 cfs 0 cf Outflow=11.60 cfs 45,718 cf

Pond 13P: Sand Filter 1 Peak Elev=47.99' Storage=22,101 cf Inflow=3.94 cfs 46,057 cf
Discarded=0.03 cfs 12,913 cf Primary=0.94 cfs 33,216 cf Secondary=0.00 cfs 0 cf Outflow=0.97 cfs 46,057 cf

Pond 14P: DIV-03 Peak Elev=46.13' Inflow=7.62 cfs 25,778 cf
Primary=2.08 cfs 18,713 cf Secondary=5.55 cfs 7,066 cf Outflow=7.62 cfs 25,778 cf

Pond 15P: Detention Basin 1 Peak Elev=48.08' Storage=68,535 cf Inflow=58.46 cfs 264,155 cf
Primary=20.96 cfs 236,727 cf Secondary=17.04 cfs 27,364 cf Tertiary=0.00 cfs 0 cf Outflow=38.00 cfs 264,091 cf

Pond 17P: Track and Field- stone base Peak Elev=50.81' Storage=9,321 cf Inflow=17.17 cfs 63,166 cf
Discarded=0.65 cfs 29,957 cf Primary=8.73 cfs 33,209 cf Outflow=9.38 cfs 63,166 cf

Pond 18P: Sand Filter 2 Peak Elev=55.69' Storage=6,652 cf Inflow=8.89 cfs 47,795 cf
Discarded=0.01 cfs 5,202 cf Primary=6.41 cfs 42,594 cf Secondary=0.00 cfs 0 cf Outflow=6.42 cfs 47,795 cf

Pond 19P: Sand Filter 3 Peak Elev=60.93' Storage=5,023 cf Inflow=4.00 cfs 13,512 cf
Discarded=0.01 cfs 4,870 cf Primary=2.56 cfs 8,642 cf Secondary=0.00 cfs 0 cf Outflow=2.57 cfs 13,512 cf

Pond 20P: Sand Filter 4 Peak Elev=61.79' Storage=3,036 cf Inflow=4.16 cfs 16,930 cf
Outflow=3.17 cfs 16,930 cf

Pond 23P: UGIS-1 Peak Elev=48.95' Storage=11,811 cf Inflow=3.11 cfs 23,765 cf
Discarded=0.08 cfs 14,054 cf Primary=2.51 cfs 9,710 cf Outflow=2.59 cfs 23,765 cf

Pond 28P: DIV-01 Peak Elev=50.01' Inflow=45.51 cfs 204,730 cf
Primary=3.94 cfs 46,057 cf Secondary=41.58 cfs 158,674 cf Outflow=45.51 cfs 204,730 cf

Pond 33P: Wet Swale Peak Elev=60.29' Storage=7,104 cf Inflow=10.42 cfs 36,468 cf
Discarded=0.01 cfs 4,989 cf Primary=7.10 cfs 31,479 cf Secondary=0.00 cfs 0 cf Outflow=7.11 cfs 36,468 cf

Pond 35P: Track and Field-manifold Peak Elev=50.39' Storage=6,792 cf Inflow=19.17 cfs 75,834 cf
Discarded=1.03 cfs 13,591 cf Primary=14.35 cfs 62,243 cf Outflow=15.38 cfs 75,834 cf

Link 2L: DP 1.1 - Culvert 1 Inflow=48.60 cfs 230,673 cf
Primary=48.60 cfs 230,673 cf

Link 3L: DP 1.2 - Culvert 2 Inflow=54.77 cfs 262,638 cf
Primary=54.77 cfs 262,638 cf

Link 4L: DP 1.3 - Culvert 3 Inflow=56.88 cfs 275,969 cf
Primary=56.88 cfs 275,969 cf

Link 5L: DP 1.4 - Silver Creek East Branch Inflow=116.14 cfs 555,891 cf
Primary=116.14 cfs 555,891 cf

Link 6L: DP 2.1 - West Wetland Inflow=60.02 cfs 378,608 cf
Primary=60.02 cfs 378,608 cf

Link 7L: DP 2.2 - Silver Creek West Branch Inflow=71.23 cfs 459,099 cf
Primary=71.23 cfs 459,099 cf

Total Runoff Area = 2,076,121 sf Runoff Volume = 1,116,233 cf Average Runoff Depth = 6.45"
69.65% Pervious = 1,445,943 sf 30.35% Impervious = 630,178 sf

Summary for Subcatchment PDA-1.1A: Subcat PDA-1.1A

Runoff = 48.60 cfs @ 12.29 hrs, Volume= 230,673 cf, Depth= 5.83"
Routed to Link 2L : DP 1.1 - Culvert 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
90,334	74	>75% Grass cover, Good, HSG C
38,424	80	>75% Grass cover, Good, HSG D
4,538	87	Dirt roads, HSG C
1,510	89	Dirt roads, HSG D
1,040	98	Paved parking, HSG D
6,366	98	Unconnected pavement, HSG C
776	98	Unconnected pavement, HSG D
33,631	70	Woods, Good, HSG C
298,387	77	Woods, Good, HSG D
475,005	77	Weighted Average
466,824	76	98.28% Pervious Area
8,181	98	1.72% Impervious Area
7,142		87.29% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
8.4	351	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.1	451	Total			

Hydrograph for Subcatchment PDA-1.1A: Subcat PDA-1.1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.02	0.27
10.00	1.63	0.26	**1.75**
12.50	6.04	3.51	**34.15**
15.00	7.35	4.68	3.53
17.50	7.91	5.19	1.74
20.00	8.23	5.49	1.17
22.50	**8.48**	**5.72**	0.92
25.00	**8.60**	**5.83**	0.00
27.50	8.60	5.83	0.00
30.00	8.60	5.83	0.00
32.50	8.60	5.83	0.00
35.00	8.60	5.83	0.00
37.50	8.60	5.83	0.00
40.00	8.60	5.83	0.00
42.50	8.60	5.83	0.00
45.00	8.60	5.83	0.00
47.50	8.60	5.83	0.00
50.00	8.60	5.83	0.00
52.50	8.60	5.83	0.00
55.00	8.60	5.83	0.00
57.50	8.60	5.83	0.00
60.00	8.60	5.83	0.00
62.50	8.60	5.83	0.00
65.00	8.60	5.83	0.00
67.50	8.60	5.83	0.00
70.00	8.60	5.83	0.00
72.50	8.60	5.83	0.00
75.00	8.60	5.83	0.00
77.50	8.60	5.83	0.00
80.00	8.60	5.83	0.00
82.50	8.60	5.83	0.00
85.00	8.60	5.83	0.00
87.50	8.60	5.83	0.00
90.00	8.60	5.83	0.00
92.50	8.60	5.83	0.00
95.00	8.60	5.83	0.00
97.50	8.60	5.83	0.00
100.00	8.60	5.83	0.00
102.50	8.60	5.83	0.00
105.00	8.60	5.83	0.00
107.50	8.60	5.83	0.00
110.00	8.60	5.83	0.00
112.50	8.60	5.83	0.00
115.00	8.60	5.83	0.00
117.50	8.60	5.83	0.00
120.00	8.60	5.83	0.00
122.50	8.60	5.83	0.00
125.00	8.60	5.83	0.00
127.50	8.60	5.83	0.00
130.00	8.60	5.83	0.00
132.50	8.60	5.83	0.00
135.00	8.60	5.83	0.00
137.50	8.60	5.83	0.00
140.00	8.60	5.83	0.00
142.50	8.60	5.83	0.00
145.00	8.60	5.83	0.00
147.50	8.60	5.83	0.00
150.00	8.60	5.83	0.00
152.50	8.60	5.83	0.00
155.00	8.60	5.83	0.00
157.50	8.60	5.83	0.00
160.00	8.60	5.83	0.00
162.50	8.60	5.83	0.00
165.00	8.60	5.83	0.00
167.50	8.60	5.83	0.00
170.00	8.60	5.83	0.00
172.50	8.60	5.83	0.00
175.00	8.60	5.83	0.00
177.50	8.60	5.83	0.00
180.00	8.60	5.83	0.00
182.50	8.60	5.83	0.00
185.00	8.60	5.83	0.00
187.50	8.60	5.83	0.00
190.00	8.60	5.83	0.00
192.50	8.60	5.83	0.00
195.00	8.60	5.83	0.00
197.50	8.60	5.83	0.00
200.00	8.60	5.83	0.00
202.50	8.60	5.83	0.00
205.00	8.60	5.83	0.00
207.50	8.60	5.83	0.00
210.00	8.60	5.83	0.00
212.50	8.60	5.83	0.00
215.00	8.60	5.83	0.00
217.50	8.60	5.83	0.00
220.00	8.60	5.83	0.00
222.50	8.60	5.83	0.00
225.00	8.60	5.83	0.00
227.50	8.60	5.83	0.00
230.00	8.60	5.83	0.00
232.50	8.60	5.83	0.00
235.00	8.60	5.83	0.00
237.50	8.60	5.83	0.00
240.00	8.60	5.83	0.00

Summary for Subcatchment PDA-1.1B: Subcat PDA-1.1B

Runoff = 3.78 cfs @ 12.18 hrs, Volume= 15,036 cf, Depth= 5.95"
Routed to Link 3L : DP 1.2 - Culvert 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
19,238	74	>75% Grass cover, Good, HSG C
5,415	80	>75% Grass cover, Good, HSG D
5,665	87	Dirt roads, HSG C
8	98	Paved parking, HSG C
7	98	Paved parking, HSG D
30,333	78	Weighted Average
30,318	78	99.95% Pervious Area
15	98	0.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.4	26	0.0270	1.15		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	126	Total			

Hydrograph for Subcatchment PDA-1.1B: Subcat PDA-1.1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.03	0.02
10.00	1.63	0.29	**0.13**
12.50	6.04	3.61	**1.61**
15.00	7.35	4.79	0.22
17.50	7.91	5.30	0.11
20.00	8.23	5.60	0.07
22.50	**8.48**	**5.84**	0.06
25.00	**8.60**	**5.95**	0.00
27.50	8.60	5.95	0.00
30.00	8.60	5.95	0.00
32.50	8.60	5.95	0.00
35.00	8.60	5.95	0.00
37.50	8.60	5.95	0.00
40.00	8.60	5.95	0.00
42.50	8.60	5.95	0.00
45.00	8.60	5.95	0.00
47.50	8.60	5.95	0.00
50.00	8.60	5.95	0.00
52.50	8.60	5.95	0.00
55.00	8.60	5.95	0.00
57.50	8.60	5.95	0.00
60.00	8.60	5.95	0.00
62.50	8.60	5.95	0.00
65.00	8.60	5.95	0.00
67.50	8.60	5.95	0.00
70.00	8.60	5.95	0.00
72.50	8.60	5.95	0.00
75.00	8.60	5.95	0.00
77.50	8.60	5.95	0.00
80.00	8.60	5.95	0.00
82.50	8.60	5.95	0.00
85.00	8.60	5.95	0.00
87.50	8.60	5.95	0.00
90.00	8.60	5.95	0.00
92.50	8.60	5.95	0.00
95.00	8.60	5.95	0.00
97.50	8.60	5.95	0.00
100.00	8.60	5.95	0.00
102.50	8.60	5.95	0.00
105.00	8.60	5.95	0.00
107.50	8.60	5.95	0.00
110.00	8.60	5.95	0.00
112.50	8.60	5.95	0.00
115.00	8.60	5.95	0.00
117.50	8.60	5.95	0.00
120.00	8.60	5.95	0.00
122.50	8.60	5.95	0.00
125.00	8.60	5.95	0.00
127.50	8.60	5.95	0.00
130.00	8.60	5.95	0.00
132.50	8.60	5.95	0.00
135.00	8.60	5.95	0.00
137.50	8.60	5.95	0.00
140.00	8.60	5.95	0.00
142.50	8.60	5.95	0.00
145.00	8.60	5.95	0.00
147.50	8.60	5.95	0.00
150.00	8.60	5.95	0.00
152.50	8.60	5.95	0.00
155.00	8.60	5.95	0.00
157.50	8.60	5.95	0.00
160.00	8.60	5.95	0.00
162.50	8.60	5.95	0.00
165.00	8.60	5.95	0.00
167.50	8.60	5.95	0.00
170.00	8.60	5.95	0.00
172.50	8.60	5.95	0.00
175.00	8.60	5.95	0.00
177.50	8.60	5.95	0.00
180.00	8.60	5.95	0.00
182.50	8.60	5.95	0.00
185.00	8.60	5.95	0.00
187.50	8.60	5.95	0.00
190.00	8.60	5.95	0.00
192.50	8.60	5.95	0.00
195.00	8.60	5.95	0.00
197.50	8.60	5.95	0.00
200.00	8.60	5.95	0.00
202.50	8.60	5.95	0.00
205.00	8.60	5.95	0.00
207.50	8.60	5.95	0.00
210.00	8.60	5.95	0.00
212.50	8.60	5.95	0.00
215.00	8.60	5.95	0.00
217.50	8.60	5.95	0.00
220.00	8.60	5.95	0.00
222.50	8.60	5.95	0.00
225.00	8.60	5.95	0.00
227.50	8.60	5.95	0.00
230.00	8.60	5.95	0.00
232.50	8.60	5.95	0.00
235.00	8.60	5.95	0.00
237.50	8.60	5.95	0.00
240.00	8.60	5.95	0.00

Summary for Subcatchment PDA-1.2A: Subcat PDA-1.2A

Runoff = 3.99 cfs @ 12.10 hrs, Volume= 13,331 cf, Depth= 6.19"
Routed to Link 4L : DP 1.3 - Culvert 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Adj	Description
9,020	74		>75% Grass cover, Good, HSG C
13,051	80		>75% Grass cover, Good, HSG D
1,436	98		Paved parking, HSG C
1,771	98		Paved parking, HSG D
0	98		Roofs, HSG C
567	98		Unconnected pavement, HSG C
25,845	81	80	Weighted Average, UI Adjusted
22,071	78	78	85.40% Pervious Area
3,775	98	98	14.60% Impervious Area
567			15.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	54	0.0200	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.3	6	0.3300	0.30		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.3	5	0.2000	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.8	8	0.5000	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.30"
7.3	73	Total			

Hydrograph for Subcatchment PDA-1.2A: Subcat PDA-1.2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.05	0.03
10.00	1.63	0.35	**0.13**
12.50	6.04	3.81	**1.01**
15.00	7.35	5.02	0.19
17.50	7.91	5.54	0.09
20.00	8.23	5.84	0.06
22.50	**8.48**	**6.08**	0.05
25.00	**8.60**	**6.19**	0.00
27.50	8.60	6.19	0.00
30.00	8.60	6.19	0.00
32.50	8.60	6.19	0.00
35.00	8.60	6.19	0.00
37.50	8.60	6.19	0.00
40.00	8.60	6.19	0.00
42.50	8.60	6.19	0.00
45.00	8.60	6.19	0.00
47.50	8.60	6.19	0.00
50.00	8.60	6.19	0.00
52.50	8.60	6.19	0.00
55.00	8.60	6.19	0.00
57.50	8.60	6.19	0.00
60.00	8.60	6.19	0.00
62.50	8.60	6.19	0.00
65.00	8.60	6.19	0.00
67.50	8.60	6.19	0.00
70.00	8.60	6.19	0.00
72.50	8.60	6.19	0.00
75.00	8.60	6.19	0.00
77.50	8.60	6.19	0.00
80.00	8.60	6.19	0.00
82.50	8.60	6.19	0.00
85.00	8.60	6.19	0.00
87.50	8.60	6.19	0.00
90.00	8.60	6.19	0.00
92.50	8.60	6.19	0.00
95.00	8.60	6.19	0.00
97.50	8.60	6.19	0.00
100.00	8.60	6.19	0.00
102.50	8.60	6.19	0.00
105.00	8.60	6.19	0.00
107.50	8.60	6.19	0.00
110.00	8.60	6.19	0.00
112.50	8.60	6.19	0.00
115.00	8.60	6.19	0.00
117.50	8.60	6.19	0.00
120.00	8.60	6.19	0.00
122.50	8.60	6.19	0.00
125.00	8.60	6.19	0.00
127.50	8.60	6.19	0.00
130.00	8.60	6.19	0.00
132.50	8.60	6.19	0.00
135.00	8.60	6.19	0.00
137.50	8.60	6.19	0.00
140.00	8.60	6.19	0.00
142.50	8.60	6.19	0.00
145.00	8.60	6.19	0.00
147.50	8.60	6.19	0.00
150.00	8.60	6.19	0.00
152.50	8.60	6.19	0.00
155.00	8.60	6.19	0.00
157.50	8.60	6.19	0.00
160.00	8.60	6.19	0.00
162.50	8.60	6.19	0.00
165.00	8.60	6.19	0.00
167.50	8.60	6.19	0.00
170.00	8.60	6.19	0.00
172.50	8.60	6.19	0.00
175.00	8.60	6.19	0.00
177.50	8.60	6.19	0.00
180.00	8.60	6.19	0.00
182.50	8.60	6.19	0.00
185.00	8.60	6.19	0.00
187.50	8.60	6.19	0.00
190.00	8.60	6.19	0.00
192.50	8.60	6.19	0.00
195.00	8.60	6.19	0.00
197.50	8.60	6.19	0.00
200.00	8.60	6.19	0.00
202.50	8.60	6.19	0.00
205.00	8.60	6.19	0.00
207.50	8.60	6.19	0.00
210.00	8.60	6.19	0.00
212.50	8.60	6.19	0.00
215.00	8.60	6.19	0.00
217.50	8.60	6.19	0.00
220.00	8.60	6.19	0.00
222.50	8.60	6.19	0.00
225.00	8.60	6.19	0.00
227.50	8.60	6.19	0.00
230.00	8.60	6.19	0.00
232.50	8.60	6.19	0.00
235.00	8.60	6.19	0.00
237.50	8.60	6.19	0.00
240.00	8.60	6.19	0.00

Summary for Subcatchment PDA-1.3A: Subcat PDA-1.3A

Runoff = 10.42 cfs @ 12.09 hrs, Volume= 36,468 cf, Depth= 7.64"
Routed to Pond 33P : Wet Swale

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
10,911	74	>75% Grass cover, Good, HSG C
5,194	80	>75% Grass cover, Good, HSG D
41,056	98	Paved parking, HSG C
40	98	Paved parking, HSG D
0	98	Roofs, HSG C
94	98	Unconnected pavement, HSG C
57,295	92	Weighted Average
16,106	76	28.11% Pervious Area
41,189	98	71.89% Impervious Area
94		0.23% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	27	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
1.2	73	0.0100	0.99		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.30"
0.8	98	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.5	198	Total			

Hydrograph for Subcatchment PDA-1.3A: Subcat PDA-1.3A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.01
5.00	0.49	0.08	0.07
7.50	0.87	0.31	0.18
10.00	1.63	0.91	**0.47**
12.50	6.04	5.11	**2.32**
15.00	7.35	6.40	0.44
17.50	7.91	6.95	0.21
20.00	8.23	7.27	0.15
22.50	**8.48**	**7.52**	0.12
25.00	**8.60**	**7.64**	0.00
27.50	8.60	7.64	0.00
30.00	8.60	7.64	0.00
32.50	8.60	7.64	0.00
35.00	8.60	7.64	0.00
37.50	8.60	7.64	0.00
40.00	8.60	7.64	0.00
42.50	8.60	7.64	0.00
45.00	8.60	7.64	0.00
47.50	8.60	7.64	0.00
50.00	8.60	7.64	0.00
52.50	8.60	7.64	0.00
55.00	8.60	7.64	0.00
57.50	8.60	7.64	0.00
60.00	8.60	7.64	0.00
62.50	8.60	7.64	0.00
65.00	8.60	7.64	0.00
67.50	8.60	7.64	0.00
70.00	8.60	7.64	0.00
72.50	8.60	7.64	0.00
75.00	8.60	7.64	0.00
77.50	8.60	7.64	0.00
80.00	8.60	7.64	0.00
82.50	8.60	7.64	0.00
85.00	8.60	7.64	0.00
87.50	8.60	7.64	0.00
90.00	8.60	7.64	0.00
92.50	8.60	7.64	0.00
95.00	8.60	7.64	0.00
97.50	8.60	7.64	0.00
100.00	8.60	7.64	0.00
102.50	8.60	7.64	0.00
105.00	8.60	7.64	0.00
107.50	8.60	7.64	0.00
110.00	8.60	7.64	0.00
112.50	8.60	7.64	0.00
115.00	8.60	7.64	0.00
117.50	8.60	7.64	0.00
120.00	8.60	7.64	0.00
122.50	8.60	7.64	0.00
125.00	8.60	7.64	0.00
127.50	8.60	7.64	0.00
130.00	8.60	7.64	0.00
132.50	8.60	7.64	0.00
135.00	8.60	7.64	0.00
137.50	8.60	7.64	0.00
140.00	8.60	7.64	0.00
142.50	8.60	7.64	0.00
145.00	8.60	7.64	0.00
147.50	8.60	7.64	0.00
150.00	8.60	7.64	0.00
152.50	8.60	7.64	0.00
155.00	8.60	7.64	0.00
157.50	8.60	7.64	0.00
160.00	8.60	7.64	0.00
162.50	8.60	7.64	0.00
165.00	8.60	7.64	0.00
167.50	8.60	7.64	0.00
170.00	8.60	7.64	0.00
172.50	8.60	7.64	0.00
175.00	8.60	7.64	0.00
177.50	8.60	7.64	0.00
180.00	8.60	7.64	0.00
182.50	8.60	7.64	0.00
185.00	8.60	7.64	0.00
187.50	8.60	7.64	0.00
190.00	8.60	7.64	0.00
192.50	8.60	7.64	0.00
195.00	8.60	7.64	0.00
197.50	8.60	7.64	0.00
200.00	8.60	7.64	0.00
202.50	8.60	7.64	0.00
205.00	8.60	7.64	0.00
207.50	8.60	7.64	0.00
210.00	8.60	7.64	0.00
212.50	8.60	7.64	0.00
215.00	8.60	7.64	0.00
217.50	8.60	7.64	0.00
220.00	8.60	7.64	0.00
222.50	8.60	7.64	0.00
225.00	8.60	7.64	0.00
227.50	8.60	7.64	0.00
230.00	8.60	7.64	0.00
232.50	8.60	7.64	0.00
235.00	8.60	7.64	0.00
237.50	8.60	7.64	0.00
240.00	8.60	7.64	0.00

Summary for Subcatchment PDA-1.3C: Subcat PDA-1.3C

Runoff = 2.80 cfs @ 12.10 hrs, Volume= 9,370 cf, Depth= 6.67"
Routed to Pond 1P : Bio 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
9,827	74	>75% Grass cover, Good, HSG C
6,906	98	Paved parking, HSG C
0	98	Roofs, HSG C
117	98	Unconnected pavement, HSG C
16,850	84	Weighted Average
9,827	74	58.32% Pervious Area
7,023	98	41.68% Impervious Area
117		1.66% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	39	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.8	10	0.1000	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
6.8	49	Total			

Hydrograph for Subcatchment PDA-1.3C: Subcat PDA-1.3C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.01	0.00
7.50	0.87	0.10	0.03
10.00	1.63	0.49	**0.10**
12.50	6.04	4.23	**0.66**
15.00	7.35	5.47	0.12
17.50	7.91	6.01	0.06
20.00	8.23	6.32	0.04
22.50	**8.48**	**6.56**	0.03
25.00	**8.60**	**6.67**	0.00
27.50	8.60	6.67	0.00
30.00	8.60	6.67	0.00
32.50	8.60	6.67	0.00
35.00	8.60	6.67	0.00
37.50	8.60	6.67	0.00
40.00	8.60	6.67	0.00
42.50	8.60	6.67	0.00
45.00	8.60	6.67	0.00
47.50	8.60	6.67	0.00
50.00	8.60	6.67	0.00
52.50	8.60	6.67	0.00
55.00	8.60	6.67	0.00
57.50	8.60	6.67	0.00
60.00	8.60	6.67	0.00
62.50	8.60	6.67	0.00
65.00	8.60	6.67	0.00
67.50	8.60	6.67	0.00
70.00	8.60	6.67	0.00
72.50	8.60	6.67	0.00
75.00	8.60	6.67	0.00
77.50	8.60	6.67	0.00
80.00	8.60	6.67	0.00
82.50	8.60	6.67	0.00
85.00	8.60	6.67	0.00
87.50	8.60	6.67	0.00
90.00	8.60	6.67	0.00
92.50	8.60	6.67	0.00
95.00	8.60	6.67	0.00
97.50	8.60	6.67	0.00
100.00	8.60	6.67	0.00
102.50	8.60	6.67	0.00
105.00	8.60	6.67	0.00
107.50	8.60	6.67	0.00
110.00	8.60	6.67	0.00
112.50	8.60	6.67	0.00
115.00	8.60	6.67	0.00
117.50	8.60	6.67	0.00
120.00	8.60	6.67	0.00
122.50	8.60	6.67	0.00
125.00	8.60	6.67	0.00
127.50	8.60	6.67	0.00
130.00	8.60	6.67	0.00
132.50	8.60	6.67	0.00
135.00	8.60	6.67	0.00
137.50	8.60	6.67	0.00
140.00	8.60	6.67	0.00
142.50	8.60	6.67	0.00
145.00	8.60	6.67	0.00
147.50	8.60	6.67	0.00
150.00	8.60	6.67	0.00
152.50	8.60	6.67	0.00
155.00	8.60	6.67	0.00
157.50	8.60	6.67	0.00
160.00	8.60	6.67	0.00
162.50	8.60	6.67	0.00
165.00	8.60	6.67	0.00
167.50	8.60	6.67	0.00
170.00	8.60	6.67	0.00
172.50	8.60	6.67	0.00
175.00	8.60	6.67	0.00
177.50	8.60	6.67	0.00
180.00	8.60	6.67	0.00
182.50	8.60	6.67	0.00
185.00	8.60	6.67	0.00
187.50	8.60	6.67	0.00
190.00	8.60	6.67	0.00
192.50	8.60	6.67	0.00
195.00	8.60	6.67	0.00
197.50	8.60	6.67	0.00
200.00	8.60	6.67	0.00
202.50	8.60	6.67	0.00
205.00	8.60	6.67	0.00
207.50	8.60	6.67	0.00
210.00	8.60	6.67	0.00
212.50	8.60	6.67	0.00
215.00	8.60	6.67	0.00
217.50	8.60	6.67	0.00
220.00	8.60	6.67	0.00
222.50	8.60	6.67	0.00
225.00	8.60	6.67	0.00
227.50	8.60	6.67	0.00
230.00	8.60	6.67	0.00
232.50	8.60	6.67	0.00
235.00	8.60	6.67	0.00
237.50	8.60	6.67	0.00
240.00	8.60	6.67	0.00

Summary for Subcatchment PDA-1.3D: Subcat PDA-1.3D

Runoff = 1.17 cfs @ 12.09 hrs, Volume= 3,878 cf, Depth= 6.79"
Routed to Pond 2P : Bio 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
3,766	74	>75% Grass cover, Good, HSG C
3,085	98	Paved parking, HSG C
0	98	Roofs, HSG C
6,850	85	Weighted Average
3,766	74	54.97% Pervious Area
3,085	98	45.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.3D: Subcat PDA-1.3D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.01	0.00
7.50	0.87	0.12	0.01
10.00	1.63	0.53	**0.04**
12.50	6.04	4.34	**0.26**
15.00	7.35	5.58	0.05
17.50	7.91	6.12	0.02
20.00	8.23	6.44	0.02
22.50	**8.48**	**6.68**	0.01
25.00	**8.60**	**6.79**	0.00
27.50	8.60	6.79	0.00
30.00	8.60	6.79	0.00
32.50	8.60	6.79	0.00
35.00	8.60	6.79	0.00
37.50	8.60	6.79	0.00
40.00	8.60	6.79	0.00
42.50	8.60	6.79	0.00
45.00	8.60	6.79	0.00
47.50	8.60	6.79	0.00
50.00	8.60	6.79	0.00
52.50	8.60	6.79	0.00
55.00	8.60	6.79	0.00
57.50	8.60	6.79	0.00
60.00	8.60	6.79	0.00
62.50	8.60	6.79	0.00
65.00	8.60	6.79	0.00
67.50	8.60	6.79	0.00
70.00	8.60	6.79	0.00
72.50	8.60	6.79	0.00
75.00	8.60	6.79	0.00
77.50	8.60	6.79	0.00
80.00	8.60	6.79	0.00
82.50	8.60	6.79	0.00
85.00	8.60	6.79	0.00
87.50	8.60	6.79	0.00
90.00	8.60	6.79	0.00
92.50	8.60	6.79	0.00
95.00	8.60	6.79	0.00
97.50	8.60	6.79	0.00
100.00	8.60	6.79	0.00
102.50	8.60	6.79	0.00
105.00	8.60	6.79	0.00
107.50	8.60	6.79	0.00
110.00	8.60	6.79	0.00
112.50	8.60	6.79	0.00
115.00	8.60	6.79	0.00
117.50	8.60	6.79	0.00
120.00	8.60	6.79	0.00
122.50	8.60	6.79	0.00
125.00	8.60	6.79	0.00
127.50	8.60	6.79	0.00
130.00	8.60	6.79	0.00
132.50	8.60	6.79	0.00
135.00	8.60	6.79	0.00
137.50	8.60	6.79	0.00
140.00	8.60	6.79	0.00
142.50	8.60	6.79	0.00
145.00	8.60	6.79	0.00
147.50	8.60	6.79	0.00
150.00	8.60	6.79	0.00
152.50	8.60	6.79	0.00
155.00	8.60	6.79	0.00
157.50	8.60	6.79	0.00
160.00	8.60	6.79	0.00
162.50	8.60	6.79	0.00
165.00	8.60	6.79	0.00
167.50	8.60	6.79	0.00
170.00	8.60	6.79	0.00
172.50	8.60	6.79	0.00
175.00	8.60	6.79	0.00
177.50	8.60	6.79	0.00
180.00	8.60	6.79	0.00
182.50	8.60	6.79	0.00
185.00	8.60	6.79	0.00
187.50	8.60	6.79	0.00
190.00	8.60	6.79	0.00
192.50	8.60	6.79	0.00
195.00	8.60	6.79	0.00
197.50	8.60	6.79	0.00
200.00	8.60	6.79	0.00
202.50	8.60	6.79	0.00
205.00	8.60	6.79	0.00
207.50	8.60	6.79	0.00
210.00	8.60	6.79	0.00
212.50	8.60	6.79	0.00
215.00	8.60	6.79	0.00
217.50	8.60	6.79	0.00
220.00	8.60	6.79	0.00
222.50	8.60	6.79	0.00
225.00	8.60	6.79	0.00
227.50	8.60	6.79	0.00
230.00	8.60	6.79	0.00
232.50	8.60	6.79	0.00
235.00	8.60	6.79	0.00
237.50	8.60	6.79	0.00
240.00	8.60	6.79	0.00

Summary for Subcatchment PDA-1.4A: Subcat PDA-1.4A

Runoff = 4.16 cfs @ 12.18 hrs, Volume= 16,930 cf, Depth= 6.55"
Routed to Pond 20P : Sand Filter 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
14,884	74	>75% Grass cover, Good, HSG C
2,931	80	>75% Grass cover, Good, HSG D
5,758	87	Dirt roads, HSG C
6	89	Dirt roads, HSG D
2,675	98	Paved parking, HSG C
4,570	98	Paved parking, HSG D
183	98	Unconnected pavement, HSG C
31,007	83	Weighted Average
23,579	78	76.05% Pervious Area
7,428	98	23.95% Impervious Area
183		2.46% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.7	44	0.0250	1.11		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	144	Total			

Hydrograph for Subcatchment PDA-1.4A: Subcat PDA-1.4A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.09	0.04
10.00	1.63	0.45	**0.17**
12.50	6.04	4.13	**1.77**
15.00	7.35	5.36	0.23
17.50	7.91	5.89	0.11
20.00	8.23	6.20	0.08
22.50	**8.48**	**6.44**	0.06
25.00	**8.60**	**6.55**	0.00
27.50	8.60	6.55	0.00
30.00	8.60	6.55	0.00
32.50	8.60	6.55	0.00
35.00	8.60	6.55	0.00
37.50	8.60	6.55	0.00
40.00	8.60	6.55	0.00
42.50	8.60	6.55	0.00
45.00	8.60	6.55	0.00
47.50	8.60	6.55	0.00
50.00	8.60	6.55	0.00
52.50	8.60	6.55	0.00
55.00	8.60	6.55	0.00
57.50	8.60	6.55	0.00
60.00	8.60	6.55	0.00
62.50	8.60	6.55	0.00
65.00	8.60	6.55	0.00
67.50	8.60	6.55	0.00
70.00	8.60	6.55	0.00
72.50	8.60	6.55	0.00
75.00	8.60	6.55	0.00
77.50	8.60	6.55	0.00
80.00	8.60	6.55	0.00
82.50	8.60	6.55	0.00
85.00	8.60	6.55	0.00
87.50	8.60	6.55	0.00
90.00	8.60	6.55	0.00
92.50	8.60	6.55	0.00
95.00	8.60	6.55	0.00
97.50	8.60	6.55	0.00
100.00	8.60	6.55	0.00
102.50	8.60	6.55	0.00
105.00	8.60	6.55	0.00
107.50	8.60	6.55	0.00
110.00	8.60	6.55	0.00
112.50	8.60	6.55	0.00
115.00	8.60	6.55	0.00
117.50	8.60	6.55	0.00
120.00	8.60	6.55	0.00
122.50	8.60	6.55	0.00
125.00	8.60	6.55	0.00
127.50	8.60	6.55	0.00
130.00	8.60	6.55	0.00
132.50	8.60	6.55	0.00
135.00	8.60	6.55	0.00
137.50	8.60	6.55	0.00
140.00	8.60	6.55	0.00
142.50	8.60	6.55	0.00
145.00	8.60	6.55	0.00
147.50	8.60	6.55	0.00
150.00	8.60	6.55	0.00
152.50	8.60	6.55	0.00
155.00	8.60	6.55	0.00
157.50	8.60	6.55	0.00
160.00	8.60	6.55	0.00
162.50	8.60	6.55	0.00
165.00	8.60	6.55	0.00
167.50	8.60	6.55	0.00
170.00	8.60	6.55	0.00
172.50	8.60	6.55	0.00
175.00	8.60	6.55	0.00
177.50	8.60	6.55	0.00
180.00	8.60	6.55	0.00
182.50	8.60	6.55	0.00
185.00	8.60	6.55	0.00
187.50	8.60	6.55	0.00
190.00	8.60	6.55	0.00
192.50	8.60	6.55	0.00
195.00	8.60	6.55	0.00
197.50	8.60	6.55	0.00
200.00	8.60	6.55	0.00
202.50	8.60	6.55	0.00
205.00	8.60	6.55	0.00
207.50	8.60	6.55	0.00
210.00	8.60	6.55	0.00
212.50	8.60	6.55	0.00
215.00	8.60	6.55	0.00
217.50	8.60	6.55	0.00
220.00	8.60	6.55	0.00
222.50	8.60	6.55	0.00
225.00	8.60	6.55	0.00
227.50	8.60	6.55	0.00
230.00	8.60	6.55	0.00
232.50	8.60	6.55	0.00
235.00	8.60	6.55	0.00
237.50	8.60	6.55	0.00
240.00	8.60	6.55	0.00

Summary for Subcatchment PDA-1.4B: Subcat PDA-1.4B

Runoff = 7.25 cfs @ 12.19 hrs, Volume= 30,106 cf, Depth= 6.79"
Routed to Pond 3P : DIV-02

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
25,747	74	>75% Grass cover, Good, HSG C
7,636	87	Dirt roads, HSG C
17,354	98	Paved parking, HSG C
2,443	98	Unconnected pavement, HSG C
53,181	85	Weighted Average
33,383	77	62.77% Pervious Area
19,797	98	37.23% Impervious Area
2,443		12.34% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	58	0.0100	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
5.7	40	0.0120	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
13.9	98	Total			

Hydrograph for Subcatchment PDA-1.4B: Subcat PDA-1.4B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.01	0.02
7.50	0.87	0.12	0.09
10.00	1.63	0.53	**0.32**
12.50	6.04	4.34	**3.17**
15.00	7.35	5.58	0.41
17.50	7.91	6.12	0.20
20.00	8.23	6.44	0.14
22.50	**8.48**	**6.68**	0.11
25.00	**8.60**	**6.79**	0.00
27.50	8.60	6.79	0.00
30.00	8.60	6.79	0.00
32.50	8.60	6.79	0.00
35.00	8.60	6.79	0.00
37.50	8.60	6.79	0.00
40.00	8.60	6.79	0.00
42.50	8.60	6.79	0.00
45.00	8.60	6.79	0.00
47.50	8.60	6.79	0.00
50.00	8.60	6.79	0.00
52.50	8.60	6.79	0.00
55.00	8.60	6.79	0.00
57.50	8.60	6.79	0.00
60.00	8.60	6.79	0.00
62.50	8.60	6.79	0.00
65.00	8.60	6.79	0.00
67.50	8.60	6.79	0.00
70.00	8.60	6.79	0.00
72.50	8.60	6.79	0.00
75.00	8.60	6.79	0.00
77.50	8.60	6.79	0.00
80.00	8.60	6.79	0.00
82.50	8.60	6.79	0.00
85.00	8.60	6.79	0.00
87.50	8.60	6.79	0.00
90.00	8.60	6.79	0.00
92.50	8.60	6.79	0.00
95.00	8.60	6.79	0.00
97.50	8.60	6.79	0.00
100.00	8.60	6.79	0.00
102.50	8.60	6.79	0.00
105.00	8.60	6.79	0.00
107.50	8.60	6.79	0.00
110.00	8.60	6.79	0.00
112.50	8.60	6.79	0.00
115.00	8.60	6.79	0.00
117.50	8.60	6.79	0.00
120.00	8.60	6.79	0.00
122.50	8.60	6.79	0.00
125.00	8.60	6.79	0.00
127.50	8.60	6.79	0.00
130.00	8.60	6.79	0.00
132.50	8.60	6.79	0.00
135.00	8.60	6.79	0.00
137.50	8.60	6.79	0.00
140.00	8.60	6.79	0.00
142.50	8.60	6.79	0.00
145.00	8.60	6.79	0.00
147.50	8.60	6.79	0.00
150.00	8.60	6.79	0.00
152.50	8.60	6.79	0.00
155.00	8.60	6.79	0.00
157.50	8.60	6.79	0.00
160.00	8.60	6.79	0.00
162.50	8.60	6.79	0.00
165.00	8.60	6.79	0.00
167.50	8.60	6.79	0.00
170.00	8.60	6.79	0.00
172.50	8.60	6.79	0.00
175.00	8.60	6.79	0.00
177.50	8.60	6.79	0.00
180.00	8.60	6.79	0.00
182.50	8.60	6.79	0.00
185.00	8.60	6.79	0.00
187.50	8.60	6.79	0.00
190.00	8.60	6.79	0.00
192.50	8.60	6.79	0.00
195.00	8.60	6.79	0.00
197.50	8.60	6.79	0.00
200.00	8.60	6.79	0.00
202.50	8.60	6.79	0.00
205.00	8.60	6.79	0.00
207.50	8.60	6.79	0.00
210.00	8.60	6.79	0.00
212.50	8.60	6.79	0.00
215.00	8.60	6.79	0.00
217.50	8.60	6.79	0.00
220.00	8.60	6.79	0.00
222.50	8.60	6.79	0.00
225.00	8.60	6.79	0.00
227.50	8.60	6.79	0.00
230.00	8.60	6.79	0.00
232.50	8.60	6.79	0.00
235.00	8.60	6.79	0.00
237.50	8.60	6.79	0.00
240.00	8.60	6.79	0.00

Summary for Subcatchment PDA-1.4C: Subcat PDA-1.4C

Runoff = 4.81 cfs @ 12.09 hrs, Volume= 16,256 cf, Depth= 7.28"
Routed to Pond 7P : Bio 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
9,701	74	>75% Grass cover, Good, HSG C
17,108	98	Paved parking, HSG C
26,810	89	Weighted Average
9,701	74	36.19% Pervious Area
17,108	98	63.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4C: Subcat PDA-1.4C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.04	0.02
7.50	0.87	0.21	0.07
10.00	1.63	0.73	**0.20**
12.50	6.04	4.77	**1.04**
15.00	7.35	6.05	0.20
17.50	7.91	6.60	0.10
20.00	8.23	6.91	0.07
22.50	**8.48**	**7.16**	0.05
25.00	**8.60**	**7.28**	0.00
27.50	8.60	7.28	0.00
30.00	8.60	7.28	0.00
32.50	8.60	7.28	0.00
35.00	8.60	7.28	0.00
37.50	8.60	7.28	0.00
40.00	8.60	7.28	0.00
42.50	8.60	7.28	0.00
45.00	8.60	7.28	0.00
47.50	8.60	7.28	0.00
50.00	8.60	7.28	0.00
52.50	8.60	7.28	0.00
55.00	8.60	7.28	0.00
57.50	8.60	7.28	0.00
60.00	8.60	7.28	0.00
62.50	8.60	7.28	0.00
65.00	8.60	7.28	0.00
67.50	8.60	7.28	0.00
70.00	8.60	7.28	0.00
72.50	8.60	7.28	0.00
75.00	8.60	7.28	0.00
77.50	8.60	7.28	0.00
80.00	8.60	7.28	0.00
82.50	8.60	7.28	0.00
85.00	8.60	7.28	0.00
87.50	8.60	7.28	0.00
90.00	8.60	7.28	0.00
92.50	8.60	7.28	0.00
95.00	8.60	7.28	0.00
97.50	8.60	7.28	0.00
100.00	8.60	7.28	0.00
102.50	8.60	7.28	0.00
105.00	8.60	7.28	0.00
107.50	8.60	7.28	0.00
110.00	8.60	7.28	0.00
112.50	8.60	7.28	0.00
115.00	8.60	7.28	0.00
117.50	8.60	7.28	0.00
120.00	8.60	7.28	0.00
122.50	8.60	7.28	0.00
125.00	8.60	7.28	0.00
127.50	8.60	7.28	0.00
130.00	8.60	7.28	0.00
132.50	8.60	7.28	0.00
135.00	8.60	7.28	0.00
137.50	8.60	7.28	0.00
140.00	8.60	7.28	0.00
142.50	8.60	7.28	0.00
145.00	8.60	7.28	0.00
147.50	8.60	7.28	0.00
150.00	8.60	7.28	0.00
152.50	8.60	7.28	0.00
155.00	8.60	7.28	0.00
157.50	8.60	7.28	0.00
160.00	8.60	7.28	0.00
162.50	8.60	7.28	0.00
165.00	8.60	7.28	0.00
167.50	8.60	7.28	0.00
170.00	8.60	7.28	0.00
172.50	8.60	7.28	0.00
175.00	8.60	7.28	0.00
177.50	8.60	7.28	0.00
180.00	8.60	7.28	0.00
182.50	8.60	7.28	0.00
185.00	8.60	7.28	0.00
187.50	8.60	7.28	0.00
190.00	8.60	7.28	0.00
192.50	8.60	7.28	0.00
195.00	8.60	7.28	0.00
197.50	8.60	7.28	0.00
200.00	8.60	7.28	0.00
202.50	8.60	7.28	0.00
205.00	8.60	7.28	0.00
207.50	8.60	7.28	0.00
210.00	8.60	7.28	0.00
212.50	8.60	7.28	0.00
215.00	8.60	7.28	0.00
217.50	8.60	7.28	0.00
220.00	8.60	7.28	0.00
222.50	8.60	7.28	0.00
225.00	8.60	7.28	0.00
227.50	8.60	7.28	0.00
230.00	8.60	7.28	0.00
232.50	8.60	7.28	0.00
235.00	8.60	7.28	0.00
237.50	8.60	7.28	0.00
240.00	8.60	7.28	0.00

Summary for Subcatchment PDA-1.4D: Subcat PDA-1.4D

Runoff = 7.62 cfs @ 12.09 hrs, Volume= 25,778 cf, Depth= 7.28"
Routed to Pond 14P : DIV-03

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
14,109	74	>75% Grass cover, Good, HSG C
2,143	80	>75% Grass cover, Good, HSG D
1,138	96	Gravel surface, HSG C
25,125	98	Paved parking, HSG C
42,514	89	Weighted Average
17,389	76	40.90% Pervious Area
25,125	98	59.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4D: Subcat PDA-1.4D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.04	0.04
7.50	0.87	0.21	0.11
10.00	1.63	0.73	**0.31**
12.50	6.04	4.77	**1.64**
15.00	7.35	6.05	0.32
17.50	7.91	6.60	0.16
20.00	8.23	6.91	0.11
22.50	**8.48**	**7.16**	0.09
25.00	**8.60**	**7.28**	0.00
27.50	8.60	7.28	0.00
30.00	8.60	7.28	0.00
32.50	8.60	7.28	0.00
35.00	8.60	7.28	0.00
37.50	8.60	7.28	0.00
40.00	8.60	7.28	0.00
42.50	8.60	7.28	0.00
45.00	8.60	7.28	0.00
47.50	8.60	7.28	0.00
50.00	8.60	7.28	0.00
52.50	8.60	7.28	0.00
55.00	8.60	7.28	0.00
57.50	8.60	7.28	0.00
60.00	8.60	7.28	0.00
62.50	8.60	7.28	0.00
65.00	8.60	7.28	0.00
67.50	8.60	7.28	0.00
70.00	8.60	7.28	0.00
72.50	8.60	7.28	0.00
75.00	8.60	7.28	0.00
77.50	8.60	7.28	0.00
80.00	8.60	7.28	0.00
82.50	8.60	7.28	0.00
85.00	8.60	7.28	0.00
87.50	8.60	7.28	0.00
90.00	8.60	7.28	0.00
92.50	8.60	7.28	0.00
95.00	8.60	7.28	0.00
97.50	8.60	7.28	0.00
100.00	8.60	7.28	0.00
102.50	8.60	7.28	0.00
105.00	8.60	7.28	0.00
107.50	8.60	7.28	0.00
110.00	8.60	7.28	0.00
112.50	8.60	7.28	0.00
115.00	8.60	7.28	0.00
117.50	8.60	7.28	0.00
120.00	8.60	7.28	0.00
122.50	8.60	7.28	0.00
125.00	8.60	7.28	0.00
127.50	8.60	7.28	0.00
130.00	8.60	7.28	0.00
132.50	8.60	7.28	0.00
135.00	8.60	7.28	0.00
137.50	8.60	7.28	0.00
140.00	8.60	7.28	0.00
142.50	8.60	7.28	0.00
145.00	8.60	7.28	0.00
147.50	8.60	7.28	0.00
150.00	8.60	7.28	0.00
152.50	8.60	7.28	0.00
155.00	8.60	7.28	0.00
157.50	8.60	7.28	0.00
160.00	8.60	7.28	0.00
162.50	8.60	7.28	0.00
165.00	8.60	7.28	0.00
167.50	8.60	7.28	0.00
170.00	8.60	7.28	0.00
172.50	8.60	7.28	0.00
175.00	8.60	7.28	0.00
177.50	8.60	7.28	0.00
180.00	8.60	7.28	0.00
182.50	8.60	7.28	0.00
185.00	8.60	7.28	0.00
187.50	8.60	7.28	0.00
190.00	8.60	7.28	0.00
192.50	8.60	7.28	0.00
195.00	8.60	7.28	0.00
197.50	8.60	7.28	0.00
200.00	8.60	7.28	0.00
202.50	8.60	7.28	0.00
205.00	8.60	7.28	0.00
207.50	8.60	7.28	0.00
210.00	8.60	7.28	0.00
212.50	8.60	7.28	0.00
215.00	8.60	7.28	0.00
217.50	8.60	7.28	0.00
220.00	8.60	7.28	0.00
222.50	8.60	7.28	0.00
225.00	8.60	7.28	0.00
227.50	8.60	7.28	0.00
230.00	8.60	7.28	0.00
232.50	8.60	7.28	0.00
235.00	8.60	7.28	0.00
237.50	8.60	7.28	0.00
240.00	8.60	7.28	0.00

Summary for Subcatchment PDA-1.4E: Subcat PDA-1.4E

Runoff = 7.04 cfs @ 12.09 hrs, Volume= 23,796 cf, Depth= 7.28"
Routed to Pond 18P : Sand Filter 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
14,786	74	>75% Grass cover, Good, HSG C
7	80	>75% Grass cover, Good, HSG D
24,452	98	Paved parking, HSG C
39,245	89	Weighted Average
14,794	74	37.70% Pervious Area
24,452	98	62.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4E: Subcat PDA-1.4E

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.04	0.03
7.50	0.87	0.21	0.10
10.00	1.63	0.73	**0.29**
12.50	6.04	4.77	**1.52**
15.00	7.35	6.05	0.29
17.50	7.91	6.60	0.15
20.00	8.23	6.91	0.10
22.50	**8.48**	**7.16**	0.08
25.00	**8.60**	**7.28**	0.00
27.50	8.60	7.28	0.00
30.00	8.60	7.28	0.00
32.50	8.60	7.28	0.00
35.00	8.60	7.28	0.00
37.50	8.60	7.28	0.00
40.00	8.60	7.28	0.00
42.50	8.60	7.28	0.00
45.00	8.60	7.28	0.00
47.50	8.60	7.28	0.00
50.00	8.60	7.28	0.00
52.50	8.60	7.28	0.00
55.00	8.60	7.28	0.00
57.50	8.60	7.28	0.00
60.00	8.60	7.28	0.00
62.50	8.60	7.28	0.00
65.00	8.60	7.28	0.00
67.50	8.60	7.28	0.00
70.00	8.60	7.28	0.00
72.50	8.60	7.28	0.00
75.00	8.60	7.28	0.00
77.50	8.60	7.28	0.00
80.00	8.60	7.28	0.00
82.50	8.60	7.28	0.00
85.00	8.60	7.28	0.00
87.50	8.60	7.28	0.00
90.00	8.60	7.28	0.00
92.50	8.60	7.28	0.00
95.00	8.60	7.28	0.00
97.50	8.60	7.28	0.00
100.00	8.60	7.28	0.00
102.50	8.60	7.28	0.00
105.00	8.60	7.28	0.00
107.50	8.60	7.28	0.00
110.00	8.60	7.28	0.00
112.50	8.60	7.28	0.00
115.00	8.60	7.28	0.00
117.50	8.60	7.28	0.00
120.00	8.60	7.28	0.00
122.50	8.60	7.28	0.00
125.00	8.60	7.28	0.00
127.50	8.60	7.28	0.00
130.00	8.60	7.28	0.00
132.50	8.60	7.28	0.00
135.00	8.60	7.28	0.00
137.50	8.60	7.28	0.00
140.00	8.60	7.28	0.00
142.50	8.60	7.28	0.00
145.00	8.60	7.28	0.00
147.50	8.60	7.28	0.00
150.00	8.60	7.28	0.00
152.50	8.60	7.28	0.00
155.00	8.60	7.28	0.00
157.50	8.60	7.28	0.00
160.00	8.60	7.28	0.00
162.50	8.60	7.28	0.00
165.00	8.60	7.28	0.00
167.50	8.60	7.28	0.00
170.00	8.60	7.28	0.00
172.50	8.60	7.28	0.00
175.00	8.60	7.28	0.00
177.50	8.60	7.28	0.00
180.00	8.60	7.28	0.00
182.50	8.60	7.28	0.00
185.00	8.60	7.28	0.00
187.50	8.60	7.28	0.00
190.00	8.60	7.28	0.00
192.50	8.60	7.28	0.00
195.00	8.60	7.28	0.00
197.50	8.60	7.28	0.00
200.00	8.60	7.28	0.00
202.50	8.60	7.28	0.00
205.00	8.60	7.28	0.00
207.50	8.60	7.28	0.00
210.00	8.60	7.28	0.00
212.50	8.60	7.28	0.00
215.00	8.60	7.28	0.00
217.50	8.60	7.28	0.00
220.00	8.60	7.28	0.00
222.50	8.60	7.28	0.00
225.00	8.60	7.28	0.00
227.50	8.60	7.28	0.00
230.00	8.60	7.28	0.00
232.50	8.60	7.28	0.00
235.00	8.60	7.28	0.00
237.50	8.60	7.28	0.00
240.00	8.60	7.28	0.00

Summary for Subcatchment PDA-1.4F: Subcat PDA-1.4F

Runoff = 10.18 cfs @ 12.19 hrs, Volume= 43,298 cf, Depth= 7.03"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
33,264	74	>75% Grass cover, Good, HSG C
3	80	>75% Grass cover, Good, HSG D
36,167	98	Paved parking, HSG C
4,425	98	Paved parking, HSG D
73,858	87	Weighted Average
33,267	74	45.04% Pervious Area
40,591	98	54.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0105	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.2	42	0.3300	4.02		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.8	204	0.0090	1.93		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.5	346	Total			

Hydrograph for Subcatchment PDA-1.4F: Subcat PDA-1.4F

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.02	0.04
7.50	0.87	0.16	0.15
10.00	1.63	0.62	**0.48**
12.50	6.04	4.55	**4.61**
15.00	7.35	5.81	0.57
17.50	7.91	6.36	0.28
20.00	8.23	6.67	0.19
22.50	**8.48**	**6.92**	0.15
25.00	**8.60**	**7.03**	0.00
27.50	8.60	7.03	0.00
30.00	8.60	7.03	0.00
32.50	8.60	7.03	0.00
35.00	8.60	7.03	0.00
37.50	8.60	7.03	0.00
40.00	8.60	7.03	0.00
42.50	8.60	7.03	0.00
45.00	8.60	7.03	0.00
47.50	8.60	7.03	0.00
50.00	8.60	7.03	0.00
52.50	8.60	7.03	0.00
55.00	8.60	7.03	0.00
57.50	8.60	7.03	0.00
60.00	8.60	7.03	0.00
62.50	8.60	7.03	0.00
65.00	8.60	7.03	0.00
67.50	8.60	7.03	0.00
70.00	8.60	7.03	0.00
72.50	8.60	7.03	0.00
75.00	8.60	7.03	0.00
77.50	8.60	7.03	0.00
80.00	8.60	7.03	0.00
82.50	8.60	7.03	0.00
85.00	8.60	7.03	0.00
87.50	8.60	7.03	0.00
90.00	8.60	7.03	0.00
92.50	8.60	7.03	0.00
95.00	8.60	7.03	0.00
97.50	8.60	7.03	0.00
100.00	8.60	7.03	0.00
102.50	8.60	7.03	0.00
105.00	8.60	7.03	0.00
107.50	8.60	7.03	0.00
110.00	8.60	7.03	0.00
112.50	8.60	7.03	0.00
115.00	8.60	7.03	0.00
117.50	8.60	7.03	0.00
120.00	8.60	7.03	0.00
122.50	8.60	7.03	0.00
125.00	8.60	7.03	0.00
127.50	8.60	7.03	0.00
130.00	8.60	7.03	0.00
132.50	8.60	7.03	0.00
135.00	8.60	7.03	0.00
137.50	8.60	7.03	0.00
140.00	8.60	7.03	0.00
142.50	8.60	7.03	0.00
145.00	8.60	7.03	0.00
147.50	8.60	7.03	0.00
150.00	8.60	7.03	0.00
152.50	8.60	7.03	0.00
155.00	8.60	7.03	0.00
157.50	8.60	7.03	0.00
160.00	8.60	7.03	0.00
162.50	8.60	7.03	0.00
165.00	8.60	7.03	0.00
167.50	8.60	7.03	0.00
170.00	8.60	7.03	0.00
172.50	8.60	7.03	0.00
175.00	8.60	7.03	0.00
177.50	8.60	7.03	0.00
180.00	8.60	7.03	0.00
182.50	8.60	7.03	0.00
185.00	8.60	7.03	0.00
187.50	8.60	7.03	0.00
190.00	8.60	7.03	0.00
192.50	8.60	7.03	0.00
195.00	8.60	7.03	0.00
197.50	8.60	7.03	0.00
200.00	8.60	7.03	0.00
202.50	8.60	7.03	0.00
205.00	8.60	7.03	0.00
207.50	8.60	7.03	0.00
210.00	8.60	7.03	0.00
212.50	8.60	7.03	0.00
215.00	8.60	7.03	0.00
217.50	8.60	7.03	0.00
220.00	8.60	7.03	0.00
222.50	8.60	7.03	0.00
225.00	8.60	7.03	0.00
227.50	8.60	7.03	0.00
230.00	8.60	7.03	0.00
232.50	8.60	7.03	0.00
235.00	8.60	7.03	0.00
237.50	8.60	7.03	0.00
240.00	8.60	7.03	0.00

Summary for Subcatchment PDA-1.4G: Subcat PDA-1.4G

Runoff = 4.00 cfs @ 12.09 hrs, Volume= 13,512 cf, Depth= 7.28"
Routed to Pond 19P : Sand Filter 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
8,361	74	>75% Grass cover, Good, HSG C
160	80	>75% Grass cover, Good, HSG D
13,763	98	Paved parking, HSG C
22,284	89	Weighted Average
8,521	74	38.24% Pervious Area
13,763	98	61.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4G: Subcat PDA-1.4G

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.04	0.02
7.50	0.87	0.21	0.06
10.00	1.63	0.73	**0.16**
12.50	6.04	4.77	**0.86**
15.00	7.35	6.05	0.17
17.50	7.91	6.60	0.08
20.00	8.23	6.91	0.06
22.50	**8.48**	**7.16**	0.04
25.00	**8.60**	**7.28**	0.00
27.50	8.60	7.28	0.00
30.00	8.60	7.28	0.00
32.50	8.60	7.28	0.00
35.00	8.60	7.28	0.00
37.50	8.60	7.28	0.00
40.00	8.60	7.28	0.00
42.50	8.60	7.28	0.00
45.00	8.60	7.28	0.00
47.50	8.60	7.28	0.00
50.00	8.60	7.28	0.00
52.50	8.60	7.28	0.00
55.00	8.60	7.28	0.00
57.50	8.60	7.28	0.00
60.00	8.60	7.28	0.00
62.50	8.60	7.28	0.00
65.00	8.60	7.28	0.00
67.50	8.60	7.28	0.00
70.00	8.60	7.28	0.00
72.50	8.60	7.28	0.00
75.00	8.60	7.28	0.00
77.50	8.60	7.28	0.00
80.00	8.60	7.28	0.00
82.50	8.60	7.28	0.00
85.00	8.60	7.28	0.00
87.50	8.60	7.28	0.00
90.00	8.60	7.28	0.00
92.50	8.60	7.28	0.00
95.00	8.60	7.28	0.00
97.50	8.60	7.28	0.00
100.00	8.60	7.28	0.00
102.50	8.60	7.28	0.00
105.00	8.60	7.28	0.00
107.50	8.60	7.28	0.00
110.00	8.60	7.28	0.00
112.50	8.60	7.28	0.00
115.00	8.60	7.28	0.00
117.50	8.60	7.28	0.00
120.00	8.60	7.28	0.00
122.50	8.60	7.28	0.00
125.00	8.60	7.28	0.00
127.50	8.60	7.28	0.00
130.00	8.60	7.28	0.00
132.50	8.60	7.28	0.00
135.00	8.60	7.28	0.00
137.50	8.60	7.28	0.00
140.00	8.60	7.28	0.00
142.50	8.60	7.28	0.00
145.00	8.60	7.28	0.00
147.50	8.60	7.28	0.00
150.00	8.60	7.28	0.00
152.50	8.60	7.28	0.00
155.00	8.60	7.28	0.00
157.50	8.60	7.28	0.00
160.00	8.60	7.28	0.00
162.50	8.60	7.28	0.00
165.00	8.60	7.28	0.00
167.50	8.60	7.28	0.00
170.00	8.60	7.28	0.00
172.50	8.60	7.28	0.00
175.00	8.60	7.28	0.00
177.50	8.60	7.28	0.00
180.00	8.60	7.28	0.00
182.50	8.60	7.28	0.00
185.00	8.60	7.28	0.00
187.50	8.60	7.28	0.00
190.00	8.60	7.28	0.00
192.50	8.60	7.28	0.00
195.00	8.60	7.28	0.00
197.50	8.60	7.28	0.00
200.00	8.60	7.28	0.00
202.50	8.60	7.28	0.00
205.00	8.60	7.28	0.00
207.50	8.60	7.28	0.00
210.00	8.60	7.28	0.00
212.50	8.60	7.28	0.00
215.00	8.60	7.28	0.00
217.50	8.60	7.28	0.00
220.00	8.60	7.28	0.00
222.50	8.60	7.28	0.00
225.00	8.60	7.28	0.00
227.50	8.60	7.28	0.00
230.00	8.60	7.28	0.00
232.50	8.60	7.28	0.00
235.00	8.60	7.28	0.00
237.50	8.60	7.28	0.00
240.00	8.60	7.28	0.00

Summary for Subcatchment PDA-1.4H: Subcat PDA-1.4H

Runoff = 1.57 cfs @ 12.09 hrs, Volume= 5,001 cf, Depth= 5.59"
Routed to Pond 4P : Detention Basin 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
9,974	74	>75% Grass cover, Good, HSG C
169	80	>75% Grass cover, Good, HSG D
600	98	Paved parking, HSG C
10,744	75	Weighted Average
10,143	74	94.41% Pervious Area
600	98	5.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4H: Subcat PDA-1.4H

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.01	0.01
10.00	1.63	0.21	**0.04**
12.50	6.04	3.31	**0.36**
15.00	7.35	4.46	0.07
17.50	7.91	4.96	0.04
20.00	8.23	5.25	0.03
22.50	**8.48**	**5.48**	0.02
25.00	**8.60**	**5.59**	0.00
27.50	8.60	5.59	0.00
30.00	8.60	5.59	0.00
32.50	8.60	5.59	0.00
35.00	8.60	5.59	0.00
37.50	8.60	5.59	0.00
40.00	8.60	5.59	0.00
42.50	8.60	5.59	0.00
45.00	8.60	5.59	0.00
47.50	8.60	5.59	0.00
50.00	8.60	5.59	0.00
52.50	8.60	5.59	0.00
55.00	8.60	5.59	0.00
57.50	8.60	5.59	0.00
60.00	8.60	5.59	0.00
62.50	8.60	5.59	0.00
65.00	8.60	5.59	0.00
67.50	8.60	5.59	0.00
70.00	8.60	5.59	0.00
72.50	8.60	5.59	0.00
75.00	8.60	5.59	0.00
77.50	8.60	5.59	0.00
80.00	8.60	5.59	0.00
82.50	8.60	5.59	0.00
85.00	8.60	5.59	0.00
87.50	8.60	5.59	0.00
90.00	8.60	5.59	0.00
92.50	8.60	5.59	0.00
95.00	8.60	5.59	0.00
97.50	8.60	5.59	0.00
100.00	8.60	5.59	0.00
102.50	8.60	5.59	0.00
105.00	8.60	5.59	0.00
107.50	8.60	5.59	0.00
110.00	8.60	5.59	0.00
112.50	8.60	5.59	0.00
115.00	8.60	5.59	0.00
117.50	8.60	5.59	0.00
120.00	8.60	5.59	0.00
122.50	8.60	5.59	0.00
125.00	8.60	5.59	0.00
127.50	8.60	5.59	0.00
130.00	8.60	5.59	0.00
132.50	8.60	5.59	0.00
135.00	8.60	5.59	0.00
137.50	8.60	5.59	0.00
140.00	8.60	5.59	0.00
142.50	8.60	5.59	0.00
145.00	8.60	5.59	0.00
147.50	8.60	5.59	0.00
150.00	8.60	5.59	0.00
152.50	8.60	5.59	0.00
155.00	8.60	5.59	0.00
157.50	8.60	5.59	0.00
160.00	8.60	5.59	0.00
162.50	8.60	5.59	0.00
165.00	8.60	5.59	0.00
167.50	8.60	5.59	0.00
170.00	8.60	5.59	0.00
172.50	8.60	5.59	0.00
175.00	8.60	5.59	0.00
177.50	8.60	5.59	0.00
180.00	8.60	5.59	0.00
182.50	8.60	5.59	0.00
185.00	8.60	5.59	0.00
187.50	8.60	5.59	0.00
190.00	8.60	5.59	0.00
192.50	8.60	5.59	0.00
195.00	8.60	5.59	0.00
197.50	8.60	5.59	0.00
200.00	8.60	5.59	0.00
202.50	8.60	5.59	0.00
205.00	8.60	5.59	0.00
207.50	8.60	5.59	0.00
210.00	8.60	5.59	0.00
212.50	8.60	5.59	0.00
215.00	8.60	5.59	0.00
217.50	8.60	5.59	0.00
220.00	8.60	5.59	0.00
222.50	8.60	5.59	0.00
225.00	8.60	5.59	0.00
227.50	8.60	5.59	0.00
230.00	8.60	5.59	0.00
232.50	8.60	5.59	0.00
235.00	8.60	5.59	0.00
237.50	8.60	5.59	0.00
240.00	8.60	5.59	0.00

Summary for Subcatchment PDA-1.4I: Subcat PDA-1.4I

Runoff = 1.59 cfs @ 12.09 hrs, Volume= 5,166 cf, Depth= 6.31"
Routed to Pond 12P : Infiltration Basin 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
6,972	74	>75% Grass cover, Good, HSG C
194	80	>75% Grass cover, Good, HSG D
2,658	98	Paved parking, HSG C
0	98	Roofs, HSG C
9,824	81	Weighted Average
7,166	74	72.94% Pervious Area
2,658	98	27.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4I: Subcat PDA-1.4I

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.06	0.01
10.00	1.63	0.38	**0.05**
12.50	6.04	3.92	**0.36**
15.00	7.35	5.13	0.07
17.50	7.91	5.65	0.03
20.00	8.23	5.96	0.02
22.50	**8.48**	**6.20**	0.02
25.00	**8.60**	**6.31**	0.00
27.50	8.60	6.31	0.00
30.00	8.60	6.31	0.00
32.50	8.60	6.31	0.00
35.00	8.60	6.31	0.00
37.50	8.60	6.31	0.00
40.00	8.60	6.31	0.00
42.50	8.60	6.31	0.00
45.00	8.60	6.31	0.00
47.50	8.60	6.31	0.00
50.00	8.60	6.31	0.00
52.50	8.60	6.31	0.00
55.00	8.60	6.31	0.00
57.50	8.60	6.31	0.00
60.00	8.60	6.31	0.00
62.50	8.60	6.31	0.00
65.00	8.60	6.31	0.00
67.50	8.60	6.31	0.00
70.00	8.60	6.31	0.00
72.50	8.60	6.31	0.00
75.00	8.60	6.31	0.00
77.50	8.60	6.31	0.00
80.00	8.60	6.31	0.00
82.50	8.60	6.31	0.00
85.00	8.60	6.31	0.00
87.50	8.60	6.31	0.00
90.00	8.60	6.31	0.00
92.50	8.60	6.31	0.00
95.00	8.60	6.31	0.00
97.50	8.60	6.31	0.00
100.00	8.60	6.31	0.00
102.50	8.60	6.31	0.00
105.00	8.60	6.31	0.00
107.50	8.60	6.31	0.00
110.00	8.60	6.31	0.00
112.50	8.60	6.31	0.00
115.00	8.60	6.31	0.00
117.50	8.60	6.31	0.00
120.00	8.60	6.31	0.00
122.50	8.60	6.31	0.00
125.00	8.60	6.31	0.00
127.50	8.60	6.31	0.00
130.00	8.60	6.31	0.00
132.50	8.60	6.31	0.00
135.00	8.60	6.31	0.00
137.50	8.60	6.31	0.00
140.00	8.60	6.31	0.00
142.50	8.60	6.31	0.00
145.00	8.60	6.31	0.00
147.50	8.60	6.31	0.00
150.00	8.60	6.31	0.00
152.50	8.60	6.31	0.00
155.00	8.60	6.31	0.00
157.50	8.60	6.31	0.00
160.00	8.60	6.31	0.00
162.50	8.60	6.31	0.00
165.00	8.60	6.31	0.00
167.50	8.60	6.31	0.00
170.00	8.60	6.31	0.00
172.50	8.60	6.31	0.00
175.00	8.60	6.31	0.00
177.50	8.60	6.31	0.00
180.00	8.60	6.31	0.00
182.50	8.60	6.31	0.00
185.00	8.60	6.31	0.00
187.50	8.60	6.31	0.00
190.00	8.60	6.31	0.00
192.50	8.60	6.31	0.00
195.00	8.60	6.31	0.00
197.50	8.60	6.31	0.00
200.00	8.60	6.31	0.00
202.50	8.60	6.31	0.00
205.00	8.60	6.31	0.00
207.50	8.60	6.31	0.00
210.00	8.60	6.31	0.00
212.50	8.60	6.31	0.00
215.00	8.60	6.31	0.00
217.50	8.60	6.31	0.00
220.00	8.60	6.31	0.00
222.50	8.60	6.31	0.00
225.00	8.60	6.31	0.00
227.50	8.60	6.31	0.00
230.00	8.60	6.31	0.00
232.50	8.60	6.31	0.00
235.00	8.60	6.31	0.00
237.50	8.60	6.31	0.00
240.00	8.60	6.31	0.00

Summary for Subcatchment PDA-1.4J: Subcat PDA-1.4J

Runoff = 9.35 cfs @ 12.09 hrs, Volume= 30,074 cf, Depth= 6.07"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
22,085	74	>75% Grass cover, Good, HSG C
32,367	80	>75% Grass cover, Good, HSG D
4,308	98	Paved parking, HSG C
392	98	Paved parking, HSG D
314	98	Unconnected pavement, HSG D
59,466	79	Weighted Average
54,452	78	91.57% Pervious Area
5,014	98	8.43% Impervious Area
314		6.27% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4J: Subcat PDA-1.4J

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.04	0.06
10.00	1.63	0.32	**0.28**
12.50	6.04	3.71	**2.11**
15.00	7.35	4.90	0.42
17.50	7.91	5.42	0.21
20.00	8.23	5.72	0.15
22.50	**8.48**	**5.96**	0.11
25.00	**8.60**	**6.07**	0.00
27.50	8.60	6.07	0.00
30.00	8.60	6.07	0.00
32.50	8.60	6.07	0.00
35.00	8.60	6.07	0.00
37.50	8.60	6.07	0.00
40.00	8.60	6.07	0.00
42.50	8.60	6.07	0.00
45.00	8.60	6.07	0.00
47.50	8.60	6.07	0.00
50.00	8.60	6.07	0.00
52.50	8.60	6.07	0.00
55.00	8.60	6.07	0.00
57.50	8.60	6.07	0.00
60.00	8.60	6.07	0.00
62.50	8.60	6.07	0.00
65.00	8.60	6.07	0.00
67.50	8.60	6.07	0.00
70.00	8.60	6.07	0.00
72.50	8.60	6.07	0.00
75.00	8.60	6.07	0.00
77.50	8.60	6.07	0.00
80.00	8.60	6.07	0.00
82.50	8.60	6.07	0.00
85.00	8.60	6.07	0.00
87.50	8.60	6.07	0.00
90.00	8.60	6.07	0.00
92.50	8.60	6.07	0.00
95.00	8.60	6.07	0.00
97.50	8.60	6.07	0.00
100.00	8.60	6.07	0.00
102.50	8.60	6.07	0.00
105.00	8.60	6.07	0.00
107.50	8.60	6.07	0.00
110.00	8.60	6.07	0.00
112.50	8.60	6.07	0.00
115.00	8.60	6.07	0.00
117.50	8.60	6.07	0.00
120.00	8.60	6.07	0.00
122.50	8.60	6.07	0.00
125.00	8.60	6.07	0.00
127.50	8.60	6.07	0.00
130.00	8.60	6.07	0.00
132.50	8.60	6.07	0.00
135.00	8.60	6.07	0.00
137.50	8.60	6.07	0.00
140.00	8.60	6.07	0.00
142.50	8.60	6.07	0.00
145.00	8.60	6.07	0.00
147.50	8.60	6.07	0.00
150.00	8.60	6.07	0.00
152.50	8.60	6.07	0.00
155.00	8.60	6.07	0.00
157.50	8.60	6.07	0.00
160.00	8.60	6.07	0.00
162.50	8.60	6.07	0.00
165.00	8.60	6.07	0.00
167.50	8.60	6.07	0.00
170.00	8.60	6.07	0.00
172.50	8.60	6.07	0.00
175.00	8.60	6.07	0.00
177.50	8.60	6.07	0.00
180.00	8.60	6.07	0.00
182.50	8.60	6.07	0.00
185.00	8.60	6.07	0.00
187.50	8.60	6.07	0.00
190.00	8.60	6.07	0.00
192.50	8.60	6.07	0.00
195.00	8.60	6.07	0.00
197.50	8.60	6.07	0.00
200.00	8.60	6.07	0.00
202.50	8.60	6.07	0.00
205.00	8.60	6.07	0.00
207.50	8.60	6.07	0.00
210.00	8.60	6.07	0.00
212.50	8.60	6.07	0.00
215.00	8.60	6.07	0.00
217.50	8.60	6.07	0.00
220.00	8.60	6.07	0.00
222.50	8.60	6.07	0.00
225.00	8.60	6.07	0.00
227.50	8.60	6.07	0.00
230.00	8.60	6.07	0.00
232.50	8.60	6.07	0.00
235.00	8.60	6.07	0.00
237.50	8.60	6.07	0.00
240.00	8.60	6.07	0.00

Summary for Subcatchment PDA-1.4K: Subcat PDA-1.4K

Runoff = 3.50 cfs @ 12.09 hrs, Volume= 12,204 cf, Depth= 7.76"
Routed to Pond 9P : Sand Filter 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
3,577	74	>75% Grass cover, Good, HSG C
173	80	>75% Grass cover, Good, HSG D
15,126	98	Paved parking, HSG C
18,876	93	Weighted Average
3,751	74	19.87% Pervious Area
15,126	98	80.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-1.4K: Subcat PDA-1.4K

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.01	0.01
5.00	0.49	0.10	0.03
7.50	0.87	0.35	0.06
10.00	1.63	0.98	**0.16**
12.50	6.04	5.22	**0.74**
15.00	7.35	6.51	0.14
17.50	7.91	7.07	0.07
20.00	8.23	7.39	0.05
22.50	**8.48**	**7.64**	0.04
25.00	**8.60**	**7.76**	0.00
27.50	8.60	7.76	0.00
30.00	8.60	7.76	0.00
32.50	8.60	7.76	0.00
35.00	8.60	7.76	0.00
37.50	8.60	7.76	0.00
40.00	8.60	7.76	0.00
42.50	8.60	7.76	0.00
45.00	8.60	7.76	0.00
47.50	8.60	7.76	0.00
50.00	8.60	7.76	0.00
52.50	8.60	7.76	0.00
55.00	8.60	7.76	0.00
57.50	8.60	7.76	0.00
60.00	8.60	7.76	0.00
62.50	8.60	7.76	0.00
65.00	8.60	7.76	0.00
67.50	8.60	7.76	0.00
70.00	8.60	7.76	0.00
72.50	8.60	7.76	0.00
75.00	8.60	7.76	0.00
77.50	8.60	7.76	0.00
80.00	8.60	7.76	0.00
82.50	8.60	7.76	0.00
85.00	8.60	7.76	0.00
87.50	8.60	7.76	0.00
90.00	8.60	7.76	0.00
92.50	8.60	7.76	0.00
95.00	8.60	7.76	0.00
97.50	8.60	7.76	0.00
100.00	8.60	7.76	0.00
102.50	8.60	7.76	0.00
105.00	8.60	7.76	0.00
107.50	8.60	7.76	0.00
110.00	8.60	7.76	0.00
112.50	8.60	7.76	0.00
115.00	8.60	7.76	0.00
117.50	8.60	7.76	0.00
120.00	8.60	7.76	0.00
122.50	8.60	7.76	0.00
125.00	8.60	7.76	0.00
127.50	8.60	7.76	0.00
130.00	8.60	7.76	0.00
132.50	8.60	7.76	0.00
135.00	8.60	7.76	0.00
137.50	8.60	7.76	0.00
140.00	8.60	7.76	0.00
142.50	8.60	7.76	0.00
145.00	8.60	7.76	0.00
147.50	8.60	7.76	0.00
150.00	8.60	7.76	0.00
152.50	8.60	7.76	0.00
155.00	8.60	7.76	0.00
157.50	8.60	7.76	0.00
160.00	8.60	7.76	0.00
162.50	8.60	7.76	0.00
165.00	8.60	7.76	0.00
167.50	8.60	7.76	0.00
170.00	8.60	7.76	0.00
172.50	8.60	7.76	0.00
175.00	8.60	7.76	0.00
177.50	8.60	7.76	0.00
180.00	8.60	7.76	0.00
182.50	8.60	7.76	0.00
185.00	8.60	7.76	0.00
187.50	8.60	7.76	0.00
190.00	8.60	7.76	0.00
192.50	8.60	7.76	0.00
195.00	8.60	7.76	0.00
197.50	8.60	7.76	0.00
200.00	8.60	7.76	0.00
202.50	8.60	7.76	0.00
205.00	8.60	7.76	0.00
207.50	8.60	7.76	0.00
210.00	8.60	7.76	0.00
212.50	8.60	7.76	0.00
215.00	8.60	7.76	0.00
217.50	8.60	7.76	0.00
220.00	8.60	7.76	0.00
222.50	8.60	7.76	0.00
225.00	8.60	7.76	0.00
227.50	8.60	7.76	0.00
230.00	8.60	7.76	0.00
232.50	8.60	7.76	0.00
235.00	8.60	7.76	0.00
237.50	8.60	7.76	0.00
240.00	8.60	7.76	0.00

Summary for Subcatchment PDA-1.4L: Subcat PDA-1.4L

Runoff = 1.77 cfs @ 12.12 hrs, Volume= 6,178 cf, Depth= 6.19"
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
9,069	74	>75% Grass cover, Good, HSG C
2,908	98	Paved parking, HSG C
1	98	Roofs, HSG C
11,978	80	Weighted Average
9,069	74	75.72% Pervious Area
2,909	98	24.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	32	0.0120	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
3.7	43	0.0400	0.19		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
8.5	75	Total			

Hydrograph for Subcatchment PDA-1.4L: Subcat PDA-1.4L

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.05	0.01
10.00	1.63	0.35	**0.06**
12.50	6.04	3.81	**0.50**
15.00	7.35	5.02	0.09
17.50	7.91	5.54	0.04
20.00	8.23	5.84	0.03
22.50	**8.48**	**6.08**	0.02
25.00	**8.60**	**6.19**	0.00
27.50	8.60	6.19	0.00
30.00	8.60	6.19	0.00
32.50	8.60	6.19	0.00
35.00	8.60	6.19	0.00
37.50	8.60	6.19	0.00
40.00	8.60	6.19	0.00
42.50	8.60	6.19	0.00
45.00	8.60	6.19	0.00
47.50	8.60	6.19	0.00
50.00	8.60	6.19	0.00
52.50	8.60	6.19	0.00
55.00	8.60	6.19	0.00
57.50	8.60	6.19	0.00
60.00	8.60	6.19	0.00
62.50	8.60	6.19	0.00
65.00	8.60	6.19	0.00
67.50	8.60	6.19	0.00
70.00	8.60	6.19	0.00
72.50	8.60	6.19	0.00
75.00	8.60	6.19	0.00
77.50	8.60	6.19	0.00
80.00	8.60	6.19	0.00
82.50	8.60	6.19	0.00
85.00	8.60	6.19	0.00
87.50	8.60	6.19	0.00
90.00	8.60	6.19	0.00
92.50	8.60	6.19	0.00
95.00	8.60	6.19	0.00
97.50	8.60	6.19	0.00
100.00	8.60	6.19	0.00
102.50	8.60	6.19	0.00
105.00	8.60	6.19	0.00
107.50	8.60	6.19	0.00
110.00	8.60	6.19	0.00
112.50	8.60	6.19	0.00
115.00	8.60	6.19	0.00
117.50	8.60	6.19	0.00
120.00	8.60	6.19	0.00
122.50	8.60	6.19	0.00
125.00	8.60	6.19	0.00
127.50	8.60	6.19	0.00
130.00	8.60	6.19	0.00
132.50	8.60	6.19	0.00
135.00	8.60	6.19	0.00
137.50	8.60	6.19	0.00
140.00	8.60	6.19	0.00
142.50	8.60	6.19	0.00
145.00	8.60	6.19	0.00
147.50	8.60	6.19	0.00
150.00	8.60	6.19	0.00
152.50	8.60	6.19	0.00
155.00	8.60	6.19	0.00
157.50	8.60	6.19	0.00
160.00	8.60	6.19	0.00
162.50	8.60	6.19	0.00
165.00	8.60	6.19	0.00
167.50	8.60	6.19	0.00
170.00	8.60	6.19	0.00
172.50	8.60	6.19	0.00
175.00	8.60	6.19	0.00
177.50	8.60	6.19	0.00
180.00	8.60	6.19	0.00
182.50	8.60	6.19	0.00
185.00	8.60	6.19	0.00
187.50	8.60	6.19	0.00
190.00	8.60	6.19	0.00
192.50	8.60	6.19	0.00
195.00	8.60	6.19	0.00
197.50	8.60	6.19	0.00
200.00	8.60	6.19	0.00
202.50	8.60	6.19	0.00
205.00	8.60	6.19	0.00
207.50	8.60	6.19	0.00
210.00	8.60	6.19	0.00
212.50	8.60	6.19	0.00
215.00	8.60	6.19	0.00
217.50	8.60	6.19	0.00
220.00	8.60	6.19	0.00
222.50	8.60	6.19	0.00
225.00	8.60	6.19	0.00
227.50	8.60	6.19	0.00
230.00	8.60	6.19	0.00
232.50	8.60	6.19	0.00
235.00	8.60	6.19	0.00
237.50	8.60	6.19	0.00
240.00	8.60	6.19	0.00

Summary for Subcatchment PDA-1.4M: Subcat PDA-1.4M

Runoff = 0.54 cfs @ 12.20 hrs, Volume= 2,204 cf, Depth= 5.59"
Routed to Pond 9P : Sand Filter 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
4,536	74	>75% Grass cover, Good, HSG C
199	98	Paved parking, HSG C
4,734	75	Weighted Average
4,536	74	95.80% Pervious Area
199	98	4.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
1.6	66	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.3	166	Total			

Hydrograph for Subcatchment PDA-1.4M: Subcat PDA-1.4M

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.01	0.00
10.00	1.63	0.21	**0.02**
12.50	6.04	3.31	**0.26**
15.00	7.35	4.46	0.03
17.50	7.91	4.96	0.02
20.00	8.23	5.25	0.01
22.50	**8.48**	**5.48**	0.01
25.00	**8.60**	**5.59**	0.00
27.50	8.60	5.59	0.00
30.00	8.60	5.59	0.00
32.50	8.60	5.59	0.00
35.00	8.60	5.59	0.00
37.50	8.60	5.59	0.00
40.00	8.60	5.59	0.00
42.50	8.60	5.59	0.00
45.00	8.60	5.59	0.00
47.50	8.60	5.59	0.00
50.00	8.60	5.59	0.00
52.50	8.60	5.59	0.00
55.00	8.60	5.59	0.00
57.50	8.60	5.59	0.00
60.00	8.60	5.59	0.00
62.50	8.60	5.59	0.00
65.00	8.60	5.59	0.00
67.50	8.60	5.59	0.00
70.00	8.60	5.59	0.00
72.50	8.60	5.59	0.00
75.00	8.60	5.59	0.00
77.50	8.60	5.59	0.00
80.00	8.60	5.59	0.00
82.50	8.60	5.59	0.00
85.00	8.60	5.59	0.00
87.50	8.60	5.59	0.00
90.00	8.60	5.59	0.00
92.50	8.60	5.59	0.00
95.00	8.60	5.59	0.00
97.50	8.60	5.59	0.00
100.00	8.60	5.59	0.00
102.50	8.60	5.59	0.00
105.00	8.60	5.59	0.00
107.50	8.60	5.59	0.00
110.00	8.60	5.59	0.00
112.50	8.60	5.59	0.00
115.00	8.60	5.59	0.00
117.50	8.60	5.59	0.00
120.00	8.60	5.59	0.00
122.50	8.60	5.59	0.00
125.00	8.60	5.59	0.00
127.50	8.60	5.59	0.00
130.00	8.60	5.59	0.00
132.50	8.60	5.59	0.00
135.00	8.60	5.59	0.00
137.50	8.60	5.59	0.00
140.00	8.60	5.59	0.00
142.50	8.60	5.59	0.00
145.00	8.60	5.59	0.00
147.50	8.60	5.59	0.00
150.00	8.60	5.59	0.00
152.50	8.60	5.59	0.00
155.00	8.60	5.59	0.00
157.50	8.60	5.59	0.00
160.00	8.60	5.59	0.00
162.50	8.60	5.59	0.00
165.00	8.60	5.59	0.00
167.50	8.60	5.59	0.00
170.00	8.60	5.59	0.00
172.50	8.60	5.59	0.00
175.00	8.60	5.59	0.00
177.50	8.60	5.59	0.00
180.00	8.60	5.59	0.00
182.50	8.60	5.59	0.00
185.00	8.60	5.59	0.00
187.50	8.60	5.59	0.00
190.00	8.60	5.59	0.00
192.50	8.60	5.59	0.00
195.00	8.60	5.59	0.00
197.50	8.60	5.59	0.00
200.00	8.60	5.59	0.00
202.50	8.60	5.59	0.00
205.00	8.60	5.59	0.00
207.50	8.60	5.59	0.00
210.00	8.60	5.59	0.00
212.50	8.60	5.59	0.00
215.00	8.60	5.59	0.00
217.50	8.60	5.59	0.00
220.00	8.60	5.59	0.00
222.50	8.60	5.59	0.00
225.00	8.60	5.59	0.00
227.50	8.60	5.59	0.00
230.00	8.60	5.59	0.00
232.50	8.60	5.59	0.00
235.00	8.60	5.59	0.00
237.50	8.60	5.59	0.00
240.00	8.60	5.59	0.00

Summary for Subcatchment PDA-2.1A: Subcat PDA-2.1A

Runoff = 42.39 cfs @ 12.22 hrs, Volume= 183,073 cf, Depth= 6.31"
Routed to Pond 28P : DIV-01

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
244,846	74	>75% Grass cover, Good, HSG C
65	80	>75% Grass cover, Good, HSG D
7,583	87	Dirt roads, HSG C
4,725	96	Gravel surface, HSG C
86,246	98	Paved parking, HSG C
4,565	98	Unconnected pavement, HSG C
107	70	Woods, Good, HSG C
348,138	81	Weighted Average
257,327	75	73.92% Pervious Area
90,810	98	26.08% Impervious Area
4,565		5.03% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
2.5	103	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.1	66	0.0189	0.96		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.3	269	Total			

Hydrograph for Subcatchment PDA-2.1A: Subcat PDA-2.1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.06	0.38
10.00	1.63	0.38	**1.67**
12.50	6.04	3.92	**22.29**
15.00	7.35	5.13	2.62
17.50	7.91	5.65	1.29
20.00	8.23	5.96	0.88
22.50	**8.48**	**6.20**	0.69
25.00	**8.60**	**6.31**	0.00
27.50	8.60	6.31	0.00
30.00	8.60	6.31	0.00
32.50	8.60	6.31	0.00
35.00	8.60	6.31	0.00
37.50	8.60	6.31	0.00
40.00	8.60	6.31	0.00
42.50	8.60	6.31	0.00
45.00	8.60	6.31	0.00
47.50	8.60	6.31	0.00
50.00	8.60	6.31	0.00
52.50	8.60	6.31	0.00
55.00	8.60	6.31	0.00
57.50	8.60	6.31	0.00
60.00	8.60	6.31	0.00
62.50	8.60	6.31	0.00
65.00	8.60	6.31	0.00
67.50	8.60	6.31	0.00
70.00	8.60	6.31	0.00
72.50	8.60	6.31	0.00
75.00	8.60	6.31	0.00
77.50	8.60	6.31	0.00
80.00	8.60	6.31	0.00
82.50	8.60	6.31	0.00
85.00	8.60	6.31	0.00
87.50	8.60	6.31	0.00
90.00	8.60	6.31	0.00
92.50	8.60	6.31	0.00
95.00	8.60	6.31	0.00
97.50	8.60	6.31	0.00
100.00	8.60	6.31	0.00
102.50	8.60	6.31	0.00
105.00	8.60	6.31	0.00
107.50	8.60	6.31	0.00
110.00	8.60	6.31	0.00
112.50	8.60	6.31	0.00
115.00	8.60	6.31	0.00
117.50	8.60	6.31	0.00
120.00	8.60	6.31	0.00
122.50	8.60	6.31	0.00
125.00	8.60	6.31	0.00
127.50	8.60	6.31	0.00
130.00	8.60	6.31	0.00
132.50	8.60	6.31	0.00
135.00	8.60	6.31	0.00
137.50	8.60	6.31	0.00
140.00	8.60	6.31	0.00
142.50	8.60	6.31	0.00
145.00	8.60	6.31	0.00
147.50	8.60	6.31	0.00
150.00	8.60	6.31	0.00
152.50	8.60	6.31	0.00
155.00	8.60	6.31	0.00
157.50	8.60	6.31	0.00
160.00	8.60	6.31	0.00
162.50	8.60	6.31	0.00
165.00	8.60	6.31	0.00
167.50	8.60	6.31	0.00
170.00	8.60	6.31	0.00
172.50	8.60	6.31	0.00
175.00	8.60	6.31	0.00
177.50	8.60	6.31	0.00
180.00	8.60	6.31	0.00
182.50	8.60	6.31	0.00
185.00	8.60	6.31	0.00
187.50	8.60	6.31	0.00
190.00	8.60	6.31	0.00
192.50	8.60	6.31	0.00
195.00	8.60	6.31	0.00
197.50	8.60	6.31	0.00
200.00	8.60	6.31	0.00
202.50	8.60	6.31	0.00
205.00	8.60	6.31	0.00
207.50	8.60	6.31	0.00
210.00	8.60	6.31	0.00
212.50	8.60	6.31	0.00
215.00	8.60	6.31	0.00
217.50	8.60	6.31	0.00
220.00	8.60	6.31	0.00
222.50	8.60	6.31	0.00
225.00	8.60	6.31	0.00
227.50	8.60	6.31	0.00
230.00	8.60	6.31	0.00
232.50	8.60	6.31	0.00
235.00	8.60	6.31	0.00
237.50	8.60	6.31	0.00
240.00	8.60	6.31	0.00

Summary for Subcatchment PDA-2.1B: Subcat PDA-2.1B

Runoff = 16.62 cfs @ 12.23 hrs, Volume= 72,266 cf, Depth= 5.71"
Routed to Pond 15P : Detention Basin 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
135,152	74	>75% Grass cover, Good, HSG C
9,554	87	Dirt roads, HSG C
4,830	98	Paved parking, HSG C
2,421	98	Unconnected pavement, HSG C
151,957	76	Weighted Average
144,706	75	95.23% Pervious Area
7,251	98	4.77% Impervious Area
2,421		33.39% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.8	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.30"
0.2	23	0.0500	1.57		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.0	123	Total			

Hydrograph for Subcatchment PDA-2.1B: Subcat PDA-2.1B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.02	0.07
10.00	1.63	0.24	**0.54**
12.50	6.04	3.41	**9.37**
15.00	7.35	4.57	1.10
17.50	7.91	5.07	0.54
20.00	8.23	5.37	0.37
22.50	**8.48**	**5.60**	0.29
25.00	**8.60**	**5.71**	0.00
27.50	8.60	5.71	0.00
30.00	8.60	5.71	0.00
32.50	8.60	5.71	0.00
35.00	8.60	5.71	0.00
37.50	8.60	5.71	0.00
40.00	8.60	5.71	0.00
42.50	8.60	5.71	0.00
45.00	8.60	5.71	0.00
47.50	8.60	5.71	0.00
50.00	8.60	5.71	0.00
52.50	8.60	5.71	0.00
55.00	8.60	5.71	0.00
57.50	8.60	5.71	0.00
60.00	8.60	5.71	0.00
62.50	8.60	5.71	0.00
65.00	8.60	5.71	0.00
67.50	8.60	5.71	0.00
70.00	8.60	5.71	0.00
72.50	8.60	5.71	0.00
75.00	8.60	5.71	0.00
77.50	8.60	5.71	0.00
80.00	8.60	5.71	0.00
82.50	8.60	5.71	0.00
85.00	8.60	5.71	0.00
87.50	8.60	5.71	0.00
90.00	8.60	5.71	0.00
92.50	8.60	5.71	0.00
95.00	8.60	5.71	0.00
97.50	8.60	5.71	0.00
100.00	8.60	5.71	0.00
102.50	8.60	5.71	0.00
105.00	8.60	5.71	0.00
107.50	8.60	5.71	0.00
110.00	8.60	5.71	0.00
112.50	8.60	5.71	0.00
115.00	8.60	5.71	0.00
117.50	8.60	5.71	0.00
120.00	8.60	5.71	0.00
122.50	8.60	5.71	0.00
125.00	8.60	5.71	0.00
127.50	8.60	5.71	0.00
130.00	8.60	5.71	0.00
132.50	8.60	5.71	0.00
135.00	8.60	5.71	0.00
137.50	8.60	5.71	0.00
140.00	8.60	5.71	0.00
142.50	8.60	5.71	0.00
145.00	8.60	5.71	0.00
147.50	8.60	5.71	0.00
150.00	8.60	5.71	0.00
152.50	8.60	5.71	0.00
155.00	8.60	5.71	0.00
157.50	8.60	5.71	0.00
160.00	8.60	5.71	0.00
162.50	8.60	5.71	0.00
165.00	8.60	5.71	0.00
167.50	8.60	5.71	0.00
170.00	8.60	5.71	0.00
172.50	8.60	5.71	0.00
175.00	8.60	5.71	0.00
177.50	8.60	5.71	0.00
180.00	8.60	5.71	0.00
182.50	8.60	5.71	0.00
185.00	8.60	5.71	0.00
187.50	8.60	5.71	0.00
190.00	8.60	5.71	0.00
192.50	8.60	5.71	0.00
195.00	8.60	5.71	0.00
197.50	8.60	5.71	0.00
200.00	8.60	5.71	0.00
202.50	8.60	5.71	0.00
205.00	8.60	5.71	0.00
207.50	8.60	5.71	0.00
210.00	8.60	5.71	0.00
212.50	8.60	5.71	0.00
215.00	8.60	5.71	0.00
217.50	8.60	5.71	0.00
220.00	8.60	5.71	0.00
222.50	8.60	5.71	0.00
225.00	8.60	5.71	0.00
227.50	8.60	5.71	0.00
230.00	8.60	5.71	0.00
232.50	8.60	5.71	0.00
235.00	8.60	5.71	0.00
237.50	8.60	5.71	0.00
240.00	8.60	5.71	0.00

Summary for Subcatchment PDA-2.2A: Subcat PDA-2.2A

Runoff = 20.34 cfs @ 12.17 hrs, Volume= 80,492 cf, Depth= 6.19"
Routed to Link 7L : DP 2.2 - Silver Creek West Branch

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
115,003	74	>75% Grass cover, Good, HSG C
36,719	98	Paved parking, HSG C
4,050	98	Unconnected pavement, HSG C
279	70	Woods, Good, HSG C
156,051	80	Weighted Average
115,282	74	73.87% Pervious Area
40,769	98	26.13% Impervious Area
4,050		9.93% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9					**Direct Entry, PER EDA-2.2A**

Hydrograph for Subcatchment PDA-2.2A: Subcat PDA-2.2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.05	0.16
10.00	1.63	0.35	**0.73**
12.50	6.04	3.81	**8.40**
15.00	7.35	5.02	1.15
17.50	7.91	5.54	0.57
20.00	8.23	5.84	0.39
22.50	**8.48**	**6.08**	0.30
25.00	**8.60**	**6.19**	0.00
27.50	8.60	6.19	0.00
30.00	8.60	6.19	0.00
32.50	8.60	6.19	0.00
35.00	8.60	6.19	0.00
37.50	8.60	6.19	0.00
40.00	8.60	6.19	0.00
42.50	8.60	6.19	0.00
45.00	8.60	6.19	0.00
47.50	8.60	6.19	0.00
50.00	8.60	6.19	0.00
52.50	8.60	6.19	0.00
55.00	8.60	6.19	0.00
57.50	8.60	6.19	0.00
60.00	8.60	6.19	0.00
62.50	8.60	6.19	0.00
65.00	8.60	6.19	0.00
67.50	8.60	6.19	0.00
70.00	8.60	6.19	0.00
72.50	8.60	6.19	0.00
75.00	8.60	6.19	0.00
77.50	8.60	6.19	0.00
80.00	8.60	6.19	0.00
82.50	8.60	6.19	0.00
85.00	8.60	6.19	0.00
87.50	8.60	6.19	0.00
90.00	8.60	6.19	0.00
92.50	8.60	6.19	0.00
95.00	8.60	6.19	0.00
97.50	8.60	6.19	0.00
100.00	8.60	6.19	0.00
102.50	8.60	6.19	0.00
105.00	8.60	6.19	0.00
107.50	8.60	6.19	0.00
110.00	8.60	6.19	0.00
112.50	8.60	6.19	0.00
115.00	8.60	6.19	0.00
117.50	8.60	6.19	0.00
120.00	8.60	6.19	0.00
122.50	8.60	6.19	0.00
125.00	8.60	6.19	0.00
127.50	8.60	6.19	0.00
130.00	8.60	6.19	0.00
132.50	8.60	6.19	0.00
135.00	8.60	6.19	0.00
137.50	8.60	6.19	0.00
140.00	8.60	6.19	0.00
142.50	8.60	6.19	0.00
145.00	8.60	6.19	0.00
147.50	8.60	6.19	0.00
150.00	8.60	6.19	0.00
152.50	8.60	6.19	0.00
155.00	8.60	6.19	0.00
157.50	8.60	6.19	0.00
160.00	8.60	6.19	0.00
162.50	8.60	6.19	0.00
165.00	8.60	6.19	0.00
167.50	8.60	6.19	0.00
170.00	8.60	6.19	0.00
172.50	8.60	6.19	0.00
175.00	8.60	6.19	0.00
177.50	8.60	6.19	0.00
180.00	8.60	6.19	0.00
182.50	8.60	6.19	0.00
185.00	8.60	6.19	0.00
187.50	8.60	6.19	0.00
190.00	8.60	6.19	0.00
192.50	8.60	6.19	0.00
195.00	8.60	6.19	0.00
197.50	8.60	6.19	0.00
200.00	8.60	6.19	0.00
202.50	8.60	6.19	0.00
205.00	8.60	6.19	0.00
207.50	8.60	6.19	0.00
210.00	8.60	6.19	0.00
212.50	8.60	6.19	0.00
215.00	8.60	6.19	0.00
217.50	8.60	6.19	0.00
220.00	8.60	6.19	0.00
222.50	8.60	6.19	0.00
225.00	8.60	6.19	0.00
227.50	8.60	6.19	0.00
230.00	8.60	6.19	0.00
232.50	8.60	6.19	0.00
235.00	8.60	6.19	0.00
237.50	8.60	6.19	0.00
240.00	8.60	6.19	0.00

Summary for Subcatchment PDA-2.2B: Subcat PDA-2.2B

Runoff = 10.53 cfs @ 12.55 hrs, Volume= 66,328 cf, Depth= 5.22"
Routed to Link 6L : DP 2.1 - West Wetland

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
51,518	74	>75% Grass cover, Good, HSG C
2,379	98	Paved parking, HSG C
98,443	70	Woods, Good, HSG C
152,340	72	Weighted Average
149,961	71	98.44% Pervious Area
2,379	98	1.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.9	100	0.0120	0.06		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.30"
14.1	465	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
40.0	565	Total			

Hydrograph for Subcatchment PDA-2.2B: Subcat PDA-2.2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.00	0.00
5.00	0.49	0.00	0.00
7.50	0.87	0.00	0.00
10.00	1.63	0.15	0.32
12.50	6.04	3.02	**10.42**
15.00	7.35	4.13	**1.17**
17.50	7.91	4.61	0.57
20.00	8.23	4.90	0.37
22.50	**8.48**	**5.12**	0.29
25.00	**8.60**	**5.22**	0.02
27.50	8.60	5.22	0.00
30.00	8.60	5.22	0.00
32.50	8.60	5.22	0.00
35.00	8.60	5.22	0.00
37.50	8.60	5.22	0.00
40.00	8.60	5.22	0.00
42.50	8.60	5.22	0.00
45.00	8.60	5.22	0.00
47.50	8.60	5.22	0.00
50.00	8.60	5.22	0.00
52.50	8.60	5.22	0.00
55.00	8.60	5.22	0.00
57.50	8.60	5.22	0.00
60.00	8.60	5.22	0.00
62.50	8.60	5.22	0.00
65.00	8.60	5.22	0.00
67.50	8.60	5.22	0.00
70.00	8.60	5.22	0.00
72.50	8.60	5.22	0.00
75.00	8.60	5.22	0.00
77.50	8.60	5.22	0.00
80.00	8.60	5.22	0.00
82.50	8.60	5.22	0.00
85.00	8.60	5.22	0.00
87.50	8.60	5.22	0.00
90.00	8.60	5.22	0.00
92.50	8.60	5.22	0.00
95.00	8.60	5.22	0.00
97.50	8.60	5.22	0.00
100.00	8.60	5.22	0.00
102.50	8.60	5.22	0.00
105.00	8.60	5.22	0.00
107.50	8.60	5.22	0.00
110.00	8.60	5.22	0.00
112.50	8.60	5.22	0.00
115.00	8.60	5.22	0.00
117.50	8.60	5.22	0.00
120.00	8.60	5.22	0.00
122.50	8.60	5.22	0.00
125.00	8.60	5.22	0.00
127.50	8.60	5.22	0.00
130.00	8.60	5.22	0.00
132.50	8.60	5.22	0.00
135.00	8.60	5.22	0.00
137.50	8.60	5.22	0.00
140.00	8.60	5.22	0.00
142.50	8.60	5.22	0.00
145.00	8.60	5.22	0.00
147.50	8.60	5.22	0.00
150.00	8.60	5.22	0.00
152.50	8.60	5.22	0.00
155.00	8.60	5.22	0.00
157.50	8.60	5.22	0.00
160.00	8.60	5.22	0.00
162.50	8.60	5.22	0.00
165.00	8.60	5.22	0.00
167.50	8.60	5.22	0.00
170.00	8.60	5.22	0.00
172.50	8.60	5.22	0.00
175.00	8.60	5.22	0.00
177.50	8.60	5.22	0.00
180.00	8.60	5.22	0.00
182.50	8.60	5.22	0.00
185.00	8.60	5.22	0.00
187.50	8.60	5.22	0.00
190.00	8.60	5.22	0.00
192.50	8.60	5.22	0.00
195.00	8.60	5.22	0.00
197.50	8.60	5.22	0.00
200.00	8.60	5.22	0.00
202.50	8.60	5.22	0.00
205.00	8.60	5.22	0.00
207.50	8.60	5.22	0.00
210.00	8.60	5.22	0.00
212.50	8.60	5.22	0.00
215.00	8.60	5.22	0.00
217.50	8.60	5.22	0.00
220.00	8.60	5.22	0.00
222.50	8.60	5.22	0.00
225.00	8.60	5.22	0.00
227.50	8.60	5.22	0.00
230.00	8.60	5.22	0.00
232.50	8.60	5.22	0.00
235.00	8.60	5.22	0.00
237.50	8.60	5.22	0.00
240.00	8.60	5.22	0.00

Summary for Subcatchment PDA-2.2C.a: Subcat PDA-2.2C.a

Runoff = 17.17 cfs @ 12.09 hrs, Volume= 63,166 cf, Depth= 8.36"
Routed to Pond 17P : Track and Field- stone base

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
90,671	98	Paved parking, HSG C
90,671	98	Weighted Average
0	74	0.00% Pervious Area
90,671	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-2.2C.a: Subcat PDA-2.2C.a

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.08	0.13
5.00	0.49	0.31	0.23
7.50	0.87	0.67	0.40
10.00	1.63	1.40	**0.85**
12.50	6.04	5.80	**3.62**
15.00	7.35	7.11	0.70
17.50	7.91	7.67	0.34
20.00	8.23	7.99	0.24
22.50	**8.48**	**8.24**	0.19
25.00	**8.60**	**8.36**	0.00
27.50	8.60	8.36	0.00
30.00	8.60	8.36	0.00
32.50	8.60	8.36	0.00
35.00	8.60	8.36	0.00
37.50	8.60	8.36	0.00
40.00	8.60	8.36	0.00
42.50	8.60	8.36	0.00
45.00	8.60	8.36	0.00
47.50	8.60	8.36	0.00
50.00	8.60	8.36	0.00
52.50	8.60	8.36	0.00
55.00	8.60	8.36	0.00
57.50	8.60	8.36	0.00
60.00	8.60	8.36	0.00
62.50	8.60	8.36	0.00
65.00	8.60	8.36	0.00
67.50	8.60	8.36	0.00
70.00	8.60	8.36	0.00
72.50	8.60	8.36	0.00
75.00	8.60	8.36	0.00
77.50	8.60	8.36	0.00
80.00	8.60	8.36	0.00
82.50	8.60	8.36	0.00
85.00	8.60	8.36	0.00
87.50	8.60	8.36	0.00
90.00	8.60	8.36	0.00
92.50	8.60	8.36	0.00
95.00	8.60	8.36	0.00
97.50	8.60	8.36	0.00
100.00	8.60	8.36	0.00
102.50	8.60	8.36	0.00
105.00	8.60	8.36	0.00
107.50	8.60	8.36	0.00
110.00	8.60	8.36	0.00
112.50	8.60	8.36	0.00
115.00	8.60	8.36	0.00
117.50	8.60	8.36	0.00
120.00	8.60	8.36	0.00
122.50	8.60	8.36	0.00
125.00	8.60	8.36	0.00
127.50	8.60	8.36	0.00
130.00	8.60	8.36	0.00
132.50	8.60	8.36	0.00
135.00	8.60	8.36	0.00
137.50	8.60	8.36	0.00
140.00	8.60	8.36	0.00
142.50	8.60	8.36	0.00
145.00	8.60	8.36	0.00
147.50	8.60	8.36	0.00
150.00	8.60	8.36	0.00
152.50	8.60	8.36	0.00
155.00	8.60	8.36	0.00
157.50	8.60	8.36	0.00
160.00	8.60	8.36	0.00
162.50	8.60	8.36	0.00
165.00	8.60	8.36	0.00
167.50	8.60	8.36	0.00
170.00	8.60	8.36	0.00
172.50	8.60	8.36	0.00
175.00	8.60	8.36	0.00
177.50	8.60	8.36	0.00
180.00	8.60	8.36	0.00
182.50	8.60	8.36	0.00
185.00	8.60	8.36	0.00
187.50	8.60	8.36	0.00
190.00	8.60	8.36	0.00
192.50	8.60	8.36	0.00
195.00	8.60	8.36	0.00
197.50	8.60	8.36	0.00
200.00	8.60	8.36	0.00
202.50	8.60	8.36	0.00
205.00	8.60	8.36	0.00
207.50	8.60	8.36	0.00
210.00	8.60	8.36	0.00
212.50	8.60	8.36	0.00
215.00	8.60	8.36	0.00
217.50	8.60	8.36	0.00
220.00	8.60	8.36	0.00
222.50	8.60	8.36	0.00
225.00	8.60	8.36	0.00
227.50	8.60	8.36	0.00
230.00	8.60	8.36	0.00
232.50	8.60	8.36	0.00
235.00	8.60	8.36	0.00
237.50	8.60	8.36	0.00
240.00	8.60	8.36	0.00

Summary for Subcatchment PDA-2.2C.b: Subcat PDA-2.2C.b

Runoff = 11.58 cfs @ 12.09 hrs, Volume= 42,625 cf, Depth= 8.36"
Routed to Pond 35P : Track and Field-manifold

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
4	74	>75% Grass cover, Good, HSG C
61,181	98	Paved parking, HSG C
61,186	98	Weighted Average
4	74	0.01% Pervious Area
61,181	98	99.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-2.2C.b: Subcat PDA-2.2C.b

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	127.50	8.60	8.36	0.00
2.50	0.22	0.08	0.09	130.00	8.60	8.36	0.00
5.00	0.49	0.31	0.16	132.50	8.60	8.36	0.00
7.50	0.87	0.67	0.27	135.00	8.60	8.36	0.00
10.00	1.63	1.40	**0.58**	137.50	8.60	8.36	0.00
12.50	6.04	5.80	**2.44**	140.00	8.60	8.36	0.00
15.00	7.35	7.11	0.47	142.50	8.60	8.36	0.00
17.50	7.91	7.67	0.23	145.00	8.60	8.36	0.00
20.00	8.23	7.99	0.16	147.50	8.60	8.36	0.00
22.50	**8.48**	**8.24**	0.13	150.00	8.60	8.36	0.00
25.00	**8.60**	**8.36**	0.00	152.50	8.60	8.36	0.00
27.50	8.60	8.36	0.00	155.00	8.60	8.36	0.00
30.00	8.60	8.36	0.00	157.50	8.60	8.36	0.00
32.50	8.60	8.36	0.00	160.00	8.60	8.36	0.00
35.00	8.60	8.36	0.00	162.50	8.60	8.36	0.00
37.50	8.60	8.36	0.00	165.00	8.60	8.36	0.00
40.00	8.60	8.36	0.00	167.50	8.60	8.36	0.00
42.50	8.60	8.36	0.00	170.00	8.60	8.36	0.00
45.00	8.60	8.36	0.00	172.50	8.60	8.36	0.00
47.50	8.60	8.36	0.00	175.00	8.60	8.36	0.00
50.00	8.60	8.36	0.00	177.50	8.60	8.36	0.00
52.50	8.60	8.36	0.00	180.00	8.60	8.36	0.00
55.00	8.60	8.36	0.00	182.50	8.60	8.36	0.00
57.50	8.60	8.36	0.00	185.00	8.60	8.36	0.00
60.00	8.60	8.36	0.00	187.50	8.60	8.36	0.00
62.50	8.60	8.36	0.00	190.00	8.60	8.36	0.00
65.00	8.60	8.36	0.00	192.50	8.60	8.36	0.00
67.50	8.60	8.36	0.00	195.00	8.60	8.36	0.00
70.00	8.60	8.36	0.00	197.50	8.60	8.36	0.00
72.50	8.60	8.36	0.00	200.00	8.60	8.36	0.00
75.00	8.60	8.36	0.00	202.50	8.60	8.36	0.00
77.50	8.60	8.36	0.00	205.00	8.60	8.36	0.00
80.00	8.60	8.36	0.00	207.50	8.60	8.36	0.00
82.50	8.60	8.36	0.00	210.00	8.60	8.36	0.00
85.00	8.60	8.36	0.00	212.50	8.60	8.36	0.00
87.50	8.60	8.36	0.00	215.00	8.60	8.36	0.00
90.00	8.60	8.36	0.00	217.50	8.60	8.36	0.00
92.50	8.60	8.36	0.00	220.00	8.60	8.36	0.00
95.00	8.60	8.36	0.00	222.50	8.60	8.36	0.00
97.50	8.60	8.36	0.00	225.00	8.60	8.36	0.00
100.00	8.60	8.36	0.00	227.50	8.60	8.36	0.00
102.50	8.60	8.36	0.00	230.00	8.60	8.36	0.00
105.00	8.60	8.36	0.00	232.50	8.60	8.36	0.00
107.50	8.60	8.36	0.00	235.00	8.60	8.36	0.00
110.00	8.60	8.36	0.00	237.50	8.60	8.36	0.00
112.50	8.60	8.36	0.00	240.00	8.60	8.36	0.00
115.00	8.60	8.36	0.00				
117.50	8.60	8.36	0.00				
120.00	8.60	8.36	0.00				
122.50	8.60	8.36	0.00				
125.00	8.60	8.36	0.00				

Summary for Subcatchment PDA-ROOF1.3: Subcat PDA-ROOF1.3

Runoff = 1.85 cfs @ 12.09 hrs, Volume= 6,815 cf, Depth= 8.36"
Routed to Pond 2P : Bio 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
0	98	Paved parking, HSG C
9,782	98	Roofs, HSG C
9,782	98	Weighted Average
0	74	0.00% Pervious Area
9,782	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF1.3: Subcat PDA-ROOF1.3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.08	0.01
5.00	0.49	0.31	0.03
7.50	0.87	0.67	0.04
10.00	1.63	1.40	**0.09**
12.50	6.04	5.80	**0.39**
15.00	7.35	7.11	0.08
17.50	7.91	7.67	0.04
20.00	8.23	7.99	0.03
22.50	**8.48**	**8.24**	0.02
25.00	**8.60**	**8.36**	0.00
27.50	8.60	8.36	0.00
30.00	8.60	8.36	0.00
32.50	8.60	8.36	0.00
35.00	8.60	8.36	0.00
37.50	8.60	8.36	0.00
40.00	8.60	8.36	0.00
42.50	8.60	8.36	0.00
45.00	8.60	8.36	0.00
47.50	8.60	8.36	0.00
50.00	8.60	8.36	0.00
52.50	8.60	8.36	0.00
55.00	8.60	8.36	0.00
57.50	8.60	8.36	0.00
60.00	8.60	8.36	0.00
62.50	8.60	8.36	0.00
65.00	8.60	8.36	0.00
67.50	8.60	8.36	0.00
70.00	8.60	8.36	0.00
72.50	8.60	8.36	0.00
75.00	8.60	8.36	0.00
77.50	8.60	8.36	0.00
80.00	8.60	8.36	0.00
82.50	8.60	8.36	0.00
85.00	8.60	8.36	0.00
87.50	8.60	8.36	0.00
90.00	8.60	8.36	0.00
92.50	8.60	8.36	0.00
95.00	8.60	8.36	0.00
97.50	8.60	8.36	0.00
100.00	8.60	8.36	0.00
102.50	8.60	8.36	0.00
105.00	8.60	8.36	0.00
107.50	8.60	8.36	0.00
110.00	8.60	8.36	0.00
112.50	8.60	8.36	0.00
115.00	8.60	8.36	0.00
117.50	8.60	8.36	0.00
120.00	8.60	8.36	0.00
122.50	8.60	8.36	0.00
125.00	8.60	8.36	0.00
127.50	8.60	8.36	0.00
130.00	8.60	8.36	0.00
132.50	8.60	8.36	0.00
135.00	8.60	8.36	0.00
137.50	8.60	8.36	0.00
140.00	8.60	8.36	0.00
142.50	8.60	8.36	0.00
145.00	8.60	8.36	0.00
147.50	8.60	8.36	0.00
150.00	8.60	8.36	0.00
152.50	8.60	8.36	0.00
155.00	8.60	8.36	0.00
157.50	8.60	8.36	0.00
160.00	8.60	8.36	0.00
162.50	8.60	8.36	0.00
165.00	8.60	8.36	0.00
167.50	8.60	8.36	0.00
170.00	8.60	8.36	0.00
172.50	8.60	8.36	0.00
175.00	8.60	8.36	0.00
177.50	8.60	8.36	0.00
180.00	8.60	8.36	0.00
182.50	8.60	8.36	0.00
185.00	8.60	8.36	0.00
187.50	8.60	8.36	0.00
190.00	8.60	8.36	0.00
192.50	8.60	8.36	0.00
195.00	8.60	8.36	0.00
197.50	8.60	8.36	0.00
200.00	8.60	8.36	0.00
202.50	8.60	8.36	0.00
205.00	8.60	8.36	0.00
207.50	8.60	8.36	0.00
210.00	8.60	8.36	0.00
212.50	8.60	8.36	0.00
215.00	8.60	8.36	0.00
217.50	8.60	8.36	0.00
220.00	8.60	8.36	0.00
222.50	8.60	8.36	0.00
225.00	8.60	8.36	0.00
227.50	8.60	8.36	0.00
230.00	8.60	8.36	0.00
232.50	8.60	8.36	0.00
235.00	8.60	8.36	0.00
237.50	8.60	8.36	0.00
240.00	8.60	8.36	0.00

Summary for Subcatchment PDA-ROOF1.4: Subcat PDA-ROOF1.4

Runoff = 11.02 cfs @ 12.09 hrs, Volume= 40,552 cf, Depth= 8.36"
Routed to Pond 12P : Infiltration Basin 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
1	98	Paved parking, HSG C
58,209	98	Roofs, HSG C
58,210	98	Weighted Average
0	74	0.00% Pervious Area
58,210	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF1.4: Subcat PDA-ROOF1.4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.08	0.09
5.00	0.49	0.31	0.15
7.50	0.87	0.67	0.26
10.00	1.63	1.40	**0.55**
12.50	6.04	5.80	**2.32**
15.00	7.35	7.11	0.45
17.50	7.91	7.67	0.22
20.00	8.23	7.99	0.15
22.50	**8.48**	**8.24**	0.12
25.00	**8.60**	**8.36**	0.00
27.50	8.60	8.36	0.00
30.00	8.60	8.36	0.00
32.50	8.60	8.36	0.00
35.00	8.60	8.36	0.00
37.50	8.60	8.36	0.00
40.00	8.60	8.36	0.00
42.50	8.60	8.36	0.00
45.00	8.60	8.36	0.00
47.50	8.60	8.36	0.00
50.00	8.60	8.36	0.00
52.50	8.60	8.36	0.00
55.00	8.60	8.36	0.00
57.50	8.60	8.36	0.00
60.00	8.60	8.36	0.00
62.50	8.60	8.36	0.00
65.00	8.60	8.36	0.00
67.50	8.60	8.36	0.00
70.00	8.60	8.36	0.00
72.50	8.60	8.36	0.00
75.00	8.60	8.36	0.00
77.50	8.60	8.36	0.00
80.00	8.60	8.36	0.00
82.50	8.60	8.36	0.00
85.00	8.60	8.36	0.00
87.50	8.60	8.36	0.00
90.00	8.60	8.36	0.00
92.50	8.60	8.36	0.00
95.00	8.60	8.36	0.00
97.50	8.60	8.36	0.00
100.00	8.60	8.36	0.00
102.50	8.60	8.36	0.00
105.00	8.60	8.36	0.00
107.50	8.60	8.36	0.00
110.00	8.60	8.36	0.00
112.50	8.60	8.36	0.00
115.00	8.60	8.36	0.00
117.50	8.60	8.36	0.00
120.00	8.60	8.36	0.00
122.50	8.60	8.36	0.00
125.00	8.60	8.36	0.00
127.50	8.60	8.36	0.00
130.00	8.60	8.36	0.00
132.50	8.60	8.36	0.00
135.00	8.60	8.36	0.00
137.50	8.60	8.36	0.00
140.00	8.60	8.36	0.00
142.50	8.60	8.36	0.00
145.00	8.60	8.36	0.00
147.50	8.60	8.36	0.00
150.00	8.60	8.36	0.00
152.50	8.60	8.36	0.00
155.00	8.60	8.36	0.00
157.50	8.60	8.36	0.00
160.00	8.60	8.36	0.00
162.50	8.60	8.36	0.00
165.00	8.60	8.36	0.00
167.50	8.60	8.36	0.00
170.00	8.60	8.36	0.00
172.50	8.60	8.36	0.00
175.00	8.60	8.36	0.00
177.50	8.60	8.36	0.00
180.00	8.60	8.36	0.00
182.50	8.60	8.36	0.00
185.00	8.60	8.36	0.00
187.50	8.60	8.36	0.00
190.00	8.60	8.36	0.00
192.50	8.60	8.36	0.00
195.00	8.60	8.36	0.00
197.50	8.60	8.36	0.00
200.00	8.60	8.36	0.00
202.50	8.60	8.36	0.00
205.00	8.60	8.36	0.00
207.50	8.60	8.36	0.00
210.00	8.60	8.36	0.00
212.50	8.60	8.36	0.00
215.00	8.60	8.36	0.00
217.50	8.60	8.36	0.00
220.00	8.60	8.36	0.00
222.50	8.60	8.36	0.00
225.00	8.60	8.36	0.00
227.50	8.60	8.36	0.00
230.00	8.60	8.36	0.00
232.50	8.60	8.36	0.00
235.00	8.60	8.36	0.00
237.50	8.60	8.36	0.00
240.00	8.60	8.36	0.00

Summary for Subcatchment PDA-ROOF2.1: Subcat PDA-ROOF2.1

Runoff = 5.89 cfs @ 12.09 hrs, Volume= 21,657 cf, Depth= 8.36"
Routed to Pond 28P : DIV-01

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
0	74	>75% Grass cover, Good, HSG C
31,087	98	Roofs, HSG C
31,087	98	Weighted Average
0	74	0.00% Pervious Area
31,087	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Hydrograph for Subcatchment PDA-ROOF2.1: Subcat PDA-ROOF2.1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.50	0.22	0.08	0.05
5.00	0.49	0.31	0.08
7.50	0.87	0.67	0.14
10.00	1.63	1.40	**0.29**
12.50	6.04	5.80	**1.24**
15.00	7.35	7.11	0.24
17.50	7.91	7.67	0.12
20.00	8.23	7.99	0.08
22.50	**8.48**	**8.24**	0.06
25.00	**8.60**	**8.36**	0.00
27.50	8.60	8.36	0.00
30.00	8.60	8.36	0.00
32.50	8.60	8.36	0.00
35.00	8.60	8.36	0.00
37.50	8.60	8.36	0.00
40.00	8.60	8.36	0.00
42.50	8.60	8.36	0.00
45.00	8.60	8.36	0.00
47.50	8.60	8.36	0.00
50.00	8.60	8.36	0.00
52.50	8.60	8.36	0.00
55.00	8.60	8.36	0.00
57.50	8.60	8.36	0.00
60.00	8.60	8.36	0.00
62.50	8.60	8.36	0.00
65.00	8.60	8.36	0.00
67.50	8.60	8.36	0.00
70.00	8.60	8.36	0.00
72.50	8.60	8.36	0.00
75.00	8.60	8.36	0.00
77.50	8.60	8.36	0.00
80.00	8.60	8.36	0.00
82.50	8.60	8.36	0.00
85.00	8.60	8.36	0.00
87.50	8.60	8.36	0.00
90.00	8.60	8.36	0.00
92.50	8.60	8.36	0.00
95.00	8.60	8.36	0.00
97.50	8.60	8.36	0.00
100.00	8.60	8.36	0.00
102.50	8.60	8.36	0.00
105.00	8.60	8.36	0.00
107.50	8.60	8.36	0.00
110.00	8.60	8.36	0.00
112.50	8.60	8.36	0.00
115.00	8.60	8.36	0.00
117.50	8.60	8.36	0.00
120.00	8.60	8.36	0.00
122.50	8.60	8.36	0.00
125.00	8.60	8.36	0.00
127.50	8.60	8.36	0.00
130.00	8.60	8.36	0.00
132.50	8.60	8.36	0.00
135.00	8.60	8.36	0.00
137.50	8.60	8.36	0.00
140.00	8.60	8.36	0.00
142.50	8.60	8.36	0.00
145.00	8.60	8.36	0.00
147.50	8.60	8.36	0.00
150.00	8.60	8.36	0.00
152.50	8.60	8.36	0.00
155.00	8.60	8.36	0.00
157.50	8.60	8.36	0.00
160.00	8.60	8.36	0.00
162.50	8.60	8.36	0.00
165.00	8.60	8.36	0.00
167.50	8.60	8.36	0.00
170.00	8.60	8.36	0.00
172.50	8.60	8.36	0.00
175.00	8.60	8.36	0.00
177.50	8.60	8.36	0.00
180.00	8.60	8.36	0.00
182.50	8.60	8.36	0.00
185.00	8.60	8.36	0.00
187.50	8.60	8.36	0.00
190.00	8.60	8.36	0.00
192.50	8.60	8.36	0.00
195.00	8.60	8.36	0.00
197.50	8.60	8.36	0.00
200.00	8.60	8.36	0.00
202.50	8.60	8.36	0.00
205.00	8.60	8.36	0.00
207.50	8.60	8.36	0.00
210.00	8.60	8.36	0.00
212.50	8.60	8.36	0.00
215.00	8.60	8.36	0.00
217.50	8.60	8.36	0.00
220.00	8.60	8.36	0.00
222.50	8.60	8.36	0.00
225.00	8.60	8.36	0.00
227.50	8.60	8.36	0.00
230.00	8.60	8.36	0.00
232.50	8.60	8.36	0.00
235.00	8.60	8.36	0.00
237.50	8.60	8.36	0.00
240.00	8.60	8.36	0.00

Summary for Pond 1P: Bio 4

Inflow Area = 16,850 sf, 41.68% Impervious, Inflow Depth = 6.67" for 100-year event
Inflow = 2.80 cfs @ 12.10 hrs, Volume= 9,370 cf
Outflow = 2.49 cfs @ 12.14 hrs, Volume= 9,370 cf, Atten= 11%, Lag= 2.7 min
Discarded = 0.01 cfs @ 12.14 hrs, Volume= 1,537 cf
Primary = 2.48 cfs @ 12.14 hrs, Volume= 7,833 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 60.57' @ 12.14 hrs Surf.Area= 1,112 sf Storage= 1,420 cf

Plug-Flow detention time= 341.7 min calculated for 9,368 cf (100% of inflow)
Center-of-Mass det. time= 342.5 min (1,133.8 - 791.4)

Volume	Invert	Avail.Storage	Storage Description
#1	56.79'	3,573 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.79	724	0.0	0	0
56.80	724	33.0	2	2
59.79	724	33.0	714	717
59.80	724	100.0	7	724
60.00	809	100.0	153	877
61.00	1,346	100.0	1,078	1,955
62.00	1,891	100.0	1,619	3,573

Device	Routing	Invert	Outlet Devices
#1	Discarded	56.79'	**0.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	60.30'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 12.14 hrs HW=60.56' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=2.46 cfs @ 12.14 hrs HW=60.56' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Orifice Controls 2.46 cfs @ 2.46 fps)

Hydrograph for Pond 1P: Bio 4

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	56.79	0.00	0.00	0.00
5.00	0.00	3	56.80	0.00	0.00	0.00
10.00	**0.10**	**568**	**59.17**	**0.00**	**0.00**	**0.00**
15.00	**0.12**	**1,157**	**60.31**	**0.12**	**0.01**	**0.12**
20.00	0.04	1,150	60.31	0.04	0.01	0.04
25.00	0.00	1,128	60.28	0.01	0.01	0.00
30.00	0.00	1,023	60.17	0.01	0.01	0.00
35.00	0.00	925	60.06	0.01	0.01	0.00
40.00	0.00	834	59.95	0.00	0.00	0.00
45.00	0.00	748	59.83	0.00	0.00	0.00
50.00	0.00	666	59.58	0.00	0.00	0.00
55.00	0.00	585	59.24	0.00	0.00	0.00
60.00	0.00	503	58.90	0.00	0.00	0.00
65.00	0.00	422	58.56	0.00	0.00	0.00
70.00	0.00	340	58.22	0.00	0.00	0.00
75.00	0.00	259	57.87	0.00	0.00	0.00
80.00	0.00	178	57.53	0.00	0.00	0.00
85.00	0.00	96	57.19	0.00	0.00	0.00
90.00	0.00	15	56.85	0.00	0.00	0.00
95.00	0.00	0	56.79	0.00	0.00	0.00
100.00	0.00	0	56.79	0.00	0.00	0.00
105.00	0.00	0	56.79	0.00	0.00	0.00
110.00	0.00	0	56.79	0.00	0.00	0.00
115.00	0.00	0	56.79	0.00	0.00	0.00
120.00	0.00	0	56.79	0.00	0.00	0.00
125.00	0.00	0	56.79	0.00	0.00	0.00
130.00	0.00	0	56.79	0.00	0.00	0.00
135.00	0.00	0	56.79	0.00	0.00	0.00
140.00	0.00	0	56.79	0.00	0.00	0.00
145.00	0.00	0	56.79	0.00	0.00	0.00
150.00	0.00	0	56.79	0.00	0.00	0.00
155.00	0.00	0	56.79	0.00	0.00	0.00
160.00	0.00	0	56.79	0.00	0.00	0.00
165.00	0.00	0	56.79	0.00	0.00	0.00
170.00	0.00	0	56.79	0.00	0.00	0.00
175.00	0.00	0	56.79	0.00	0.00	0.00
180.00	0.00	0	56.79	0.00	0.00	0.00
185.00	0.00	0	56.79	0.00	0.00	0.00
190.00	0.00	0	56.79	0.00	0.00	0.00
195.00	0.00	0	56.79	0.00	0.00	0.00
200.00	0.00	0	56.79	0.00	0.00	0.00
205.00	0.00	0	56.79	0.00	0.00	0.00
210.00	0.00	0	56.79	0.00	0.00	0.00
215.00	0.00	0	56.79	0.00	0.00	0.00
220.00	0.00	0	56.79	0.00	0.00	0.00
225.00	0.00	0	56.79	0.00	0.00	0.00
230.00	0.00	0	56.79	0.00	0.00	0.00
235.00	0.00	0	56.79	0.00	0.00	0.00
240.00	0.00	0	56.79	0.00	0.00	0.00

Stage-Discharge for Pond 1P: Bio 4

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
56.79	0.00	0.00	0.00
56.89	0.00	0.00	0.00
56.99	0.00	0.00	0.00
57.09	0.00	0.00	0.00
57.19	0.00	0.00	0.00
57.29	0.00	0.00	0.00
57.39	0.00	0.00	0.00
57.49	0.00	0.00	0.00
57.59	0.00	0.00	0.00
57.69	0.00	0.00	0.00
57.79	0.00	0.00	0.00
57.89	0.00	0.00	0.00
57.99	0.00	0.00	0.00
58.09	0.00	0.00	0.00
58.19	0.00	0.00	0.00
58.29	0.00	0.00	0.00
58.39	0.00	0.00	0.00
58.49	0.00	0.00	0.00
58.59	0.00	0.00	0.00
58.69	0.00	0.00	0.00
58.79	0.00	0.00	0.00
58.89	0.00	0.00	0.00
58.99	0.00	0.00	0.00
59.09	0.00	0.00	0.00
59.19	0.00	0.00	0.00
59.29	0.00	0.00	0.00
59.39	0.00	0.00	0.00
59.49	0.00	0.00	0.00
59.59	0.00	0.00	0.00
59.69	0.00	0.00	0.00
59.79	0.00	0.00	0.00
59.89	0.00	0.00	0.00
59.99	0.01	0.01	0.00
60.09	0.01	0.01	0.00
60.19	0.01	0.01	0.00
60.29	0.01	0.01	0.00
60.39	1.45	0.01	1.44
60.49	2.11	0.01	2.10
60.59	2.60	0.01	2.59
60.69	3.01	0.01	3.01
60.79	3.38	0.01	3.37
60.89	3.71	0.01	3.70
60.99	4.01	0.01	4.00
61.09	4.29	0.01	4.28
61.19	4.55	0.01	4.54
61.29	4.80	0.01	4.79
61.39	5.04	0.01	5.03
61.49	5.26	0.01	5.25
61.59	5.48	0.01	5.47
61.69	5.69	0.01	5.68
61.79	5.89	0.01	5.88
61.89	6.08	0.01	6.07
61.99	**6.27**	**0.01**	**6.26**

Stage-Area-Storage for Pond 1P: Bio 4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.79	724	0
56.89	724	24
56.99	724	48
57.09	724	72
57.19	724	96
57.29	724	119
57.39	724	143
57.49	724	167
57.59	724	191
57.69	724	215
57.79	724	239
57.89	724	263
57.99	724	287
58.09	724	311
58.19	724	334
58.29	724	358
58.39	724	382
58.49	724	406
58.59	724	430
58.69	724	454
58.79	724	478
58.89	724	502
58.99	724	526
59.09	724	550
59.19	724	573
59.29	724	597
59.39	724	621
59.49	724	645
59.59	724	669
59.69	724	693
59.79	724	717
59.89	762	791
59.99	805	869
60.09	857	952
60.19	911	1,041
60.29	965	1,134
60.39	1,018	1,234
60.49	1,072	1,338
60.59	1,126	1,448
60.69	1,180	1,563
60.79	1,233	1,684
60.89	1,287	1,810
60.99	1,341	1,941
61.09	1,395	2,078
61.19	1,450	2,220
61.29	1,504	2,368
61.39	1,559	2,521
61.49	1,613	2,680
61.59	1,668	2,844
61.69	1,722	3,013
61.79	1,777	3,188
61.89	1,831	3,369
61.99	**1,886**	**3,554**

Summary for Pond 2P: Bio 3

Inflow Area = 16,632 sf, 77.36% Impervious, Inflow Depth = 7.71" for 100-year event
Inflow = 3.03 cfs @ 12.09 hrs, Volume= 10,693 cf
Outflow = 2.96 cfs @ 12.10 hrs, Volume= 10,693 cf, Atten= 2%, Lag= 0.7 min
Primary = 2.94 cfs @ 12.10 hrs, Volume= 8,092 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Tertiary = 0.02 cfs @ 12.10 hrs, Volume= 2,601 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 59.84' @ 12.10 hrs Surf.Area= 897 sf Storage= 1,190 cf

Plug-Flow detention time= 155.4 min calculated for 10,691 cf (100% of inflow)
Center-of-Mass det. time= 155.6 min (913.2 - 757.6)

Volume	Invert	Avail.Storage	Storage Description
#1	56.24'	3,220 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.24	606	0.0	0	0
56.25	606	33.0	2	2
58.99	606	33.0	548	550
59.00	606	100.0	6	556
60.00	951	100.0	779	1,335
61.00	1,354	100.0	1,153	2,487
61.50	1,576	100.0	733	3,220

Device	Routing	Invert	Outlet Devices
#1	Device 3	56.24'	**1.020 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	59.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Tertiary	55.50'	**6.0" Round 6" SUBDRAIN** L= 35.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.50' / 55.20' S= 0.0086 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=2.93 cfs @ 12.10 hrs HW=59.84' TW=0.00' (Dynamic Tailwater)
└**2=Orifice/Grate** (Orifice Controls 2.93 cfs @ 1.47 fps)

Tertiary OutFlow Max=0.02 cfs @ 12.10 hrs HW=59.84' TW=0.00' (Dynamic Tailwater)
└**3=6" SUBDRAIN** (Passes 0.02 cfs of 1.51 cfs potential flow)
└**1=Exfiltration** (Exfiltration Controls 0.02 cfs)

Hydrograph for Pond 2P: Bio 3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Tertiary (cfs)
0.00	0.00	0	56.24	0.00	0.00	0.00
5.00	0.03	60	56.54	0.01	0.00	0.01
10.00	**0.13**	**950**	**59.56**	**0.02**	**0.00**	**0.02**
15.00	**0.13**	**1,114**	**59.76**	**0.13**	**0.11**	**0.02**
20.00	0.04	1,110	59.75	0.04	0.02	0.02
25.00	0.00	1,044	59.68	0.02	0.00	0.02
30.00	0.00	718	59.25	0.02	0.00	0.02
35.00	0.00	450	58.49	0.01	0.00	0.01
40.00	0.00	193	57.20	0.01	0.00	0.01
45.00	0.00	0	56.24	0.00	0.00	0.00
50.00	0.00	0	56.24	0.00	0.00	0.00
55.00	0.00	0	56.24	0.00	0.00	0.00
60.00	0.00	0	56.24	0.00	0.00	0.00
65.00	0.00	0	56.24	0.00	0.00	0.00
70.00	0.00	0	56.24	0.00	0.00	0.00
75.00	0.00	0	56.24	0.00	0.00	0.00
80.00	0.00	0	56.24	0.00	0.00	0.00
85.00	0.00	0	56.24	0.00	0.00	0.00
90.00	0.00	0	56.24	0.00	0.00	0.00
95.00	0.00	0	56.24	0.00	0.00	0.00
100.00	0.00	0	56.24	0.00	0.00	0.00
105.00	0.00	0	56.24	0.00	0.00	0.00
110.00	0.00	0	56.24	0.00	0.00	0.00
115.00	0.00	0	56.24	0.00	0.00	0.00
120.00	0.00	0	56.24	0.00	0.00	0.00
125.00	0.00	0	56.24	0.00	0.00	0.00
130.00	0.00	0	56.24	0.00	0.00	0.00
135.00	0.00	0	56.24	0.00	0.00	0.00
140.00	0.00	0	56.24	0.00	0.00	0.00
145.00	0.00	0	56.24	0.00	0.00	0.00
150.00	0.00	0	56.24	0.00	0.00	0.00
155.00	0.00	0	56.24	0.00	0.00	0.00
160.00	0.00	0	56.24	0.00	0.00	0.00
165.00	0.00	0	56.24	0.00	0.00	0.00
170.00	0.00	0	56.24	0.00	0.00	0.00
175.00	0.00	0	56.24	0.00	0.00	0.00
180.00	0.00	0	56.24	0.00	0.00	0.00
185.00	0.00	0	56.24	0.00	0.00	0.00
190.00	0.00	0	56.24	0.00	0.00	0.00
195.00	0.00	0	56.24	0.00	0.00	0.00
200.00	0.00	0	56.24	0.00	0.00	0.00
205.00	0.00	0	56.24	0.00	0.00	0.00
210.00	0.00	0	56.24	0.00	0.00	0.00
215.00	0.00	0	56.24	0.00	0.00	0.00
220.00	0.00	0	56.24	0.00	0.00	0.00
225.00	0.00	0	56.24	0.00	0.00	0.00
230.00	0.00	0	56.24	0.00	0.00	0.00
235.00	0.00	0	56.24	0.00	0.00	0.00
240.00	0.00	0	56.24	0.00	0.00	0.00

Stage-Discharge for Pond 2P: Bio 3

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Tertiary (cfs)
56.24	0.00	0.00	0.00
56.34	0.01	0.00	0.01
56.44	0.01	0.00	0.01
56.54	0.01	0.00	0.01
56.64	0.01	0.00	0.01
56.74	0.01	0.00	0.01
56.84	0.01	0.00	0.01
56.94	0.01	0.00	0.01
57.04	0.01	0.00	0.01
57.14	0.01	0.00	0.01
57.24	0.01	0.00	0.01
57.34	0.01	0.00	0.01
57.44	0.01	0.00	0.01
57.54	0.01	0.00	0.01
57.64	0.01	0.00	0.01
57.74	0.01	0.00	0.01
57.84	0.01	0.00	0.01
57.94	0.01	0.00	0.01
58.04	0.01	0.00	0.01
58.14	0.01	0.00	0.01
58.24	0.01	0.00	0.01
58.34	0.01	0.00	0.01
58.44	0.01	0.00	0.01
58.54	0.01	0.00	0.01
58.64	0.01	0.00	0.01
58.74	0.01	0.00	0.01
58.84	0.01	0.00	0.01
58.94	0.01	0.00	0.01
59.04	0.01	0.00	0.01
59.14	0.02	0.00	0.02
59.24	0.02	0.00	0.02
59.34	0.02	0.00	0.02
59.44	0.02	0.00	0.02
59.54	0.02	0.00	0.02
59.64	0.02	0.00	0.02
59.74	0.02	0.00	0.02
59.84	2.91	2.89	0.02
59.94	4.22	4.20	0.02
60.04	5.21	5.19	0.02
60.14	6.04	6.01	0.02
60.24	6.77	6.74	0.02
60.34	7.42	7.40	0.03
60.44	8.03	8.00	0.03
60.54	8.59	8.56	0.03
60.64	9.11	9.08	0.03
60.74	9.61	9.58	0.03
60.84	10.08	10.05	0.03
60.94	10.54	10.51	0.03
61.04	10.97	10.94	0.03
61.14	11.39	11.35	0.03
61.24	11.79	11.75	0.03
61.34	12.18	12.14	0.04
61.44	**12.56**	**12.52**	**0.04**

Stage-Area-Storage for Pond 2P: Bio 3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.24	606	0
56.34	606	20
56.44	606	40
56.54	606	60
56.64	606	80
56.74	606	100
56.84	606	120
56.94	606	140
57.04	606	160
57.14	606	180
57.24	606	200
57.34	606	220
57.44	606	240
57.54	606	260
57.64	606	280
57.74	606	300
57.84	606	320
57.94	606	340
58.04	606	360
58.14	606	380
58.24	606	400
58.34	606	420
58.44	606	440
58.54	606	460
58.64	606	480
58.74	606	500
58.84	606	520
58.94	606	540
59.04	620	581
59.14	654	644
59.24	689	711
59.34	723	782
59.44	758	856
59.54	792	934
59.64	827	1,015
59.74	861	1,099
59.84	896	1,187
59.94	930	1,278
60.04	967	1,373
60.14	1,007	1,472
60.24	1,048	1,574
60.34	1,088	1,681
60.44	1,128	1,792
60.54	1,169	1,907
60.64	1,209	2,026
60.74	1,249	2,149
60.84	1,290	2,276
60.94	1,330	2,406
61.04	1,372	2,542
61.14	1,416	2,681
61.24	1,461	2,825
61.34	1,505	2,973
61.44	**1,549**	**3,126**

Summary for Pond 3P: DIV-02

Inflow Area = 75,465 sf, 44.47% Impervious, Inflow Depth = 6.16" for 100-year event
Inflow = 9.81 cfs @ 12.19 hrs, Volume= 38,749 cf
Outflow = 9.81 cfs @ 12.19 hrs, Volume= 38,749 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.26 cfs @ 12.19 hrs, Volume= 23,999 cf
Routed to Pond 18P : Sand Filter 2
Secondary = 7.55 cfs @ 12.19 hrs, Volume= 14,750 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 59.39' @ 12.19 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.15'	**8.0" Round Culvert** L= 13.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.15' / 54.85' S= 0.1000 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.35 sf
#2	Device 3	56.80'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	56.15'	**15.0" Round Culvert** L= 19.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.15' / 55.00' S= 0.0605 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.23 sf

Primary OutFlow Max=2.24 cfs @ 12.19 hrs HW=59.34' TW=55.69' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 2.24 cfs @ 6.43 fps)

Secondary OutFlow Max=7.48 cfs @ 12.19 hrs HW=59.34' TW=0.00' (Dynamic Tailwater)
└─**3=Culvert** (Inlet Controls 7.48 cfs @ 6.09 fps)
└─**2=Sharp-Crested Rectangular Weir** (Passes 7.48 cfs of 72.83 cfs potential flow)

Hydrograph for Pond 3P: DIV-02

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	56.15	0.00	0.00	0.00
5.00	0.02	56.23	0.02	0.02	0.00
10.00	**0.32**	**56.51**	**0.32**	**0.32**	**0.00**
15.00	**0.56**	**56.67**	**0.56**	**0.56**	**0.00**
20.00	0.18	56.42	0.18	0.18	0.00
25.00	0.00	56.15	0.00	0.00	0.00
30.00	0.00	56.15	0.00	0.00	0.00
35.00	0.00	56.15	0.00	0.00	0.00
40.00	0.00	56.15	0.00	0.00	0.00
45.00	0.00	56.15	0.00	0.00	0.00
50.00	0.00	56.15	0.00	0.00	0.00
55.00	0.00	56.15	0.00	0.00	0.00
60.00	0.00	56.15	0.00	0.00	0.00
65.00	0.00	56.15	0.00	0.00	0.00
70.00	0.00	56.15	0.00	0.00	0.00
75.00	0.00	56.15	0.00	0.00	0.00
80.00	0.00	56.15	0.00	0.00	0.00
85.00	0.00	56.15	0.00	0.00	0.00
90.00	0.00	56.15	0.00	0.00	0.00
95.00	0.00	56.15	0.00	0.00	0.00
100.00	0.00	56.15	0.00	0.00	0.00
105.00	0.00	56.15	0.00	0.00	0.00
110.00	0.00	56.15	0.00	0.00	0.00
115.00	0.00	56.15	0.00	0.00	0.00
120.00	0.00	56.15	0.00	0.00	0.00
125.00	0.00	56.15	0.00	0.00	0.00
130.00	0.00	56.15	0.00	0.00	0.00
135.00	0.00	56.15	0.00	0.00	0.00
140.00	0.00	56.15	0.00	0.00	0.00
145.00	0.00	56.15	0.00	0.00	0.00
150.00	0.00	56.15	0.00	0.00	0.00
155.00	0.00	56.15	0.00	0.00	0.00
160.00	0.00	56.15	0.00	0.00	0.00
165.00	0.00	56.15	0.00	0.00	0.00
170.00	0.00	56.15	0.00	0.00	0.00
175.00	0.00	56.15	0.00	0.00	0.00
180.00	0.00	56.15	0.00	0.00	0.00
185.00	0.00	56.15	0.00	0.00	0.00
190.00	0.00	56.15	0.00	0.00	0.00
195.00	0.00	56.15	0.00	0.00	0.00
200.00	0.00	56.15	0.00	0.00	0.00
205.00	0.00	56.15	0.00	0.00	0.00
210.00	0.00	56.15	0.00	0.00	0.00
215.00	0.00	56.15	0.00	0.00	0.00
220.00	0.00	56.15	0.00	0.00	0.00
225.00	0.00	56.15	0.00	0.00	0.00
230.00	0.00	56.15	0.00	0.00	0.00
235.00	0.00	56.15	0.00	0.00	0.00
240.00	0.00	56.15	0.00	0.00	0.00

Stage-Discharge for Pond 3P: DIV-02

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
56.15	0.00	0.00	0.00
56.20	0.01	0.01	0.00
56.25	0.03	0.03	0.00
56.30	0.06	0.06	0.00
56.35	0.11	0.11	0.00
56.40	0.16	0.16	0.00
56.45	0.22	0.22	0.00
56.50	0.30	0.30	0.00
56.55	0.37	0.37	0.00
56.60	0.45	0.45	0.00
56.65	0.53	0.53	0.00
56.70	0.61	0.61	0.00
56.75	0.69	0.69	0.00
56.80	0.75	0.75	0.00
56.85	1.02	0.80	0.22
56.90	1.47	0.86	0.62
56.95	2.04	0.91	1.13
57.00	2.70	0.95	1.74
57.05	3.41	1.00	2.41
57.10	3.66	1.04	2.62
57.15	3.91	1.08	2.83
57.20	4.15	1.12	3.03
57.25	4.39	1.16	3.22
57.30	4.60	1.20	3.40
57.35	4.80	1.24	3.56
57.40	4.96	1.27	3.69
57.45	5.14	1.30	3.83
57.50	5.31	1.34	3.97
57.55	5.48	1.37	4.11
57.60	5.64	1.40	4.24
57.65	5.80	1.43	4.36
57.70	5.95	1.46	4.49
57.75	6.10	1.49	4.61
57.80	6.25	1.52	4.72
57.85	6.39	1.55	4.84
57.90	6.53	1.58	4.95
57.95	6.66	1.61	5.06
58.00	6.80	1.63	5.16
58.05	6.93	1.66	5.27
58.10	7.06	1.69	5.37
58.15	7.18	1.71	5.47
58.20	7.31	1.74	5.57
58.25	7.43	1.76	5.67
58.30	7.55	1.79	5.76
58.35	7.67	1.81	5.85
58.40	7.78	1.84	5.95
58.45	7.90	1.86	6.04
58.50	8.01	1.88	6.13
58.55	8.12	1.91	6.21
58.60	8.23	1.93	6.30
58.65	8.34	1.95	6.39
58.70	8.45	1.98	6.47
58.75	8.55	2.00	6.56
58.80	8.66	2.02	6.64
58.85	8.76	2.04	6.72
58.90	8.86	2.06	6.80
58.95	8.96	2.08	6.88
59.00	9.06	2.10	6.96
59.05	9.16	2.13	7.04
59.10	9.26	2.15	7.11
59.15	9.36	2.17	7.19
59.20	9.45	2.19	7.26
59.25	9.55	2.21	7.34
59.30	9.64	2.23	7.41
59.35	9.73	2.25	7.49
59.40	**9.82**	**2.27**	**7.56**

Stage-Area-Storage for Pond 3P: DIV-02

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
56.15	**0**	58.70	0
56.20	0	58.75	0
56.25	0	58.80	0
56.30	0	58.85	0
56.35	0	58.90	0
56.40	0	58.95	0
56.45	0	59.00	0
56.50	0	59.05	0
56.55	0	59.10	0
56.60	0	59.15	0
56.65	0	59.20	0
56.70	0	59.25	0
56.75	0	59.30	0
56.80	0	59.35	0
56.85	0	59.40	0
56.90	0		
56.95	0		
57.00	0		
57.05	0		
57.10	0		
57.15	0		
57.20	0		
57.25	0		
57.30	0		
57.35	0		
57.40	0		
57.45	0		
57.50	0		
57.55	0		
57.60	0		
57.65	0		
57.70	0		
57.75	0		
57.80	0		
57.85	0		
57.90	0		
57.95	0		
58.00	0		
58.05	0		
58.10	0		
58.15	0		
58.20	0		
58.25	0		
58.30	0		
58.35	0		
58.40	0		
58.45	0		
58.50	0		
58.55	0		
58.60	0		
58.65	0		

Summary for Pond 4P: Detention Basin 2

Inflow Area = 68,038 sf, 61.42% Impervious, Inflow Depth = 6.43" for 100-year event
Inflow = 8.27 cfs @ 12.15 hrs, Volume= 36,480 cf
Outflow = 7.65 cfs @ 12.25 hrs, Volume= 36,477 cf, Atten= 7%, Lag= 6.0 min
Primary = 7.65 cfs @ 12.25 hrs, Volume= 36,477 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 4L : DP 1.3 - Culvert 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 58.67' @ 12.25 hrs Surf.Area= 4,429 sf Storage= 9,716 cf

Plug-Flow detention time= 232.3 min calculated for 36,477 cf (100% of inflow)
Center-of-Mass det. time= 231.9 min (1,040.7 - 808.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.60'	26,026 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.60	1,952	0	0
56.00	2,295	849	849
57.00	3,025	2,660	3,509
58.00	3,843	3,434	6,943
59.00	4,717	4,280	11,223
60.00	5,662	5,190	16,413
61.50	7,155	9,613	26,026

Device	Routing	Invert	Outlet Devices
#1	Primary	55.60'	**24.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.60' / 52.60' S= 0.2500 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Device 1	55.60'	**1.5" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	57.50'	**1.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	58.25'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Secondary	60.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=7.65 cfs @ 12.25 hrs HW=58.67' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 7.65 cfs of 17.18 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 8.35 fps)
  ├─**3=Sharp-Crested Rectangular Weir** (Weir Controls 3.17 cfs @ 3.54 fps)
  └─**4=Sharp-Crested Rectangular Weir** (Weir Controls 4.37 cfs @ 2.12 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=55.60' TW=0.00' (Dynamic Tailwater)
└─**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 4P: Detention Basin 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	55.60	0.00	0.00	**0.00**
5.00	0.00	0	55.60	0.00	0.00	0.00
10.00	**0.04**	**160**	**55.68**	**0.01**	**0.01**	0.00
15.00	**0.50**	**6,168**	**57.79**	**0.58**	**0.58**	0.00
20.00	0.17	5,461	57.60	0.18	0.18	0.00
25.00	0.00	5,025	57.47	0.08	0.08	0.00
30.00	0.00	3,681	57.06	0.07	0.07	0.00
35.00	0.00	2,520	56.66	0.06	0.06	0.00
40.00	0.00	1,564	56.30	0.05	0.05	0.00
45.00	0.00	833	55.99	0.03	0.03	0.00
50.00	0.00	349	55.77	0.02	0.02	0.00
55.00	0.00	131	55.67	0.01	0.01	0.00
60.00	0.00	71	55.64	0.00	0.00	0.00
65.00	0.00	47	55.62	0.00	0.00	0.00
70.00	0.00	35	55.62	0.00	0.00	0.00
75.00	0.00	28	55.61	0.00	0.00	0.00
80.00	0.00	23	55.61	0.00	0.00	0.00
85.00	0.00	20	55.61	0.00	0.00	0.00
90.00	0.00	17	55.61	0.00	0.00	0.00
95.00	0.00	15	55.61	0.00	0.00	0.00
100.00	0.00	14	55.61	0.00	0.00	0.00
105.00	0.00	13	55.61	0.00	0.00	0.00
110.00	0.00	11	55.61	0.00	0.00	0.00
115.00	0.00	11	55.61	0.00	0.00	0.00
120.00	0.00	10	55.61	0.00	0.00	0.00
125.00	0.00	9	55.60	0.00	0.00	0.00
130.00	0.00	9	55.60	0.00	0.00	0.00
135.00	0.00	8	55.60	0.00	0.00	0.00
140.00	0.00	8	55.60	0.00	0.00	0.00
145.00	0.00	7	55.60	0.00	0.00	0.00
150.00	0.00	7	55.60	0.00	0.00	0.00
155.00	0.00	6	55.60	0.00	0.00	0.00
160.00	0.00	6	55.60	0.00	0.00	0.00
165.00	0.00	6	55.60	0.00	0.00	0.00
170.00	0.00	6	55.60	0.00	0.00	0.00
175.00	0.00	5	55.60	0.00	0.00	0.00
180.00	0.00	5	55.60	0.00	0.00	0.00
185.00	0.00	5	55.60	0.00	0.00	0.00
190.00	0.00	5	55.60	0.00	0.00	0.00
195.00	0.00	5	55.60	0.00	0.00	0.00
200.00	0.00	4	55.60	0.00	0.00	0.00
205.00	0.00	4	55.60	0.00	0.00	0.00
210.00	0.00	4	55.60	0.00	0.00	0.00
215.00	0.00	4	55.60	0.00	0.00	0.00
220.00	0.00	4	55.60	0.00	0.00	0.00
225.00	0.00	4	55.60	0.00	0.00	0.00
230.00	0.00	4	55.60	0.00	0.00	0.00
235.00	0.00	4	55.60	0.00	0.00	0.00
240.00	0.00	4	55.60	0.00	0.00	0.00

Stage-Discharge for Pond 4P: Detention Basin 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
55.60	0.00	0.00	0.00
55.70	0.01	0.01	0.00
55.80	0.02	0.02	0.00
55.90	0.03	0.03	0.00
56.00	0.03	0.03	0.00
56.10	0.04	0.04	0.00
56.20	0.04	0.04	0.00
56.30	0.05	0.05	0.00
56.40	0.05	0.05	0.00
56.50	0.05	0.05	0.00
56.60	0.06	0.06	0.00
56.70	0.06	0.06	0.00
56.80	0.06	0.06	0.00
56.90	0.07	0.07	0.00
57.00	0.07	0.07	0.00
57.10	0.07	0.07	0.00
57.20	0.07	0.07	0.00
57.30	0.08	0.08	0.00
57.40	0.08	0.08	0.00
57.50	0.08	0.08	0.00
57.60	0.18	0.18	0.00
57.70	0.37	0.37	0.00
57.80	0.59	0.59	0.00
57.90	0.85	0.85	0.00
58.00	1.13	1.13	0.00
58.10	1.43	1.43	0.00
58.20	1.74	1.74	0.00
58.30	2.24	2.24	0.00
58.40	3.33	3.33	0.00
58.50	4.74	4.74	0.00
58.60	6.38	6.38	0.00
58.70	8.22	8.22	0.00
58.80	10.21	10.21	0.00
58.90	12.35	12.35	0.00
59.00	14.61	14.61	0.00
59.10	16.99	16.99	0.00
59.20	19.26	19.26	0.00
59.30	19.62	19.62	0.00
59.40	19.98	19.98	0.00
59.50	20.34	20.34	0.00
59.60	20.68	20.68	0.00
59.70	21.03	21.03	0.00
59.80	21.36	21.36	0.00
59.90	21.69	21.69	0.00
60.00	22.02	22.02	0.00
60.10	22.34	22.34	0.00
60.20	23.69	22.66	1.03
60.30	25.88	22.97	2.91
60.40	28.62	23.28	5.34
60.50	31.79	23.58	8.21
60.60	35.33	23.88	11.45
60.70	39.20	24.18	15.02
60.80	43.36	24.47	18.88
60.90	47.79	24.76	23.02
61.00	52.47	25.05	27.42
61.10	57.38	25.33	32.05
61.20	62.51	25.61	36.90
61.30	67.84	25.89	41.95
61.40	73.37	26.16	47.21
61.50	**79.09**	**26.44**	**52.65**

Stage-Area-Storage for Pond 4P: Detention Basin 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.60	1,952	0
55.70	2,038	199
55.80	2,124	408
55.90	2,209	624
56.00	2,295	849
56.10	2,368	1,083
56.20	2,441	1,323
56.30	2,514	1,571
56.40	2,587	1,826
56.50	2,660	2,088
56.60	2,733	2,358
56.70	2,806	2,635
56.80	2,879	2,919
56.90	2,952	3,211
57.00	3,025	3,509
57.10	3,107	3,816
57.20	3,189	4,131
57.30	3,270	4,454
57.40	3,352	4,785
57.50	3,434	5,124
57.60	3,516	5,472
57.70	3,598	5,827
57.80	3,679	6,191
57.90	3,761	6,563
58.00	3,843	6,943
58.10	3,930	7,332
58.20	4,018	7,729
58.30	4,105	8,136
58.40	4,193	8,551
58.50	4,280	8,974
58.60	4,367	9,407
58.70	4,455	9,848
58.80	4,542	10,297
58.90	4,630	10,756
59.00	4,717	11,223
59.10	4,812	11,700
59.20	4,906	12,186
59.30	5,001	12,681
59.40	5,095	13,186
59.50	5,190	13,700
59.60	5,284	14,224
59.70	5,379	14,757
59.80	5,473	15,299
59.90	5,567	15,851
60.00	5,662	16,413
60.10	5,762	16,984
60.20	5,861	17,565
60.30	5,961	18,156
60.40	6,060	18,757
60.50	6,160	19,368
60.60	6,259	19,989
60.70	6,359	20,620
60.80	6,458	21,261
60.90	6,558	21,912
61.00	6,657	22,573
61.10	6,757	23,243
61.20	6,856	23,924
61.30	6,956	24,615
61.40	7,055	25,315
61.50	**7,155**	**26,026**

Summary for Pond 7P: Bio 2

Inflow Area = 26,810 sf, 63.81% Impervious, Inflow Depth = 7.28" for 100-year event
Inflow = 4.81 cfs @ 12.09 hrs, Volume= 16,256 cf
Outflow = 4.31 cfs @ 12.13 hrs, Volume= 16,256 cf, Atten= 10%, Lag= 2.4 min
Primary = 4.29 cfs @ 12.13 hrs, Volume= 12,249 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Tertiary = 0.03 cfs @ 6.20 hrs, Volume= 4,007 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 56.70' @ 12.13 hrs Surf.Area= 2,297 sf Storage= 2,540 cf

Plug-Flow detention time= 197.7 min calculated for 16,253 cf (100% of inflow)
Center-of-Mass det. time= 198.0 min (974.9 - 776.9)

Volume	Invert	Avail.Storage	Storage Description
#1	52.99'	8,230 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
52.99	1,128	0.0	0	0
53.00	1,128	33.0	4	4
55.99	1,128	33.0	1,113	1,117
56.00	1,742	100.0	14	1,131
57.00	2,537	100.0	2,140	3,271
58.00	3,569	100.0	3,053	6,324
58.50	4,058	100.0	1,907	8,230

Device	Routing	Invert	Outlet Devices
#1	Primary	56.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Device 3	52.99'	**1.020 in/hr Exfiltration over Surface area from 52.98' - 55.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#3	Tertiary	52.25'	**6.0" Vert. subdrain** C= 0.600 Limited to weir flow at low heads
#4	Secondary	57.50'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=4.21 cfs @ 12.13 hrs HW=56.69' TW=0.00' (Dynamic Tailwater)
└**1=Orifice/Grate** (Orifice Controls 4.21 cfs @ 2.10 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.99' TW=0.00' (Dynamic Tailwater)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=0.03 cfs @ 6.20 hrs HW=53.05' TW=0.00' (Dynamic Tailwater)
└**3=subdrain** (Passes 0.03 cfs of 0.70 cfs potential flow)
└**2=Exfiltration** (Exfiltration Controls 0.03 cfs)

Hydrograph for Pond 7P: Bio 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
0.00	0.00	0	52.99	0.00	0.00	**0.00**	0.00
5.00	0.02	6	53.01	0.02	0.00	0.00	**0.02**
10.00	**0.20**	**1,008**	**55.70**	**0.03**	**0.00**	0.00	**0.03**
15.00	**0.20**	**2,125**	**56.51**	**0.20**	**0.18**	0.00	0.03
20.00	0.07	2,110	56.50	0.07	0.04	0.00	0.03
25.00	0.00	2,020	56.46	0.03	0.00	0.00	0.03
30.00	0.00	1,540	56.22	0.03	0.00	0.00	0.03
35.00	0.00	1,061	55.84	0.03	0.00	0.00	0.03
40.00	0.00	582	54.55	0.03	0.00	0.00	0.03
45.00	0.00	102	53.26	0.03	0.00	0.00	0.03
50.00	0.00	0	52.99	0.00	0.00	0.00	0.00
55.00	0.00	0	52.99	0.00	0.00	0.00	0.00
60.00	0.00	0	52.99	0.00	0.00	0.00	0.00
65.00	0.00	0	52.99	0.00	0.00	0.00	0.00
70.00	0.00	0	52.99	0.00	0.00	0.00	0.00
75.00	0.00	0	52.99	0.00	0.00	0.00	0.00
80.00	0.00	0	52.99	0.00	0.00	0.00	0.00
85.00	0.00	0	52.99	0.00	0.00	0.00	0.00
90.00	0.00	0	52.99	0.00	0.00	0.00	0.00
95.00	0.00	0	52.99	0.00	0.00	0.00	0.00
100.00	0.00	0	52.99	0.00	0.00	0.00	0.00
105.00	0.00	0	52.99	0.00	0.00	0.00	0.00
110.00	0.00	0	52.99	0.00	0.00	0.00	0.00
115.00	0.00	0	52.99	0.00	0.00	0.00	0.00
120.00	0.00	0	52.99	0.00	0.00	0.00	0.00
125.00	0.00	0	52.99	0.00	0.00	0.00	0.00
130.00	0.00	0	52.99	0.00	0.00	0.00	0.00
135.00	0.00	0	52.99	0.00	0.00	0.00	0.00
140.00	0.00	0	52.99	0.00	0.00	0.00	0.00
145.00	0.00	0	52.99	0.00	0.00	0.00	0.00
150.00	0.00	0	52.99	0.00	0.00	0.00	0.00
155.00	0.00	0	52.99	0.00	0.00	0.00	0.00
160.00	0.00	0	52.99	0.00	0.00	0.00	0.00
165.00	0.00	0	52.99	0.00	0.00	0.00	0.00
170.00	0.00	0	52.99	0.00	0.00	0.00	0.00
175.00	0.00	0	52.99	0.00	0.00	0.00	0.00
180.00	0.00	0	52.99	0.00	0.00	0.00	0.00
185.00	0.00	0	52.99	0.00	0.00	0.00	0.00
190.00	0.00	0	52.99	0.00	0.00	0.00	0.00
195.00	0.00	0	52.99	0.00	0.00	0.00	0.00
200.00	0.00	0	52.99	0.00	0.00	0.00	0.00
205.00	0.00	0	52.99	0.00	0.00	0.00	0.00
210.00	0.00	0	52.99	0.00	0.00	0.00	0.00
215.00	0.00	0	52.99	0.00	0.00	0.00	0.00
220.00	0.00	0	52.99	0.00	0.00	0.00	0.00
225.00	0.00	0	52.99	0.00	0.00	0.00	0.00
230.00	0.00	0	52.99	0.00	0.00	0.00	0.00
235.00	0.00	0	52.99	0.00	0.00	0.00	0.00
240.00	0.00	0	52.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 7P: Bio 2

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
52.99	0.00	0.00	0.00	**0.00**
53.19	0.03	0.00	0.00	**0.03**
53.39	0.03	0.00	0.00	0.03
53.59	0.03	0.00	0.00	0.03
53.79	0.03	0.00	0.00	0.03
53.99	0.03	0.00	0.00	0.03
54.19	0.03	0.00	0.00	0.03
54.39	0.03	0.00	0.00	0.03
54.59	0.03	0.00	0.00	0.03
54.79	0.03	0.00	0.00	0.03
54.99	0.03	0.00	0.00	0.03
55.19	0.03	0.00	0.00	0.03
55.39	0.03	0.00	0.00	0.03
55.59	0.03	0.00	0.00	0.03
55.79	0.03	0.00	0.00	0.03
55.99	0.03	0.00	0.00	0.03
56.19	0.03	0.00	0.00	0.03
56.39	0.03	0.00	0.00	0.03
56.59	2.92	2.89	0.00	0.03
56.79	5.21	5.19	0.00	0.03
56.99	6.77	6.74	0.00	0.03
57.19	8.03	8.00	0.00	0.03
57.39	9.11	9.08	0.00	0.03
57.59	10.96	10.05	0.88	0.03
57.79	16.04	10.94	5.08	0.03
57.99	22.89	11.75	11.11	0.03
58.19	31.03	12.52	18.48	0.03
58.39	**40.23**	**13.24**	**26.97**	0.03

Stage-Area-Storage for Pond 7P: Bio 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
52.99	1,128	0
53.09	1,128	37
53.19	1,128	74
53.29	1,128	112
53.39	1,128	149
53.49	1,128	186
53.59	1,128	223
53.69	1,128	261
53.79	1,128	298
53.89	1,128	335
53.99	1,128	372
54.09	1,128	409
54.19	1,128	447
54.29	1,128	484
54.39	1,128	521
54.49	1,128	558
54.59	1,128	596
54.69	1,128	633
54.79	1,128	670
54.89	1,128	707
54.99	1,128	744
55.09	1,128	782
55.19	1,128	819
55.29	1,128	856
55.39	1,128	893
55.49	1,128	931
55.59	1,128	968
55.69	1,128	1,005
55.79	1,128	1,042
55.89	1,128	1,079
55.99	1,128	1,117
56.09	1,814	1,291
56.19	1,893	1,476
56.29	1,973	1,670
56.39	2,052	1,871
56.49	2,132	2,080
56.59	2,211	2,297
56.69	2,291	2,522
56.79	2,370	2,755
56.89	2,450	2,996
56.99	2,529	3,245
57.09	2,630	3,503
57.19	2,733	3,771
57.29	2,836	4,050
57.39	2,939	4,338
57.49	3,043	4,638
57.59	3,146	4,947
57.69	3,249	5,267
57.79	3,352	5,597
57.89	3,455	5,937
57.99	3,559	6,288
58.09	3,657	6,649
58.19	3,755	7,019
58.29	3,853	7,400
58.39	3,950	7,790
58.49	**4,048**	**8,190**

Summary for Pond 8P: DIV-04

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 4.92" for 100-year event
Inflow = 14.35 cfs @ 12.21 hrs, Volume= 62,243 cf
Outflow = 14.35 cfs @ 12.21 hrs, Volume= 62,243 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.11 cfs @ 11.72 hrs, Volume= 23,765 cf
Routed to Pond 23P : UGIS-1
Secondary = 11.57 cfs @ 12.22 hrs, Volume= 38,479 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 49.11' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.90'	**18.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.90' / 46.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf
#2	Device 3	48.40'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	46.90'	**24.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.90' / 46.70' S= 0.0067 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf

Primary OutFlow Max=3.06 cfs @ 11.72 hrs HW=48.44' TW=48.23' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 3.06 cfs @ 1.73 fps)

Secondary OutFlow Max=11.49 cfs @ 12.22 hrs HW=49.11' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 11.49 cfs of 13.11 cfs potential flow)
└**2=Sharp-Crested Rectangular Weir** (Weir Controls 11.49 cfs @ 2.76 fps)

Hydrograph for Pond 8P: DIV-04

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	46.90	0.00	0.00	0.00
5.00	0.05	47.01	0.05	0.05	0.00
10.00	**0.51**	**47.27**	**0.51**	**0.51**	**0.00**
15.00	**0.53**	**48.47**	**0.53**	**0.16**	**0.37**
20.00	0.06	48.40	0.06	0.06	0.00
25.00	0.00	48.26	0.00	0.00	0.00
30.00	0.00	48.02	0.00	0.00	0.00
35.00	0.00	47.80	0.00	0.00	0.00
40.00	0.00	47.58	0.00	0.00	0.00
45.00	0.00	47.40	0.00	0.00	0.00
50.00	0.00	47.22	0.00	0.00	0.00
55.00	0.00	47.06	0.00	0.00	0.00
60.00	0.00	46.90	0.00	0.00	0.00
65.00	0.00	46.90	0.00	0.00	0.00
70.00	0.00	46.90	0.00	0.00	0.00
75.00	0.00	46.90	0.00	0.00	0.00
80.00	0.00	46.90	0.00	0.00	0.00
85.00	0.00	46.90	0.00	0.00	0.00
90.00	0.00	46.90	0.00	0.00	0.00
95.00	0.00	46.90	0.00	0.00	0.00
100.00	0.00	46.90	0.00	0.00	0.00
105.00	0.00	46.90	0.00	0.00	0.00
110.00	0.00	46.90	0.00	0.00	0.00
115.00	0.00	46.90	0.00	0.00	0.00
120.00	0.00	46.90	0.00	0.00	0.00
125.00	0.00	46.90	0.00	0.00	0.00
130.00	0.00	46.90	0.00	0.00	0.00
135.00	0.00	46.90	0.00	0.00	0.00
140.00	0.00	46.90	0.00	0.00	0.00
145.00	0.00	46.90	0.00	0.00	0.00
150.00	0.00	46.90	0.00	0.00	0.00
155.00	0.00	46.90	0.00	0.00	0.00
160.00	0.00	46.90	0.00	0.00	0.00
165.00	0.00	46.90	0.00	0.00	0.00
170.00	0.00	46.90	0.00	0.00	0.00
175.00	0.00	46.90	0.00	0.00	0.00
180.00	0.00	46.90	0.00	0.00	0.00
185.00	0.00	46.90	0.00	0.00	0.00
190.00	0.00	46.90	0.00	0.00	0.00
195.00	0.00	46.90	0.00	0.00	0.00
200.00	0.00	46.90	0.00	0.00	0.00
205.00	0.00	46.90	0.00	0.00	0.00
210.00	0.00	46.90	0.00	0.00	0.00
215.00	0.00	46.90	0.00	0.00	0.00
220.00	0.00	46.90	0.00	0.00	0.00
225.00	0.00	46.90	0.00	0.00	0.00
230.00	0.00	46.90	0.00	0.00	0.00
235.00	0.00	46.90	0.00	0.00	0.00
240.00	0.00	46.90	0.00	0.00	0.00

Stage-Discharge for Pond 8P: DIV-04

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
46.90	0.00	0.00	0.00
46.95	0.01	0.01	0.00
47.00	0.04	0.04	0.00
47.05	0.10	0.10	0.00
47.10	0.16	0.16	0.00
47.15	0.25	0.25	0.00
47.20	0.35	0.35	0.00
47.25	0.46	0.46	0.00
47.30	0.58	0.58	0.00
47.35	0.72	0.72	0.00
47.40	0.87	0.87	0.00
47.45	1.03	1.03	0.00
47.50	1.21	1.21	0.00
47.55	1.39	1.39	0.00
47.60	1.58	1.58	0.00
47.65	1.78	1.78	0.00
47.70	1.99	1.99	0.00
47.75	2.21	2.21	0.00
47.80	2.43	2.43	0.00
47.85	2.67	2.67	0.00
47.90	2.91	2.91	0.00
47.95	3.15	3.15	0.00
48.00	3.40	3.40	0.00
48.05	3.66	3.66	0.00
48.10	3.92	3.92	0.00
48.15	4.18	4.18	0.00
48.20	4.44	4.44	0.00
48.25	4.71	4.71	0.00
48.30	4.97	4.97	0.00
48.35	5.24	5.24	0.00
48.40	5.50	5.50	0.00
48.45	5.98	5.76	0.22
48.50	6.64	6.02	0.62
48.55	7.41	6.27	1.13
48.60	8.26	6.52	1.74
48.65	9.15	6.72	2.43
48.70	10.07	6.88	3.19
48.75	11.06	7.05	4.02
48.80	12.10	7.20	4.90
48.85	13.19	7.36	5.83
48.90	14.33	7.51	6.82
48.95	15.52	7.66	7.86
49.00	16.74	7.80	8.94
49.05	18.01	7.95	10.06
49.10	**19.31**	**8.09**	**11.22**

Stage-Area-Storage for Pond 8P: DIV-04

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
46.90	**0**	47.92	0	48.94	0
46.92	0	47.94	0	48.96	0
46.94	0	47.96	0	48.98	0
46.96	0	47.98	0	49.00	0
46.98	0	48.00	0	49.02	0
47.00	0	48.02	0	49.04	0
47.02	0	48.04	0	49.06	0
47.04	0	48.06	0	49.08	0
47.06	0	48.08	0	49.10	0
47.08	0	48.10	0	49.12	0
47.10	0	48.12	0		
47.12	0	48.14	0		
47.14	0	48.16	0		
47.16	0	48.18	0		
47.18	0	48.20	0		
47.20	0	48.22	0		
47.22	0	48.24	0		
47.24	0	48.26	0		
47.26	0	48.28	0		
47.28	0	48.30	0		
47.30	0	48.32	0		
47.32	0	48.34	0		
47.34	0	48.36	0		
47.36	0	48.38	0		
47.38	0	48.40	0		
47.40	0	48.42	0		
47.42	0	48.44	0		
47.44	0	48.46	0		
47.46	0	48.48	0		
47.48	0	48.50	0		
47.50	0	48.52	0		
47.52	0	48.54	0		
47.54	0	48.56	0		
47.56	0	48.58	0		
47.58	0	48.60	0		
47.60	0	48.62	0		
47.62	0	48.64	0		
47.64	0	48.66	0		
47.66	0	48.68	0		
47.68	0	48.70	0		
47.70	0	48.72	0		
47.72	0	48.74	0		
47.74	0	48.76	0		
47.76	0	48.78	0		
47.78	0	48.80	0		
47.80	0	48.82	0		
47.82	0	48.84	0		
47.84	0	48.86	0		
47.86	0	48.88	0		
47.88	0	48.90	0		
47.90	0	48.92	0		

Summary for Pond 9P: Sand Filter 5

Inflow Area = 23,611 sf, 64.90% Impervious, Inflow Depth = 7.32" for 100-year event
Inflow = 3.90 cfs @ 12.09 hrs, Volume= 14,408 cf
Outflow = 3.32 cfs @ 12.15 hrs, Volume= 14,408 cf, Atten= 15%, Lag= 3.5 min
Discarded = 0.01 cfs @ 12.15 hrs, Volume= 1,843 cf
Primary = 3.27 cfs @ 12.15 hrs, Volume= 12,558 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.04 cfs @ 12.15 hrs, Volume= 8 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 50.21' @ 12.15 hrs Surf.Area= 1,299 sf Storage= 1,913 cf

Plug-Flow detention time= 300.2 min calculated for 14,405 cf (100% of inflow)
Center-of-Mass det. time= 301.1 min (1,073.2 - 772.0)

Volume	Invert	Avail.Storage	Storage Description
#1	45.99'	4,039 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
45.99	705	0.0	0	0
46.00	705	33.0	2	2
48.99	705	33.0	696	698
49.00	705	100.0	7	705
50.00	1,184	100.0	945	1,649
51.00	1,725	100.0	1,455	3,104
51.50	2,016	100.0	935	4,039

Device	Routing	Invert	Outlet Devices
#1	Discarded	45.99'	**0.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#2	Primary	49.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	50.20'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 12.15 hrs HW=50.21' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=3.27 cfs @ 12.15 hrs HW=50.21' TW=0.00' (Dynamic Tailwater)
└**2=Orifice/Grate** (Orifice Controls 3.27 cfs @ 3.27 fps)

Secondary OutFlow Max=0.04 cfs @ 12.15 hrs HW=50.21' TW=0.00' (Dynamic Tailwater)
└**3=Sharp-Crested Rectangular Weir** (Weir Controls 0.04 cfs @ 0.36 fps)

Hydrograph for Pond 9P: Sand Filter 5

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	45.99	0.00	0.00	0.00	0.00
5.00	0.03	113	46.47	0.00	0.00	0.00	0.00
10.00	**0.18**	**1,386**	**49.77**	**0.18**	**0.01**	**0.17**	**0.00**
15.00	**0.18**	**1,386**	**49.77**	**0.18**	**0.01**	**0.17**	**0.00**
20.00	0.06	1,377	49.76	0.06	0.01	0.05	0.00
25.00	0.00	1,352	49.73	0.01	0.01	0.00	0.00
30.00	0.00	1,236	49.62	0.01	0.01	0.00	0.00
35.00	0.00	1,126	49.51	0.01	0.01	0.00	0.00
40.00	0.00	1,022	49.40	0.01	0.01	0.00	0.00
45.00	0.00	925	49.28	0.01	0.01	0.00	0.00
50.00	0.00	833	49.17	0.00	0.00	0.00	0.00
55.00	0.00	748	49.06	0.00	0.00	0.00	0.00
60.00	0.00	668	48.86	0.00	0.00	0.00	0.00
65.00	0.00	588	48.52	0.00	0.00	0.00	0.00
70.00	0.00	509	48.18	0.00	0.00	0.00	0.00
75.00	0.00	430	47.84	0.00	0.00	0.00	0.00
80.00	0.00	350	47.50	0.00	0.00	0.00	0.00
85.00	0.00	271	47.15	0.00	0.00	0.00	0.00
90.00	0.00	192	46.81	0.00	0.00	0.00	0.00
95.00	0.00	112	46.47	0.00	0.00	0.00	0.00
100.00	0.00	33	46.13	0.00	0.00	0.00	0.00
105.00	0.00	0	45.99	0.00	0.00	0.00	0.00
110.00	0.00	0	45.99	0.00	0.00	0.00	0.00
115.00	0.00	0	45.99	0.00	0.00	0.00	0.00
120.00	0.00	0	45.99	0.00	0.00	0.00	0.00
125.00	0.00	0	45.99	0.00	0.00	0.00	0.00
130.00	0.00	0	45.99	0.00	0.00	0.00	0.00
135.00	0.00	0	45.99	0.00	0.00	0.00	0.00
140.00	0.00	0	45.99	0.00	0.00	0.00	0.00
145.00	0.00	0	45.99	0.00	0.00	0.00	0.00
150.00	0.00	0	45.99	0.00	0.00	0.00	0.00
155.00	0.00	0	45.99	0.00	0.00	0.00	0.00
160.00	0.00	0	45.99	0.00	0.00	0.00	0.00
165.00	0.00	0	45.99	0.00	0.00	0.00	0.00
170.00	0.00	0	45.99	0.00	0.00	0.00	0.00
175.00	0.00	0	45.99	0.00	0.00	0.00	0.00
180.00	0.00	0	45.99	0.00	0.00	0.00	0.00
185.00	0.00	0	45.99	0.00	0.00	0.00	0.00
190.00	0.00	0	45.99	0.00	0.00	0.00	0.00
195.00	0.00	0	45.99	0.00	0.00	0.00	0.00
200.00	0.00	0	45.99	0.00	0.00	0.00	0.00
205.00	0.00	0	45.99	0.00	0.00	0.00	0.00
210.00	0.00	0	45.99	0.00	0.00	0.00	0.00
215.00	0.00	0	45.99	0.00	0.00	0.00	0.00
220.00	0.00	0	45.99	0.00	0.00	0.00	0.00
225.00	0.00	0	45.99	0.00	0.00	0.00	0.00
230.00	0.00	0	45.99	0.00	0.00	0.00	0.00
235.00	0.00	0	45.99	0.00	0.00	0.00	0.00
240.00	0.00	0	45.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 9P: Sand Filter 5

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
45.99	0.00	0.00	0.00	0.00
46.19	0.00	0.00	0.00	0.00
46.39	0.00	0.00	0.00	0.00
46.59	0.00	0.00	0.00	0.00
46.79	0.00	0.00	0.00	0.00
46.99	0.00	0.00	0.00	0.00
47.19	0.00	0.00	0.00	0.00
47.39	0.00	0.00	0.00	0.00
47.59	0.00	0.00	0.00	0.00
47.79	0.00	0.00	0.00	0.00
47.99	0.00	0.00	0.00	0.00
48.19	0.00	0.00	0.00	0.00
48.39	0.00	0.00	0.00	0.00
48.59	0.00	0.00	0.00	0.00
48.79	0.00	0.00	0.00	0.00
48.99	0.00	0.00	0.00	0.00
49.19	0.00	0.00	0.00	0.00
49.39	0.01	0.01	0.00	0.00
49.59	0.01	0.01	0.00	0.00
49.79	0.63	0.01	0.63	0.00
49.99	2.37	0.01	2.36	0.00
50.19	3.20	0.01	3.19	0.00
50.39	6.56	0.01	3.85	2.70
50.59	12.32	0.01	4.41	7.90
50.79	19.56	0.01	4.91	14.64
50.99	27.97	0.01	5.36	22.60
51.19	37.36	0.01	5.78	31.57
51.39	**47.62**	**0.01**	**6.17**	**41.44**

Stage-Area-Storage for Pond 9P: Sand Filter 5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
45.99	705	0
46.09	705	23
46.19	705	47
46.29	705	70
46.39	705	93
46.49	705	116
46.59	705	140
46.69	705	163
46.79	705	186
46.89	705	209
46.99	705	233
47.09	705	256
47.19	705	279
47.29	705	302
47.39	705	326
47.49	705	349
47.59	705	372
47.69	705	396
47.79	705	419
47.89	705	442
47.99	705	465
48.09	705	489
48.19	705	512
48.29	705	535
48.39	705	558
48.49	705	582
48.59	705	605
48.69	705	628
48.79	705	651
48.89	705	675
48.99	705	698
49.09	748	770
49.19	796	848
49.29	844	930
49.39	892	1,016
49.49	940	1,108
49.59	988	1,204
49.69	1,036	1,305
49.79	1,083	1,411
49.89	1,131	1,522
49.99	1,179	1,638
50.09	1,233	1,758
50.19	1,287	1,884
50.29	1,341	2,016
50.39	1,395	2,152
50.49	1,449	2,295
50.59	1,503	2,442
50.69	1,557	2,595
50.79	1,611	2,754
50.89	1,665	2,918
50.99	1,720	3,087
51.09	1,777	3,262
51.19	1,836	3,442
51.29	1,894	3,629
51.39	1,952	3,821
51.49	**2,010**	**4,019**

Summary for Pond 10P: Bio 1

Inflow Area = 42,514 sf, 59.10% Impervious, Inflow Depth = 5.28" for 100-year event
Inflow = 2.08 cfs @ 12.09 hrs, Volume= 18,713 cf
Outflow = 1.73 cfs @ 12.15 hrs, Volume= 18,713 cf, Atten= 17%, Lag= 3.6 min
Discarded = 0.01 cfs @ 7.05 hrs, Volume= 2,193 cf
Primary = 1.72 cfs @ 12.15 hrs, Volume= 16,520 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 44.63' @ 12.15 hrs Surf.Area= 2,792 sf Storage= 2,031 cf

Plug-Flow detention time= 276.8 min calculated for 18,709 cf (100% of inflow)
Center-of-Mass det. time= 277.7 min (1,073.8 - 796.1)

Volume	Invert	Avail.Storage	Storage Description
#1	41.99'	6,655 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
41.99	725	0.0	0	0
42.00	725	33.0	2	2
43.99	725	33.0	476	479
44.00	1,147	33.0	3	482
44.01	2,171	100.0	17	498
45.00	3,166	100.0	2,642	3,140
46.00	3,865	100.0	3,516	6,655

Device	Routing	Invert	Outlet Devices
#1	Primary	44.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Discarded	41.99'	**0.270 in/hr Exfiltration over Surface area from 41.98' - 44.00'** Excluded Surface area = 0 sf Phase-In= 0.02'
#3	Secondary	45.00'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 7.05 hrs HW=44.01' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=1.71 cfs @ 12.15 hrs HW=44.63' TW=0.00' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Orifice Controls 1.71 cfs @ 1.71 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=41.99' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 10P: Bio 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	41.99	0.00	0.00	0.00	**0.00**
5.00	0.04	99	42.40	0.00	**0.00**	0.00	0.00
10.00	**0.31**	**1,748**	**44.52**	**0.31**	**0.01**	**0.30**	0.00
15.00	**0.32**	**1,750**	**44.53**	**0.32**	0.01	**0.32**	0.00
20.00	0.11	1,715	44.51	0.11	0.01	0.10	0.00
25.00	0.00	1,668	44.49	0.01	0.01	0.00	0.00
30.00	0.00	1,539	44.45	0.01	0.01	0.00	0.00
35.00	0.00	1,410	44.40	0.01	0.01	0.00	0.00
40.00	0.00	1,281	44.34	0.01	0.01	0.00	0.00
45.00	0.00	1,151	44.29	0.01	0.01	0.00	0.00
50.00	0.00	1,022	44.24	0.01	0.01	0.00	0.00
55.00	0.00	893	44.18	0.01	0.01	0.00	0.00
60.00	0.00	764	44.13	0.01	0.01	0.00	0.00
65.00	0.00	635	44.07	0.01	0.01	0.00	0.00
70.00	0.00	506	44.01	0.01	0.01	0.00	0.00
75.00	0.00	415	43.72	0.00	0.00	0.00	0.00
80.00	0.00	333	43.38	0.00	0.00	0.00	0.00
85.00	0.00	252	43.04	0.00	0.00	0.00	0.00
90.00	0.00	170	42.70	0.00	0.00	0.00	0.00
95.00	0.00	89	42.36	0.00	0.00	0.00	0.00
100.00	0.00	7	42.02	0.00	0.00	0.00	0.00
105.00	0.00	0	41.99	0.00	0.00	0.00	0.00
110.00	0.00	0	41.99	0.00	0.00	0.00	0.00
115.00	0.00	0	41.99	0.00	0.00	0.00	0.00
120.00	0.00	0	41.99	0.00	0.00	0.00	0.00
125.00	0.00	0	41.99	0.00	0.00	0.00	0.00
130.00	0.00	0	41.99	0.00	0.00	0.00	0.00
135.00	0.00	0	41.99	0.00	0.00	0.00	0.00
140.00	0.00	0	41.99	0.00	0.00	0.00	0.00
145.00	0.00	0	41.99	0.00	0.00	0.00	0.00
150.00	0.00	0	41.99	0.00	0.00	0.00	0.00
155.00	0.00	0	41.99	0.00	0.00	0.00	0.00
160.00	0.00	0	41.99	0.00	0.00	0.00	0.00
165.00	0.00	0	41.99	0.00	0.00	0.00	0.00
170.00	0.00	0	41.99	0.00	0.00	0.00	0.00
175.00	0.00	0	41.99	0.00	0.00	0.00	0.00
180.00	0.00	0	41.99	0.00	0.00	0.00	0.00
185.00	0.00	0	41.99	0.00	0.00	0.00	0.00
190.00	0.00	0	41.99	0.00	0.00	0.00	0.00
195.00	0.00	0	41.99	0.00	0.00	0.00	0.00
200.00	0.00	0	41.99	0.00	0.00	0.00	0.00
205.00	0.00	0	41.99	0.00	0.00	0.00	0.00
210.00	0.00	0	41.99	0.00	0.00	0.00	0.00
215.00	0.00	0	41.99	0.00	0.00	0.00	0.00
220.00	0.00	0	41.99	0.00	0.00	0.00	0.00
225.00	0.00	0	41.99	0.00	0.00	0.00	0.00
230.00	0.00	0	41.99	0.00	0.00	0.00	0.00
235.00	0.00	0	41.99	0.00	0.00	0.00	0.00
240.00	0.00	0	41.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 10P: Bio 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
41.99	0.00	0.00	0.00	0.00
42.09	0.00	0.00	0.00	0.00
42.19	0.00	0.00	0.00	0.00
42.29	0.00	0.00	0.00	0.00
42.39	0.00	0.00	0.00	0.00
42.49	0.00	0.00	0.00	0.00
42.59	0.00	0.00	0.00	0.00
42.69	0.00	0.00	0.00	0.00
42.79	0.00	0.00	0.00	0.00
42.89	0.00	0.00	0.00	0.00
42.99	0.00	0.00	0.00	0.00
43.09	0.00	0.00	0.00	0.00
43.19	0.00	0.00	0.00	0.00
43.29	0.00	0.00	0.00	0.00
43.39	0.00	0.00	0.00	0.00
43.49	0.00	0.00	0.00	0.00
43.59	0.00	0.00	0.00	0.00
43.69	0.00	0.00	0.00	0.00
43.79	0.00	0.00	0.00	0.00
43.89	0.00	0.00	0.00	0.00
43.99	0.00	**0.00**	0.00	0.00
44.09	0.01	**0.01**	0.00	0.00
44.19	0.01	0.01	0.00	0.00
44.29	0.01	0.01	0.00	0.00
44.39	0.01	0.01	0.00	0.00
44.49	0.01	0.01	0.00	0.00
44.59	1.45	0.01	1.44	0.00
44.69	2.11	0.01	2.10	0.00
44.79	2.60	0.01	2.59	0.00
44.89	3.01	0.01	3.01	0.00
44.99	3.38	0.01	3.37	0.00
45.09	4.59	0.01	3.70	0.88
45.19	6.70	0.01	4.00	2.70
45.29	9.36	0.01	4.28	5.08
45.39	12.45	0.01	4.54	7.90
45.49	15.90	0.01	4.79	11.11
45.59	19.68	0.01	5.03	14.64
45.69	23.74	0.01	5.25	18.48
45.79	28.07	0.01	5.47	22.60
45.89	32.65	0.01	5.68	26.97
45.99	**37.46**	0.01	**5.88**	**31.57**

Stage-Area-Storage for Pond 10P: Bio 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
41.99	725	0
42.04	725	12
42.09	725	24
42.14	725	36
42.19	725	48
42.24	725	60
42.29	725	72
42.34	725	84
42.39	725	96
42.44	725	108
42.49	725	120
42.54	725	132
42.59	725	144
42.64	725	156
42.69	725	167
42.74	725	179
42.79	725	191
42.84	725	203
42.89	725	215
42.94	725	227
42.99	725	239
43.04	725	251
43.09	725	263
43.14	725	275
43.19	725	287
43.24	725	299
43.29	725	311
43.34	725	323
43.39	725	335
43.44	725	347
43.49	725	359
43.54	725	371
43.59	725	383
43.64	725	395
43.69	725	407
43.74	725	419
43.79	725	431
43.84	725	443
43.89	725	455
43.94	725	467
43.99	725	479
44.04	2,201	564
44.09	2,251	675
44.14	2,302	789
44.19	2,352	905
44.24	2,402	1,024
44.29	2,452	1,145
44.34	2,503	1,269
44.39	2,553	1,396
44.44	2,603	1,525
44.49	2,653	1,656
44.54	2,704	1,790
44.59	2,754	1,926
44.64	2,804	2,065
44.69	2,854	2,207
44.74	2,905	2,351
44.79	2,955	2,497
44.84	3,005	2,646
44.89	3,055	2,798
44.94	3,106	2,952
44.99	3,156	3,108
45.04	3,194	3,267
45.09	3,229	3,428
45.14	3,264	3,590
45.19	3,299	3,754
45.24	3,334	3,920
45.29	3,369	4,088
45.34	3,404	4,257
45.39	3,439	4,428
45.44	3,474	4,601
45.49	3,509	4,775
45.54	3,543	4,952
45.59	3,578	5,130
45.64	3,613	5,309
45.69	3,648	5,491
45.74	3,683	5,674
45.79	3,718	5,859
45.84	3,753	6,046
45.89	3,788	6,235
45.94	3,823	6,425
45.99	**3,858**	**6,617**

Summary for Pond 12P: Infiltration Basin 1

Inflow Area = 68,033 sf, 89.47% Impervious, Inflow Depth = 8.06" for 100-year event
Inflow = 12.61 cfs @ 12.09 hrs, Volume= 45,718 cf
Outflow = 11.60 cfs @ 12.12 hrs, Volume= 45,718 cf, Atten= 8%, Lag= 2.1 min
Discarded = 0.08 cfs @ 12.12 hrs, Volume= 10,099 cf
Primary = 11.52 cfs @ 12.12 hrs, Volume= 35,619 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 58.36' @ 12.12 hrs Surf.Area= 3,382 sf Storage= 7,424 cf

Plug-Flow detention time= 212.1 min calculated for 45,709 cf (100% of inflow)
Center-of-Mass det. time= 212.5 min (959.3 - 746.8)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	10,931 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.00	1,125	0	0
56.00	1,739	1,432	1,432
57.00	2,393	2,066	3,498
58.00	3,104	2,749	6,247
59.00	3,870	3,487	9,734
59.30	4,111	1,197	10,931

Device	Routing	Invert	Outlet Devices
#1	Primary	51.75'	**24.0" Round Culvert** L= 9.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.75' / 51.55' S= 0.0222 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Discarded	55.00'	**1.020 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#3	Secondary	58.40'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	57.65'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.08 cfs @ 12.12 hrs HW=58.35' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=11.22 cfs @ 12.12 hrs HW=58.35' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 11.22 cfs of 28.26 cfs potential flow)
└**4=Sharp-Crested Rectangular Weir** (Weir Controls 11.22 cfs @ 2.74 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=55.00' TW=0.00' (Dynamic Tailwater)
└**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 12P: Infiltration Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	55.00	0.00	0.00	0.00	**0.00**
5.00	0.15	984	55.73	0.04	0.04	0.00	0.00
10.00	**0.60**	**5,418**	**57.72**	**0.47**	**0.07**	**0.40**	0.00
15.00	**0.52**	**5,441**	**57.73**	**0.53**	**0.07**	**0.46**	0.00
20.00	0.18	5,295	57.68	0.18	0.07	0.11	0.00
25.00	0.00	5,028	57.59	0.07	0.07	0.00	0.00
30.00	0.00	3,898	57.16	0.06	0.06	0.00	0.00
35.00	0.00	2,894	56.74	0.05	0.05	0.00	0.00
40.00	0.00	2,009	56.31	0.05	0.05	0.00	0.00
45.00	0.00	1,241	55.89	0.04	0.04	0.00	0.00
50.00	0.00	587	55.46	0.03	0.03	0.00	0.00
55.00	0.00	43	55.04	0.03	0.03	0.00	0.00
60.00	0.00	0	55.00	0.00	0.00	0.00	0.00
65.00	0.00	0	55.00	0.00	0.00	0.00	0.00
70.00	0.00	0	55.00	0.00	0.00	0.00	0.00
75.00	0.00	0	55.00	0.00	0.00	0.00	0.00
80.00	0.00	0	55.00	0.00	0.00	0.00	0.00
85.00	0.00	0	55.00	0.00	0.00	0.00	0.00
90.00	0.00	0	55.00	0.00	0.00	0.00	0.00
95.00	0.00	0	55.00	0.00	0.00	0.00	0.00
100.00	0.00	0	55.00	0.00	0.00	0.00	0.00
105.00	0.00	0	55.00	0.00	0.00	0.00	0.00
110.00	0.00	0	55.00	0.00	0.00	0.00	0.00
115.00	0.00	0	55.00	0.00	0.00	0.00	0.00
120.00	0.00	0	55.00	0.00	0.00	0.00	0.00
125.00	0.00	0	55.00	0.00	0.00	0.00	0.00
130.00	0.00	0	55.00	0.00	0.00	0.00	0.00
135.00	0.00	0	55.00	0.00	0.00	0.00	0.00
140.00	0.00	0	55.00	0.00	0.00	0.00	0.00
145.00	0.00	0	55.00	0.00	0.00	0.00	0.00
150.00	0.00	0	55.00	0.00	0.00	0.00	0.00
155.00	0.00	0	55.00	0.00	0.00	0.00	0.00
160.00	0.00	0	55.00	0.00	0.00	0.00	0.00
165.00	0.00	0	55.00	0.00	0.00	0.00	0.00
170.00	0.00	0	55.00	0.00	0.00	0.00	0.00
175.00	0.00	0	55.00	0.00	0.00	0.00	0.00
180.00	0.00	0	55.00	0.00	0.00	0.00	0.00
185.00	0.00	0	55.00	0.00	0.00	0.00	0.00
190.00	0.00	0	55.00	0.00	0.00	0.00	0.00
195.00	0.00	0	55.00	0.00	0.00	0.00	0.00
200.00	0.00	0	55.00	0.00	0.00	0.00	0.00
205.00	0.00	0	55.00	0.00	0.00	0.00	0.00
210.00	0.00	0	55.00	0.00	0.00	0.00	0.00
215.00	0.00	0	55.00	0.00	0.00	0.00	0.00
220.00	0.00	0	55.00	0.00	0.00	0.00	0.00
225.00	0.00	0	55.00	0.00	0.00	0.00	0.00
230.00	0.00	0	55.00	0.00	0.00	0.00	0.00
235.00	0.00	0	55.00	0.00	0.00	0.00	0.00
240.00	0.00	0	55.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 12P: Infiltration Basin 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
55.00	0.00	0.00	0.00	0.00
55.10	0.03	0.03	0.00	0.00
55.20	0.03	0.03	0.00	0.00
55.30	0.03	0.03	0.00	0.00
55.40	0.03	0.03	0.00	0.00
55.50	0.03	0.03	0.00	0.00
55.60	0.04	0.04	0.00	0.00
55.70	0.04	0.04	0.00	0.00
55.80	0.04	0.04	0.00	0.00
55.90	0.04	0.04	0.00	0.00
56.00	0.04	0.04	0.00	0.00
56.10	0.04	0.04	0.00	0.00
56.20	0.04	0.04	0.00	0.00
56.30	0.05	0.05	0.00	0.00
56.40	0.05	0.05	0.00	0.00
56.50	0.05	0.05	0.00	0.00
56.60	0.05	0.05	0.00	0.00
56.70	0.05	0.05	0.00	0.00
56.80	0.05	0.05	0.00	0.00
56.90	0.05	0.05	0.00	0.00
57.00	0.06	0.06	0.00	0.00
57.10	0.06	0.06	0.00	0.00
57.20	0.06	0.06	0.00	0.00
57.30	0.06	0.06	0.00	0.00
57.40	0.06	0.06	0.00	0.00
57.50	0.06	0.06	0.00	0.00
57.60	0.07	0.07	0.00	0.00
57.70	0.29	0.07	0.22	0.00
57.80	1.20	0.07	1.13	0.00
57.90	2.50	0.07	2.43	0.00
58.00	4.09	0.07	4.02	0.00
58.10	5.91	0.08	5.83	0.00
58.20	7.93	0.08	7.86	0.00
58.30	10.14	0.08	10.06	0.00
58.40	12.51	0.08	12.42	0.00
58.50	16.05	0.08	14.94	1.03
58.60	20.59	0.08	17.59	2.91
58.70	25.80	0.09	20.37	5.34
58.80	31.56	0.09	23.27	8.21
58.90	37.81	0.09	26.28	11.45
59.00	44.50	0.09	29.39	15.02
59.10	49.07	0.09	30.09	18.88
59.20	53.45	0.10	30.33	23.02
59.30	**58.08**	**0.10**	**30.56**	**27.42**

Stage-Area-Storage for Pond 12P: Infiltration Basin 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
55.00	1,125	0
55.05	1,156	57
55.10	1,186	116
55.15	1,217	176
55.20	1,248	237
55.25	1,279	300
55.30	1,309	365
55.35	1,340	431
55.40	1,371	499
55.45	1,401	568
55.50	1,432	639
55.55	1,463	712
55.60	1,493	786
55.65	1,524	861
55.70	1,555	938
55.75	1,586	1,016
55.80	1,616	1,096
55.85	1,647	1,178
55.90	1,678	1,261
55.95	1,708	1,346
56.00	1,739	1,432
56.05	1,772	1,520
56.10	1,804	1,609
56.15	1,837	1,700
56.20	1,870	1,793
56.25	1,903	1,887
56.30	1,935	1,983
56.35	1,968	2,081
56.40	2,001	2,180
56.45	2,033	2,281
56.50	2,066	2,383
56.55	2,099	2,487
56.60	2,131	2,593
56.65	2,164	2,701
56.70	2,197	2,810
56.75	2,230	2,920
56.80	2,262	3,032
56.85	2,295	3,146
56.90	2,328	3,262
56.95	2,360	3,379
57.00	2,393	3,498
57.05	2,429	3,619
57.10	2,464	3,741
57.15	2,500	3,865
57.20	2,535	3,991
57.25	2,571	4,118
57.30	2,606	4,248
57.35	2,642	4,379
57.40	2,677	4,512
57.45	2,713	4,647
57.50	2,749	4,783
57.55	2,784	4,922
57.60	2,820	5,062
57.65	2,855	5,204
57.70	2,891	5,347
57.75	2,926	5,493
57.80	2,962	5,640
57.85	2,997	5,789
57.90	3,033	5,940
57.95	3,068	6,092
58.00	3,104	6,247
58.05	3,142	6,403
58.10	3,181	6,561
58.15	3,219	6,721
58.20	3,257	6,883
58.25	3,296	7,046
58.30	3,334	7,212
58.35	3,372	7,380
58.40	3,410	7,549
58.45	3,449	7,721
58.50	3,487	7,894
58.55	3,525	8,070
58.60	3,564	8,247
58.65	3,602	8,426
58.70	3,640	8,607
58.75	3,679	8,790
58.80	3,717	8,975
58.85	3,755	9,162
58.90	3,793	9,350
58.95	3,832	9,541
59.00	3,870	9,734
59.05	3,910	9,928
59.10	3,950	10,125
59.15	3,991	10,323
59.20	4,031	10,524
59.25	4,071	10,726
59.30	**4,111**	**10,931**

Summary for Pond 13P: Sand Filter 1

Inflow Area = 379,224 sf, 32.14% Impervious, Inflow Depth = 1.46" for 100-year event
Inflow = 3.94 cfs @ 12.21 hrs, Volume= 46,057 cf
Outflow = 0.97 cfs @ 13.61 hrs, Volume= 46,057 cf, Atten= 75%, Lag= 83.9 min
Discarded = 0.03 cfs @ 3.05 hrs, Volume= 12,913 cf
Primary = 0.94 cfs @ 13.61 hrs, Volume= 33,216 cf
Routed to Pond 15P : Detention Basin 1
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Pond 15P : Detention Basin 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 47.99' @ 12.71 hrs Surf.Area= 9,916 sf Storage= 22,101 cf

Plug-Flow detention time= 988.0 min calculated for 46,047 cf (100% of inflow)
Center-of-Mass det. time= 989.0 min (1,816.9 - 827.9)

Volume	Invert	Avail.Storage	Storage Description
#1	42.49'	32,650 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
42.49	4,630	0.0	0	0
42.50	4,630	33.0	15	15
45.99	4,630	33.0	5,332	5,348
46.00	6,904	100.0	58	5,405
47.00	8,336	100.0	7,620	13,025
48.00	9,925	100.0	9,131	22,156
49.00	11,063	100.0	10,494	32,650

Device	Routing	Invert	Outlet Devices
#1	Discarded	42.49'	**0.270 in/hr Exfiltration over Surface area from 42.48' - 45.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Secondary	48.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	46.65'	**1.5" x 1.5" Horiz. Orifice/Grate X 4.00 columns** X 3 rows C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.03 cfs @ 3.05 hrs HW=42.56' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.94 cfs @ 13.61 hrs HW=47.73' TW=46.65' (Dynamic Tailwater)
↑—**3=Orifice/Grate** (Orifice Controls 0.94 cfs @ 5.00 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=42.49' TW=44.00' (Dynamic Tailwater)
↑—**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 13P: Sand Filter 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	42.49	0.00	**0.00**	0.00	**0.00**
5.00	0.08	373	42.73	0.03	**0.03**	0.00	0.00
10.00	**1.36**	**11,427**	**46.80**	**0.38**	0.03	**0.36**	0.00
15.00	**0.17**	**15,283**	**47.26**	**0.74**	0.03	**0.71**	0.00
20.00	0.56	13,242	47.03	0.58	0.03	0.55	0.00
25.00	0.00	11,612	46.83	0.41	0.03	0.38	0.00
30.00	0.00	9,912	46.61	0.03	0.03	0.00	0.00
35.00	0.00	9,392	46.55	0.03	0.03	0.00	0.00
40.00	0.00	8,871	46.48	0.03	0.03	0.00	0.00
45.00	0.00	8,350	46.41	0.03	0.03	0.00	0.00
50.00	0.00	7,829	46.34	0.03	0.03	0.00	0.00
55.00	0.00	7,308	46.27	0.03	0.03	0.00	0.00
60.00	0.00	6,787	46.20	0.03	0.03	0.00	0.00
65.00	0.00	6,266	46.12	0.03	0.03	0.00	0.00
70.00	0.00	5,745	46.05	0.03	0.03	0.00	0.00
75.00	0.00	5,225	45.91	0.03	0.03	0.00	0.00
80.00	0.00	4,704	45.57	0.03	0.03	0.00	0.00
85.00	0.00	4,183	45.23	0.03	0.03	0.00	0.00
90.00	0.00	3,662	44.89	0.03	0.03	0.00	0.00
95.00	0.00	3,141	44.55	0.03	0.03	0.00	0.00
100.00	0.00	2,620	44.20	0.03	0.03	0.00	0.00
105.00	0.00	2,099	43.86	0.03	0.03	0.00	0.00
110.00	0.00	1,578	43.52	0.03	0.03	0.00	0.00
115.00	0.00	1,058	43.18	0.03	0.03	0.00	0.00
120.00	0.00	537	42.84	0.03	0.03	0.00	0.00
125.00	0.00	19	42.50	0.02	0.02	0.00	0.00
130.00	0.00	0	42.49	0.00	0.00	0.00	0.00
135.00	0.00	0	42.49	0.00	0.00	0.00	0.00
140.00	0.00	0	42.49	0.00	0.00	0.00	0.00
145.00	0.00	0	42.49	0.00	0.00	0.00	0.00
150.00	0.00	0	42.49	0.00	0.00	0.00	0.00
155.00	0.00	0	42.49	0.00	0.00	0.00	0.00
160.00	0.00	0	42.49	0.00	0.00	0.00	0.00
165.00	0.00	0	42.49	0.00	0.00	0.00	0.00
170.00	0.00	0	42.49	0.00	0.00	0.00	0.00
175.00	0.00	0	42.49	0.00	0.00	0.00	0.00
180.00	0.00	0	42.49	0.00	0.00	0.00	0.00
185.00	0.00	0	42.49	0.00	0.00	0.00	0.00
190.00	0.00	0	42.49	0.00	0.00	0.00	0.00
195.00	0.00	0	42.49	0.00	0.00	0.00	0.00
200.00	0.00	0	42.49	0.00	0.00	0.00	0.00
205.00	0.00	0	42.49	0.00	0.00	0.00	0.00
210.00	0.00	0	42.49	0.00	0.00	0.00	0.00
215.00	0.00	0	42.49	0.00	0.00	0.00	0.00
220.00	0.00	0	42.49	0.00	0.00	0.00	0.00
225.00	0.00	0	42.49	0.00	0.00	0.00	0.00
230.00	0.00	0	42.49	0.00	0.00	0.00	0.00
235.00	0.00	0	42.49	0.00	0.00	0.00	0.00
240.00	0.00	0	42.49	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 13P: Sand Filter 1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
42.49	0.00	**0.00**	0.00	0.00
42.69	0.03	**0.03**	0.00	0.00
42.89	0.03	0.03	0.00	0.00
43.09	0.03	0.03	0.00	0.00
43.29	0.03	0.03	0.00	0.00
43.49	0.03	0.03	0.00	0.00
43.69	0.03	0.03	0.00	0.00
43.89	0.03	0.03	0.00	0.00
44.09	0.03	0.03	0.00	0.00
44.29	0.03	0.03	0.00	0.00
44.49	0.03	0.03	0.00	0.00
44.69	0.03	0.03	0.00	0.00
44.89	0.03	0.03	0.00	0.00
45.09	0.03	0.03	0.00	0.00
45.29	0.03	0.03	0.00	0.00
45.49	0.03	0.03	0.00	0.00
45.69	0.03	0.03	0.00	0.00
45.89	0.03	0.03	0.00	0.00
46.09	0.03	0.03	0.00	0.00
46.29	0.03	0.03	0.00	0.00
46.49	0.03	0.03	0.00	0.00
46.69	0.19	0.03	0.16	0.00
46.89	0.47	0.03	0.44	0.00
47.09	0.63	0.03	0.60	0.00
47.29	0.75	0.03	0.72	0.00
47.49	0.86	0.03	0.83	0.00
47.69	0.95	0.03	0.92	0.00
47.89	1.03	0.03	1.01	0.00
48.09	1.11	0.03	1.08	0.00
48.29	3.88	0.03	1.16	2.70
48.49	9.16	0.03	1.22	7.90
48.69	15.96	0.03	1.29	14.64
48.89	**23.98**	0.03	**1.35**	**22.60**

Stage-Area-Storage for Pond 13P: Sand Filter 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
42.49	4,630	0
42.59	4,630	153
42.69	4,630	306
42.79	4,630	458
42.89	4,630	611
42.99	4,630	764
43.09	4,630	917
43.19	4,630	1,070
43.29	4,630	1,222
43.39	4,630	1,375
43.49	4,630	1,528
43.59	4,630	1,681
43.69	4,630	1,833
43.79	4,630	1,986
43.89	4,630	2,139
43.99	4,630	2,292
44.09	4,630	2,445
44.19	4,630	2,597
44.29	4,630	2,750
44.39	4,630	2,903
44.49	4,630	3,056
44.59	4,630	3,209
44.69	4,630	3,361
44.79	4,630	3,514
44.89	4,630	3,667
44.99	4,630	3,820
45.09	4,630	3,973
45.19	4,630	4,125
45.29	4,630	4,278
45.39	4,630	4,431
45.49	4,630	4,584
45.59	4,630	4,736
45.69	4,630	4,889
45.79	4,630	5,042
45.89	4,630	5,195
45.99	4,630	5,348
46.09	7,033	6,032
46.19	7,176	6,743
46.29	7,319	7,468
46.39	7,462	8,207
46.49	7,606	8,960
46.59	7,749	9,728
46.69	7,892	10,510
46.79	8,035	11,306
46.89	8,178	12,117
46.99	8,322	12,942
47.09	8,479	13,782
47.19	8,638	14,638
47.29	8,797	15,510
47.39	8,956	16,397
47.49	9,115	17,301
47.59	9,274	18,220
47.69	9,432	19,155
47.79	9,591	20,107
47.89	9,750	21,074
47.99	9,909	22,057
48.09	10,027	23,054
48.19	10,141	24,062
48.29	10,255	25,082
48.39	10,369	26,113
48.49	10,483	27,156
48.59	10,596	28,210
48.69	10,710	29,275
48.79	10,824	30,352
48.89	10,938	31,440
48.99	**11,052**	**32,539**

Summary for Pond 14P: DIV-03

Inflow Area = 42,514 sf, 59.10% Impervious, Inflow Depth = 7.28" for 100-year event
Inflow = 7.62 cfs @ 12.09 hrs, Volume= 25,778 cf
Outflow = 7.62 cfs @ 12.09 hrs, Volume= 25,778 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.08 cfs @ 12.09 hrs, Volume= 18,713 cf
Routed to Pond 10P : Bio 1
Secondary = 5.55 cfs @ 12.09 hrs, Volume= 7,066 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 46.13' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.10'	**9.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.10' / 44.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.44 sf
#2	Device 3	44.85'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	44.10'	**15.0" Round Culvert** L= 55.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.10' / 42.25' S= 0.0336 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.02 cfs @ 12.09 hrs HW=46.06' TW=44.61' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 2.02 cfs @ 4.58 fps)

Secondary OutFlow Max=5.41 cfs @ 12.09 hrs HW=46.07' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Inlet Controls 5.41 cfs @ 4.40 fps)
└**2=Sharp-Crested Rectangular Weir** (Passes 5.41 cfs of 25.29 cfs potential flow)

Hydrograph for Pond 14P: DIV-03

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	44.10	0.00	0.00	0.00
5.00	0.04	44.21	0.04	0.04	0.00
10.00	**0.31**	**44.60**	**0.31**	**0.31**	**0.00**
15.00	**0.32**	**44.60**	**0.32**	**0.32**	**0.00**
20.00	0.11	44.53	0.11	0.11	0.00
25.00	0.00	44.40	0.00	0.00	0.00
30.00	0.00	44.44	0.00	0.00	0.00
35.00	0.00	44.39	0.00	0.00	0.00
40.00	0.00	44.34	0.00	0.00	0.00
45.00	0.00	44.29	0.00	0.00	0.00
50.00	0.00	44.24	0.00	0.00	0.00
55.00	0.00	44.18	0.00	0.00	0.00
60.00	0.00	44.13	0.00	0.00	0.00
65.00	0.00	44.10	0.00	0.00	0.00
70.00	0.00	44.10	0.00	0.00	0.00
75.00	0.00	44.10	0.00	0.00	0.00
80.00	0.00	44.10	0.00	0.00	0.00
85.00	0.00	44.10	0.00	0.00	0.00
90.00	0.00	44.10	0.00	0.00	0.00
95.00	0.00	44.10	0.00	0.00	0.00
100.00	0.00	44.10	0.00	0.00	0.00
105.00	0.00	44.10	0.00	0.00	0.00
110.00	0.00	44.10	0.00	0.00	0.00
115.00	0.00	44.10	0.00	0.00	0.00
120.00	0.00	44.10	0.00	0.00	0.00
125.00	0.00	44.10	0.00	0.00	0.00
130.00	0.00	44.10	0.00	0.00	0.00
135.00	0.00	44.10	0.00	0.00	0.00
140.00	0.00	44.10	0.00	0.00	0.00
145.00	0.00	44.10	0.00	0.00	0.00
150.00	0.00	44.10	0.00	0.00	0.00
155.00	0.00	44.10	0.00	0.00	0.00
160.00	0.00	44.10	0.00	0.00	0.00
165.00	0.00	44.10	0.00	0.00	0.00
170.00	0.00	44.10	0.00	0.00	0.00
175.00	0.00	44.10	0.00	0.00	0.00
180.00	0.00	44.10	0.00	0.00	0.00
185.00	0.00	44.10	0.00	0.00	0.00
190.00	0.00	44.10	0.00	0.00	0.00
195.00	0.00	44.10	0.00	0.00	0.00
200.00	0.00	44.10	0.00	0.00	0.00
205.00	0.00	44.10	0.00	0.00	0.00
210.00	0.00	44.10	0.00	0.00	0.00
215.00	0.00	44.10	0.00	0.00	0.00
220.00	0.00	44.10	0.00	0.00	0.00
225.00	0.00	44.10	0.00	0.00	0.00
230.00	0.00	44.10	0.00	0.00	0.00
235.00	0.00	44.10	0.00	0.00	0.00
240.00	0.00	44.10	0.00	0.00	0.00

Stage-Discharge for Pond 14P: DIV-03

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
44.10	0.00	0.00	0.00
44.12	0.00	0.00	0.00
44.14	0.00	0.00	0.00
44.16	0.01	0.01	0.00
44.18	0.02	0.02	0.00
44.20	0.03	0.03	0.00
44.22	0.04	0.04	0.00
44.24	0.06	0.06	0.00
44.26	0.07	0.07	0.00
44.28	0.09	0.09	0.00
44.30	0.11	0.11	0.00
44.32	0.13	0.13	0.00
44.34	0.15	0.15	0.00
44.36	0.18	0.18	0.00
44.38	0.20	0.20	0.00
44.40	0.23	0.23	0.00
44.42	0.26	0.26	0.00
44.44	0.29	0.29	0.00
44.46	0.31	0.31	0.00
44.48	0.35	0.35	0.00
44.50	0.38	0.38	0.00
44.52	0.41	0.41	0.00
44.54	0.44	0.44	0.00
44.56	0.48	0.48	0.00
44.58	0.51	0.51	0.00
44.60	0.55	0.55	0.00
44.62	0.58	0.58	0.00
44.64	0.62	0.62	0.00
44.66	0.66	0.66	0.00
44.68	0.69	0.69	0.00
44.70	0.73	0.73	0.00
44.72	0.77	0.77	0.00
44.74	0.81	0.81	0.00
44.76	0.85	0.85	0.00
44.78	0.88	0.88	0.00
44.80	0.92	0.92	0.00
44.82	0.96	0.96	0.00
44.84	1.00	1.00	0.00
44.86	1.06	1.04	0.02
44.88	1.17	1.07	0.10
44.90	1.31	1.09	0.22
44.92	1.48	1.12	0.36
44.94	1.67	1.15	0.53
44.96	1.88	1.17	0.71
44.98	2.11	1.19	0.92
45.00	2.35	1.22	1.13
45.02	2.61	1.24	1.37
45.04	2.88	1.26	1.61
45.06	3.16	1.28	1.87
45.08	3.45	1.31	2.15
45.10	3.76	1.33	2.43
45.12	4.08	1.35	2.73
45.14	4.36	1.37	2.99
45.16	4.46	1.39	3.07
45.18	4.56	1.41	3.15
45.20	4.65	1.43	3.22
45.22	4.75	1.45	3.30
45.24	4.84	1.47	3.37
45.26	4.93	1.49	3.44
45.28	5.01	1.51	3.50
45.30	5.09	1.53	3.56
45.32	5.16	1.54	3.62
45.34	5.23	1.56	3.67
45.36	5.30	1.58	3.72
45.38	5.37	1.60	3.78
45.40	5.45	1.62	3.83
45.42	5.52	1.63	3.89
45.44	5.59	1.65	3.94
45.46	5.67	1.67	4.00
45.48	5.74	1.68	4.05
45.50	5.81	1.70	4.11
45.52	5.88	1.72	4.16
45.54	5.94	1.73	4.21
45.56	6.01	1.75	4.26
45.58	6.08	1.77	4.31
45.60	6.14	1.78	4.36
45.62	6.21	1.80	4.41
45.64	6.27	1.81	4.46
45.66	6.34	1.83	4.51
45.68	6.40	1.84	4.56
45.70	6.46	1.86	4.61
45.72	6.53	1.87	4.65
45.74	6.59	1.89	4.70
45.76	6.65	1.90	4.75
45.78	6.71	1.92	4.79
45.80	6.77	1.93	4.84
45.82	6.83	1.95	4.88
45.84	6.89	1.96	4.93
45.86	6.95	1.98	4.97
45.88	7.00	1.99	5.01
45.90	7.06	2.00	5.06
45.92	7.12	2.02	5.10
45.94	7.17	2.03	5.14
45.96	7.23	2.05	5.18
45.98	7.29	2.06	5.23
46.00	7.34	2.07	5.27
46.02	7.40	2.09	5.31
46.04	7.45	2.10	5.35
46.06	7.50	2.11	5.39
46.08	7.56	2.13	5.43
46.10	7.61	2.14	5.47
46.12	**7.66**	**2.15**	**5.51**

Stage-Area-Storage for Pond 14P: DIV-03

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
44.10	**0**	45.12	0
44.12	0	45.14	0
44.14	0	45.16	0
44.16	0	45.18	0
44.18	0	45.20	0
44.20	0	45.22	0
44.22	0	45.24	0
44.24	0	45.26	0
44.26	0	45.28	0
44.28	0	45.30	0
44.30	0	45.32	0
44.32	0	45.34	0
44.34	0	45.36	0
44.36	0	45.38	0
44.38	0	45.40	0
44.40	0	45.42	0
44.42	0	45.44	0
44.44	0	45.46	0
44.46	0	45.48	0
44.48	0	45.50	0
44.50	0	45.52	0
44.52	0	45.54	0
44.54	0	45.56	0
44.56	0	45.58	0
44.58	0	45.60	0
44.60	0	45.62	0
44.62	0	45.64	0
44.64	0	45.66	0
44.66	0	45.68	0
44.68	0	45.70	0
44.70	0	45.72	0
44.72	0	45.74	0
44.74	0	45.76	0
44.76	0	45.78	0
44.78	0	45.80	0
44.80	0	45.82	0
44.82	0	45.84	0
44.84	0	45.86	0
44.86	0	45.88	0
44.88	0	45.90	0
44.90	0	45.92	0
44.92	0	45.94	0
44.94	0	45.96	0
44.96	0	45.98	0
44.98	0	46.00	0
45.00	0	46.02	0
45.02	0	46.04	0
45.04	0	46.06	0
45.06	0	46.08	0
45.08	0	46.10	0
45.10	0	46.12	0

Summary for Pond 15P: Detention Basin 1

Inflow Area = 531,182 sf, 24.31% Impervious, Inflow Depth = 5.97" for 100-year event
Inflow = 58.46 cfs @ 12.22 hrs, Volume= 264,155 cf
Outflow = 38.00 cfs @ 12.42 hrs, Volume= 264,091 cf, Atten= 35%, Lag= 12.4 min
Primary = 20.96 cfs @ 12.42 hrs, Volume= 236,727 cf
Routed to Link 6L : DP 2.1 - West Wetland
Secondary = 17.04 cfs @ 12.42 hrs, Volume= 27,364 cf
Routed to Link 6L : DP 2.1 - West Wetland
Tertiary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 48.08' @ 12.42 hrs Surf.Area= 21,828 sf Storage= 68,535 cf

Plug-Flow detention time= 81.8 min calculated for 264,091 cf (100% of inflow)
Center-of-Mass det. time= 81.5 min (913.3 - 831.8)

Volume	Invert	Avail.Storage	Storage Description
#1	44.00'	89,712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
44.00	11,920	0	0
45.00	14,261	13,091	13,091
46.00	16,659	15,460	28,551
47.00	19,113	17,886	46,437
48.00	21,623	20,368	66,805
49.00	24,191	22,907	89,712

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**24.0" Round Culvert** L= 15.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.00' / 43.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Device 1	44.00'	**5.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	44.55'	**1.5' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Device 1	47.20'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#5	Tertiary	48.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Secondary	45.00'	**24.0" Round Culvert** L= 212.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 45.00' / 43.70' S= 0.0061 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#7	Device 6	47.15'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=20.94 cfs @ 12.42 hrs HW=48.07' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 20.94 cfs @ 6.66 fps)
  ├─**2=Orifice/Grate** (Passes < 1.29 cfs potential flow)
  ├─**3=Sharp-Crested Rectangular Weir** (Passes < 17.20 cfs potential flow)
  └─**4=Sharp-Crested Rectangular Weir** (Passes < 15.55 cfs potential flow)

Secondary OutFlow Max=16.88 cfs @ 12.42 hrs HW=48.07' TW=0.00' (Dynamic Tailwater)
└─**6=Culvert** (Passes 16.88 cfs of 17.20 cfs potential flow)
  └─**7=Sharp-Crested Rectangular Weir** (Weir Controls 16.88 cfs @ 3.14 fps)

Tertiary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.00' TW=0.00' (Dynamic Tailwater)
└─**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 15P: Detention Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
0.00	0.00	0	44.00	0.00	0.00	0.00	**0.00**
5.00	0.00	0	44.00	0.00	0.00	0.00	0.00
10.00	**1.51**	**2,936**	**44.24**	**0.14**	**0.14**	**0.00**	0.00
15.00	**4.49**	**24,833**	**45.77**	**6.37**	**6.37**	**0.00**	0.00
20.00	1.33	11,649	44.90	1.51	1.51	0.00	0.00
25.00	0.38	8,760	44.69	0.70	0.70	0.00	0.00
30.00	0.00	3,467	44.28	0.18	0.18	0.00	0.00
35.00	0.00	1,697	44.14	0.05	0.05	0.00	0.00
40.00	0.00	1,085	44.09	0.02	0.02	0.00	0.00
45.00	0.00	790	44.07	0.01	0.01	0.00	0.00
50.00	0.00	618	44.05	0.01	0.01	0.00	0.00
55.00	0.00	507	44.04	0.01	0.01	0.00	0.00
60.00	0.00	429	44.04	0.00	0.00	0.00	0.00
65.00	0.00	372	44.03	0.00	0.00	0.00	0.00
70.00	0.00	328	44.03	0.00	0.00	0.00	0.00
75.00	0.00	293	44.02	0.00	0.00	0.00	0.00
80.00	0.00	265	44.02	0.00	0.00	0.00	0.00
85.00	0.00	241	44.02	0.00	0.00	0.00	0.00
90.00	0.00	222	44.02	0.00	0.00	0.00	0.00
95.00	0.00	205	44.02	0.00	0.00	0.00	0.00
100.00	0.00	191	44.02	0.00	0.00	0.00	0.00
105.00	0.00	178	44.01	0.00	0.00	0.00	0.00
110.00	0.00	168	44.01	0.00	0.00	0.00	0.00
115.00	0.00	158	44.01	0.00	0.00	0.00	0.00
120.00	0.00	149	44.01	0.00	0.00	0.00	0.00
125.00	0.00	141	44.01	0.00	0.00	0.00	0.00
130.00	0.00	134	44.01	0.00	0.00	0.00	0.00
135.00	0.00	128	44.01	0.00	0.00	0.00	0.00
140.00	0.00	122	44.01	0.00	0.00	0.00	0.00
145.00	0.00	117	44.01	0.00	0.00	0.00	0.00
150.00	0.00	112	44.01	0.00	0.00	0.00	0.00
155.00	0.00	108	44.01	0.00	0.00	0.00	0.00
160.00	0.00	104	44.01	0.00	0.00	0.00	0.00
165.00	0.00	100	44.01	0.00	0.00	0.00	0.00
170.00	0.00	96	44.01	0.00	0.00	0.00	0.00
175.00	0.00	93	44.01	0.00	0.00	0.00	0.00
180.00	0.00	90	44.01	0.00	0.00	0.00	0.00
185.00	0.00	87	44.01	0.00	0.00	0.00	0.00
190.00	0.00	84	44.01	0.00	0.00	0.00	0.00
195.00	0.00	82	44.01	0.00	0.00	0.00	0.00
200.00	0.00	79	44.01	0.00	0.00	0.00	0.00
205.00	0.00	77	44.01	0.00	0.00	0.00	0.00
210.00	0.00	75	44.01	0.00	0.00	0.00	0.00
215.00	0.00	73	44.01	0.00	0.00	0.00	0.00
220.00	0.00	71	44.01	0.00	0.00	0.00	0.00
225.00	0.00	69	44.01	0.00	0.00	0.00	0.00
230.00	0.00	68	44.01	0.00	0.00	0.00	0.00
235.00	0.00	66	44.01	0.00	0.00	0.00	0.00
240.00	0.00	64	44.01	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 15P: Detention Basin 1

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
44.00	0.00	0.00	0.00	0.00
44.10	0.03	0.03	0.00	0.00
44.20	0.10	0.10	0.00	0.00
44.30	0.20	0.20	0.00	0.00
44.40	0.29	0.29	0.00	0.00
44.50	0.35	0.35	0.00	0.00
44.60	0.47	0.47	0.00	0.00
44.70	0.74	0.74	0.00	0.00
44.80	1.10	1.10	0.00	0.00
44.90	1.51	1.51	0.00	0.00
45.00	1.98	1.98	0.00	0.00
45.10	2.47	2.47	0.00	0.00
45.20	3.00	3.00	0.00	0.00
45.30	3.55	3.55	0.00	0.00
45.40	4.12	4.12	0.00	0.00
45.50	4.71	4.71	0.00	0.00
45.60	5.31	5.31	0.00	0.00
45.70	5.92	5.92	0.00	0.00
45.80	6.54	6.54	0.00	0.00
45.90	7.16	7.16	0.00	0.00
46.00	7.79	7.79	0.00	0.00
46.10	8.41	8.41	0.00	0.00
46.20	9.04	9.04	0.00	0.00
46.30	9.66	9.66	0.00	0.00
46.40	10.27	10.27	0.00	0.00
46.50	10.88	10.88	0.00	0.00
46.60	11.48	11.48	0.00	0.00
46.70	12.07	12.07	0.00	0.00
46.80	12.65	12.65	0.00	0.00
46.90	13.21	13.21	0.00	0.00
47.00	13.76	13.76	0.00	0.00
47.10	14.30	14.30	0.00	0.00
47.20	15.04	14.82	0.22	0.00
47.30	17.07	15.94	1.13	0.00
47.40	19.98	17.55	2.43	0.00
47.50	22.90	18.88	4.02	0.00
47.60	25.09	19.26	5.83	0.00
47.70	27.48	19.62	7.86	0.00
47.80	30.04	19.98	10.06	0.00
47.90	32.76	20.34	12.42	0.00
48.00	35.62	20.68	14.94	0.00
48.10	38.33	21.03	17.31	0.00
48.20	40.11	21.36	17.71	1.03
48.30	42.72	21.69	18.11	2.91
48.40	45.86	22.02	18.50	5.34
48.50	49.43	22.34	18.88	8.21
48.60	53.36	22.66	19.26	11.45
48.70	57.61	22.97	19.62	15.02
48.80	62.15	23.28	19.98	18.88
48.90	66.94	23.58	20.34	23.02
49.00	**71.99**	**23.88**	**20.68**	**27.42**

Pro-Hydro
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Stage-Area-Storage for Pond 15P: Detention Basin 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
44.00	11,920	0
44.05	12,037	599
44.10	12,154	1,204
44.15	12,271	1,814
44.20	12,388	2,431
44.25	12,505	3,053
44.30	12,622	3,681
44.35	12,739	4,315
44.40	12,856	4,955
44.45	12,973	5,601
44.50	13,091	6,253
44.55	13,208	6,910
44.60	13,325	7,573
44.65	13,442	8,243
44.70	13,559	8,918
44.75	13,676	9,598
44.80	13,793	10,285
44.85	13,910	10,978
44.90	14,027	11,676
44.95	14,144	12,380
45.00	14,261	13,091
45.05	14,381	13,807
45.10	14,501	14,529
45.15	14,621	15,257
45.20	14,741	15,991
45.25	14,861	16,731
45.30	14,980	17,477
45.35	15,100	18,229
45.40	15,220	18,987
45.45	15,340	19,751
45.50	15,460	20,521
45.55	15,580	21,297
45.60	15,700	22,079
45.65	15,820	22,867
45.70	15,940	23,661
45.75	16,060	24,461
45.80	16,179	25,267
45.85	16,299	26,079
45.90	16,419	26,897
45.95	16,539	27,721
46.00	16,659	28,551
46.05	16,782	29,387
46.10	16,904	30,229
46.15	17,027	31,077
46.20	17,150	31,931
46.25	17,273	32,792
46.30	17,395	33,659
46.35	17,518	34,531
46.40	17,641	35,410
46.45	17,763	36,296
46.50	17,886	37,187
46.55	18,009	38,084
46.60	18,131	38,988
46.65	18,254	39,897
46.70	18,377	40,813
46.75	18,500	41,735
46.80	18,622	42,663
46.85	18,745	43,597
46.90	18,868	44,537
46.95	18,990	45,484
47.00	19,113	46,437
47.05	19,238	47,395
47.10	19,364	48,360
47.15	19,489	49,332
47.20	19,615	50,309
47.25	19,741	51,293
47.30	19,866	52,283
47.35	19,992	53,280
47.40	20,117	54,282
47.45	20,243	55,291
47.50	20,368	56,307
47.55	20,493	57,328
47.60	20,619	58,356
47.65	20,744	59,390
47.70	20,870	60,431
47.75	20,996	61,477
47.80	21,121	62,530
47.85	21,247	63,589
47.90	21,372	64,655
47.95	21,498	65,726
48.00	21,623	66,805
48.05	21,751	67,889
48.10	21,880	68,980
48.15	22,008	70,077
48.20	22,137	71,180
48.25	22,265	72,291
48.30	22,393	73,407
48.35	22,522	74,530
48.40	22,650	75,659
48.45	22,779	76,795
48.50	22,907	77,937
48.55	23,035	79,086
48.60	23,164	80,241
48.65	23,292	81,402
48.70	23,421	82,570
48.75	23,549	83,744
48.80	23,677	84,925
48.85	23,806	86,112
48.90	23,934	87,305
48.95	24,063	88,505
49.00	**24,191**	**89,712**

Summary for Pond 17P: Track and Field- stone base

Inflow Area = 90,671 sf,100.00% Impervious, Inflow Depth = 8.36" for 100-year event
Inflow = 17.17 cfs @ 12.09 hrs, Volume= 63,166 cf
Outflow = 9.38 cfs @ 12.22 hrs, Volume= 63,166 cf, Atten= 45%, Lag= 7.9 min
Discarded = 0.65 cfs @ 12.22 hrs, Volume= 29,957 cf
Primary = 8.73 cfs @ 12.22 hrs, Volume= 33,209 cf
Routed to Pond 35P : Track and Field-manifold

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 50.81' @ 12.22 hrs Surf.Area= 90,671 sf Storage= 9,321 cf

Plug-Flow detention time= 17.0 min calculated for 63,153 cf (100% of inflow)
Center-of-Mass det. time= 17.1 min (757.4 - 740.3)

Volume	Invert	Avail.Storage	Storage Description
#1	50.50'	37,271 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 113,339 cf Overall - 397 cf Embedded = 112,942 cf x 33.0% Voids
#2	50.52'	274 cf	**12.0" W x 1.0" H Ellipse 1" flat drains** x 44 Inside #1 L= 95.2' 397 cf Overall - 0.2" Wall Thickness = 274 cf
		37,545 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
50.50	90,671	0	0
51.58	90,671	97,925	97,925
51.59	90,671	907	98,831
51.75	90,671	14,507	113,339

Device	Routing	Invert	Outlet Devices
#1	Discarded	50.50'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 48.40' Phase-In= 0.02'
#2	Primary	50.52'	**12.0" W x 1.0" H Vert. Orifice/Grate X 44.00** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.65 cfs @ 12.22 hrs HW=50.80' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.65 cfs)

Primary OutFlow Max=8.70 cfs @ 12.22 hrs HW=50.80' TW=50.38' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Orifice Controls 8.70 cfs @ 2.37 fps)

Hydrograph for Pond 17P: Track and Field- stone base

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	50.50	0.00	0.00	0.00
5.00	0.23	233	50.51	0.22	0.22	0.00
10.00	**0.85**	**956**	**50.53**	**0.76**	**0.58**	**0.19**
15.00	**0.70**	**969**	**50.53**	**0.77**	**0.58**	**0.19**
20.00	0.24	255	50.51	0.24	0.24	0.00
25.00	0.00	8	50.50	0.01	0.01	0.00
30.00	0.00	0	50.50	0.00	0.00	0.00
35.00	0.00	0	50.50	0.00	0.00	0.00
40.00	0.00	0	50.50	0.00	0.00	0.00
45.00	0.00	0	50.50	0.00	0.00	0.00
50.00	0.00	0	50.50	0.00	0.00	0.00
55.00	0.00	0	50.50	0.00	0.00	0.00
60.00	0.00	0	50.50	0.00	0.00	0.00
65.00	0.00	0	50.50	0.00	0.00	0.00
70.00	0.00	0	50.50	0.00	0.00	0.00
75.00	0.00	0	50.50	0.00	0.00	0.00
80.00	0.00	0	50.50	0.00	0.00	0.00
85.00	0.00	0	50.50	0.00	0.00	0.00
90.00	0.00	0	50.50	0.00	0.00	0.00
95.00	0.00	0	50.50	0.00	0.00	0.00
100.00	0.00	0	50.50	0.00	0.00	0.00
105.00	0.00	0	50.50	0.00	0.00	0.00
110.00	0.00	0	50.50	0.00	0.00	0.00
115.00	0.00	0	50.50	0.00	0.00	0.00
120.00	0.00	0	50.50	0.00	0.00	0.00
125.00	0.00	0	50.50	0.00	0.00	0.00
130.00	0.00	0	50.50	0.00	0.00	0.00
135.00	0.00	0	50.50	0.00	0.00	0.00
140.00	0.00	0	50.50	0.00	0.00	0.00
145.00	0.00	0	50.50	0.00	0.00	0.00
150.00	0.00	0	50.50	0.00	0.00	0.00
155.00	0.00	0	50.50	0.00	0.00	0.00
160.00	0.00	0	50.50	0.00	0.00	0.00
165.00	0.00	0	50.50	0.00	0.00	0.00
170.00	0.00	0	50.50	0.00	0.00	0.00
175.00	0.00	0	50.50	0.00	0.00	0.00
180.00	0.00	0	50.50	0.00	0.00	0.00
185.00	0.00	0	50.50	0.00	0.00	0.00
190.00	0.00	0	50.50	0.00	0.00	0.00
195.00	0.00	0	50.50	0.00	0.00	0.00
200.00	0.00	0	50.50	0.00	0.00	0.00
205.00	0.00	0	50.50	0.00	0.00	0.00
210.00	0.00	0	50.50	0.00	0.00	0.00
215.00	0.00	0	50.50	0.00	0.00	0.00
220.00	0.00	0	50.50	0.00	0.00	0.00
225.00	0.00	0	50.50	0.00	0.00	0.00
230.00	0.00	0	50.50	0.00	0.00	0.00
235.00	0.00	0	50.50	0.00	0.00	0.00
240.00	0.00	0	50.50	0.00	0.00	0.00

Stage-Discharge for Pond 17P: Track and Field- stone base

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
50.50	0.00	0.00	0.00
50.52	0.57	0.57	0.00
50.54	0.98	0.58	0.40
50.56	1.71	0.58	1.13
50.58	2.66	0.59	2.08
50.60	3.79	0.59	3.20
50.62	4.76	0.60	4.16
50.64	5.48	0.60	4.88
50.66	6.10	0.61	5.49
50.68	6.66	0.62	6.04
50.70	7.16	0.62	6.54
50.72	7.63	0.63	7.00
50.74	8.07	0.63	7.44
50.76	8.48	0.64	7.85
50.78	8.88	0.64	8.24
50.80	9.26	0.65	8.61
50.82	9.62	0.65	8.96
50.84	9.96	0.66	9.31
50.86	10.30	0.66	9.64
50.88	10.62	0.67	9.95
50.90	10.94	0.67	10.26
50.92	11.24	0.68	10.56
50.94	11.54	0.69	10.85
50.96	11.83	0.69	11.14
50.98	12.11	0.70	11.41
51.00	12.39	0.70	11.68
51.02	12.66	0.71	11.95
51.04	12.92	0.71	12.21
51.06	13.18	0.72	12.46
51.08	13.43	0.72	12.71
51.10	13.68	0.73	12.95
51.12	13.92	0.73	13.19
51.14	14.16	0.74	13.42
51.16	14.40	0.74	13.65
51.18	14.63	0.75	13.88
51.20	14.86	0.76	14.10
51.22	15.08	0.76	14.32
51.24	15.30	0.77	14.54
51.26	15.52	0.77	14.75
51.28	15.74	0.78	14.96
51.30	15.95	0.78	15.17
51.32	16.16	0.79	15.37
51.34	16.37	0.79	15.57
51.36	16.57	0.80	15.77
51.38	16.77	0.80	15.97
51.40	16.97	0.81	16.16
51.42	17.17	0.81	16.36
51.44	17.36	0.82	16.54
51.46	17.56	0.83	16.73
51.48	17.75	0.83	16.92
51.50	17.94	0.84	17.10
51.52	18.12	0.84	17.28
51.54	18.31	0.85	17.46
51.56	18.49	0.85	17.64
51.58	18.67	0.86	17.81
51.60	18.85	0.86	17.99
51.62	19.03	0.87	18.16
51.64	19.21	0.87	18.33
51.66	19.38	0.88	18.50
51.68	19.55	0.89	18.67
51.70	19.73	0.89	18.84
51.72	19.90	0.90	19.00
51.74	**20.06**	**0.90**	**19.16**

Pro-Hydro
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Stage-Area-Storage for Pond 17P: Track and Field- stone base

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
50.50	**90,671**	0
50.52	90,671	587
50.54	90,671	1,212
50.56	90,671	1,862
50.58	90,671	2,514
50.60	90,671	3,147
50.62	90,671	3,734
50.64	90,671	4,332
50.66	90,671	4,931
50.68	90,671	5,529
50.70	90,671	6,128
50.72	90,671	6,726
50.74	90,671	7,324
50.76	90,671	7,923
50.78	90,671	8,521
50.80	90,671	9,120
50.82	90,671	9,718
50.84	90,671	10,317
50.86	90,671	10,915
50.88	90,671	11,513
50.90	90,671	12,112
50.92	90,671	12,710
50.94	90,671	13,309
50.96	90,671	13,907
50.98	90,671	14,506
51.00	90,671	15,104
51.02	90,671	15,702
51.04	90,671	16,301
51.06	90,671	16,899
51.08	90,671	17,498
51.10	90,671	18,096
51.12	90,671	18,695
51.14	90,671	19,293
51.16	90,671	19,891
51.18	90,671	20,490
51.20	90,671	21,088
51.22	90,671	21,687
51.24	90,671	22,285
51.26	90,671	22,884
51.28	90,671	23,482
51.30	90,671	24,080
51.32	90,671	24,679
51.34	90,671	25,277
51.36	90,671	25,876
51.38	90,671	26,474
51.40	90,671	27,073
51.42	90,671	27,671
51.44	90,671	28,269
51.46	90,671	28,868
51.48	90,671	29,466
51.50	90,671	30,065
51.52	90,671	30,663
51.54	90,671	31,262
51.56	90,671	31,860
51.58	90,671	32,458
51.60	90,671	33,057
51.62	90,671	33,655
51.64	90,671	34,254
51.66	90,671	34,852
51.68	90,671	35,451
51.70	90,671	36,049
51.72	90,671	36,647
51.74	90,671	**37,246**

Summary for Pond 18P: Sand Filter 2

Inflow Area = 114,710 sf, 50.57% Impervious, Inflow Depth = 5.00" for 100-year event
Inflow = 8.89 cfs @ 12.10 hrs, Volume= 47,795 cf
Outflow = 6.42 cfs @ 12.20 hrs, Volume= 47,795 cf, Atten= 28%, Lag= 6.5 min
Discarded = 0.01 cfs @ 4.60 hrs, Volume= 5,202 cf
Primary = 6.41 cfs @ 12.20 hrs, Volume= 42,594 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 55.69' @ 12.20 hrs Surf.Area= 5,884 sf Storage= 6,652 cf

Plug-Flow detention time= 311.4 min calculated for 47,785 cf (100% of inflow)
Center-of-Mass det. time= 312.4 min (1,124.0 - 811.6)

Volume	Invert	Avail.Storage	Storage Description
#1	51.84'	15,389 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
51.84	2,171	0.0	0	0
51.85	2,171	33.0	7	7
54.84	2,171	33.0	2,142	2,149
54.85	4,561	100.0	34	2,183
55.00	4,959	100.0	714	2,897
56.00	6,294	100.0	5,627	8,523
57.00	7,438	100.0	6,866	15,389

Device	Routing	Invert	Outlet Devices
#1	Discarded	51.84'	**0.270 in/hr Exfiltration over Surface area from 51.83' - 54.84'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	55.25'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	56.00'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 4.60 hrs HW=51.89' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=6.40 cfs @ 12.20 hrs HW=55.69' TW=0.00' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Orifice Controls 6.40 cfs @ 3.20 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=51.84' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 18P: Sand Filter 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	51.84	0.00	**0.00**	0.00	**0.00**
5.00	0.05	79	51.95	0.01	**0.01**	0.00	0.00
10.00	**0.60**	**4,078**	**55.23**	**0.01**	0.01	**0.00**	0.00
15.00	**0.86**	**4,343**	**55.28**	**0.87**	0.01	**0.85**	0.00
20.00	0.28	4,255	55.26	0.28	0.01	0.27	0.00
25.00	0.00	4,158	55.25	0.01	0.01	0.00	0.00
30.00	0.00	3,914	55.20	0.01	0.01	0.00	0.00
35.00	0.00	3,669	55.15	0.01	0.01	0.00	0.00
40.00	0.00	3,425	55.11	0.01	0.01	0.00	0.00
45.00	0.00	3,181	55.06	0.01	0.01	0.00	0.00
50.00	0.00	2,937	55.01	0.01	0.01	0.00	0.00
55.00	0.00	2,692	54.96	0.01	0.01	0.00	0.00
60.00	0.00	2,448	54.91	0.01	0.01	0.00	0.00
65.00	0.00	2,204	54.85	0.01	0.01	0.00	0.00
70.00	0.00	1,960	54.58	0.01	0.01	0.00	0.00
75.00	0.00	1,715	54.23	0.01	0.01	0.00	0.00
80.00	0.00	1,471	53.89	0.01	0.01	0.00	0.00
85.00	0.00	1,227	53.55	0.01	0.01	0.00	0.00
90.00	0.00	983	53.21	0.01	0.01	0.00	0.00
95.00	0.00	739	52.87	0.01	0.01	0.00	0.00
100.00	0.00	494	52.53	0.01	0.01	0.00	0.00
105.00	0.00	250	52.19	0.01	0.01	0.00	0.00
110.00	0.00	8	51.85	0.01	0.01	0.00	0.00
115.00	0.00	0	51.84	0.00	0.00	0.00	0.00
120.00	0.00	0	51.84	0.00	0.00	0.00	0.00
125.00	0.00	0	51.84	0.00	0.00	0.00	0.00
130.00	0.00	0	51.84	0.00	0.00	0.00	0.00
135.00	0.00	0	51.84	0.00	0.00	0.00	0.00
140.00	0.00	0	51.84	0.00	0.00	0.00	0.00
145.00	0.00	0	51.84	0.00	0.00	0.00	0.00
150.00	0.00	0	51.84	0.00	0.00	0.00	0.00
155.00	0.00	0	51.84	0.00	0.00	0.00	0.00
160.00	0.00	0	51.84	0.00	0.00	0.00	0.00
165.00	0.00	0	51.84	0.00	0.00	0.00	0.00
170.00	0.00	0	51.84	0.00	0.00	0.00	0.00
175.00	0.00	0	51.84	0.00	0.00	0.00	0.00
180.00	0.00	0	51.84	0.00	0.00	0.00	0.00
185.00	0.00	0	51.84	0.00	0.00	0.00	0.00
190.00	0.00	0	51.84	0.00	0.00	0.00	0.00
195.00	0.00	0	51.84	0.00	0.00	0.00	0.00
200.00	0.00	0	51.84	0.00	0.00	0.00	0.00
205.00	0.00	0	51.84	0.00	0.00	0.00	0.00
210.00	0.00	0	51.84	0.00	0.00	0.00	0.00
215.00	0.00	0	51.84	0.00	0.00	0.00	0.00
220.00	0.00	0	51.84	0.00	0.00	0.00	0.00
225.00	0.00	0	51.84	0.00	0.00	0.00	0.00
230.00	0.00	0	51.84	0.00	0.00	0.00	0.00
235.00	0.00	0	51.84	0.00	0.00	0.00	0.00
240.00	0.00	0	51.84	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 18P: Sand Filter 2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
51.84	0.00	**0.00**	0.00	0.00
52.04	0.01	**0.01**	0.00	0.00
52.24	0.01	0.01	0.00	0.00
52.44	0.01	0.01	0.00	0.00
52.64	0.01	0.01	0.00	0.00
52.84	0.01	0.01	0.00	0.00
53.04	0.01	0.01	0.00	0.00
53.24	0.01	0.01	0.00	0.00
53.44	0.01	0.01	0.00	0.00
53.64	0.01	0.01	0.00	0.00
53.84	0.01	0.01	0.00	0.00
54.04	0.01	0.01	0.00	0.00
54.24	0.01	0.01	0.00	0.00
54.44	0.01	0.01	0.00	0.00
54.64	0.01	0.01	0.00	0.00
54.84	0.01	0.01	0.00	0.00
55.04	0.01	0.01	0.00	0.00
55.24	0.01	0.01	0.00	0.00
55.44	4.21	0.01	4.20	0.00
55.64	6.03	0.01	6.01	0.00
55.84	7.41	0.01	7.40	0.00
56.04	8.83	0.01	8.56	0.26
56.24	13.42	0.01	9.58	3.83
56.44	19.98	0.01	10.51	9.46
56.64	27.90	0.01	11.35	16.53
56.84	**36.91**	0.01	**12.14**	**24.75**

Stage-Area-Storage for Pond 18P: Sand Filter 2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
51.84	2,171	0
51.94	2,171	72
52.04	2,171	143
52.14	2,171	215
52.24	2,171	287
52.34	2,171	358
52.44	2,171	430
52.54	2,171	502
52.64	2,171	573
52.74	2,171	645
52.84	2,171	716
52.94	2,171	788
53.04	2,171	860
53.14	2,171	931
53.24	2,171	1,003
53.34	2,171	1,075
53.44	2,171	1,146
53.54	2,171	1,218
53.64	2,171	1,290
53.74	2,171	1,361
53.84	2,171	1,433
53.94	2,171	1,505
54.04	2,171	1,576
54.14	2,171	1,648
54.24	2,171	1,719
54.34	2,171	1,791
54.44	2,171	1,863
54.54	2,171	1,934
54.64	2,171	2,006
54.74	2,171	2,078
54.84	2,171	2,149
54.94	4,800	2,604
55.04	5,012	3,096
55.14	5,146	3,604
55.24	5,279	4,126
55.34	5,413	4,660
55.44	5,546	5,208
55.54	5,680	5,769
55.64	5,813	6,344
55.74	5,947	6,932
55.84	6,080	7,533
55.94	6,214	8,148
56.04	6,340	8,776
56.14	6,454	9,416
56.24	6,569	10,067
56.34	6,683	10,730
56.44	6,797	11,404
56.54	6,912	12,089
56.64	7,026	12,786
56.74	7,141	13,494
56.84	7,255	14,214
56.94	**7,369**	**14,945**

Summary for Pond 19P: Sand Filter 3

Inflow Area = 22,284 sf, 61.76% Impervious, Inflow Depth = 7.28" for 100-year event
Inflow = 4.00 cfs @ 12.09 hrs, Volume= 13,512 cf
Outflow = 2.57 cfs @ 12.19 hrs, Volume= 13,512 cf, Atten= 36%, Lag= 6.1 min
Discarded = 0.01 cfs @ 5.50 hrs, Volume= 4,870 cf
Primary = 2.56 cfs @ 12.19 hrs, Volume= 8,642 cf
Routed to Pond 3P : DIV-02
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 4L : DP 1.3 - Culvert 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 60.93' @ 12.19 hrs Surf.Area= 4,032 sf Storage= 5,023 cf

Plug-Flow detention time= 1,014.3 min calculated for 13,509 cf (100% of inflow)
Center-of-Mass det. time= 1,015.2 min (1,792.1 - 776.9)

Volume	Invert	Avail.Storage	Storage Description
#1	56.99'	10,312 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
56.99	1,999	0.0	0	0
57.00	1,999	33.0	7	7
59.99	1,999	33.0	1,972	1,979
60.00	2,449	100.0	22	2,001
61.00	4,147	100.0	3,298	5,299
62.00	5,878	100.0	5,013	10,312

Device	Routing	Invert	Outlet Devices
#1	Discarded	56.99'	**0.270 in/hr Exfiltration over Surface area from 56.98' - 59.99'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	60.65'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#3	Secondary	61.10'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 5.50 hrs HW=57.04' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=2.55 cfs @ 12.19 hrs HW=60.93' TW=59.35' (Dynamic Tailwater)
↑—**2=Orifice/Grate** (Orifice Controls 2.55 cfs @ 2.55 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=56.99' TW=0.00' (Dynamic Tailwater)
↑—**3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 19P: Sand Filter 3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	56.99	0.00	0.00	0.00	**0.00**
5.00	0.02	18	57.02	0.01	**0.01**	0.00	0.00
10.00	**0.16**	**1,021**	**58.54**	**0.01**	**0.01**	**0.00**	0.00
15.00	**0.17**	**4,009**	**60.67**	**0.17**	0.01	**0.16**	0.00
20.00	0.06	3,977	60.66	0.06	0.01	0.05	0.00
25.00	0.00	3,922	60.64	0.01	0.01	0.00	0.00
30.00	0.00	3,697	60.58	0.01	0.01	0.00	0.00
35.00	0.00	3,472	60.51	0.01	0.01	0.00	0.00
40.00	0.00	3,247	60.44	0.01	0.01	0.00	0.00
45.00	0.00	3,022	60.37	0.01	0.01	0.00	0.00
50.00	0.00	2,797	60.29	0.01	0.01	0.00	0.00
55.00	0.00	2,572	60.22	0.01	0.01	0.00	0.00
60.00	0.00	2,348	60.14	0.01	0.01	0.00	0.00
65.00	0.00	2,123	60.05	0.01	0.01	0.00	0.00
70.00	0.00	1,898	59.87	0.01	0.01	0.00	0.00
75.00	0.00	1,673	59.53	0.01	0.01	0.00	0.00
80.00	0.00	1,448	59.18	0.01	0.01	0.00	0.00
85.00	0.00	1,223	58.84	0.01	0.01	0.00	0.00
90.00	0.00	998	58.50	0.01	0.01	0.00	0.00
95.00	0.00	773	58.16	0.01	0.01	0.00	0.00
100.00	0.00	548	57.82	0.01	0.01	0.00	0.00
105.00	0.00	324	57.48	0.01	0.01	0.00	0.00
110.00	0.00	99	57.14	0.01	0.01	0.00	0.00
115.00	0.00	0	56.99	0.00	0.00	0.00	0.00
120.00	0.00	0	56.99	0.00	0.00	0.00	0.00
125.00	0.00	0	56.99	0.00	0.00	0.00	0.00
130.00	0.00	0	56.99	0.00	0.00	0.00	0.00
135.00	0.00	0	56.99	0.00	0.00	0.00	0.00
140.00	0.00	0	56.99	0.00	0.00	0.00	0.00
145.00	0.00	0	56.99	0.00	0.00	0.00	0.00
150.00	0.00	0	56.99	0.00	0.00	0.00	0.00
155.00	0.00	0	56.99	0.00	0.00	0.00	0.00
160.00	0.00	0	56.99	0.00	0.00	0.00	0.00
165.00	0.00	0	56.99	0.00	0.00	0.00	0.00
170.00	0.00	0	56.99	0.00	0.00	0.00	0.00
175.00	0.00	0	56.99	0.00	0.00	0.00	0.00
180.00	0.00	0	56.99	0.00	0.00	0.00	0.00
185.00	0.00	0	56.99	0.00	0.00	0.00	0.00
190.00	0.00	0	56.99	0.00	0.00	0.00	0.00
195.00	0.00	0	56.99	0.00	0.00	0.00	0.00
200.00	0.00	0	56.99	0.00	0.00	0.00	0.00
205.00	0.00	0	56.99	0.00	0.00	0.00	0.00
210.00	0.00	0	56.99	0.00	0.00	0.00	0.00
215.00	0.00	0	56.99	0.00	0.00	0.00	0.00
220.00	0.00	0	56.99	0.00	0.00	0.00	0.00
225.00	0.00	0	56.99	0.00	0.00	0.00	0.00
230.00	0.00	0	56.99	0.00	0.00	0.00	0.00
235.00	0.00	0	56.99	0.00	0.00	0.00	0.00
240.00	0.00	0	56.99	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 19P: Sand Filter 3

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
56.99	0.00	**0.00**	0.00	0.00
57.09	0.01	**0.01**	0.00	0.00
57.19	0.01	0.01	0.00	0.00
57.29	0.01	0.01	0.00	0.00
57.39	0.01	0.01	0.00	0.00
57.49	0.01	0.01	0.00	0.00
57.59	0.01	0.01	0.00	0.00
57.69	0.01	0.01	0.00	0.00
57.79	0.01	0.01	0.00	0.00
57.89	0.01	0.01	0.00	0.00
57.99	0.01	0.01	0.00	0.00
58.09	0.01	0.01	0.00	0.00
58.19	0.01	0.01	0.00	0.00
58.29	0.01	0.01	0.00	0.00
58.39	0.01	0.01	0.00	0.00
58.49	0.01	0.01	0.00	0.00
58.59	0.01	0.01	0.00	0.00
58.69	0.01	0.01	0.00	0.00
58.79	0.01	0.01	0.00	0.00
58.89	0.01	0.01	0.00	0.00
58.99	0.01	0.01	0.00	0.00
59.09	0.01	0.01	0.00	0.00
59.19	0.01	0.01	0.00	0.00
59.29	0.01	0.01	0.00	0.00
59.39	0.01	0.01	0.00	0.00
59.49	0.01	0.01	0.00	0.00
59.59	0.01	0.01	0.00	0.00
59.69	0.01	0.01	0.00	0.00
59.79	0.01	0.01	0.00	0.00
59.89	0.01	0.01	0.00	0.00
59.99	0.01	0.01	0.00	0.00
60.09	0.01	0.01	0.00	0.00
60.19	0.01	0.01	0.00	0.00
60.29	0.01	0.01	0.00	0.00
60.39	0.01	0.01	0.00	0.00
60.49	0.01	0.01	0.00	0.00
60.59	0.01	0.01	0.00	0.00
60.69	0.64	0.01	0.63	0.00
60.79	1.81	0.01	1.80	0.00
60.89	2.37	0.01	2.36	0.00
60.99	2.82	0.01	2.81	0.00
61.09	3.21	0.01	3.19	0.00
61.19	4.43	0.01	3.54	0.88
61.29	6.56	0.01	3.85	2.70
61.39	9.23	0.01	4.14	5.08
61.49	12.33	0.01	4.41	7.90
61.59	15.79	0.01	4.67	11.11
61.69	19.57	0.01	4.91	14.64
61.79	23.64	0.01	5.14	18.48
61.89	27.97	0.01	5.36	22.60
61.99	**32.55**	0.01	**5.57**	**26.97**

Stage-Area-Storage for Pond 19P: Sand Filter 3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
56.99	1,999	0
57.04	1,999	33
57.09	1,999	66
57.14	1,999	99
57.19	1,999	132
57.24	1,999	165
57.29	1,999	198
57.34	1,999	231
57.39	1,999	264
57.44	1,999	297
57.49	1,999	330
57.54	1,999	363
57.59	1,999	396
57.64	1,999	429
57.69	1,999	462
57.74	1,999	495
57.79	1,999	528
57.84	1,999	561
57.89	1,999	594
57.94	1,999	627
57.99	1,999	660
58.04	1,999	693
58.09	1,999	726
58.14	1,999	759
58.19	1,999	792
58.24	1,999	825
58.29	1,999	858
58.34	1,999	891
58.39	1,999	924
58.44	1,999	957
58.49	1,999	990
58.54	1,999	1,022
58.59	1,999	1,055
58.64	1,999	1,088
58.69	1,999	1,121
58.74	1,999	1,154
58.79	1,999	1,187
58.84	1,999	1,220
58.89	1,999	1,253
58.94	1,999	1,286
58.99	1,999	1,319
59.04	1,999	1,352
59.09	1,999	1,385
59.14	1,999	1,418
59.19	1,999	1,451
59.24	1,999	1,484
59.29	1,999	1,517
59.34	1,999	1,550
59.39	1,999	1,583
59.44	1,999	1,616
59.49	1,999	1,649
59.54	1,999	1,682
59.59	1,999	1,715
59.64	1,999	1,748
59.69	1,999	1,781
59.74	1,999	1,814
59.79	1,999	1,847
59.84	1,999	1,880
59.89	1,999	1,913
59.94	1,999	1,946
59.99	1,999	1,979
60.04	2,517	2,101
60.09	2,602	2,229
60.14	2,687	2,361
60.19	2,772	2,497
60.24	2,857	2,638
60.29	2,941	2,783
60.34	3,026	2,932
60.39	3,111	3,085
60.44	3,196	3,243
60.49	3,281	3,405
60.54	3,366	3,571
60.59	3,451	3,742
60.64	3,536	3,916
60.69	3,621	4,095
60.74	3,706	4,278
60.79	3,790	4,466
60.84	3,875	4,657
60.89	3,960	4,853
60.94	4,045	5,053
60.99	4,130	5,258
61.04	4,216	5,467
61.09	4,303	5,679
61.14	4,389	5,897
61.19	4,476	6,118
61.24	4,562	6,344
61.29	4,649	6,575
61.34	4,736	6,809
61.39	4,822	7,048
61.44	4,909	7,291
61.49	4,995	7,539
61.54	5,082	7,791
61.59	5,168	8,047
61.64	5,255	8,308
61.69	5,341	8,573
61.74	5,428	8,842
61.79	5,514	9,116
61.84	5,601	9,393
61.89	5,688	9,676
61.94	5,774	9,962
61.99	**5,861**	**10,253**

Summary for Pond 20P: Sand Filter 4

Inflow Area = 31,007 sf, 23.95% Impervious, Inflow Depth = 6.55" for 100-year event
Inflow = 4.16 cfs @ 12.18 hrs, Volume= 16,930 cf
Outflow = 3.17 cfs @ 12.31 hrs, Volume= 16,930 cf, Atten= 24%, Lag= 7.5 min
Primary = 3.17 cfs @ 12.31 hrs, Volume= 16,930 cf
Routed to Link 3L : DP 1.2 - Culvert 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 61.79' @ 12.31 hrs Surf.Area= 2,895 sf Storage= 3,036 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 29.8 min (829.8 - 800.0)

Volume	Invert	Avail.Storage	Storage Description
#1	58.99'	3,660 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.99	1,767	0.0	0	0
59.00	1,767	33.0	6	6
60.99	1,767	33.0	1,160	1,166
61.00	1,767	100.0	18	1,184
62.00	3,186	100.0	2,477	3,660

Device	Routing	Invert	Outlet Devices
#1	Primary	61.50'	**2.0" x 2.0" Horiz. Orifice/Grate X 6.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#2	Device 3	58.99'	**8.270 in/hr Exfiltration over Surface area** Phase-In= 0.02'
#3	Primary	58.25'	**6.0" Round subdrain** L= 50.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.25' / 56.90' S= 0.0270 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=3.16 cfs @ 12.31 hrs HW=61.79' TW=0.00' (Dynamic Tailwater)
- **1=Orifice/Grate** (Orifice Controls 2.61 cfs @ 2.61 fps)
- **3=subdrain** (Passes 0.55 cfs of 1.35 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.55 cfs)

Hydrograph for Pond 20P: Sand Filter 4

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	58.99	0.00
5.00	0.00	0	58.99	0.00
10.00	**0.17**	**6**	**59.00**	**0.17**
15.00	**0.23**	**1,462**	**61.15**	**0.38**
20.00	0.08	3	58.99	0.08
25.00	0.00	0	58.99	0.00
30.00	0.00	0	58.99	0.00
35.00	0.00	0	58.99	0.00
40.00	0.00	0	58.99	0.00
45.00	0.00	0	58.99	0.00
50.00	0.00	0	58.99	0.00
55.00	0.00	0	58.99	0.00
60.00	0.00	0	58.99	0.00
65.00	0.00	0	58.99	0.00
70.00	0.00	0	58.99	0.00
75.00	0.00	0	58.99	0.00
80.00	0.00	0	58.99	0.00
85.00	0.00	0	58.99	0.00
90.00	0.00	0	58.99	0.00
95.00	0.00	0	58.99	0.00
100.00	0.00	0	58.99	0.00
105.00	0.00	0	58.99	0.00
110.00	0.00	0	58.99	0.00
115.00	0.00	0	58.99	0.00
120.00	0.00	0	58.99	0.00
125.00	0.00	0	58.99	0.00
130.00	0.00	0	58.99	0.00
135.00	0.00	0	58.99	0.00
140.00	0.00	0	58.99	0.00
145.00	0.00	0	58.99	0.00
150.00	0.00	0	58.99	0.00
155.00	0.00	0	58.99	0.00
160.00	0.00	0	58.99	0.00
165.00	0.00	0	58.99	0.00
170.00	0.00	0	58.99	0.00
175.00	0.00	0	58.99	0.00
180.00	0.00	0	58.99	0.00
185.00	0.00	0	58.99	0.00
190.00	0.00	0	58.99	0.00
195.00	0.00	0	58.99	0.00
200.00	0.00	0	58.99	0.00
205.00	0.00	0	58.99	0.00
210.00	0.00	0	58.99	0.00
215.00	0.00	0	58.99	0.00
220.00	0.00	0	58.99	0.00
225.00	0.00	0	58.99	0.00
230.00	0.00	0	58.99	0.00
235.00	0.00	0	58.99	0.00
240.00	0.00	0	58.99	0.00

Stage-Discharge for Pond 20P: Sand Filter 4

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
58.99	0.00	60.01	0.34	61.03	0.35
59.01	0.34	60.03	0.34	61.05	0.35
59.03	0.34	60.05	0.34	61.07	0.36
59.05	0.34	60.07	0.34	61.09	0.36
59.07	0.34	60.09	0.34	61.11	0.37
59.09	0.34	60.11	0.34	61.13	0.37
59.11	0.34	60.13	0.34	61.15	0.38
59.13	0.34	60.15	0.34	61.17	0.38
59.15	0.34	60.17	0.34	61.19	0.39
59.17	0.34	60.19	0.34	61.21	0.40
59.19	0.34	60.21	0.34	61.23	0.40
59.21	0.34	60.23	0.34	61.25	0.41
59.23	0.34	60.25	0.34	61.27	0.41
59.25	0.34	60.27	0.34	61.29	0.42
59.27	0.34	60.29	0.34	61.31	0.42
59.29	0.34	60.31	0.34	61.33	0.43
59.31	0.34	60.33	0.34	61.35	0.43
59.33	0.34	60.35	0.34	61.37	0.44
59.35	0.34	60.37	0.34	61.39	0.44
59.37	0.34	60.39	0.34	61.41	0.45
59.39	0.34	60.41	0.34	61.43	0.46
59.41	0.34	60.43	0.34	61.45	0.46
59.43	0.34	60.45	0.34	61.47	0.47
59.45	0.34	60.47	0.34	61.49	0.47
59.47	0.34	60.49	0.34	61.51	0.56
59.49	0.34	60.51	0.34	61.53	0.89
59.51	0.34	60.53	0.34	61.55	1.37
59.53	0.34	60.55	0.34	61.57	1.77
59.55	0.34	60.57	0.34	61.59	1.94
59.57	0.34	60.59	0.34	61.61	2.10
59.59	0.34	60.61	0.34	61.63	2.25
59.61	0.34	60.63	0.34	61.65	2.38
59.63	0.34	60.65	0.34	61.67	2.51
59.65	0.34	60.67	0.34	61.69	2.62
59.67	0.34	60.69	0.34	61.71	2.74
59.69	0.34	60.71	0.34	61.73	2.85
59.71	0.34	60.73	0.34	61.75	2.95
59.73	0.34	60.75	0.34	61.77	3.05
59.75	0.34	60.77	0.34	61.79	3.15
59.77	0.34	60.79	0.34	61.81	3.24
59.79	0.34	60.81	0.34	61.83	3.33
59.81	0.34	60.83	0.34	61.85	3.42
59.83	0.34	60.85	0.34	61.87	3.50
59.85	0.34	60.87	0.34	61.89	3.59
59.87	0.34	60.89	0.34	61.91	3.67
59.89	0.34	60.91	0.34	61.93	3.75
59.91	0.34	60.93	0.34	61.95	3.83
59.93	0.34	60.95	0.34	61.97	3.90
59.95	0.34	60.97	0.34	61.99	**3.98**
59.97	0.34	60.99	0.34		
59.99	0.34	61.01	0.34		

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Stage-Area-Storage for Pond 20P: Sand Filter 4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
58.99	1,767	0
59.04	1,767	29
59.09	1,767	58
59.14	1,767	87
59.19	1,767	117
59.24	1,767	146
59.29	1,767	175
59.34	1,767	204
59.39	1,767	233
59.44	1,767	262
59.49	1,767	292
59.54	1,767	321
59.59	1,767	350
59.64	1,767	379
59.69	1,767	408
59.74	1,767	437
59.79	1,767	466
59.84	1,767	496
59.89	1,767	525
59.94	1,767	554
59.99	1,767	583
60.04	1,767	612
60.09	1,767	641
60.14	1,767	671
60.19	1,767	700
60.24	1,767	729
60.29	1,767	758
60.34	1,767	787
60.39	1,767	816
60.44	1,767	846
60.49	1,767	875
60.54	1,767	904
60.59	1,767	933
60.64	1,767	962
60.69	1,767	991
60.74	1,767	1,020
60.79	1,767	1,050
60.84	1,767	1,079
60.89	1,767	1,108
60.94	1,767	1,137
60.99	1,767	1,166
61.04	1,824	1,256
61.09	1,895	1,349
61.14	1,966	1,445
61.19	2,037	1,545
61.24	2,108	1,649
61.29	2,179	1,756
61.34	2,249	1,867
61.39	2,320	1,981
61.44	2,391	2,099
61.49	2,462	2,220
61.54	2,533	2,345
61.59	2,604	2,473
61.64	2,675	2,605
61.69	2,746	2,741
61.74	2,817	2,880
61.79	2,888	3,023
61.84	2,959	3,169
61.89	3,030	3,319
61.94	3,101	3,472
61.99	**3,172**	**3,629**

Summary for Pond 23P: UGIS-1

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 1.88" for 100-year event
Inflow = 3.11 cfs @ 11.72 hrs, Volume= 23,765 cf
Outflow = 2.59 cfs @ 12.29 hrs, Volume= 23,765 cf, Atten= 17%, Lag= 34.3 min
Discarded = 0.08 cfs @ 12.29 hrs, Volume= 14,054 cf
Primary = 2.51 cfs @ 12.29 hrs, Volume= 9,710 cf
Routed to Link 6L : DP 2.1 - West Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 48.95' @ 12.29 hrs Surf.Area= 6,719 sf Storage= 11,811 cf

Plug-Flow detention time= 852.1 min calculated for 23,760 cf (100% of inflow)
Center-of-Mass det. time= 852.5 min (1,572.0 - 719.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	46.30'	3,295 cf	**66.58'W x 80.00'L x 3.21'H Field A** 17,090 cf Overall - 7,104 cf Embedded = 9,986 cf x 33.0% Voids
#2A	46.80'	7,104 cf	**Cultec R-280HD** x 165 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 15 rows
#3B	46.30'	893 cf	**44.92'W x 31.00'L x 3.21'H Field B** 4,467 cf Overall - 1,761 cf Embedded = 2,707 cf x 33.0% Voids
#4B	46.80'	1,761 cf	**Cultec R-280HD** x 40 Inside #3 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 10 rows
		13,053 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	46.80'	**24.0" Round Culvert** L= 60.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 43.50' S= 0.0550 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 3.14 sf
#2	Primary	48.40'	**2.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Device 1	49.00'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Discarded	46.30'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 43.30' Phase-In= 0.02'

Discarded OutFlow Max=0.08 cfs @ 12.29 hrs HW=48.95' (Free Discharge)
└**4=Exfiltration** (Controls 0.08 cfs)

Primary OutFlow Max=2.51 cfs @ 12.29 hrs HW=48.95' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.00 cfs of 12.80 cfs potential flow)
└**3=Sharp-Crested Rectangular Weir**(Controls 0.00 cfs)
└**2=Sharp-Crested Rectangular Weir**(Weir Controls 2.51 cfs @ 2.42 fps)

Pond 23P: UGIS-1 - Chamber Wizard Field A

Chamber Model = Cultec R-280HD (Cultec Recharger®280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 15 rows

47.0" Wide + 5.0" Spacing = 52.0" C-C Row Spacing

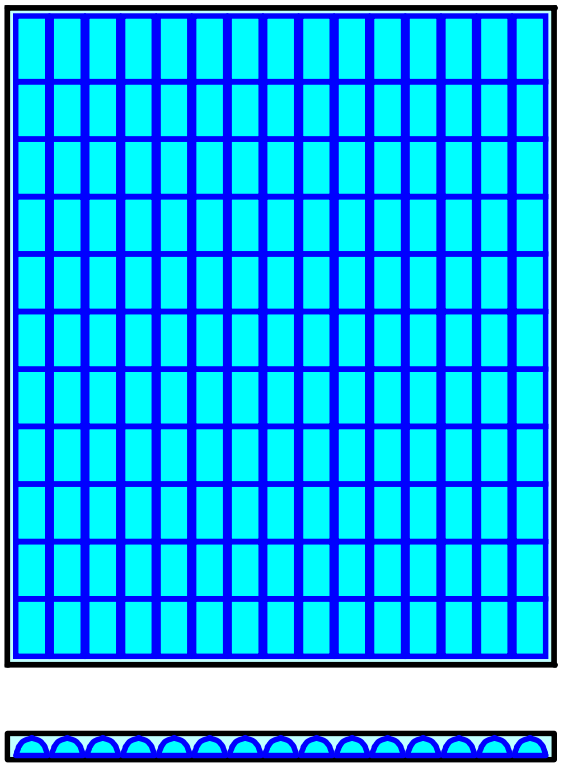
11 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 78.00' Row Length +12.0" End Stone x 2 = 80.00' Base Length
15 Rows x 47.0" Wide + 5.0" Spacing x 14 + 12.0" Side Stone x 2 = 66.58' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

165 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 15 Rows = 7,103.9 cf Chamber Storage

17,089.7 cf Field - 7,103.9 cf Chambers = 9,985.8 cf Stone x 33.0% Voids = 3,295.3 cf Stone Storage

Chamber Storage + Stone Storage = 10,399.3 cf = 0.239 af
Overall Storage Efficiency = 60.9%
Overall System Size = 80.00' x 66.58' x 3.21'

165 Chambers
633.0 cy Field
369.8 cy Stone



Pond 23P: UGIS-1 - Chamber Wizard Field B

Chamber Model = Cultec R-280HD (Cultec Recharger®280HD)
Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf
Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap
Row Length Adjustment= +1.00' x 6.07 sf x 10 rows

47.0" Wide + 5.0" Spacing = 52.0" C-C Row Spacing

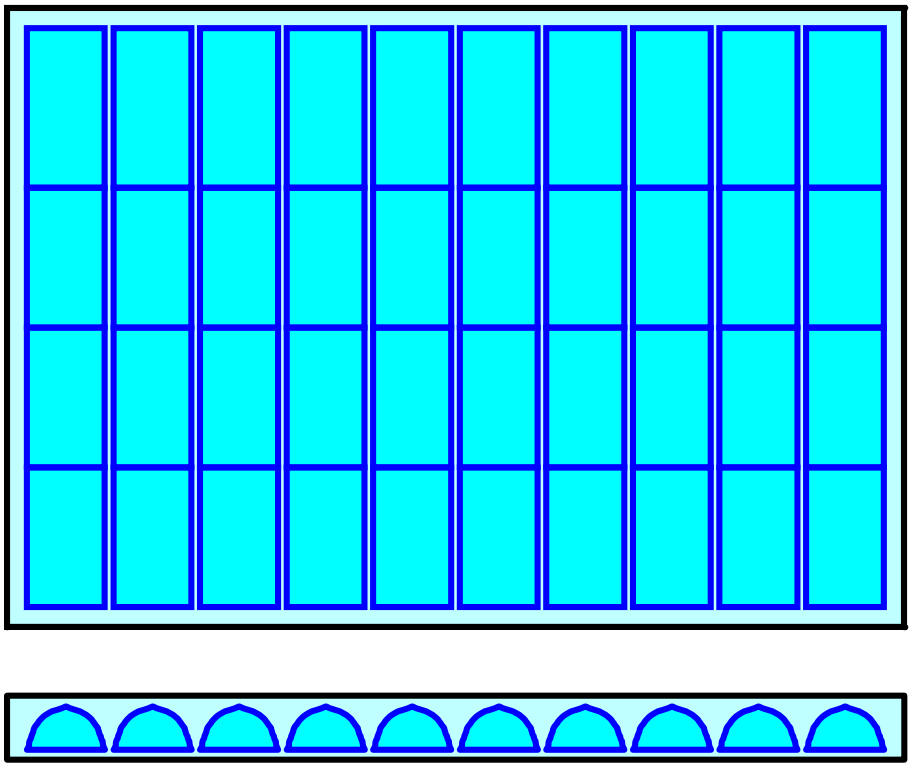
4 Chambers/Row x 7.00' Long +1.00' Row Adjustment = 29.00' Row Length +12.0" End Stone x 2 = 31.00' Base Length
10 Rows x 47.0" Wide + 5.0" Spacing x 9 + 12.0" Side Stone x 2 = 44.92' Base Width
6.0" Stone Base + 26.5" Chamber Height + 6.0" Stone Cover = 3.21' Field Height

40 Chambers x 42.5 cf +1.00' Row Adjustment x 6.07 sf x 10 Rows = 1,760.8 cf Chamber Storage

4,467.3 cf Field - 1,760.8 cf Chambers = 2,706.5 cf Stone x 33.0% Voids = 893.2 cf Stone Storage

Chamber Storage + Stone Storage = 2,654.0 cf = 0.061 af
Overall Storage Efficiency = 59.4%
Overall System Size = 31.00' x 44.92' x 3.21'

40 Chambers
165.5 cy Field
100.2 cy Stone



Hydrograph for Pond 23P: UGIS-1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	46.30	0.00	0.00	0.00
5.00	0.05	54	46.32	0.04	0.04	0.00
10.00	**0.51**	**2,312**	**47.00**	**0.05**	**0.05**	**0.00**
15.00	**0.16**	**10,140**	**48.47**	**0.19**	**0.07**	**0.12**
20.00	0.06	9,824	48.40	0.07	0.07	0.00
25.00	0.00	9,204	48.27	0.07	0.07	0.00
30.00	0.00	7,984	48.02	0.07	0.07	0.00
35.00	0.00	6,822	47.80	0.06	0.06	0.00
40.00	0.00	5,714	47.60	0.06	0.06	0.00
45.00	0.00	4,655	47.41	0.06	0.06	0.00
50.00	0.00	3,643	47.23	0.06	0.06	0.00
55.00	0.00	2,673	47.06	0.05	0.05	0.00
60.00	0.00	1,745	46.91	0.05	0.05	0.00
65.00	0.00	858	46.69	0.05	0.05	0.00
70.00	0.00	51	46.32	0.04	0.04	0.00
75.00	0.00	0	46.30	0.00	0.00	0.00
80.00	0.00	0	46.30	0.00	0.00	0.00
85.00	0.00	0	46.30	0.00	0.00	0.00
90.00	0.00	0	46.30	0.00	0.00	0.00
95.00	0.00	0	46.30	0.00	0.00	0.00
100.00	0.00	0	46.30	0.00	0.00	0.00
105.00	0.00	0	46.30	0.00	0.00	0.00
110.00	0.00	0	46.30	0.00	0.00	0.00
115.00	0.00	0	46.30	0.00	0.00	0.00
120.00	0.00	0	46.30	0.00	0.00	0.00
125.00	0.00	0	46.30	0.00	0.00	0.00
130.00	0.00	0	46.30	0.00	0.00	0.00
135.00	0.00	0	46.30	0.00	0.00	0.00
140.00	0.00	0	46.30	0.00	0.00	0.00
145.00	0.00	0	46.30	0.00	0.00	0.00
150.00	0.00	0	46.30	0.00	0.00	0.00
155.00	0.00	0	46.30	0.00	0.00	0.00
160.00	0.00	0	46.30	0.00	0.00	0.00
165.00	0.00	0	46.30	0.00	0.00	0.00
170.00	0.00	0	46.30	0.00	0.00	0.00
175.00	0.00	0	46.30	0.00	0.00	0.00
180.00	0.00	0	46.30	0.00	0.00	0.00
185.00	0.00	0	46.30	0.00	0.00	0.00
190.00	0.00	0	46.30	0.00	0.00	0.00
195.00	0.00	0	46.30	0.00	0.00	0.00
200.00	0.00	0	46.30	0.00	0.00	0.00
205.00	0.00	0	46.30	0.00	0.00	0.00
210.00	0.00	0	46.30	0.00	0.00	0.00
215.00	0.00	0	46.30	0.00	0.00	0.00
220.00	0.00	0	46.30	0.00	0.00	0.00
225.00	0.00	0	46.30	0.00	0.00	0.00
230.00	0.00	0	46.30	0.00	0.00	0.00
235.00	0.00	0	46.30	0.00	0.00	0.00
240.00	0.00	0	46.30	0.00	0.00	0.00

Stage-Discharge for Pond 23P: UGIS-1

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
46.30	0.00	0.00	0.00
46.35	0.04	0.04	0.00
46.40	0.04	0.04	0.00
46.45	0.04	0.04	0.00
46.50	0.04	0.04	0.00
46.55	0.05	0.05	0.00
46.60	0.05	0.05	0.00
46.65	0.05	0.05	0.00
46.70	0.05	0.05	0.00
46.75	0.05	0.05	0.00
46.80	0.05	0.05	0.00
46.85	0.05	0.05	0.00
46.90	0.05	0.05	0.00
46.95	0.05	0.05	0.00
47.00	0.05	0.05	0.00
47.05	0.05	0.05	0.00
47.10	0.05	0.05	0.00
47.15	0.05	0.05	0.00
47.20	0.05	0.05	0.00
47.25	0.06	0.06	0.00
47.30	0.06	0.06	0.00
47.35	0.06	0.06	0.00
47.40	0.06	0.06	0.00
47.45	0.06	0.06	0.00
47.50	0.06	0.06	0.00
47.55	0.06	0.06	0.00
47.60	0.06	0.06	0.00
47.65	0.06	0.06	0.00
47.70	0.06	0.06	0.00
47.75	0.06	0.06	0.00
47.80	0.06	0.06	0.00
47.85	0.06	0.06	0.00
47.90	0.06	0.06	0.00
47.95	0.07	0.07	0.00
48.00	0.07	0.07	0.00
48.05	0.07	0.07	0.00
48.10	0.07	0.07	0.00
48.15	0.07	0.07	0.00
48.20	0.07	0.07	0.00
48.25	0.07	0.07	0.00
48.30	0.07	0.07	0.00
48.35	0.07	0.07	0.00
48.40	0.07	0.07	0.00
48.45	0.14	0.07	0.07
48.50	0.28	0.07	0.20
48.55	0.45	0.07	0.37
48.60	0.65	0.07	0.57
48.65	0.87	0.07	0.80
48.70	1.12	0.08	1.04
48.75	1.38	0.08	1.31
48.80	1.67	0.08	1.59
48.85	1.96	0.08	1.89
48.90	2.28	0.08	2.20
48.95	2.60	0.08	2.52
49.00	2.94	0.08	2.86
49.05	3.43	0.08	3.35
49.10	4.05	0.08	3.97
49.15	4.77	0.08	4.68
49.20	5.55	0.08	5.46
49.25	6.39	0.08	6.30
49.30	7.28	0.08	7.20
49.35	8.23	0.08	8.14
49.40	9.21	0.09	9.13
49.45	10.24	0.09	10.16
49.50	**11.31**	**0.09**	**11.22**

Stage-Area-Storage for Pond 23P: UGIS-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
46.30	**6,719**	0
46.35	6,719	111
46.40	6,719	222
46.45	6,719	333
46.50	6,719	443
46.55	6,719	554
46.60	6,719	665
46.65	6,719	776
46.70	6,719	887
46.75	6,719	998
46.80	6,719	1,109
46.85	6,719	1,410
46.90	6,719	1,708
46.95	6,719	2,004
47.00	6,719	2,297
47.05	6,719	2,590
47.10	6,719	2,882
47.15	6,719	3,173
47.20	6,719	3,463
47.25	6,719	3,753
47.30	6,719	4,041
47.35	6,719	4,326
47.40	6,719	4,610
47.45	6,719	4,891
47.50	6,719	5,172
47.55	6,719	5,450
47.60	6,719	5,726
47.65	6,719	6,000
47.70	6,719	6,272
47.75	6,719	6,543
47.80	6,719	6,812
47.85	6,719	7,080
47.90	6,719	7,347
47.95	6,719	7,611
48.00	6,719	7,871
48.05	6,719	8,128
48.10	6,719	8,381
48.15	6,719	8,631
48.20	6,719	8,878
48.25	6,719	9,121
48.30	6,719	9,360
48.35	6,719	9,595
48.40	6,719	9,825
48.45	6,719	10,050
48.50	6,719	10,269
48.55	6,719	10,482
48.60	6,719	10,689
48.65	6,719	10,887
48.70	6,719	11,075
48.75	6,719	11,252
48.80	6,719	11,413
48.85	6,719	11,560
48.90	6,719	11,693
48.95	6,719	11,814
49.00	6,719	11,926
49.05	6,719	12,037
49.10	6,719	12,148
49.15	6,719	12,259
49.20	6,719	12,370
49.25	6,719	12,480
49.30	6,719	12,591
49.35	6,719	12,702
49.40	6,719	12,813
49.45	6,719	12,924
49.50	6,719	**13,035**

Summary for Pond 28P: DIV-01

Inflow Area = 379,224 sf, 32.14% Impervious, Inflow Depth = 6.48" for 100-year event
Inflow = 45.51 cfs @ 12.21 hrs, Volume= 204,730 cf
Outflow = 45.51 cfs @ 12.21 hrs, Volume= 204,730 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.94 cfs @ 12.21 hrs, Volume= 46,057 cf
Routed to Pond 13P : Sand Filter 1
Secondary = 41.58 cfs @ 12.21 hrs, Volume= 158,674 cf
Routed to Pond 15P : Detention Basin 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 50.01' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.10'	**11.0" Round Culvert** L= 14.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.10' / 46.00' S= 0.0071 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 0.66 sf
#2	Device 3	47.00'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Secondary	46.10'	**36.0" Round Culvert** L= 56.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.10' / 44.00' S= 0.0375 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 7.07 sf

Primary OutFlow Max=3.91 cfs @ 12.21 hrs HW=49.98' TW=47.55' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 3.91 cfs @ 5.93 fps)

Secondary OutFlow Max=41.46 cfs @ 12.21 hrs HW=49.98' TW=47.46' (Dynamic Tailwater)
└**3=Culvert** (Inlet Controls 41.46 cfs @ 5.86 fps)
└**2=Sharp-Crested Rectangular Weir** (Passes 41.46 cfs of 88.73 cfs potential flow)

Hydrograph for Pond 28P: DIV-01

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	46.10	0.00	0.00	0.00
5.00	0.08	46.27	0.08	0.08	0.00
10.00	**1.97**	**47.10**	**1.97**	**1.36**	**0.61**
15.00	**2.85**	**47.27**	**2.85**	**0.17**	**2.69**
20.00	0.96	47.08	0.96	0.56	0.40
25.00	0.00	46.10	0.00	0.00	0.00
30.00	0.00	46.61	0.00	0.00	0.00
35.00	0.00	46.52	0.00	0.00	0.00
40.00	0.00	46.46	0.00	0.00	0.00
45.00	0.00	46.40	0.00	0.00	0.00
50.00	0.00	46.31	0.00	0.00	0.00
55.00	0.00	46.25	0.00	0.00	0.00
60.00	0.00	46.19	0.00	0.00	0.00
65.00	0.00	46.10	0.00	0.00	0.00
70.00	0.00	46.10	0.00	0.00	0.00
75.00	0.00	46.10	0.00	0.00	0.00
80.00	0.00	46.10	0.00	0.00	0.00
85.00	0.00	46.10	0.00	0.00	0.00
90.00	0.00	46.10	0.00	0.00	0.00
95.00	0.00	46.10	0.00	0.00	0.00
100.00	0.00	46.10	0.00	0.00	0.00
105.00	0.00	46.10	0.00	0.00	0.00
110.00	0.00	46.10	0.00	0.00	0.00
115.00	0.00	46.10	0.00	0.00	0.00
120.00	0.00	46.10	0.00	0.00	0.00
125.00	0.00	46.10	0.00	0.00	0.00
130.00	0.00	46.10	0.00	0.00	0.00
135.00	0.00	46.10	0.00	0.00	0.00
140.00	0.00	46.10	0.00	0.00	0.00
145.00	0.00	46.10	0.00	0.00	0.00
150.00	0.00	46.10	0.00	0.00	0.00
155.00	0.00	46.10	0.00	0.00	0.00
160.00	0.00	46.10	0.00	0.00	0.00
165.00	0.00	46.10	0.00	0.00	0.00
170.00	0.00	46.10	0.00	0.00	0.00
175.00	0.00	46.10	0.00	0.00	0.00
180.00	0.00	46.10	0.00	0.00	0.00
185.00	0.00	46.10	0.00	0.00	0.00
190.00	0.00	46.10	0.00	0.00	0.00
195.00	0.00	46.10	0.00	0.00	0.00
200.00	0.00	46.10	0.00	0.00	0.00
205.00	0.00	46.10	0.00	0.00	0.00
210.00	0.00	46.10	0.00	0.00	0.00
215.00	0.00	46.10	0.00	0.00	0.00
220.00	0.00	46.10	0.00	0.00	0.00
225.00	0.00	46.10	0.00	0.00	0.00
230.00	0.00	46.10	0.00	0.00	0.00
235.00	0.00	46.10	0.00	0.00	0.00
240.00	0.00	46.10	0.00	0.00	0.00

Stage-Discharge for Pond 28P: DIV-01

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
46.10	0.00	0.00	0.00
46.15	0.01	0.01	0.00
46.20	0.03	0.03	0.00
46.25	0.07	0.07	0.00
46.30	0.12	0.12	0.00
46.35	0.18	0.18	0.00
46.40	0.25	0.25	0.00
46.45	0.33	0.33	0.00
46.50	0.41	0.41	0.00
46.55	0.51	0.51	0.00
46.60	0.61	0.61	0.00
46.65	0.72	0.72	0.00
46.70	0.83	0.83	0.00
46.75	0.95	0.95	0.00
46.80	1.07	1.07	0.00
46.85	1.20	1.20	0.00
46.90	1.32	1.32	0.00
46.95	1.45	1.45	0.00
47.00	1.58	1.58	0.00
47.05	1.92	1.70	0.22
47.10	2.44	1.82	0.62
47.15	3.06	1.93	1.13
47.20	3.75	2.01	1.74
47.25	4.52	2.09	2.43
47.30	5.35	2.16	3.19
47.35	6.25	2.23	4.02
47.40	7.20	2.30	4.90
47.45	8.20	2.37	5.83
47.50	9.26	2.43	6.82
47.55	10.35	2.50	7.86
47.60	11.50	2.56	8.94
47.65	12.68	2.62	10.06
47.70	13.90	2.68	11.22
47.75	15.16	2.74	12.42
47.80	16.46	2.80	13.66
47.85	17.79	2.85	14.94
47.90	18.88	2.91	15.97
47.95	19.68	2.96	16.72
48.00	20.50	3.01	17.49
48.05	21.32	3.06	18.26
48.10	22.14	3.11	19.03
48.15	22.97	3.16	19.81
48.20	23.80	3.21	20.59
48.25	24.63	3.26	21.37
48.30	25.46	3.31	22.15
48.35	26.29	3.36	22.93
48.40	27.11	3.40	23.70
48.45	27.93	3.45	24.48
48.50	28.74	3.50	25.24
48.55	29.54	3.54	26.00
48.60	30.33	3.58	26.75
48.65	31.11	3.63	27.49
48.70	31.88	3.67	28.21
48.75	32.63	3.71	28.91
48.80	33.35	3.76	29.60
48.85	34.05	3.80	30.25
48.90	34.72	3.84	30.88
48.95	35.36	3.88	31.48
49.00	35.94	3.92	32.02
49.05	36.47	3.96	32.51
49.10	36.91	4.00	32.91
49.15	37.49	4.04	33.45
49.20	38.07	4.08	33.99
49.25	38.63	4.12	34.51
49.30	39.19	4.15	35.03
49.35	39.74	4.19	35.55
49.40	40.28	4.23	36.05
49.45	40.81	4.27	36.55
49.50	41.34	4.30	37.04
49.55	41.86	4.34	37.52
49.60	42.37	4.38	38.00
49.65	42.88	4.41	38.47
49.70	43.38	4.45	38.94
49.75	43.88	4.48	39.40
49.80	44.37	4.52	39.85
49.85	44.86	4.55	40.30
49.90	45.34	4.59	40.75
49.95	45.81	4.62	41.19
50.00	**46.28**	**4.65**	**41.63**

Stage-Area-Storage for Pond 28P: DIV-01

Elevation (feet)	Storage (cubic-feet)
46.10	**0**
46.15	0
46.20	0
46.25	0
46.30	0
46.35	0
46.40	0
46.45	0
46.50	0
46.55	0
46.60	0
46.65	0
46.70	0
46.75	0
46.80	0
46.85	0
46.90	0
46.95	0
47.00	0
47.05	0
47.10	0
47.15	0
47.20	0
47.25	0
47.30	0
47.35	0
47.40	0
47.45	0
47.50	0
47.55	0
47.60	0
47.65	0
47.70	0
47.75	0
47.80	0
47.85	0
47.90	0
47.95	0
48.00	0
48.05	0
48.10	0
48.15	0
48.20	0
48.25	0
48.30	0
48.35	0
48.40	0
48.45	0
48.50	0
48.55	0
48.60	0
48.65	0
48.70	0
48.75	0
48.80	0
48.85	0
48.90	0
48.95	0
49.00	0
49.05	0
49.10	0
49.15	0
49.20	0
49.25	0
49.30	0
49.35	0
49.40	0
49.45	0
49.50	0
49.55	0
49.60	0
49.65	0
49.70	0
49.75	0
49.80	0
49.85	0
49.90	0
49.95	0
50.00	0

Summary for Pond 33P: Wet Swale

Inflow Area = 57,295 sf, 71.89% Impervious, Inflow Depth = 7.64" for 100-year event
Inflow = 10.42 cfs @ 12.09 hrs, Volume= 36,468 cf
Outflow = 7.11 cfs @ 12.19 hrs, Volume= 36,468 cf, Atten= 32%, Lag= 5.6 min
Discarded = 0.01 cfs @ 3.00 hrs, Volume= 4,989 cf
Primary = 7.10 cfs @ 12.19 hrs, Volume= 31,479 cf
Routed to Pond 4P : Detention Basin 2
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 2L : DP 1.1 - Culvert 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 60.29' @ 12.19 hrs Surf.Area= 5,776 sf Storage= 7,104 cf

Plug-Flow detention time= 551.6 min calculated for 36,460 cf (100% of inflow)
Center-of-Mass det. time= 553.1 min (1,320.7 - 767.6)

Volume	Invert	Avail.Storage	Storage Description
#1	57.69'	11,649 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
57.69	1,511	0.0	0	0
57.70	1,511	33.0	5	5
58.69	1,511	33.0	494	499
58.70	1,801	100.0	17	515
59.00	3,213	100.0	752	1,267
60.00	5,228	100.0	4,221	5,488
61.00	7,094	100.0	6,161	11,649

Device	Routing	Invert	Outlet Devices
#1	Discarded	57.69'	**0.270 in/hr Exfiltration over Surface area from 57.68' - 58.69'** Excluded Surface area = 0 sf Phase-In= 0.02'
#2	Primary	56.20'	**18.0" Round Culvert** L= 62.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.20' / 55.60' S= 0.0097 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#3	Device 2	59.75'	**2.0" x 2.0" Horiz. Orifice/Grate X 12.00 columns** X 6 rows C= 0.600 Limited to weir flow at low heads
#4	Secondary	60.50'	**10.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 3.00 hrs HW=57.72' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=7.07 cfs @ 12.19 hrs HW=60.29' TW=58.65' (Dynamic Tailwater)
└**2=Culvert** (Passes 7.07 cfs of 8.61 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 7.07 cfs @ 3.53 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=57.69' TW=0.00' (Dynamic Tailwater)
└**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond 33P: Wet Swale

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	57.69	0.00	**0.00**	0.00	**0.00**
5.00	0.07	287	58.27	0.01	**0.01**	0.00	0.00
10.00	**0.47**	**3,909**	**59.68**	**0.01**	0.01	**0.00**	0.00
15.00	**0.44**	**4,337**	**59.77**	**0.44**	0.01	**0.43**	0.00
20.00	0.15	4,288	59.76	0.15	0.01	0.14	0.00
25.00	0.00	4,225	59.75	0.01	0.01	0.00	0.00
30.00	0.00	4,055	59.71	0.01	0.01	0.00	0.00
35.00	0.00	3,885	59.67	0.01	0.01	0.00	0.00
40.00	0.00	3,715	59.64	0.01	0.01	0.00	0.00
45.00	0.00	3,545	59.60	0.01	0.01	0.00	0.00
50.00	0.00	3,375	59.56	0.01	0.01	0.00	0.00
55.00	0.00	3,205	59.52	0.01	0.01	0.00	0.00
60.00	0.00	3,035	59.48	0.01	0.01	0.00	0.00
65.00	0.00	2,865	59.44	0.01	0.01	0.00	0.00
70.00	0.00	2,695	59.40	0.01	0.01	0.00	0.00
75.00	0.00	2,525	59.35	0.01	0.01	0.00	0.00
80.00	0.00	2,355	59.31	0.01	0.01	0.00	0.00
85.00	0.00	2,185	59.26	0.01	0.01	0.00	0.00
90.00	0.00	2,015	59.22	0.01	0.01	0.00	0.00
95.00	0.00	1,845	59.17	0.01	0.01	0.00	0.00
100.00	0.00	1,675	59.12	0.01	0.01	0.00	0.00
105.00	0.00	1,505	59.07	0.01	0.01	0.00	0.00
110.00	0.00	1,335	59.02	0.01	0.01	0.00	0.00
115.00	0.00	1,165	58.97	0.01	0.01	0.00	0.00
120.00	0.00	995	58.91	0.01	0.01	0.00	0.00
125.00	0.00	825	58.84	0.01	0.01	0.00	0.00
130.00	0.00	655	58.77	0.01	0.01	0.00	0.00
135.00	0.00	485	58.66	0.01	0.01	0.00	0.00
140.00	0.00	315	58.32	0.01	0.01	0.00	0.00
145.00	0.00	145	57.98	0.01	0.01	0.00	0.00
150.00	0.00	0	57.69	0.00	0.00	0.00	0.00
155.00	0.00	0	57.69	0.00	0.00	0.00	0.00
160.00	0.00	0	57.69	0.00	0.00	0.00	0.00
165.00	0.00	0	57.69	0.00	0.00	0.00	0.00
170.00	0.00	0	57.69	0.00	0.00	0.00	0.00
175.00	0.00	0	57.69	0.00	0.00	0.00	0.00
180.00	0.00	0	57.69	0.00	0.00	0.00	0.00
185.00	0.00	0	57.69	0.00	0.00	0.00	0.00
190.00	0.00	0	57.69	0.00	0.00	0.00	0.00
195.00	0.00	0	57.69	0.00	0.00	0.00	0.00
200.00	0.00	0	57.69	0.00	0.00	0.00	0.00
205.00	0.00	0	57.69	0.00	0.00	0.00	0.00
210.00	0.00	0	57.69	0.00	0.00	0.00	0.00
215.00	0.00	0	57.69	0.00	0.00	0.00	0.00
220.00	0.00	0	57.69	0.00	0.00	0.00	0.00
225.00	0.00	0	57.69	0.00	0.00	0.00	0.00
230.00	0.00	0	57.69	0.00	0.00	0.00	0.00
235.00	0.00	0	57.69	0.00	0.00	0.00	0.00
240.00	0.00	0	57.69	0.00	0.00	0.00	0.00

Stage-Discharge for Pond 33P: Wet Swale

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Secondary (cfs)
57.69	0.00	**0.00**	0.00	0.00
57.79	0.01	**0.01**	0.00	0.00
57.89	0.01	0.01	0.00	0.00
57.99	0.01	0.01	0.00	0.00
58.09	0.01	0.01	0.00	0.00
58.19	0.01	0.01	0.00	0.00
58.29	0.01	0.01	0.00	0.00
58.39	0.01	0.01	0.00	0.00
58.49	0.01	0.01	0.00	0.00
58.59	0.01	0.01	0.00	0.00
58.69	0.01	0.01	0.00	0.00
58.79	0.01	0.01	0.00	0.00
58.89	0.01	0.01	0.00	0.00
58.99	0.01	0.01	0.00	0.00
59.09	0.01	0.01	0.00	0.00
59.19	0.01	0.01	0.00	0.00
59.29	0.01	0.01	0.00	0.00
59.39	0.01	0.01	0.00	0.00
59.49	0.01	0.01	0.00	0.00
59.59	0.01	0.01	0.00	0.00
59.69	0.01	0.01	0.00	0.00
59.79	1.27	0.01	1.26	0.00
59.89	3.61	0.01	3.60	0.00
59.99	4.73	0.01	4.72	0.00
60.09	5.62	0.01	5.62	0.00
60.19	6.40	0.01	6.39	0.00
60.29	7.09	0.01	7.08	0.00
60.39	7.71	0.01	7.70	0.00
60.49	8.29	0.01	8.28	0.00
60.59	9.72	0.01	8.83	0.88
60.69	12.04	0.01	9.34	2.70
60.79	14.91	0.01	9.82	5.08
60.89	18.19	0.01	10.28	7.90
60.99	**21.84**	0.01	**10.72**	**11.11**

Stage-Area-Storage for Pond 33P: Wet Swale

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
57.69	1,511	0
57.74	1,511	25
57.79	1,511	50
57.84	1,511	75
57.89	1,511	100
57.94	1,511	125
57.99	1,511	150
58.04	1,511	175
58.09	1,511	199
58.14	1,511	224
58.19	1,511	249
58.24	1,511	274
58.29	1,511	299
58.34	1,511	324
58.39	1,511	349
58.44	1,511	374
58.49	1,511	399
58.54	1,511	424
58.59	1,511	449
58.64	1,511	474
58.69	1,511	499
58.74	1,989	591
58.79	2,225	696
58.84	2,460	813
58.89	2,695	942
58.94	2,931	1,083
58.99	3,166	1,235
59.04	3,294	1,397
59.09	3,394	1,565
59.14	3,495	1,737
59.19	3,596	1,914
59.24	3,697	2,096
59.29	3,797	2,284
59.34	3,898	2,476
59.39	3,999	2,674
59.44	4,100	2,876
59.49	4,200	3,084
59.54	4,301	3,296
59.59	4,402	3,514
59.64	4,503	3,736
59.69	4,603	3,964
59.74	4,704	4,197
59.79	4,805	4,434
59.84	4,906	4,677
59.89	5,006	4,925
59.94	5,107	5,178
59.99	5,208	5,436
60.04	5,303	5,698
60.09	5,396	5,966
60.14	5,489	6,238
60.19	5,583	6,515
60.24	5,676	6,796
60.29	5,769	7,082
60.34	5,862	7,373
60.39	5,956	7,669
60.44	6,049	7,969
60.49	6,142	8,274
60.54	6,236	8,583
60.59	6,329	8,897
60.64	6,422	9,216
60.69	6,516	9,539
60.74	6,609	9,867
60.79	6,702	10,200
60.84	6,795	10,538
60.89	6,889	10,880
60.94	6,982	11,227
60.99	**7,075**	**11,578**

Summary for Pond 35P: Track and Field-manifold

Inflow Area = 151,857 sf,100.00% Impervious, Inflow Depth = 5.99" for 100-year event
Inflow = 19.17 cfs @ 12.10 hrs, Volume= 75,834 cf
Outflow = 15.38 cfs @ 12.21 hrs, Volume= 75,834 cf, Atten= 20%, Lag= 6.5 min
Discarded = 1.03 cfs @ 12.21 hrs, Volume= 13,591 cf
Primary = 14.35 cfs @ 12.21 hrs, Volume= 62,243 cf
Routed to Pond 8P : DIV-04

Routing by Dyn-Stor-Ind method, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 50.39' @ 12.21 hrs Surf.Area= 8,273 sf Storage= 6,792 cf

Plug-Flow detention time= 11.5 min calculated for 75,834 cf (100% of inflow)
Center-of-Mass det. time= 11.4 min (752.6 - 741.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	48.50'	4,898 cf	**7.00'W x 1,182.00'L x 2.25'H Field A** 18,608 cf Overall - 3,767 cf Embedded = 14,841 cf x 33.0% Voids
#2A	49.00'	2,832 cf	**ADS N-12 15"** x 118 Inside #1 Inside= 14.8"W x 14.8"H => 1.20 sf x 20.00'L = 24.0 cf Outside= 18.0"W x 18.0"H => 1.60 sf x 20.00'L = 31.9 cf 118 Chambers in 2 Rows
		7,730 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	48.50'	**0.270 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 48.40' Phase-In= 0.02'
#2	Primary	48.50'	**18.0" Round Culvert X 2.00** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 48.50' / 46.80' S= 0.0315 '/' Cc= 0.900 n= 0.013 Concrete pipe, bends & connections, Flow Area= 1.77 sf

Discarded OutFlow Max=1.02 cfs @ 12.21 hrs HW=50.38' (Free Discharge)
1=Exfiltration (Controls 1.02 cfs)

Primary OutFlow Max=14.29 cfs @ 12.21 hrs HW=50.38' TW=49.11' (Dynamic Tailwater)
2=Culvert (Inlet Controls 14.29 cfs @ 4.04 fps)

Pond 35P: Track and Field-manifold - Chamber Wizard Field A

Chamber Model = ADS N-12 15" (ADS N-12® Pipe)
Inside= 14.8"W x 14.8"H => 1.20 sf x 20.00'L = 24.0 cf
Outside= 18.0"W x 18.0"H => 1.60 sf x 20.00'L = 31.9 cf

18.0" Wide + 24.0" Spacing = 42.0" C-C Row Spacing

59 Chambers/Row x 20.00' Long = 1,180.00' Row Length +12.0" End Stone x 2 = 1,182.00' Base Length
2 Rows x 18.0" Wide + 24.0" Spacing x 1 + 12.0" Side Stone x 2 = 7.00' Base Width
6.0" Stone Base + 18.0" Chamber Height + 3.0" Stone Cover = 2.25' Field Height

118 Chambers x 24.0 cf = 2,832.0 cf Chamber Storage
118 Chambers x 31.9 cf = 3,767.1 cf Displacement

18,608.5 cf Field - 3,767.1 cf Chambers = 14,841.3 cf Stone x 33.0% Voids = 4,897.6 cf Stone Storage

Chamber Storage + Stone Storage = 7,729.6 cf = 0.177 af
Overall Storage Efficiency = 41.5%
Overall System Size = 1,182.00' x 7.00' x 2.25'

118 Chambers
689.2 cy Field
549.7 cy Stone

Hydrograph for Pond 35P: Track and Field-manifold

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	48.50	0.00	0.00	0.00
5.00	0.16	216	48.58	0.15	0.09	0.05
10.00	**0.76**	**679**	**48.75**	**0.69**	**0.18**	**0.51**
15.00	**0.66**	**750**	**48.77**	**0.72**	**0.19**	**0.53**
20.00	0.16	282	48.60	0.17	0.11	0.06
25.00	0.00	8	48.50	0.01	0.01	0.00
30.00	0.00	0	48.50	0.00	0.00	0.00
35.00	0.00	0	48.50	0.00	0.00	0.00
40.00	0.00	0	48.50	0.00	0.00	0.00
45.00	0.00	0	48.50	0.00	0.00	0.00
50.00	0.00	0	48.50	0.00	0.00	0.00
55.00	0.00	0	48.50	0.00	0.00	0.00
60.00	0.00	0	48.50	0.00	0.00	0.00
65.00	0.00	0	48.50	0.00	0.00	0.00
70.00	0.00	0	48.50	0.00	0.00	0.00
75.00	0.00	0	48.50	0.00	0.00	0.00
80.00	0.00	0	48.50	0.00	0.00	0.00
85.00	0.00	0	48.50	0.00	0.00	0.00
90.00	0.00	0	48.50	0.00	0.00	0.00
95.00	0.00	0	48.50	0.00	0.00	0.00
100.00	0.00	0	48.50	0.00	0.00	0.00
105.00	0.00	0	48.50	0.00	0.00	0.00
110.00	0.00	0	48.50	0.00	0.00	0.00
115.00	0.00	0	48.50	0.00	0.00	0.00
120.00	0.00	0	48.50	0.00	0.00	0.00
125.00	0.00	0	48.50	0.00	0.00	0.00
130.00	0.00	0	48.50	0.00	0.00	0.00
135.00	0.00	0	48.50	0.00	0.00	0.00
140.00	0.00	0	48.50	0.00	0.00	0.00
145.00	0.00	0	48.50	0.00	0.00	0.00
150.00	0.00	0	48.50	0.00	0.00	0.00
155.00	0.00	0	48.50	0.00	0.00	0.00
160.00	0.00	0	48.50	0.00	0.00	0.00
165.00	0.00	0	48.50	0.00	0.00	0.00
170.00	0.00	0	48.50	0.00	0.00	0.00
175.00	0.00	0	48.50	0.00	0.00	0.00
180.00	0.00	0	48.50	0.00	0.00	0.00
185.00	0.00	0	48.50	0.00	0.00	0.00
190.00	0.00	0	48.50	0.00	0.00	0.00
195.00	0.00	0	48.50	0.00	0.00	0.00
200.00	0.00	0	48.50	0.00	0.00	0.00
205.00	0.00	0	48.50	0.00	0.00	0.00
210.00	0.00	0	48.50	0.00	0.00	0.00
215.00	0.00	0	48.50	0.00	0.00	0.00
220.00	0.00	0	48.50	0.00	0.00	0.00
225.00	0.00	0	48.50	0.00	0.00	0.00
230.00	0.00	0	48.50	0.00	0.00	0.00
235.00	0.00	0	48.50	0.00	0.00	0.00
240.00	0.00	0	48.50	0.00	0.00	0.00

Stage-Discharge for Pond 35P: Track and Field-manifold

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
48.50	0.00	0.00	0.00
48.55	0.10	0.08	0.02
48.60	0.19	0.10	0.09
48.65	0.32	0.13	0.19
48.70	0.49	0.16	0.34
48.75	0.70	0.18	0.52
48.80	0.95	0.21	0.74
48.85	1.23	0.23	1.00
48.90	1.54	0.26	1.29
48.95	1.89	0.28	1.61
49.00	2.27	0.31	1.96
49.05	2.68	0.34	2.34
49.10	3.11	0.36	2.75
49.15	3.57	0.39	3.18
49.20	4.05	0.41	3.64
49.25	4.55	0.44	4.11
49.30	5.07	0.47	4.61
49.35	5.61	0.49	5.12
49.40	6.16	0.52	5.65
49.45	6.73	0.54	6.18
49.50	7.30	0.57	6.73
49.55	7.87	0.59	7.28
49.60	8.45	0.62	7.83
49.65	9.03	0.65	8.38
49.70	9.60	0.67	8.92
49.75	10.16	0.70	9.46
49.80	10.70	0.72	9.97
49.85	11.21	0.75	10.46
49.90	11.69	0.78	10.92
49.95	12.12	0.80	11.32
50.00	12.46	0.83	11.63
50.05	12.87	0.85	12.02
50.10	13.27	0.88	12.39
50.15	13.65	0.90	12.75
50.20	14.03	0.93	13.09
50.25	14.39	0.96	13.43
50.30	14.75	0.98	13.77
50.35	15.10	1.01	14.09
50.40	15.44	1.03	14.41
50.45	15.78	1.06	14.72
50.50	16.11	1.09	15.02
50.55	16.43	1.11	15.32
50.60	16.75	1.14	15.61
50.65	17.06	1.16	15.90
50.70	17.37	1.19	16.18
50.75	**17.67**	**1.22**	**16.45**

Stage-Area-Storage for Pond 35P: Track and Field-manifold

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
48.50	**8,273**	0
48.55	8,273	136
48.60	8,273	273
48.65	8,273	409
48.70	8,273	546
48.75	8,273	682
48.80	8,273	819
48.85	8,273	955
48.90	8,273	1,092
48.95	8,273	1,228
49.00	8,273	1,365
49.05	8,273	1,489
49.10	8,273	1,602
49.15	8,273	1,718
49.20	8,273	1,874
49.25	8,273	2,049
49.30	8,273	2,238
49.35	8,273	2,437
49.40	8,273	2,644
49.45	8,273	2,857
49.50	8,273	3,075
49.55	8,273	3,297
49.60	8,273	3,522
49.65	8,273	3,749
49.70	8,273	3,978
49.75	8,273	4,207
49.80	8,273	4,437
49.85	8,273	4,666
49.90	8,273	4,893
49.95	8,273	5,118
50.00	8,273	5,340
50.05	8,273	5,558
50.10	8,273	5,771
50.15	8,273	5,977
50.20	8,273	6,176
50.25	8,273	6,365
50.30	8,273	6,540
50.35	8,273	6,695
50.40	8,273	6,811
50.45	8,273	6,925
50.50	8,273	7,049
50.55	8,273	7,185
50.60	8,273	7,322
50.65	8,273	7,458
50.70	8,273	7,595
50.75	8,273	**7,730**

Summary for Link 2L: DP 1.1 - Culvert 1

Inflow Area = 475,005 sf, 1.72% Impervious, Inflow Depth = 5.83" for 100-year event
Inflow = 48.60 cfs @ 12.29 hrs, Volume= 230,673 cf
Primary = 48.60 cfs @ 12.29 hrs, Volume= 230,673 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 3L : DP 1.2 - Culvert 2

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 2L: DP 1.1 - Culvert 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.27	0.00	0.27	135.00	0.00	0.00	0.00
10.00	**1.75**	0.00	**1.75**	137.50	0.00	0.00	0.00
12.50	**34.15**	0.00	**34.15**	140.00	0.00	0.00	0.00
15.00	3.53	0.00	3.53	142.50	0.00	0.00	0.00
17.50	1.74	0.00	1.74	145.00	0.00	0.00	0.00
20.00	1.17	0.00	1.17	147.50	0.00	0.00	0.00
22.50	0.92	0.00	0.92	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 3L: DP 1.2 - Culvert 2

Inflow Area = 536,345 sf, 2.91% Impervious, Inflow Depth = 5.88" for 100-year event
Inflow = 54.77 cfs @ 12.28 hrs, Volume= 262,638 cf
Primary = 54.77 cfs @ 12.28 hrs, Volume= 262,638 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 4L : DP 1.3 - Culvert 3

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 3L: DP 1.2 - Culvert 2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.33	0.00	0.33	135.00	0.00	0.00	0.00
10.00	**2.04**	0.00	**2.04**	137.50	0.00	0.00	0.00
12.50	**38.23**	0.00	**38.23**	140.00	0.00	0.00	0.00
15.00	4.12	0.00	4.12	142.50	0.00	0.00	0.00
17.50	1.97	0.00	1.97	145.00	0.00	0.00	0.00
20.00	1.33	0.00	1.33	147.50	0.00	0.00	0.00
22.50	1.04	0.00	1.04	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 4L: DP 1.3 - Culvert 3

Inflow Area = 562,190 sf, 3.45% Impervious, Inflow Depth = 5.89" for 100-year event
Inflow = 56.88 cfs @ 12.27 hrs, Volume= 275,969 cf
Primary = 56.88 cfs @ 12.27 hrs, Volume= 275,969 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 5L : DP 1.4 - Silver Creek East Branch

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 4L: DP 1.3 - Culvert 3

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.36	0.00	0.36	135.00	0.00	0.00	0.00
10.00	**2.17**	0.00	**2.17**	137.50	0.00	0.00	0.00
12.50	**39.24**	0.00	**39.24**	140.00	0.00	0.00	0.00
15.00	4.31	0.00	4.31	142.50	0.00	0.00	0.00
17.50	2.06	0.00	2.06	145.00	0.00	0.00	0.00
20.00	1.39	0.00	1.39	147.50	0.00	0.00	0.00
22.50	1.09	0.00	1.09	150.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	152.50	0.00	0.00	0.00
27.50	0.00	0.00	0.00	155.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	157.50	0.00	0.00	0.00
32.50	0.00	0.00	0.00	160.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	162.50	0.00	0.00	0.00
37.50	0.00	0.00	0.00	165.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	167.50	0.00	0.00	0.00
42.50	0.00	0.00	0.00	170.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	172.50	0.00	0.00	0.00
47.50	0.00	0.00	0.00	175.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	177.50	0.00	0.00	0.00
52.50	0.00	0.00	0.00	180.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 5L: DP 1.4 - Silver Creek East Branch

Inflow Area = 1,084,691 sf, 28.21% Impervious, Inflow Depth = 6.15" for 100-year event
Inflow = 116.14 cfs @ 12.19 hrs, Volume= 555,891 cf
Primary = 116.14 cfs @ 12.19 hrs, Volume= 555,891 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 5L: DP 1.4 - Silver Creek East Branch

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00
2.50	0.01	0.00	0.01
5.00	0.08	0.00	0.08
7.50	0.62	0.00	0.62
10.00	**3.91**	0.00	**3.91**
12.50	**68.03**	0.00	**68.03**
15.00	8.21	0.00	8.21
17.50	3.93	0.00	3.93
20.00	2.62	0.00	2.62
22.50	2.03	0.00	2.03
25.00	0.13	0.00	0.13
27.50	0.12	0.00	0.12
30.00	0.11	0.00	0.11
32.50	0.11	0.00	0.11
35.00	0.10	0.00	0.10
37.50	0.09	0.00	0.09
40.00	0.09	0.00	0.09
42.50	0.08	0.00	0.08
45.00	0.06	0.00	0.06
47.50	0.03	0.00	0.03
50.00	0.02	0.00	0.02
52.50	0.01	0.00	0.01
55.00	0.01	0.00	0.01
57.50	0.00	0.00	0.00
60.00	0.00	0.00	0.00
62.50	0.00	0.00	0.00
65.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00
70.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00
75.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00
80.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00
85.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00
90.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00
95.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00
100.00	0.00	0.00	0.00
102.50	0.00	0.00	0.00
105.00	0.00	0.00	0.00
107.50	0.00	0.00	0.00
110.00	0.00	0.00	0.00
112.50	0.00	0.00	0.00
115.00	0.00	0.00	0.00
117.50	0.00	0.00	0.00
120.00	0.00	0.00	0.00
122.50	0.00	0.00	0.00
125.00	0.00	0.00	0.00
127.50	0.00	0.00	0.00
130.00	0.00	0.00	0.00
132.50	0.00	0.00	0.00
135.00	0.00	0.00	0.00
137.50	0.00	0.00	0.00
140.00	0.00	0.00	0.00
142.50	0.00	0.00	0.00
145.00	0.00	0.00	0.00
147.50	0.00	0.00	0.00
150.00	0.00	0.00	0.00
152.50	0.00	0.00	0.00
155.00	0.00	0.00	0.00
157.50	0.00	0.00	0.00
160.00	0.00	0.00	0.00
162.50	0.00	0.00	0.00
165.00	0.00	0.00	0.00
167.50	0.00	0.00	0.00
170.00	0.00	0.00	0.00
172.50	0.00	0.00	0.00
175.00	0.00	0.00	0.00
177.50	0.00	0.00	0.00
180.00	0.00	0.00	0.00
182.50	0.00	0.00	0.00
185.00	0.00	0.00	0.00
187.50	0.00	0.00	0.00
190.00	0.00	0.00	0.00
192.50	0.00	0.00	0.00
195.00	0.00	0.00	0.00
197.50	0.00	0.00	0.00
200.00	0.00	0.00	0.00
202.50	0.00	0.00	0.00
205.00	0.00	0.00	0.00
207.50	0.00	0.00	0.00
210.00	0.00	0.00	0.00
212.50	0.00	0.00	0.00
215.00	0.00	0.00	0.00
217.50	0.00	0.00	0.00
220.00	0.00	0.00	0.00
222.50	0.00	0.00	0.00
225.00	0.00	0.00	0.00
227.50	0.00	0.00	0.00
230.00	0.00	0.00	0.00
232.50	0.00	0.00	0.00
235.00	0.00	0.00	0.00
237.50	0.00	0.00	0.00
240.00	0.00	0.00	0.00

Summary for Link 6L: DP 2.1 - West Wetland

Inflow Area = 835,379 sf, 33.92% Impervious, Inflow Depth = 5.44" for 100-year event
Inflow = 60.02 cfs @ 12.42 hrs, Volume= 378,608 cf
Primary = 60.02 cfs @ 12.42 hrs, Volume= 378,608 cf, Atten= 0%, Lag= 0.0 min
Routed to Link 7L : DP 2.2 - Silver Creek West Branch

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 6L: DP 2.1 - West Wetland

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.00	0.00	0.00	135.00	0.00	0.00	0.00
10.00	**0.46**	0.00	**0.46**	137.50	0.00	0.00	0.00
12.50	**58.37**	0.00	**58.37**	140.00	0.00	0.00	0.00
15.00	8.03	0.00	8.03	142.50	0.00	0.00	0.00
17.50	3.18	0.00	3.18	145.00	0.00	0.00	0.00
20.00	1.88	0.00	1.88	147.50	0.00	0.00	0.00
22.50	1.44	0.00	1.44	150.00	0.00	0.00	0.00
25.00	0.73	0.00	0.73	152.50	0.00	0.00	0.00
27.50	0.33	0.00	0.33	155.00	0.00	0.00	0.00
30.00	0.18	0.00	0.18	157.50	0.00	0.00	0.00
32.50	0.09	0.00	0.09	160.00	0.00	0.00	0.00
35.00	0.05	0.00	0.05	162.50	0.00	0.00	0.00
37.50	0.03	0.00	0.03	165.00	0.00	0.00	0.00
40.00	0.02	0.00	0.02	167.50	0.00	0.00	0.00
42.50	0.02	0.00	0.02	170.00	0.00	0.00	0.00
45.00	0.01	0.00	0.01	172.50	0.00	0.00	0.00
47.50	0.01	0.00	0.01	175.00	0.00	0.00	0.00
50.00	0.01	0.00	0.01	177.50	0.00	0.00	0.00
52.50	0.01	0.00	0.01	180.00	0.00	0.00	0.00
55.00	0.01	0.00	0.01	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Summary for Link 7L: DP 2.2 - Silver Creek West Branch

Inflow Area = 991,430 sf, 32.70% Impervious, Inflow Depth = 5.56" for 100-year event
Inflow = 71.23 cfs @ 12.38 hrs, Volume= 459,099 cf
Primary = 71.23 cfs @ 12.38 hrs, Volume= 459,099 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-240.00 hrs, dt= 0.05 hrs

Hydrograph for Link 7L: DP 2.2 - Silver Creek West Branch

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	127.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	130.00	0.00	0.00	0.00
5.00	0.00	0.00	0.00	132.50	0.00	0.00	0.00
7.50	0.16	0.00	0.16	135.00	0.00	0.00	0.00
10.00	**1.19**	0.00	**1.19**	137.50	0.00	0.00	0.00
12.50	**66.77**	0.00	**66.77**	140.00	0.00	0.00	0.00
15.00	9.18	0.00	9.18	142.50	0.00	0.00	0.00
17.50	3.74	0.00	3.74	145.00	0.00	0.00	0.00
20.00	2.27	0.00	2.27	147.50	0.00	0.00	0.00
22.50	1.74	0.00	1.74	150.00	0.00	0.00	0.00
25.00	0.73	0.00	0.73	152.50	0.00	0.00	0.00
27.50	0.33	0.00	0.33	155.00	0.00	0.00	0.00
30.00	0.18	0.00	0.18	157.50	0.00	0.00	0.00
32.50	0.09	0.00	0.09	160.00	0.00	0.00	0.00
35.00	0.05	0.00	0.05	162.50	0.00	0.00	0.00
37.50	0.03	0.00	0.03	165.00	0.00	0.00	0.00
40.00	0.02	0.00	0.02	167.50	0.00	0.00	0.00
42.50	0.02	0.00	0.02	170.00	0.00	0.00	0.00
45.00	0.01	0.00	0.01	172.50	0.00	0.00	0.00
47.50	0.01	0.00	0.01	175.00	0.00	0.00	0.00
50.00	0.01	0.00	0.01	177.50	0.00	0.00	0.00
52.50	0.01	0.00	0.01	180.00	0.00	0.00	0.00
55.00	0.01	0.00	0.01	182.50	0.00	0.00	0.00
57.50	0.00	0.00	0.00	185.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	187.50	0.00	0.00	0.00
62.50	0.00	0.00	0.00	190.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	192.50	0.00	0.00	0.00
67.50	0.00	0.00	0.00	195.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	197.50	0.00	0.00	0.00
72.50	0.00	0.00	0.00	200.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	202.50	0.00	0.00	0.00
77.50	0.00	0.00	0.00	205.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	207.50	0.00	0.00	0.00
82.50	0.00	0.00	0.00	210.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	212.50	0.00	0.00	0.00
87.50	0.00	0.00	0.00	215.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	217.50	0.00	0.00	0.00
92.50	0.00	0.00	0.00	220.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	222.50	0.00	0.00	0.00
97.50	0.00	0.00	0.00	225.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	227.50	0.00	0.00	0.00
102.50	0.00	0.00	0.00	230.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	232.50	0.00	0.00	0.00
107.50	0.00	0.00	0.00	235.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	237.50	0.00	0.00	0.00
112.50	0.00	0.00	0.00	240.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00				
117.50	0.00	0.00	0.00				
120.00	0.00	0.00	0.00				
122.50	0.00	0.00	0.00				
125.00	0.00	0.00	0.00				

Hydraulic Design Table (25-year Design Storm)

Date 5/30/2025
Initials AJM

From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Total Drop	Average Slope	Pipe Diameter or Height	Manning's Roughness	Peak Flow	Max Flow Velocity	Design Flow Capacity	Max Flow / Design Flow Ratio
Column1	Column2	(ft)	(ft)3	(ft)4	(ft)5	(%)	(inches)	Column6	(cfs)	(ft/sec)	(cfs)7	Column8
AD-101	AD-109	25.00	49.00	48.80	0.20	0.8000	12.000	0.0120	0.32	2.18	3.45	0.09
AD-102	AD-404	110.00	49.50	48.95	0.55	0.5000	12.000	0.0120	0.20	1.27	2.73	0.07
AD-103	DMH-101	7.00	42.45	42.40	0.05	0.7100	12.000	0.0120	2.05	5.63	3.26	0.63
AD-104	CB-102	41.00	48.00	47.75	0.25	0.6100	12.000	0.0120	0.69	3.30	3.01	0.23
AD-105	AD-104	34.00	48.20	48.00	0.20	0.5900	12.000	0.0120	0.61	2.32	2.96	0.21
AD-106	AD-105	16.00	48.30	48.20	0.10	0.6200	12.000	0.0120	0.40	1.70	3.05	0.13
AD-107	AD-106	22.00	48.45	48.30	0.15	0.6800	12.000	0.0120	0.38	1.91	3.19	0.12
AD-108	AD-107	27.00	48.65	48.45	0.20	0.7400	12.000	0.0120	0.36	2.15	3.32	0.11
AD-109	AD-108	17.00	48.80	48.65	0.15	0.8800	12.000	0.0120	0.34	2.19	3.63	0.09
AD-201	DMH-201	185.00	57.90	56.90	1.00	0.5400	12.000	0.0120	2.23	4.80	2.84	0.78
AD-202	AD-203	77.00	59.05	58.65	0.40	0.5200	12.000	0.0120	0.48	1.76	2.78	0.17
AD-203	DMH-212	33.00	58.65	58.45	0.20	0.6100	12.000	0.0120	0.98	2.95	3.00	0.32
AD-204	CB-201	33.00	58.00	57.40	0.60	1.8200	12.000	0.0120	1.33	3.33	5.20	0.26
AD-205	CB-201	80.00	57.95	57.40	0.55	0.6900	12.000	0.0120	0.20	0.56	3.20	0.06
AD-206	DIV-2	39.00	56.85	56.65	0.20	0.5100	15.000	0.0120	4.01	3.93	5.01	0.80
AD-207	WetlandEast_DP1.4.4	25.00	47.25	47.10	0.15	0.6000	12.000	0.0120	2.21	3.60	2.99	0.74
AD-208	SF-05	103.00	49.70	49.00	0.70	0.6800	12.000	0.0120	0.25	2.37	3.18	0.08
AD-209	SF-5	160.00	50.60	49.00	1.60	1.0000	12.000	0.0120	0.44	3.20	3.86	0.11
AD-210	AD-204	166.00	58.85	58.00	0.85	0.5100	12.000	0.0120	0.61	2.65	2.76	0.22
AD-211	AD-208	73.00	50.30	49.70	0.60	0.8200	12.000	0.0120	0.05	0.76	3.50	0.01
AD-212	AD-213	108.00	56.35	55.75	0.60	0.5600	6.000	0.0120	0.04	0.29	0.45	0.08
AD-213	CB-306	29.00	55.75	55.20	0.55	1.9000	6.000	0.0120	0.24	1.74	0.84	0.28
AD-301	AD-302	198.00	54.80	53.80	1.00	0.5100	12.000	0.0120	1.10	2.32	2.74	0.40
AD-302	DMH-310	29.00	53.80	53.65	0.15	0.5200	15.000	0.0120	2.92	3.15	5.03	0.58
AD-303	DMH-311	38.00	53.65	53.40	0.25	0.6600	12.000	0.0120	1.80	4.41	3.13	0.57
AD-304	DMH-306	23.00	53.20	53.00	0.20	0.8700	12.000	0.0120	0.31	1.26	3.60	0.09
AD-305	AD-303	29.00	53.85	53.65	0.20	0.6900	12.000	0.0120	0.48	1.64	3.21	0.15
AD-306	DMH-305	74.00	54.80	54.35	0.45	0.6100	12.000	0.0120	2.58	3.79	3.01	0.86

Hydraulic Design Table (25-year Design Storm)

Date 5/30/2025
Initials AJM

From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Total Drop	Average Slope	Pipe Diameter or Height	Manning's Roughness	Peak Flow	Max Flow Velocity	Design Flow Capacity	Max Flow / Design Flow Ratio
Column1	Column2	(ft)	(ft)3	(ft)4	(ft)5	(%)	(inches)	Column6	(cfs)	(ft/sec)	(cfs)7	Column8
AD-307	_Bio-3	58.00	59.50	59.00	0.50	0.8600	6.000	0.0120	0.02	1.27	0.56	0.03
AD-308	AD-309	153.00	57.60	56.80	0.80	0.5200	12.000	0.0120	0.53	2.44	2.79	0.19
AD-309	DMH-311	36.00	56.80	56.60	0.20	0.5600	12.000	0.0120	0.58	2.63	2.88	0.20
AD-401	AD-402	50.00	54.00	53.70	0.30	0.6000	12.000	0.0120	1.37	2.38	2.99	0.46
AD-402	AD-403	192.00	53.70	52.70	1.00	0.5200	12.000	0.0120	2.41	3.19	2.79	0.87
AD-403	CB-401	57.00	52.70	52.35	0.35	0.6100	18.000	0.0120	4.63	2.78	8.92	0.52
AD-404	AD-405	88.00	48.95	48.45	0.50	0.5700	12.000	0.0120	0.64	2.21	2.91	0.22
AD-405	AD-406	28.00	48.45	48.30	0.15	0.5400	12.000	0.0120	0.64	1.46	2.83	0.23
AD-406	AD-407	19.00	48.30	48.20	0.10	0.5300	12.000	0.0120	0.65	1.57	2.80	0.23
AD-407	DMH-405	6.00	48.20	48.15	0.05	0.8300	12.000	0.0120	1.88	2.93	3.52	0.53
AD-408	wye-1	20.00	47.95	47.80	0.15	0.7500	12.000	0.0120	0.13	0.68	3.34	0.04
AD-409	EX-CB(NW)	68.00	47.00	45.70	1.30	1.9100	12.000	0.0120	0.13	2.73	5.34	0.02
AD-410	DMH-403	33.00	47.80	47.60	0.20	0.6100	12.000	0.0120	0.20	1.59	3.00	0.07
AD-411	Jun wye-2	8.00	48.00	47.90	0.10	1.2500	12.000	0.0120	0.10	0.95	4.32	0.02
AD-412	Out-11	24.00	44.25	44.00	0.25	1.0400	12.000	0.0150	0.52	2.74	3.15	0.16
CB-101	CB-402	70.00	57.50	57.10	0.40	0.5700	12.000	0.0120	0.53	1.84	2.92	0.18
CB-102	CB-103	59.00	47.75	45.50	2.25	3.8100	12.000	0.0120	0.89	5.54	7.54	0.12
CB-103	CB-104	34.00	45.50	44.25	1.25	3.6800	12.000	0.0120	1.18	2.87	7.40	0.16
CB-104	DIV-03	22.00	44.25	44.10	0.15	0.6800	15.000	0.0120	2.60	3.83	5.78	0.45
CB-105	CB-106	39.00	44.70	44.50	0.20	0.5100	12.000	0.0120	0.78	1.89	2.76	0.28
CB-106	CB-104	44.00	44.50	44.25	0.25	0.5700	12.000	0.0120	1.16	2.03	2.91	0.40
CB-107	WetlandEast_DP1.4.3	78.00	50.00	49.00	1.00	1.2800	30.000	0.0130	20.45	7.38	46.44	0.44
CB-201	CB-202	60.00	57.40	57.10	0.30	0.5000	15.000	0.0120	2.49	2.64	4.95	0.50
CB-202	AD-206	49.00	57.10	56.85	0.25	0.5100	15.000	0.0120	4.03	3.41	5.00	0.81
CB-203	WetlandEast_DP1.4.2	33.00	51.85	51.45	0.40	1.2100	15.000	0.0120	5.01	5.67	7.70	0.65
CB-301	DMH-302	26.00	55.90	53.85	2.05	7.8800	12.000	0.0120	0.77	4.74	10.84	0.07
CB-302	CB-401	193.00	53.35	52.35	1.00	0.5200	18.000	0.0120	4.00	2.98	8.19	0.49
CB-303	CB-304	67.00	56.85	56.50	0.35	0.5200	12.000	0.0120	2.52	3.21	2.79	0.90

Hydraulic Design Table (25-year Design Storm)

Date 5/30/2025
Initials AJM

From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Total Drop	Average Slope	Pipe Diameter or Height	Manning's Roughness	Peak Flow	Max Flow Velocity	Design Flow Capacity	Max Flow / Design Flow Ratio
Column1	Column2	(ft)	(ft)3	(ft)4	(ft)5	(%)	(inches)	Column6	(cfs)	(ft/sec)	(cfs)7	Column8
CB-304	CB-305	52.00	56.50	56.20	0.30	0.5800	15.000	0.0120	4.10	3.34	5.32	0.77
CB-305	DMH-303	70.00	56.20	55.80	0.40	0.5700	18.000	0.0120	5.86	3.31	8.60	0.68
CB-306	DMH-304	37.00	55.20	54.95	0.25	0.6800	12.000	0.0120	2.70	4.50	3.17	0.85
CB-307	DMH-303	29.00	56.00	55.80	0.20	0.6900	18.000	0.0120	7.25	6.41	9.45	0.77
CB-308	DMH-305	78.00	53.25	52.85	0.40	0.5100	15.000	0.0120	2.27	3.17	5.01	0.45
CB-401	DMH-401	89.00	52.35	52.00	0.35	0.3900	24.000	0.0120	8.96	3.80	15.37	0.58
CB-402	CB-404	151.00	57.10	56.30	0.80	0.5300	15.000	0.0120	1.50	3.70	5.09	0.29
CB-403	CB-404	55.49	57.00	56.30	0.70	1.2600	12.000	0.0120	0.80	3.09	4.33	0.19
CB-404	CB-405	96.00	56.30	51.50	4.80	5.0000	15.000	0.0120	3.65	5.90	15.65	0.23
CB-405	DMH-402	70.00	51.50	48.30	3.20	4.5700	24.000	0.0120	14.85	7.44	52.40	0.28
CB-406	CB-402	52.00	57.40	57.10	0.30	0.5800	12.000	0.0120	0.46	1.65	2.93	0.16
DIV-01	EX-DMH	33.60	46.10	44.10	2.00	5.9500	36.000	0.0130	42.74	8.35	162.73	0.26
DIV-03	DMH-101	57.00	42.75	42.40	0.35	0.6100	15.000	0.0120	2.59	2.83	5.48	0.47
DIV-04	DMH-106	31.00	46.90	46.60	0.30	0.9700	24.000	0.0150	10.14	5.30	19.29	0.53
DIV-2	WetlandEast_DP1.4.1	23.00	56.15	55.00	1.15	5.0000	15.000	0.0120	4.01	8.31	15.65	0.26
DMH-101	WetlandEast_DP1.4.5	27.00	42.40	42.25	0.15	0.5600	18.000	0.0130	3.95	3.81	7.83	0.50
DMH-102	DMH-103	42.00	56.25	55.80	0.45	1.0700	18.000	0.0120	2.25	3.68	11.78	0.19
DMH-103	IB-1.2	144.00	55.80	55.00	0.80	0.5600	18.000	0.0120	2.24	3.84	8.48	0.26
DMH-104	DMH-102	132.00	57.35	56.25	1.10	0.8300	12.000	0.0150	2.27	4.12	2.82	0.81
DMH-106	WESTWETLAND2	49.00	45.50	44.00	1.50	3.0600	24.000	0.0120	10.30	9.28	42.88	0.24
DMH-107	WESTWETLAND1	25.00	44.20	44.05	0.15	0.6000	24.000	0.0130	7.82	4.31	17.52	0.45
DMH-108	CB-107	98.00	50.50	50.00	0.50	0.5100	30.000	0.0130	17.40	4.93	29.30	0.59
DMH-201	DMH-202	187.50	56.90	55.95	0.95	0.5100	12.000	0.0120	2.04	4.03	2.75	0.74
DMH-202	DMH-203	51.00	55.95	55.60	0.35	0.6900	15.000	0.0120	2.04	3.14	5.80	0.35
DMH-203	WetlandEast_DP1.2.1	28.00	55.60	55.45	0.15	0.5400	15.000	0.0120	2.04	3.41	5.12	0.40
DMH-212	AD-204	81.00	58.45	58.00	0.45	0.5600	12.000	0.0120	0.33	2.50	2.88	0.11
DMH-301(OWS)	DMH-302	52.22	54.15	53.85	0.30	0.5700	12.000	0.0120	0.55	1.71	2.93	0.19
DMH-302	DMH-310	36.00	53.85	53.65	0.20	0.5600	15.000	0.0120	1.21	1.94	5.22	0.23

Hydraulic Design Table (25-year Design Storm)

Date 5/30/2025
Initials AJM

From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Total Drop	Average Slope	Pipe Diameter or Height	Manning's Roughness	Peak Flow	Max Flow Velocity	Design Flow Capacity	Max Flow / Design Flow Ratio
Column1	Column2	(ft)	(ft)3	(ft)4	(ft)5	(%)	(inches)	Column6	(cfs)	(ft/sec)	(cfs)7	Column8
DMH-303	DB-02	32.00	55.80	55.60	0.20	0.6200	18.000	0.0120	11.19	6.55	9.00	1.24
DMH-304	AD-306	28.00	54.95	54.80	0.15	0.5400	12.000	0.0120	2.61	4.92	2.83	0.92
DMH-305	DMH-306	19.00	52.85	52.65	0.20	1.0500	15.000	0.0120	4.78	4.31	7.18	0.67
DMH-306	DMH-307	64.00	52.40	52.05	0.35	0.5500	18.000	0.0130	5.00	2.90	7.77	0.64
DMH-307	DMH-308	148.00	52.05	51.25	0.80	0.5400	24.000	0.0130	8.92	3.06	16.63	0.54
DMH-308	DMH-309	65.00	51.25	50.90	0.35	0.5400	30.000	0.0130	17.40	5.26	30.10	0.58
DMH-309	DMH-108	77.00	50.90	50.50	0.40	0.5200	30.000	0.0130	17.40	6.06	29.56	0.59
DMH-310	CB-302	55.00	53.65	53.35	0.30	0.5500	15.000	0.0120	3.27	4.09	5.17	0.63
DMH-311	CB-308	26.00	53.40	53.25	0.15	0.5800	12.000	0.0120	2.27	4.73	2.93	0.77
DMH-401	CB-405	89.00	52.00	51.50	0.50	0.5600	24.000	0.0120	11.26	6.19	18.37	0.61
DMH-402	DMH-403	181.00	48.30	47.25	1.05	0.5800	24.000	0.0120	14.76	5.78	18.67	0.79
DMH-403	DIV-01	139.00	47.15	46.10	1.05	0.7600	30.000	0.0130	16.58	4.34	35.65	0.47
DMH-404	DMH-401	96.75	52.50	52.00	0.50	0.5200	18.000	0.0120	0.51	0.85	8.18	0.06
DMH-405	Jun wye-2	23.00	48.05	47.90	0.15	0.6500	15.000	0.0120	1.84	2.27	7.30	0.25
DMH-406	DMH-104	40.00	57.60	57.35	0.25	0.6300	12.000	0.0120	2.34	3.42	3.05	0.77
DMH-407	DMH-403	5.00	47.20	47.15	0.05	1.0000	15.000	0.0120	1.99	1.62	7.00	0.28
EX-DMH	DB-01	18.00	44.10	44.00	0.10	0.5600	36.000	0.0130	42.74	6.64	49.71	0.86
Jun wye-2	wye-1	46.00	47.90	47.70	0.20	0.4300	15.000	0.0150	2.48	3.17	3.69	0.67
OCS-05	Out-12	12.60	43.60	43.40	0.20	1.5900	24.000	0.0130	16.31	7.14	28.50	0.57
OCS-1	DMH-107	163.00	45.10	44.20	0.90	0.5500	24.000	0.0130	9.72	5.86	16.81	0.58
OCS-2	DMH-307	12.00	54.35	53.95	0.40	3.3300	24.000	0.0120	4.02	5.83	44.74	0.09
OCS-4	DMH-308	9.00	51.75	51.55	0.20	2.2200	24.000	0.0120	8.64	6.12	36.53	0.24
ROOF-1	DMH-401	47.00	57.45	55.10	2.35	5.0000	12.000	0.0120	3.80	8.50	8.63	0.44
ROOF-2	DMH-406	9.00	59.50	58.80	0.70	7.7800	12.000	0.0120	2.37	6.84	10.76	0.22
ROOF-4	Bio-03	12.16	59.40	59.00	0.40	3.2900	12.000	0.0120	1.19	5.22	7.00	0.17
ROOF-5	IB-1.1	40.00	55.25	55.00	0.25	0.6300	15.000	0.0120	4.76	4.37	5.53	0.86
Synthetic-Turf	DIV-04	54.00	47.20	46.90	0.30	0.5600	18.000	0.0120	13.97	5.57	16.96	0.82
TrenchDrainEast	Sandfilter-05	24.00	50.00	49.00	1.00	4.1700	12.000	0.0120	1.94	6.90	7.88	0.25

Hydraulic Design Table (25-year Design Storm)

Date 5/30/2025
Initials AJM

From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Total Drop	Average Slope	Pipe Diameter or Height	Manning's Roughness	Peak Flow	Max Flow Velocity	Design Flow Capacity	Max Flow / Design Flow Ratio
Column1	Column2	(ft)	(ft)3	(ft)4	(ft)5	(%)	(inches)	Column6	(cfs)	(ft/sec)	(cfs)7	Column8
TrenchDrainLoading	DMH-301(OWS)	6.00	54.30	54.15	0.15	2.5000	12.000	0.0150	0.60	2.69	4.88	0.12
TrenchDrainWest	SandFilter-02	48.00	55.35	54.85	0.50	1.0400	12.000	0.0150	2.61	4.04	3.15	0.83
wye-1	DMH-407	95.00	47.70	47.20	0.50	0.5300	15.000	0.0120	1.98	2.51	5.08	0.39

Bristol Warren Regional School District

MT. HOPE HIGH SCHOOL

APPENDIX C

RIDEM Pre-Application Minutes– dated 01/07/2025

Appendix A Checklist

Water Quality Volume Calculation Worksheet

Stormwater Treatment Area Calculation

Recharge Calculation Worksheet

Bioretention Area Calculations

Sand Filter Area Calculations

Infiltration Basin Calculations

Wet Swale Calculations

Channel Protection Calculations

Groundwater Mounding Analysis (see January 2025 report)

FHWA Riprap Spreader Calculations

Diversion Calculations

APPENDIX A: STORMWATER MANAGEMENT PLAN CHECKLIST AND LID PLANNING REPORT – STORMWATER DESIGN SUMMARY

PROJECT NAME **Mt. Hope High School**	**(RIDEM USE ONLY)**
TOWN **Bristol**	**STW/WQC File #:**
BRIEF PROJECT DESCRIPTION: The project includes the demolition of the existing Mt. Hope High School and the construction of a new high school at 199 Chestnut Street in Bristol, RI. The project will include a new building, site improvements, new utility connections, and new stormwater management systems.	**Date Received:**

Stormwater Management Plan (SMP) Elements – Minimum Standards

When submitting a SMP,[1] submit four separately bound documents: Appendix A Checklist; Stormwater Site Planning, Analysis and Design Report with Plan Set/Drawings; Soil Erosion and Sediment Control (SESC) Plan, and Post Construction Operations and Maintenance (O&M) Plan. Please refer to Suggestions to Promote Brevity.

Note: **All stormwater construction projects must create a Stormwater Management Plan (SMP). However, not every element listed below is required per the RIDEM Stormwater Rules and the RIPDES Construction General Permit (CGP). This checklist will help identify the required elements to be submitted with an Application for Stormwater Construction Permit & Water Quality Certification.**

PART 1. PROJECT AND SITE INFORMATION

PROJECT TYPE (Check all that apply)

☐ Residential	☐ Commercial	☐ Federal	☐ Retrofit	☐ Restoration
☐ Road	☐ Utility	☐ Fill	☐ Dredge	☐ Mine
☒ Other (specify): Institutional: High School				

SITE INFORMATION

☒ Vicinity Map: Appendix A

INITIAL DISCHARGE LOCATION(S): The WQv discharges to: (You may choose more than one answer if several discharge points are associated with the project.)

☒ **Groundwater**	☒ **Surface Water**	☒ **MS4**
☐ GAA	☐ Isolated Wetland	☐ RIDOT
☒ GA	☒ Named Waterbody	☐ RIDOT Alteration Permit is Approved
☐ GB	☐ Unnamed Waterbody Connected to Named Waterbody	☒ Town
		☐ Other (specify):

ULTIMATE RECEIVING WATERBODY LOCATION(S): Include pertinent information that applies to both WQ_v and flow from larger storm events including overflows. Choose all that apply, and repeat table for each waterbody.

☐ Groundwater or Disconnected Wetland	☐ SRWP		
☒ Waterbody Name: Silver Creek	☐ Coldwater	☒ Warmwater	☐ Unassessed
☒ Waterbody ID: RI0007026R-01	☐ 4th order stream of pond 50 acres or more		
☐ TMDL for:	☐ Watershed of flood prone river (e.g., Pocasset River)		
☐ Contributes to a priority outfall listed in the TMDL	☐ Contributes stormwater to a public beach		
☐ 303(d) list – Impairment(s) for:	☐ Contributes to shellfishing grounds		

[1] Applications for a Construction General Permit that do not require any other permits from RIDEM and will disturb less than 5 acres over the entire course of the project do not need to submit a SMP. The Appendix A checklist must still be submitted.

PROJECT HISTORY		
☒ RIDEM Pre- Application Meeting	Meeting Date: 7-18-23, 01-07-2025	☒ Minutes Attached
☒ Municipal Master Plan Approval	Approval Date: 10-10-2024	☐ Minutes Attached
☐ Subdivision Suitability Required	Approval #:	
☐ Previous Enforcement Action has been taken on the property	Enforcement #:	

FLOODPLAIN & FLOODWAY See Guidance Pertaining to Floodplain and Floodways	
☒ Riverine 100-year floodplain: **FEMA FLOODPLAIN FIRMETTE** has been reviewed and the 100-year floodplain is on site	
☒ Delineated from FEMA Maps: See Appendix A	
NOTE: Per Rule 250-RICR-150-10-8-1.1(B)(5)(d)(3), provide volumetric floodplain compensation calculations for cut and fill/displacement calculated by qualified professional	
☒ Calculated by Professional Engineer	
☒ Calculations are provided for cut vs. fill/displacement volumes proposed within the 100-year floodplain	Amount of Fill (CY): 0 Amount of Cut (CY): 996
☐ Restrictions or modifications are proposed to the flow path or velocities in a floodway	
☐ Floodplain storage capacity is impacted	
☐ Project area is not within 100-year floodplain as defined by RIDEM	

CRMC JURISDICTION
☐ CRMC Assent required
☐ Property subject to a Special Area Management Plan (SAMP). If so, specify which SAMP:
☐ Sea level rise mitigation has been designed into this project

LUHPPL IDENTIFICATION - MINIMUM STANDARD 8:			
1. OFFICE OF Land Revitalization and Sustainable Materials Management (OLRSMM)			
	☐ Known or suspected releases of HAZARDOUS MATERIAL are present at the site (Hazardous Material is defined in Rule 1.4(A)(33) of 250-140-30-1 of the RIDEM Rules and Regulations for Investigation and Remediation of Hazardous Materials (the Remediation Regulations))		**RIDEM CONTACT:**
	☐ Known or suspected releases of PETROLEUM PRODUCT are present at the site (Petroleum Product as defined in Rule 1.5(A)(84) of 250-140-25-1 of the RIDEM Rules and Regulations for Underground Storage Facilities Used for Regulated Substances and Hazardous Materials)		
	☐ This site is identified on the RIDEM Environmental Resources Map as one of the following regulated facilities		**SITE ID#**:
		☐ CERCLIS/Superfund (NPL)	
		☐ State Hazardous Waste Site (SHWS)	
		☐ Environmental Land Usage Restriction (ELUR)	
		☐ Leaking Underground Storage Tank (LUST)	
		☐ Closed Landfill	
Note: If any boxes in 1 above are checked, the applicant must contact the RIDEM OLRSMM Project Manager associated with the Site to determine if subsurface infiltration of stormwater is allowable for the project. Indicate if the infiltration corresponds to "Red," "Yellow" or "Green" as described in Section 3.2.8 of the RISDISM Guidance (Subsurface Contamination Guidance). Also, note and reference approval in PART 3, Minimum Standard 2: Groundwater Recharge/Infiltration**.**			
2. PER MINIMUM STANDARD 8 of RICR 8.14.C.1-6 "LUHPPLS," THE SITE IS/HAS:			
	☐ Industrial Site with RIPDES MSGP, except where No Exposure Certification exists. http://www.dem.ri.gov/programs/water/permits/ripdes/stormwater/status.php		
	☐ Auto Fueling Facility (e.g., gas station)		
	☐ Exterior Vehicles Service, Maintenance, or Equipment Cleaning Area		

	☐ Road Salt Storage and Loading Areas (exposed to rainwater)	
	☐ Outdoor Storage and Loading/Unloading of Hazardous Substances	
3.	**STORMWATER INDUSTRIAL PERMITTING**	
	☐ The site is associated with existing or proposed activities that are considered Land Uses with Higher Potential Pollutant Loads (LUHPPLS) (see RICR 8.14.C)	Activities: Sector:
	☐ Construction is proposed on a site that is subject to THE MULTI-SECTOR GENERAL PERMIT (MSGP) UNDER RULE 31(B)15 OF THE RIPDES REGULATIONS.	MSGP permit #
	☐ Additional stormwater treatment is required by the MSGP Explain:	

REDEVELOPMENT STANDARD – MINIMUM STANDARD 6		
☒ Pre Construction Impervious Area		
10.54	☒ Total Pre-Construction Impervious Area (**TIA**)	
44.41	☒ Total Site Area (**TSA**)	
18.63	☒ Jurisdictional Wetlands (**JW**)	
0.00	☒ Conservation Land (**CL**)	
☒ Calculate the Site Size (defined as contiguous properties under same ownership)		
28.74	☒ Site Size (**SS**) = (**TSA**) – (**JW**) – (**CL**)	
	☒ (**TIA**) / (**SS**) = 0.37	☐ (**TIA**) / (**SS**) >**0.4**?
☐ YES, Redevelopment		

PART 2. LOW IMPACT DEVELOPMENT ASSESSMENT – MINIMUM STANDARD 1

(NOT REQUIRED FOR REDEVELOPMENT OR RETROFITS)
This section may be deleted if not required.

Note: A written description must be provided specifying why each method is not being used or is not applicable at the Site. Appropriate answers may include:

- Town requires … (state the specific local requirement)
- Meets Town's dimensional requirement of …
- Not practical for site because …
- Applying for waiver/variance to achieve this (pending/approved/denied)
- Applying for wavier/variance to seek relief from this (pending/approved/denied)

A) PRESERVATION OF UNDISTURBED AREAS, BUFFERS, AND FLOODPLAINS	**IF NOT IMPLEMENTED, EXPLAIN HERE**
☒ Sensitive resource areas and site constraints are identified (required) ☒ Local development regulations have been reviewed (required) ☐ All vegetated buffers and coastal and freshwater wetlands will be protected during and after construction ☒ Conservation Development or another site design technique has been incorporated to protect open space and pre-development hydrology. **Note:** If Conservation Development has been used, check box and skip to Subpart C ☒ As much natural vegetation and pre-development hydrology as possible has been maintained	Vegetated buffers are protected to the maximum extent practicable

B) LOCATE DEVELOPMENT IN LESS SENSITIVE AREAS AND WORK WITH THE NATURAL LANDSCAPE CONDITIONS, HYDROLOGY, AND SOILS ☒ Development sites and building envelopes have been appropriately distanced from wetlands and waterbodies ☐ Development and stormwater systems have been located in areas with greatest infiltration capacity (e.g., soil groups A and B) ☒ Plans show measures to prevent soil compaction in areas designated as Qualified Pervious Areas (QPA's) ☐ Development sites and building envelopes have been positioned outside of floodplains ☒ Site design positions buildings, roadways and parking areas in a manner that avoids impacts to surface water features ☒ Development sites and building envelopes have been located to minimize impacts to steep slopes (≥15%) ☐ Other (describe):	No class A or B soils are on-site, infiltration is proposed in C soils and to the maximum extent practicable. Site features have been move outside of the flood plain to the maximum extent practicable.
C) MINIMIZE CLEARING AND GRADING ☒ Site clearing has been restricted to <u>minimum area needed</u> for building footprints, development activities, construction access, and safety. ☒ Site has been designed to position buildings, roadways, and parking areas in a manner that minimizes grading (cut and fill quantities) ☒ Protection for stands of trees and individual trees and their root zones to be preserved has been specified, and such protection extends at least to the tree canopy drip line(s) ☒ Plan notes specify that public trees removed or damaged during construction shall be replaced with equivalent	The Site has been graded to avoid fill within the floodplain.
D) REDUCE IMPERVIOUS COVER ☐ Reduced roadway widths (≤22 feet for ADT ≤ 400; ≤ 26 feet for ADT 400 - 2,000) ☐ Reduced driveway areas (length minimized via reduced ROW width (≤ 45 ft.) and/or reduced (or absolute minimum) front yard setback; width minimized to ≤ 9 ft. wide one lane; ≤ 18 ft. wide two lanes; shared driveways; pervious surface) ☒ Reduced building footprint: Explain approach: ☐ Reduced sidewalk area (≤ 4 ft. wide; one side of the street; unpaved path; pervious surface) ☐ Reduced cul-de-sacs (radius < 45 ft; vegetated island; alternative turn-around) ☒ Reduced parking lot area: Explain approach ☐ Use of pervious surfaces for driveways, sidewalks, parking areas/overflow parking areas, etc. ☒ Minimized impervious surfaces (project meets or is less than maximum specified by Zoning Ordinance) ☐ Other (describe):	Building footprint is the minimum possible to facilitate the required number of students. Parking has been minimized to limit impacts to resource areas. Drive aisles have been reduced to 20' where possible and compact spaces have been used to reduce impervious surface.
E) DISCONNECT IMPERVIOUS AREA ☒ Impervious surfaces have been disconnected, and runoff has been diverted to QPAs to the maximum extent possible ☐ Residential street edges allow side-of-the-road drainage into vegetated open swales ☐ Parking lot landscaping breaks up impervious expanse AND accepts runoff ☐ Other (describe):	
F) MITIGATE RUNOFF AT THE POINT OF GENERATION ☒ Small-scale BMPs have been designated to treat runoff as close as possible to the source	

G) PROVIDE LOW-MAINTENANCE NATIVE VEGETATION ☒ Low-maintenance landscaping has been proposed using native species and cultivars ☒ Plantings of native trees and shrubs in areas previously cleared of native vegetation are shown on site plan ☒ Lawn areas have been limited/minimized, and yards have been kept undisturbed to the maximum extent practicable on residential lots	
H) RESTORE STREAMS/WETLANDS ☐ Historic drainage patterns have been restored by removing closed drainage systems, daylighting buried streams, and/or restoring degraded stream channels and/or wetlands ☐ Removal of invasive species ☐ Other	

PART 3. SUMMARY OF REMAINING STANDARDS

GROUNDWATER RECHARGE – MINIMUM STANDARD 2		
YES	**NO**	
☒	☐	The project has been designed to meet the groundwater recharge standard.
☐	☐	If "No," the justification for groundwater recharge criterion waiver has been explained in the Narrative (e.g., threat of groundwater contamination or physical limitation), if applicable (see RICR 8.8.D);
☐	☐	Your waiver request has been explained in the Narrative, if applicable.
☐	☒	Is this site identified as a Regulated Facility in Part 1, Minimum Standard 8: LUHPPL Identification?
☐	☐	If "Yes," has approval for infiltration by the OLRSMM Site Project Manager, per Part 1, Minimum Standard 8, been requested?

TABLE 2-1: Summary of Recharge (see RISDISM Section 3.3.2)
(Add or Subtract Rows as Necessary)

Design Point	**Impervious Area Treated (sq ft)**	**Total Re_v Required (cu ft)**	**LID Stormwater Credits (see RISDISM Section 4.6.1)** **Portion of Re_v directed to a QPA (cu ft)**	**Recharge Required by Remaining BMPs (cu ft)**	**Recharge Provided by BMPs (cu ft)**
Silver Creek	544,519	11,344	234	11,110	40,199

Notes:
1. Only BMPs listed in RISDISM Table 3-5 "List of BMPs Acceptable for Recharge" may be used to meet the recharge requirement.
2. Recharge requirement must be satisfied for each waterbody ID.

☒ Indicate where the pertinent calculations and/or information for the above items are provided (i.e., name of report/document, page numbers, appendices, etc.): See appendix C

WATER QUALITY – MINIMUM STANDARD 3		
YES	**NO**	
☐	☒	Does this project meet or exceed the required water quality volume WQv (see RICR 8.9.E-I)?
☒	☐	Is the proposed final impervious cover greater than 20% of the disturbed area (see RICR 8.9.E-I)?
☒	☐	If "Yes," either the Modified Curve Number Method or the Split Pervious/Impervious method in Hydro-CAD was used to calculate WQv; or,
☐	☐	If "Yes," either TR-55 or TR-20 was used to calculate WQv; and,
☐	☐	If "No," the project meets the minimum WQv of 0.2 watershed inches over the entire disturbed area.
☐	☐	Not Applicable
☒	☐	Does this project meet or exceed the ability to treat required water quality flow WQf (see RICR 8.9.I.1-3)?
☐	☒	Does this project propose an increase of impervious cover to a receiving water body with impairments? If "Yes," please indicate below the method that was used to address the water quality requirements of no further degradation to a low-quality water.
☐	☒	RICR 8.36. A Pollutant Loading Analysis is needed and has been completed.
☐	☐	The Water Quality Guidance Document (Water Quality Goals and Pollutant Loading Analysis Guidance for Discharges to Impaired Waters) has been followed as applicable.
☐	☐	BMPs are proposed that are on the approved technology list . If "Yes," please provide all required worksheets from the manufacturer.
☐	☒	Additional pollutant-specific requirements and/or pollutant removal efficiencies are applicable to the site as the result of a TMDL, SAMP, or other watershed-specific requirements. If "Yes," please describe:

TABLE 3-1: Summary of Water Quality (see RICR 8.9)

Design Point and WB ID	**Impervious area treated (sq ft)**	**Total WQ_v Required (cu ft)**	**LID Stormwater Credits** (see RICR 8.18) **WQv directed to a QPA (cu ft)**	**Water Quality Treatment Remaining (cu ft)**	**Water Quality Provided by BMPs (cu ft)**
Silver Creek	544,519	45,377	934	44,443	42,607

Notes:
1. Only BMPs listed in RICR 8.20 and 8.25 or the Approved Technologies List of BMPs is Acceptable for Water Quality treatment.
2. For each Design Point, the Water Quality Volume Standard must be met for each Waterbody ID.

☐ YES ☒ NO	This project has met the setback requirements for each BMP. If "No," please explain: Please see the Stormwater narrative for technical justifications requested.

☒ Indicate where the pertinent calculations and/or information for the above items are provided (i.e., name of report/document, page numbers, appendices, etc.): Water quality treatment is provided to the maximum extents practicable with significant water quality improvements compared to the existing condition. Refer to appendix C for BMP calculations.

CONVEYANCE AND NATURAL CHANNEL PROTECTION (RICR 8.10) – MINIMUM STANDARD 4			
YES	**NO**		
☐	☒	Is this standard waived? If "Yes," please indicate one or more of the reasons below:	
		☐	The project directs discharge to a large river (i.e., 4th-order stream or larger. See RISDISM Appendix I for State-wide list and map of stream orders), bodies of water >50.0 acres in surface area (i.e., lakes, ponds, reservoirs), or tidal waters.
		☐	The project is a small facility with impervious cover of less than or equal to 1 acre.
		☐	The project has a post-development peak discharge rate from the facility that is less than 2 cfs for the 1-year, 24-hour Type III design storm event (prior to any attenuation). (Note: LID design strategies can greatly reduce the peak discharge rate).
☒	☐	Conveyance and natural channel protection for the site have been met. If "No,' explain why:	

TABLE 4-1: Summary of Channel Protection Volumes (see RICR 8.10)					
Design Point	**Receiving Water Body Name**	**Coldwater Fishery? (Y/N)**	**Total CPv Required (cu ft)**	**Total CPv Provided (cu ft)**	**Average Release Rate Modeled in the 1-yr storm (cfs)**
Silver Creek	Silver Creek	N	93,855	119,230	20.50
Note: The Channel Protection Volume Standard must be met in each waterbody ID.					
☒ YES ☐ NO	The CPv is released at roughly a uniform rate over a 24-hour duration (see examples of sizing calculations in Appendix D of the RISDISM).				
☐ YES ☒ NO	Do additional design restrictions apply resulting from any discharge to cold-water fisheries; If "Yes," please indicate restrictions and solutions below.				
☒ Indicate below where the pertinent calculations and/or information for the above items are provided (i.e., name of report/document, page numbers, appendices, etc.). Refer to appendix C for channel protection calculations.					

OVERBANK FLOOD PROTECTION (RICR 8.11) AND OTHER POTENTIAL HIGH FLOWS – MINIMUM STANDARD 5			
YES	**NO**		
☐	☒	Is this standard waived? If yes, please indicate one or more of the reasons below:	
		☐	The project directs discharge to a large river (i.e., 4th-order stream or larger. See Appendix I for state-wide list and map of stream orders), bodies of water >50.0 acres in surface area (i.e., lakes, ponds, reservoirs), or tidal waters.
		☐	A Downstream Analysis (see RICR 8.11.D and E) indicates that peak discharge control would not be beneficial or would exacerbate peak flows in a downstream tributary of a particular site (e.g., through coincident peaks).

☒	☐	Does the project flow to an MS4 system or subject to other stormwater requirements? If "Yes," indicate as follows:	
		☐	RIDOT
		☒	Other (specify): Town MS4, no other requirements
Note:		The project could be approved by RIDEM but not meet RIDOT or Town standards. RIDOT's regulations indicate that post-volumes must be **less** than pre-volumes for the 10-yr storm at the design point entering the RIDOT system. If you have not already received approval for the discharge to an MS4, please explain below your strategy to comply with RIDEM and the MS4.	
		Indicate below which model was used for your analysis. ☐ TR-55 ☐ TR-20 ☒ HydroCAD ☐ Bentley/Haestad ☐ Intellisolve ☐ Other (Specify):	
YES	**NO**		
☒	☐	Does the drainage design demonstrate that flows from the 100-year storm event through a BMP will safely manage and convey the 100-year storm? If "No," please explain briefly below and reference where in the application further documentation can be found (i.e., name of report/document, page numbers, appendices, etc.):	
☒	☐	Do off-site areas contribute to the sub-watersheds and design points? If "Yes,"	
☒	☐	Are the areas modeled as "present condition" for both pre- and post-development analysis?	
☒	☐	Are the off-site areas shown on the subwatershed maps?	
☒	☐	Does the drainage design confirm safe passage of the 100-year flow through the site for off-site runoff?	
☐	☒	Is a Downstream Analysis required (see RICR 8.11.E.1)?	
☐	☐	Calculate the following:	
		☐	Area of disturbance within the sub-watershed (areas): 29.80
		☐	Impervious cover (%) 30.26%
☐	☒	Is a dam breach analysis required (earthen embankments over six (6) feet in height, or a capacity of 15 acre-feet or more, and contributes to a significant or high hazard dam)?	
☒	☐	Does this project meet the overbank flood protection standard?	

Table 5-1 Hydraulic Analysis Summary								
Subwatershed (Design Point)	**1.2" Peak Flow** (cfs) **		**1-yr Peak Flow** (cfs)		**10-yr Peak Flow** (cfs)		**100-yr Peak Flow** (cfs)	
	Pre (cfs)	Post (cfs)	Pre (cfs)	Post (cfs)	Pre (cfs)	Post (cfs)	Pre (cfs)	Post (cfs)
DP-1.1: Culvert 1	1.42	0.41	8.83	7.45	23.08	21.30	50.14	48.60
DP-1.2: Culvert 2	1.79	0.53	9.87	8.27	25.17	23.04	54.13	54.77
DP-1.3: Culvert 3	1.94	0.57	10.22	8.64	25.92	23.98	55.59	56.88
DP-1.4: Silver Creek East Branch	7.48	1.36	25.70	16.36	58.84	50.66	119.32	116.14
DP-2.1: West Wetland	0.97	0.03	6.84	3.09	20.21	20.15	60.35	60.02
DP-2.2: Silver Creek West Branch	1.75	0.76	10.53	4.44	30.43	24.67	78.59	71.23

** Utilize modified curve number method or split pervious /impervious method in HydroCAD.

Note: The hydraulic analysis must demonstrate no impact to each individual subwatershed DP unless each DP discharges to the same wetland or water resource.

Indicate as follows where the pertinent calculations and/or information for the items above are provided	**Name of report/document, page numbers, appendices, etc.**
Existing conditions analysis for each subwatershed, including curve numbers, times of concentration, runoff rates, volumes, and water surface elevations showing methodologies used and supporting calculations.	See appendix B and D
Proposed conditions analysis for each subwatershed, including curve numbers, times of concentration, runoff rates, volumes, water surface elevations, and routing showing the methodologies used and supporting calculations.	See appendix B and D
Final sizing calculations for structural stormwater BMPs, including contributing drainage area, storage, and outlet configuration.	See appendix B and C
Stage-storage, inflow and outflow hydrographs for storage facilities (e.g., detention, retention, or infiltration facilities).	See appendix B

Table 5-2 Summary of Best Management Practices											
BMP ID	**DP #**	**BMP Type** (e.g., bioretention, tree filter)	**BMP Functions**					**Bypass Type**	**Horizontal Setback Criteria are met per RICR 8.21.B.10, 8.22.D.11, and 8.35.B.4**		
			Pre-Treatment (Y/N/NA)	Re_v	WQ_v	CP_v (Y/N/NA)	Overbank Flood Reduction (Y/N/NA)	External (E) Internal (I) or NA	Yes/ No	Technical Justification (Design Report page number)	Distance Provided
Bio-1	DP1.4	Bioretention Area	Y	Y	Y	Y	N	E	Y		
Bio-2	DP1.4	Bioretention Area	Y	Y	Y	Y	N	I	Y		
Bio-3	DP1.4	Bioretention Area	N	Y	Y	Y	N	I	Y		
Bio-4	DP1.4	Bioretention Area	N	Y	Y	Y	N	I	Y		
SF-1	DP2.1	Sand Filter	Y	Y	Y	Y	N	E	Y		

Table 5-2 Summary of Best Management Practices											
BMP ID	**DP #**	**BMP Type** (e.g., bioretention, tree filter)	**BMP Functions**					**Bypass Type**	**Horizontal Setback Criteria are met per RICR 8.21.B.10, 8.22.D.11, and 8.35.B.4**		
			Pre-Treatment (Y/N/NA)	Re_v	WQ_v	CP_v (Y/N/NA)	Overbank Flood Reduction (Y/N/NA)	External (E) Internal (I) or NA	Yes/No	Technical Justification (Design Report page number)	Distance Provided
SF-2	DP1.4	Sand Filter	Y	Y	Y	Y	N	E	Y		
SF-3	DP1.4	Sand Filter	Y	N	Y	Y	N	I	Y		
SF-4	DP1.2	Sand Filter	N	N	Y	Y	N	I	Y		
SF-5	DP1.4	Sand Filter	N	Y	Y	Y	N	I	Y		
IB-1	DP1.4	Infiltration Basin	N	Y	Y	Y	Y	I	Y		
WS-1	DP1.4	Wet Swale	Y	Y	Y	N	N	I	Y		
UGIS-1	DP2.2	Underground Infiltration	N	Y	Y	Y	Y	I	N	See page 15 of the Stormwater Report Narrative	6 FT
		TOTALS:									

Table 5.3 Summary of Soils to Evaluate Each BMP									
DP #	**BMP ID**	**BMP Type** (e.g., bioretention, tree filter)	**Soils Analysis for Each BMP**						
			Test Pit ID# and Ground Elevation		SHWT Elevation (ft)	Bottom of Practice Elevation* (ft)	Separation Distance Provided (ft)	Hydrologic Soil Group (A, B, C, D)	Exfiltration Rate Applied (in/hr)
			Primary	Secondary					
DP1.2	SF-4	Sand Filter	TP 24-5	TP 24-4	63.40	61.00	-3.00	C	N/A
DP1.4	Bio-1	Bioretention	TP 20-6	TP 20-3	41.00	44.00	3.00	C	0.27
DP1.4	Bio-2	Bioretention	TP 24-9	TP 20-5	54.58	56.50	1.92	C	N/A
DP1.4	Bio-3	Bioretention	TP 24-8	TP 15-6	56.37	59.00	2.63	C	N/A
DP1.4	Bio-4	Bioretention	TP 10-3	TP 15-6	56.68	59.80	3.12	C	0.27
DP1.4	SF-2	Sand Filter	TP 24-6	TP 24-5	51.83	54.85	3.02	C	0.27
DP1.4	SF-3	Sand Filter	B24-2	TP 24-5	53.30	60.00	6.70	C	N/A
DP1.4	SF-5	Sand Filter	TP 20-4	TP 24-6	45.40	49.00	3.60	C	0.27
DP1.4	Inf-1	Infiltration Basin	TP 20-5	TP 24-9	50.72	55.00	4.28	C	1.02
DP1.4	WS-1	Wet Swale	TP 24-10	TP 10-3	57.70	56.70	-1.00	C	N/A
DP2.1	SF-1	Sand Filter	TP 08-5	TP 10-6	42.50	46.00	3.50	C	0.27
DP2.2	UGIS-1	Underground Infiltration	TP 20-3	N/A	43.30	46.30	3.00	C	0.27
* For underground infiltration systems (UICs) bottom equals bottom of stone, for surface infiltration basins bottom equals bottom									

of basin, for filters bottom equals interface of storage and top of filter layer

LAND USES WITH HIGHER POTENTIAL POLLUTANTS LOADS (LUHPPLs) – MINIMUM STANDARD 8			
YES	**NO**	**N/A**	
☐	☐	☒	Describe any LUHPPLs identified in Part 1, Minimum Standard 8, Section 2. If not applicable, continue to Minimum Standard 9.
☐	☐	☒	Are these activities already covered under an MSGP? If "No," please explain if you have applied for an MSGP or intend to do so?
☐	☐	☒	List the specific BMPs that are proposed for this project that receive stormwater from LUHPPL drainage areas. These BMP types must be listed in RISDISM Table 3-3, "Acceptable BMPs for Use at LUHPPLs." Please list BMPs:
☐	☐	☒	Additional BMPs, or additional pretreatment BMP's if any, that meet RIPDES MSGP requirements; Please list BMPs:
			Indicate below where the pertinent calculations and/or information for the above items are provided (i.e., name of report/document, page numbers, appendices, etc.).

ILLICIT DISCHARGES – MINIMUM STANDARD 9			
Illicit discharges are defined as unpermitted discharges to Waters of the State that do not consist entirely of stormwater or uncontaminated groundwater, except for certain discharges identified in the RIPDES Phase II Stormwater General Permit.			
YES	**NO**	**N/A**	
☒	☐	☐	Have you checked for illicit discharges?
☐	☒	☐	Have any been found and/or corrected? If "Yes," please identify.
☐	☐	☒	Does your report explain preventative measures that keep non-stormwater discharges out of the Waters of the State (during and after construction)?

SOIL EROSION AND SEDIMENT CONTROL (SESC) – MINIMUM STANDARD 10				
YES	**NO**	**N/A**		
☒	☐	☐	Have you included a Soil Erosion and Sediment Control Plan Set and/or Complete Construction Plan Set?	
☒	☐	☐	Have you provided a **separately-bound** document based upon the SESC Template? If yes, proceed to Minimum Standard 11 (the following items can be assumed to be addressed).	
			If "No," include a document with your submittal that addresses the following elements of an SESC Plan:	
			☐	Soil Erosion and Sediment Control Plan Project Narrative, including a description of how the fifteen (15) Performance Criteria have been met:
			☐	Provide Natural Buffers and Maintain Existing Vegetation
			☐	Minimize Area of Disturbance
			☐	Minimize the Disturbance of Steep Slopes
			☐	Preserve Topsoil
			☐	Stabilize Soils
			☐	Protect Storm Drain Inlets
			☐	Protect Storm Drain Outlets

	☐	Establish Temporary Controls for the Protection of Post-Construction Stormwater Control Measures
	☐	Establish Perimeter Controls and Sediment Barriers
	☐	Divert or Manage Run-On from Up-Gradient Areas
	☐	Properly Design Constructed Stormwater Conveyance Channels
	☐	Retain Sediment On-Site
	☐	Control Temporary Increases in Stormwater Velocity, Volume, and Peak Flows
	☐	Apply Construction Activity Pollution Prevention Control Measures
	☐	Install, Inspect, and Maintain Control Measures and Take Corrective Actions
	☐	Qualified SESC Plan Preparer's Information and Certification
	☐	Operator's Information and Certification; if not known at the time of application, the Operator must certify the SESC Plan upon selection and prior to initiating site activities
	☐	Description of Control Measures, such as Temporary Sediment Trapping and Conveyance Practices, including design calculations and supporting documentation, as required

STORMWATER MANAGEMENT SYSTEM OPERATION, MAINTENANCE, AND POLLUTION PREVENTION PLAN – MINIMUM STANDARDS 7 AND 9		
Operation and Maintenance Section		
YES	**NO**	
☒	☐	Have you minimized all sources of pollutant contact with stormwater runoff, to the maximum extent practicable?
☒	☐	Have you provided a **separately-bound** Operation and Maintenance Plan for the site and for all of the BMPs, and does it address each element of RICR 8.17 and RISDISM Appendix C and E?
☒	☐	Lawn, Garden, and Landscape Management meet the requirements of RISDISM Section G.7? If "No," why not?
☒	☐	Is the property owner or homeowner's association responsible for the stormwater maintenance of all BMP's? If "No," you must provide a legally binding and enforceable maintenance agreement (see RISDISM Appendix E, page 26) that identifies the entity that will be responsible for maintenance of the stormwater. Indicate where this agreement can be found in your report (i.e., name of report/document, page numbers, appendices, etc.).
☐	☒	Do you anticipate that you will need legal agreements related to the stormwater structures? (e.g. off-site easements, deed restrictions, covenants, or ELUR per the Remediation Regulations). If "Yes," have you obtained them? Or please explain your plan to obtain them:
☐	☒	Is stormwater being directed from public areas to private property? If "Yes," note the following: Note: This is not allowed unless a funding mechanism is in place to provide the finances for the long-term maintenance of the BMP and drainage, or a funding mechanism is demonstrated that can guarantee the long-term maintenance of a stormwater BMP by an individual homeowner.
Pollution Prevention Section		
☒	☐	Designated snow stockpile locations?
☐	☒	Trash racks to prevent floatables, trash, and debris from discharging to Waters of the State?
☒	☐	Asphalt-only based sealants?
☐	☒	Pet waste stations? (Note: If a receiving water has a bacterial impairment, and the project involves housing units, then this could be an important part of your pollution prevention plan).
☒	☐	Regular sweeping? Please describe:
☒	☐	De-icing specifications, in accordance with RISDISM Appendix G. (NOTE: If the groundwater is GAA, or this area contributes to a drinking water supply, then this could be an important part of your pollution prevention plan).
☒	☐	A prohibition of phosphate-based fertilizers? (Note: If the site discharges to a phosphorus impaired waterbody, then

		this could be an important part of your pollution prevention plan).

PART 4. SUBWATERSHED MAPPING AND SITE-PLAN DETAILS

Existing and Proposed Subwatershed Mapping (REQUIRED)			
YES	**NO**		
☒	☐		Existing and proposed drainage area delineations
☒	☐		Locations of all streams and drainage swales
☒	☐		Drainage flow paths, mapped according to the DEM *Guidance for Preparation of Drainage Area Maps* (included in RISDISM Appendix K)
☒	☐		Complete drainage area boundaries; include off-site areas in both mapping and analyses, as applicable
☒	☐		Logs of borings and/or test pit investigations along with supporting soils/geotechnical report
☒	☐		Mapped seasonal high-water-table test pit locations
☒	☐		Mapped locations of the site-specific borings and/or test pits and soils information from the test pits at the locations of the BMPs
☒	☐		Mapped locations of the BMPs, with the BMPs consistently identified on the Site Construction Plans
☒	☐		Mapped bedrock outcrops adjacent to any infiltration BMP
☒	☐		Soils were logged by a:
		☐	DEM-licensed Class IV soil evaluator Name: Spencer Lynds SE# 14275
		☐	RI-registered P.E. Name:

Subwatershed and Impervious Area Summary				
Subwatershed (area to each design point)	**First Receiving Water ID or MS4**	**Area Disturbed (units)**	**Existing Impervious (units)**	**Proposed Impervious (units)**
DP-1.4: Silver Creek East Branch	RI0007026R-01	1,112,405 SF	424,049 SF	305,981 SF
DP-2.2: Silver Creek West Branch	RI0007026R-01	963,806 SF	97, 055 SF	324,197SF
TOTALS:		2,076,121 SF	521,104 SF	630,178 SF

Site Construction Plans (Indicate that the following applicable specifications are provided)		
YES	**NO**	
☒	☐	Existing and proposed plans (scale not greater than 1" = 40') with North arrow
☒	☐	Existing and proposed site topography (with 1 or 2-foot contours); 10-foot contours accepted for off-site areas
☒	☐	Boundaries of existing predominant vegetation and proposed limits of clearing
☒	☐	Site Location clarification
☒	☐	Location and field-verified boundaries of resource protection areas such as: ► freshwater and coastal wetlands, including lakes and ponds ► coastal shoreline features Perennial and intermittent streams, in addition to Areas Subject to Storm Flowage (ASSFs)
☒	☐	All required setbacks (e.g., buffers, water-supply wells, septic systems)
☒	☐	Representative cross-section and profile drawings, and notes and details of structural stormwater management practices and conveyances (i.e., storm drains, open channels, swales, etc.), which include: ► Location and size of the stormwater treatment practices (type of practice, depth, area). Stormwater treatment practices (BMPs) must have labels that correspond to RISDISM Table 5-2; ► Design water surface elevations (applicable storms); ► Structural details of outlet structures, embankments, spillways, stilling basins, grade-control structures, conveyance channels, etc.; ► Existing and proposed structural elevations (e.g., inverts of pipes, manholes, etc.); ► Location of floodplain and, if applicable, floodway limits and relationship of site to upstream and downstream properties or drainage that could be affected by work in the floodplain; ► Planting plans for structural stormwater BMPs, including species, size, planting methods, and maintenance requirements of proposed planting
☒	☐	Logs of borings and/or test pit investigations along with supporting soils/geotechnical report and corresponding water tables
☐	☒	Mapping of any OLRSMM-approved remedial actions/systems (including ELURs)
☒	☐	Location of existing and proposed roads, buildings, and other structures including limits of disturbance; ► Existing and proposed utilities (e.g., water, sewer, gas, electric) and easements; ► Location of existing and proposed conveyance systems, such as grass channels, swales, and storm drains, and location(s) of final discharge point(s) (wetland, waterbody, etc.); ► Cross sections of roadways, with edge details such as curbs and sidewalks; ► Location and dimensions of channel modifications, such as bridge or culvert crossings
☐	☒	Locations, cross sections, and profiles of all stream or wetland crossings and their method of stabilization

PROJECT Mt.Hope High School		PROJECT NUMBER	23099.01
SUBJECT Groundwater Recharge			
COMPUTATIONS BY	ACB	DATE	1/8/2025
REVISED BY	AJM	DATE	6/2/2025
CHECK BY		DATE	

Recharge Volume Calculations

Required Recharge Volume

The Required Recharge Volume equals the depth of runoff, corresponding to the soil type, times the impervious areas covering that soil type at the post-development site per the Rhode Island Stormwater Design and Installation Standards Manual.

Required Recharge Volume = Target Depth Factor (F) x Impervious Area

Impervious Area within Hydrologic Group "**C**" Soils =	544,519	SF
F (from RISDISM) =	0.25	inches
Recharge Volume Required for Hydrologic Group "C" Soils =	11,344	CF
Required Recharge Volume Required =	**11,344**	**CF**
QPA Volume =	**234**	
Required Recharge Volume Required =	**11,110**	**CF**
Required Recharge Volume Required =	**0.255**	**ac-ft**

Proposed BMP's

The site design incorporates bioretention areas, sand filters, infiltration basins and a underground infiltration system.

BMP's Area Volume

	WQV Volume (cf)
Bio-01	1683
Bio-04	1144
IB-01	5204
SF-01	10117
SF-02	4178
SF-03	3952
SF-05	1368
UGIS-01	12,473
	40,119

Total Provided Recharge Volume =	**40,119**	**CF**
Total Provided Recharge Volume =	**0.921**	**ac-ft**
Required Recharge Volume =	0.255	ac-ft

PROJECT NAME: Mt. Hope High School PROJECT NUMBER: 23099.01

SUBJECT: Bioretention Area Calculations

COMPUTATIONS BY: ACB DATE: 1/8/2025

REVISED DATE: 05/28/2025

Bioretention Area Calculations

Refer to the RI Stormwater & Installation Standards Manual

Bioretention Area (BIO-1)

Total Area to BIO-1 =	42,514	SF
Total Impervious Area =	25,125	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume (Re_V)

Hydrologic Soil Group (HSG) =	C	
Impervious Area within HSG =	25,125	SF
Recharge Factor (From Table 3-4) =	0.25	Inches
Required Re_V Volume =	**523**	**CF**

Water Quality Volume (WQ_V)

WQ_V = Impervious Area x 1.0 inches =	2,094	CF
75% WQ_V (including pretreatment) =	1,570	CF
Required WQ_V Volume =	**1,570**	**CF**
Volume provided in Bioretention Media =	482	CF in filter media with a 0.33 Void Ratio
Volume provided in Bioretention (above filter media) =	676	CF from HydroCAD Model
Volume provided in Sediment Forebay =	525	CF
Total WQ_V Volume Provided =	**1,683**	**CF**

Area

$Af=WQ_V (d_f)/[(k)(h_f+d_f)(t_f)]$	*(From 5.5.4)*	SF, Surface area of filter bed
d_f =	2.00	ft, Filter bed depth
k =	1.00	ft/day, Coefficient of permeability of filter media
h_f =	0.25	ft, Average height of water above surface of practice
t_f =	2	days, Design filter bed drain time
Area Required =	698	SF, Surface Area of filter bed
Filter Media Area Provided =	**725**	**SF**
Bioretention Area Provided =	1,147	SF

Pretreatment (Sediment Forebay)

Required Pretreatment Volume = 25% WQV =	523	CF
Volume Provided =	**525**	**CF**

Drawdown within 48 hours

Drawdown Time = (Provided Volume) / (K x Bottom Area)

Provided Volume (above filter media) =	1,201	CF	
K = saturated hydraulic conductivity =	0.54	ft/day	Rawls rate from Table 5-3 of the RISDISM
Bottom Area (Average) =	1,147	SF	
Drawdown Time =	**47**	**HRS**	**< 48 hrs**

PARE CORPORATION

PROJECT NAME:	Mt. Hope High School	PROJECT NUMBER:	23099.01
SUBJECT:	Bioretention Area Calculations		
COMPUTATIONS BY:	acb	DATE:	1/8/2025
		REVISED DATE:	05/28/2025

Bioretention Area Calculations

Refer to the RI Stormwater & Installation Standards Manual
Bioretention Area (BIO-2)

Total Area to BIO-2 =	26,810	SF
Total Impervious Area =	17,108	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume (Re_V)

Hydrologic Soil Group (HSG) =	C	
Impervious Area within HSG =	17,108	SF
Recharge Factor (From Table 3-4) =	0.25	Inches
Required Re_V Volume =	**356**	**CF**

Water Quality Volume (WQ_V)

WQ_V = Impervious Area x 1.0 inches =	1,426	CF
75% WQ_V (including pretreatment) =	1,069	CF
Required WQ_V Volume =	**1,069**	**CF**
Volume provided in Bioretention Media =	1,131	CF in filter media with a 0.33 Void Ratio
Volume provided in Bioretention (above filter media) =	510	CF from HydroCAD Model
Volume provided in Sediment Forebay =	460	CF
Total WQ_V Volume Provided =	**2,101**	**CF**

Area

$Af=WQ_V (d_f)/[(k)(h_f+d_f)(t_f)]$	*(From 5.5.4)*	SF, Surface area of filter bed
d_f =	3.00	ft, Filter bed depth
k =	1.00	ft/day, Coefficient of permeability of filter media
h_f =	0.25	ft, Average height of water above surface of practice
t_f =	2	days, Design filter bed drain time
Area Required =	970	SF, Surface Area of filter bed
Area Provided =	**1,128**	**SF**

Pretreatment (Sediment Forebay)

Required Pretreatment Volume = 25% WQV =	356	CF
Volume Provided =	**460**	**CF**

Drawdown within 48 hours - Subdrain

Drawdown Time = (Provided Volume) / (K x Bottom Area)

Provided Volume (above filter media) =	970	CF	
K = saturated hydraulic conductivity =	1.00	ft/day	Coefficient of permeability of filter media from Section 5.5.4 of RISDISM
Bottom Area (Average) =	1,128	SF	
Drawdown Time =	**21**	**HRS**	**< 48 hrs**

PARE CORPORATION

PROJECT NAME: Mt. Hope High School PROJECT NUMBER: 23099.01
SUBJECT: Bioretention Area Calculations
COMPUTATIONS BY: ACB DATE: 1/8/2025
REVISED DATE: 05/28/2025

Bioretention Area Calculations

Refer to the RI Stormwater & Installation Standards Manual
Bioretention Area (BIO-3)

Total Area to BIO-3 =	16,632	SF
Total Impervious Area =	12,866	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume (Re_V)

Hydrologic Soil Group (HSG) =	C	
Impervious Area within HSG =	12,866	SF
Recharge Factor (From Table 3-4) =	0.25	Inches
Required Re_V Volume =	**268**	**CF**

Water Quality Volume (WQ_V)

WQ_V = Impervious Area x 1.0 inches =	1,072	CF
Required WQ_V Volume =	**1,072**	**CF**
Volume provided in Bioretention Media =	556	CF in filter media with a 0.33 Void Ratio
Volume provided in Bioretention (above filter media) =	552	CF from HydroCAD Model
Total WQ_V Volume Provided =	**1,108**	**CF**

Area

$Af=WQ_V (d_f)/[(k)(h_f+d_f)(t_f)]$	*(From 5.5.4)*	SF, Surface area of filter bed
d_f =	2.75	ft, Filter bed depth
k =	1.00	ft/day, Coefficient of permeability of filter media
h_f =	0.38	ft, Average height of water above surface of practice
t_f =	2	days, Design filter bed drain time
Area Required =	488	SF, Surface Area of filter bed
Area Provided =	**606**	**SF**

Drawdown within 48 hours - Subdrain

Drawdown Time = (Provided Volume) / (K x Bottom Area)

Provided Volume (above filter media) =	552	CF	
K = saturated hydraulic conductivity =	1.00	ft/day	Coefficient of permeability of filter media from Section 5.5.4 of RISDISM
Bottom Area (Average) =	606	SF	
Drawdown Time =	**22**	**HRS**	**< 48 hrs**

PARE CORPORATION

PROJECT NAME:	Mt. Hope High School	PROJECT NUMBER:	23099.01
SUBJECT:	Bioretention Area Calculations		
COMPUTATIONS BY:	ACB	DATE:	1/8/2025
CHECK BY:		DATE:	REVISED 05/28/2025

Bioretention Area Calculations

Refer to the RI Stormwater & Installation Standards Manual
Bioretention Area (BIO-4)

Total Area to BIO-4 =	16,850	SF
Total Impervious Area =	6,900	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume (Re_V)

Hydrologic Soil Group (HSG) =	C	
Impervious Area within HSG =	6,900	SF
Recharge Factor (From Table 3-4) =	0.25	Inches
Required Re_V Volume =	**144**	**CF**

Water Quality Volume (WQ_V)

WQ_V = Impervious Area x 1.0 inches =	575	CF
Required WQ_V Volume =	**575**	**CF**
Volume provided in Bioretention Media =	724	CF in filter media with a 0.33 Void Ratio
Volume provided in Bioretention (above filter media) =	420	CF from HydroCAD Model
Total WQ_V Volume Provided =	**1,144**	**CF**

Area

$Af=WQ_V (d_f)/[(k)(h_f+d_f)(t_f)]$	*(From 5.5.4)*	SF, Surface area of filter bed
d_f =	3.00	ft, Filter bed depth
k =	1.00	ft/day, Coefficient of permeability of filter media
h_f =	0.25	ft, Average height of water above surface of practice
t_f =	2	days, Design filter bed drain time
Area Required =	528	SF, Surface Area of filter bed
Area Provided =	**724**	**SF**

Drawdown within 48 hours

Drawdown Time = (Provided Volume) / (K x Bottom Area)

Provided Volume (above filter media) =	420	CF	
K = saturated hydraulic conductivity =	0.54	ft/day	Rawls rate from Table 5-3 of the RISDISM
Bottom Area (Average) =	724	SF	
Drawdown Time =	**26**	**HRS**	**< 48 hrs**

PARE CORPORATION

PROJECT NAME: Mt. Hope High School PROJECT NUMBER: 23099.01
SUBJECT: Sand Filter Area Calculations
COMPUTATIONS BY: ACB DATE: 1/8/2025
REVISED DATE: 06/02/2025

Sand Filter Calculations

Refer to the RI Stormwater & Installation Standards Manual
Sand Filter (SF-1)

Total Area to SF-1 =	379,224	SF
Total Impervious Area =	121,882	SF
Pavement areas	76,199	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume (Re_V)

Hydrologic Soil Group (HSG) =	C	
Impervious Area within HSG =	121,882	SF
Recharge Factor (From Table 3-4) =	0.25	Inches
Required Re_V Volume =	**2,539**	**CF**

Water Quality Volume (WQ_V)

WQ_V = Impervious Area x 1.0 inches =	10,157	CF
75% WQ_V (including pretreatment) =	7,618	CF
Required WQ_V Volume =	**7,618**	**CF**
Volume provided in Sand Filter Media =	5,348	CF in filter media with a 0.33 Void Ratio
Volume provided in Sand Filter (above filter media) =	3,149	CF from HydroCAD Model
Volume provided in Sediment Forebay =	1,620	CF
Total WQ_V Volume Provided =	**10,117**	**CF**

Area

$Af=WQ_V (d_f)/[(k)(h_f+d_f)(t_f)]$	*(From 5.5.4)*	SF, Surface area of filter bed
d_f =	3.50	ft, Filter bed depth
k =	3.50	ft/day, Coefficient of permeability of filter media
h_f =	0.33	ft, Average height of water above surface of practice
t_f =	2	days, Design filter bed drain time
Area Required =	1,322	SF, Surface Area of filter bed
Area Provided =	**4,630**	**SF**

Pretreatment (Sediment Forebay)

Required Pretreatment Volume = 25% WQV =	1,587	CF*	*Pretreatment is for pavement areas only . Does not icluded pretreatment for roof runoff or athletic infield mix
Volume Provided =	**1,620**	**CF**	

Drawdown within 48 hours

Drawdown Time = (Provided Volume) / (K x Bottom Area)

Provided Volume (above filter media) =	4,769	CF	
K = saturated hydraulic conductivity =	0.54	ft/day	Rawls rate from Table 5-3 of the RISDISM
Bottom Area (Average) =	4,630	SF	
Drawdown Time =	**46**	**HRS**	**< 48 hrs**

PARE CORPORATION

PROJECT NAME: Mt. Hope High School PROJECT NUMBER: 23099.01
SUBJECT: Sand Filter Area Calculations
COMPUTATIONS BY: ACB DATE: 1/8/2025
REVISED DATE: 05/28/2025

Sand Filter Calculations

Refer to the RI Stormwater & Installation Standards Manual
Sand Filter (SF-2)

Total Area to SF-2 =	92,426	SF
Total Impervious Area =	44,249	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume (Re_V)

Hydrologic Soil Group (HSG) =	C	
Impervious Area within HSG =	44,249	SF
Recharge Factor (From Table 3-4) =	0.25	Inches
Required Re_V Volume =	**922**	**CF**

Water Quality Volume (WQ_V)

WQ_V = Impervious Area x 1.0 inches =	3,687	CF
75% WQ_V (including pretreatment) =	2,766	CF
Required WQ_V Volume =	**2,766**	**CF**
Volume provided in Sand Filter Media =	2,149	CF in filter media with a 0.33 Void Ratio
Volume provided in Sand Filter (above filter media) =	1,073	CF from HydroCAD Model
Volume provided in Sediment Forebay =	956	CF
Total WQ_V Volume Provided =	**4,178**	**CF**

Area

$Af=WQ_V (d_f)/[(k)(h_f+d_f)(t_f)]$	*(From 5.5.4)*	SF, Surface area of filter bed
d_f =	3.00	ft, Filter bed depth
k =	3.50	ft/day, Coefficient of permeability of filter media
h_f =	0.20	ft, Average height of water above surface of practice
t_f =	2	days, Design filter bed drain time
Area Required =	560	SF, Surface Area of filter bed
Area Provided =	**2,171**	**SF**

Pretreatment (Sediment Forebay)

Required Pretreatment Volume = 25% WQV =	922	CF
Volume Provided =	**956**	**CF**

Drawdown within 48 hours

Drawdown Time = (Provided Volume) / (K x Bottom Area)

Provided Volume (above filter media) =	2,029	CF	
K = saturated hydraulic conductivity =	0.54	ft/day	Rawls rate from Table 5-3 of the RISDISM
Bottom Area (Average) =	2,171	SF	
Drawdown Time =	**42**	**HRS**	**< 48 hrs**

PARE CORPORATION

PROJECT NAME: Mt. Hope High School PROJECT NUMBER: 23099.01

SUBJECT: Sand Filter Area Calculations

COMPUTATIONS BY: ACB DATE: 1/8/2025

REVISED DATE: 05/28/2025

Sand Filter Calculations

Refer to the RI Stormwater & Installation Standards Manual

Sand Filter (SF-3)

Total Area to SF-3 =	22,284	SF
Total Impervious Area =	13,763	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume (Re_V)

Hydrologic Soil Group (HSG) =	C	
Impervious Area within HSG =	13,763	SF
Recharge Factor (From Table 3-4) =	0.25	Inches
Required Re_V Volume =	**287**	**CF**

Water Quality Volume (WQ_V)

WQ_V = Impervious Area x 1.0 inches =	1,147	CF
75% WQ_V (including pretreatment) =	860	CF
Required WQ_V Volume =	**860**	**CF**
Volume provided in Sand Filter Media =	1,979	CF in filter media with a 0.33 Void Ratio
Volume provided in Sand Filter (above filter media) =	1,686	CF from HydroCAD Model
Volume provided in Sediment Forebay =	287	CF
Total WQ_V Volume Provided =	**3,952**	**CF**

Area

$Af=WQ_V (d_f)/[(k)(h_f+d_f)(t_f)]$	*(From 5.5.4)*	SF, Surface area of filter bed
d_f =	3.00	ft, Filter bed depth
k =	3.50	ft/day, Coefficient of permeability of filter media
h_f =	0.33	ft, Average height of water above surface of practice
t_f =	2	days, Design filter bed drain time
Area Required =	509	SF, Surface Area of filter bed
Area Provided =	**1,999**	**SF**

Pretreatment (Sediment Forebay)

Required Pretreatment Volume = 25% WQV =	287	CF
Volume Provided =	**287**	**CF**

Drawdown within 48 hours

Drawdown Time = (Provided Volume) / (K x Bottom Area)

Provided Volume (above filter media) =	1,973	CF	
K = saturated hydraulic conductivity =	0.54	ft/day	Rawls rate from Table 5-3 of the RISDISM
Bottom Area (Average) =	1,999	SF	
Drawdown Time =	**44**	**HRS**	**< 48 hrs**

PARE CORPORATION

PROJECT NAME:	Mt. Hope High School	PROJECT NUMBER:	23099.01
SUBJECT:	Sand Filter Area Calculations		
COMPUTATIONS BY:	ACB	DATE:	1/8/2025
CHECK BY:		DATE:	REVISED 05/28/2025

Sand Filter Calculations

Refer to the RI Stormwater & Installation Standards Manual

Sand Filter (SF-4)

Total Area to SF-4 =	31,007	SF
Total Impervious Area =	7,245	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume (Re_V)

Hydrologic Soil Group (HSG) =	C	
Impervious Area within HSG =	7,245	SF
Recharge Factor (From Table 3-4) =	0.25	Inches
Required Re_V Volume =	**151**	**CF**

Water Quality Volume (WQ_V)

WQ_V = Impervious Area x 1.0 inches =	604	CF
Required WQ_V Volume =	**604**	**CF**
Volume provided in Sand Filter Media =	1,166	CF in filter media with a 0.33 Void Ratio
Volume provided in Sand Filter (above filter media) =	1,079	CF from HydroCAD Model
Total WQ_V Volume Provided =	**2,245**	**CF**

Area

$Af=WQ_V (d_f)/[(k)(h_f+d_f)(t_f)]$	*(From 5.5.4)*	SF, Surface area of filter bed
d_f =	2.00	ft, Filter bed depth
k =	3.50	ft/day, Coefficient of permeability of filter media
h_f =	0.25	ft, Average height of water above surface of practice
t_f =	2	days, Design filter bed drain time
Area Required =	285	SF, Surface Area of filter bed
Area Provided =	**1,767**	**SF**

Drawdown within 48 hours - Subdrain

Drawdown Time = (Provided Volume) / (K x Bottom Area)

Provided Volume (above filter media) =	1,079	CF	
K = saturated hydraulic conductivity =	3.50	ft/day	Coefficient of permeability of filter media from Section 5.5.4 of RISDISM
Bottom Area (Average) =	1,767	SF	
Drawdown Time =	**4**	**HRS**	**< 48 hrs**

PARE CORPORATION

PROJECT NAME:	Mt. Hope High School	PROJECT NUMBER:	23099.01
SUBJECT:	Sand Filter Area Calculations		
COMPUTATIONS BY:	ACB	DATE:	1/8/2025
CHECK BY:		DATE:	REVISED 05/28/2025

Sand Filter Calculations

Refer to the RI Stormwater & Installation Standards Manual

Sand Filter (SF-5) Tennis court - West

Total Area to SF-5 =	23,611	SF
Total Impervious Area =	15,324	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume (Re_V)

Hydrologic Soil Group (HSG) =	C	
Impervious Area within HSG =	15,324	SF
Recharge Factor (From Table 3-4) =	0.25	Inches
Required Re_V Volume =	**319**	**CF**

Water Quality Volume (WQ_V)

WQ_V = Impervious Area x 1.0 inches =	1,277	CF
Required WQ_V Volume =	**1,277**	**CF**
Volume provided in Sand Filter Media =	705	CF in filter media with a 0.33 Void Ratio
Volume provided in Sand Filter (above filter media) =	663	CF from HydroCAD Model
Total WQ_V Volume Provided =	**1,368**	**CF**

Area

$Af=WQ_V (d_f)/[(k)(h_f+d_f)(t_f)]$	*(From 5.5.4)*	SF, Surface area of filter bed
d_f =	3.00	ft, Filter bed depth
k =	3.50	ft/day, Coefficient of permeability of filter media
h_f =	0.38	ft, Average height of water above surface of practice
t_f =	2	days, Design filter bed drain time
Area Required =	174	SF, Surface Area of filter bed
Area Provided =	**705**	**SF**

Drawdown within 48 hours

Drawdown Time = (Provided Volume) / (K x Bottom Area)

Provided Volume (above filter media) =	663	CF	
K = saturated hydraulic conductivity =	0.54	ft/day	Rawls rate from Table 5-3 of the RISDISM
Bottom Area (Average) =	705	SF	
Drawdown Time =	**42**	**HRS**	**< 48 hrs**

PARE CORPORATION

PROJECT Mt. Hope High School | PROJECT NUMBER 23099.01

SUBJECT Infiltration Basin

COMPUTATIONS BY ACB | DATE 1/8/2025 REV; 5/30/2025

CHECK BY | DATE

Infiltration Basin Calculations

Infiltration Basin -01

Total Area to Infiltration Basin =	68,033	SF
Total Impervious Area =	60,869	SF

Cell Volume shall be larger of Recharge Volume and Water Quality Volume

Recharge Volume

Impervious Area within Hydrologic Group "C" Soils =	60,869	SF
F (from RISDISM Table 3-4) =	0.25	inches
Recharge Volume Required for Hydrologic Group "C" Soils =	1,268	CF

Water Quality Volume (WQV)

WQV = Impervious Area x 1.0 inches =	5,072	CF
Required WQV Volume (including pretreatment) =	**5,072**	**CF**
Total WQ_V Volume Provided =	**5,204**	**CF @ elevation 57.65 from HydroCAD**
Surface Area Provided =	**1,125**	**SF**

Drawdown within 48 hours

Time = (Provided Volume) / (K x Bottom Area)

Provided Volume =	**5,204**	**CF**	
K = saturated hydraulic conductivity =	**2.04**	**FT/DAY**	Rawls rate from Table 5-3 of
Bottom Area (Average) =	**1,990**	**SF**	the RISDISM
Time (hrs) =	**31**	**hrs**	**< 48 hrs**

PROJECT	Mt. Hope High School	PROJECT NUMBER	23099.01
SUBJECT	Channel Protection Volume		
COMPUTATIONS BY	ACB	DATE	1/8/2025 REVISED:06/2/2025
CHECK BY		DATE	

CHANNEL PROTECTION VOLUME (CPv)

Runoff Volume for the 1-year storm proposed condition Silver Creek (Vr)= 144,392 CF From HydroCAD

Method 1
CPv = 0.65 x Runoff Volume from 1-year storm(Vr)

CPv Required MIN = 93,855 CF

CPv Provided

Bio-01	2,078	CF (recharge for the 1-year Storm)
Bio-02	3,377	CF (Subdrain for the 1-year Storm)
Bio-03	2,132	CF (subdrain for the 1-year Storm)
Bio-04	1,446	CF (recharge for the 1-year Storm)
SF-01	12,365	CF (recharge for the 1-year Storm)
SF-02	4,970	CF (recharge for the 1-year Storm)
SF-03	3,194	CF (recharge for the 1-year Storm)
SF-04	3,326	CF (Subdrain for the 1-year Storm)
SF-05	1,753	CF (recharge for the 1-year Storm)
IB-01	8,817	CF (recharge for the 1-year Storm)
UGIS	11,449	CF (recharge for the 1-year Storm)
Synthetic Field Manifold	19,836	CF (recharge for the 1-year Storm)
Total CPv Provided =	**74,743**	CF
Total CPv Remaining =	**19,112**	**CF**

Detention Basin-01

Average Release Flow Rate over 24 hours

Vr Detention Basin 1= 39173 CF (1 yr volume entering detention basin-01)
Qcpv = 0.453 CFS

Area of Orifice
A = Qcpv / [Cx(2xgxh)^(1/2)]; A = pi() x r^2

C = 0.60
g = 32.2 ft/s^2
h = average height above orifice = 0.275 ft

A = 0.1796 sf

Therefore Diameter is:

D = 0.48 ft
D = 5.74 inches
D provided = 5.00 inches

Detention Basin -02

Average Release Flow Rate over 24 hours

Vr DB-02= 5314 CF (1 yr volume entering detention basin-02
Qcpv = 0.062 CFS

Area of Orifice
A = Qcpv / [Cx(2xgxh)^(1/2)]; A = pi() x r^2

C = 0.60
g = 32.2 ft/s^2
h = average height above orifice = 0.95 ft

A = 0.013 sf

Therefore Diameter is:

D = 0.13 ft
D = 1.55 inches
D provided = 1.50 inches

CPv Required = 93,855 CF
CPv Provided = 119,230 CF

PARE CORPORATION

PROJECT Mt. Hope High School | PROJECT NUMBER 23099.01

SUBJECT Riprap Apron

COMPUTATIONS BY AJM | DATE 1/8/2025 REVISED: 06/02/2025

CHECK BY | DATE

RIPRAP APRON CALCULATIONS

A. Resources:

Based on Section 10.2 Riprap Apron of the FHWA HEC-14 (Publication No. FHWA-NIH-06-086).

B. Equations:

$$D_{50} = 0.2\,D\left(\frac{Q}{\sqrt{g}D^{2.5}}\right)^{4/3}\left(\frac{D}{TW}\right) \qquad (10.4)$$

Where,

D_{50} = riprap size, ft
Q = design discharge, cfs
D = culvert diameter, ft
TW = tailwater depth, ft
g = acceleration due to gravity, 32.2 ft/s^2

Note:
Tailwater depth should be limited to between 0.4D and 1.0D. If tailwater is unknown, use 0.4D.
Based on rock specific gravity of 2.65.

Table 10.1 Riprap Classes and Apron Dimensions

FHWA		RIDOT M.10.03.2		Apron	
Class	D_{50} (in)	NSA No.	D_{50} (in)	Length[1]	Depth
1	5	R-3	4	4*D	3.5*D_{50}
2	6	R-4	7	4*D	3.3*D_{50}
3	10	R-5	10	5*D	2.4*D_{50}
4	14	R-6	13	6*D	2.2*D_{50}
5	20	R-7	18	7*D	2.0*D_{50}
6	22	R-8	24	8*D	2.0*D_{50}

[1]D is the culvert rise.

Width (at apron end) = 3*D + (2/3)*Length
Width based on 1:3 flare

C. Calculations:

Pipe	D (in)	D (ft)	Q_{25} (cfs)	TW (ft)	Calculated		Select		Length (ft)	Width (ft)	Depth (in)
					D_{50} (ft)	D_{50} (in)	FHWA	D_{50} (in)			
UGIS -> FES	24	2.00	9.55	0.80	0.20	2.38	1.00	5	8.0	11.3	18
DIV-3 -> BIO-01	12	1.00	1.48	0.40	0.08	1.00	1.00	5	4.0	5.7	18
DMH-101 -> FES	18	1.50	5.04	0.60	0.17	1.99	1.00	5	6.0	8.5	18
CB-107 -> FES	30	2.50	7.95	1.00	0.09	1.11	1.00	5	10.0	14.2	18
AD-208 -> SF-5	12	1.00	0.25	0.40	0.01	0.09	1.00	5	4.0	5.7	18
AD-209 -> SF-5	12	1.00	2.38	0.40	0.16	1.88	1.00	5	4.0	5.7	18
East Tennis Court -> SF2	12	1.00	2.61	0.40	0.18	2.13	1.00	5	4.0	5.7	18
Center Tennis Court -> SF2	12	1.00	2.61	0.40	0.18	2.13	1.00	5	4.0	5.7	18
DIV-02 -> SF-2	12	1.00	1.40	0.40	0.08	0.93	1.00	5	4.0	5.7	18
DIV-02 -> FES	15	1.25	4.23	0.50	0.20	2.41	1.00	5	5.0	7.1	18
CB-203 -> FES	15	1.25	4.62	0.50	0.23	2.71	1.00	5	5.0	7.1	18
DMH-103 -> INF-01	18	1.50	2.24	0.60	0.06	0.67	1.00	5	6.0	8.5	18
Roof Drain -> INF-01	12	1.00	4.76	0.40	0.40	4.75	1.00	5	4.0	5.7	18
DMH-303 -> DB-02	18	1.50	5.38	0.60	0.18	2.17	1.00	5	6.0	8.5	18
Roof Drain -> Bio-03	12	1.00	1.31	0.40	0.07	0.85	1.00	5	4.0	5.7	18
DIV-01 -> SF-01	12	1.00	2.75	0.40	0.19	2.28	1.00	5	4.0	5.7	18
DIV-01 -> DB-01	36	3.00	26.53	1.20	0.30	3.61	1.00	5	12.0	17.0	18
SF-01 -> DB-01	12	1.00	0.81	0.40	0.04	0.45	1.00	5	4.0	5.7	18
DMH-107 -> FES	24	2.00	15.94	0.80	0.39	4.72	1.00	5	8.0	11.3	18
(SF-4) DMH-203 -> FES	15	1.25	1.84	0.50	0.07	0.79	1.00	5	5.0	7.1	18

Note: Level spreaders entering the Sedient Forebays and BMPs were sized using **Figure 6. Minimum Dimensions for Level Spreaders** in Section Five: Runoff Control Measures in the Rhode Island Soil Erosion & Sediment Control Handbook.