

STORMWATER POLLUTION PREVENTION PLAN

**WRC- Wood Waste Recycling and Leaf Composting Facility General
Stormwater Permit NJ0324183
Implementation of Stormwater BMPS**

FACILITY INFORMATION

Facility Name: Lawrence Township Ecological Center

County: Mercer

**WRC- Wood Waste Recycling and Leaf Composting
General Permit (GP)**

NJPDES #: NJG0347493

PI ID #:1027514

Multi-Class (B&C) Recycling Center General Approval

Facility ID #: 132290

Approval #: REC210002

Date: June 30, 2026

Stormwater Program Coordinator: James F. Parvesse, PE

*Stormwater Discharge Master General Permit Effective Date of Permit
Authorization (EDPA):* January 01, 2026

Table of Contents

1.0 INTRODUCTION	2
2.0 FACILITY DESCRIPTION.....	2
3.0 INVENTORY OF SOURCE MATERIALS.....	3
4.0 BEST MANAGEMENT PRACTICES.....	4
5.0 TOTAL MAXIMUM DAILY LOAD INFORMATION.....	6
6.0 DRAINAGE CONTROL PLAN.....	7
7.0 GROUNDWATER & SURFACEWATER DISCHARGE MONITORING	11
8.0 STORMWATER POLLUTION PREVENTION PLAN TEAM	15
9.0 BMP QUARTERLY INSPECTIONS.....	17
10.0 ANNUAL INSPECTIONS AND REPORT	22
10.0 APPENDIX.....	26

1.0 INTRODUCTION

This Stormwater Pollution Prevention Plan (SPPP) was prepared in support of the NJDEP (New Jersey Department of Environmental Protection) Stormwater Discharge General Permit Authorization WRC- Wood Waste Recycling and Leaf Composting (GP) for the Lawrence Township Ecological Facility (Eco Center), hereby referred to as the “GP” in this report when referenced. As part of the requirements set forth in the GP, the Township is required to comply with all conditions listed under A. *General Requirements of all NJPDES Permits of the GP*. The purpose of the SPPP is to act as a guide to maintain and monitor BMPs that are in place to eliminate, reduce, or minimize exposure of industrial activity and source materials to stormwater that discharges to surface water or groundwater.

This SPPP will be retained at the facility for use by the Township and inspection by the NJDEP, also referred to in this Report as the “Department”. The Township is responsible for supervising and managing the operation and maintenance of the facility and all associated BMPs and treatment systems. The Township will amend the SPPP to adequately address all deficiencies within 60 days after receiving notification that the SPPP does not meet one or more of the minimum requirements unless another time is otherwise specified. The Township will allow an authorized representative of the Department, upon the presentation of credentials, to enter upon a person’s premises, for purposes of inspection and to access/copy any records that must be kept under the conditions of the GP.

This SPPP will be reviewed annually and updated as often as necessary to reflect changes related to the Township’s activities on site. The SPPP will be made available to the public upon request, except for any portion of the SPPP that the Township has properly deemed as confidential in accordance with the provisions set forth in N.J.A.C 7:14A-18.2.

2.0 FACILITY DESCRIPTION

The Lawrence Township Eco Center, located in the Township of Lawrence, Mercer County, New Jersey, is a publicly owned and operated Township recycling center located on Block 5801, Lot 26, at 3701 Princeton Pike, Lawrence, New Jersey. The regional recycling center receives source separated leaves, grass clippings, wood chips, and brush. All materials delivered to the Class C Operation are composted until they have reached a stable form. The stabilized compost is then screened to remove any compostable material. In addition, the recycling center is utilized for finished compost storage and equipment storage. The recycling center markets compost in bulk form from the site. Per the “Site Plan of Vegetative Compost Facility”, last revised April 17, 2006, attached in the Appendix, the outlined areas depicted as A through D show locations of unprocessed and processed material storage including double ground wood chips, brush, leaf compost areas and equipment storage. The recycling center is authorized to receive, store and process materials per a Class B & Class C Recycling Center General Approval, issued on June 15, 2021, and expiring on June 15, 2026.

3.0 INVENTORY OF SOURCE MATERIALS

STORMWATER POLLUTION PREVENTION PLAN Inventory of Source Materials			
Inventory a list of source materials onsite that are used, loaded/unloaded, stored, treated and/or disposed (attach additional pages as necessary).			
Quantities are per the NJDEP Solid Waste Permit Approval No. REC210002			
SOURCE MATERIAL (Allowed to receive 16.75 tons per day)	Storage Quantity (max volume)	STORAGE AREA	HANDLING
1 Trees (Wood Chips)	<u>UNPROCESSED CLASS</u> <u>B RECYCLABLE</u> <u>MATERIAL</u> 15,400 cubic yards <u>PROCESSED CLASS B</u> <u>RECYCLABLE</u> <u>MATERIAL</u> 31,400 cubic yards	A (Location to be changed)	Processed & Unprocessed
2 Trees (Brush)		B	Processed & Unprocessed
3 Trees (Wood Chips)		C	Processed
4 Leaf Compost		D	Processed
5 Leaf & Grass Compost		COMPOSTING AREA	Unprocessed

For material entering the site, the Township will implement and maintain a written quality control program that includes the following items:

1. Signage that notifies customers/suppliers of prohibited materials;
2. Visual inspection protocol for all incoming material loads; and
3. Training prior to commencement of related duties for all facility employees involved in the inbound quality control program.

The Township will inspect all incoming wood waste and yard trimming loads for materials not authorized by the GP (i.e., chemically treated, glued, dyed or painted). Any contaminated materials and miscellaneous debris found will be removed and properly disposed or rejected from acceptance. Any contaminated material and miscellaneous debris found will be stored in a dumpster or other refuse container that is covered at all times.

The Township will store unprocessed wood waste and yard trimmings, in-process materials, and processed/finished wood chip and compost materials in accordance with N.J.A.C 7:26 & 7:26A as well as any NJDEP Solid Waste site and fire plans if applicable. The Township will store stockpiles in a manner to minimize stormwater run-off with wood waste material and contaminants via surface grading, dikes, berms or three-sided storage bays. When possible, the open side of storage bays will be situated on the upslope. The area in front of storage bays and adjacent to storage areas will be kept neat after loading/unloading.

4.0 BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs)			
Describe the BMPs that will be implemented at your facility to eliminate, reduce or minimize exposure of industrial activity and source material to stormwater that discharges to surface water or groundwater. Identify BMPs to stabilize surface soils and reduce sediment transport. Attach additional pages as necessary.			
#	Source Material/ Industrial Activity	Best Management Practice	Scheduled Date(s) Estimated Completion Date of all BMPs- 09/30/26
1	Composting leaf & grass waste	<u>Drainage & Erosion Control</u> Rough berm and grading for road between compost area and boundary of site. Installation of drainage as part of grading for road and basin. <u>Drainage & Erosion Control</u> Final grading of berm and swale	08/10/2026-08/14/2026 08/17/2026-08/21/2026
2	Composting leaf & grass waste	<u>Erosion Control</u> Temporary silt fence around site perimeter to control/retain runoff that may potentially carry pollutants offsite Remove temporary silt fence at end of construction activities <u>Erosion Control</u> Installation of permanent silt fence along bermed road	08/04/2026 -08/07/2026 08/31/2026-09/01-2026 08/24/2026-08/28/2026
3	Unprocessed & Processed wood waste, and composting leaf & grass waste	<u>Drainage Control & Treatment</u> Rough grading for surface infiltration basin for TSS removal and SW runoff capture <u>Drainage Control & Treatment</u> Final grading for basin design, including installing sand layer at bottom of basin	08/10/2026-08/14/2026 08/17/2026-08/21/2026
4	Unprocessed & Processed wood waste, and composting leaf & grass waste	<u>Drainage Control/Site Stabilization</u> Scour hole to prevent sediment transport and reduce runoff from source materials Periodic wet-down of non-stabilized areas	08/24/2026-08/28/2026

5	Leaks, spills of liquid or dry materials	<u>Proper Containers</u> Legible, visible labels on all containers. Containers are tightly closed, in good condition, and protected from damage <u>Proper Storage Locations</u> Storage of containers outside are on bermed areas to prevent run-through of stormwater	08/31/2026-09/01-2026
6	Vehicle movement	<u>Traffic/Dust Control</u> Entrance/exit stabilization stone, entrance with gate <u>Site Stabilization/Dust Control</u> Periodic wet-down of non-stabilized areas	08/04/2026 -08/07/2026 08/04/2026-08/28/2026 ongoing as required
7	Diesel from Trammel Screen, Leaf Turner, Tub Grinder, Caterpillar 955 Loader, John Deer Loader, Erin 300 Star Screener, Bandit Track, Kubota Tractor, Case Loader 5000 Gallon Water Truck ¹	<u>Treatment</u> Surface infiltration Basin for Treatment of SW runoff <u>Proper Operation & Maintenance</u> Covers on equipment being serviced, drip pans, service equipment away from stormwater basin	08/10/2026-08/21/2026 08/04/2026-08/28/2026 ongoing as required

¹No tanks or underground tanks at this facility. The fuel is delivered on a truck with a tank for fueling purposes.

Implementation of Best Management Practices

Sources of pollution from facility operations include organic matter from composting leaf & grass waste, wood, leaks from contained liquid substances, and atmospheric deposition of emissions from equipment. Disturbance from vehicle & equipment movement, processing, and transport of compost material can cause sediment transport & erosion. Implementation of The Best Management Practices listed in the 4.0 BMP Table above are planned to minimize pollution generated by the facility and control the transport of pollutants by erosion, sediment transport and airborne dust.

A surface infiltration basin is proposed at the lowest topographic position of the site where the potential for erosion is the highest. The basin has been designed to filter pollutants and capture solids. Pollutants adhere to soil particles in the basin, removing them from the infiltrating surface water runoff. The proposed basin discharge has been located and designed to conform with the requirements for point discharge stability set forth in the Standards for Soil Erosion and Sediment Control in New Jersey. Conduit outlet protection is provided at the basin discharge in the form of a scour hole. The basin will discharge to a broad uniform outlet area containing perennial vegetation where flows will not concentrate.

To ensure that leaves and other organic materials being received on site are not transported outside of the recycling facility, a berm is proposed to keep the material within the yard limits. Site elevation descends to the southeast. As such, the existing road at the southeast portion will be regraded for a berm and a super silt fence will be installed along its border, see Drainage Control Plan. Large-scale maintenance of vehicles and equipment is generally conducted off-site. Minor maintenance and washing of vehicles and equipment will be conducted away from the stormwater basin at the designated location shown on the DCM (Drainage Control Map). Hazardous chemicals shall not be utilized when washing & maintaining the equipment onsite. To prevent any materials removed from stormwater treatment from directly entering surface or

groundwaters, the stormwater management system will be maintained and any materials removed for maintenance of the stormwater management system will be incorporated back into the compost operation. Stormwater from the basin will be pumped and re-used as needed for periodic wet downs. Areas of the site that become dry and susceptible to wind erosion will be periodically wet-down to prevent dust and sediment transport.

The location of vehicular ingress/egress to/from the facility is denoted on the Drainage Control Plan. This location is the sole location for vehicle and equipment access. As such, vehicle tracking is controlled and captured by a stone driveway to minimize the transport of sediment and dust outside the property line. A copy of the Mercer County Soil Conservation District approved Soil Erosion and Sediment Control Plan shall be kept on-site.

5.0 TOTAL MAXIMUM DAILY LOAD INFORMATION

The receiving bedrock aquifer of the site is known as the Stockton Formation, mainly composed of Arkosic sandstone. Groundwater is stored and transmitted in fractures. The Stockton Formation aquifer is classified as a Class-IA groundwater, suitable for potable water supply.

The closest stream to the site according to New Jersey Land Resource Application Mapping is approximately 1,160 ft south of the facility and is known as Shipetauken Creek, with a surface water quality classification of FW2-NT (Freshwater Non-Trout). Shipetauken Creek appears to be impaired with low dissolved oxygen and exceedances of E-Coli levels per NJDEP Watershed Evaluation Tool Mapping. The TMDL information for Shipetauken Creek is provided below in Table 5.0 per NJDEP Watershed Evaluation Tool Mapping. A TMDL quantifies the amount of a pollutant a waterbody can assimilate (its loading capacity) without violating water quality standards. A TMDL's purpose is to initiate a management approach or restoration plan based on the sources of pollutants and the percentage reductions of each pollutant that must be achieved to attain water quality standards. These sources can be point sources, such as sewage treatment plants, or non-point sources, such as runoff from various types of residential, commercial or agricultural lands. In this case, the point source would be runoff from the ecological facility.

Run-off from the facility eventually discharges into Shipetauken Creek and is within the stream segment's drainage area of 64 acres per USGS StreamStats. As such, one of the intentions of the Stormwater Pollution Prevention Plan will be to prevent pollutants from being carried from the site to Shipetauken Creek. The monthly surface water monitoring for the facility as part of this Stormwater Pollution Prevention plan will include monitoring for Chemical Oxygen Demand (COD) and Escherichia Coli per Table 5.0 and as listed in the Surface Water DMR Limits and Monitoring Requirements of the Permit. The pollutant concentrations of the surface water runoff from the site will be monitored to ensure that they do not exceed the concentrations listed in Table III-B-1 of the Permit for surface water monitoring.

Table 5.0- Shipetauken Creek TMDL Information

Watershed Name	Nearest Impaired Stream/Waterbody	Parameter	TMDL Priority	General Surface Water Quality Criteria for FW2-NT
Assunpink Creek (above Shipetaukin Ck HUC 12 020401050803	Shipetauken Creek HUC 14 02040105230060	Escherichia coli (Counts/100 ml)	Medium	Levels shall not exceed a geometric mean of 100/100 ml over a 90-day period.
		Oxygen, Dissolved (Low) (mg/L)	Medium	24-hour average not less than 5.0, but not less than 4.0 at any time.

Sources: [TMDLs & Impairments | NJDEP MS4 New Jersey-Watershed Evaluation Tool \(NJ-WET\)](https://streamstats.usgs.gov/ss/)
<https://streamstats.usgs.gov/ss/>
<https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=5934a6e010a942f7a33c76427f71c751>

6.0 DRAINAGE CONTROL PLAN

6.1 Description of Existing and Proposed Conditions

The site is mainly established woods with a center used for the existing processing of wood waste per the issued solid waste permit. The southern corner of the site is within a 100-year floodplain and freshwater wetlands occupy the south-central edge of the site along the floodplain. The site slopes from the north and east toward the onsite westerly wetland area. The lowest elevation of the wood waste processing area is in the south westerly portion of the site, southeast of the adjacent wetlands. For the complete topographic information of the site, a certified topographic survey will be provided in the site modification construction drawings.

Drainage controls for the site proposed for compliance with the GP include raising a portion of the existing loop road to redirect overland runoff away from the existing wetland area and toward a swale adjacent to the raised section of road. This swale will direct overland flow beneath the raised road and into a proposed infiltration area to a culvert draining beneath the raised road and into a proposed infiltration basin. The infiltration basin will be constructed in the low portion off the existing processing area and is designed to treat the Water Quality Design Storm per N.J.A.C 7:8. The infiltration basin will discharge storms larger than the water quality design storm through a standpipe outlet control structure or via a spillway. The basin discharge will mimic the existing drainage pattern discharging to the same area water currently flows today. The basin will include scour holes at the culvert discharges. The basin's discharge scour hole will act as a monitoring location. The project is not considered a major project according to N.J.A.C 7:8 as it will disturb less than an acre of land and will not result in any increase in new motor vehicle or regulated impervious surfaces.

6.2 Description of BMP to Treat Water

6.2.1 BMP Type

The water quality BMP chosen for this project is a large-scale infiltration basin. This BMP has been chosen in accordance with the Part IV.C2a of the Stormwater Discharge General Permit Authorization. This section of the permit entitled “Establishing Drainage Control on Site” lays out an order of priority for how to handle stormwater runoff. The highest priority to collect and reuse stormwater is not practical for this site. The material onsite is generally a sufficient source of moisture. The use of additional water is not part of the current operation and is not needed for everyday functioning of the facility. Reuse would require an additional storage area, which would impact the processing area already constrained by site conditions. Some runoff will be contained onsite within barrels for dust control as required.

The next approach is to infiltrate groundwater via a basin or overland infiltration area. This infiltration into the groundwater will be accomplished via a sand bottom infiltration basin. The basin has been designed in accordance with Chapter 10.2 of the NJDEP BMP manual. The soil mapping unit and depth to seasonal high groundwater utilized in the design is based on published data from NRCS *Web Soil Survey*. The design infiltration rate utilized in the design is assumed to be the slowest permitted by the BMP manual, 0.5 inches per hour. On-site stormwater soil testing is to be conducted and the design will be updated accordingly once the results are obtained.

Should soil testing result in unacceptable permeability, an alternate approach to the large-scale infiltration basin is a large-scale bio-retention basin with an underdrain. The basin underdrain, bottom, and discharge location are to be reestablished based on the site-specific soil testing as required. If the soil testing yields seasonal high groundwater elevations too shallow for an under drained basin, the basin will be converted to an extended detention basin for water treatment. These approaches will comply with the lowest priority runoff management technique.

6.2.2 BMP Design

The project is a non-major project and as such is not required to meet N.J.A.C. 7:8 requirements for quantity, quality, and recharge. The proposed infiltration basin has been designed to detain and infiltrate the water quality design storm volume. The basin discharge meets the requirements for off site stability in accordance with Part IV.D3 of the NJDEP permit and has been routed utilizing a 25-year storm across the discharge to ground water site in accordance with N.J.A.C. 7:14A-7.9(d)6iii. See below table for water quality design storm and 25-year storm peak flow summary and the appendix of this report for supporting calculations including mounding analysis and drainage area plans.

	Existing Peak Flow (cfs)	Proposed Peak Flow (cfs)
Water Quality Design	7.93	0.00
25-Year	46.78	44.52

Part IV. G. (a)ii of the GP states the proposed infiltration basin be designed to infiltrate the total

runoff volume of the 2-year 24-hour storm. The volume of the 2-year storm runoff for this site is 68,139 cubic feet. Per the NJDEP BMP manual the maximum depth of infiltration within the basin is 2 feet. This would result in a minimum basin footprint area of 34,070 square feet. A basin of this size within the existing wood waste processing area would not leave enough room for the facility to operate. If the basin were located outside of the existing cleared area it would result in the clearing of mature trees adjacent to regulated areas and possible encroachment into a NJDEP regulated floodplain and freshwater wetlands. This additional clearing would result in additional project disturbance further increasing the size of the basin needed. The project would also extend its disturbance to greater than one acre, triggering the need for quantity control, again increasing the size of the required basin and disturbance to established wooded area. Preliminary calculations for increasing the basin size to detain the 2-year storm volume and placing it outside of the existing cleared area resulted in a minimum of 1.5 acres of mature woods being cleared.

In addition to expanding the footprint of the facility into adjacent wooded areas there is a concern regarding the impact to mounding with infiltrating this volume of water. The mounding analysis for infiltrating the 2-year storm volume over the smallest allowable footprint results in a mound of 13 feet. Given the established wetlands on-site and the proximity to the wetlands of the potentially expanded basin area, it is highly unlikely the appropriate separation from groundwater can be provided. As a result of the extreme mounding from the minimum sized basin the 1.5 acres of additional disturbance stated above is a conservative estimate with more clearing likely being needed.

This 2-year infiltration volume requirement results in undue hardship on this existing facility, to the extent that if it is followed the operations at this location would have to cease or a large area of mature woods adjacent to regulated areas would be cleared. Either of these actions would be a detriment to the public good by not providing a needed service or clearing a large amount of valued established wooded area for the sole purpose of providing stormwater detention adjacent to regulated areas.

6.3 BMP's for Soil Erosion and Sediment Control

6.3.1 Off-site Stability- Point Discharge Stability

The proposed basin discharge location has been designed to conform with the requirements for point discharge stability set forth in the Standards for Soil Erosion and Sediment Control in New Jersey. Conduit outlet protection is provided at the basin discharge in the form of a scour hole. The basin will discharge to a broad uniform outlet area containing perennial, erosion resistant vegetation where flows will not concentrate. See below summary chart and appendix of this report illustrating point discharge compliance. Infiltration and dead storage were not taken into account for this peak flow analysis.

	Allowable Peak Flow (cfs)	Basin Discharge Pipe Peak Flow (cfs)
25-Year Storm	10	2.70

	Maximum Stable Slope	Discharge Downstream Slope
Silt Loam	2.5%	0.8%

6.3.2 Off-site Stability - Downstream Stability

The proposed basin has been designed to conform with the requirements for off-site stability set forth in the Standards for Soil Erosion and Sediment Control in New Jersey. See below summary chart and appendix of this report illustrating downstream stability compliance.

	Existing Area To Be Modified Peak Flow (cfs)	Remaining Area Peak Flow (cfs)	Allowable Peak Flow (cfs)	Proposed Peak Flow (cfs)
2-Year Storm	2.16	18.24	$(2.16 \times 0.50) + 18.24 = 19.32$	4.58
10- Year Storm	3.85	32.61	$(3.85 \times 0.75) + 32.61 = 35.50$	32.06

6.3.3 Outlet Protection

The work will result in two conduits discharging at grade, an 18 inch pipe into the proposed basin and a 10 inch outfall pipe for basin discharge. The pipe outfalls are located outside of the regulated areas on-site and have outlet protection in the form of scour holes. The Drainage Control Map includes a scour hole detail and the appendix of this report includes scour hole sizing calculations.

6.4 Discharge Requirements

Stormwater discharge flowing from the site is to be free of trash and debris. Per the GP, stormwater discharge from the site to surface and/or groundwater that exhibits a visible sheen or other discoloration associated with a regulated activity is prohibited. Stormwater discharge that has a foam or odor associated with a regulated activity is also prohibited. Stormwater discharge from a regulated activity to an adjacent property owner is prohibited without obtaining written consent from the property owner. Therefore, drainage patterns from stormwater discharge shall be maintained to the greatest extent practicable.

6.5 Basin Operation and Maintenance

The Township is responsible for supervising and managing the operation and maintenance of this facility, including the BMP's used to achieve compliance with the GP and this report. Proper operation and maintenance is to be conducted for backup or auxiliary facilities or similar systems when necessary to achieve compliance with permit conditions. Operation and maintenance activities are to be documented through the annual report and certification requirements of Part IV.J.5. of the GP. The annual report documentation should include all operation and

maintenance activities described in Part IV.H.d. of the GP. The Department may, at any time, require the certification of structural integrity of a stormwater management facility based on visual observations made during facility Compliance Evaluation Inspections or other Department site visits.

6.6 Basin Failure

The Township will report an overflow discharge from the infiltration basin resulting from storm events less than or equal to the water quality design storm (1.25 inches over 2 hours) to the Department's hotline within 24 hours from the commencement of discharge as this is an unauthorized discharge. Overflow discharge events from the infiltration basin greater than the water quality design storm are to be reported in the annual report.

If the infiltration system or portions thereof are insufficient or inadequate for drainage, the Township will propose a new upgraded system. A new drainage control plan shall be submitted along with any necessary revisions to this report. Discharges to the new system shall not commence until the Township has received written approval from the Department. The Township shall not operate an infiltration basin after basin failure unless all inspections and necessary repairs have been completed.

7.0 GROUNDWATER & SURFACEWATER DISCHARGE MONITORING

The Township will monitor its stormwater discharge during a valid storm event (defined in the GP as any precipitation that produces a stormwater discharge including discharges from snowmelt events) from the monitored location(s) and for the parameters established under Table III A-1 for Groundwater Monitoring and under Table III-B-1 for Surface water Monitoring. Frequencies for monitoring are as specified in the Limits and Daily Monitoring Requirements. The Limits and Daily Monitoring Requirements are included in the Appendix to this Report.

The stormwater infiltration location is based upon the most favorable site topography and site conditions allowable for its placement at a low point to capture stormwater discharge. Currently proposed is an infiltration basin based upon the most current site soils mapping information gathered from *NRCS Web Soil Survey*, listing depth to water table as more than 80 inches which would allow for a minimum of 2-foot separation from the SHWT (Seasonal High-Water Table) for the basin design. An on-site soils investigation is planned for the design of the basin. If the onsite soil test pit investigation indicates a shallower water table than needed, then a bio-retention basin would be the next option to be considered. If soil conditions are found which cannot meet the design requirements for a bio-retention basin, then an option for an extended detention basin would be considered.

7.1 Description of Groundwater (GW) & Surfacewater (SW) Discharge locations

The sample locations are contingent upon soil testing to confirm basin feasibility and NJDEP approval of the designed infiltration basin. The groundwater and surface water discharge locations are located at the western side of the site. Accordingly, the GW discharge monitoring location (serial No. 01GW) is proposed to be placed directly at the point of inflow to the basin, inside the scour hole as shown on the Drainage Control Map found in the appendix of this

report. The SW discharge location is located at the downstream end of the outlet at the western side of the site. Accordingly, the discharge monitoring location (serial No. 01SW) is proposed to be placed at the infiltration outlet as shown on the Drainage Control Map. The coordinates shown in New Jersey State Plane 1983 for the groundwater & surface water monitoring locations as (435,377, 534,559) & (435,355, 534,452) feet respectively, on the Drainage Control Map are to be updated as required after the certified topographic survey is provided.

The surface water outfall and surface water and ground water monitoring locations shall be identified with a tag or posted sign in accordance with N.J.A.C. 7:14A-6.2(a)9 within three months of the commencement of monitoring. The outfall or monitoring location tag or posted sign shall be legible; located near the outfall or monitoring location; made of a durable material such as metal; and maintained/repared within 30 days if damaged or no longer legible. The outfall tag or posted sign will display, at minimum, the name of the facility where the discharge originates; NJPDES permit number; the Department Hotline phone number (877-WARN DEP (927-6337)); and the monitoring location designator for the associated outfall.

7.2 Source Materials within the Contributing Drainage Area of Discharge Monitoring Point

The source materials within the contributing drainage area of the discharge monitoring location include leaves, grass, wood chips, leaves, and brush. Each monitoring location for stormwater discharge to surface water and groundwater from the regulated wood waste recycling and leaf compositing operation will be monitored for the parameters listed in Table III, pages 1-16. of the GP. Submit a monthly DMR (Discharge Monitoring Report) within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

7.3 Discharge Monitoring Guidance

The Township will collect stormwater samples within 30 minutes of the stormwater discharge or as soon thereafter as practicable. The Township will collect samples in accordance with the sampling type and frequency established in Part III of the GP. Analysis required is to be performed by a New Jersey Certified Laboratory that is certified to perform analysis as per N.J.A.C. 7:18 "Regulations Governing the Certification of Laboratories and Environmental Measurements."

The Township shall ensure stormwater samples for pH are only collected and analyzed as follows:

- a.
 - i. Collect samples directly into the cleaned sample container.
 - ii. When the sample cannot be collected directly into the sample container, use a clean sampling device.
 - iii. Rinse the sample container and/or sampling device a minimum of three times with the stormwater to be sampled.
 - iv. The sample container must be glass or plastic with at least a 200 mL capacity, and have a leak proof cap.

- v. The sample must fill the container completely not allowing for any head space within the container.
- vi. The sample must be either analyzed on-site or stored at 4°C until analysis.
- vii. All samples for stormwater pH must be analyzed within 24 hours of collection.
- viii. All analysis for pH must be performed by a New Jersey Certified Laboratory as per the procedure outlined in "Regulations Governing the Certification of Laboratories and Environmental Measurements," N.J.A.C. 7:18.

The monitoring for parameter pH "Precipitation" is optional. The Township may choose to analyze pH "Precipitation" if the sample from a valid storm event has a pH "Effluent Gross Value" sample result that is lower than the daily minimum limit. pH "Effluent Gross Value" sample results that are below the pH daily minimum limit are not in violation of this permit if they are not lower than the measured pH "Precipitation" collected on site during the valid storm event. The Township will use "Code = N" for pH "Precipitation" when not reporting a sample result for this optional parameter.

If any monitoring results exceed the design criteria or effluent limitation(s) of this permit, for any parameter, the Township will:

- b.
 - i. Immediately evaluate potential sources of the pollutant that exceeded the design criteria or effluent limitation(s);
 - ii. Immediately identify and implement stormwater control measures (e.g., source control, operational control, stormwater treatment) by which the Township can further reduce stormwater contamination;
 - iii. Update the SPPP with identified necessary improvements or changes within one month; iv. Evaluate and summarize the results in the Annual Report in accordance with Part IV.J.4 of the NJPDES WRC GP NJG0347493 permit.

If the monitoring results for parameters sampled exceed effluent limitation(s) at any time or exceed design criteria in two out of four monitoring periods for quarterly or semiannual parameters the Township will:

- c.
 - i. Notify the Department via the Facility Submittal Service within one week of the triggering exceedance;
 - ii. Increase the monitoring frequency for the parameter(s) exceeded from quarterly to monthly or semiannually to quarterly;
 - iii. Submit six consecutive monitoring results below the effluent limitation and/or design criteria to show that the problem is rectified. If rectified, a request may be submitted to the Department to return to the standard monitoring frequency; and
 - iv. Include in the calculation and reporting of the data on the MRFs any additional sample results from increased monitoring. Such increased frequency shall also be indicated.

Continued exceedances of the design criteria or effluent limitations may result in additional BMPs or a revocation of authorization under this general permit and require an application for an individual stormwater permit. The Township shall not change monitoring locations without notification to and written approval from the Department. The Township shall make any changes to monitoring locations in the Drainage Control Plan. If a discharge does not occur from an outfall or ground water discharge point during a particular reporting period, the Township shall check "No discharge this monitoring period" on the MRF transmittal sheet for each discharge monitoring location that had "no discharge".

The Township shall report an overflow discharge from regulated infiltration areas resulting from a storm event less than or equal to a the water quality design storm (1.25 inches over 2 hours) to the department's hotline within 24 hours from the commencement of discharge as this is an unauthorized discharge and is a violation of the GP. The Township shall reassess overland flow area and/or infiltration basin design and construction if capacity exceedances and overflows occur frequently and upgrade if necessary. The Township shall report each overflow discharge event from regulated infiltration areas greater than the water quality design storm (1.25 inches over 2 hours) in the annual report.

The Township will retain records of all monitoring information, maintenance records, and copies of all reports required by the GP for a period of at least five years. The Township will submit all documents that are required to be submitted to the Department via the Department's designated electronic submission service. The Township shall electronically submit all documents and reports as required by the GP including the Monitoring Report Form (MRF) data submission (submitted electronically through NJDEP online) and annual report and certification through the Departments designated electronic submission service. The Monitoring Limits for the MRF and Annual Report Certification Documents are found in i and ii of the SPPP Appendix.

8.0 STORMWATER POLLUTION PREVENTION PLAN TEAM

STORMWATER POLLUTION PREVENTION PLAN SPPP Team

TEAM LEADER

Person in charge of making decisions and giving directives to effectively implement the plan.

1. **Name:** James F. Parvesse, P.E., C.M.E.
Title: Municipal Engineer
Phone #: 609-844-7087
Email: jparvesse@lawrencetwp.com

TEAM MEMBERS

(The number of team members may vary)

The activities and responsibilities of the team will address all aspects of the facility's SPPP.

1. **Name:** Brenda Kraemer, Assistant Municipal Engineer
Title: Assistant Municipal Engineer
Phone #: 609-844-7087
Responsibilities: Major Development Project Stormwater Management Review
2. **Name:** Greogry Whitehead
Title: Director of Public Works
Phone #: 609-587-1894
Responsibilities: Facility Management
3. **Name:**
Title:
Phone #:
Responsibilities:

SPILL RESPONSE COORDINATOR

(May be the same as the Team Leader or Team Member)

Name: Greogry Whitehead

Title: Director of Public Works

Phone: 609-587-1894

Responsibilities: Facility Management

8.1 Stormwater Pollution Prevention Plan Training

Stormwater pollution prevention plan (SPPP) training shall occur twice per year, issued by the Department of Public Works. In 2025, training took place in the months of January & March and is expected to follow a similar schedule in 2026. Training will be conducted for the operation & maintenance of the Best Management Practices (BMP's) established at the Facility. Upkeep for the BMP's associated with the wood waste recycling & leaf composting operations, as well as the stormwater management basin, stormwater diversion, and soil erosion controls will be reviewed and implemented as indicated in sections "4.0 Best Management Practices" and "9.0 BMP Quarterly Inspections" in the SPPP Report. Training shall be conducted on the maintenance of all aspects of the Stormwater Management facilities on site. Training shall also include review of monitoring requirements as established in section "7.0 Groundwater and Surface Water Discharge Monitoring" of the SPPP Report.

Employee training records are considered confidential information and are kept on file at the Public Works Office at 240 Bakers Basin Rd, Lawrence Township. The records can be provided at the request of the Department.

9.0 BMP QUARTERLY INSPECTIONS

Inspections shall be conducted quarterly (once every 3 calendar months) during dry periods to identify and address any problems prior to a storm event. Inspections shall also be conducted quarterly during storm events to ensure that BMPs are functioning as originally intended and to observe the material and activities that are exposed to stormwater.

Areas of concern for the BMP's onsite include buildup of soils, ponding, channeling, excessive or lack of vegetative growth (could be a sign of broken or leaking pipes, valves, or overloading of the discharge, etc.).

On the following page is an inspection log which shall be maintained in the SPPP and utilized for the quarterly inspection of the BMP's. The inspection log includes the required information listed in the GP under "D. Site-Wide BMPS for Pollution Prevention and Good Housekeeping 1.c."

STORMWATER POLLUTION PREVENTION PLAN

Quarterly Inspections



INSPECTOR: _____

TITLE: _____

QUARTER INSPECTED : ☐ Jul-Sep ☐ Oct-Dec ☐ Jan-Mar ☐ Apr-Jun

BMPs are required to be implemented upon the Effective Date of Permit Authorization.

****Quarterly Inspections are required.**

CURRENT WEATHER CONDITIONS: _____ REPORTED PRECIPITATION WITHIN THE PAST 72 HOURS: _____

BMP Component Inspected	Y/N	Time/Date Inspected, During Storm Event? (Y/N)	Failures/Breakdowns Incidents/Problems Found	Corrective Action and Prevention
-------------------------	-----	--	--	----------------------------------

SURFACE INFILTRATION BASIN	<u>Scour hole</u> Scouring or erosion is present at inlet structure				Check the culvert beneath the road and grass swale to ensure there is no clog
	Clogged pipes or excessive sediment in the scour hole				Remove sediment or debris
	Damaged scour hole structure (e.g., cracking, subsidence, spalling, erosion, or deterioration)				Repair or replace the scour hole stone or culvert if damaged
	<u>Infiltration Bed</u> Is there excessive sediment, silt, or trash accumulation on the basin bed?				Remove silt, sediment, and trash
	After a rain event, is there still water present after the design drain time?				Recheck to determine if there is standing water after 72 hours. If standing water is present longer than 5 days, report to mosquito commission. Remove any sediment build up Replace the sand layer

	Are there animal burrows/rodents present? Is the bed uneven? Is there evidence of sinkholes or subsidence?				Pest Control
	<u>Vegetation</u> Is there a large spot showing bare soil, overgrown vegetation, or tree growth in the basin?				Vegetative cover must be maintained at 85%. Revegetate the entire basin if 50% or more vegetation has been lost. Check Landscaping plan for guidance.
	<u>Basin Embankment and Side Slopes</u> Are there signs of erosion, soil slide or bulges, seeps and wet spots, loss of vegetation or erosion on the basin slope?				Check for excessive overland runoff flow through the embankment Check for any sink hole development Direct the overland runoff to the forebay or pretreatment area Restabilize the bank

BMP Component Inspected		Y/N	Time/Date Inspected	Failures/Breakdowns Incidents/Problems Found	Corrective Action and Prevention
SURFACE INFILTRATION BASIN	<u>Outlet</u> Is the trash or debris accumulation more than 20% in the Outlet?				Clean and remove Determine source of trash and address to reduce future maintenance costs or basin failure
	Is the trash rack damaged or rusted greater than 50%? Is the trash rack bent, loose, or missing parts?				Repair or replace trash rack
	Are the outlet components (e.g., orifice plates or weir plate) skewed, misaligned, or missing?				Repair or replace component
	Is the discharge pipe apron eroded or scoured?				Restabilize or replace component
	Is standing water present in the outlet structure longer than 72 hours?				Pump out the standing water
	<u>Emergency Spillway</u> Are there trees or excessive vegetation present in the emergency spillway? Is there any sign of damage to the structure?				Remove trees and roots, and restore berms if necessary Repair damaged structure
	<u>Miscellaneous</u> Sign/plate: Tiled, missing, or faded?				Repair or replace

	Excessive or overgrown vegetation blocking access to the basin?				Clear, trim, or prune the vegetation to allow access for monitoring, inspection and maintenance
--	---	--	--	--	---

BMP Component Inspected		Y/N	Time/Date Inspected	Failures/Breakdowns	BMP Component Inspected
SUPER SILT FENCE	Check for rips, tears, holes, or degradation of the geotextile fabric.				Replace or patch any torn or deteriorating fabric immediately
	Monitor the amount of accumulated sediment behind the fence				Remove sediment when it reaches approximately one-third to one half the height of the fence to maintain functionality

Spill Prevention and Response	Are all impervious surfaces and bermed areas regularly maintained and kept free of fluids?				
	Have spill kits containing appropriate absorbent materials and equipment for recovering spills been assembled?				
	Are spill kits kept in a central area and accessible to all employees?				
	Are all employees trained annually on spill response?				
BMP Inspected		Y/N	Time/Date Inspected	Failures/Breakdowns Incidents/Problems Found	Corrective Action and Prevention
Site Stabilization and Dust Control: Erosion Control	Are measures for site stabilization and dust control included in the SPPP?				
	Do BMPs meet the most recent technical standards listed in Standards for Soil Erosion and Sediment Control in New Jersey, Engineering Standards Section titled Standards for Off-Site Stability?				
	Is a Entrance/Exit stabilization BMP included?				
	Have areas that have high potential for soil erosion or a known soil erosion problem been identified?				
	If applicable, have appropriate vegetative, structural, or stabilization measures been selected to limit erosion in these identified areas?				
	If a stormwater outfall is on-site, has stormwater velocity at the outfall been controlled to prevent downstream erosion and/or degradation and ensure stabilization?				

10.0 ANNUAL INSPECTIONS AND REPORT

The Township will conduct annual inspections of the facility in accordance with N.J.A.C. 7:14A-24.9(a) to assess all areas contributing to the stormwater discharge authorized by this GP, and to evaluate whether the SPPP complies with and is implemented in accordance with the GP.

STORMWATER POLLUTION PREVENTION PLAN

Annual Inspection for Annual Report

Conduct annual inspections to ensure that the SPPP is current and up-to-date, properly implemented and effectively eliminating exposure of source materials and industrial activity to stormwater. The results of the annual inspection shall be summarized in the annual report.

Name of Inspector: _____
Title: _____

Inspection Date	In Compliance	Out of Compliance
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐
_____	☐	☐

STORMWATER POLLUTION PREVENTION PLAN Annual Report

The annual report shall summarize the findings of the annual inspection.

Name of Inspector: _____

Title: _____

Please provide a written description assessing all areas found to be out of compliance during the annual inspection. Please list additional measures that are needed to meet the conditions of the GP. If the annual inspection reveals that all areas of the facility are in compliance with the permit conditions, this can be written as well.

- 7 Include a summary of each overflow discharge event from regulated infiltration areas resulting from storm events greater than a greater than the water quality design storm (1.25 inches over 2 hours).
- 8 Include a summary of any monitoring results that exceed the design criteria or effluent limitations of the GP
- 9 Include a summary of any other incidents of non-compliance discovered during the annual inspection, with preventative/mitigative actions taken

The annual report must be submitted to the Department by March 1 annually

STORMWATER POLLUTION PREVENTION PLAN
Annual Certification

The Township will certify and submit the annual report proving that the facility has completed their annual report and is in compliance with the SPPP requirements and the GP. The Township will review the SPP at least annually and update it as often as necessary to reflect changes related to the Township's activities on site. The SPP shall be retained at the facility for use by the Township and inspection by the Department.

10.0 APPENDIX

Limits and Daily Monitoring Requirements

Certification Form

Incident of noncompliance report form

Web Soil Survey

Data.....i

Water Quality Design Storm Routings..... ii

Existing 2, 10, 25 Year Routings iii

Proposed 2, 10, 25 Year Routings.....iv

Mounding Analysis..... v

25 Year Failure Analysis.....vi

Conduit Outlet Protectionvii

Site Plan of Vegetative Compost Facility / Drainage Control Map / Drainage Area Plansviii

WRC- Wood Waste Recycling and Leaf Compositing (GP).....ix

Limits and Daily Monitoring Requirements

PART III

LIMITS AND MONITORING REQUIREMENTS

MONITORED LOCATION:

01GW Stormwater to GW

RECEIVING STREAM:STREAM CLASSIFICATION:DISCHARGE CATEGORY(IES):WRC - Wood Waste Recycling and Leaf
Composting (GP)**Ground Water DMR Reporting Requirements:**

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Ground Water DMR Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date:

03/01/2024

PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Minutes After Disch. Sample Collected	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	MINUTES	1/Quarter	Not Applicable
January thru December	DCL	***	***		***	***	30			
Date of Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time Storm Event Began	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
March thru October	QL	***	***		***	***	***			
Storm Event Duration	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Hours Since Last Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Ground Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:** 03/01/2024**PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Rainfall Amount at Time of Sampling	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# INCHES	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Date of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
pH	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	SU	1/Quarter	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	REPORT Daily Minimum	*****	REPORT Daily Maximum	SU	1/Quarter	Grab
January thru December	DCL	***	***		6.5	***	8.5			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	3			
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	10			

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Ground Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:** 03/01/2024**PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
E. Coli January thru December	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	#/100ML	1/6 Months	Grab
	DCL	***	***		***	***	***			
Solids, Total Dissolved (TDS) January thru December	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
	DCL	***	***		***	***	500			
Petroleum Hydrocarbons January thru December	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
	DCL	***	***		***	***	***			
Boron, Total (as B) January thru December	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
	DCL	***	***		***	***	***			
Arsenic, Total (as As) January thru December	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
	DCL	***	***		***	***	0.003			
Chromium, Total (as Cr) January thru December	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
	DCL	***	***		***	***	0.07			
Copper, Total (as Cu) January thru December	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
	DCL	***	***		***	***	1.3			

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Ground Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:** 03/01/2024**PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Zinc, Total (as Zn)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	2			
Pentachlorophenol	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	0.0003			

MONITORED LOCATION:

01SW Stormwater to SW

RECEIVING STREAM:STREAM CLASSIFICATION:DISCHARGE CATEGORY(IES):WRC - Wood Waste Recycling and Leaf
Composting (GP)**Surface Water DMR Reporting Requirements:**

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date: 03/01/2024

PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Minutes After Disch. Sample Collected	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	MINUTES	1/Quarter	Not Applicable
January thru December	DCL	***	***		***	***	30			
Date of Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time Storm Event Began	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Storm Event Duration	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Hours Since Last Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:** 03/01/2024**PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Rainfall Amount at Time of Sampling	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# INCHES	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Date of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
BOD, 5-Day (20 oC)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	30			
pH	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	SU	1/Quarter	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	REPORT Daily Minimum	*****	REPORT Daily Maximum	SU	1/Quarter	Grab
January thru December	DCL	***	***		6.5	***	8.5			
Solids, Total Suspended	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	100			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:** 03/01/2024**PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	2.14			
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	10			
E. Coli	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	#/100ML	1/6 Months	Grab
January thru December	DCL	***	***		***	***	235			
Chemical Oxygen Demand (COD)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	120			
Petroleum Hydrocarbons	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Daily Maximum	MG/L	1/6 Months	Grab
January thru December	QL	***	***		***	***	***			
Phosphorus, Total (as P)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	2			
Boron, Total (as B)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:** 03/01/2024**PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Arsenic, Total (as As)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
	DCL	***	***		***	***	0.34			
Chromium, Total (as Cr)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
	DCL	***	***		***	***	0.092			
Copper, Total (as Cu)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
	DCL	***	***		***	***	1.3			
Pentachlorophenol	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
	DCL	***	***		***	***	0.00027			

Certification Form



CERTIFICATION FORM

STORMWATER POLLUTION PREVENTION PLAN (SPPP) PREPARATION, IMPLEMENTATION AND ANNUAL CERTIFICATION FOR INDUSTRIAL STORMWATER PERMITS

A. NJPDES Permit and Facility Information

1. This form may be used to satisfy the certification requirements for the following permits:

- ☐ **Basic Industrial Stormwater General Permit (NJ0088315)**
- ☐ **Concrete Products Manufacturing General Permit (NJ0108456)**
- ☐ **Scrap Metal Processing/Auto Recycling General Permit (NJ0107671)**
- ☐ **Hot Mix Asphalt Producers General Permit (NJ0132721)**
- ☐ **Newark Airport Complex General Permit (NJ0134791)**
- ☐ **Concentrated Animal Feeding Operations General Permit (CAFO) (NJ0138631)**
- ☐ **Mining & Quarrying General Permit (NJ0141950)**
- ☐ **Sand and Gravel General Permit (NJ0201189)**
- ☒ **Wood Waste Recycling and Leaf Composting General Permit (NJ0324183)**
- ☐ **Individual Industrial Stormwater Permit**

2. NAME OF FACILITY: LAWRENCE TWP DPW	
3. NJPDES No.: NJG0347493	4. PI ID No.: 1027514
5. EFFECTIVE DATE OF PERMIT: 03/01/2024	6. CERTIFICATION DUE DATE: 09/01/2024

B. Applicable Certifications

1. Please check which certification you are submitting.

- ☒ **SPPP* Preparation Certification**
(Certifies that the SPPP was prepared in accordance with permit conditions)
- ☐ **SPPP* Implementation Certification**
(Certifies that the SPPP was implemented in accordance with permit conditions)
- ☐ **Annual Certification**
(Certifies that an annual inspection was conducted on _____ and SPPP evaluated in accordance with permit conditions)

* For CAFO Permits, Comprehensive Waste Management Plan (CWMP)

C. Certification Statements

1. "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. "I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information."

"I certify that the facility is in compliance with its Stormwater Pollution Prevention Plan (SPPP) or Comprehensive Waste Management Plan (CAFOs only), and the NJPDES Permit (checked in Section A. above) except for any incident(s) of noncompliance which are identified herein. For any incident(s) of noncompliance, the attached report identifies the steps being taken to remedy the noncompliance and to prevent such incident(s) from recurring.

- | | | | | |
|---|-------------------------------------|-----|-------------------------------------|----|
| 2. Is a Drainage Control Plan attached? (if applicable) | ☒ | YES | ☐ | NO |
| 3. Is an Incident of Noncompliance Report attached? | ☐ | YES | ☒ | NO |
| 4. Is a BMP Report attached? (Newark Airport Operators only) | ☐ | YES | ☐ | NO |

D. Signatory Requirements

See attached Certification Form instructions for specific signatory requirements.

NAME (Please Print): _____ TITLE: _____

SIGNATURE: _____ DATE: _____

E. Where to Submit

Signed Certification Forms can be scanned and emailed to IndustrialStormwaterPermitting@dep.nj.gov.

Do not submit the actual SPPP with this Certification, unless otherwise specified in the permit.

The SPPP and a **copy** of the Certification Form, and any Incident of Noncompliance Report(s) are to remain onsite, available for review. Additional information and forms can be obtained on the Bureau's website at http://www.state.nj.us/dep/dwg/bnpc_home.htm or by telephone at (609) 633-7021.

CERTIFICATION FORM INSTRUCTIONS

This Certification Form replaces the certification forms required by NJPDES stormwater permits listed in Section A.

Additional copies of the Certification Form and Instructions can be downloaded from http://www.state.nj.us/dep/dwg/bnpc_home.htm or obtained by contacting the Bureau of NJPDES Stormwater Permitting and Water Quality Management at (609) 633-7021.

SECTION A - NJPDES Permit and Facility Information

1. Place a checkmark in the box corresponding to the appropriate stormwater permit that your facility is authorized under. The name of the permit can be found on the permit authorization page. If you cannot locate your facility's permit authorization page, you may obtain a copy by contacting the BNSPWQM at (609) 633-7021.
2. Provide the name of the facility. If the name of the facility has changed submit an Administrative Update Form along with the Certification Form.
3. Provide the facility's NJPDES Permit Number as it appears on the permit authorization page. All NJPDES permit numbers for facilities authorized under a general permit will begin with **NJG** and is different from the NJPDES Permit Number assigned to the master general permit.
4. Provide the PI ID No. as it appears on the permit authorization page.
5. Provide the effective date of permit, as it appears on the permit authorization page.
6. Provide the certification due date. The certification due date is the date or calendar quarter and year, that the certification is due. The due date is based on either the Effective Date of Permit Authorization (EDPA), the Effective Date of Permit (EDP), or may be a specific date specified in the permit.

TABLE 1 – Certification Due Dates
(Unless otherwise specified in the permit)

	SPPP Preparation Certification Due Date	SPPP Implementation Certification Due Date	Annual Certification Due Date
Basic Industrial Stormwater General Permit (NJ0088315)	Within six 6 months from EDPA	Within 18 months from EDPA	Due by the end of the calendar quarter assigned in the authorization page and annually thereafter
Concrete Products General Permit (NJ0108456)	Within 6 months from EDPA	Within 24 months from EDPA	Due 36 months from EDPA and annually thereafter
Scrap Metal Processing/Auto Recycling General Permit (NJ0107671)	Within six 6 months from EDPA	Within 18 months from the EDPA	Within 30 months from the EDPA, and annually thereafter
Wood Recyclers General Permit (NJ0138622)	Within six 6 months from EDPA	Within 24 months from EDPA	Due 36 months from EDPA and annually thereafter
Hot Mix Asphalt Producers General Permit (NJ0132721)	Within six 6 months from the EDPA	Within 24 months from EDPA	Due 36 months from EDPA and annually thereafter
Newark Airport Complex General Permit (NJ0134791)	New Operators - Within 6 months from EDPA	New Operators - Within 18 months from EDPA Otherwise, 12 months from the effective date of renewal authorization	New Operators - Within 12 months from EDPA and annually thereafter, Otherwise 24 months from the effective date of renewal authorization and annually thereafter
Concentrated Animal Feeding Operation General Permit (NJ0138631)	March 1, 2004	March 1, 2006	February 1st of each year, beginning 48 months from EDP
Mining & Quarrying Activity Stormwater General Permit (NJ0141950)	Within 6 months from EDPA	Within 18 months from EDPA	Due 30 months from the EDPA
Individual Industrial Stormwater Permit	Permit specific – see permit for details	Permit specific – see permit for details	Permit specific – see permit for details

SECTION B – Applicable Certifications

1. Check the appropriate box to indicate which certification is being submitted. A facility may check multiple boxes if they are indicating that a SPPP has been both prepared and implemented concurrently.

Newly constructed facilities may be required to certify that a SPPP has been prepared and implemented at the time the Request for Authorization is submitted to the Department. A facility may use this Certification Form and check multiple boxes to satisfy this certification requirement.

SECTION C – Certification Statements

1. Please carefully read the certification to ensure that you fully understand what you are certifying and that it is a true and accurate statement.

2. Certain permits require the submission of a Drainage Control Plan (DCP) along with the SPPP preparation certification. Please check the box if a Drainage Control Plan is attached to this Certification Form.

TABLE 2 – Drainage Control Plan Due Dates (unless otherwise specified)

	Drainage Control Plan (DCP) Due Date
Concrete Products Manufacturing General Permit (NJ0108456)	Within 6 months from EDPA, submitted with the Certification Form
Hot Mix Asphalt Producers General Permit (NJ0132721)	Within 6 months from EDPA, submitted with the Certification Form
Wood Recyclers General Permit (NJ0138622)	Within 6 months from EDPA, submitted with the Certification Form
Mining & Quarrying Activity Stormwater General Permit (NJ0141950)	Within 6 months from EDPA, submitted with the Certification Form

Notes and Abbreviations

(EDPA) means the effective date of permit authorization

3. Please check the box if an Incident of Noncompliance Report is attached to this Certification Form. The Incident of Noncompliance Report must identify the steps being taken to remedy the noncompliance and to prevent such incident(s) from recurring. An Incident of Noncompliance Report form may be downloaded at http://www.state.nj.us/dep/dwq/forms_storm.htm.

4. For operators authorized under the Newark Airport General Permit (NJ0134791) a BMP Report must be submitted along with the Stormwater Pollution Prevention Plan Preparation Certification and the Stormwater Pollution Prevention Implementation Certification. Please check the box if a BMP Report is attached.

SECTION D – Signatory Requirements

A Responsible Official is defined in N.J.A.C 7:14A-4.9 as follows:

For a corporation: A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities, provided:

- (1) The manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of recommending major capital investment, initiating and directing comprehensive measures to assure long term compliance with environmental laws and regulations, and ensuring that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; or
- (2) The authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: A general partner or the proprietor.

For a government agency: A ranking elected official; or the chief executive officer of the agency; or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator).

A duly authorized representative as defined in N.J.A.C. 7:14A-4.9(b).

Incident of Noncompliance Report Form

Incident of Noncompliance Report Form

This form may be completed and submitted for any incidents of noncompliance identified in a facility's annual report and certification. A separate form must be completed for each incident.

A. NJPDES Permit and Facility Information

1. Indicate which NJPDES permit your facility currently has:

- ☐ Basic Industrial Stormwater General Permit (NJ0088315)
☐ Concrete Products Manufacturing General Permit (NJ0108456)
☐ Scrap Metal Processing/Auto Recycling General Permit (NJ0107671)
☐ Hot Mix Asphalt Producers General Permit (NJ0132721)
☐ Newark Airport Complex General Permit (NJ0134791)
☐ Concentrated Animal Feeding Operations General Permit (NJ0138631)
☐ Mining & Quarrying General Permit (NJ0141950)
☐ Sand and Gravel General Permit (NJ0201189)
☐ Wood Waste Recycling and Leaf Composting General Permit (NJ0324183)
☐ Individual Industrial Stormwater Permit

2. NAME OF FACILITY: LAWRENCE TWP DPW	
3. NJPDES No.: NJG0347493	4. PI ID No.: 1027514
5. CONTACT	6. TELEPHONE NUMBER

B. Incident of Noncompliance

1. Describe Incident of Noncompliance (include date of incident occurrence)

2. Steps taken to remedy noncompliance and to prevent incidents from reoccurring

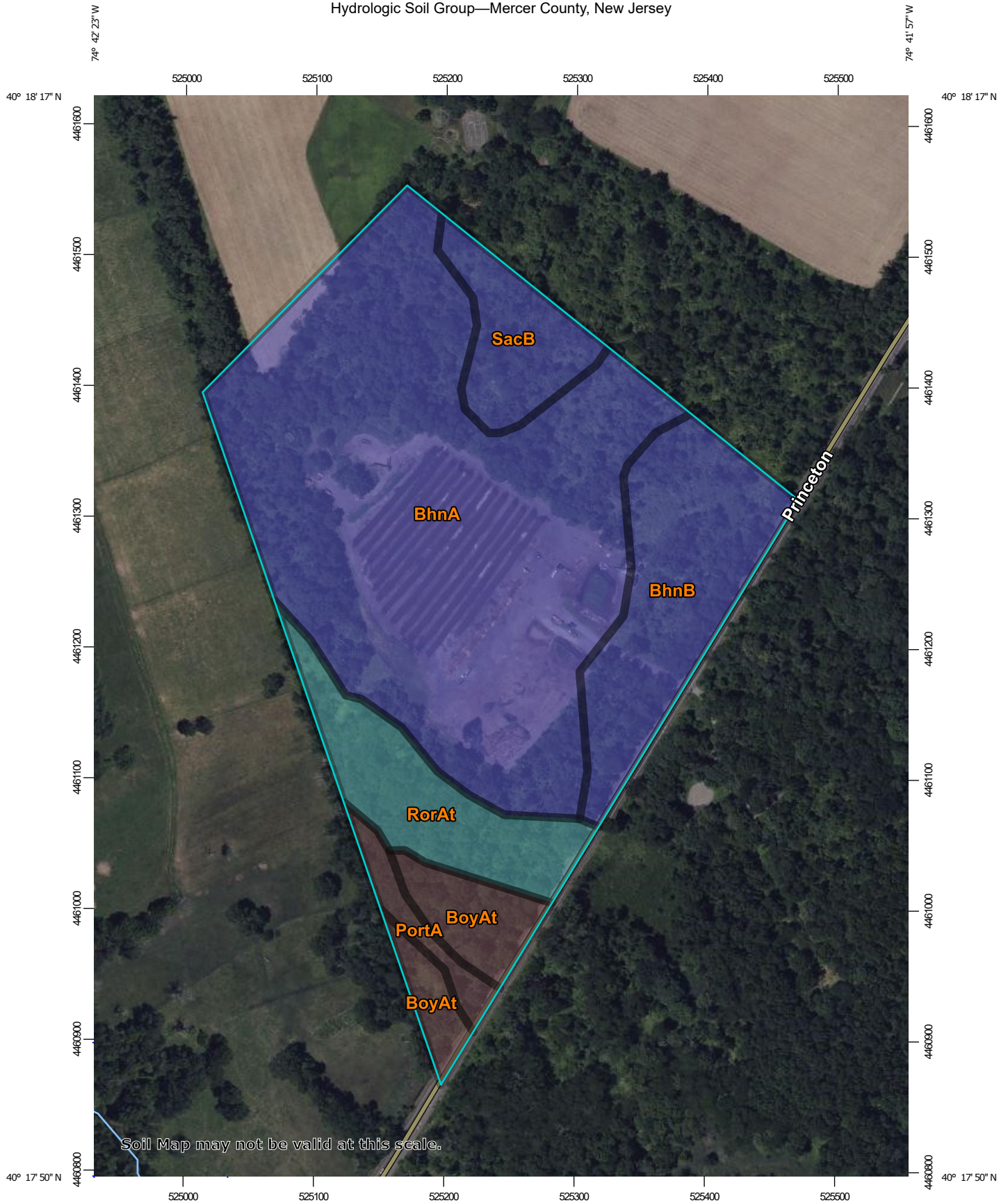
C. Signature of Person Responsible for this Report

NAME (Please Print): _____ TITLE: _____

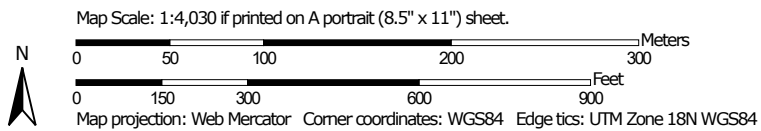
SIGNATURE: _____ DATE: _____

Web Soil Survey Data

Hydrologic Soil Group—Mercer County, New Jersey



Soil Map may not be valid at this scale.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

10/1/2025
Page 1 of 4

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

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

Soil Rating Lines

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

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

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

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

Soil Survey Area: Mercer County, New Jersey
 Survey Area Data: Version 21, Aug 28, 2025

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

Date(s) aerial images were photographed: Jun 4, 2022—Jul 22, 2022

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BhnA	Birdsboro silt loam, 0 to 2 percent slopes	B	23.3	60.3%
BhnB	Birdsboro silt loam, 2 to 6 percent slopes	B	5.9	15.1%
BoyAt	Bowmansville silt loam, 0 to 2 percent slopes, frequently flooded	B/D	2.3	6.0%
PortA	Portsmouth variant silt loam, 0 to 2 percent slopes	B/D	0.9	2.3%
RorAt	Rowland silt loam, 0 to 2 percent slopes, frequently flooded	C	3.8	9.9%
SacB	Sassafras sandy loam, 2 to 5 percent slopes, Northern Coastal Plain	B	2.5	6.4%
Totals for Area of Interest			38.7	100.0%

Description

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

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

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

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

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

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

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

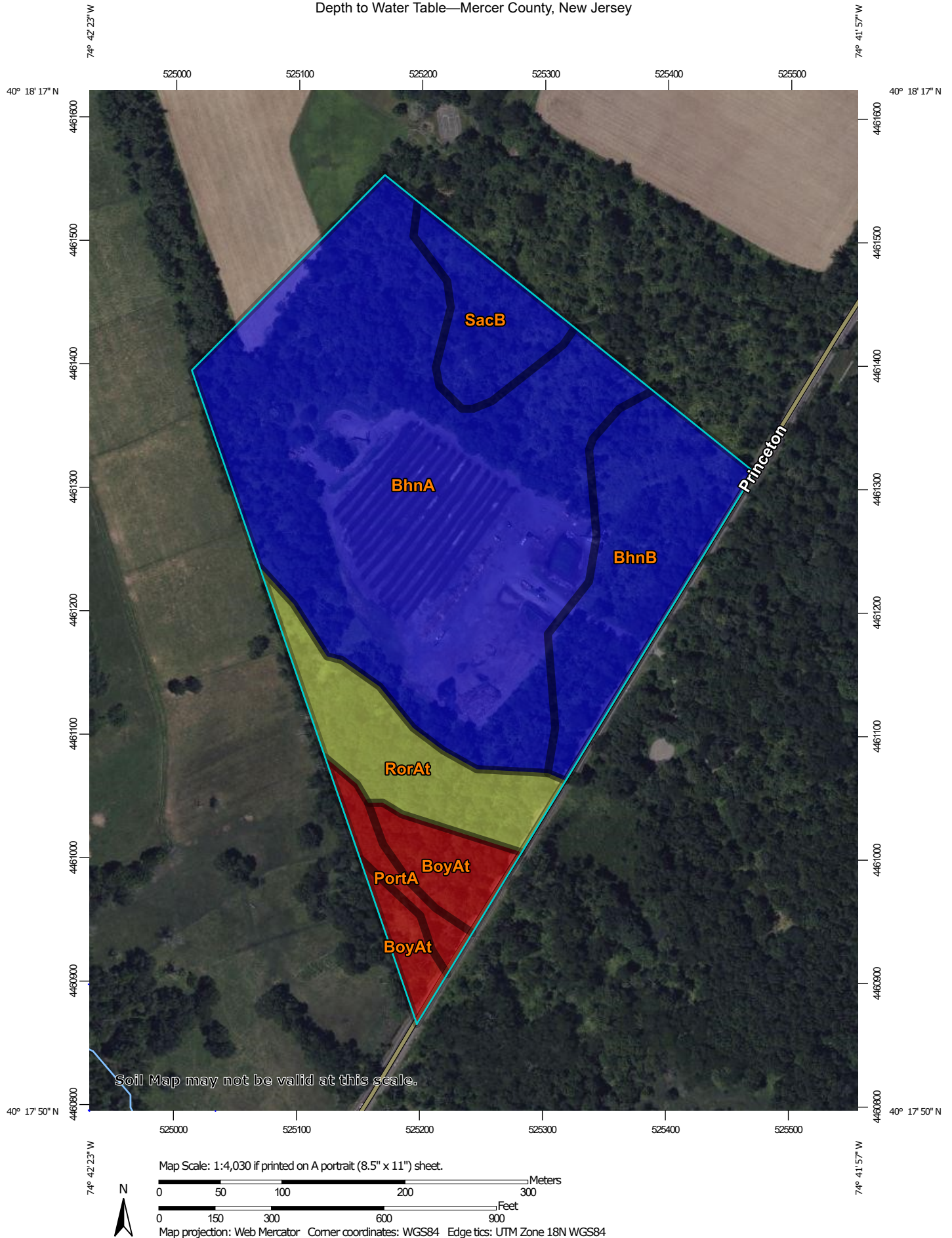
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Depth to Water Table—Mercer County, New Jersey



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Lines

-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Points

-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200

 Not rated or not available

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

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

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

Soil Survey Area: Mercer County, New Jersey
Survey Area Data: Version 21, Aug 28, 2025

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

Date(s) aerial images were photographed: Jun 4, 2022—Jul 22, 2022

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

Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
BhnA	Birdsboro silt loam, 0 to 2 percent slopes	>200	23.3	60.3%
BhnB	Birdsboro silt loam, 2 to 6 percent slopes	>200	5.9	15.1%
BoyAt	Bowmansville silt loam, 0 to 2 percent slopes, frequently flooded	15	2.3	6.0%
PortA	Portsmouth variant silt loam, 0 to 2 percent slopes	15	0.9	2.3%
RorAt	Rowland silt loam, 0 to 2 percent slopes, frequently flooded	61	3.8	9.9%
SacB	Sassafras sandy loam, 2 to 5 percent slopes, Northern Coastal Plain	>200	2.5	6.4%
Totals for Area of Interest			38.7	100.0%

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

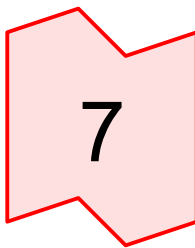
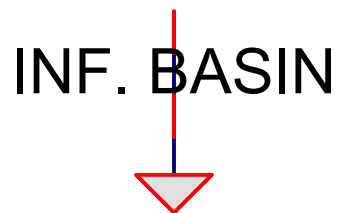
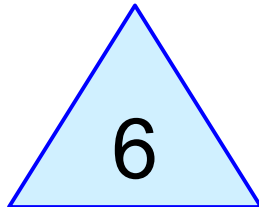
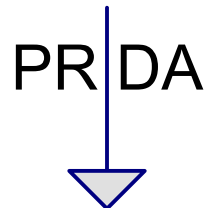
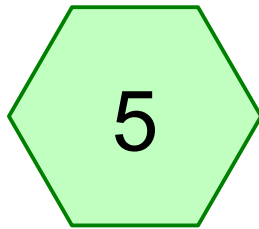
Tie-break Rule: Lower

Interpret Nulls as Zero: No

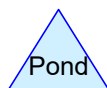
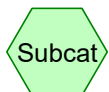
Beginning Month: January

Ending Month: December

Water Quality Design Storm Routings



PR POA



LAWTO25002 PRE AND POST

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Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC	P2 (inches)
1	WQDS	NJ DEP 2-hr		Default	2.00	1	1.25	2	3.34

LAWTO25002 PRE AND POST*NJ DEP 2-hr WQDS Rainfall=1.25", P2=3.34"*

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Page 3

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

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 5: PR DARunoff Area=9.490 ac 0.00% Impervious Runoff Depth=0.33"
Flow Length=694' Tc=7.0 min CN=86 Runoff=9.46 cfs 11,534 cf**Pond 6: INF. BASIN**Peak Elev=73.70' Storage=11,534 cf Inflow=9.46 cfs 11,534 cf
Primary=0.00 cfs 0 cf Secondary=0.00 cfs 0 cf Outflow=0.00 cfs 0 cf**Link 7: PR POA**Inflow=0.00 cfs 0 cf
Primary=0.00 cfs 0 cf**Total Runoff Area = 413,384 sf Runoff Volume = 11,534 cf Average Runoff Depth = 0.33"**
100.00% Pervious = 413,384 sf 0.00% Impervious = 0 sf

LAWTO25002 PRE AND POST

NJ DEP 2-hr WQDS Rainfall=1.25", P2=3.34"

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Page 4

Summary for Subcatchment 5: PR DA

Runoff = 9.46 cfs @ 1.14 hrs, Volume= 11,534 cf, Depth= 0.33"
Routed to Pond 6 : INF. BASIN

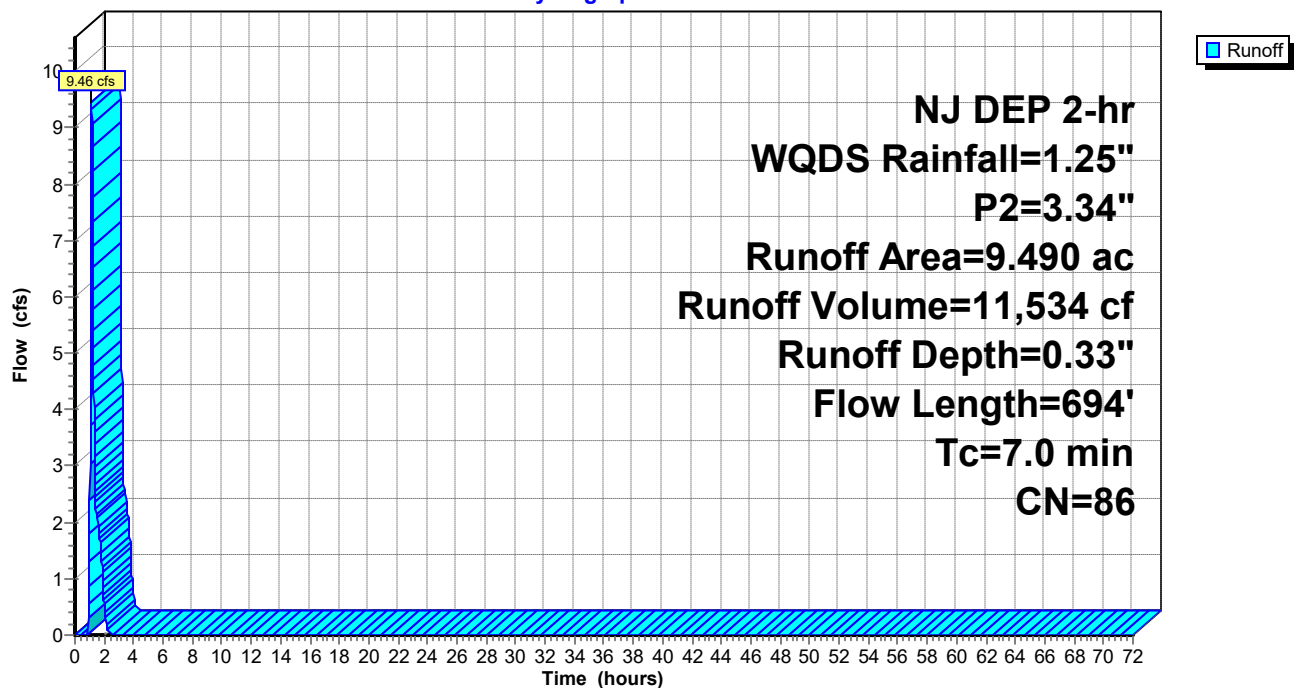
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NJ DEP 2-hr WQDS Rainfall=1.25", P2=3.34"

Area (ac)	CN	Description
9.490	86	Fallow, bare soil, HSG B
9.490	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	100	0.0450	0.58		Sheet Flow, Ap TO Bp Fallow n= 0.050 P2= 3.34"
4.1	594	0.0220	2.39		Shallow Concentrated Flow, Bp TO Cp Unpaved Kv= 16.1 fps
7.0	694	Total			

Subcatchment 5: PR DA

Hydrograph



Summary for Pond 6: INF. BASIN

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth = 0.33" for WQDS event
 Inflow = 9.46 cfs @ 1.14 hrs, Volume= 11,534 cf
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
 Routed to Link 7 : PR POA
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
 Routed to Link 7 : PR POA

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 73.70' @ 2.41 hrs Surf.Area= 17,195 sf Storage= 11,534 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	73.00'	47,719 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.00	15,996	0	0
74.00	17,721	16,859	16,859
75.00	19,500	18,611	35,469
75.60	21,333	12,250	47,719

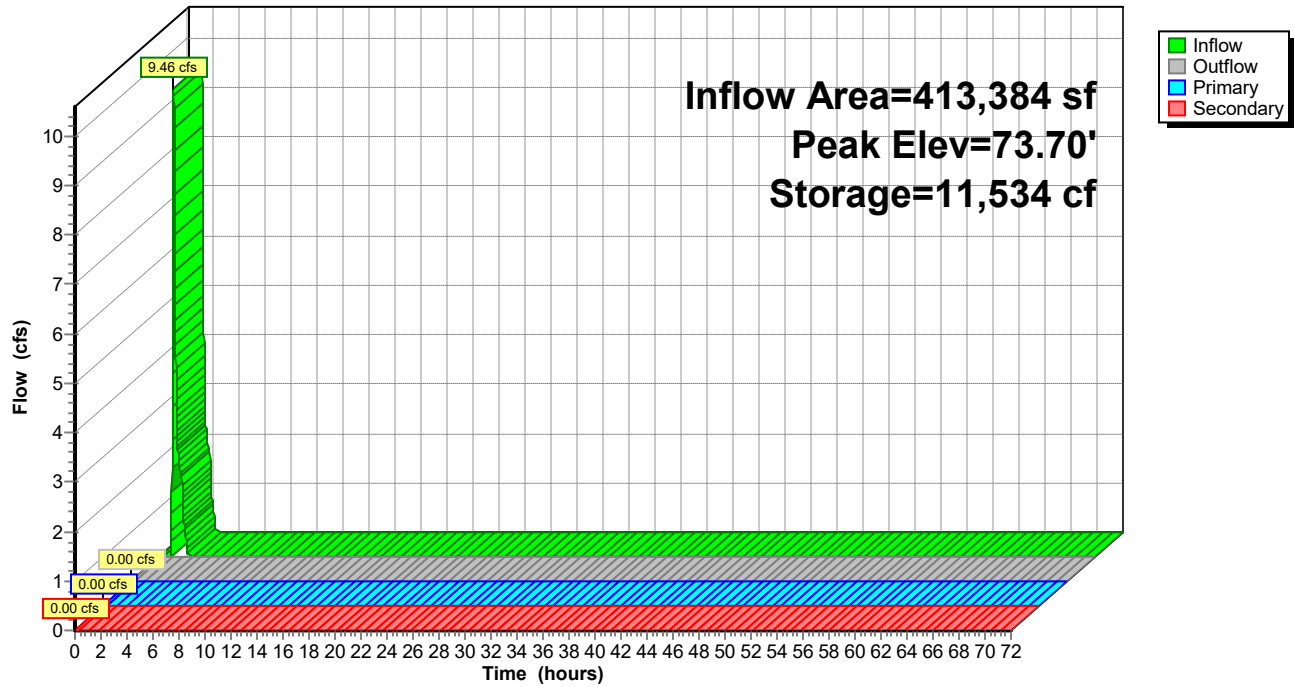
Device	Routing	Invert	Outlet Devices
#1	Primary	73.75'	10.0" Round Culvert L= 55.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 73.75' / 73.75' S= 0.0000 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#2	Device 1	73.75'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	74.40'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	74.80'	25.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=73.00' TW=0.00' (Dynamic Tailwater)

↑ 1=Culvert (Controls 0.00 cfs)
 ↑ 2=Orifice/Grate (Controls 0.00 cfs)
 ↑ 3=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=73.00' TW=0.00' (Dynamic Tailwater)

↑ 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 6: INF. BASIN**Hydrograph**

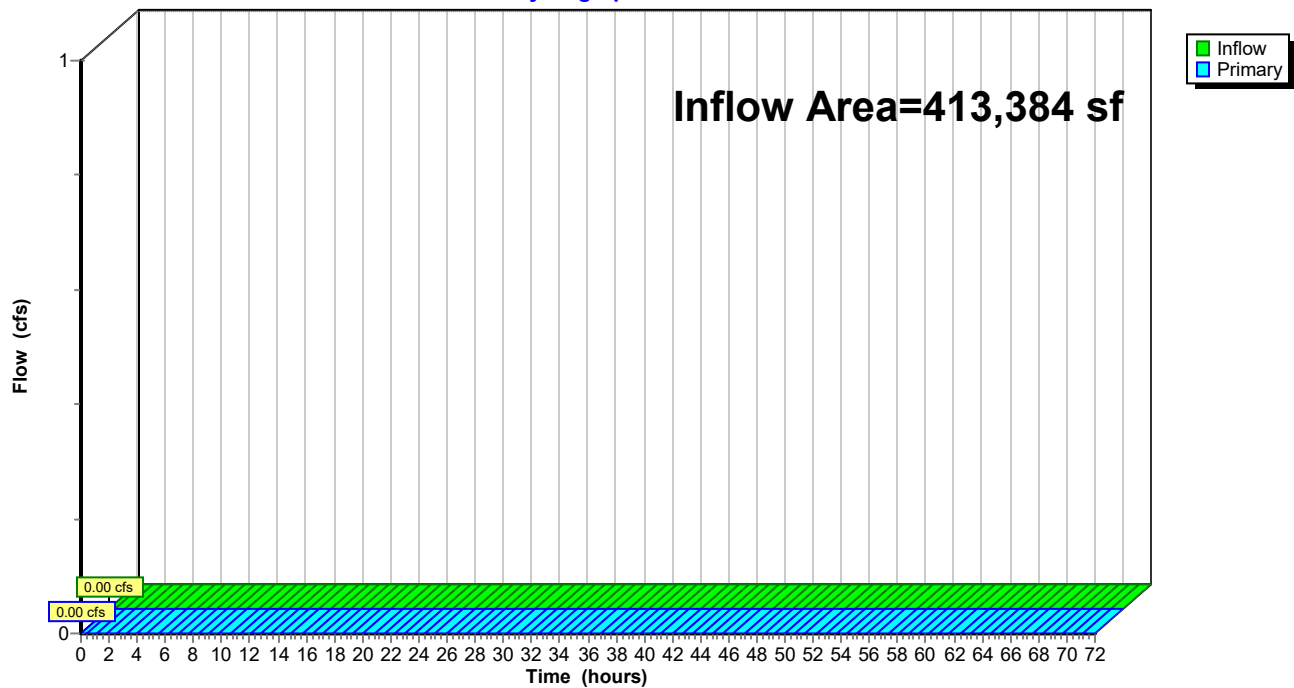
Summary for Link 7: PR POA

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth = 0.00" for WQDS event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

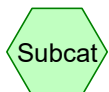
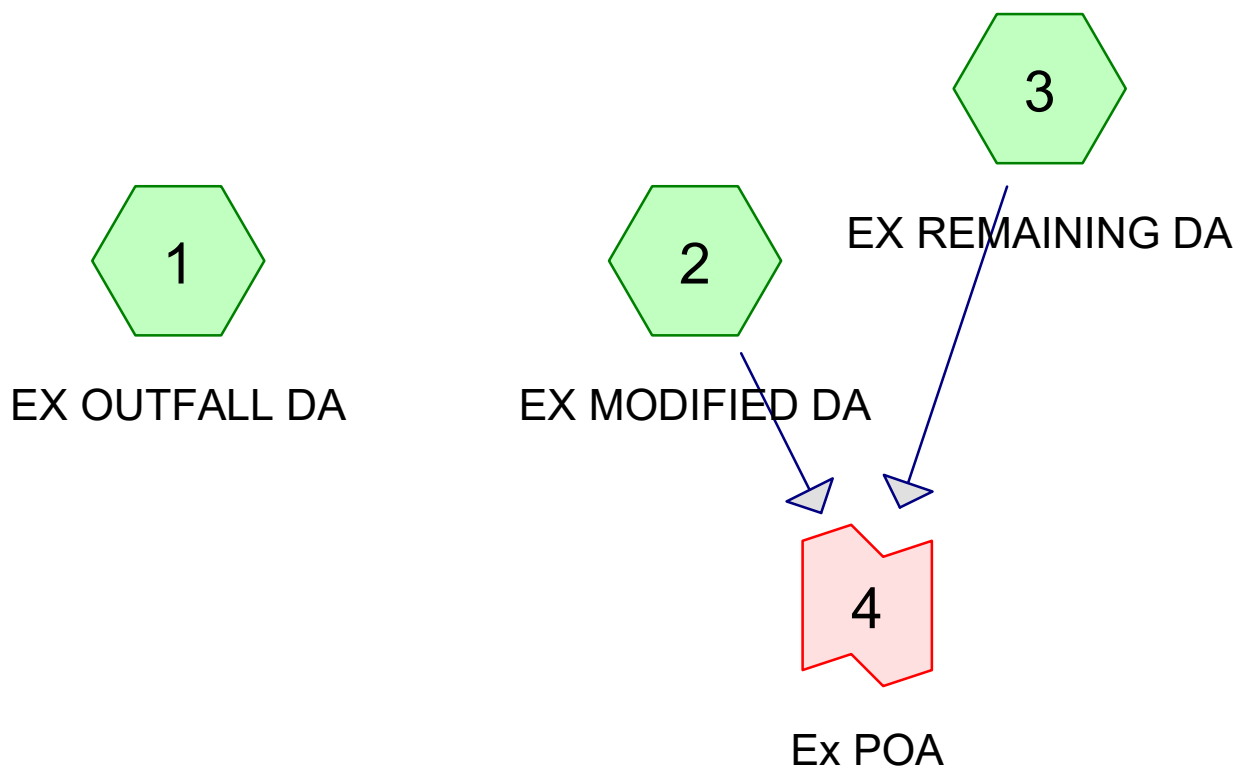
Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link 7: PR POA

Hydrograph



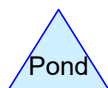
Existing 2, 10, 25 Year Routings



Subcat



Reach



Pond



Link

Routing Diagram for LAWTO25002 PRE AND POST
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LAWTO25002 PRE AND POST

Prepared by Pennoni Associates, Inc

Printed 10/3/2025

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Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC	P2 (inches)
1	CA 2-Year	NOAA 24-hr	C	Default	24.00	1	3.34	2	3.34
2	CA 10-Year	NOAA 24-hr	C	Default	24.00	1	5.11	2	3.34
3	25-Year	NOAA 24-hr	C	Default	24.00	1	6.19	2	3.34

LAWTO25002 PRE AND POST

NOAA 24-hr C CA 2-Year Rainfall=3.34", P2=3.34"

Prepared by Pennoni Associates, Inc

Printed 10/3/2025

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Page 3

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
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 1: EX OUTFALL DA

Runoff Area=5.410 ac 0.00% Impervious Runoff Depth=1.96"
Flow Length=636' Tc=8.0 min CN=86 Runoff=12.87 cfs 38,439 cf

Subcatchment 2: EX MODIFIED DA

Runoff Area=0.970 ac 0.00% Impervious Runoff Depth=1.96"
Flow Length=750' Tc=9.9 min CN=86 Runoff=2.16 cfs 6,892 cf

Subcatchment 3: EX REMAINING DA

Runoff Area=8.520 ac 0.00% Impervious Runoff Depth=1.96"
Flow Length=1,212' Tc=11.0 min CN=86 Runoff=18.24 cfs 60,537 cf

Link 4: Ex POA

Inflow=20.37 cfs 67,429 cf
Primary=20.37 cfs 67,429 cf

Total Runoff Area = 649,044 sf Runoff Volume = 105,868 cf Average Runoff Depth = 1.96"
100.00% Pervious = 649,044 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1: EX OUTFALL DA

Runoff = 12.87 cfs @ 12.15 hrs, Volume= 38,439 cf, Depth= 1.96"

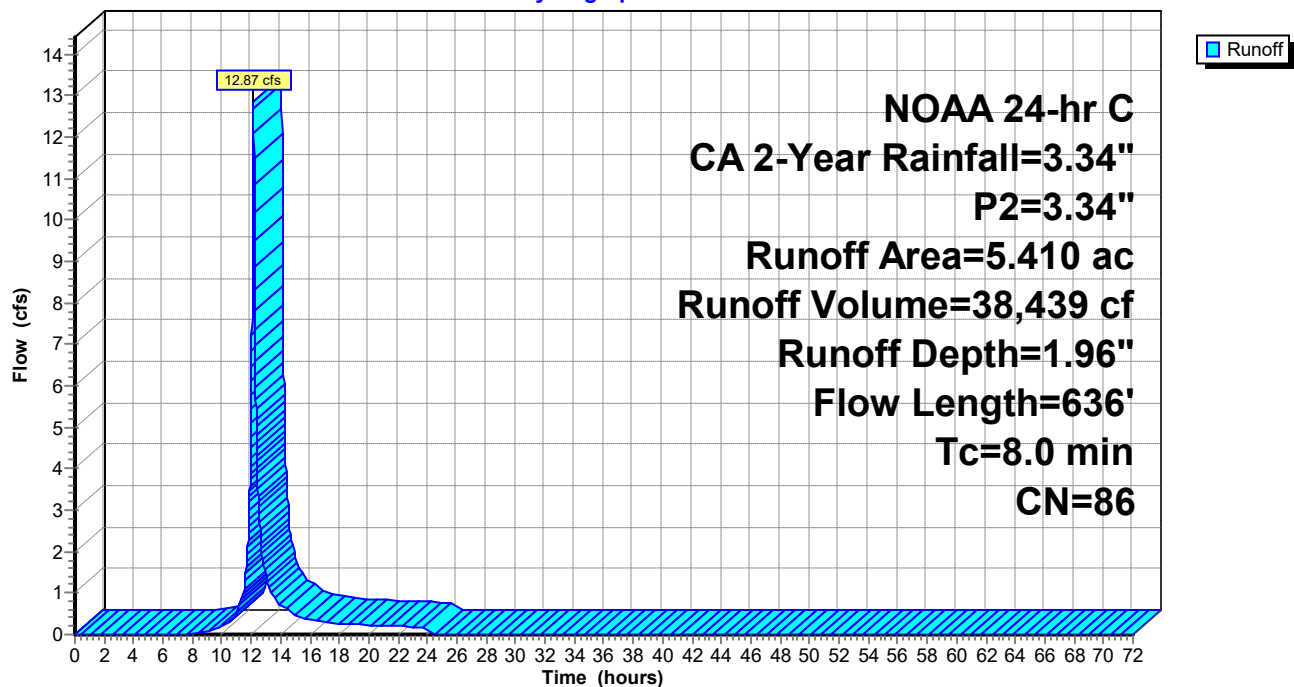
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr C CA 2-Year Rainfall=3.34", P2=3.34"

Area (ac)	CN	Description
5.410	86	Fallow, bare soil, HSG B
5.410	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	100	0.0260	0.46		Sheet Flow, Ao to Bo
					Fallow n= 0.050 P2= 3.34"
4.4	536	0.0160	2.04		Shallow Concentrated Flow, Bo to Outfall POA
					Unpaved Kv= 16.1 fps
8.0	636	Total			

Subcatchment 1: EX OUTFALL DA

Hydrograph



Summary for Subcatchment 2: EX MODIFIED DA

Runoff = 2.16 cfs @ 12.17 hrs, Volume= 6,892 cf, Depth= 1.96"
 Routed to Link 4 : Ex POA

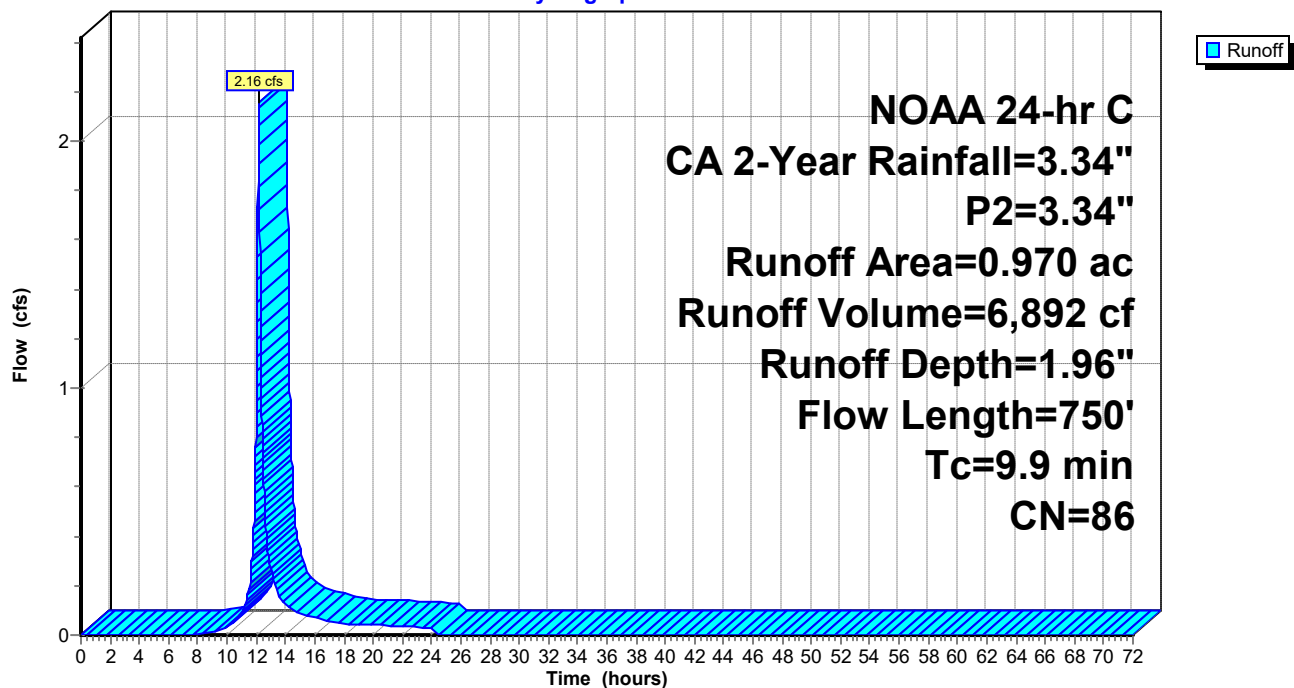
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr C CA 2-Year Rainfall=3.34", P2=3.34"

Area (ac)	CN	Description
0.970	86	Fallow, bare soil, HSG B
0.970	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	100	0.0340	0.52		Sheet Flow, Ae to Be Fallow n= 0.050 P2= 3.34"
6.7	650	0.0100	1.61		Shallow Concentrated Flow, Be to Ce Unpaved Kv= 16.1 fps
9.9	750	Total			

Subcatchment 2: EX MODIFIED DA

Hydrograph



Summary for Subcatchment 3: EX REMAINING DA

Runoff = 18.24 cfs @ 12.19 hrs, Volume= 60,537 cf, Depth= 1.96"
 Routed to Link 4 : Ex POA

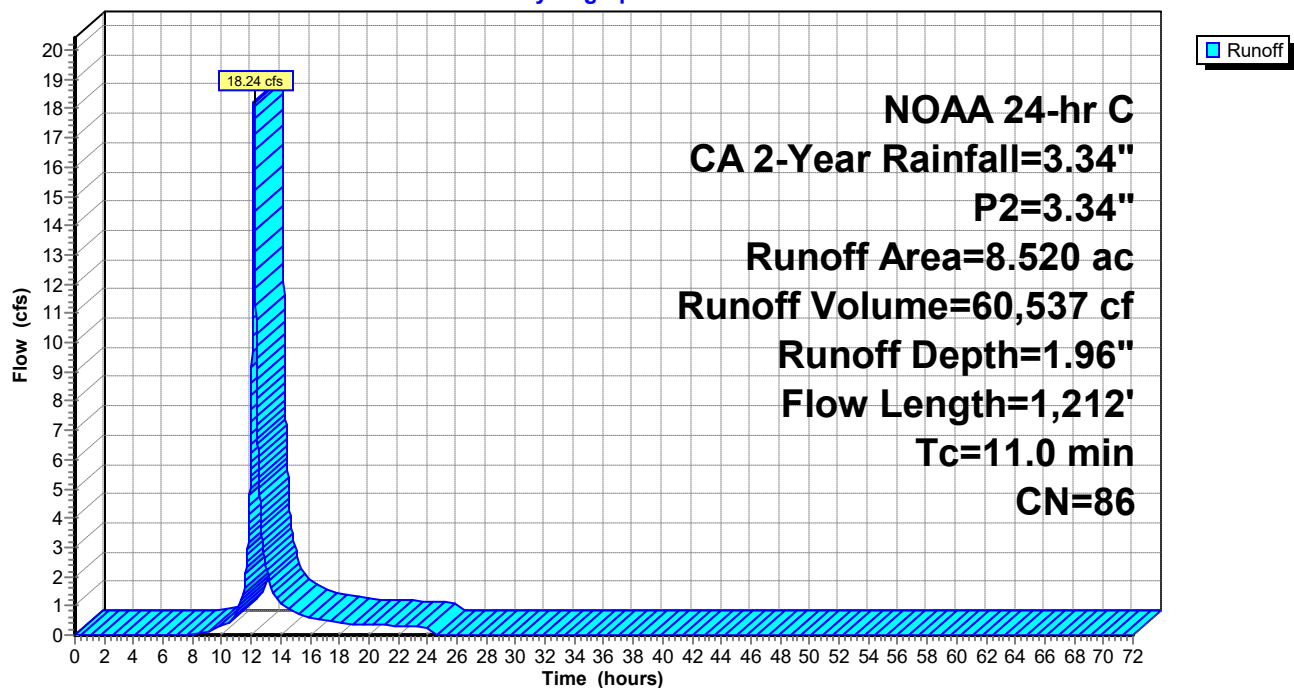
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr C CA 2-Year Rainfall=3.34", P2=3.34"

Area (ac)	CN	Description
8.520	86	Fallow, bare soil, HSG B
8.520	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	100	0.0450	0.58		Sheet Flow, Ae TO Be
8.1	1,112	0.0200	2.28		Fallow n= 0.050 P2= 3.34"
					Shallow Concentrated Flow, Be TO Total POA
					Unpaved Kv= 16.1 fps
11.0	1,212	Total			

Subcatchment 3: EX REMAINING DA

Hydrograph



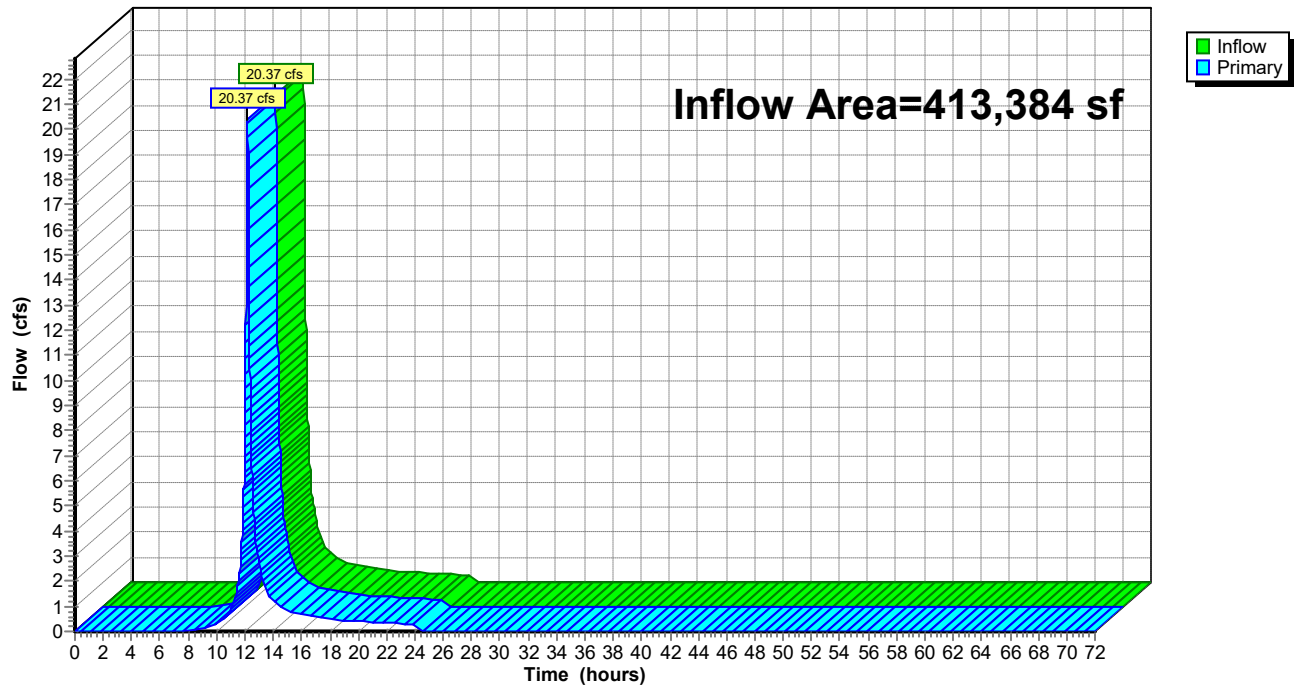
Summary for Link 4: Ex POA

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth = 1.96" for CA 2-Year event
Inflow = 20.37 cfs @ 12.18 hrs, Volume= 67,429 cf
Primary = 20.37 cfs @ 12.18 hrs, Volume= 67,429 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link 4: Ex POA

Hydrograph



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NOAA 24-hr C CA 10-Year Rainfall=5.11", P2=3.34"

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Page 8

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
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 1: EX OUTFALL DA

Runoff Area=5.410 ac 0.00% Impervious Runoff Depth=3.57"
Flow Length=636' Tc=8.0 min CN=86 Runoff=22.95 cfs 70,105 cf

Subcatchment 2: EX MODIFIED DA

Runoff Area=0.970 ac 0.00% Impervious Runoff Depth=3.57"
Flow Length=750' Tc=9.9 min CN=86 Runoff=3.85 cfs 12,570 cf

Subcatchment 3: EX REMAINING DA

Runoff Area=8.520 ac 0.00% Impervious Runoff Depth=3.57"
Flow Length=1,212' Tc=11.0 min CN=86 Runoff=32.61 cfs 110,405 cf

Link 4: Ex POA

Inflow=36.43 cfs 122,975 cf
Primary=36.43 cfs 122,975 cf

Total Runoff Area = 649,044 sf Runoff Volume = 193,079 cf Average Runoff Depth = 3.57"
100.00% Pervious = 649,044 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1: EX OUTFALL DA

Runoff = 22.95 cfs @ 12.15 hrs, Volume= 70,105 cf, Depth= 3.57"

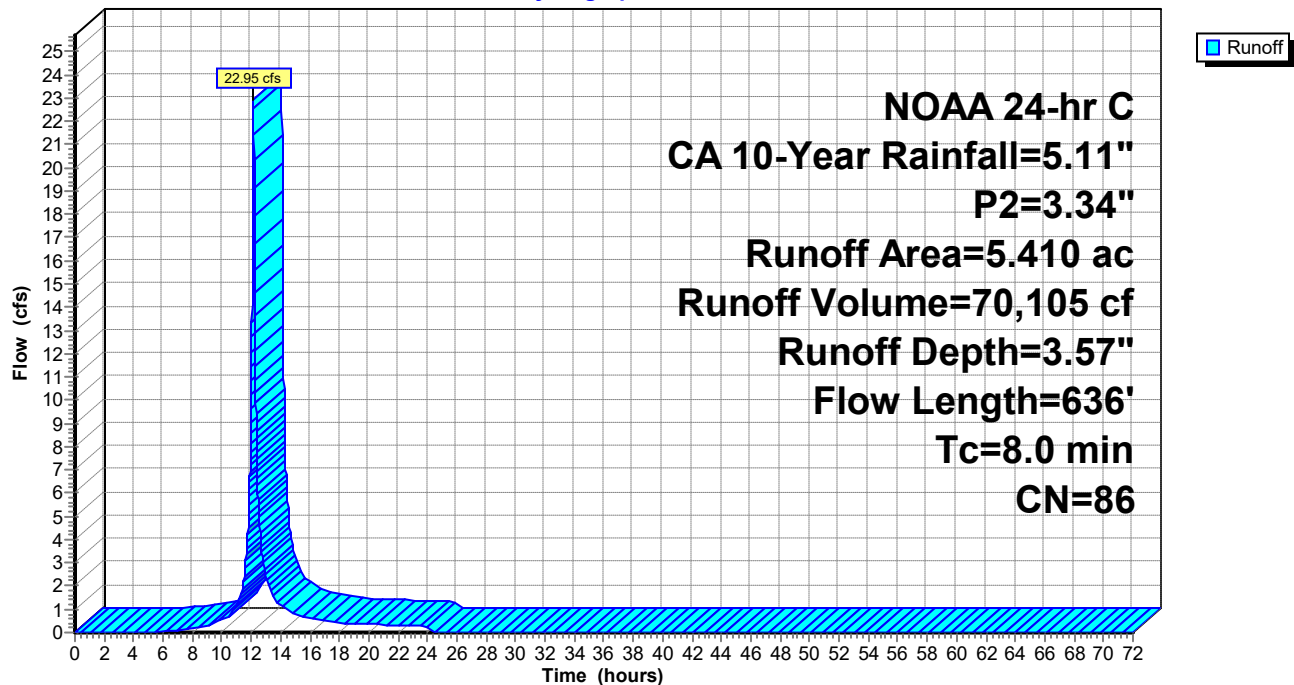
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr C CA 10-Year Rainfall=5.11", P2=3.34"

Area (ac)	CN	Description
5.410	86	Fallow, bare soil, HSG B
5.410	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	100	0.0260	0.46		Sheet Flow, Ao to Bo Fallow n= 0.050 P2= 3.34"
4.4	536	0.0160	2.04		Shallow Concentrated Flow, Bo to Outfall POA Unpaved Kv= 16.1 fps
8.0	636	Total			

Subcatchment 1: EX OUTFALL DA

Hydrograph



Summary for Subcatchment 2: EX MODIFIED DA

Runoff = 3.85 cfs @ 12.17 hrs, Volume= 12,570 cf, Depth= 3.57"
 Routed to Link 4 : Ex POA

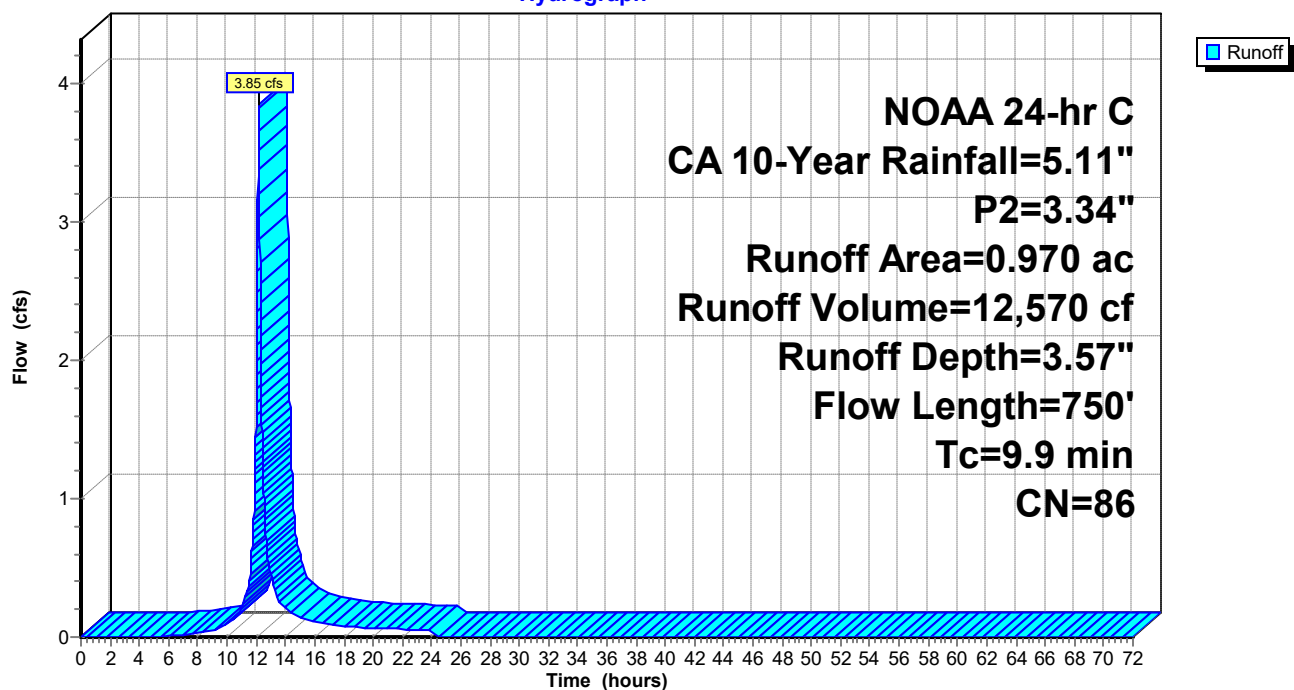
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr C CA 10-Year Rainfall=5.11", P2=3.34"

Area (ac)	CN	Description
0.970	86	Fallow, bare soil, HSG B
0.970	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	100	0.0340	0.52		Sheet Flow, Ae to Be
					Fallow n= 0.050 P2= 3.34"
6.7	650	0.0100	1.61		Shallow Concentrated Flow, Be to Ce
					Unpaved Kv= 16.1 fps
9.9	750	Total			

Subcatchment 2: EX MODIFIED DA

Hydrograph



Summary for Subcatchment 3: EX REMAINING DA

Runoff = 32.61 cfs @ 12.18 hrs, Volume= 110,405 cf, Depth= 3.57"
 Routed to Link 4 : Ex POA

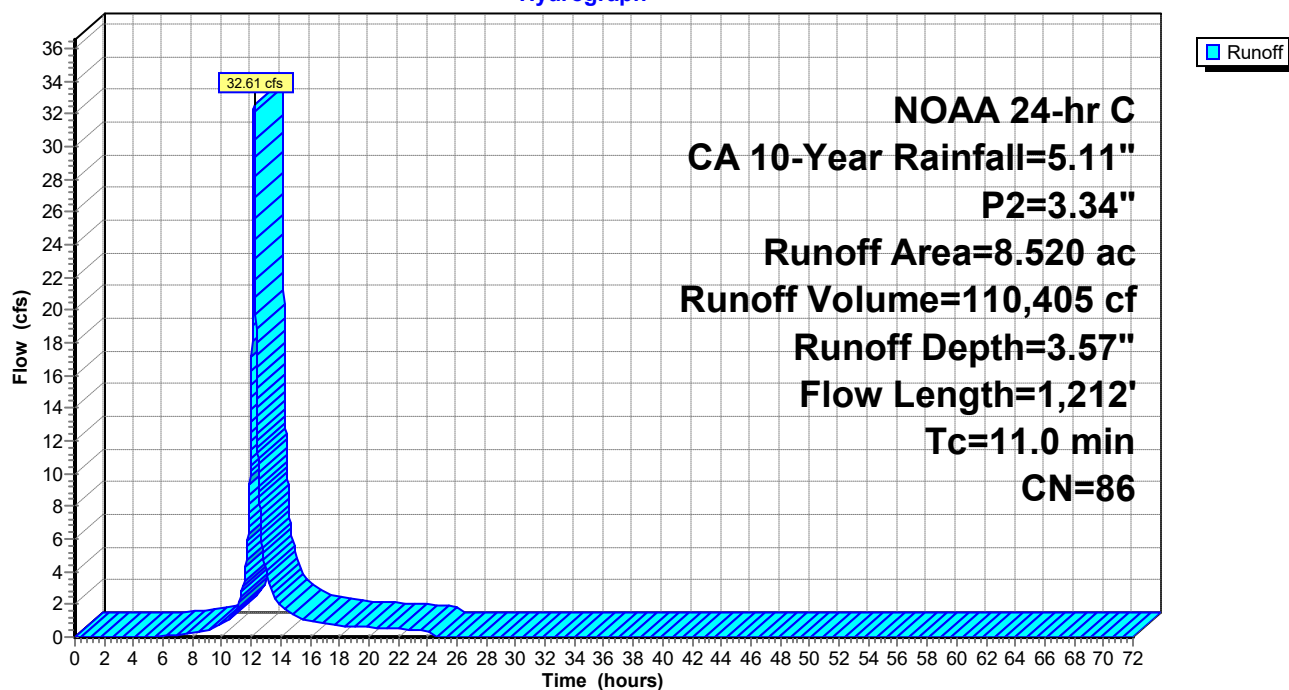
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr C CA 10-Year Rainfall=5.11", P2=3.34"

Area (ac)	CN	Description
8.520	86	Fallow, bare soil, HSG B
8.520	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	100	0.0450	0.58		Sheet Flow, Ae TO Be
8.1	1,112	0.0200	2.28		Fallow n= 0.050 P2= 3.34"
					Shallow Concentrated Flow, Be TO Total POA
					Unpaved Kv= 16.1 fps
11.0	1,212	Total			

Subcatchment 3: EX REMAINING DA

Hydrograph



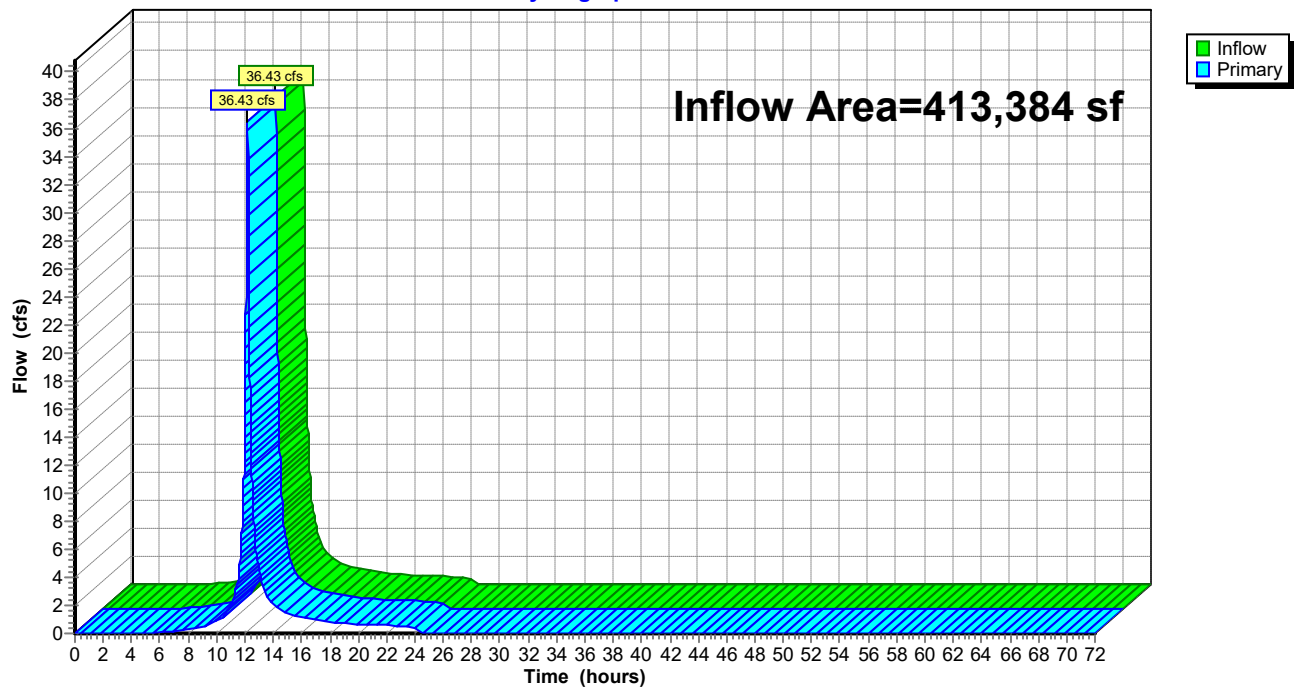
Summary for Link 4: Ex POA

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth = 3.57" for CA 10-Year event
Inflow = 36.43 cfs @ 12.18 hrs, Volume= 122,975 cf
Primary = 36.43 cfs @ 12.18 hrs, Volume= 122,975 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link 4: Ex POA

Hydrograph



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NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

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Page 13

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
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 1: EX OUTFALL DA

Runoff Area=5.410 ac 0.00% Impervious Runoff Depth=4.59"
Flow Length=636' Tc=8.0 min CN=86 Runoff=29.13 cfs 90,144 cf

Subcatchment 2: EX MODIFIED DA

Runoff Area=0.970 ac 0.00% Impervious Runoff Depth=4.59"
Flow Length=750' Tc=9.9 min CN=86 Runoff=4.89 cfs 16,163 cf

Subcatchment 3: EX REMAINING DA

Runoff Area=8.520 ac 0.00% Impervious Runoff Depth=4.59"
Flow Length=1,212' Tc=11.0 min CN=86 Runoff=41.43 cfs 141,964 cf

Link 4: Ex POA

Inflow=46.28 cfs 158,127 cf
Primary=46.28 cfs 158,127 cf

Total Runoff Area = 649,044 sf Runoff Volume = 248,271 cf Average Runoff Depth = 4.59"
100.00% Pervious = 649,044 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 1: EX OUTFALL DA

Runoff = 29.13 cfs @ 12.15 hrs, Volume= 90,144 cf, Depth= 4.59"

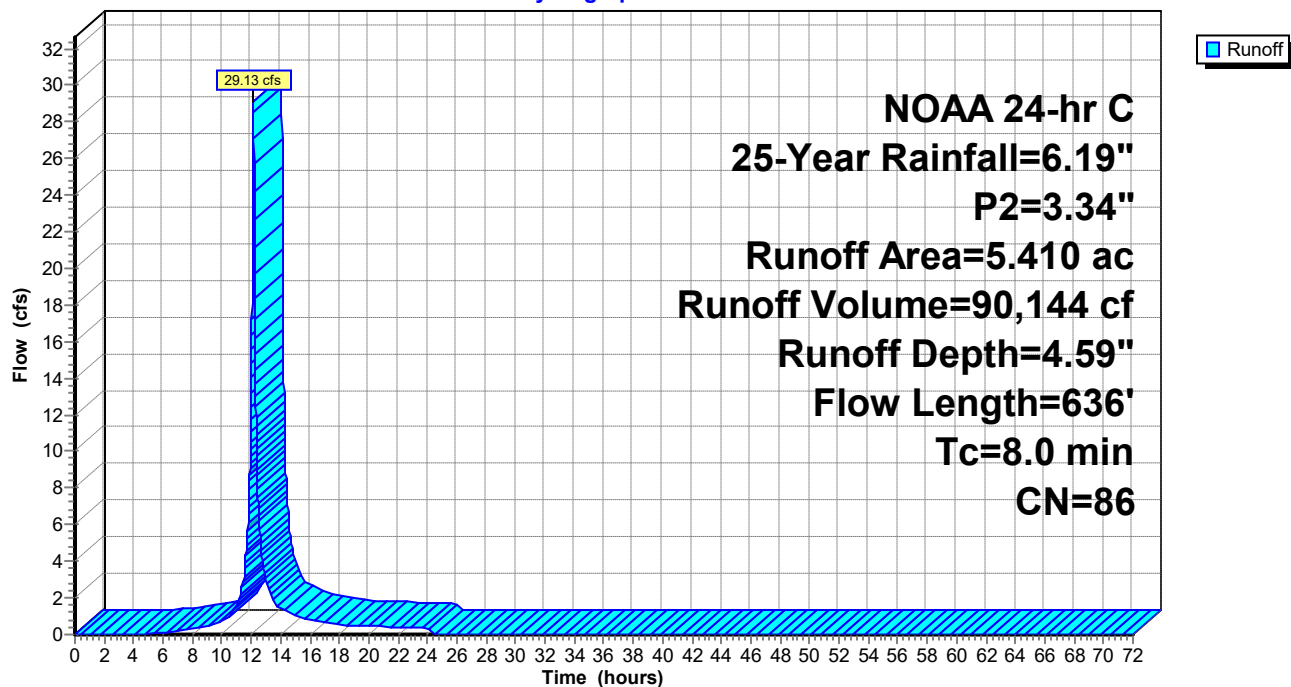
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

Area (ac)	CN	Description
5.410	86	Fallow, bare soil, HSG B
5.410	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	100	0.0260	0.46		Sheet Flow, Ao to Bo
					Fallow n= 0.050 P2= 3.34"
4.4	536	0.0160	2.04		Shallow Concentrated Flow, Bo to Outfall POA
					Unpaved Kv= 16.1 fps
8.0	636	Total			

Subcatchment 1: EX OUTFALL DA

Hydrograph



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NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

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Page 15

Summary for Subcatchment 2: EX MODIFIED DA

Runoff = 4.89 cfs @ 12.17 hrs, Volume= 16,163 cf, Depth= 4.59"
Routed to Link 4 : Ex POA

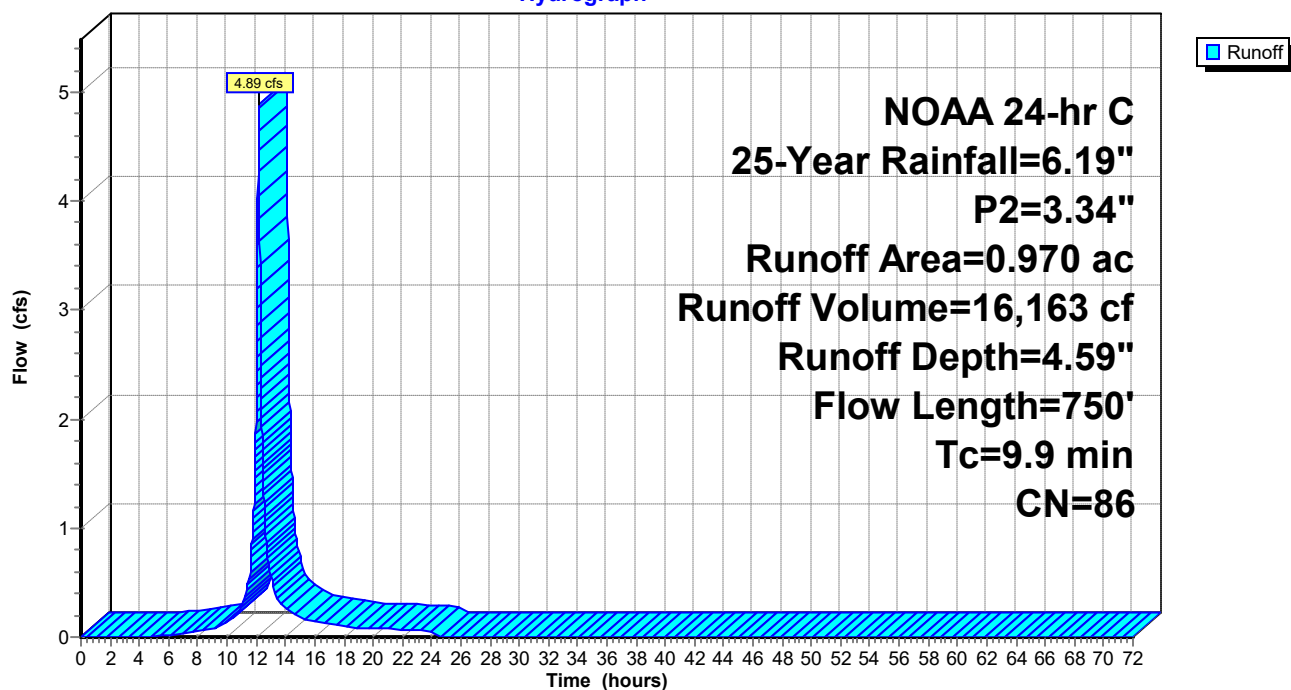
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

Area (ac)	CN	Description
0.970	86	Fallow, bare soil, HSG B
0.970	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	100	0.0340	0.52		Sheet Flow, Ae to Be
					Fallow n= 0.050 P2= 3.34"
6.7	650	0.0100	1.61		Shallow Concentrated Flow, Be to Ce
					Unpaved Kv= 16.1 fps
9.9	750	Total			

Subcatchment 2: EX MODIFIED DA

Hydrograph



Summary for Subcatchment 3: EX REMAINING DA

Runoff = 41.43 cfs @ 12.18 hrs, Volume= 141,964 cf, Depth= 4.59"
 Routed to Link 4 : Ex POA

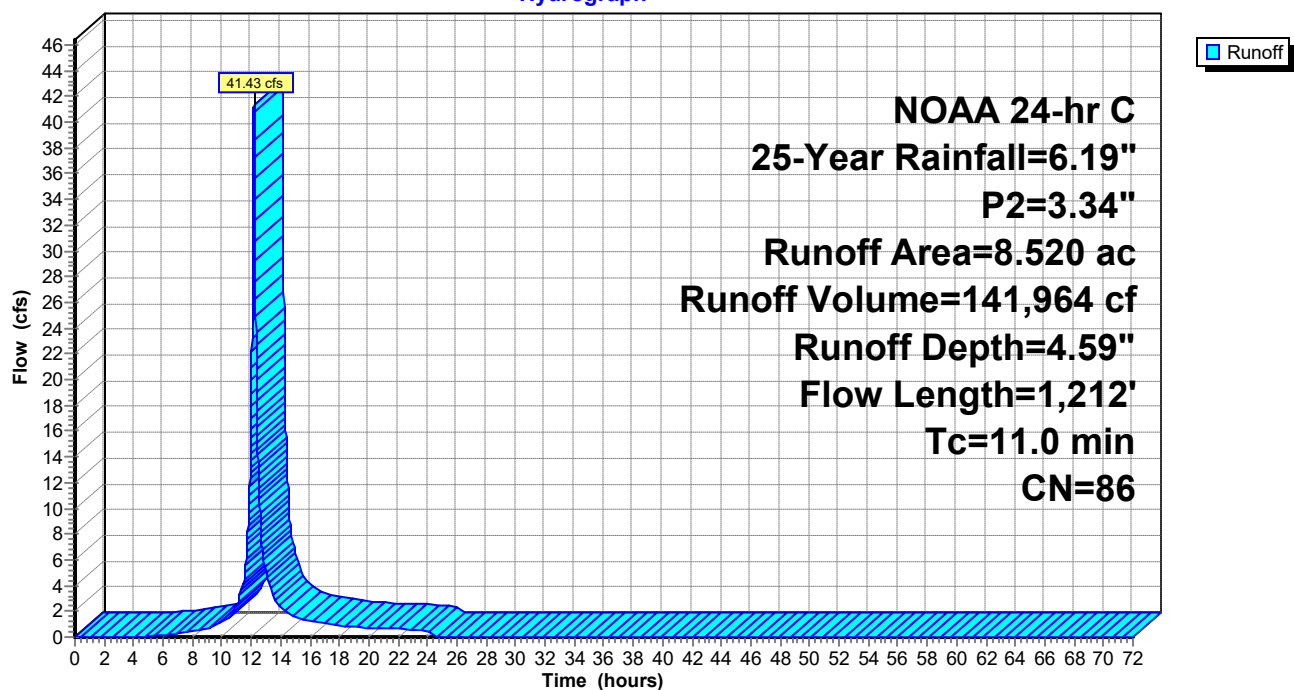
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

Area (ac)	CN	Description
8.520	86	Fallow, bare soil, HSG B
8.520	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	100	0.0450	0.58		Sheet Flow, Ae TO Be
8.1	1,112	0.0200	2.28		Fallow n= 0.050 P2= 3.34"
					Shallow Concentrated Flow, Be TO Total POA
					Unpaved Kv= 16.1 fps
11.0	1,212	Total			

Subcatchment 3: EX REMAINING DA

Hydrograph



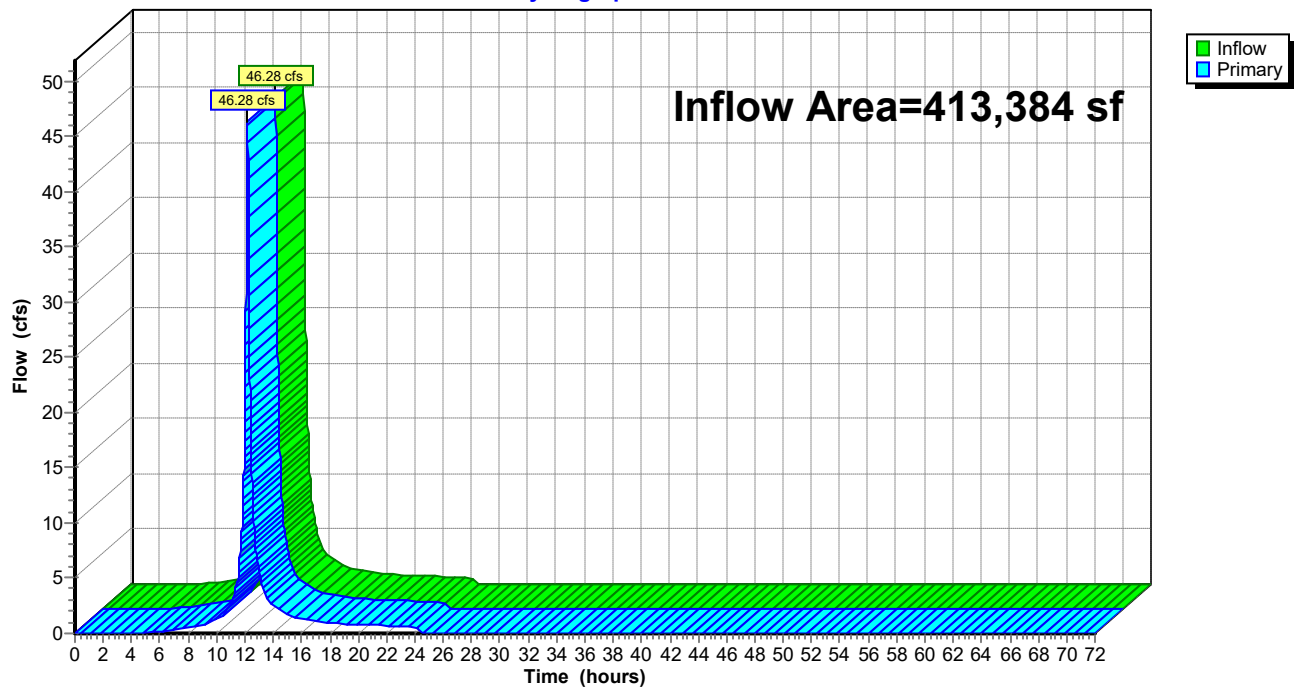
Summary for Link 4: Ex POA

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth = 4.59" for 25-Year event
Inflow = 46.28 cfs @ 12.18 hrs, Volume= 158,127 cf
Primary = 46.28 cfs @ 12.18 hrs, Volume= 158,127 cf, Atten= 0%, Lag= 0.0 min

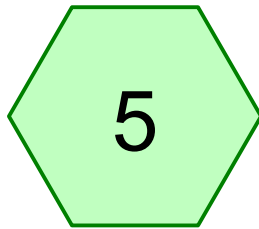
Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link 4: Ex POA

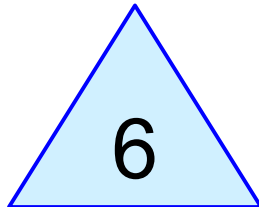
Hydrograph



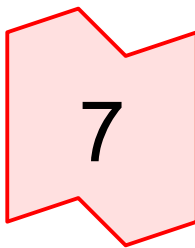
Proposed 2, 10, 25 Year Routings



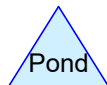
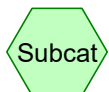
PR DA



INF. BASIN



PR POA



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Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC	P2 (inches)
1	CA 2-Year	NOAA 24-hr	C	Default	24.00	1	3.34	2	3.34
2	CA 10-Year	NOAA 24-hr	C	Default	24.00	1	5.11	2	3.34
3	25-Year	NOAA 24-hr	C	Default	24.00	1	6.19	2	3.34

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NOAA 24-hr C CA 2-Year Rainfall=3.34", P2=3.34"

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Page 3

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
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 5: PR DA

Runoff Area=9.490 ac 0.00% Impervious Runoff Depth=1.96"
Flow Length=694' Tc=7.0 min CN=86 Runoff=23.47 cfs 67,429 cf

Pond 6: INF. BASIN

Peak Elev=74.94' Storage=34,225 cf Inflow=23.47 cfs 67,429 cf
Primary=1.64 cfs 46,037 cf Secondary=2.93 cfs 7,332 cf Outflow=4.58 cfs 53,369 cf

Link 7: PR POA

Inflow=4.58 cfs 53,369 cf
Primary=4.58 cfs 53,369 cf

Total Runoff Area = 413,384 sf Runoff Volume = 67,429 cf Average Runoff Depth = 1.96"
100.00% Pervious = 413,384 sf 0.00% Impervious = 0 sf

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NOAA 24-hr C CA 2-Year Rainfall=3.34", P2=3.34"

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Page 4

Summary for Subcatchment 5: PR DA

Runoff = 23.47 cfs @ 12.14 hrs, Volume= 67,429 cf, Depth= 1.96"
Routed to Pond 6 : INF. BASIN

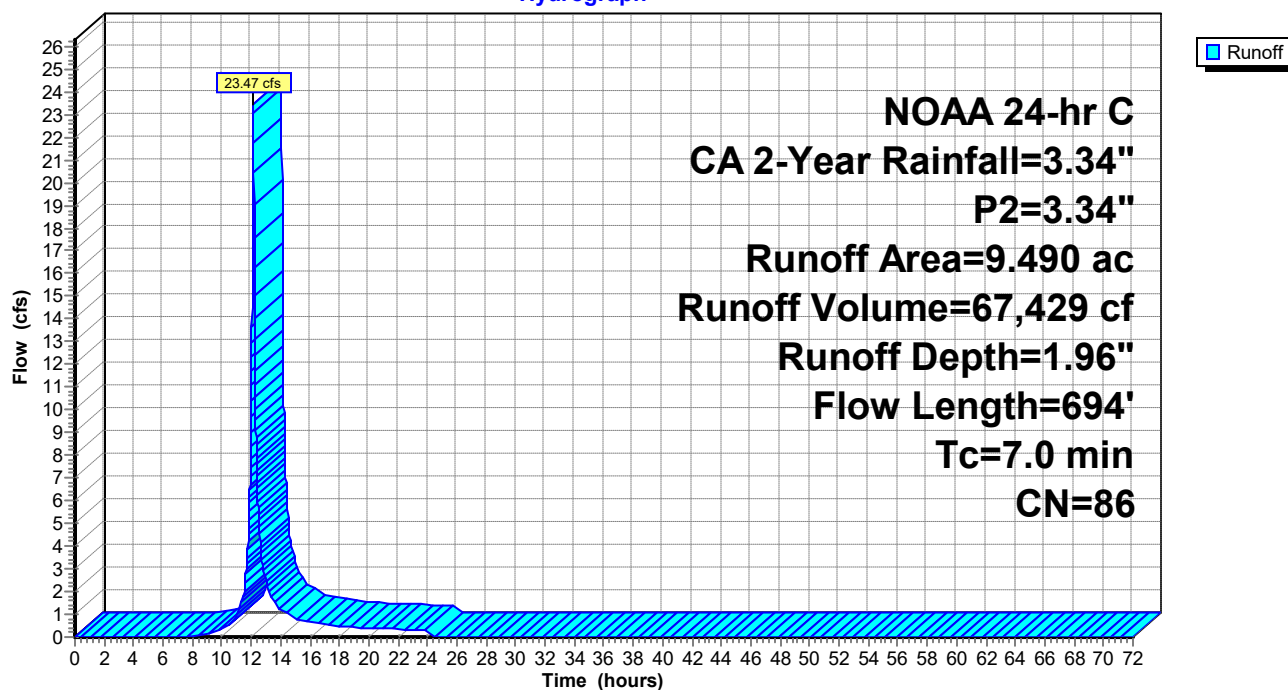
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr C CA 2-Year Rainfall=3.34", P2=3.34"

Area (ac)	CN	Description
9.490	86	Fallow, bare soil, HSG B
9.490	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	100	0.0450	0.58		Sheet Flow, Ap TO Bp
					Fallow n= 0.050 P2= 3.34"
4.1	594	0.0220	2.39		Shallow Concentrated Flow, Bp TO Cp
					Unpaved Kv= 16.1 fps
7.0	694	Total			

Subcatchment 5: PR DA

Hydrograph



Summary for Pond 6: INF. BASIN

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth = 1.96" for CA 2-Year event
 Inflow = 23.47 cfs @ 12.14 hrs, Volume= 67,429 cf
 Outflow = 4.58 cfs @ 12.58 hrs, Volume= 53,369 cf, Atten= 80%, Lag= 26.4 min
 Primary = 1.64 cfs @ 12.58 hrs, Volume= 46,037 cf
 Routed to Link 7 : PR POA
 Secondary = 2.93 cfs @ 12.58 hrs, Volume= 7,332 cf
 Routed to Link 7 : PR POA

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 74.94' @ 12.58 hrs Surf.Area= 19,386 sf Storage= 34,225 cf

Plug-Flow detention time= 456.8 min calculated for 53,369 cf (79% of inflow)
 Center-of-Mass det. time= 373.6 min (1,198.4 - 824.8)

Volume	Invert	Avail.Storage	Storage Description
#1	73.00'	47,719 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.00	15,996	0	0
74.00	17,721	16,859	16,859
75.00	19,500	18,611	35,469
75.60	21,333	12,250	47,719

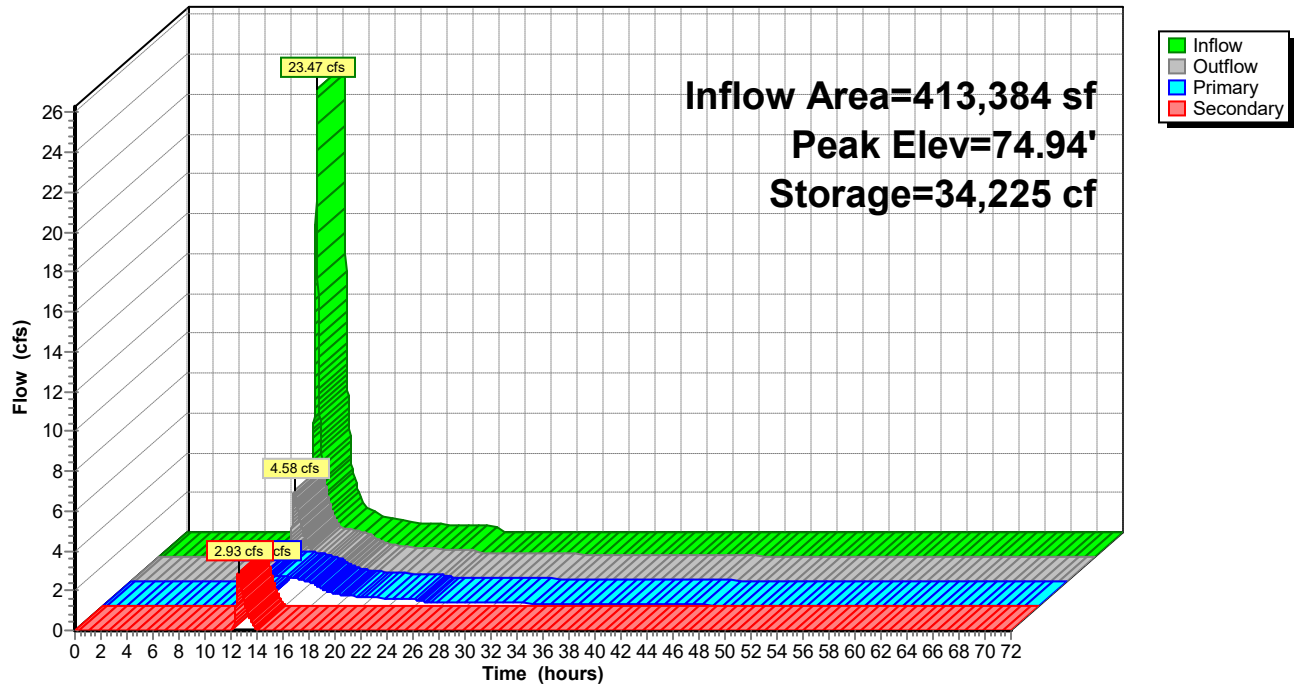
Device	Routing	Invert	Outlet Devices
#1	Primary	73.75'	10.0" Round Culvert L= 55.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 73.75' / 73.75' S= 0.0000 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#2	Device 1	73.75'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	74.40'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	74.80'	25.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=1.64 cfs @ 12.58 hrs HW=74.94' TW=0.00' (Dynamic Tailwater)

↑ **1=Culvert** (Barrel Controls 1.64 cfs @ 3.01 fps)
 ↑ **2=Orifice/Grate** (Passes < 0.24 cfs potential flow)
 ↑ **3=Orifice/Grate** (Passes < 2.77 cfs potential flow)

Secondary OutFlow Max=2.93 cfs @ 12.58 hrs HW=74.94' TW=0.00' (Dynamic Tailwater)

↑ **4=Broad-Crested Rectangular Weir** (Weir Controls 2.93 cfs @ 0.86 fps)

Pond 6: INF. BASIN**Hydrograph**

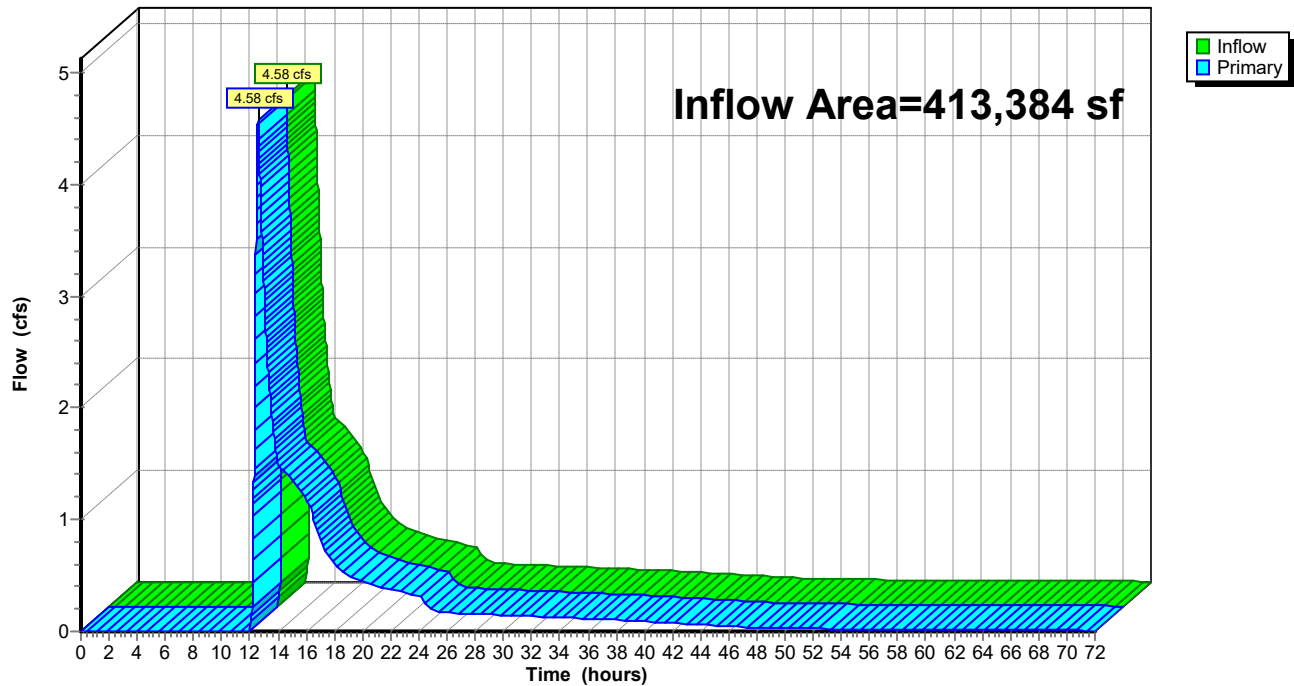
Summary for Link 7: PR POA

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth > 1.55" for CA 2-Year event
Inflow = 4.58 cfs @ 12.58 hrs, Volume= 53,369 cf
Primary = 4.58 cfs @ 12.58 hrs, Volume= 53,369 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link 7: PR POA

Hydrograph



LAWTO25002 PRE AND POST

NOAA 24-hr C CA 10-Year Rainfall=5.11", P2=3.34"

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Page 8

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

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 5: PR DARunoff Area=9.490 ac 0.00% Impervious Runoff Depth=3.57"
Flow Length=694' Tc=7.0 min CN=86 Runoff=41.80 cfs 122,975 cf**Pond 6: INF. BASIN**Peak Elev=75.38' Storage=43,100 cf Inflow=41.80 cfs 122,975 cf
Primary=2.47 cfs 60,687 cf Secondary=29.59 cfs 48,213 cf Outflow=32.06 cfs 108,900 cf**Link 7: PR POA**Inflow=32.06 cfs 108,900 cf
Primary=32.06 cfs 108,900 cf**Total Runoff Area = 413,384 sf Runoff Volume = 122,975 cf Average Runoff Depth = 3.57"**
100.00% Pervious = 413,384 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 5: PR DA

Runoff = 41.80 cfs @ 12.14 hrs, Volume= 122,975 cf, Depth= 3.57"
 Routed to Pond 6 : INF. BASIN

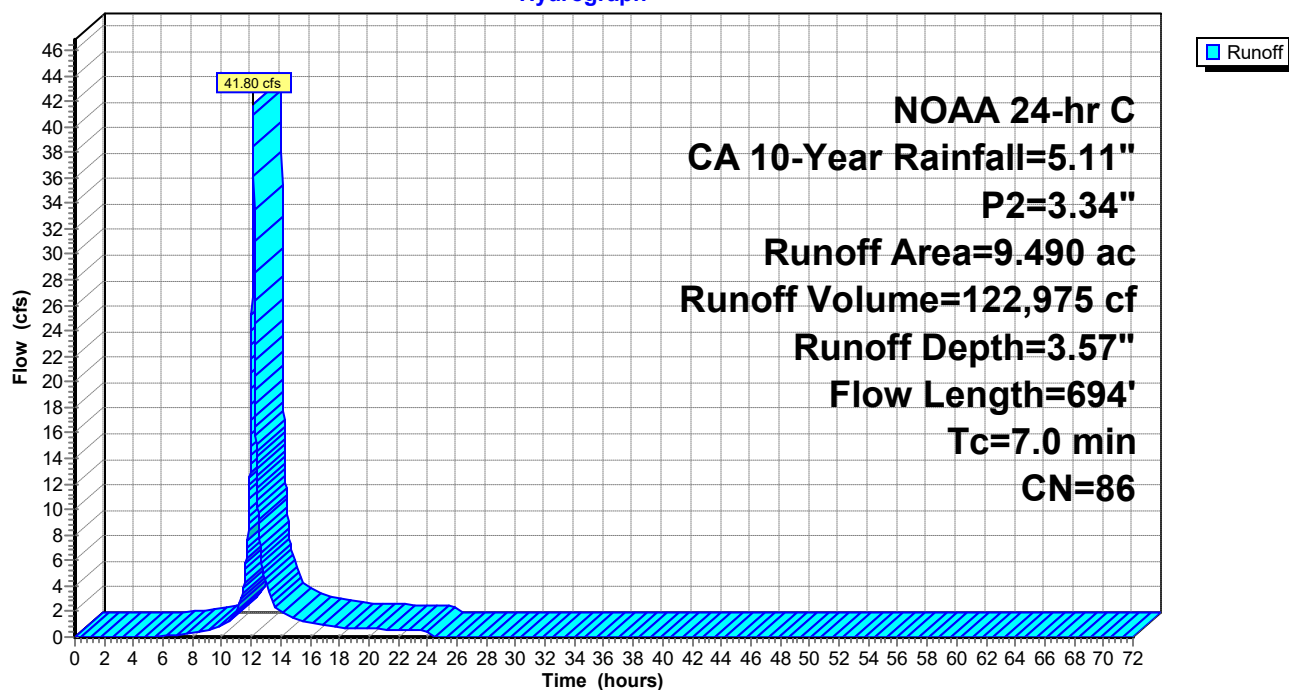
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr C CA 10-Year Rainfall=5.11", P2=3.34"

Area (ac)	CN	Description
9.490	86	Fallow, bare soil, HSG B
9.490	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	100	0.0450	0.58		Sheet Flow, Ap TO Bp
					Fallow n= 0.050 P2= 3.34"
4.1	594	0.0220	2.39		Shallow Concentrated Flow, Bp TO Cp
					Unpaved Kv= 16.1 fps
7.0	694	Total			

Subcatchment 5: PR DA

Hydrograph



Summary for Pond 6: INF. BASIN

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth = 3.57" for CA 10-Year event
 Inflow = 41.80 cfs @ 12.14 hrs, Volume= 122,975 cf
 Outflow = 32.06 cfs @ 12.20 hrs, Volume= 108,900 cf, Atten= 23%, Lag= 3.3 min
 Primary = 2.47 cfs @ 12.20 hrs, Volume= 60,687 cf
 Routed to Link 7 : PR POA
 Secondary = 29.59 cfs @ 12.20 hrs, Volume= 48,213 cf
 Routed to Link 7 : PR POA

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 75.38' @ 12.20 hrs Surf.Area= 20,661 sf Storage= 43,100 cf

Plug-Flow detention time= 263.9 min calculated for 108,885 cf (89% of inflow)
 Center-of-Mass det. time= 208.5 min (1,015.8 - 807.4)

Volume	Invert	Avail.Storage	Storage Description
#1	73.00'	47,719 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.00	15,996	0	0
74.00	17,721	16,859	16,859
75.00	19,500	18,611	35,469
75.60	21,333	12,250	47,719

Device	Routing	Invert	Outlet Devices
#1	Primary	73.75'	10.0" Round Culvert L= 55.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 73.75' / 73.75' S= 0.0000 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#2	Device 1	73.75'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	74.40'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	74.80'	25.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=2.47 cfs @ 12.20 hrs HW=75.38' TW=0.00' (Dynamic Tailwater)

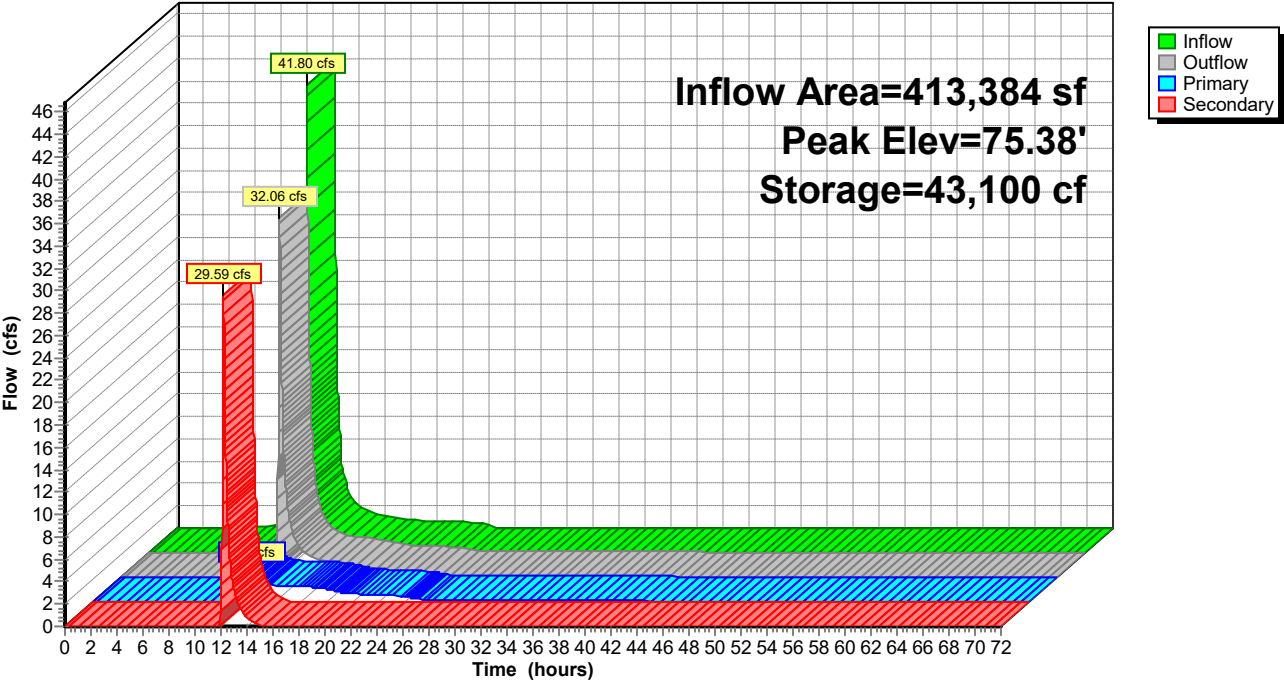
↑ **1=Culvert** (Barrel Controls 2.47 cfs @ 4.53 fps)
 ↑ **2=Orifice/Grate** (Passes < 0.29 cfs potential flow)
 ↑ **3=Orifice/Grate** (Passes < 3.74 cfs potential flow)

Secondary OutFlow Max=29.55 cfs @ 12.20 hrs HW=75.38' TW=0.00' (Dynamic Tailwater)

↑ **4=Broad-Crested Rectangular Weir** (Weir Controls 29.55 cfs @ 2.04 fps)

Pond 6: INF. BASIN

Hydrograph



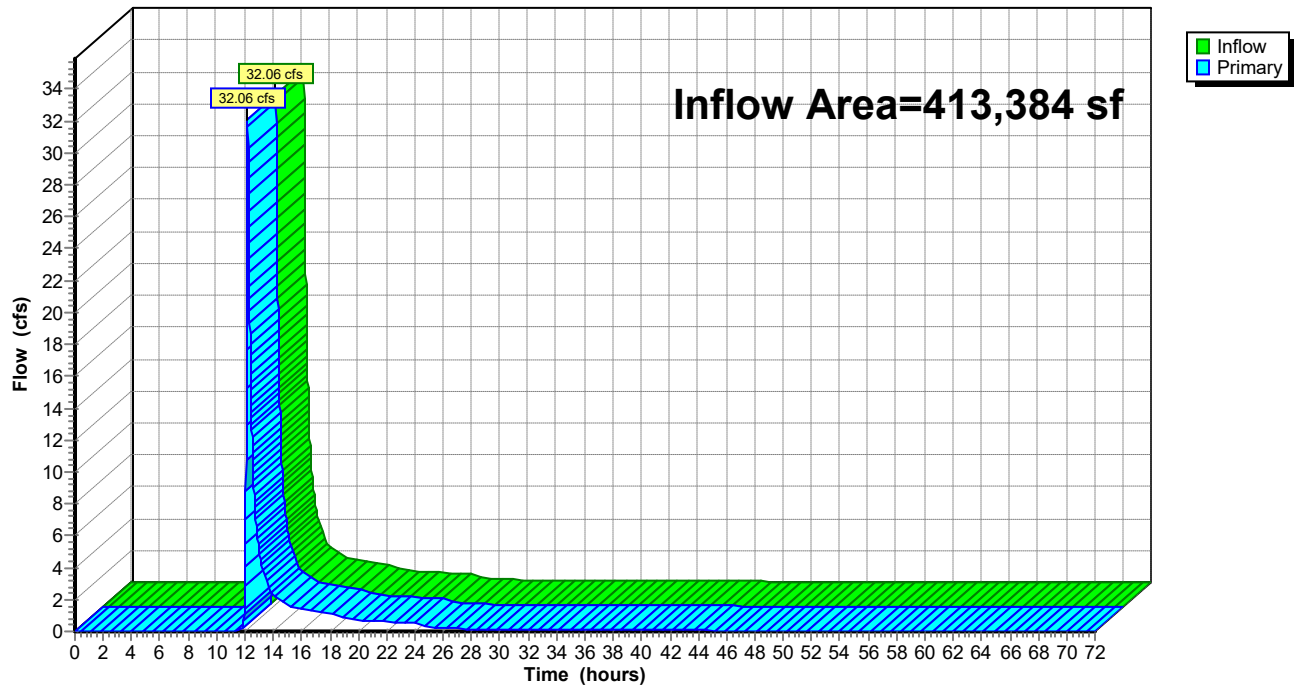
Summary for Link 7: PR POA

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth > 3.16" for CA 10-Year event
Inflow = 32.06 cfs @ 12.20 hrs, Volume= 108,900 cf
Primary = 32.06 cfs @ 12.20 hrs, Volume= 108,900 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link 7: PR POA

Hydrograph



LAWTO25002 PRE AND POST

NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

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Page 13

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

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 5: PR DARunoff Area=9.490 ac 0.00% Impervious Runoff Depth=4.59"
Flow Length=694' Tc=7.0 min CN=86 Runoff=53.03 cfs 158,127 cf**Pond 6: INF. BASIN**Peak Elev=75.53' Storage=46,215 cf Inflow=53.03 cfs 158,127 cf
Primary=2.69 cfs 68,550 cf Secondary=41.82 cfs 75,497 cf Outflow=44.52 cfs 144,047 cf**Link 7: PR POA**Inflow=44.52 cfs 144,047 cf
Primary=44.52 cfs 144,047 cf**Total Runoff Area = 413,384 sf Runoff Volume = 158,127 cf Average Runoff Depth = 4.59"**
100.00% Pervious = 413,384 sf 0.00% Impervious = 0 sf

LAWTO25002 PRE AND POST

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NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

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Page 14

Summary for Subcatchment 5: PR DA

Runoff = 53.03 cfs @ 12.14 hrs, Volume= 158,127 cf, Depth= 4.59"
Routed to Pond 6 : INF. BASIN

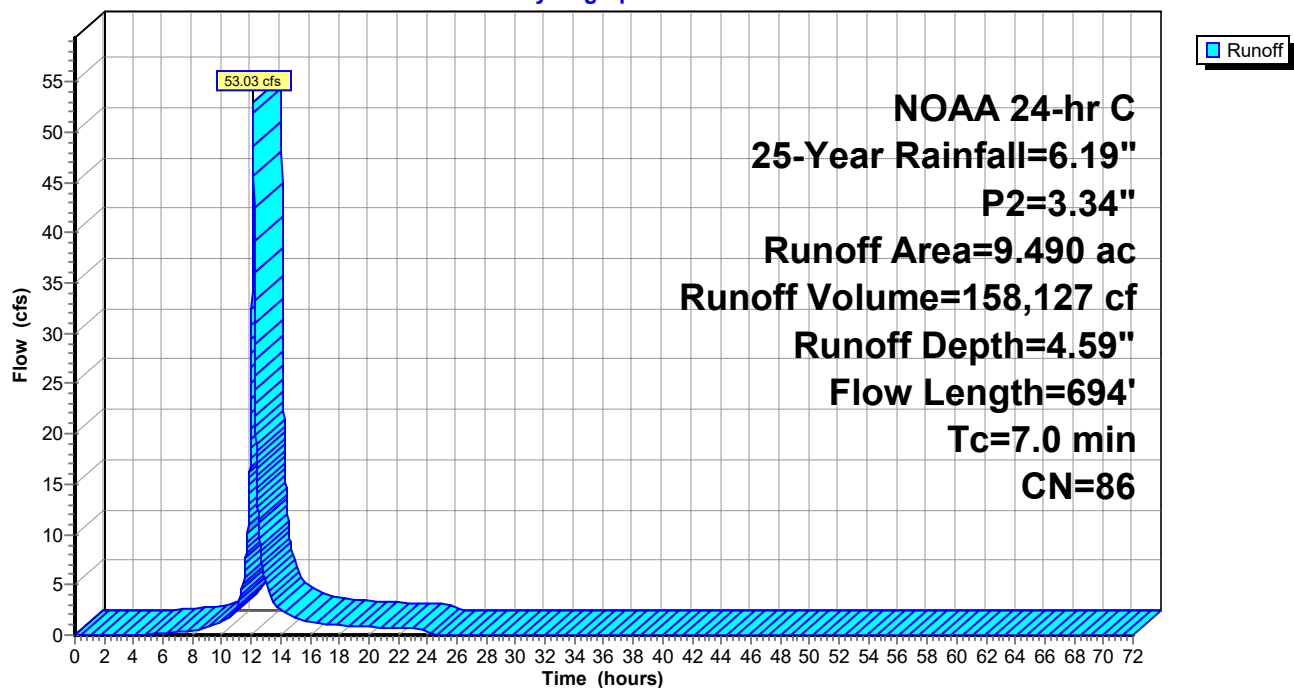
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

Area (ac)	CN	Description
9.490	86	Fallow, bare soil, HSG B
9.490	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	100	0.0450	0.58		Sheet Flow, Ap TO Bp
					Fallow n= 0.050 P2= 3.34"
4.1	594	0.0220	2.39		Shallow Concentrated Flow, Bp TO Cp
					Unpaved Kv= 16.1 fps
7.0	694	Total			

Subcatchment 5: PR DA

Hydrograph



Summary for Pond 6: INF. BASIN

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth = 4.59" for 25-Year event
 Inflow = 53.03 cfs @ 12.14 hrs, Volume= 158,127 cf
 Outflow = 44.52 cfs @ 12.18 hrs, Volume= 144,047 cf, Atten= 16%, Lag= 2.6 min
 Primary = 2.69 cfs @ 12.18 hrs, Volume= 68,550 cf
 Routed to Link 7 : PR POA
 Secondary = 41.82 cfs @ 12.18 hrs, Volume= 75,497 cf
 Routed to Link 7 : PR POA

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 75.53' @ 12.18 hrs Surf.Area= 21,117 sf Storage= 46,215 cf

Plug-Flow detention time= 215.3 min calculated for 144,027 cf (91% of inflow)
 Center-of-Mass det. time= 169.4 min (969.5 - 800.2)

Volume	Invert	Avail.Storage	Storage Description
#1	73.00'	47,719 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.00	15,996	0	0
74.00	17,721	16,859	16,859
75.00	19,500	18,611	35,469
75.60	21,333	12,250	47,719

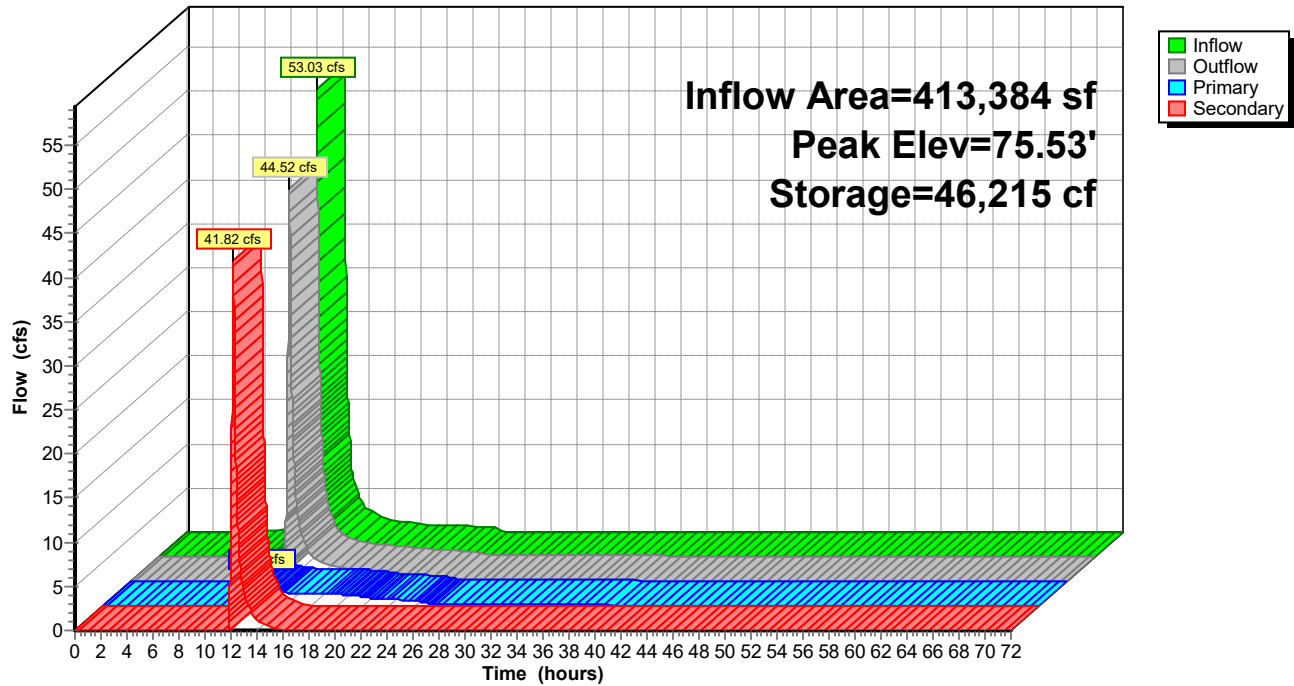
Device	Routing	Invert	Outlet Devices
#1	Primary	73.75'	10.0" Round Culvert L= 55.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 73.75' / 73.75' S= 0.0000 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#2	Device 1	73.75'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	74.40'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	74.80'	25.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=2.69 cfs @ 12.18 hrs HW=75.53' TW=0.00' (Dynamic Tailwater)

↑ **1=Culvert** (Barrel Controls 2.69 cfs @ 4.93 fps)
 ↑ **2=Orifice/Grate** (Passes < 0.30 cfs potential flow)
 ↑ **3=Orifice/Grate** (Passes < 4.02 cfs potential flow)

Secondary OutFlow Max=41.77 cfs @ 12.18 hrs HW=75.53' TW=0.00' (Dynamic Tailwater)

↑ **4=Broad-Crested Rectangular Weir** (Weir Controls 41.77 cfs @ 2.29 fps)

Pond 6: INF. BASIN**Hydrograph**

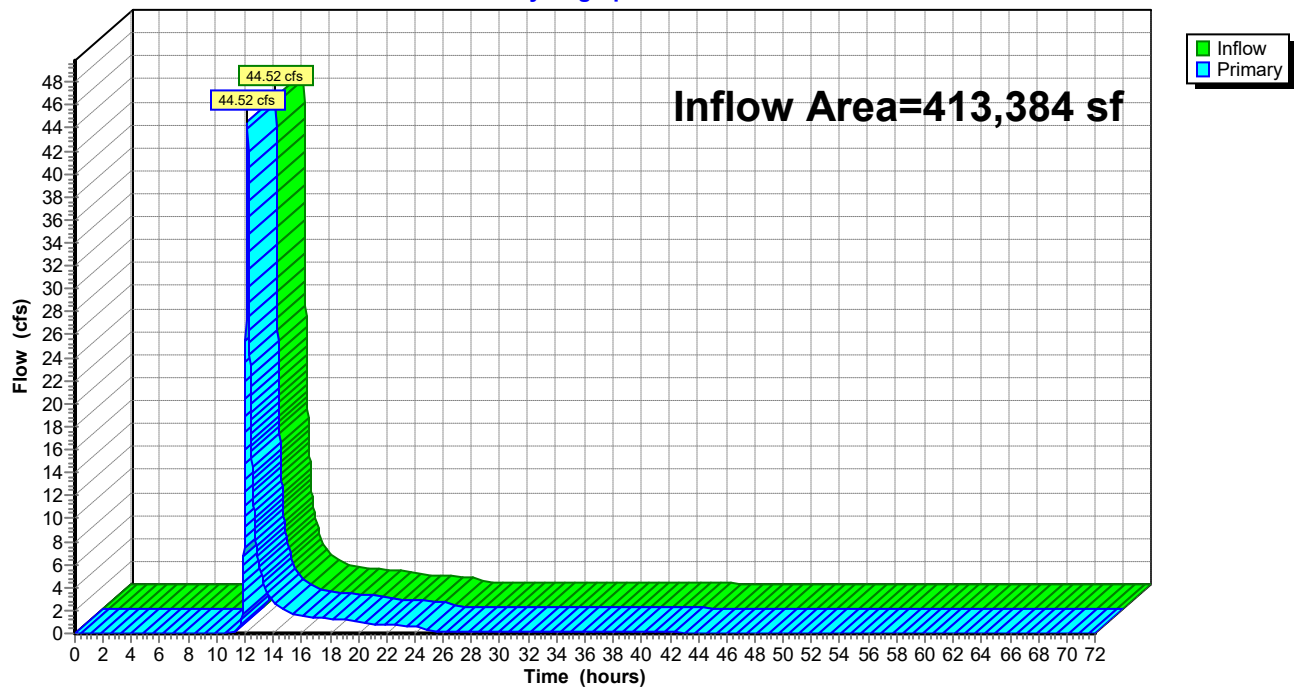
Summary for Link 7: PR POA

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth > 4.18" for 25-Year event
Inflow = 44.52 cfs @ 12.18 hrs, Volume= 144,047 cf
Primary = 44.52 cfs @ 12.18 hrs, Volume= 144,047 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link 7: PR POA

Hydrograph



Mounding Analysis

Input Values

0.50	R	Recharge rate (permeability rate) (in/hr)
0.150	Sy	Specific yield, Sy (dimensionless) default value is 0.15; max value is 0.2 provided that a lab test data is submitted
0.50	Kh	Horizontal hydraulic conductivity (in/hr) Kh = 5xRecharge Rate (R) in the costal plan; Kh=R outside the coastal plan
114.000	x	1/2 length of basin (x direction, in feet)
39.000	y	1/2 width of basin (y direction, in feet)
18.97	t	Duration of infiltration period (hours)
1.00	hi(0)	Initial thickness of saturated zone (feet)

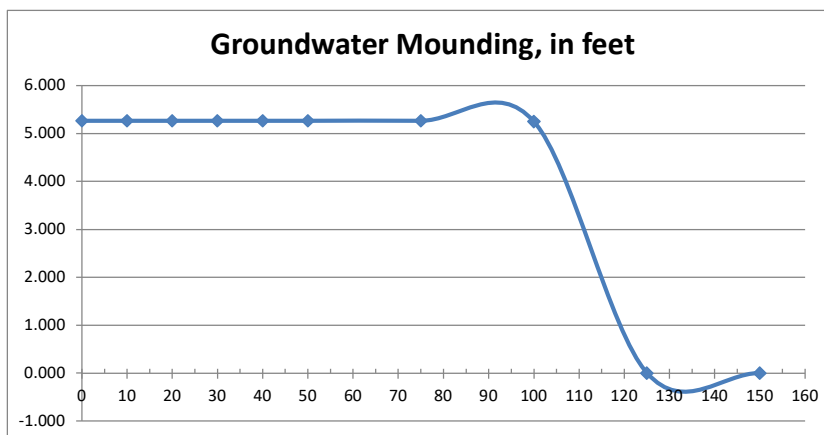
6.268	h(max)	Maximum thickness of saturated zone (beneath center of basin at end of infiltration period)
5.268	Δh(max)	Maximum groundwater mounding (beneath center of basin at end of infiltration period)

Distance from
center of basin in x
direction, in feet

5.268	0
5.268	10
5.268	20
5.268	30
5.268	40
5.268	50
5.268	75
5.255	100
0.002	125
0.002	150



Re-Calculate Now



Disclaimer

This spreadsheet solving the Hantush (1967) equation for ground-water mounding beneath an infiltration basin is made available to the general public as a convenience for those wishing to replicate values documented in the USGS Scientific Investigations Report 2010-5102 "Groundwater mounding beneath hypothetical stormwater infiltration basins" or to calculate values based on user-specified site conditions. Any changes made to the spreadsheet (other than values identified as user-specified) after transmission from the USGS could have unintended, undesirable consequences. These consequences could include, but may not be limited to: erroneous output, numerical instabilities, and violations of underlying assumptions that are inherent in results presented in the accompanying USGS published report. The USGS assumes no responsibility for the consequences of any changes made to the spreadsheet. If changes are made to the spreadsheet, the user is responsible for documenting the changes and justifying the results and conclusions.

$$\text{Duration of infiltration period, } t = \frac{\text{Volume of runoff to be infiltrated (cf)} \times 12 \text{ in/ft}}{\text{Infiltration area (sf)} \times \text{Recharge rate (in/hr)}}$$

Volume below lowest orifice to be infiltrated = 12,644 cf

Basin footprint infiltration area = 16,000 sf

Design recharge rate = 0.5 in/hr

$$t = (12,644 \times 12) / (16,000 \times 0.5) = 18.97 \text{ hrs}$$

Lowest existing grade within footprint - 74.2

Depth to SHGW per websoil survey - 6.56 feet

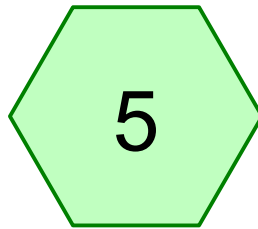
SHGW elevation - 67.64

Basin bottom elevation - 73.00

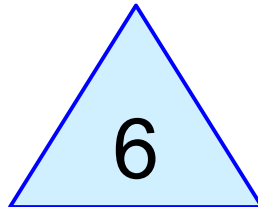
Mound height - 5.27 feet

67.64 + 5.27 ft = 72.91 max mound height < 73.00 basin bottom basin is compliant with mounding requirement

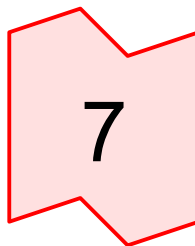
25 Year Failure Analysis



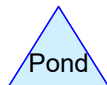
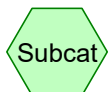
PR DA



INF. BASIN



PR POA



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Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC	P2 (inches)
1	25-Year	NOAA 24-hr	C	Default	24.00	1	6.19	2	3.34

LAWTO25002 PRE AND POST

NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

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Page 3

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points

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 5: PR DARunoff Area=9.490 ac 0.00% Impervious Runoff Depth=4.59"
Flow Length=694' Tc=7.0 min CN=86 Runoff=53.03 cfs 158,127 cf**Pond 6: INF. BASIN**Peak Elev=75.53' Storage=46,296 cf Inflow=53.03 cfs 158,127 cf
Primary=2.70 cfs 73,165 cf Secondary=42.15 cfs 83,364 cf Outflow=44.85 cfs 156,529 cf**Link 7: PR POA**Inflow=44.85 cfs 156,529 cf
Primary=44.85 cfs 156,529 cf**Total Runoff Area = 413,384 sf Runoff Volume = 158,127 cf Average Runoff Depth = 4.59"**
100.00% Pervious = 413,384 sf 0.00% Impervious = 0 sf

Summary for Subcatchment 5: PR DA

Runoff = 53.03 cfs @ 12.14 hrs, Volume= 158,127 cf, Depth= 4.59"
Routed to Pond 6 : INF. BASIN

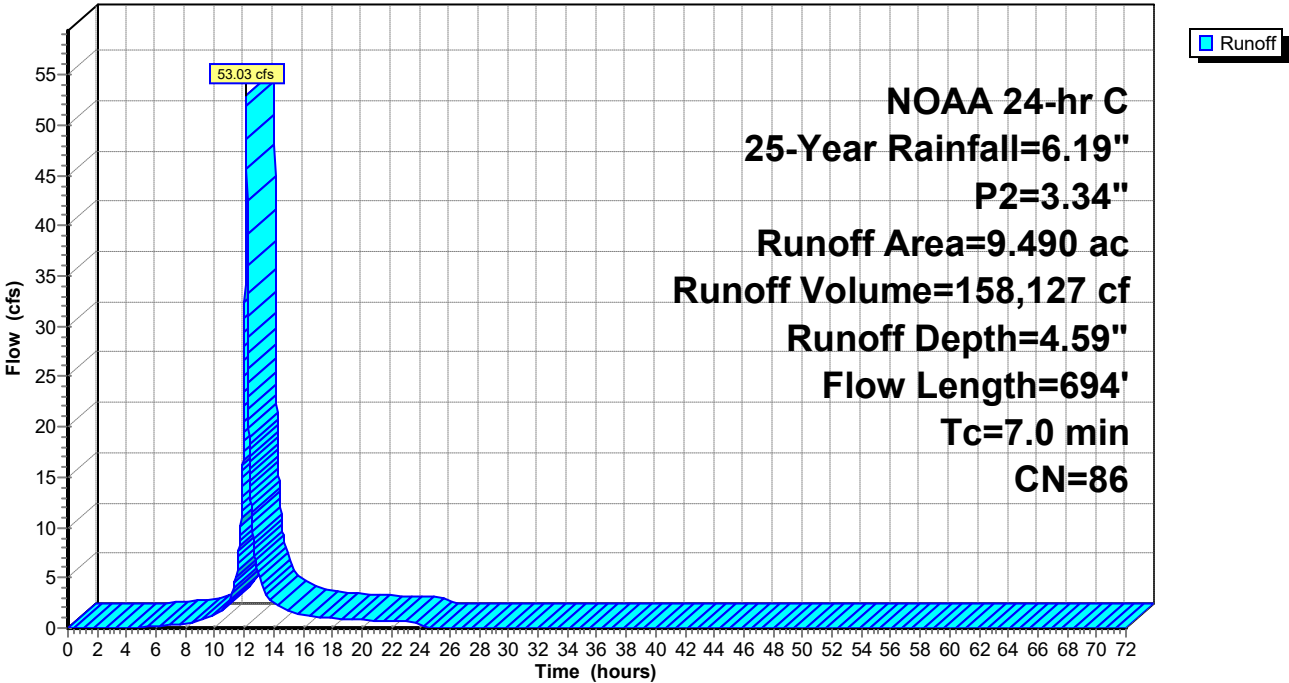
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 25-Year Rainfall=6.19", P2=3.34"

Area (ac)	CN	Description
9.490	86	Fallow, bare soil, HSG B
9.490	86	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	100	0.0450	0.58		Sheet Flow, Ap TO Bp
4.1	594	0.0220	2.39		Fallow n= 0.050 P2= 3.34"
					Shallow Concentrated Flow, Bp TO Cp
					Unpaved Kv= 16.1 fps
7.0	694	Total			

Subcatchment 5: PR DA

Hydrograph



Summary for Pond 6: INF. BASIN

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth = 4.59" for 25-Year event
 Inflow = 53.03 cfs @ 12.14 hrs, Volume= 158,127 cf
 Outflow = 44.85 cfs @ 12.18 hrs, Volume= 156,529 cf, Atten= 15%, Lag= 2.5 min
 Primary = 2.70 cfs @ 12.18 hrs, Volume= 73,165 cf
 Routed to Link 7 : PR POA
 Secondary = 42.15 cfs @ 12.18 hrs, Volume= 83,364 cf
 Routed to Link 7 : PR POA

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Starting Elev= 73.75' Surf.Area= 17,290 sf Storage= 12,482 cf
 Peak Elev= 75.53' @ 12.18 hrs Surf.Area= 21,128 sf Storage= 46,296 cf (33,814 cf above start)

Plug-Flow detention time= 215.6 min calculated for 144,027 cf (91% of inflow)
 Center-of-Mass det. time= 147.2 min (947.3 - 800.2)

Volume	Invert	Avail.Storage	Storage Description
#1	73.00'	47,719 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.00	15,996	0	0
74.00	17,721	16,859	16,859
75.00	19,500	18,611	35,469
75.60	21,333	12,250	47,719

Device	Routing	Invert	Outlet Devices
#1	Primary	73.75'	10.0" Round Culvert L= 55.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 73.75' / 73.75' S= 0.0000 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#2	Device 1	73.75'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	74.40'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	74.80'	25.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=2.70 cfs @ 12.18 hrs HW=75.53' TW=0.00' (Dynamic Tailwater)

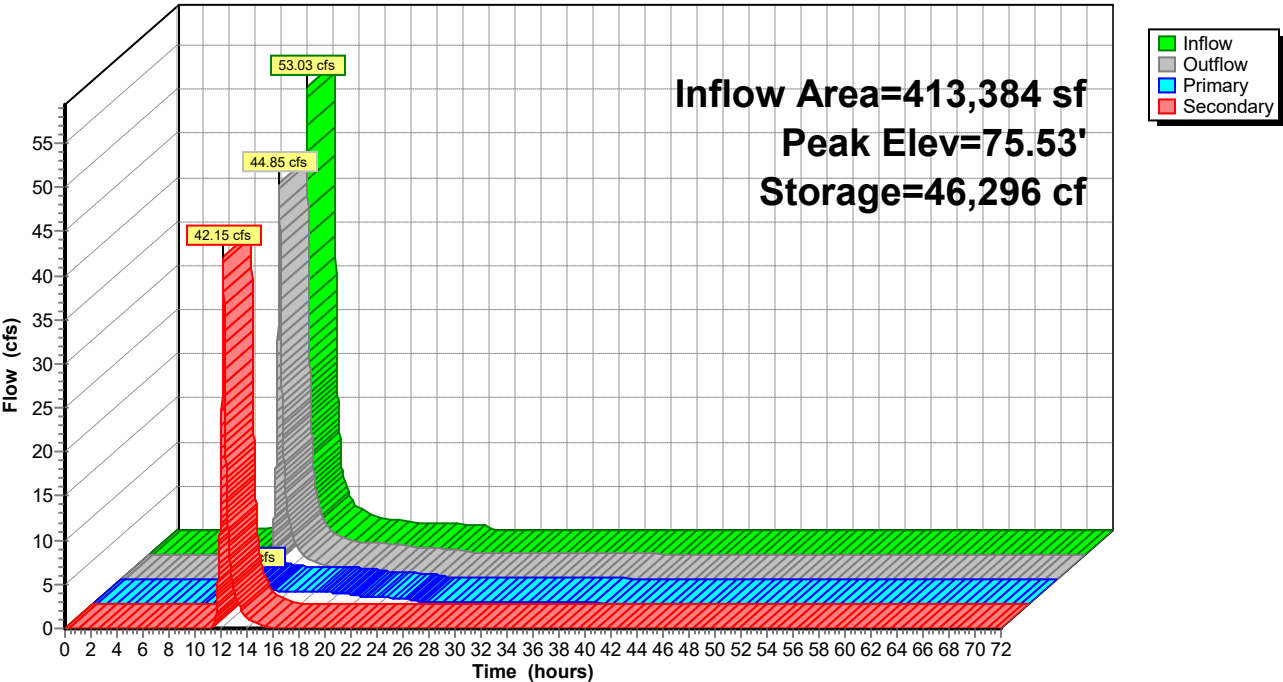
↑ **1=Culvert** (Barrel Controls 2.70 cfs @ 4.94 fps)
 ↑ **2=Orifice/Grate** (Passes < 0.30 cfs potential flow)
 ↑ **3=Orifice/Grate** (Passes < 4.02 cfs potential flow)

Secondary OutFlow Max=42.10 cfs @ 12.18 hrs HW=75.53' TW=0.00' (Dynamic Tailwater)

↑ **4=Broad-Crested Rectangular Weir** (Weir Controls 42.10 cfs @ 2.30 fps)

Pond 6: INF. BASIN

Hydrograph



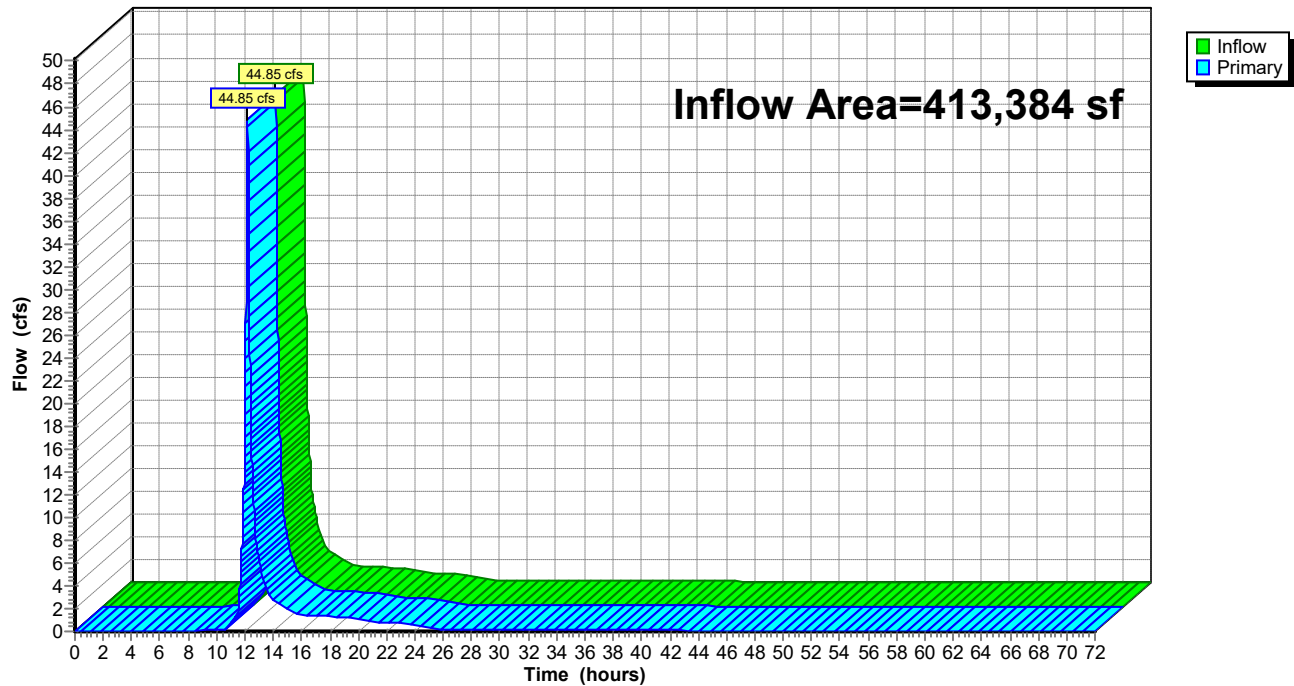
Summary for Link 7: PR POA

Inflow Area = 413,384 sf, 0.00% Impervious, Inflow Depth > 4.54" for 25-Year event
Inflow = 44.85 cfs @ 12.18 hrs, Volume= 156,529 cf
Primary = 44.85 cfs @ 12.18 hrs, Volume= 156,529 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link 7: PR POA

Hydrograph



Conduit Outlet Protection

Project No.:		Date: September 29, 2025
---------------------	--	---------------------------------

CONDUIT OUTLET PROTECTION SCOUR HOLE

Project: Lawrence Township Eco Center

Project No.: **Date:** September 29, 2025

Condition where Y (Depth) = 1.0Do

L = 5.0'

HW / FES #: **XXX**

Y = Do = .8'

Pipe Height: **10** in. (Do = Culvert Height)

S = 3Y = 2.5'

Pipe Width: **10** in. (Wo = Culvert Width)

W = 6.7'

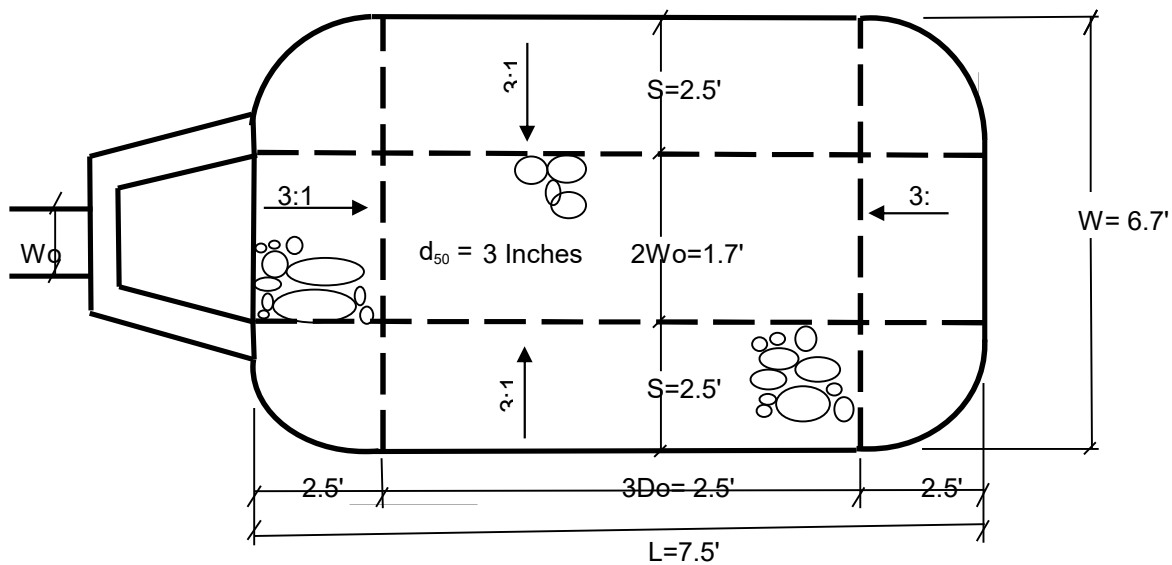
Flow: **2.7** cfs (Q) 25-yr

$d_{50} = (.0082/TW) \times (q/W_o)^{4/3}$ (3" Min.)

Tailwater: **0.17** feet (TW)

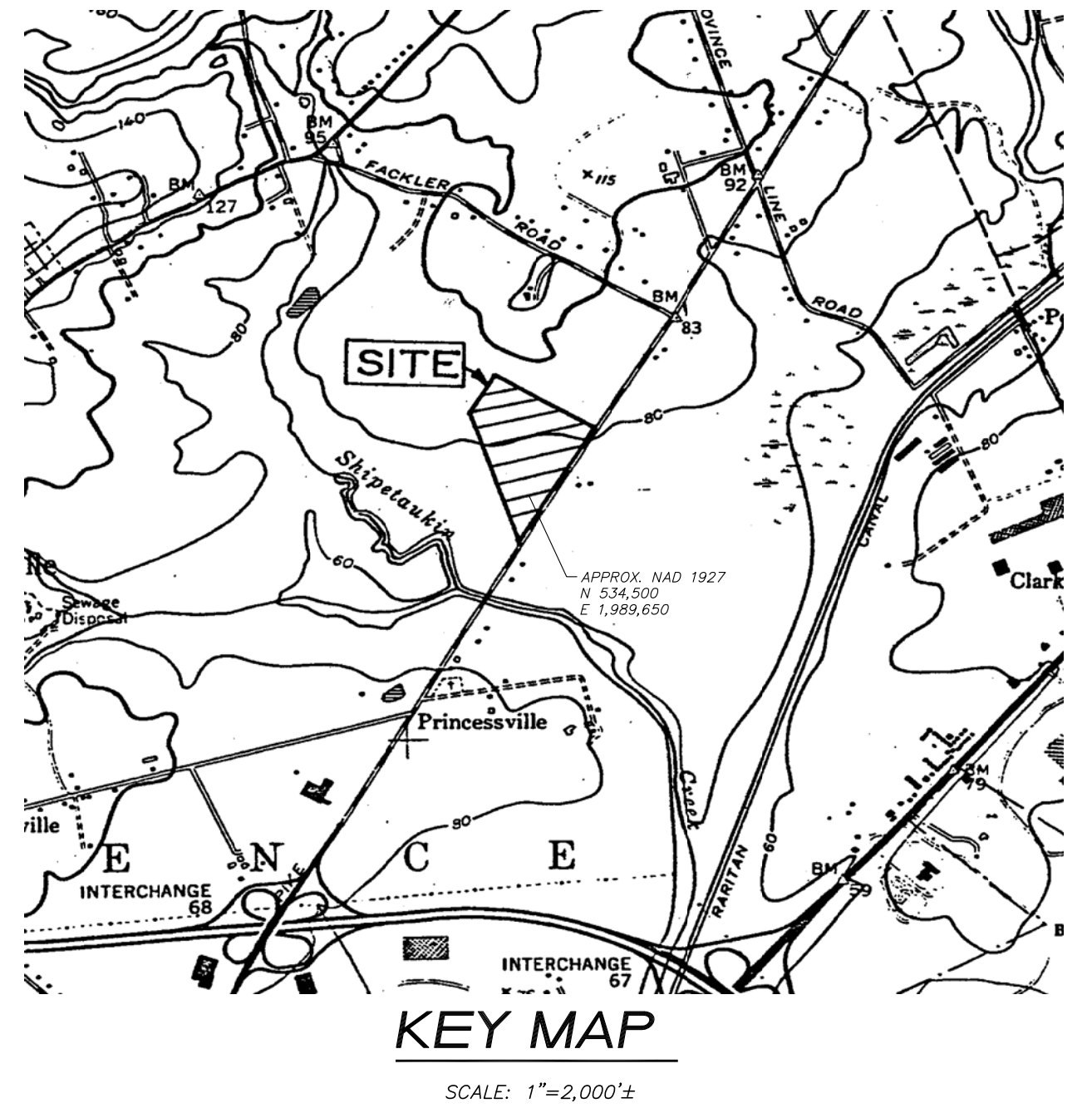
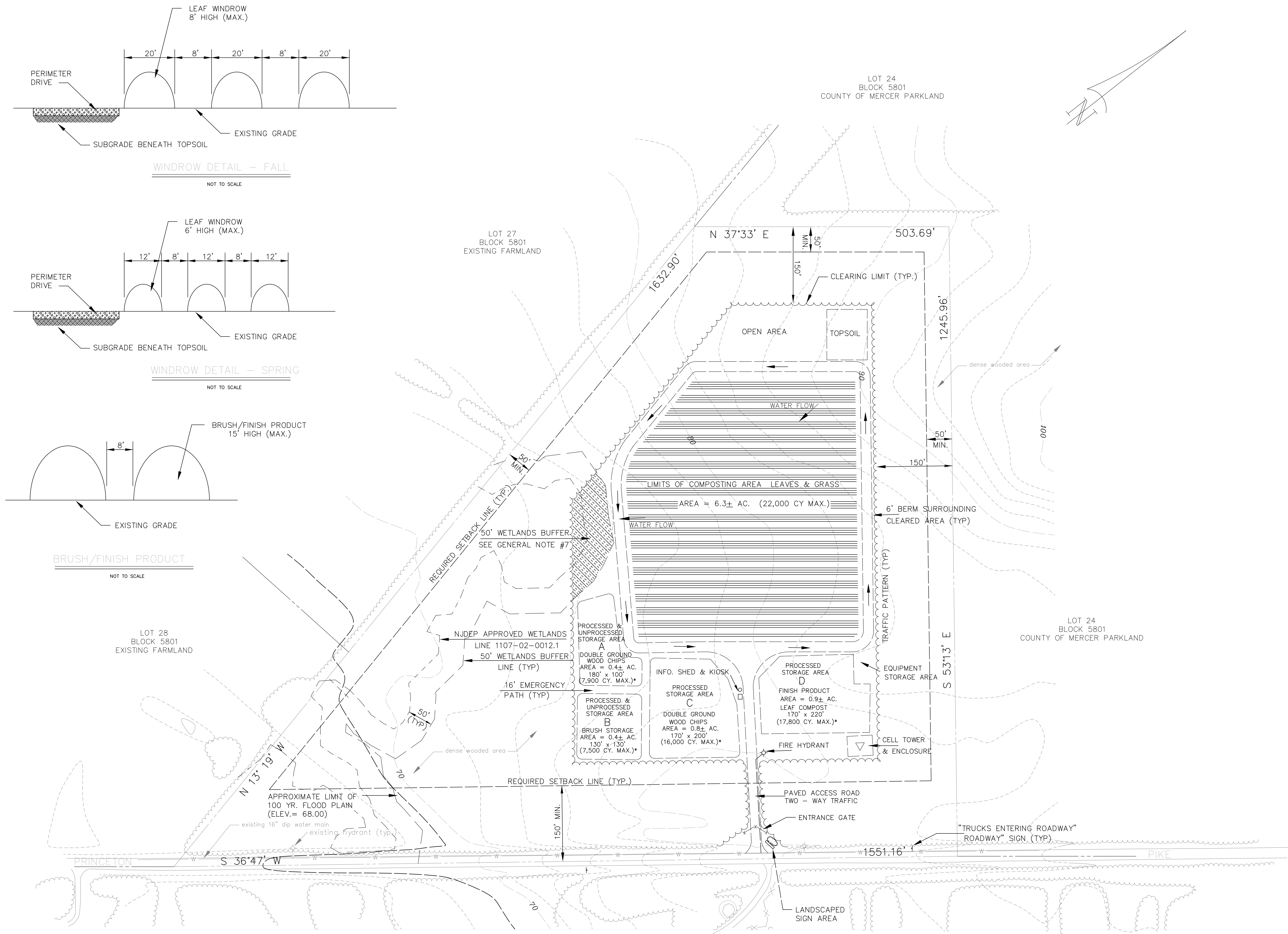
Thickness = 3 d₅₀

Thickness = 2 d₅₀ if Filter Fabric is installed



Remarks

**Site Plan of Vegetative Compost Facility /
Drainage Control Map /
Drainage Area Plans**

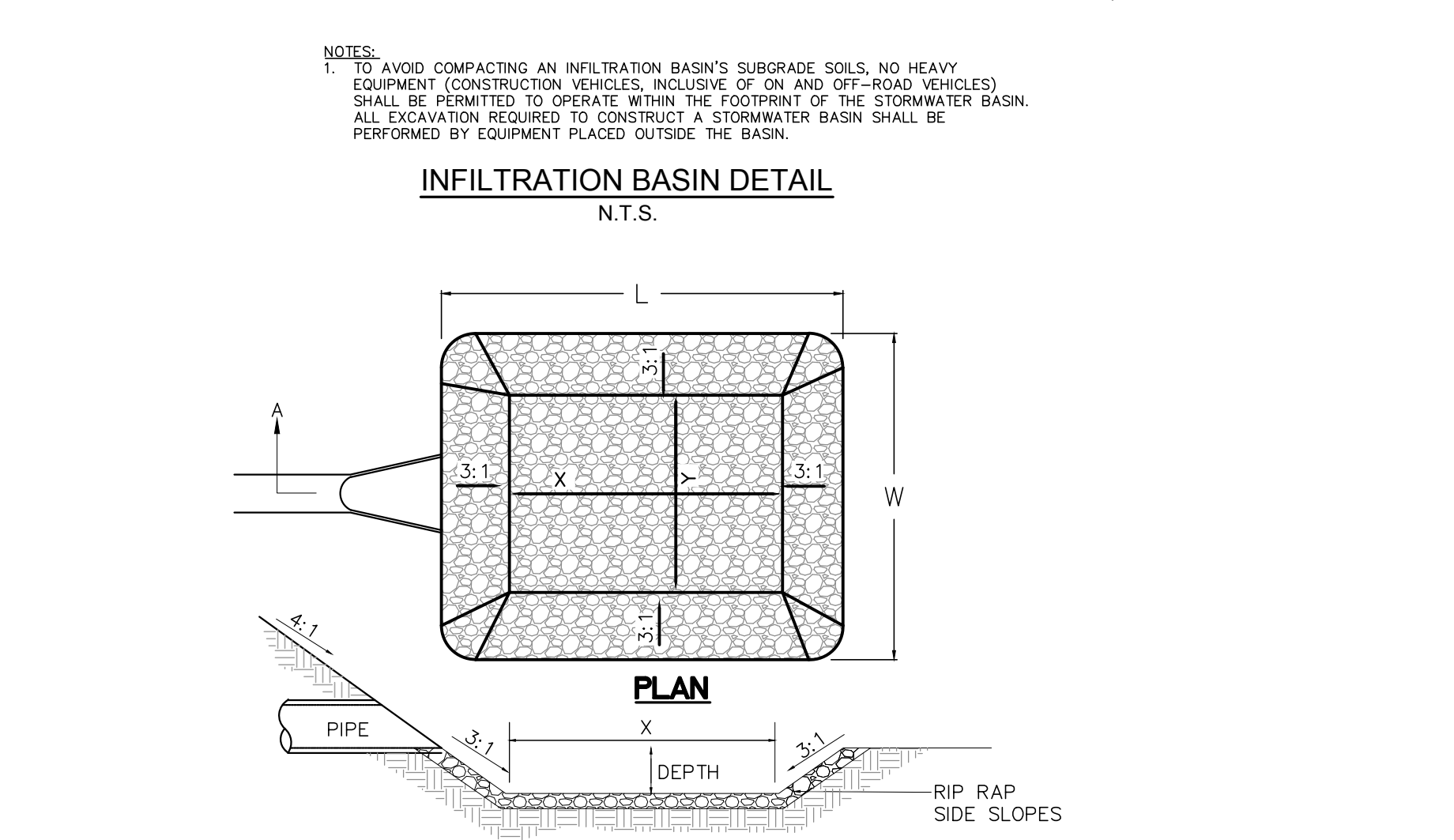
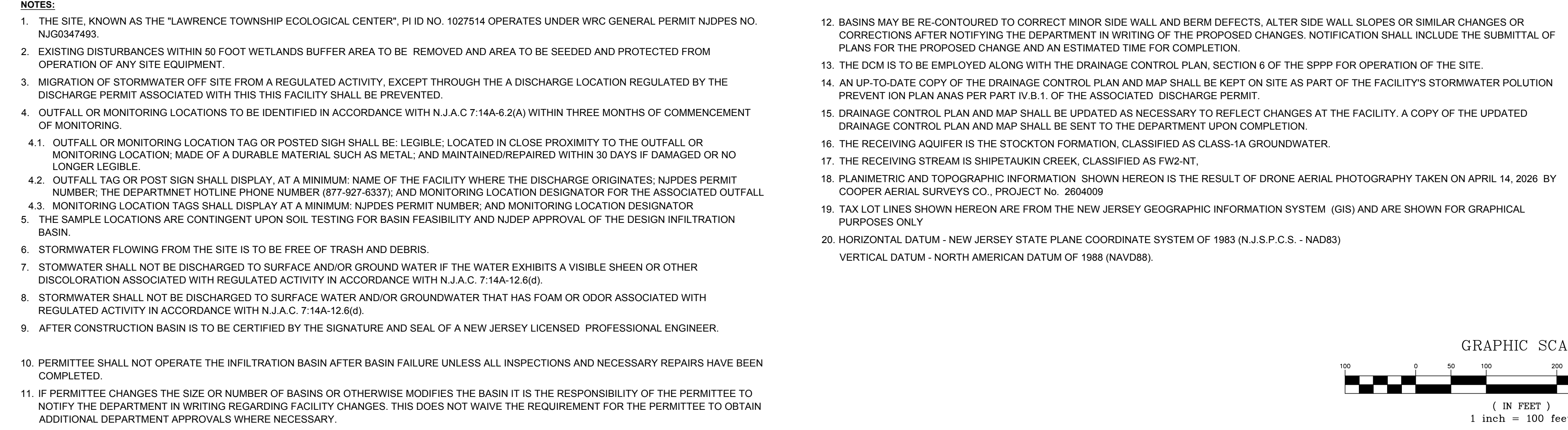


1. SUBJECT PROPERTY LOCATED AT 3701 PRINCETON PIKE, AND IS DESIGNATED AS LOT 26 BLOCK 5801 ON PAGE 58.06 & 58.09 OF THE LAWRENCE TOWNSHIP TAX MAPS.
2. BOUNDARY INFORMATION OBTAINED FROM DEEDS OF RECORD, VOL. 1937, PGS 75 & 76, DATED DECEMBER 11, 1972 AND THE LAWRENCE TOWNSHIP TAX MAPS. PROPERTY IS SUBJECT TO A TITLE SEARCH AND SUBJECT TO ANY RESTRICTIONS OR EASEMENTS OF RECORD.
3. TOPOGRAPHIC INFORMATION OBTAINED FROM AERIAL TOPOGRAPHIC MAPPING PREPARED FOR LAWRENCE TOWNSHIP BY AERIAL DATA REDUCTION ASSOCIATES, INC. DATED NOVEMBER 1989.
4. WETLANDS INFORMATION APPROVED BY NJDEP, LOI 1107-02-0012.1
5. FLOODPLAIN LIMIT OBTAINED FROM MAP ENTITLED "FLOOD INSURANCE RATE MAP, TOWNSHIP OF LAWRENCE, COUNTY OF MERCER", PANEL 2 OF 2, LAST REVISED JULY 3, 1985
6. EQUIPMENT STORED ON SITE:
TRAMMEL SCREEN, LEAF TURNER, TUB GRINDER, 955 CAT & 5000 GAL. WATER TRUCK
7. AREA OF DISTURBANCE WITHIN 50' WETLANDS BUFFER AREA TO BE SEEDED AND PROTECTED FROM OPERATION OF ANY SITE EQUIPMENT.
8. STORAGE VOLUMES INDICATED MAY BE EXCEEDED IN TIMES OF EMERGENCY DUE TO NATURAL OR MANMADE DISASTERS.



REVISED 4-17-06
REVISED 2-27-06
REVISED 9-8-05
REVISED 7-14-05
REVISED 5-17-05
REVISED 5-1-04
REVISED 1-28-04
REVISED 3-2-98
REVISED 1-29-98

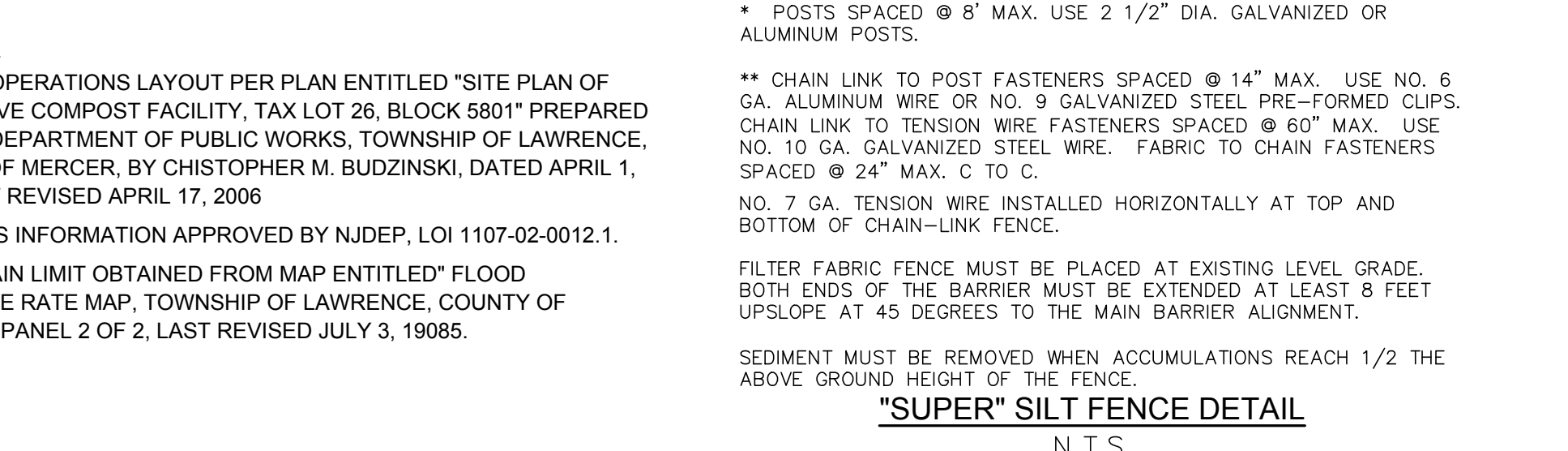
DEPARTMENT OF PUBLIC WORKS TOWNSHIP OF LAWRENCE COUNTY OF MERCER					
SITE PLAN OF VEGETATIVE COMPOST FACILITY TAX LOT 26, BLOCK 5801 SITUATE IN LAWRENCE TOWNSHIP, MERCER COUNTY, NEW JERSEY					
CHRISTOPHER M. BUDZINSKI				Date Signed N.J.P.E. 32363	
Date: 4/1/97	Scale: 1"=100'	Job No: M-20-92	Drawn No.: BAS01A00	File No.: ERM/RKY	Checked By: Field Book:



NOTES:

1. SCOUR HOLES SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORM EVENTS.
2. SCOUR HOLES SHALL BE REMOVED OF ALL SEDIMENT ANNUALLY OR WHEN SEDIMENT REACHES 50% OF CAPACITY.

*RENO-MATTRESSES OR PVC-COATED GABIONS CAN BE USED IN LIEU OF RIP-RAP WITH $D_{50} > 12$ IN. THICKNESS OF MATTRESSES/GABIONS SAME AS WHAT IS NOTED ON THE CHART. REFER TO DETAIL AT LEFT.



- REFERENCES**

 1. FACILITY OPERATIONS LAYOUT PER PLAN ENTITLED "SITE PLAN OF VEGETATIVE COMPOST FACILITY, TAX LOT 26, BLOCK 5801" PREPARED FOR THE DEPARTMENT OF PUBLIC WORKS, TOWNSHIP OF LAWRENCE, COUNTY OF MERCER, BY CHISTOPHER M. BUDZINSKI, DATED APRIL 1, 1997, LAST REVISED APRIL 17, 2006
 2. WETLANDS INFORMATION APPROVED BY NDEP, LOI 1107-02-0012.1.
 3. FLOODPLAIN LIMIT OBTAINED FROM MAP ENTITLED "FLOOD INSURANCE RATE MAP, TOWNSHIP OF LAWRENCE, COUNTY OF MERCER", PANEL 2 OF 2, LAST REVISED JULY 3, 19085.

ALUMINUM POSTS.

** CHAIN LINK TO POST FASTENERS SPACED @ 14" MAX. USE NO. 6 GA. ALUMINUM WIRE OR NO. 9 GALVANIZED STEEL PRE-FORMED CLIPS. CHAIN LINK TO TENSION WIRE FASTENERS SPACED @ 60" MAX. USE NO. 10 GA. GALVANIZED STEEL WIRE. FABRIC TO CHAIN FASTENERS SPACED @ 24" MAX. C TO C.

** 7 GA. TENSION WIRE INSTALLED HORIZONTALLY AT TOP AND BOTTOM OF CHAIN-LINK FENCE.

FILTER FABRIC FENCE MUST BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER MUST BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT.

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.

"SUPER" SILT FENCE DETAIL

N.T.S.

3	REVISED PER N.J.DEP	6/30/26	RE/O	PC/KR
2	REVISED PER N.J.DEP	3/10/26	J2	PC
1	REVISED PER N.J.DEP COMMENTS 11/14/25	12/30/25	J2	PC
REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY
		DATE OF SIGN.		

JOHN C. RYDER

N.J. PROFESSIONAL ENGINEER LIC. NO. GE 38287

vann note-harvey division of pennoni

103 College Road East • Princeton, NJ 08540 • 609-987-2323
 211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600

www.vannnoteharvey.com **Certificate of Authorization**
www.pennoni.com **No. 24GA28033300**

DRAINAGE CONTROL MAP

OF

VEGETATIVE COMPOST FACILITY

BLOCK 5801 LOT 26

PREPARED FOR

DEPARTMENT OF PUBLIC WORKS

SITUATED IN

MERCER CO., NJ

SEPTEMBER 29, 2026

TOWNSHIP OF LAWRENCE

SCALE 1"= 100'

DRAWN BY PAC

DATE 09/29/25

CHECKED BY JCR

DATE -

FIELD BK

PAGE

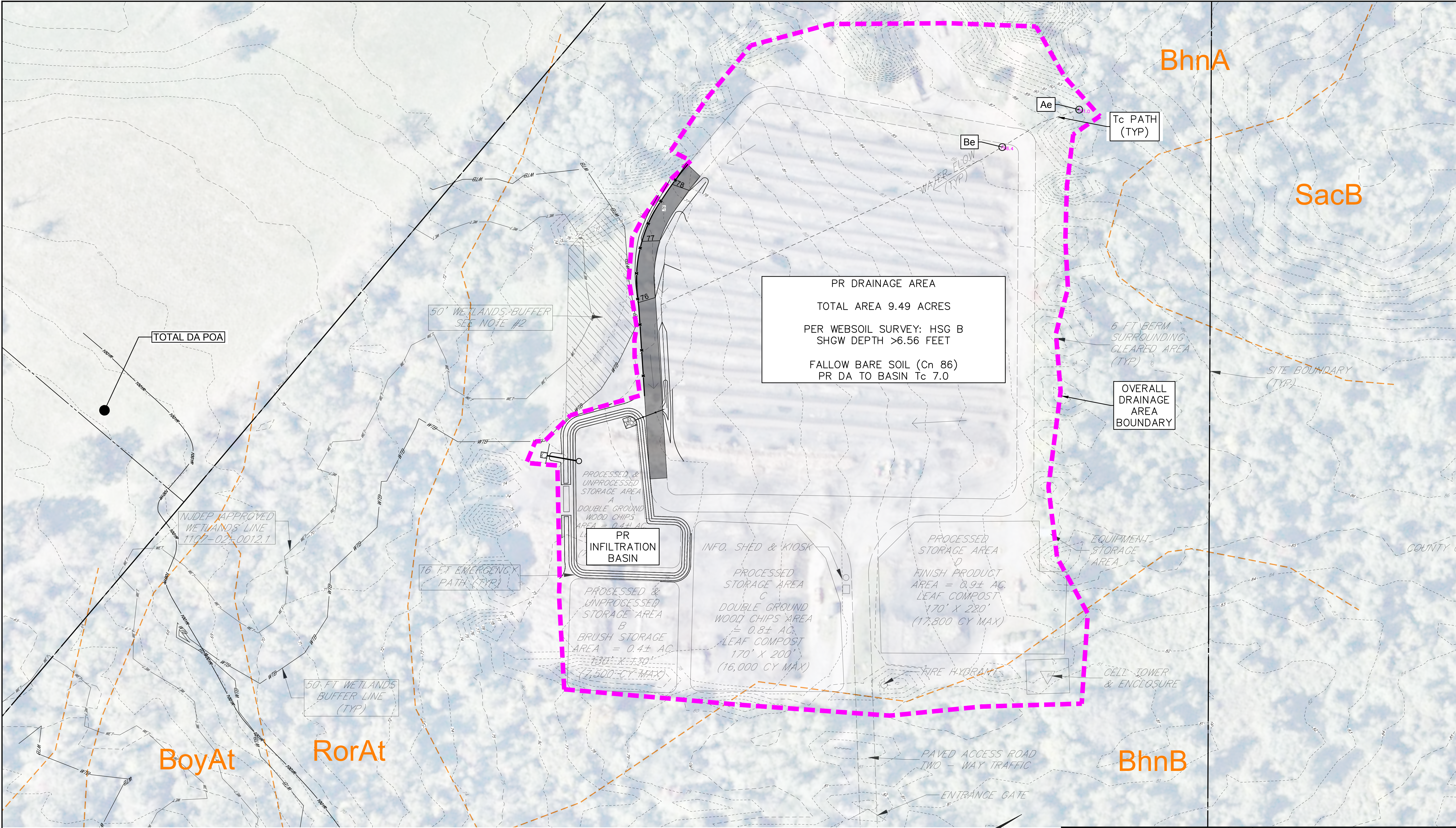
ORDER NO. LAWTO26001

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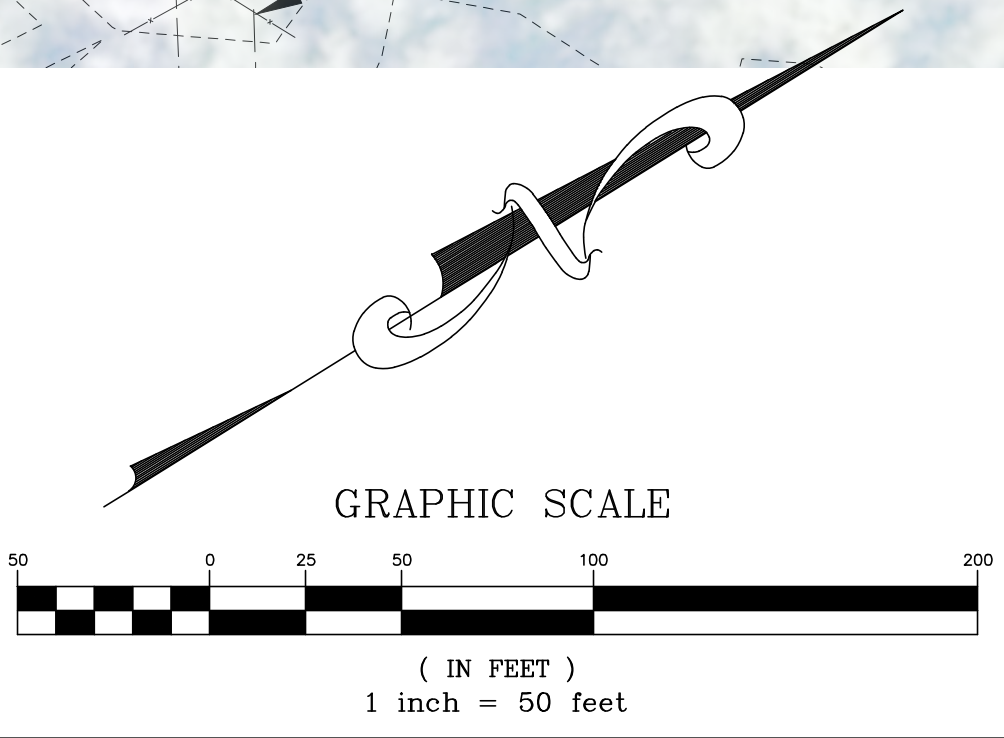
FILE NO.

SHEET

DCM



- REFERENCES
- 1. PLAN ENTITLED "SITE PLAN OF VEGETATIVE COMPOST FACILITY, TAX LOT 26, BLOCK 5801" PREPARED FOR THE DEPARTMENT OF PUBLIC WORKS, TOWNSHIP OF LAWRENCE, COUNTY OF MERCER, BY CHRISTOPHER M. BUDZINSKI, DATED APRIL 1, 1997, LAST REVISED APRIL 17, 2016
 - 2. TOPOGRAPHY AND AERIAL IMAGE PER NEARMAP LIDAR OBTAINED IN 2023, AERIAL DATED 2022



REV.	DESCRIPTION	DATE	DFT.BY	CKD.BY

van note-harvey division of pennoni

103 College Road East • Princeton, NJ 08540 • 609-967-2323

211 Bayberry Drive • Cape May Court House, NJ 08210 • 609-465-2600

www.vannoteharvey.com

www.pennoni.com

Certificate of Authorization

No. 24GA2803300

PROPOSED DRAINAGE AREA

OF

VEGETATIVE COMPOST FACILITY

BLOCK 5801 LOT 26

PREPARED FOR

DEPARTMENT OF PUBLIC WORKS

SITUATED IN

TOWNSHIP OF LAWRENCE

SCALE 1"= 50'

DRAWN BY: PAC

DATE 09/29/25

CHECKED BY: JCR

DATE

MERCER CO., N.J.

SEPTEMBER 29, 2025

ORDER No.

FILE No.

SHEET No.

46153-300-31

DA-2

N:\P\46153\DWG\46153-DA & DCA PLANS.DWG

WRC- Wood Waste Recycling and Leaf Compositing GP



State of New Jersey

PHILIP D. MURPHY
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Mail Code - 501-02A

SHAWN M. LATOURETTE
Commissioner

SHEILA Y. OLIVER
Lt. Governor

Bureau of NJPDES Stormwater Permitting and Water Quality Management

P.O. Box 420 – 501 E State St., 1st Flr.
Trenton, NJ 08625-0420

Phone: (609) 633-7021 / Fax: (609) 777-0432
http://www.state.nj.us/dep/dwq/bnpc_home.htm

November 25, 2022

Re: Final Stormwater Discharge New Master General Permit
Cat: WRC -Wood Waste Recycling and Leaf Composting (GP)
NJPDES: NJ0324183 PI ID #: 50577
NJPDES MASTER GENERAL PERMIT PROGRAM INTEREST
Trenton City, Mercer

Dear Interested Party:

Enclosed is a **final** New Jersey Pollutant Discharge Elimination System (NJPDES) permit action identified above which has been issued in accordance with N.J.A.C. 7:14A. The Wood Waste Recycling and Leaf Composting General Permit (WRC) authorizes the discharge of stormwater to surface and ground waters of the State from facilities that performing these operations. This permit action is effective January 1, 2023. The final WRC General Permit and supporting documents are posted at <https://www.nj.gov/dep/dwq/wrc.htm>.

No official written comments were received on the draft action during the comment period. Therefore, the right by you, or any third party, to contest the permit conditions in an adjudicatory hearing is hereby waived pursuant to N.J.A.C. 7:14A-15.13. The following Department initiated changes have been made to the final permit;

- The Department made a grammatical change to Part II.C.5.a.
- The Department clarified the condition at Part IV.D.3.b so that it is clear that the permittee is required to conduct quarterly stream scouring inspections which can be conducted simultaneously with other required site inspections.
- The Department removed the words “when possible” from Part IV.E.2.g.i to make the condition clear, specific, and measurable.
- The Department removed the specified erosion control BMPs listed at Part IV.G.3.c.i and replaced them with more general language to give the permittee more flexibility in meeting the requirement.

As per N.J.A.C. 7:14A-4.2(e)3, any person planning to continue discharging after the expiration date of an existing NJPDES permit shall file an application for renewal at least 180 calendar days prior to the expiration of the existing permit.

Questions or comments regarding the final permit action should be addressed to Tim Ebersberger at Timothy.Ebersberger@dep.nj.gov.

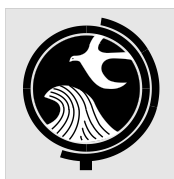
Sincerely,

Gabriel Mahon, Chief
Bureau of NJPDES Stormwater Permitting and Water Quality Management

Enclosures

c: NJPDES Permit Authorization

WRC Final Master General Permit



NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

The New Jersey Department of Environmental Protection hereby grants you a NJPDES permit for the facility/activity named in this document. This permit is the regulatory mechanism used by the Department to help ensure your discharge will not harm the environment. By complying with the terms and conditions specified, you are assuming an important role in protecting New Jersey's valuable water resources. Your acceptance of this permit is an agreement to conform with all of its provisions when constructing, installing, modifying, or operating any facility for the collection, treatment, or discharge of pollutants to waters of the state. If you have any questions about this document, please feel free to contact the Department representative listed in the permit cover letter. Your cooperation in helping us protect and safeguard our state's environment is appreciated.

Permit Number: NJ0324183

Final: Stormwater Discharge New Master General Permit

Permittee:

NJPDES Master General Permit
Program Interest Group WRC
501 East State Street
Trenton, NJ 08625

Co-Permittee:

Property Owner:

NJPDES Master General Permit
Program Interest Group WRC
501 East State Street
Trenton, NJ 08625

Location Of Activity:

NJPDES Master General Permit
Program Interest Group WRC
501 East State Street
Trenton, NJ 08625

Authorization(s) Covered Under This Approval	Issuance Date	Effective Date	Expiration Date
WRC - Wood Waste Recycling and Leaf Composting (GP)	11/25/2022	01/01/2023	12/31/2027

By Authority of:
Commissioner's Office

Gabriel Mahon, Bureau Chief
Bureau of NJPDES Stormwater Permitting and Water Quality Management

(Terms, conditions and provisions attached hereto)

PART I

GENERAL REQUIREMENTS:

NJPDES

A. General Requirements of all NJPDES Permits

1. Requirements Incorporated by Reference

- a. The permittee shall comply with all conditions set forth in this permit and with all the applicable requirements incorporated into this permit by reference. The permittee is required to comply with the regulations, including those cited in paragraphs b. through e., which are in effect as of the effective date of the final permit.
- b. General Conditions

Penalties for Violations	N.J.A.C. 7:14-8.1 et seq.
Incorporation by Reference	N.J.A.C. 7:14A-2.3
Toxic Pollutants	N.J.A.C. 7:14A-6.2(a)4i
Duty to Comply	N.J.A.C. 7:14A-6.2(a)1 & 4
Duty to Mitigate	N.J.A.C. 7:14A-6.2(a)5 & 11
Inspection and Entry	N.J.A.C. 7:14A-2.11(e)
Enforcement Action	N.J.A.C. 7:14A-2.9
Duty to Reapply	N.J.A.C. 7:14A-4.2(e)3
Signatory Requirements for Applications and Reports	N.J.A.C. 7:14A-4.9
Effect of Permit/Other Laws	N.J.A.C. 7:14A-6.2(a)6 & 7 & 2.9(c)
Severability	N.J.A.C. 7:14A-2.2
Administrative Continuation of Permits	N.J.A.C. 7:14A-2.8
Permit Actions	N.J.A.C. 7:14A-2.7(c)
Reopener Clause	N.J.A.C. 7:14A-6.2(a)10
Permit Duration and Renewal	N.J.A.C. 7:14A-2.7(a) & (b)
Consolidation of Permit Process	N.J.A.C. 7:14A-15.5
Confidentiality	N.J.A.C. 7:14A-18.2 & 2.11(g)
Fee Schedule	N.J.A.C. 7:14A-3.1
Treatment Works Approval	N.J.A.C. 7:14A-22 & 23
- c. Operation and Maintenance

Need to Halt or Reduce not a Defense	N.J.A.C. 7:14A-2.9(b)
Proper Operation and Maintenance	N.J.A.C. 7:14A-6.12
- d. Monitoring and Records

Monitoring	N.J.A.C. 7:14A-6.5
Recordkeeping	N.J.A.C. 7:14A-6.6
Signatory Requirements for Monitoring Reports	N.J.A.C. 7:14A-6.9
- e. Reporting Requirements

Planned Changes	N.J.A.C. 7:14A-6.7
Reporting of Monitoring Results	N.J.A.C. 7:14A-6.8
Noncompliance Reporting	N.J.A.C. 7:14A-6.10 & 6.8(h)
Hotline/Two Hour & Twenty-four-Hour Reporting	N.J.A.C. 7:14A-6.10(c) & (d)
Written Reporting	N.J.A.C. 7:14A-6.10(e) & (f) & 6.8(h)
Duty to Provide Information	N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1
Schedules of Compliance	N.J.A.C. 7:14A-6.4
Transfer	N.J.A.C. 7:14A-6.2(a)8 & 16.2

PART II

GENERAL REQUIREMENTS: DISCHARGE CATEGORIES

A. Additional Requirements Incorporated by Reference

1. Additional Requirements for Stormwater Discharges

- a. In addition to the conditions in Part I of this permit, the conditions in this section are applicable to activities at the permitted location and are incorporated by reference. The permittee is required to comply with the regulations which are in effect as of the effective date of the final permit.
 - i. Conditions for General Permits at N.J.A.C. 7:14A-6.13;
 - ii. Additional Requirements for Certain Stormwater Discharges at N.J.A.C. 7:14A-24;
 - iii. Requirements for Discharges to Ground Water at N.J.A.C. 7:14A-7;
 - iv. Implementation element of the Pinelands Comprehensive Management Plan at N.J.A.C. 7:50;
 - v. Recycling Regulations at N.J.A.C. 7:26A; and
 - vi. National Pollutant Discharge Elimination System (NPDES) Electronic Reporting rule at 40 CFR Part 127.

B. General Conditions

1. Scope

- a. The issuance of this permit shall not be considered as a waiver of any applicable federal, state, and local rules, regulations, and ordinances.
- b. Permit conditions remain in effect and enforceable until and unless the permit is modified, renewed, or revoked by the Department.

2. Notification of Non-Compliance

- a. The permittee shall notify the Department of any non-compliance when required in accordance with N.J.A.C. 7:14A-6.10 by contacting the DEP Hotline at 1-877-WARN-DEP.
- b. The permittee shall submit a written report as required by N.J.A.C. 7:14A-6.10 within five days.

3. Notification of Changes

- a. The permittee shall give written notification to the Department of any planned physical or operational alterations or additions to the permitted facility when the alteration is expected to result in a significant change in the permittee's discharge and/or residuals use of disposal practices including the cessation of discharge in accordance with N.J.A.C. 7:14A-6.7.
- b. Prior to any change in ownership, the current permittee shall comply with the requirements set forth at N.J.A.C. 7:14A-16.2 pertaining to the notification of change in ownership.

4. Access to Information

- a. The permittee shall allow an authorized representative of the Department access to a person's premises for inspection and to access/copy any records that must be kept under the conditions of this permit.

5. Operator Certification

- a. In accordance with N.J.A.C. 7:10A-1.10, the facility operator is exempt from the operator certifications regulations for stormwater only discharges.

6. Other Discharges

- a. The permittee shall discharge stormwater to surface waters and/or ground waters of the State only as authorized herein and consistent with the terms and conditions of this permit. This permit does not authorize any unpermitted discharge of domestic wastewater, non-contact cooling water, or process water. If the facility generates any discharge other than those authorized by this permit, the permittee shall discontinue such discharges and apply for the appropriate NJPDES permit in accordance with the NJPDES rules at N.J.A.C. 7:14A.

7. Standard Reporting Requirements - Electronic Submission of NJPDES Information

- a. The permittee shall electronically submit all documents and reports as required by this permit, including but not limited to those below, through the Department's designated electronic submission service:
 - i. Monitoring Report Form (MRF) data submission; and
 - ii. Annual report and certification.

C. Eligibility

1. Authorized Discharges

- a. This permit only authorizes new and existing stormwater discharges to surface water and ground water from:
 - i. Recycling activities in which tree branches, tree limbs, tree trunks, brush, and other wood waste that has not been chemically treated, glued, dyed, or painted are received, stored, processed, and transferred. Processing shall be limited to chipping, grinding, screening, and size reduction; and
 - ii. Composting activities in which grass clippings, leaves, and wood chips (not chemically treated, glued, dyed, or painted) are received, stored, processed, and transferred.

2. Discharges Not Authorized

- a. Stormwater discharges associated with Recycling Centers for Class B and / or Class C Recyclable Materials not included in Part II C.1.a above.
- b. Stormwater discharges from wood waste recycling and composting activities that are comingled with discharges from other stormwater discharges from industrial activities not authorized by this permit.
- c. Stormwater discharges that conflict with a Water Quality Management Plan.
- d. Stormwater discharges to surface waters classified as FW1 waters as designated in the tables at N.J.A.C. 7:9B-1.15.
- e. Stormwater discharges to surface waters classified as Pinelands Waters (PL), as established in the Surface Water Quality Standards, N.J.A.C. 7:9B-1.15 from development that has not been authorized by the Pinelands Commission either through a letter of no further review issued in accordance with N.J.A.C. 7:50-4.40 or a resolution approving an application for public development issued in accordance with N.J.A.C. 7:50-4.56.
- f. Stormwater discharges to ground water classified as Class 1-A and 1-PL which contribute to surface waters classified as FW1 or PL respectively.

3. Exclusions

- a. Any owner, operator, and/or discharger authorized under this general permit may request to be excluded from the coverage of the general NJPDES permit by applying for an individual permit. The owner, operator, and/or discharger shall submit an application to the Department demonstrating compliance with N.J.A.C. 7:14A-4 and shall submit a justification supporting the request. The request shall be processed under the application procedures set forth at N.J.A.C. 7:14A-15, 16 and 17. The request shall be granted via individual permit issuance if the reasons cited by the owner, operator, and/or discharger are adequate to support the request.
- b. An owner, operator, and/or discharger excluded from this general NJPDES permit solely because of an existing individual permit may request that the individual permit be revoked or modified, as appropriate, and

that the discharge be authorized by the general NJPDES permit. Upon revocation or modification of the individual permit, the permittee shall be authorized under the general permit.

4. Authorization

- a. In order to obtain authorization under this permit (except for automatic renewal authorization below), a complete Request for Authorization (RFA) shall be submitted and include the following: A completed NJPDES 1 Form, a completed Supplemental Application Form for this permit category, and any other information as required by the Department. See https://www.nj.gov/dep/dwq/forms_storm.htm for forms.
- b. Upon review of the RFA, the Department may, in accordance with N.J.A.C. 7:14A-6.13, either:
 - i. Issue notification of authorization under this permit;
 - ii. Deny authorization under this permit and require submittal of an application for an individual permit; or
 - iii. Deny authorization under this permit and require submittal of an RFA for another general permit.
- c. The Department may notify a person that the discharge is authorized under a general permit, even if the person has not submitted an RFA. A person, as notified above, may nonetheless request an individual permit under C.3 above.

5. Automatic Renewal of Authorization

- a. Authorization under this permit will be automatically renewed when this general permit is reissued as provided by N.J.A.C. 7:14A-6.13(d)9 and 25.4(a)3 so long as the discharge remains eligible.
- b. The Department shall issue a notice of renewed authorization to the facility.
- c. A permittee shall provide a corrected RFA to the Department within 90 days of the effective date of a renewed authorization under this general permit if any information in its most recently submitted RFA is no longer true, accurate, and/or complete.

6. Requiring an Individual Permit or another General Permit

- a. Pursuant to N.J.A.C. 7:14A-6.13(e), the Department may require any facility authorized under this permit to apply for and obtain an individual permit or seek and obtain authorization under another general permit.
- b. In accordance with N.J.A.C. 7:14A-6.13(g), any facility authorized under this permit may request to be excluded from authorization under this permit by applying for an individual permit or for another general permit.

PART III

LIMITS AND MONITORING REQUIREMENTS

MONITORED LOCATION:

01GW Example GW Discharge

RECEIVING STREAM:STREAM CLASSIFICATION:DISCHARGE CATEGORY(IES):WRC - Wood Waste Recycling and Leaf
Composting (GP)**Location Description**

The addition of this monitored location will be determined by the submission of the Drainage Control Plan and is for stormwater discharges to ground water from the regulated wood waste recycling and leaf composting operation. Each discrete discharge point to ground water will receive its own unique monitored location designator.

Contributing Waste Types

Storm Water Runoff

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Ground Water DMR Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date:

PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Minutes After Disch. Sample Collected	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Report Per Event	MINUTES	1/Quarter	Not Applicable
January thru December	DCL	***	***		***	***	30			
Date of Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time Storm Event Began	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Storm Event Duration	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Ground Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:****PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Hours Since Last Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Rainfall Amount at Time of Sampling	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# INCHES	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time of Sample Collection	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Date of Sample Collection	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
pH	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	SU	1/Quarter	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	REPORT Daily Minimum	*****	REPORT Daily Maximum	SU	1/Quarter	Grab
January thru December	DCL	***	***		6.5	***	8.5			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	3			

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Ground Water DMR Limits and Monitoring Requirements
PHASE: Final

PHASE Start Date:
PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	10			
E. Coli	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	#/100ML	1/6 Months	Grab
January thru December	DCL	***	***		***	***	***			
Solids, Total Dissolved (TDS)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	500			
Petroleum Hydrocarbons	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	***			
Boron, Total (as B)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	***			
Arsenic, Total (as As)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.003			
Chromium, Total (as Cr)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.07			

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - A - 1: Ground Water DMR Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date:

PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Copper, Total (as Cu)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	1.3			
Zinc, Total (as Zn)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	2			
Pentachlorophenol	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.0003			

MONITORED LOCATION:

01SW Example SW Discharge

RECEIVING STREAM:STREAM CLASSIFICATION:DISCHARGE CATEGORY(IES):WRC - Wood Waste Recycling and Leaf
Composting (GP)**Location Description**

The addition of this monitored location will be determined by the submission of the Drainage Control Plan and is for stormwater discharges to surface water from the regulated wood waste recycling and leaf composting operation. Each discrete discharge point to surface water will receive its own unique monitored location designator.

Contributing Waste Types

Storm Water Runoff

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date:

PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Minutes After Disch. Sample Collected	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	MINUTES	1/Quarter	Not Applicable
January thru December	DCL	***	***		***	***	30			
Date of Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time Storm Event Began	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Storm Event Duration	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements
PHASE: Final

PHASE Start Date:
PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Hours Since Last Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Rainfall Amount at Time of Sampling	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# INCHES	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Date of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
BOD, 5-Day (20 oC)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	30			
pH	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	SU	1/Quarter	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	REPORT Daily Minimum	*****	REPORT Daily Maximum	SU	1/Quarter	Grab
January thru December	DCL	***	***		6.5	***	8.5			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:****PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Solids, Total Suspended	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	100			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	2.14			
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	10			
E. Coli	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	#/100ML	1/6 Months	Grab
January thru December	DCL	***	***		***	***	235			
Chemical Oxygen Demand (COD)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	120			
Petroleum Hydrocarbons	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Daily Maximum	MG/L	1/6 Months	Grab
January thru December	QL	***	***		***	***	***			
Phosphorus, Total (as P)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	2			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - B - 1: Surface Water DMR Limits and Monitoring Requirements
PHASE: Final

PHASE Start Date:
PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Boron, Total (as B)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	***			
Arsenic, Total (as As)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	0.34			
Chromium, Total (as Cr)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.092			
Copper, Total (as Cu)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	1.3			
Pentachlorophenol	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.00027			

MONITORED LOCATION:02GW Example GW Discharge
PL**RECEIVING STREAM:****STREAM CLASSIFICATION:****DISCHARGE CATEGORY(IES):**WRC - Wood Waste Recycling and Leaf
Composting (GP)**Location Description**

The addition of this monitored location will be determined by the submission of the Drainage Control Plan and is for stormwater discharges to ground water from the regulated wood waste recycling and leaf composting operation in the state Pinelands Area. Each discrete discharge point to ground water will receive its own unique monitored location designator.

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - C - 1: Ground Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:****PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Minutes After Disch. Sample Collected	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	MINUTES	1/Quarter	Not Applicable
January thru December	DCL	***	***		***	***	30			
Date of Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time Storm Event Began	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Storm Event Duration	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - C - 1: Ground Water DMR Limits and Monitoring Requirements

PHASE: Final

PHASE Start Date:

PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Hours Since Last Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Rainfall Amount at Time of Sampling	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# INCHES	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Date of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
pH	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	SU	1/Quarter	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	REPORT Daily Minimum	*****	REPORT Daily Maximum	SU	1/Quarter	Grab
January thru December	DCL	***	***		3.5	***	5.5			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	3			

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - C - 1: Ground Water DMR Limits and Monitoring Requirements
PHASE: Final

PHASE Start Date:
PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	2			
E. Coli	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	#/100ML	1/6 Months	Grab
January thru December	DCL	***	***		***	***	***			
Solids, Total Dissolved (TDS)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	500			
Petroleum Hydrocarbons	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	***			
Boron, Total (as B)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	***			
Arsenic, Total (as As)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.003			
Chromium, Total (as Cr)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.07			

Ground Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - C - 1: Ground Water DMR Limits and Monitoring Requirements
PHASE: Final

PHASE Start Date:
PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Copper, Total (as Cu)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	1.3			
Zinc, Total (as Zn)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	2			
Pentachlorophenol	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.0003			

MONITORED LOCATION:02SW Example SW Discharge
PL**RECEIVING STREAM:****STREAM CLASSIFICATION:****DISCHARGE CATEGORY(IES):**WRC - Wood Waste Recycling and Leaf
Composting (GP)**Location Description**

The addition of this monitored location will be determined by the submission of the Drainage Control Plan and is for stormwater discharges to surface water from the regulated wood waste recycling and leaf composting operation in the state Pinelands Area. Each discrete discharge point to surface water will receive its own unique monitored location designator.

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - D - 1: Surface Water DMR Limits and Monitoring Requirements**PHASE:** Final**PHASE Start Date:****PHASE End Date:**

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Minutes After Disch. Sample Collected	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	MINUTES	1/Quarter	Not Applicable
January thru December	DCL	***	***		***	***	30			
Date of Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time Storm Event Began	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Storm Event Duration	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - D - 1: Surface Water DMR Limits and Monitoring Requirements
PHASE: Final

PHASE Start Date:
PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Hours Since Last Storm Event	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# HOURS	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Rainfall Amount at Time of Sampling	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	# INCHES	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Time of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	HHMM	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
Date of Sample Collection	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	YYYYMMDD	1/Quarter	Not Applicable
January thru December	QL	***	***		***	***	***			
BOD, 5-Day (20 oC)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	30			
pH	Precipitation	*****	*****	*****	*****	*****	REPORT Report Per Event	SU	1/Quarter	Grab
January thru December	QL	***	***		***	***	***			
pH	Effluent Gross Value	*****	*****	*****	REPORT Daily Minimum	*****	REPORT Daily Maximum	SU	1/Quarter	Grab
January thru December	DCL	***	***		3.5	***	5.5			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - D - 1: Surface Water DMR Limits and Monitoring Requirements
PHASE: Final

PHASE Start Date:
PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Solids, Total Suspended	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	100			
Nitrogen, Ammonia Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	2.14			
Nitrogen, Nitrate Total (as N)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	2			
E. Coli	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	#/100ML	1/6 Months	Grab
January thru December	DCL	***	***		***	***	235			
Chemical Oxygen Demand (COD)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	120			
Petroleum Hydrocarbons	Effluent Gross Value	*****	*****	*****	*****	10 Monthly Average	15 Daily Maximum	MG/L	1/6 Months	Grab
January thru December	QL	***	***		***	***	***			
Phosphorus, Total (as P)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/Quarter	Grab
January thru December	DCL	***	***		***	***	2			

Surface Water DMR Reporting Requirements:

Submit a Monthly DMR: within twenty-five days after the end of every month beginning from the effective date of the permit (EDP).

Table III - D - 1: Surface Water DMR Limits and Monitoring Requirements
PHASE: Final

PHASE Start Date:
PHASE End Date:

Parameter	Sample Point	Limit	Limit	Units	Limit	Limit	Limit	Units	Frequency	Sample Type
Boron, Total (as B)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	***			
Arsenic, Total (as As)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	0.34			
Chromium, Total (as Cr)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.092			
Copper, Total (as Cu)	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	1.3			
Pentachlorophenol	Effluent Gross Value	*****	*****	*****	*****	*****	REPORT Daily Maximum	MG/L	1/6 Months	Grab
January thru December	DCL	***	***		***	***	.00027			

PART IV

SPECIFIC REQUIREMENTS: NARRATIVE

Notes and Definitions

A. Footnotes

1. Footnotes

- a. For the purposes of this NJPDES permit, the stormwater discharges regulated by this permit are not process wastewaters.

B. Definitions

1. Definitions

- a. All words and terms used in this permit shall have meanings as defined in the "Regulations Concerning the New Jersey Pollutant Discharge Elimination System" (N.J.A.C. 7:14A), unless otherwise stated or unless the context clearly requires a different meaning.
- b. Terms included in this permit are defined below. N.J.A.C. rule sources are noted where applicable:
 - i. "Brush" means branches, woody plants and other like vegetative material. Leaves and grass do not constitute brush (N.J.A.C. 7:26A-1.3).
 - ii. "Class B recyclable material" means a source separated recyclable material which is subject to Department approval prior to receipt, storage, processing, or transfer at a recycling center in accordance with N.J.S.A. 13:1E-99.34b, and for the purpose of this permit is limited to wood waste.
 - iii. "Class C recyclable material" means a source separated compostable material which is subject to Department approval prior to the receipt, storage, processing, or transfer at a recycling center in accordance with N.J.S.A. 13:1E-99.34b, and for the purpose of this permit is limited to source separated yard trimmings and wood chips from wood waste.
 - iv. "Compostable" means able to undergo physical, chemical, thermal and/or biological degradation under aerobic conditions such that the material to be composted enters into and is physically indistinguishable from the finished compost (humus), and which ultimately mineralizes (biodegrades to carbon dioxide, water, and biomass) in the environment at a rate like that of known compostable materials such as paper and yard trimmings (N.J.A.C. 7:26A-1.3).
 - v. "Composting" means the controlled biological degradation of organic matter to make compost (N.J.A.C. 7:26A-1.3).
 - vi. "Design criteria" is a pollutant concentration that the Department has determined that when exceeded represents a level of concern. Design criteria are established as "design goals" for Best Management Practices (BMPs) and/or stormwater treatment and are not established as numeric effluent limitations. Sampling results exceeding the design criteria will not be deemed violations.
 - vii. "EDPA" or "Effective Date of the Permit Authorization" means the date an individual facility's authorization to discharge under this permit becomes effective. The Effective Date of Permit Authorization is found on the facility's Authorization to Discharge page.
 - viii. "Effluent Limitation" means any restriction on quantities, quality, discharge rates and concentration of chemical, physical, thermal, biological, radiological, and any other constituents of pollutants established by permit, or imposed as an interim effluent limit

pursuant to an administrative order, including an administrative consent order (N.J.A.C. 7:14A-1.2).

- ix. "FW1" means those fresh waters, as designated in N.J.A.C. 7:9B-1.15(j), that are to be maintained in their natural state of quality (set aside for posterity) and not subjected to any man-made wastewater discharges or increases in runoff from anthropogenic activities. These waters are set aside for posterity because of their clarity, color, scenic setting, other characteristic of aesthetic value, unique ecological significance, exceptional recreational significance, or exceptional water supply significance (N.J.A.C. 7:14A-1.2).
- x. "Ground water discharge point" means the lowest invert elevation of any stormwater facility where stormwater discharges into the surficial ground water aquifer.
- xi. "Monthly Monitoring" means monitoring conducted at a minimum frequency of once every calendar month (N.J.A.C. 7:14A-1.2).
- xii. "Outfall" means any point source which discharges directly to waters of the United States or into another stormwater system which ultimately discharges directly to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States (N.J.A.C. 7:14A-1.2).
- xiii. "Overland flow" means the controlled discharge, by spraying or other means, of pollutants onto sloping land with maintained vegetation where a proportion of the wastewater may appear as runoff. Overland flow is also the movement of pollutants across the surface of the land where infiltration may occur (N.J.A.C. 7:14A-1.2).
- xiv. "Pinelands waters" means all waters within the boundaries of the Pinelands Area, except those waters designated as FW1 in N.J.A.C. 7:9B-1.15(j), as established in the Pinelands Protection Act (N.J.S.A. 13:18A-1 et seq.) and shown on Plate 1 of the "Comprehensive Management Plan" adopted by the New Jersey Pinelands Commission in November 1980 (N.J.A.C. 7:14A-1.2).
- xv. "Quarterly Monitoring" means monitoring conducted at a minimum frequency of once every three calendar months (N.J.A.C. 7:14A-1.2). Quarters for the purposes of this permit align with the calendar quarters.
- xvi. "Recycling center for Class B recyclable materials" or "Class B recycling center" means a facility that receives, stores, processes, or transfers Class B recyclable materials (N.J.A.C. 7:26A-1.3).
- xvii. "Recycling center for Class C recyclable materials" or "Class C recycling center" means a facility that receives, stores, processes, or transfers Class C recyclable materials (N.J.A.C. 7:26A-1.3).
- xviii. "Source materials" means any materials or machinery located at the facility and directly or indirectly related to process or other industrial activities which could be a source of pollutants in a stormwater discharge associated with industrial activity that is subject to N.J.A.C. 7:14A-24.2. Source materials include but are not limited to raw materials; intermediate products; final products; waste materials; by-products; industrial machinery and fuels; and lubricants, solvents, and detergents that are related to process or other industrial activities. Materials or machinery that are not exposed to stormwater are not "source materials".
- xix. "Valid storm event" means any precipitation that produces a stormwater discharge including discharges from snowmelt events.
- xx. "Wood waste" means source separated whole trees, tree trunks, tree parts, tree stumps, brush, and lumber (not chemically treated, glued, dyed, or painted).

- xxi. "Yard trimmings" means grass clippings, leaves, wood chips from tree parts, and brush.
(N.J.A.C. 7:26A-1.3).

C. Acronyms

1. Stormwater Acronyms included in this permit are as follows:

- a. "BMP" - Best Management Practices
- b. "BOD" - Biochemical Oxygen Demand
- c. "CFR" - Code of Federal Regulations
- d. "COD" - Chemical Oxygen Demand
- e. "DCL" - Design Criteria Level
- f. "DCP" - Drainage Control Plan
- g. "DMR" - Discharge Monitoring Report
- h. "DSN" - Discharge Serial Number
- i. "EDPA" - Effective Date of Permit Authorization
- j. "FW1" - Freshwater 1 Waters
- k. "GPA" - General Permit Authorization
- l. "GWQS" - Ground Water Quality Standards
- m. "HUC14" - Hydrologic Unit Code
- n. "MRF" - Monitoring Report Form
- o. "N.J.A.C." - New Jersey Administrative Code
- p. "NJPDES" - New Jersey Pollutant Discharge Elimination System
- q. "N.J.S.A." - New Jersey Statutes Annotated
- r. "PL" - Pinelands Waters
- s. "SPPP" - Stormwater Pollution Prevention Plan
- t. "TMDL" - Total Maximum Daily Load
- u. "WCR" - Waste Characterization Report

Wood Waste Recycling and Leaf Composting General Permit

A. Permit Overview

1. Summary of Stormwater Permit Requirements

- a. The permittee shall develop, implement, update, and maintain a Stormwater Pollution Prevention Plan (SPPP) (See Part IV.B).
- b. The permittee shall develop, implement, update, and maintain a Drainage Control Plan (DCP) and maintain drainage control in all areas of industrial activity, including source materials (See Part IV.C).
- c. The permittee shall develop, implement, update, and maintain site specific best management practices (BMPs) to achieve the design criteria and effluent limitations as specified in the permit (See Part IV.D).
- d. The permittee shall conduct stormwater monitoring in accordance with the requirements of the permit (See Part IV.E).
- e. The permittee shall monitor all discharges to discrete surface water outfall(s) in accordance with this permit's conditions and shall meet the effluent limitation(s) and design criteria as specified in the permit (See Part IV.F).
- f. The permittee shall design and maintain a means of treatment and/or disposal to discharge stormwater to ground water that shall be monitored in accordance with this permit's conditions to satisfy the requirements of the Ground Water Quality Standards (N.J.A.C. 7:9C) (See Part IV.G).
- g. The permittee shall be responsible for supervising and managing the operation and maintenance of the facility and all associated BMPs and treatment systems (See Part IV.H).
- h. The permittee shall develop, update, and implement an employee training program to address permit components and the Stormwater Pollution Prevention Plan (SPPP), including Drainage Control Plan (DCP) requirements (See Part IV.I).
- i. The permittee shall retain records of all monitoring information, maintenance records, and copies of all reports (including the SPPP and soil erosion and sediment control plans) required by this permit and conduct annual inspections of the facility (See Part IV.J).

B. Stormwater Pollution Prevention Plan (SPPP)

1. Stormwater Pollution Prevention Plan Minimum Requirements

- a. The SPPP shall include a detailed site-specific narrative description of the activities and their associated locations occurring at the wood waste recycling and/or leaf composting site.
- b. The SPPP shall include a current inventory of all source materials, as defined at Part IV Notes and Definitions, that are potential sources of pollution on site.
- c. The SPPP shall identify and describe the Best Management Practices (BMPs) that are in place to eliminate, reduce, or minimize exposure of industrial activity and source materials to stormwater that discharges to surface water or ground water.
- d. The SPPP shall identify BMPs to stabilize surface soils and reduce sediment transport, using BMPs outlined in the Standards for Soil Erosion and Sediment Control in New Jersey where appropriate, in accordance with the Soil Erosion and Sediment Control Act N.J.S.A. 4:24-39 et seq.
- e. The SPPP shall include a schedule and associated logs of site inspections to verify that the BMPs are being maintained and implemented properly. Descriptions of findings during inspections and their associated actions shall be logged in the SPPP and site inspections shall be conducted in accordance with Part IV.D.1.

- f. The SPPP shall include a description of all surface water and ground water discharge locations associated with wood waste recycling and composting activities, locations of discharge monitoring points, and source materials located within the contributing drainage area of each discharge monitoring point.
- g. The SPPP shall include the Drainage Control Plan, which shall be created in accordance with Part IV.C.1.
- h. The SPPP shall include all employee training records as specified in Part IV.I.1.
- i. The SPPP shall note the location of all records/documentation required by this permit.
- j. The permittee shall review the SPPP at least annually and update it as often as necessary to reflect changes related to the permittee's activities on site. Any amendments to the SPPP:
 - i. Shall continue to meet the requirements of this permit;
 - ii. Shall be recorded on the SPPP revisions page; and
 - iii. Shall be submitted to the Department upon completion.
- k. The SPPP shall be completed and submitted to the Department on or before EDPA + 6 months and implemented within EDPA + 18 months unless otherwise approved by the Department.
- l. The permittee shall amend the SPPP to adequately address all deficiencies within 60 days after receiving notification that the SPPP does not meet one or more of the minimum requirements unless another time is otherwise specified by the Department.
- m. The SPPP shall be retained at the facility for use by the permittee and inspection by the Department.
- n. The SPPP shall be made available to the public upon request, except for any portion of the SPPP that permittee has properly deemed as confidential in accordance with the provisions set forth in N.J.A.C. 7:14A-18.2.

C. Drainage Control and Monitoring Locations

1. Drainage Control Plan

- a. The permittee shall develop a Drainage Control Plan (DCP) as part of the SPPP, noted in Part IV.B.1 above, that describes how drainage control will be established on site.
- b. The DCP shall be certified by a New Jersey licensed Professional Engineer.
- c. Elevations for the DCP shall be measured by a New Jersey licensed Professional Land Surveyor.
- d. The DCP shall include, at a minimum, the following components:
 - i. Facility Name;
 - ii. NJPDES permit number and Program Interest I.D. Number (PI Number);
 - iii. A description of the location of each monitoring location, including an alpha-numeric discharge serial number comprised of 4 characters, which do not contain the same first 3 characters (e.g., 01SW, 02SW, etc. for surface water discharges, and 01GW, 02GW, etc. for ground water discharges);
 - iv. The latitude and longitude for each monitoring location(s);
 - v. All existing and proposed BMPs to be implemented for stormwater diversion or treatment;
 - vi. Time of concentration for stormwater runoff associated with regulated areas of the facility;
 - vii. Sizing calculations for any stormwater management facilities that manage stormwater runoff from regulated areas of the facility;
 - viii. Applicable TMDL and impairment information (www.nj.gov/dep/dwq/msrp-tmdl-rh.htm, and [www.state.nj.us/dep/wms/bears/assessment.htm#/,](http://www.state.nj.us/dep/wms/bears/assessment.htm#/) respectively);
 - ix. A Drainage Control Map, prepared in accordance with e. below; and

- x. A schedule with specific timeframes and interim milestones for implementing all proposed BMPs. The schedule must comply with Part IV.B.1.k above.
- e. The Drainage Control Map shall be legible, drawn to an appropriate engineering scale, and shall clearly depict the following information where applicable:
 - i. Site boundary;
 - ii. Title block containing tax block and lot number;
 - iii. Topography and elevations;
 - iv. Areas of yard waste management activity including staging/storing areas, windrows, and processing areas;
 - v. Proposed grading of drainage areas, including elevations and flow arrows showing the drainage direction to regulated monitoring locations or outfalls to surface water or ground water infiltration areas;
 - vi. Proposed location(s) of flow diversion structures;
 - vii. Proposed location(s) of surface water outfalls and representative monitoring locations; and
 - viii. Proposed location(s) of ground water infiltration areas and representative monitoring locations;
 - ix. All surface waters on or adjacent to the site, including the Surface Water Quality Standards classifications of the water bodies (listed at http://www.nj.gov/dep/rules/rules/njac7_9b.pdf);
 - x. All receiving aquifers (for discharges to ground water authorized by this permit) and assigned New Jersey Ground Water Quality Standards classification (listed at https://www.nj.gov/dep/rules/rules/njac7_9c.pdf);
 - xi. Existing buildings and other structures;
 - xii. Location of vehicle/equipment storage, maintenance, fueling, and washing areas;
 - xiii. Areas used for miscellaneous waste management or storage (e.g., dumpsters, drums, scrap vehicle/equipment parts);
 - xiv. Location of above/below ground storage tanks;
 - xv. Location of access roads;
 - xvi. Ground water contamination areas; and
 - xvii. Date prepared and subsequent revisions.
- f. An up-to-date copy of the Drainage Control Plan and Map shall be kept on site as part of the facility's SPPP as per Part IV.B.1.
- g. The Drainage Control Plan and Map shall be updated as necessary to reflect changes at the facility. A copy of the updated Drainage Control Plan and Map shall be sent to the Department upon its completion.

2. Establishing Drainage Control on Site

- a. All stormwater runoff associated with this regulated activity shall be handled in the following order of priority:
 - i. Collected and reused for controlling the moisture content in compost windrows and dust control, provided no discharge to surface or ground water occurs as a result. See Part IV.D.2 below;
 - ii. Infiltrated into ground water via a basin or overland infiltration area; and
 - iii. Discharged through an outfall(s) to surface water.

- b. The permittee shall prevent the migration of stormwater off site from a regulated activity, except through a discharge location regulated by this permit, by implementing stormwater control measures, such as, but not limited to berms, barriers, collection systems, embankments, and site grading.
- c. The permittee shall ensure that the discharge of stormwater from areas not associated with wood waste recycling or leaf composting source material (e.g., rooftop runoff, employee parking, other solid waste activities) are separated from stormwater discharges associated with wood waste recycling or leaf composting activity areas regulated under this permit.

3. Outfall Tagging and Monitoring Locations

- a. The permittee shall establish one or more monitoring location(s) that are representative of all regulated wood waste recycling and leaf composting discharges to surface water and/or ground water from the site.
- b. The permittee shall submit the location of the following:
 - i. Monitoring location(s);
 - ii. Outfall discharge point(s) to surface water;
 - iii. Outfall discharge point(s) to ground water; and
 - iv. Discharge point(s) to a private or publicly owned stormwater system.
- c. The permittee shall identify each surface water outfall and surface water and ground water monitoring location with a tag or posted sign in accordance with N.J.A.C. 7:14A-6.2(a)9 within three months of the commencement of monitoring.
 - i. The outfall or monitoring location tag or posted sign shall be:
 - Legible;
 - Located in close proximity to the outfall or monitoring location;
 - Made of a durable material such as metal; and
 - Maintained/repaired within 30 days if damaged or no longer legible.
 - ii. The outfall tag or posted sign shall display, at a minimum:
 - Name of the facility where the discharge originates;
 - NJPDES permit number;
 - The Department Hotline phone number (877-WARN DEP (927-6337)); and
 - Monitoring Location Designator for the associated outfall.
 - iii. The monitoring location tags shall display at a minimum:
 - NJPDES Permit number; and
 - Monitoring Location Designator.

D. Site-Wide BMPs for Pollution Prevention and Good Housekeeping

1. Site Inspections

- a. Inspections shall be conducted quarterly during dry periods to identify and address any problems prior to a storm event.
- b. Inspections shall be conducted quarterly during storm events to ensure that BMPs are functioning as originally intended and provide an opportunity for permittees to observe what materials and/or activities are exposed to stormwater.

- i. The permittee shall look for areas of buildup of solids, ponding, or channeling, excessive or lack of vegetative growth (could be an indicator of broken or leaking pipes, valves, or overloading of the discharge, etc.).
- c. An inspection log shall be maintained in the SPPP and shall consist of the following information:
 - i. Date and time of inspection;
 - ii. Name and title of facility personnel performing the inspection.
 - iii. Current weather conditions, and conditions for the previous 72 hours. This shall include the reported amount of rainfall/snow that fell during the prior 72 hours.
 - iv. Verification that all BMPs are in place;
 - v. Any observations of failures or breakdowns of BMPs including structural BMPs;
 - vi. Recommended maintenance or repairs; and
- d. The permittee shall also conduct annual inspections of the facility to assess all areas contributing to stormwater discharges authorized by this permit, to evaluate whether the SPPP complies with and is implemented in accordance with this permit, and whether additional measures are needed to meet the conditions of this permit.
 - i. The annual inspection may replace one of the required quarterly inspections.

2. Erosion and Dust Control

- a. The permittee shall establish BMPs for site stabilization and dust control to prevent the transport of particulates and sediment which include at a minimum:
 - i. Traffic control to prevent or minimize disturbance of non-stabilized areas and to prevent disturbance of vegetative covers and/or other dust control mechanisms;
 - ii. Entrance/exit stabilization to prevent or minimize the transport of sediment and dust outside the property line;
 - iii. Identification of areas that have high potential for soil erosion or a known soil erosion problem shall be stabilized using appropriate vegetative, structural, or nonstructural measures to limit erosion in these areas; and
 - iv. Reuse of collected stormwater to minimize dust and the transport of particulates.
- b. The permittee shall sweep (or clean using other dry-cleaning methods) impervious storage areas immediately after loading/unloading and as frequently as necessary to prevent the buildup of materials.

3. Stream Bank Stabilization and Stream Scouring Prevention

- a. The permittee shall design, implement, and maintain BMPs to prevent erosion and sedimentation caused by stormwater at the outfall(s). The BMPs shall meet the most recent technical standards listed in the Standards for Soil Erosion and Sediment Control in New Jersey, Engineering Standards Section titled Standard for Off-Site Stability at a minimum.
- b. The permittee shall perform quarterly stream scouring inspections. These inspections can be conducted simultaneously with the inspections as noted in D.1 above.
- c. The permittee shall restore any eroded area in the vicinity of the outfall within six months of identification of stream scouring, unless additional time is approved by the Department, in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C. 2:90-1 (e.g., Conduit Outlet Protection 12-1), or, for New Jersey Department of Transportation (NJDOT) projects, the NJDOT Soil Erosion and Sediment Control Standards at N.J.A.C. 16:25A (e.g., Conduit Outlet Protection 4.18), and the requirements for bank stabilization and channel restoration found at N.J.A.C. 7:13 et seq.

4. Inbound Material Quality Control

- a. The permittee shall develop and maintain a written quality control program that includes, at a minimum:

- i. Signage that notifies customers/suppliers of prohibited materials;
 - ii. Visual inspection protocol for all incoming material loads; and
 - iii. Training prior to commencement of related duties for all facility employees involved in the inbound quality control program.
- b. The permittee shall inspect all incoming wood waste and yard trimming loads for materials not authorized by this permit (i.e., chemically treated, glued, dyed, or painted).
- c. The permittee shall remove and properly dispose of all contaminated materials and miscellaneous debris found or reject the load.
 - i. The permittee shall store all contaminated materials and miscellaneous debris in a dumpster or other refuse container that is covered at all times.

5. Material Storage

- a. The permittee shall store unprocessed wood waste and yard trimmings, in-process materials, and processed/finished wood chip and compost materials in accordance with N.J.A.C. 7:26 & 7:26A as well as any NJDEP Solid Waste site and fire plans if applicable.
- b. The permittee shall store material stockpiles in a manner as to minimize stormwater run-on and contaminant run-off via surface grading, dikes and/or berms (which may include sandbags, hay bales and curbing, among others) or three-sided storage bays.
 - i. Where possible, the open side of storage bays shall be situated on the upslope;
 - ii. Keep material piles covered when possible; and
 - iii. The area in front of storage bays and adjacent to storage areas shall be swept clean every day after loading/unloading.

6. Spill Prevention and Response

- a. The permittee shall develop and implement BMPs to minimize the potential for leaks, spills, and other releases that may be exposed to stormwater and develop related spill prevention and clean-up procedures. At a minimum, the following BMPs are required for proper spill prevention and response measures:
 - i. Properly label all containers and keep labels legible, clean, and visible;
 - ii. Keep containers in good condition, protected from damage and spillage, and tightly closed when not in use;
 - iii. When practical, store containers indoors;
 - iv. If indoor storage is not practical, containers may be stored outside if covered and placed on spill platforms or clean pallets. An area that is graded and/or bermed to prevent run-through of stormwater may be used in place of spill platforms or clean pallets; and
 - v. Outdoor storage locations shall be maintained/repared if damaged or no longer able to function as designed.
- b. The permittee shall conduct cleanups of spills of liquids or dry materials immediately after discovery. All spills shall be remediated using the following methods:
 - i. Cleaned using dry cleaning methods only;
 - ii. Clean up spills with a dry, absorbent material (e.g., kitty litter, sawdust, etc.) and sweep the rest of the area;
 - iii. Dispose of collected waste properly; and
 - iv. Store clean-up materials, spill kits and drip pans near all liquid transfer areas, protected from rainfall.

- c. Any spills or suspected release of hazardous substances shall be immediately reported to the NJDEP Hotline (1-877-WARN DEP (927-6337)) followed by a site investigation in accordance with N.J.A.C. 7:26C and N.J.A.C. 7:26E if the discharge is confirmed.

7. Fueling Operations (if applicable)

- a. The permittee shall establish, maintain, and implement standard operating procedures to address vehicle fueling, receipt of bulk fuel deliveries and the inspection and maintenance of storage tanks, including the associated piping and fuel pumps to prevent the exposure of fuel to stormwater.
- b. The permittee shall place drip pans under all hose and pipe connections and other leak-prone areas during bulk transfer of fuels.
- c. The permittee shall block storm sewer inlets, or contain tank trucks used for bulk transfer, with temporary berms or temporary absorbent booms during the transfer process.
 - i. If temporary berms or booms are being used instead of blocking the storm sewer inlets, the permittee shall keep all fuel transfer activities within the temporarily bermed or boomed area during the loading/unloading of bulk fuels; and
 - ii. The permittee shall ensure that a trained employee is present to supervise all bulk transfers of fuel.
- d. The permittee shall clearly post, in a prominent area of the facility, instructions for safe operation of fueling equipment, which shall include, but is not limited to:
 - i. "Topping off of vehicles, mobile fuel tanks, and storage tanks is strictly prohibited";
 - ii. "Stay in view of fueling nozzle during dispensing"; and
 - iii. Contact information for the person(s) responsible for spill response.
- e. The permittee shall immediately repair or replace any equipment, tanks, pumps, piping, and fuel dispensing equipment found to be leaking or in disrepair.

8. Vehicle and Equipment Maintenance (if applicable)

- a. The permittee shall properly operate and maintain vehicles and equipment to prevent the exposure of pollutants to stormwater.
- b. The permittee shall, whenever possible, conduct vehicle and equipment maintenance activities indoors.
- c. For projects that must be conducted outdoors, and that last more than one day, the permittee shall place portable tents or covers over the equipment being serviced when not being worked on.
- d. The permittee shall use drip pans at all times.
- e. The permittee shall use designated areas away from storm drain inlets or block storm drain inlets when vehicle and equipment maintenance is being conducted outdoors.

E. General Discharge and Monitoring Requirements

1. Discharge Requirements

- a. The permittee shall ensure that any stormwater flowing from the site is free of trash and debris.
- b. The permittee shall not discharge stormwater to surface water and/or ground water that exhibits a visible sheen or other discoloration associated with regulated activity in accordance with N.J.A.C. 7:14A-12.6(d).
- c. The permittee shall not discharge stormwater to surface water and/or ground water that has foam or odor associated with regulated activity in accordance with N.J.A.C. 7:14A-12.6(d).
- d. The permittee shall not discharge stormwater from a regulated activity to an adjacent property without obtaining written consent from the property owner.

- e. The permittee shall monitor the discharge of stormwater that accumulates during a storm event in a containment area, impoundment, or other device that controls the discharge of stormwater, at the time of discharge as per Part IV.E.2 where applicable.

2. Monitoring Requirements

- a. Permittees who conduct all wood waste recycling and leaf composting activities on an impervious surface and within a building that is completely roofed and walled with a door may be exempt from the monitoring requirements below upon approval of the SPPP by the Department. Such changes to the permittee's operation and SPPP may be made at any time.
- b. The permittee shall monitor its stormwater discharge during a valid storm event from the monitored location(s) and for the parameters established in Part III.
- c. The permittee may collect a sample from snowmelt that results in a discharge as long as the monitoring requirements are followed, and provided that:
 - i. Snowmelt samples are representative of the area of industrial activity. As such, if a snowmelt event is to be sampled from an area of industrial activity, the permittee shall ensure that no snow from other areas is stockpiled in the area of the regulated activity; and
 - ii. Not more than one snowmelt is sampled per calendar year.
- d. The permittee shall collect samples in accordance with the sampling type and frequency established in Part III.
- e. The permittee shall collect stormwater samples within 30 minutes of the stormwater discharge or as soon thereafter as practicable. If samples are taken after 30 minutes, the permittee shall give a valid reason in the comments section of the monitoring report form. For sampling guidance, please follow the guidelines in "NJDEP Field Sampling Procedures Manual" (listed at <https://www.nj.gov/dep/srp/guidance/fspm/>)
- f. The permittee shall ensure that each analysis required by this permit be performed by a New Jersey Certified Laboratory that is certified to perform the analysis as per N.J.A.C. 7:18 "Regulations Governing the Certification of Laboratories and Environmental Measurements". See <https://www.nj.gov/dep/enforcement/oqa/certlabs.htm> for additional information regarding certified laboratories.
- g. The permittee shall ensure stormwater samples for pH are only collected and analyzed as follows:
 - i. Collect samples directly into the cleaned sample container.
 - ii. When the sample cannot be collected directly into the sample container, use a clean sampling device.
 - iii. Rinse the sample container and/or sampling device a minimum of three times with the stormwater to be sampled.
 - iv. The sample container must be glass or plastic with at least a 200 mL capacity, and have a leak proof cap.
 - v. The sample must fill the container completely not allowing for any head space within the container.
 - vi. The sample must be either analyzed on-site or stored at 4°C until analysis.
 - vii. All samples for stormwater pH must be analyzed within 24 hours of collection.
 - viii. All analysis for pH must be performed by a New Jersey Certified Laboratory as per the procedure outlined in "Regulations Governing the Certification of Laboratories and Environmental Measurements," N.J.A.C. 7:18.
- h. The permittee shall ensure that all samples be analyzed consistent with 40 CRF Part 136 that are sufficiently sensitive for the monitored parameter.

- i. For stormwater samples, the methodology chosen must allow the analysis to achieve the practical quantitation levels as specified in the GWQS.
- i. The monitoring for parameter pH “Precipitation” is optional. The permittee may choose to analyze pH “Precipitation” if the sample from a valid storm event has a pH “Effluent Gross Value” sample result that is lower than the daily minimum limit. pH “Effluent Gross Value” sample results that are below the pH daily minimum limit are not in violation of this permit if they are not lower than the measured pH “Precipitation” collected on site during the valid storm event.
 - i. The permittee shall use “Code = N” for pH “Precipitation” when not reporting a sample result for this optional parameter.
- j. The permittee may take samples and have analysis made by a New Jersey Certified laboratory on additional occasions to those specified in this permit.
 - i. If additional samples are taken, the maximum values of all analytical results taken during the monitoring period shall be reported on the MRFs;
 - ii. If an average value is required to be reported, all sample results shall be used in the calculation of the average. For pH, all data shall be used to report both minimum and maximum values; and
 - iii. If multiple valid storm events are sampled in a monitoring period, the permittee shall indicate how many samples were taken in the “frequency of analysis” box on the MRFs.
- k. If any monitoring results exceed the design criteria or effluent limitation(s) of this permit, for any parameter, the permittee shall:
 - i. Immediately evaluate potential sources of the pollutant that exceeded the design criteria or effluent limitation(s);
 - ii. Immediately identify and implement stormwater control measures (e.g., source control, operational control, stormwater treatment) by which the permittee can further reduce stormwater contamination;
 - iii. Update the SPPP with identified necessary improvements or changes within one month; and
 - iv. Evaluate and summarize the results in the Annual Report in accordance with Part IV.J.4.
- l. If the monitoring results for parameters sampled exceed effluent limitation(s) at any time or exceed design criteria in two out of four monitoring periods for quarterly or semiannual parameters the permittee shall:
 - i. Notify the Department via the designated electronic submittal service within one week of the triggering exceedance;
 - ii. Increase the monitoring frequency for the parameter(s) exceeded from quarterly to monthly or semiannually to quarterly;
 - iii. Submit six consecutive monitoring results below the effluent limitation and/or design criteria to show that the problem is rectified. If rectified, a request may be submitted to the Department to return to the standard monitoring frequency; and
 - iv. Include in the calculation and reporting of the data on the MRFs any additional sample results from increased monitoring. Such increased frequency shall also be indicated (see Part IV.E.i. above).
- m. Continued exceedances of the design criteria or effluent limitations may result in additional BMPs or a revocation of authorization under this general permit and require an application for an individual stormwater permit.
- n. The permittee shall not change monitoring locations without notification to and written approval from the Department. The permittee shall make any changes to monitoring locations in the DCP.

- o. If a discharge does not occur from an outfall or ground water discharge point during a particular reporting period, the permittee shall check "No discharge this monitoring period" on the MRF transmittal sheet for each discharge monitoring location that had "no discharge".

F. Stormwater Discharges to Surface Water (if applicable)

1. Design Criteria

- a. The design criteria for stormwater discharges to surface water listed in Part III of the permit include pollutant concentrations that the Department has determined that when exceeded, represent a level of concern. Design criteria are established by the Department to direct the permittee with selecting and designing appropriate BMPs, including treatment if necessary, and gauging the effectiveness of those BMPs once implemented.

G. Discharges to Ground Water (if applicable)

1. General Conditions

- a. The permittee shall ensure that stormwater discharges to ground water are;
 - i. By infiltration only utilizing one or more infiltration basin(s) or overland flow areas; and
 - ii. Designed to infiltrate the total runoff volume of at least a two-year, 24-hour storm event within 72 hours which is to be calculated using the National Oceanic and Atmospheric Administration's (NOAA's) National Weather Service Rainfall Data for the facility's specific location multiplied by the Department's county based update factors which were calculated from "Changes in Hourly and Daily Extreme Rainfall Amounts in NJ since the Publication of NOAA Atlas 14 Volume (2021.)" The update factors are available at the following link: <https://www.nj.gov/dep/stormwater/rainfalldata.htm>.
- b. The permittee shall ensure that representative samples of stormwater discharges to ground water are collected by one of the following two ways:
 - i. At the point of inflow to an infiltration basin; or
 - ii. At a discrete monitoring location upgradient from an overland infiltration area.
- c. The permittee shall report an overflow discharge from regulated infiltration areas resulting from a storm event less than or equal to a two-year, 24-hour storm event to the Department's Hotline within 24 hours from the commencement of discharge, as this is an unauthorized discharge and is a violation of this permit.
 - i. The permittee shall reassess overland flow area and/or infiltration basin design and construction if capacity exceedances and overflows occur frequently and upgrade if necessary.
- d. The permittee shall report each overflow discharge event from regulated infiltration areas resulting from storm events greater than a two-year, 24-hour storm in the annual report.

2. Overland Flow Requirements

- a. The permittee shall design an overland flow discharge system in accordance with the Department's latest "Technical Guidance for Sizing and Positioning of: Spray Irrigation Systems, Overland Flow Systems, Infiltration/Percolation Lagoon Systems, and Surface Impoundments" found at <https://www.nj.gov/dep/dwq/publications.htm> unless an alternative design is approved by the Department.
- b. The permittee shall implement infiltration area(s) (overland flow areas) in the locations specified by the DCP.
- c. The permittee shall ensure that the discharge to the overland flow area not exceed the boundaries indicated on the DCP.
 - i. The permittee shall obtain written permission from neighboring landowner(s) if allowing overland flow to go off site.
- d. The permittee shall establish the sample locations of the discharge to an overland flow area at a discrete location upgradient of the infiltration area.

3. Basin Requirements

- a. The permittee shall design the infiltration basins in accordance with chapters 5, 12, and 13 of the "New Jersey Stormwater Best Management Practices Manual" found at https://www.njstormwater.org/bmp_manual2.htm
- b. The permittee shall construct, maintain, and operate all basins to prevent overtopping and/or side wall failure.
- c. The permittee shall construct all interconnections between basins in a manner that will prevent degradation of the basin system.
 - i. The permittee shall implement erosion control BMPs in areas subject to influent flow; and
 - ii. Whenever possible, all flow shall be directed along the longest axis of the basin(s).
- d. The permittee shall ensure that the structural integrity of the basin after construction be certified by the signature and seal of a New Jersey licensed Professional Engineer.

4. Basin Failure, Inactivity, and Redesign

- a. If the original infiltration basin system or portions thereof were insufficient or inadequate, the permittee shall propose a new upgraded system as follows:
 - i. A new DCP shall be submitted along with any necessary revisions to the SPPP; and
 - ii. Discharges to the new system shall not commence until the permittee has received written approval by the Department.
- b. The permittee shall not operate an infiltration basin after basin failure unless all inspections and necessary repairs have been completed.
- c. If the permittee changes the size or number of basins or otherwise modifies the basin it is the responsibility of the permittee to notify the Department in writing regarding facility changes. This does not waive the requirement for the permittee to obtain additional Department approvals where necessary.
- d. Basins may be re-contoured to correct minor side wall and berm defects, alter side wall slopes, or similar changes or corrections after notifying the Department in writing of the proposed changes.
 - i. Notification shall include the submittal of plans for the proposed change and an estimated time for completion.

5. Design Criteria

- a. The design criteria for stormwater discharges to ground water listed in Part III of the permit include pollutant concentrations that the Department has determined that when exceeded, represent a level of concern. Design criteria are provided by the Department to assist the permittee with selecting and designing appropriate BMPs, including treatment if necessary, and gauging the effectiveness of those BMPs once implemented.

H. Facility Operation and Maintenance

1. Facility and BMP Operation and Maintenance

- a. The permittee shall be responsible for supervising and managing the operation and maintenance of this facility including implementing BMPs that must be installed or used by the permittee to achieve compliance with the permit and associated SPPP.
- b. The permittee shall conduct proper operation and maintenance of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit.
- c. The permittee shall document operation and maintenance activities through the annual report and certification requirements of Part IV.J.5.
- d. The permittee shall include a description of all operation and maintenance activities as part of the SPPP including but not limited to:

- i. A schedule of physical inspections of the entire facility;
 - ii. A schedule of physical inspections of all BMPs;
 - iii. Any operation and maintenance plans for stormwater management facilities;
 - iv. A schedule of maintenance and re-grading, in order to ensure appropriate slope and vegetative cover of the overland flow area (if applicable);
 - v. An outline of procedures to be implemented in the event the basin is removed from service for an extended period of time for reasons other than routine maintenance and/or scheduled rotation of permitted discharge areas; and
 - vi. A plan for managing any materials removed in the course of treatment or control of stormwater to prevent any pollutant from such materials from entering surface or ground waters, causing nuisance conditions, or creating a public health hazard in accordance with the provision at N.J.A.C. 7:14A-6.15.
- e. The Department may, at any time, require the certification of structural integrity of a stormwater management facility based on visual observations made during facility Compliance Evaluation Inspections or other Department site visits.

I. Employee Training

1. Employee Training Requirements

- a. The permittee shall ensure that all employees that assist in carrying out the responsibilities of this permit receive training on those stormwater topics applicable to their title and duties prior to commencement of related duties.
 - i. The permittee shall ensure that training on the following topics occur annually:
 - ii. Stormwater Pollution Prevention Plan – provide training on the permittee’s SPPP, applicable recordkeeping requirements, and on any component applicable to an employee’s title and duties;
 - iii. Best Management Practices (BMPs) – provide training on all wood waste recycling and leaf composting, stormwater treatment and diversion and site wide BMPs implemented at the facility;
 - iv. Discharge Requirements and Monitoring – provide training on all discharge and monitoring requirements; and
 - v. Stormwater Facility Maintenance - provide training on the maintenance of all stormwater facilities, including but not limited to outfalls, infiltration basins and MTDs.
- b. The permittee shall keep records of employee training including sign in sheet(s), date(s) of training, and training agenda(s) and shall include the location of training records in the SPPP.

J. Record Keeping and Submissions

1. General Record Keeping and Submission Requirements

- a. The permittee shall retain records of all monitoring information, maintenance records, and copies of all reports required by this permit for a period of at least five years.
- b. The permittee shall submit all documents that are required to be submitted to the Department via the Department’s designated electronic submission service.

2. Reporting "No Discharge"

- a. All monitoring report data, including reports of "No Discharge," will be evaluated against the National Oceanic and Atmospheric Administration's (NOAA's) National Weather Service Rainfall Data to determine if a discharge in the monitoring period has occurred.

3. MRF Submittals

- a. The permittee shall submit all monitoring results reported on MRFs to the Department via NJDEP's Electronic Monitoring Report Form (MRF) Submission Service in accordance with the schedule in Part III of this permit.
- b. The permittee shall begin to submit quarterly MRFs after the SPPP has been reviewed and monitoring locations have been established in a modification to this MGPA by the Department.

4. Annual Inspections, Reports, and Certifications

- a. The permittee shall conduct annual inspections of the facility in accordance with N.J.A.C. 7:14A-24.9(a) to assess all areas contributing to the stormwater discharge authorized by this permit, to evaluate whether the SPPP complies with and is implemented in accordance with this permit, and whether additional measures are needed to meet the conditions of this permit.
- b. The permittee shall prepare an annual report that summarizes the results of the annual inspection from the previous calendar year and includes the following additional information:
 - i. The permittee shall include a summary of each overflow discharge event from regulated infiltration areas resulting from storm events greater than a two-year, 24-hour storm.
 - ii. The permittee shall include a summary of any monitoring results that exceeded the design criteria or effluent limitations of this permit and which stormwater control measures, if any, were implemented to control the source of pollution.
 - iii. The permittee shall include a list of any other incidents of non-compliance discovered during the annual inspection, with any remedial actions and/or preventative measures taken; and
 - iv. The permittee shall submit the annual report to the Department by March 1 annually.
 - v. The permittee shall note the location of the annual report in the facility's SPPP as per the recordkeeping requirements of this permit.
- c. The permittee shall coordinate the completion and submittal of the Annual Report, including certifying, signing, and dating the Annual Report.
 - i. The permittee may choose to appoint a duly authorized representative to submit the Annual Report and Certification (7:14A-4.9(b)).

5. Soil Erosion and Sediment Control Plan Record Keeping Requirement

- a. The permittee shall retain a copy of any Soil Erosion and Sediment Control Plan required to be implemented on the site as a result of construction activities or land disturbance greater than or equal to one acre for a period of at least five years after the completion of construction.