CHRISTOPHER NEWPORT
UNIVERSITY

Stormwater Pollution Prevention Plan (SWPPP)

CHEMICAL OR OIL SPILL EMERGENCY: CNU POLICE 757-596-7777, Ext. 4-7777
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY: 757-518-2000
NATIONAL SPILL RESPONSE CENTER: 800-424-8802

CHRISTOPHER NEWPORT UNIVERSITY

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Revision History

Number	Descriptionof Change	Pages	Date	Name
1	Review and updated information	N/A	12/1/20	Dean Whitehead
2	Review and updated information	N/A	1/26/21	Timmons Group
3	Review and updated information per DEQ audit	N/A	8/09/22	Timmons Group
4	Review and update information per new General Permit Phase III	N/A	8/28/2024	Timmons Group

Section 1: Introduction

The Virginia General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) requires Christopher Newport University (CNU) to develop and implement a comprehensive stormwater management (SWM) program consistent with the Virginia General Permit (VAR04), originally effective on July 9, 2008. CNU registered for continuation of coverage on January 10, 2008, and was approved by the Virginia Department of Conservation and Recreation (DCR) on July 15, 2008 (MS4 General Permit VAR040090). The program was transferred from the DCR to the Virginia Department of Environmental Quality (DEQ) in 2013. CNU re-registered for continuation of coverage and was approved by the DEQ on October 30, 2023 (MS4 General Permit VAR040090). A copy of the permit is available in Appendix D.

CNU's Stormwater Management Program is based on six minimum control measures (MCM) as required by the Virginia General Permit. These goals and objectives were developed to reduce the discharge of pollutants from the University's MS4 to the maximum extent practicable (MEP), protect water quality, ensure compliance with water quality standards, and to satisfy the appropriate water quality requirements of the Clean Water Act and its attendant regulations.

This SWPPP does not cover any new construction associated with capital improvement project activities. New construction activities must have a stormwater management plan approved by the VSMP authority as authorized under the Virginia Stormwater Management Program (VSMP) Regulation (9VAC25-870).

1.1 Area of Coverage

CNU is a regulated small MS4 contained within the boundaries as shown on Figure 3 (Appendix C). The University's MS4 area encompasses what is known as "main campus." Main campus is generally bounded to the north by Prince Drew Rd., to the east by Warwick Blvd., to the west by N. Moores Ln., to the south by Shoe Ln. and to the southeast by Ave. of the Arts. The University's MS4 discharges through 3 outfalls into ditches which flow into the Warwick River (a Chesapeake Bay Tributary). The CNU MS4 area of the campus is located in the Lower James River watershed within the Hydrologic Unit Code JL43.

Additionally, there are parts of the campus east of Warwick Blvd. (known as "east campus") which do not discharge to the University's MS4. The east campus area discharges to the City of Newport News' MS4 (Appendix C: Figure 3).

1.2 Allowable Non-Stormwater Discharges

The following are the only non-stormwater discharges authorized under the MS4 (9VAC25-870-400), provided that all discharges comply with the effluent limitations set forth in the MS4:

- Discharges from fire-fighting activities
- Fire hydrant flushings
- Potable water, including water line flushings
- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids
- Irrigation drainage

- Landscape watering provided all pesticides, herbicides, and fertilizers have been applied in accordance with the approved labeling
- Pavement wash waters where no detergents or hazardous cleaning products are used, and the wash waters do not come into contact with oil and grease deposits or other toxic or hazardous materials (unless cleaned up using dry clean-up methods). Permittees are prohibited from directing authorized pavement wash waters directly into surface water or storm drain inlet unless appropriate control measures that meet the non-numeric effluent limits have been implemented. Where appropriate control measures are not in place, wash water runoff must first undergo treatment prior to discharge such as filtration, detention, or settlement. This type of water will be directed to grass areas when appropriate prior to discharging
- Routine external building washdown/power washwater that does not use detergents or hazardous cleaning products – this type of water will be directed towards grass areas prior to discharging – see section 5.3.3
- Uncontaminated groundwater or spring water
- Foundation or footing drains where flows are not contaminated with process materials
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (i.e. - "piped" cooling tower blowdown or drains)

All other non-stormwater discharges requiring VPDES permit coverage are not authorized by CNU's MS4 General Permit.

1.3 Permit Compliance

As per the General Permit, the operator shall comply with all conditions of this state permit. Any state permit noncompliance constitutes a violation of the Virginia Stormwater Management Act and the Clean Water Act, except that noncompliance with certain provisions of this state permit may constitute a violation of the Virginia Stormwater Management Act but not the Clean Water Act. State permit noncompliance is grounds for enforcement action; for state permit termination, revocation and reissuance, or modification; or denial of a state permit renewal application. The operator shall comply with effluent standards or prohibitions established under § 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this state permit has not yet been modified to incorporate the requirement.

1.4 Contents of the SWPPP

This plan includes the elements list in Table 1-1.

Table 1: SWPP Plan Elements

Description	Plan Location
Stormwater Pollution Prevention Team	Section 2
Site Descriptions	Section 3
Summary of Potential Pollutant Sources	Section 4
Description of Control Measures	Section 5

Description	Plan Location
Schedules and Procedures	Section 6
Signature Requirements	Section 7

1.5 SWPPP Availability

A complete copy of the current SWPPP is maintained by CNU electronically. The SWPPP is immediately available to University employees; local, state, and federal officials; and the operator(s) of an MS4 receiving discharges from the site.

1.6 Additional Documentation Requirements

CNU keeps the following inspection and monitoring records with the SWPPP to demonstrate compliance with the conditions of the MS4 General permit:

- Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for extended maintenance/repair schedules
- Inspection reports
- Description of deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations
- Description of corrective action triggering event/condition
- Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if the University discharges directly to impaired waters, and that such pollutants were not detected in the discharge or were solely attributable to natural background

1.7 Record Keeping Requirements

CNU retains copies of this SWPPP (including modifications made during the term of this permit), additional documentation requirements, all reports and certifications required by MS4 General Permit, monitoring data, and records of all data for a period of at least three years from the date that coverage under the current MS4 General Permit expires or is terminated.

Section 2: Stormwater Pollution Prevention Team

The stormwater pollution prevention team is responsible for overseeing development of the SWPPP, later modifications to it, and for compliance with the requirements in this permit. Each member of the stormwater pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of this permit, the most updated copy of the SWPPP, other relevant documents, or information that must be kept with the SWPPP.

For the purposes of this Plan, the members of the Pollution Prevention Team Roster are summarized in Table 2 below:

Table 2: Pollution Prevention Team Roster and Responsibilities

Member Name or Title	Member Responsibility
Vice President for Facilities and Campus Operations	Team Member – Certifying official and provides any upper management advice or directives.
Director of Grounds	SWPPP Coordinator/Team Leader – Coordinates plan development, plan implementation, employee training, inspections, and best management practices.
Director of Facilities Management	Team Member – Supports plan development, plan implementation, employee training, inspections, and best management practices.
Associate Director of Grounds	Team Member – Oversees preventative maintenance procedures, and monthly inspections to ensure that control measures (such as covers for outside dumpsters) are in place and are in proper working condition
Director of Environmental Health & Safety	Team Member - Supports plan development, plan implementation employee training, inspections, and best management practices.
Sustainability Specialist	Team Member - Supports plan development, plan implementation employee training, inspections, and best management practices.
Director of Building Operations	Team Member - Supports plan development, plan implementation employee training, inspections, and best management practices.
Director of Housing	Team Member - Supports plan development, plan implementation employee training, inspections, and best management practices.
Compliance Coordinator	Team Member - Supports plan development, plan implementation employee training, inspections, and best management practices.
Consultant	Assist in plan development and provide technical advice on plan implementation.

Section 3: Site Descriptions

3.1 University Activities

CNU is a four-year public university in Newport News, Virginia. CNU enrolls approximately 5,000 students each year and has approximately 1,000 employees. The University's campus is sited on 260 acres featuring approximately 40 buildings. The MS4 discharges through 3 outfalls into ditches which flow into the Warwick River and the James River – Cooper River (tributaries of the Chesapeake Bay). The campus is located in the Lower James River watershed with the Hydrologic Unit Codes (HUC0 JL38 and JL43). Please see Appendix C for a complete site map.

The following University Departments have operational control (i.e. authority over daily operations) over on-site activities with the potential to contribute to stormwater pollution:

- Grounds Department
- Plant Operations
- Auxiliary Services
- Athletics

3.2 High Priority Areas

Many of the University's operations occur within structures and/or under cover. However, there are 7 Facilities and 13 solid waste locations at the University with on-site activities with the potential to contribute to stormwater pollution (Appendix C: Figure 4). Annually, CNU will conduct a comprehensive site compliance evaluation and investigation for each High Priority Area using the maps and inspection forms in the appendices. Any updates will be made to the documents and unauthorized discharge, release, or spill incidents will be documented and reported as appropriate. Any issues with compliance will be documented and reported to CNU to resolve. Unauthorized discharges will be documented in Appendix F. The IDDE policy will be followed for any potential illicit discharges that are identified during dry weather screening activities

3.2.1 Waste Management Areas

The University has 1 centralized Municipal Solid Waste (MSW) dumpster yard (Appendix C: Figure 4.9). Additionally, there are 13 other locations on campus which feature dumpster and/or compactor corrals. All the waste management areas are used for the temporary storage of MSW in dumpsters until a licensed and contracted waste hauler can empty the dumpsters (5-6 times per week). The locations are outlined in Table 3:

Table 3 Waste Management Areas

Location	Operational Control	Front End Load MSW Dumpsters	Front End Load Recycling Dumpsters	Roll-Off MSW Dumpsters	Compactor	FOG Container
Main Dump Site	Plant Operations	9	3	1 + 1[†]	-	-
CNU Apartments*	Auxiliary Services (H)	2	2	1[†]	-	-
CNU Landing*	Auxiliary Services (H)	2	-	1[†]	-	-
CNU Village*	Auxiliary Services (H)	2	-	1[†]	1	1
David Student Union	Auxiliary Services	-	-	-	1	1
Ferguson Center	Auxiliary Services	2	2	-	-	-
Freeman Center	Auxiliary Services	1	1	-	-	-
Greek Housing	Auxiliary Services (H)	1	1	1[†]	-	-
Grounds*	Grounds Department	-	-	1	-	-
Hiden-Hussey Commons	Auxiliary Services (D)	-	-	-	1	1
James River Hall	Auxiliary Services (H)	2	-	1[†]	-	-
Off-site warehouse	Auxiliary Services (H)	-	-	1[†]	-	-
Plant Operations*	Plant Operations	-	1	1 + 1[†]	-	-

Potomac Hall	Auxiliary Services (H)	-	-	1[†]	-	-
Santoro Hall	Auxiliary Services (H)	2	-	1[†]	-	-
York River Hall	Auxiliary Services (H)	-	-	1[†]	-	-

Areas marked with an asterisk "*" discharge stormwater to the City of Newport News' MS4 permitted storm drains, while the unmarked areas discharge into CNU's MS4 permitted drains. "†" indicates a recurring, but short-term container. Auxiliary Services (H) = Housing, Auxiliary Services (D) = Dining.

3.2.2 Plant Operations Building

Plant Operations (Plant Ops) is located at 11 Sweetbriar Drive in Newport News and is under the operational control of Plant Operations. This area houses the facilities management personnel including: Mechanical, Electrical, Plumbing, Housekeeping, and Warehouse staff. On-site operational activities primarily occur indoors. The area consists of one building with a paved employee parking lot to the west, Sweetbriar Dr. to the south, a paved staging area to the north, and University Parking to the east (Appendix C: Figure 4.6). The area discharges stormwater via sheet flow into the City of Newport News' MS4. The following activities at this area have the potential to contribute to stormwater pollution:

- Exterior storage of materials
  - e.g. scrap metal, stone, wood, etc.
- Materials handling
  - e.g. paint, chemicals, etc.
- Shipping and receiving areas
- Solid waste management dumpster storage

3.2.3 Grounds Department Compound

The Grounds Department compound is located at 437 University Place in Newport News and is under the operational control of the Grounds Department. This area houses the landscaping management personnel and equipment. The area consists of 3 buildings, 2 storage structures, and equipment wash pad. The wash pad drains to the sanitary sewer and is not connected to the stormwater system. This area also has two double walled Above Ground Storage Tanks (AGST) on location for gasoline and diesel fuel. To the northern portion of the area is a wooded lot, to the east is a private residential lot, to the south is University Place, and to the west is an unpaved temporary construction vehicle parking area (Appendix C: Figure 4.5). The area discharges stormwater via sheet flow into the City of Newport News' MS4. The following activities at this area have the potential to contribute to stormwater pollution:

- Exterior storage of materials
  - e.g. dirt, sand, mulch, fuel etc.
- Materials handling
  - e.g. Fertilizers, pesticides, fungicides, herbicides and fueling
- Shipping and receiving areas
- Solid waste management dumpster storage

3.2.4 Athletics Department Operations

The Athletics Department Operations is located at 220 Prince Drew Road in Newport News and is under the operational control of the Grounds Department with support from the Athletics Department. This area houses game day event staff and athletic equipment. The area consists of 2 buildings. To the northern portion of the area is a grass field, to the west is a grass athletics practice field, to the south of the property is the University's track and football stadium, to the east of the property is a private residence (Appendix C: Figure 4.9). The area discharges stormwater via underground drainage infrastructure to the University's outfalls. The following activities at this area have the potential to contribute to stormwater pollution:

- Exterior storage of materials
  - e.g. dirt, sand, mulch, fuel etc.

- Materials handling
  - e.g. Fertilizers, pesticides, fungicides, herbicides and fueling

3.2.5 David Student Union

The David Student Union is located at 1 Ave. of the Arts in Newport News and is under the operational control of Auxiliary Services. This area houses one of two of the University's dining halls. The area consists of one building. To the north of the area is a grass lawn, to the east is semi-permeable brick plaza, to the south is a paved road (University Place), and to the west is concrete loading dock (Appendix C: Figure 4.8). The area discharges stormwater via underground drainage infrastructure to the University's outfalls. The following activities at this area have the potential to contribute to stormwater pollution:

- Materials handling
  - e.g. transfer food stuffs and cooking oils
- Shipping and receiving areas
- Solid waste management dumpster storage

3.2.6 Hiden-Hussey Commons

The Hiden-Hussey Commons is located at 1 Ave. of the Arts in Newport News and is under the operational control of Auxiliary Services. This area houses one of two of the University's dining halls. The area consists of one building. To the north of the area is a paved road (University Place), to the east is semi-permeable brick cart path, to the south is semi-permeable brick cart path, and to the west is a residence hall (Appendix C: Figure 4.2). The area to the northwest of the building discharges stormwater via sheet-flow to University Place. The remaining areas around the building discharge stormwater via underground drainage infrastructure to the University's outfalls. The following activities at this area have the potential to contribute to stormwater pollution:

- Materials handling
  - e.g. transfer food stuffs and cooking oils
- Shipping and receiving areas
- Solid waste management dumpster storage

3.3 General Location Map

This SWPPP provides a general location (e.g., U.S. Geological Survey (USGS)) quadrangle map with enough detail to identify the location of the University and all receiving waters for the stormwater discharges (Appendix C: Figure 1).

3.4 Site Maps

In addition to the general location map, the SWPPP must include a map that shows the following:

- Boundaries of the campus, and the size of the campus in acres
- The location and extent of significant structures and impervious surfaces
- Direction of stormwater flow (using directional arrows)
- Locations of all existing structural control measures
- Locations of all receiving waters, including wetlands, in the immediate vicinity of the facility. Indicating if of the waters are listed as impaired and which are identified as Federal, state or tribal Tier 2 or Tier 2.5 waters
- Locations of all stormwater conveyances including ditches, pipes, and swales
- Locations of potential pollutant sources
- Locations of all stormwater monitoring points

- Locations of stormwater inlets and outfalls, with a unique identification code for each outfall (e.g., Outfall 1, Outfall 2, etc.)
- Municipal separate storm sewers systems (MS4) and where the facility discharges to them
- Locations of the following activities where such activities are exposed to precipitation:
    - Vehicle and equipment maintenance and/or cleaning areas
    - Loading/unloading areas
    - Locations used for the treatment, storage, or disposal of wastes
    - Processing and storage areas
    - Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility
- Locations and sources of run-on to the facility from adjacent property that contains significant quantities of pollutants

In order to meet these requirements described above, CNU has developed the enclosed Stormwater Site Plans for each High Priority Area as identified in Section 3.2. A copy of all maps is available in Appendix C.

Section 4: Potential Pollutant Sources

4.1 Summary of Potential Pollutant Sources

The SWPPP documents the areas at the University where materials or activities are exposed to stormwater or from which allowable non-stormwater discharges may be released. Materials or activities include, but are not limited to the following:

- Material handling equipment or activities
- Machinery
- Raw Materials
- Municipal Solid Waste

Material handling activities include, but are not limited to the following: storage, loading, and unloading, transportation, disposal, or conveyance of materials. Table 4 provides a summary of University activities exposed to stormwater:

4.1.1 Site Activities & Potential Pollutants

The list must include the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity with the potential to be exposed to stormwater, and could be discharged from the University.

Table 5 in this section summarizes the pollutants for each identified activity for the previous three years.

Table 4: Potential Pollutants Associated with University Activities

University Operations	Activities	Sediment	Nutrients	Trash	Metals	Bacteria	Oil &	Organics	Pesticides	Oxygen Demanding Substances
Roads, Streets, and Parking Lot Operation and Maintenance	Sweeping and Cleaning	X		X	X		X			X
	Street Repair, Maintenance, and Striping/Painting	X		X	X		X	X		
Plaza, Sidewalk, and Parking Lot Maintenance and Cleaning	Surface Cleaning	X	X			X	X			X
	Graffiti Cleaning	X	X		X			X		
	Sidewalk/Paver Repair	X		X						
	Controlling Litter	X		X		X	X			X
	Mowing/Trimming/Planting	X	X	X		X			X	X
	Fertilizer & Pesticide Management	X	X						X	
Landscape Maintenance	Managing Landscape Wastes			X					X	X
	Erosion Control	X	X							
	Inspection and Cleaning of Stormwater Conveyance Structures	X	X	X		X		X		X
Drainage System Operation and Maintenance	Controlling Illicit Connections and Discharges	X	X	X	X	X	X	X	X	X
	Controlling Illegal Dumping	X	X	X	X	X	X	X	X	X
	Maintenance of Inlet and Outlet Structures	X		X	X		X			X
	Solid Waste Collection		X	X	X	X	X	X		X
	Waste Reduction and Recycling			X	X					X
Waste Handling and Disposal	Collection of MSW			X	X		X	X	X	
	Controlling Litter			X	X	X		X		X
	Controlling Illegal Dumping	X		X		X	X		X	X

4.1.2 Spills and Leaks

This plan identifies locations where potential spills and leaks could occur that might contribute pollutants to stormwater discharges, and the corresponding outfall(s) that would be affected by such spills and leaks. The University shall document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that have drained to a stormwater conveyance in the three years prior to the date in which the SWPPP was prepared or amended.

The EPA has defined "significant spills" to include, but not be limited to, releases of oil or hazardous substances in excess of quantities that are reportable under the CWA or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The MS4 does not relieve the University of any reporting requirements relating to spills or other releases of oils or hazardous substances. Any operator who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR.

A spill, leak, or discharge is any flow that occurs during a 24-hour period into or upon state surface waters or that may reasonably be expected to enter state surface waters. In such an event, the University shall notify the Department of Environmental Quality (DEQ) of the discharge immediately upon discovery of the discharge, but in no case later than within 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to DEQ and the CNU MS4 Program Coordinator within five days of discovery of the discharge. The written report shall contain:

a. A description of the nature and location of the discharge;
b. The cause of the discharge;
c. The date on which the discharge occurred;
d. The length of time that the discharge continued;
e. The volume of the discharge;
f. If the discharge is continuing, how long it is expected to continue;
g. If the discharge is continuing, what the expected total volume of the discharge will be; and
h. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this general permit.

CNU has not experienced any reportable spills or leaks at the University of pollutants in the three years prior to the date of the development of this SWPPP. Please refer to site maps in Appendix C for identified areas locations where potential spills and leaks could occur that might contribute pollutants to stormwater discharges, and the corresponding outfall(s) that would be affected by such spills and leaks.

4.1.3 Non-stormwater Discharges

CNU regularly performs evaluations, in accordance with our IDDE Policy (Appendix B), to identify the presence of non-stormwater discharges and to confirm that all unauthorized discharges have been eliminated in compliance with all regulations. The details of each IDDE incident recorded electronically by the Grounds Department and are available upon request.

4.1.4 Sampling Data

All stormwater discharge sampling data required by the MS4 General Permit collected at the University are available with CNU's annual MS4 report.

Section 5: Control Measures

The selection, design, installation, and implementation of control measures (including best management practices) must be accordance with good engineering practices and manufacturer's specifications and done to address the selection and design considerations as per Part I Section E of the MS4 General Permit.

In the event the University finds that the control measures are not achieving their intended effect of minimizing pollutant discharges, the University shall modify these control measures. Regulated stormwater discharges from the University include stormwater run-on that commingles with stormwater discharges associated with University operations.

5.1 Control Measure Selection and Design Considerations

The University considers the following when selecting and designing control measures:

- Preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater
- Using control measures in combination is more effective than using control measures in isolation
- Assessing the type and quantity of pollutants, including their potential to impact receiving water quality
- Minimizing impervious areas at the University and increasing infiltrating runoff onsite can reduce runoff and improve ground water recharge and stream base flows
- Attenuating flow using open vegetated swales and natural depressions
- Conserving and/or restoring riparian buffers will help protect streams from stormwater runoff
- Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate

5.2 Minimize Exposure

As described in Part I Section E.6 of the General Permit all facilities must minimize the exposure of daily operations, equipment maintenance, and materials handling (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating these materials and activities inside or protecting them with storm resistant coverings (although significant enlargement of impervious surface area is not recommended). In minimizing exposure, the facility should pay particular attention to the following:

- Use grading, berms, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas
- Locate materials, equipment, and activities so that potential leaks and spills are contained or diverted before discharge
- Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants
- Unless infeasible, store leaky vehicles and equipment indoors or, if stored outdoors, use drip pans and absorbents
- Use spill/overflow protection equipment
- Perform all vehicle and/or equipment cleaning on the wash pad connected to the sanitary sewer

- Drain fluids from equipment and vehicles that will be decommissioned or will remain unused for extended periods of time
- Ensure that all washwater, with the exception of discharges from pavement wash water and routine building washdown drains to a sanitary sewer, sump, or other proper collection system (i.e., not the stormwater drainage system)

The discharge of vehicle and equipment washwater, including tank cleaning operations, is not authorized by this permit. These wastewaters must be authorized and covered under a separate VPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law.

5.3 Good Housekeeping

The University incorporates best management practices into its daily operations that contribute to preventing pollutants from entering storm water inlets, and adversely affecting the natural environment. Potential sources of storm water pollution include spills and leaks from oil, grease, fuel, and chemicals onto paved surfaces, chemical product in wash water, lawn and garden products on pavement, exposed bulk storage piles and common floatable trash. Specific SOPs area available in Appendix E.

5.3.1 Parking Lots, Streets, and Roads Maintenance

Street sweeping is regularly completed to prevent waste material from entering stormwater drains via parking lots and streets. A schedule is established that best addresses the rate of accumulation of materials on pavements and hardscapes, and is adjusted for significant events (e.g. snowfall, sand, salt application). Materials collected during cleaning activities are not stored temporarily on site, rather delivered to a permitted landfill.

If leaked vehicle fluid is discovered, the vehicle is moved away from storm drains or a drip pan is placed under the leaking equipment until the vehicle can be re-located. Leaks and spills on pavement are contained and cleaned up using absorbent material.

5.3.2 Equipment and Vehicles

The vehicle maintenance garage is located at the Grounds Maintenance Building on the east side of campus. The vehicle maintenance garage does not have floor drains, therefore, the likelihood of discharging contaminated runoff or stormwater is very low.

Vehicle maintenance is performed indoors and/or under cover. Any oil or other vehicle fluid spills are contained and cleaned using absorbent materials, then disposed of into appropriate recycling containers. Leaking vehicles are removed from service until repaired and a drip pan is used to capture fluid leaks during storage and/or maintenance. Vehicles washed with detergents should be washed in areas which drain to a sanitary sewer or they can be washed with a water-based, phosphate free car wash over grassy areas not located near storm drains. Leaking vehicle batteries are stored in secondary containers.

Lawn mowers, weed eaters, blowers, etc. are fueled, maintained and stored within Grounds Maintenance Buildings on concrete floors.

5.3.3 Outdoor Buildings

Maintenance of building exteriors may involve a number of different practices, from cleaning to resurfacing. Pressure washing, for example, can concentrate organic sediment, precipitates, surface material, and cleaning solutions into the waste water, which is characterized as an illicit discharge if it enters the MS4. Power washing water, cleaning agents, and other compounds should not enter the storm sewer system or water bodies. Care should be taken to prohibit fluids from flowing into roof drains, downspouts, and any other conveyances leading to them.

Building washing is performed on dry days and uses minimal water. Dirty areas are prioritized rather than cleaning or

pressure washing an entire building to minimize water use. Prior to outdoor washing, storm drains and possible conveyances are protected with drain covers, wattles, booms, or booms. Dry cleanup methods are employed to remove debris prior to washing surfaces. Wash wastewater that does not contain chemicals or cleaning agents is directed to nearby landscaping or vegetated areas to infiltrate in grass. Downstream inlets that may receive discharge will be protected as appropriate while diverting this wastewater to grass areas. Wastewater containing chemical pollutants must be captured and disposed of in the sanitary sewer. Suspended solids and oils that are present in wastewater are removed using booms, absorbent pads, or other devices.

For outdoor painting, water-based paints and thinners are used instead of oil-based whenever possible. Prior to painting, paint is mixed indoors or on an impermeable ground cover placed on the ground to prevent spills from contaminating ground soil or entering storm drain inlets. Unused waste latex paint is solidified prior to disposal in trash and oil-based paints are collected and disposed of as hazardous waste.

5.3.4 Grounds & Landscaping

The MS4 permit requires that a turf and landscape nutrient management plan be developed by a certified turf and landscape management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned by CNU where nutrients are applied to a contiguous area greater than one acre. Designated CNU staff tracks the total acreage where turf and landscape management plans are required and where such plans have been implemented, and they shall summarize the schedule and its implementation in annual permit reports.

Typical landscape maintenance practices can produce stormwater contaminants such as pesticides, soil, fertilizers, and debris which can pollute receiving water bodies. Maintaining an attractive campus landscape can require considerable efforts in pruning, watering, and fertilizing.

The Grounds Department performs maintenance and landscaping of campus grounds. Turf areas are minimized via groundcovers, wildflowers, and shrubs, thereby reducing mowing and water requirements. Whenever possible, drought and heat-resistant turf species, and regional, indigenous plants are selected for planting. Low-volume irrigation methods and minimal watering are provided to avoid water runoff. Lawn wastes generated from lawn mowing are composted through use of recycling deck mowers, and re-tilled into the soil of planting areas or mixed into mulch. Grass clippings and additional vegetation (i.e. leaves and vegetative debris) are collected and removed from campus to a permitted landfill. Leaves, clippings, and compost are managed so that runoff does not enter storm drain system.

Trash containers, recycling containers, and cigarette butt containers are placed in high pedestrian traffic areas, common areas, entrances to buildings, and sidewalk entries from parking lots. Additional temporary trash receptacles are installed during University events for collecting increased volumes of trash. Dumpsters are located at secured sites on campus and on flat, concrete surfaces that do not slope or drain directly into a storm drain system. Dumpsters have drain holes to prevent accumulation of rainwater inside. Recycling bins are provided within the campus dumpster sites for collection of recyclable waste material. Outdoor trash receptacles are emptied daily or at rate necessary to prevent overflow of trash. All trash receptacles are covered to reduce the amount of rainwater entering the container and the potential for leakage.

5.3.5 Application and Storage of Pesticides, Herbicides, and Fertilizers

Grounds and building maintenance crews occasionally use pesticides and herbicides in routine operations, and the mixing and loading of applications into equipment is often in the same areas where fueling and maintenance occurs. Consequently, these are the areas where an accidental discharge into the MS4 is likely to occur. Care should be taken to properly store, handle, and apply these chemicals in much the same manner as other hazardous materials, and only adequately trained staff should be responsible for their use.

Minimum amounts of pesticides, herbicides, and fertilizers are stored to limit amount of bulk storage. All product containers (original and secondary) are labeled and stored in high, dry locations, according to manufacturer's

specifications and applicable regulations. Storage areas are inspected regularly for leaks or spills; cleanup is immediate to prevent chemicals from reaching the storm drain system. Fertilizers are applied during periods of maximum plant uptake based on plant species. Prior to application, the five-day weather forecast is checked to avoid treatments before heavy rain or during a drought event. Unused waste product is disposed of as regulated waste.

5.3.6 Exterior Material Storage

Certain loose material storage (e.g. bulk piles of mulch, topsoil, sand, salt and de-icing material) may flow into street gutters and eventually stormwater inlets during heavy rain events. Materials are stored in storage containers, or under impervious cover to prevent flow.

Pre-bagged calcium chloride is used for deicing. De-icing agents containing urea or other forms of nitrogen or phosphorus are not used on parking lots, roadways, and sidewalks, or other paved surfaces. Grounds crew are trained in appropriate application techniques. Rinse water from cleaning de-icing equipment is directed away from storm drains.

5.3.7 Chemical Storage

Certain loose material storage (e.g. bulk piles of mulch, topsoil, sand, salt and de-icing material) may flow into street gutters and eventually stormwater inlets during heavy rain events. Materials are stored in storage containers, or under impervious cover to prevent flow.

Pre-bagged calcium chloride is used for deicing. De-icing agents containing urea or other forms of nitrogen or phosphorus are not used on parking lots, roadways, and sidewalks, or other paved surfaces. Grounds crew are trained in appropriate application techniques. Rinse water from cleaning de-icing equipment is directed away from storm drains.

5.4 Maintenance

The University must maintain all control measures that are used to achieve compliance with the MS4 General Permit in effective operating condition, as well as all equipment and systems to help prevent discharges of pollutants from them. This includes:

- Performing inspections and preventive maintenance of stormwater drainage, source controls, and equipment and systems that could fail
- Diligently maintaining nonstructural control measures (i.e.- keep spill response supplies available and confirm personnel appropriately trained)
- Cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth and keeping the debris surface at least six inches below the outlet pipe

If the University finds that control measures need to be replaced or repaired, the facility must immediately take all reasonable steps to prevent or minimize the discharge of pollutants until a permanent solution is installed and made operational.

CNU employs the following activity specific maintenance BMP techniques:

- CNU schedules routine shipments for solid waste containers in an effort to minimize the potential for stormwater contamination
- CNU performs periodic inspections and clean-outs of stormwater conveyances in accordance with the following schedule:
    - Roof drains – semi-annually

- Catch basin – annually
- Visual inspection of outfall structure – annually

5.5 Spill Prevention and Response Procedures

The University must minimize the potential for leaks, spills and other releases that may be exposed to stormwater, and develop plans for effective response to such spills if or when they occur. At a minimum, the following must be implemented:

- Plainly label containers that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur
- Implement procedures for material storage and handling, including the use of secondary containment and barriers between material storage and traffic areas, or a similarly effective means
- Develop training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases
- Keep spill kits on-site, located near areas where spills may occur
- Notify appropriate facility personnel, emergency response agencies, and regulatory agencies when a leak, spill, or other release occurs

Where a leak, spill or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity occurs during a 24-hour period, the facility must notify the National Response Center (NRC) at (800) 424-8802 as soon as the facility has knowledge of the discharge.

Additionally, state or local requirements may require the reporting of spills or discharges to local emergency response personnel and public health or drinking water supply agencies. Contact information must be in locations that are readily accessible and available.

Please see Appendix E for the SOP's regarding spill prevention and cleanup.

5.6 Erosion and Sediment Controls

The University must minimize erosion by stabilizing exposed soils and by placing flow velocity dissipation devices at discharge locations. The University must also use structural and non-structural control measures to prevent the discharge of sediment.

If an erosion or sediment problem is discovered through the regular inspections at the University, CNU will take corrective actions at that time. If any erosion or sediment controls are put in place, they will be documented and maintained at the end of this section.

5.7 Management of Runoff

The University must divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff, to minimize pollutants in the discharges. CNU will carefully examine the results from visual monitoring and any required analytical testing of the University stormwater outfalls. If problems are identified, they will be addressed immediately and additional BMPs will be implemented to minimize stormwater pollution.

5.8 Salt Storage

The University must enclose or cover storage piles of salt, or piles containing salt, used for deicing (including maintenance of paved surfaces). The University must implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered if stormwater runoff from the piles is not discharged or if discharges from the piles are

authorized under VPDES permit.

The University has bulk salt storage at the Grounds Department (Appendix C: Figure 4.5). The salt is stored outside, under cover, on a concrete pad and surrounded on three sides by a concrete berm.

5.9 Employee Training

The University will train all employees who work in areas where materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (i.e. - inspectors, maintenance personnel), including all members of the Pollution Prevention Team. The following personnel must understand the requirements of this permit and their specific responsibilities with respect to those requirements:

- Personnel who are responsible for the design, installation, maintenance, and/or repair of controls
- Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in stormwater discharges
- Personnel who are responsible for conducting and documenting monitoring and inspections
- Personnel who are responsible for taking and documenting corrective actions

Personnel must be trained in at least the following if related to the scope of their job duties (i.e. - only personnel responsible for conducting inspections need to understand how to conduct inspections):

- An overview of what is in the SWPPP
- Spill response procedures, good housekeeping, maintenance requirements, and material management practices
- The location of all controls on the site and how they are to be maintained
- The proper procedures to follow with respect to pollution prevention requirements
- When and how to conduct inspections, record applicable findings, and take corrective actions

5.10 Water Quality-Based Effluent

5.10.1 Water Quality

Discharge from the University must be controlled as necessary to meet applicable water quality standards as per Part I Section B of the General Permit. The DEQ expects that compliance with the conditions in the General Permit will control discharges to meet applicable water quality standards. If the University becomes aware, or the DEQ determines, that the discharge does not meet water quality standards, the University must take appropriate corrective action. The University must also comply with additional federal or local regulations. The University must implement all controls necessary to comply with a waste load allocation an approved total maximum doily load (TMDL).

5.10.2 Discharges to Quality Impaired Waters

Discharges from the University will be considered to discharge to an impaired waterway if the first waterway to which the facility discharge is identified by a state, tribe, or the EPA as not meeting an applicable water quality standard (included on the Section 303(d) of the CWA list), or is included in on EPA-approved or established TMDL. For discharges that enter a storm sewer system prior to discharge, the first waterway to which the facility discharge is the waterbody that receives the stormwater discharge from the storm sewer system.

CNU discharges to Warwick River, which is listed as an Impaired Waterway according to the Virginia 2014 Integrated List of Waters pursuant to Sections 303(d) and 305(b) of the Clean Water Act. The Warwick River is listed by the Virginia DEEQ under 2014 Impaired Waters (Category 4A/4D) TMDL Approved and (Category 4B) Other Control Measures Present. This listing is recreation and the pollutant affecting this waterway is Enterococcus. The Warwick River was initially listed as an Impaired Waterway in 2008 with 2020 listed as the TMDL development date.

Section 6: Schedules and Procedures

6.1 Inspections

6.1.1 Routine Inspections

During normal operating hours the University shall conduct inspections of areas of the campus covered by the MS4 General Permit, including the following:

- Areas where materials or activities are exposed to stormwater
- Areas identified in the SWPPP and those that are potential pollutant sources
- Areas where spills and leaks have occurred in the past 3 years
- Discharge points
- Control measures used to comply the permit

Inspections shall be conducted at least once per year, and be more often if found to be needed. Increased frequency may be appropriate for some types of equipment, processes and stormwater control measures, or areas of the facility with significant activities and materials exposed to stormwater.

Inspections must be performed by qualified personnel. Inspectors must consider the results of visual and analytical monitoring (if any) for the past year when planning and conducting inspections.

During the inspection the staff must examine or look for the following:

- Materials, residue or trash that may have or could come into contact with stormwater
- Leaks or spills from industrial equipment, drums, tanks and other containers
- Offsite tracking of waste materials, or sediment where vehicles enter or exit the site
- Control measures needing replacement, maintenance or repair

When conducting an inspection during a stormwater discharge, control measures implemented to comply with effluent limits must be observed to ensure they are functioning correctly. If discharge locations are inaccessible, nearby downstream locations must be inspected.

6.1.1.1 *Routine Inspection Documentation*

The findings of the routine inspections must be documented and maintained with this SWPPP. The inspection documentation must include, but not necessarily be limited to the following:

- The inspection date and time
- The name(s) and signature(s) of the inspector(s)
- Weather conditions at the time of the inspection
- All observations relating to the implementation of control measures at the University, including:
    - A description of discharges occurring at the time of the inspection
    - Previously unidentified discharges and/or pollutants from the site
    - Evidence of, or the potential for, pollutants entering the drainage system
    - Observations regarding the physical condition of and around all outfalls including flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water
    - Control measures needing maintenance, repairs, or replacement

- Additional control measures needed to comply with the permit requirements
- Incidents of noncompliance observed

If the University performed a discharge visual assessment during the inspection, the University may include the results of the assessment with the report, as long as all components of both types of inspections are included in the report.

A Routine Inspection form is located in Appendix A of this SWPPP.

6.1.2 Visual Assessment of Stormwater Discharges

If needed, the University may collect a stormwater sample from each outfall (monitoring point) and conduct a visual assessment the samples. The samples should be collected in such a manner that they are representative of the stormwater discharge from the University. The following visual assessments must be made:

- Collect the grab sample in a clean, clear glass, or plastic container. and examine in a well-lit area
- Collect the grab sample within the first 30 minutes of an actual discharge from a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and the facility must document why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from the site
- Collect the grab sample from a measurable storm event or discharge that occurred at least 72 hours (3 days) from the previous discharge. The 72-hour storm interval does not apply if the facility document that less than a 72-hour interval is representative for local storm events during the sampling period

Sampling personnel must visually inspect or observe the sample for the following water quality characteristics:

- Color
- Odor
- Clarity (diminished)
- Floating solids
- Settled solids
- Suspended solids
- Foam
- Oil sheen
- Other obvious indicators of stormwater pollution

Whenever the visual assessment shows obvious signs of stormwater pollution, the University must initiate the corrective action procedures.

Exceptions to Quarterly Visual Assessments are as follows:

- Adverse Weather Conditions: When adverse weather conditions prevent the collection of samples, the facility may take a substitute sample during the next qualifying storm event. Documentation of the rationale for no visual assessment must be included with the SWPPP records
- Substantially Identical Outfalls: If the University has two or more outfalls that the University believes discharge substantially identical effluents, the University may conduct visual assessments of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s). Visual assessments must be conducted at each substantially

identical outfall on a rotating basis.

6.1.2.1 *Visual Assessment Documentation*

The results of the visual assessments must be documented and maintained with this SWPPP. The visual assessment documentation must include, but not be limited to:

- Sample location(s)
- Sample collection date and time, and visual assessment date and time for each sample
- The name(s) and signature(s) of the inspector(s)
- Nature of the discharge (i.e. - runoff or snowmelt)
- Results of observations of the stormwater discharge
- Probable sources of observed stormwater contamination
- If applicable, why it was not possible to take samples within the first 30 minutes

A Visual Assessment form is located in Appendix A of this SWPPP.

Section 7: Signature Requirements

The SWPPP, including changes to the SWPPP to document corrective actions taken, and all reports submitted to DEQ, must be signed by a responsible University official or by a duly authorized representative of that person. A responsible University official means:

- A president or vice-president of the University in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the University; or
- A Director of University Grounds or Facilities, provided, the Director is authorized to make management decisions which govern the operation of the University including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures

All other changes to the SWPPP, and other compliance documentation required must be signed and dated by the person preparing the change or documentation.

7.1 Plan Certification

I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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 knowing violations.

University Official:_____ **Title:** _____

Signature:_____ **Date:** _____

Appendix A – Inspection Forms

9-C.10.0. BIORETENTION PRACTICES: O&M CHECKLIST

Inspection Date_____
Project_____ **Site Plan/Permit Number**_____
Location_____ **Date BMP Placed in Service**_____
Date of Last Inspection_____ **Inspector**_____
Owner/Owner's Representative_____
As-Built Plans available: Y / N

Facility Type: Level 1 _____ Level 2 _____

Facility Location:
- G Surface
- G Underground

Filtration Media:
- ☐ No filtration (e.g., dry well, permeable pavement, infiltration facility, etc.
- ☐ Sand
- ☐ Bioretention Soil
- ☐ Peat
- ☐ Other: _____

Hydraulic Configuration:
- ☐ On-line facility
- ☐ Off-line facility

Type of Pre-Treatment Facility:
- ☐ Sediment forebay (above ground)
- ☐ Sedimentation chamber
- ☐ Plunge pool
- ☐ Stone diaphragm
- ☐ Grass filter strip
- ☐ Grass channel
- ☐ Other: _____

Ideally, Bioretention facilities should be inspected and cleaned up annually, peferably during the Spring. During the first 6 months following construction of a bioretention facility, the site should be inspected at least twice after storm events that exceed 1/2-inch of rainfall. Watering is needed once a week during the first 2 months following installation, and then as needed during the first growing season (April-October), depending upon rainfall. If vegetation needs to be replaced, one-time spot fertilization may be needed, preferably using an organic rather than a chemical fertilizer. Each facility should have a customized routine maintenance schedule addressing issues such as the following: grass mowing, weeding, trash removal, .mulch raking and maintenance, erosion repair, reinforcement plantings, tree and shrub pruing, and sediment removal.

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Contributing Drainage Area	Adequate vegetation				Supplement as necessary	Owner or professional	
	There is excessive trash and debris				Remove immediately	Owner or professional	
	There is evidence of erosion and / or bare or exposed soil				Stabilize immediately	Owner or professional	
	There are excessive landscape waste or yard clippings				Remove immediately and recycle or compost	Owner or professional	
	Oil, grease or other unauthorized substances are entering the facility				Identify and control the source of this pollution. It may be necessary to erect fences, signs, etc	Owner or professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Pre-Treatment	There is adequate access to the pre-treatment facility				Establish adequate access	Professional and, perhaps, the locality	
	Excessive trash, debris, or sediment.				Remove immediately	Owner or professional	
Pre-Treatment (continued)	There is evidence of clogging (standing water, noticeable odors, water stains, algae or floating aquatic vegetation, or oil/grease)				Identify and eliminate the source of the problem. If necessary, remove and clean or replace the clogged material.	Professional	
	There is evidence of erosion and / or exposed soil				Stabilize immediately	Owner or professional	
	There is dead vegetation or exposed soil in the grass filter				Restabilize and revegetate as necessary	Owner or professional	
Inlets	Check for sediment build-up at curb cuts, gravel diaphragms or pavement edges that prevent flow from getting into the bed, and check for bypassing.				Remove sediment and correct any other problems that block inflow.	Owner or professional	
	There is excessive trash, debris, or sediment.				Remove immediately	Owner or professional	
	There is evidence of erosion at or around the inlet				Repair erosion damage and reseed or otherwise restabilize with vegetation	Owner or professional	
	Inflow is hindered by trees and/or shrubs.				Remove woody vegetation from points of inflow and directly above underdrains. (Trees and shrubs may be located closer to the perimeter.)	Owner or professional	
Side Slopes (*Annually, after major storms*)	There is evidence of rill or gully erosion or bare soil				Identify the source of erosion damage and prevent it from recurring. Repair erosion damage and reseed or otherwise restabilize with vegetation	Owner or professional	
	There is excess sediment accumulation				Remove immediately	Owner or professional	
	Side slopes support nuisance animals.				Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area.	Professional	
Vegetation (*monthly*)	Plant composition is consistent with the approved plans and any stakes or wires are in good condition.				Determine if existing plant materials are at least consistent with general Bioretention design criteria and replace inconsistent species.	Professional	
	There should be 75-90% cover (mulch plus vegetation), and the mulch cover				Supplement vegetation and mulch as needed.		

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
	should be 2-3 inches deep.						

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Vegetation (*monthly*) **(continued)**	There is evidence of hydrocarbons or other deleterious materials, resulting in unsatisfactory plant growth or mortality,				Replace contaminated mulch. If problem persists, test soils for hydrocarbons and other toxic substances. If excess levels are found, the soils, plants and mulch may all need to be replaced in accordance with the approved construction plans.	Professional	
	Invasive species or weeds make up at least 10% of the facility's vegetation				Remove invasive species and excessive weeds immediately and replace vegetation as needed.	Owner or professional	
	The grass is too high				Mow within a week. Grass species should be selected that have dense cover, are relatively slow growing, and require the least mowing and chemical inputs. Grass should be from 6-10 inches high.	Owner or professional	
	Vegetation is diseased, dying or dead				Remove and replace. Increase watering, but avoid using chemical fertilizers, unless absolutely necessary.	Professional	
	Winter-killed or salt-killed vegetation is present.				Replace with hardier species.	Owner or professional	
Filter Media (*Annually*)	The filter media is too low, too compacted, or the composition is inconsistent with design specifications				Raise the level, loosen and amend or replace the media, as needed, to be consistent with the state design criteria for Bioretention (85-88% sand 8-12% soil fines 3-5% organic matter in form of leaf compost). Other remediation options are described in the maintenance section of the state design criteria for Bioretention	Professional	
	The mulch is older than 3 years or is otherwise in poor condition				The mulch must be replaced every 2-3 years	Professional	
	There is evidence that chemicals, fertilizers, and/or oil/grease are present				Remove undesirable chemicals from media and facility immediately, and replace mulch or media as needed	Professional	
	There is excessive trash, debris, or sediment.				Remove trash and debris immediately. Check plant health and, without damaging plants, manually remove the sediment, especially if the depth exceeds 20% of the facility's design depth.	Owner or professional	
	There is evidence of concentrated flows, erosion or exposed soil				Identify the source of erosion damage and prevent it from recurring. Repair the erosion damage and reseed or otherwise restabilize with vegetation.	Professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Filter Media (*Annually*) **(continued)**	The filter bed is clogged and/or filled inappropriately				Redistribute the soil substrate and remove sediment within 2 weeks.	Professional	
	The topsoil is in poor condition (e.g., the pH level is not 6-7, the composition is inappropriate, etc.)				Ensure a 3-inch surface depth of topsoil consistent with the state design criteria for Bioretention (loamy sand or sandy loam texture, with less than 5% clay content, and organic matter content of at least 2%). If the pH is less than 6.5, spread limestone.	Professional	
Underdrain/ Proper Drainage	The perforated pipe is not conveying water as designed				Determine if the pipe is clogged with debris or if woody roots have pierced the pipe. Immediately clean out or replace the pipe, as necessary.	Professional	
	The underlying soil interface is clogged (there is evidence on the surface of soil crusting, standing water, the facility does not dewater between storms, or water ponds on the surface of basin for more than 48 hours after an event).				Measure the draw-down rate of the observation well for three days following a storm event in excess of 1/2 inches in depth. .After three days, if there is standing water on top but not in the underdrain, this indicates a clogged soil layer. If standing water is both on the surface and in the underdrain, then the underdrain is probably clogged. This should be promptly investigated and remediated to restore proper filtration. Grading changes may be needed or underdrain repairs made. The filter media may need to be raked, excavated and cleaned or replaced to correct the problem. Holes that are not consistent with the design and allow water to flow directly through a planter to the ground must be plugged.	Professional	
Planters	The planter is unable to receive or detain stormwater prior to infiltration. Water does not drain from the reservoir within 3-4 hours of after a storm event.				Identify and correct sources of clogging. Topsoil and sand/peat layer may need to be amended with sand or replaced all together.	Owner or professional	
	The planter has structural deficiencies, including rot, cracks, and failure, or the planter is unable to contain the filter media or vegetation				Make needed repairs immediately.	Owner or professional	
Outlet/ Overflow Spillway	Outlets are obstructed or erosion and soil exposure is evident below the outlet.				Remove obstructions and stabilize eroded or exposed areas.	Owner or Professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Outlet/ Overflow Spillway (continued)	There is excessive trash, debris, or sediment at the outlet				Remove immediately, and keep the contributing area free of trash and debris.	Owner or professional	
	Any grates present are in good condition				Repair or replace as necessary	Owner or professional	
Observation Well	Is the observation well still capped?				Repair, as necessary.	Professional	
Overall	Access to the Infiltration facility or its components is adequate				Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that hardware can be opened and operated.	Professional and, perhaps, the locality	
	There is evidence of standing water				Fill in low spots and stabilize; correct flow problems causing ponding.	Owner or professional	
	Mosquito proliferation				Eliminate stangant pools and establish vegetation; treat for mosquitoes as needed. If sprays are considered, then a mosquito larvicide, such as Bacillus thurendensis or Altoside formulations can be applied *only if absolutely necessary*.	Owner or professional	
	Complaints from local residents				Correct real problems	Owner or professional	
	Encroachment on the bioretention area or easement by buildings or other structures				Inform involved property owners of BMPs status ; clearly mark the boundaries of the receiving pervious area, as needed	Owner or professional (and perhaps the locality)	

9-C.10.0. BIORETENTION PRACTICES: O&M CHECKLIST

Inspection Date_____
Project_____ **Site Plan/Permit Number**_____
Location_____ **Date BMP Placed in Service**_____
Date of Last Inspection_____ **Inspector**_____
Owner/Owner's Representative_____
As-Built Plans available: Y / N

Facility Type: Level 1 _____ Level 2 _____

Facility Location:
- G Surface
- G Underground

Filtration Media:
- ☐ No filtration (e.g., dry well, permeable pavement, infiltration facility, etc.
- ☐ Sand
- ☐ Bioretention Soil
- ☐ Peat
- ☐ Other: _____

Hydraulic Configuration:
- ☐ On-line facility
- ☐ Off-line facility

Type of Pre-Treatment Facility:
- ☐ Sediment forebay (above ground)
- ☐ Sedimentation chamber
- ☐ Plunge pool
- ☐ Stone diaphragm
- ☐ Grass filter strip
- ☐ Grass channel
- ☐ Other: _____

Ideally, Bioretention facilities should be inspected and cleaned up annually, peferably during the Spring. During the first 6 months following construction of a bioretention facility, the site should be inspected at least twice after storm events that exceed 1/2-inch of rainfall. Watering is needed once a week during the first 2 months following installation, and then as needed during the first growing season (April-October), depending upon rainfall. If vegetation needs to be replaced, one-time spot fertilization may be needed, preferably using an organic rather than a chemical fertilizer. Each facility should have a customized routine maintenance schedule addressing issues such as the following: grass mowing, weeding, trash removal, .mulch raking and maintenance, erosion repair, reinforcement plantings, tree and shrub pruing, and sediment removal.

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Contributing Drainage Area	Adequate vegetation				Supplement as necessary	Owner or professional	
	There is excessive trash and debris				Remove immediately	Owner or professional	
	There is evidence of erosion and / or bare or exposed soil				Stabilize immediately	Owner or professional	
	There are excessive landscape waste or yard clippings				Remove immediately and recycle or compost	Owner or professional	
	Oil, grease or other unauthorized substances are entering the facility				Identify and control the source of this pollution. It may be necessary to erect fences, signs, etc	Owner or professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Pre-Treatment	There is adequate access to the pre-treatment facility				Establish adequate access	Professional and, perhaps, the locality	
	Excessive trash, debris, or sediment.				Remove immediately	Owner or professional	
Pre-Treatment (continued)	There is evidence of clogging (standing water, noticeable odors, water stains, algae or floating aquatic vegetation, or oil/grease)				Identify and eliminate the source of the problem. If necessary, remove and clean or replace the clogged material.	Professional	
	There is evidence of erosion and / or exposed soil				Stabilize immediately	Owner or professional	
	There is dead vegetation or exposed soil in the grass filter				Restabilize and revegetate as necessary	Owner or professional	
Inlets	Check for sediment build-up at curb cuts, gravel diaphragms or pavement edges that prevent flow from getting into the bed, and check for bypassing.				Remove sediment and correct any other problems that block inflow.	Owner or professional	
	There is excessive trash, debris, or sediment.				Remove immediately	Owner or professional	
	There is evidence of erosion at or around the inlet				Repair erosion damage and reseed or otherwise restabilize with vegetation	Owner or professional	
	Inflow is hindered by trees and/or shrubs.				Remove woody vegetation from points of inflow and directly above underdrains. (Trees and shrubs may be located closer to the perimeter.)	Owner or professional	
Side Slopes (*Annually, after major storms*)	There is evidence of rill or gully erosion or bare soil				Identify the source of erosion damage and prevent it from recurring. Repair erosion damage and reseed or otherwise restabilize with vegetation	Owner or professional	
	There is excess sediment accumulation				Remove immediately	Owner or professional	
	Side slopes support nuisance animals.				Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area.	Professional	
Vegetation (*monthly*)	Plant composition is consistent with the approved plans and any stakes or wires are in good condition.				Determine if existing plant materials are at least consistent with general Bioretention design criteria and replace inconsistent species.	Professional	
	There should be 75-90% cover (mulch plus vegetation), and the mulch cover				Supplement vegetation and mulch as needed.		

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
	should be 2-3 inches deep.						

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Vegetation (*monthly*) **(continued)**	There is evidence of hydrocarbons or other deleterious materials, resulting in unsatisfactory plant growth or mortality,				Replace contaminated mulch. If problem persists, test soils for hydrocarbons and other toxic substances. If excess levels are found, the soils, plants and mulch may all need to be replaced in accordance with the approved construction plans.	Professional	
	Invasive species or weeds make up at least 10% of the facility's vegetation				Remove invasive species and excessive weeds immediately and replace vegetation as needed.	Owner or professional	
	The grass is too high				Mow within a week. Grass species should be selected that have dense cover, are relatively slow growing, and require the least mowing and chemical inputs. Grass should be from 6-10 inches high.	Owner or professional	
	Vegetation is diseased, dying or dead				Remove and replace. Increase watering, but avoid using chemical fertilizers, unless absolutely necessary.	Professional	
	Winter-killed or salt-killed vegetation is present.				Replace with hardier species.	Owner or professional	
Filter Media (*Annually*)	The filter media is too low, too compacted, or the composition is inconsistent with design specifications				Raise the level, loosen and amend or replace the media, as needed, to be consistent with the state design criteria for Bioretention (85-88% sand 8-12% soil fines 3-5% organic matter in form of leaf compost). Other remediation options are described in the maintenance section of the state design criteria for Bioretention	Professional	
	The mulch is older than 3 years or is otherwise in poor condition				The mulch must be replaced every 2-3 years	Professional	
	There is evidence that chemicals, fertilizers, and/or oil/grease are present				Remove undesirable chemicals from media and facility immediately, and replace mulch or media as needed	Professional	
	There is excessive trash, debris, or sediment.				Remove trash and debris immediately. Check plant health and, without damaging plants, manually remove the sediment, especially if the depth exceeds 20% of the facility's design depth.	Owner or professional	
	There is evidence of concentrated flows, erosion or exposed soil				Identify the source of erosion damage and prevent it from recurring. Repair the erosion damage and reseed or otherwise restabilize with vegetation.	Professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Filter Media (*Annually*) **(continued)**	The filter bed is clogged and/or filled inappropriately				Redistribute the soil substrate and remove sediment within 2 weeks.	Professional	
	The topsoil is in poor condition (e.g., the pH level is not 6-7, the composition is inappropriate, etc.)				Ensure a 3-inch surface depth of topsoil consistent with the state design criteria for Bioretention (loamy sand or sandy loam texture, with less than 5% clay content, and organic matter content of at least 2%). If the pH is less than 6.5, spread limestone.	Professional	
Underdrain/ Proper Drainage	The perforated pipe is not conveying water as designed				Determine if the pipe is clogged with debris or if woody roots have pierced the pipe. Immediately clean out or replace the pipe, as necessary.	Professional	
	The underlying soil interface is clogged (there is evidence on the surface of soil crusting, standing water, the facility does not dewater between storms, or water ponds on the surface of basin for more than 48 hours after an event).				Measure the draw-down rate of the observation well for three days following a storm event in excess of 1/2 inches in depth. .After three days, if there is standing water on top but not in the underdrain, this indicates a clogged soil layer. If standing water is both on the surface and in the underdrain, then the underdrain is probably clogged. This should be promptly investigated and remediated to restore proper filtration. Grading changes may be needed or underdrain repairs made. The filter media may need to be raked, excavated and cleaned or replaced to correct the problem. Holes that are not consistent with the design and allow water to flow directly through a planter to the ground must be plugged.	Professional	
Planters	The planter is unable to receive or detain stormwater prior to infiltration. Water does not drain from the reservoir within 3-4 hours of after a storm event.				Identify and correct sources of clogging. Topsoil and sand/peat layer may need to be amended with sand or replaced all together.	Owner or professional	
	The planter has structural deficiencies, including rot, cracks, and failure, or the planter is unable to contain the filter media or vegetation				Make needed repairs immediately.	Owner or professional	
Outlet/ Overflow Spillway	Outlets are obstructed or erosion and soil exposure is evident below the outlet.				Remove obstructions and stabilize eroded or exposed areas.	Owner or Professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to fix problem	Who Will Address Problem	Comments
Outlet/ Overflow Spillway (continued)	There is excessive trash, debris, or sediment at the outlet				Remove immediately, and keep the contributing area free of trash and debris.	Owner or professional	
	Any grates present are in good condition				Repair or replace as necessary	Owner or professional	
Observation Well	Is the observation well still capped?				Repair, as necessary.	Professional	
Overall	Access to the Infiltration facility or its components is adequate				Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that hardware can be opened and operated.	Professional and, perhaps, the locality	
	There is evidence of standing water				Fill in low spots and stabilize; correct flow problems causing ponding.	Owner or professional	
	Mosquito proliferation				Eliminate stangant pools and establish vegetation; treat for mosquitoes as needed. If sprays are considered, then a mosquito larvicide, such as Bacillus thurendensis or Altoside formulations can be applied *only if absolutely necessary*.	Owner or professional	
	Complaints from local residents				Correct real problems	Owner or professional	
	Encroachment on the bioretention area or easement by buildings or other structures				Inform involved property owners of BMPs status ; clearly mark the boundaries of the receiving pervious area, as needed	Owner or professional (and perhaps the locality)	

9-C.16.0. EXTENDED DETENTION PONDS: O&M CHECKLIST

Inspection Date_____
Project_____ **Site Plan/Permit Number**_____
Location_____ **Date BMP Placed in Service**_____
Date of Last Inspection_____ **Inspector**_____
Owner/Owner's Representative_____
As-Built Plans available: Y / N

Facility Type: Level 1 _____ Level 2 _____

Pond characteristics and functions (check all that apply)
- ☐ Water quality treatment
- ☐ Channel protection
- ☐ Ties into groundwater

Hydraulic Configuration:
- ☐ On-line facility
- ☐ Off-line facility

Type of Pre-Treatment Facility:
- ☐ Sediment forebay (above ground)
- ☐ Vegetated buffer area
- ☐ Grass filter strip
- ☐ Grass channel
- ☐ Other: _____

Ideally, Extended Detention Ponds should be inspected annually. ED Ponds are prone to a high clogging risk at the ED low-flow orifice. Ideally, the orifice should be inspected at least twice a year after initial construction. The constantly changing water levels in ED Ponds make it difficult to mow or manage vegetative growth. The bottom of ED Ponds often become soggy, and water-loving tees such as willows may invade and will need to be managed. Periodic mowing of the stormwater buffer is only required along maintenance rights-of-way and the embankment. The remaining buffer may be managed as a meadow (mowing every other year) or forest. Frequent removal of sediment from the forebay (every 5-7 years, or when 50% of the forebay capacity is filled) is essential to maintain the function and performance of the ED Pond. Sediments excavated from ED Ponds are usually not considered toxic or hazardous, so they can be safely disposed of either by land application of land filling.

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to Fix Problem	Who Will Address Problem	Comments
Contributing Drainage Area	Adequate vegetation				Supplement as needed.	Owner	
	There is excessive trash and debris				Remove immediately.	Owner or professional	
	There is evidence of erosino and/or bare or exposed soil				Stabilize immediately.	Owner or professional	
	There is excessive landscape waste and yard clippings				Remove immediately.	Owner or professional	
Pre-Treatment	There is adequate access to the pre-treatment facility				Establish adequate access	Professional and, perhaps, the locality	
	There is excessive trash and debris				Remove immediately.	Owner or professional	
	There is evidence of erosion and/or exposed soil.				Immediately identify and correct the cause of the erosion and stabilize the eroded or bare area.	Owner or professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to Fix Problem	Who Will Address Problem	Comments
Pre-Treatment (continued)	Sediment deposits are 50% or more of forebay capacity.				Dredge the sediment to restore the design capacity; sediment should be dredged from forebays at least every 5-7 years, and earlier, as needed.	Professional	
	The sediment marker is not vertical.				Adjust the sediment depth marker to a vertical alignment	Professional	
	There is evidence of clogging				Clear blockages of the riser or orifice(s) and make other adjustments needed to meet the approved design specifications	Professional	
	There is dead vegetation				Revegetate, as needed	Owner or professional	
Inlet	The inlet provides a stable conveyance into the pond				Stabilize immediately, as needed, and clear blockages.	Owner or professional	
	There is excessive trash, debris, or sediment.				Remove immediately	Owner or professional	
	There is evidence of erosion/undercutting at or around the inlet				Repair erosion damage and restabilize	Owner or professional	
	There is cracking, bulging, erosion or sloughing of the forebay dam.				Repair and restabilize immediately.	Professional	
	There is woody growth on the forebay dam.				Remove within 2 weeks of discovery.	Professional	
	There is evidence of nuisance animals.				Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area.	Professional	
	There is more than 1 inch of settlement.				Add fill material and compact the soil to the design grade	Owner or Professional	
	The inlet alignment is incorrect.				Correct immediately.	Owner or Professional	
Vegetation	Plant composition is consistent with the approved plans				Determine if existing plant materials are consistent with the general Wet Pond design criteria, and replace inconsistent species.	Professional	
	Invasive species are present.				Remove invasive species immediately and replace vegetation as needed.	Professional	
	Trees planted in the buffer and on wetland islands and peninsulas need watering during the first growing season				Consider watering every 3 days for first month, and then weekly during first year (April – October), depending on rainfall.	Owner or professional	
	Grass around the facility is overgrown				Mow (at least twice a year) to a height of 4”-9” high and remove grass clippings.	Owner or professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to Fix Problem	Who Will Address Problem	Comments
Vegetation (continued)	Vegetation is dead or reinforcement planting is needed.				Remove and replace dead or dying vegetation.	Professional	
Permanent Pool and Side Slopes	There is excessive trash and/or debris.				Remove immediately	Owner or professional	
	There is evidence of sparse vegetative cover, erosion or slumping side slopes.				Repair and stabilize physical damage, and reseed or plant additional vegetation.	Owner or professional	
	There is evidence of nuisance animals.				Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed frm area.	Owner or professional	
	There is significant sediment accumulation.				Conduct a bathymetric study to determine the impact to design volumes, and dredge if necessary.	Professional	
Riser/Principle Spillway and Low-Flow Orifice(s)	There is adequate access to the riser for maintenance.				Establish adequate access	Professional and, perhaps, the locality	
	Pieces of the riser are deteriorating, misaligned, broken or missing.				Repair immediately.	Professional	
	Adjustable control valves are accessible and operational.				Repair, as needed.	Professional	
	Reverse-slope pipes and flashboard risers are in good condition.				Repair, as needed.	Professional	
	Seepage into conduit				Seal conduit	Professional	
	There is evidence of clogging				Clear blockages of the riser or orifice(s) and make other adjustments needed to meet the approved design specs.	Professional	
	There is excessive trash, debris, or other obstructions in the trash rack.				Remove immediately.	Owner or professional	
Dam/ Embankment and Abutments	There is sparse veg. cover, settlement, cracking, bulging, misalignment, erosion rills deeper than 2 inches, or sloughing.				Repair and restabilize immediately, especially after major storms.	Professional	
	There are soft spots, seepage, boggy areas or sinkholes.				Reinforce, fill and stabilize immediately.		
	There is evidence of nuisance animals.				Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed from the area.		
	There is woody vegetation on the embankment.				Removal of woody species near or on the embankment and maintenance access areas should be done when discovered, but at least every 2 years.		

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to Fix Problem	Who Will Address Problem	Comments
Overflow/Emergency Spillway	There is woody growth on the spillway.				Removal of woody species near or on the emergency spillway should be done when discovered, but at least every 2 years.	Owner or professional	
	There is excessive trash, debris, or other obstructions.				Remove immediately.	Owner or professional	
	There is evidence of erosion/backcutting				Repair erosion damage and reseed	Owner or professional	
	There are soft spots, seepage or sinkholes.				Reinforce, fill and stabilize immediately.	Owner or professional	
	Only one layer of stone armoring exists above the native soil.				Reinforce rip-rap or other armoring materials.	Professional	
Outlet	The outlet provides a stable conveyance from the pond.				Stabilize immediately, as needed, and clear blockages.	Owner or professional	
	There is woody growth within 5 feet of the outlet pipe barrel.				Prune vegetation back to leave a clear discharge area.	Owner or Professional	
	There is excessive trash, debris, or other obstructions.				Remove immediately.	Owner or professional	
	There are excessive sediment deposits at the outlet.				Remove sediment.	Professional	
	Discharge is causing undercutting, erosion or displaced rip-rap at or around the outlet.				Repair, reinforce or replace rip rap as needed, and restabilize.	Professional	
Overall	Access to the facility or its components is adequate.				Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that hardware can be opened and operated.	Professional and, perhaps, the locality	
	Fences are inadequate				Collapsed fences must be restored to an upright position. Jagged edges and damaged fences must be repaired or replaced.	Professional	
	Water levels in one or more cells are abnormally high or low.				Clear blockages of the riser or orifice(s) and make other adjustments needed to meet the approved design specifications.	Professional	
	Complaints from local residents				Correct real problems.	Owner or professional	
	Mosquito proliferation				Eliminate stagnant pools and stock the basin with mosquito fish to provide natural mosquito & midge control. Treat for mosquitoes as needed. If spraying, then use mosquito larvicide, (e.g., Bacillus thurendensis or Altoside formulations) *only if absolutely necessary*.	Owner or professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to Fix Problem	Who Will Address Problem	Comments
Overall (continued)	Encroachment on the pond or easement by buildings or other structures				Inform involved property owners of BMPs status ; clearly mark the boundaries of the receiving pervious area, as needed	Owner or professional (and perhaps the locality)	
	Safety signage is not adequate.				Provide sufficient, legible safety signage.	Owner or professional	

9-C.9.0. INFILTRATION PRACTICES: O&M CHECKLIST

Inspection Date_____
Project_____ **Site Plan/Permit Number**_____
Location_____ **Date BMP Placed in Service**_____
Date of Last Inspection_____ **Inspector**_____
Owner/Owner's Representative_____
As-Built Plans available: Y / N

Facility Type: Level 1 _____ Level 2 _____

Facility Location:
- G Surface
- G Underground

Filtration Media:
- ☐ No filtration (e.g., dry well, permeable pavement, infiltration facility, etc.
- ☐ Sand
- ☐ Bioretention Soil
- ☐ Peat
- ☐ Other: _____

Hydraulic Configuration:
- ☐ On-line facility
- ☐ Off-line facility

Type of Pre-Treatment Facility:
- ☐ Sediment forebay (above ground)
- ☐ Sedimentation chamber
- ☐ Plunge pool
- ☐ Stone diaphragm
- ☐ Grass filter strip
- ☐ Grass channel
- ☐ Other: _____

Ideally, infiltration facilities should be inspected annually. Spill Prevention measures should be used around infiltration facilities when handling substances that contaminate stormwater. Releases of pollutants should be corrected as soon as identified.

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to Fix Problem	Who Will Address Problem	Comments
Contributing Drainage Area	There is excessive trash and debris				Remove immediately	Owner or professional	
	There is evidence of erosion and / or exposed soil				Stabilize immediately	Owner or professional	
	Vegetative cover is adequate				Supplement as needed	Owner or professional	
	There are excessive landscape waste or yard clippings				Remove immediately and recycle or compost	Owner or professional	
Pre-Treatment Facility	There is adequate access to the pre-treatment facility				Establish adequate access	Professional and, perhaps, the locality	
	There is excessive trash, debris, or sediment.				Remove immediately	Owner or professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to Fix Problem	Who Will Address Problem	Comments
Pre-Treatment Facility (continued)	There is evidence of erosion and/or exposed soil				Stabilize immediately	Owner or professional	
	There is evidence of clogging (standing water, noticeable odors, water stains, algae or floating aquatic vegetation)				Identify and eliminate the source of the problem. If necessary, remove and clean or replace the clogged material.	Professional	
	There is dead vegetation or exposed soil in the grass filter				Restabilize and revegetate as necessary	Owner or professional	
Inlets	Inlets provide a stable conveyance into facility				Stabilize immediately, as needed.	Owner or professional	
	There is excessive trash/debris/sediment.				Remove immediately	Owner or professional	
	There is evidence of erosion at or around the inlet				Repair erosion damage and reseed or otherwise restabilize with vegetation	Owner or professional	
Embankment, Flow Diversion Structures (e.g., Dikes, Berms, etc.) and Side Slopes	There is evidence of erosion or bare soil				Identify the source of erosion damage and prevent it from recurring. Repair erosion damage and reseed or otherwise restabilize with vegetation	Owner or professional	
	There is excess sediment accumulation				Remove immediately	Owner or professional	
	Water is not detained in the infiltration basin				Check for a breach in the containment structure and repair immediately.	Professional	
	Side slopes support nuisance animals.				Animal burrows must be backfilled and compacted. Burrowing animals should be humanely removed frm area.	Professional	
Maintaining Facility Capacity and Proper Drainage	Look for weedy growth on the stone surface indicating sediment accumulation and potential clogging				Identify and control sources of sediment and debris. Remove sediment and debris in excess of 4" in depth every 2-5 years (or sooner if performance is affected).	Professional	
	Measure the draw-down rate of the observation well for three days following a storm event in excess of 1/2 inches in depth. If standing water is still observed after three days, this is a clear sign that clogging is a problem.				Immediately clear debris from the underdrain. Replace the underdrain if necessary. If needed, regrade and till to restore infiltration capacity (the need for this can be prevented by preventing upstream erosion and subsequent sediment transport to the facility).	Professional	
	There is excessive trash/debris				Remove immediately	Owner or professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to Fix Problem	Who Will Address Problem	Comments
Vegetation	Grass within the practice is overgrown				Grass must be mowed to a height of 4"-9" and grass clippings removed (ideally recycled or composted).	Owner or professional	
	Pioneer trees are sprouting in the base of the facility				Remove trees to prevent roots from puncturing the filter fabric, allowing sediment to enter		
	Vegetation forms an overhead canopy that may drop leaf litter, fruit and other vegetative materials that may cause clogging.				Prune or remove vegetation as necessary	Owner or professional	
Observation Well	Is each observation well still capped?				Repair, as necessary.	Professional	
Outlet	Outlets are obstructed or erosion and soil exposure is evident below the outlet.				Remove obstructions and stabilize eroded or exposed areas.	Owner or Professional	
	Evidence of flow bypassing facility				Repair immediately	Professional	
	There is excessive trash, debris, or sediment at the outlet				Remove immediately	Owner or professional	
Overflow or Emergency Spillway	The pipe or spillway is not effectively conveying excess water to an adequate receiving system				Clear sediment and debris whenever 25% or more of the conveyance capacity is blocked. When damaged pipe is discovered, it must be repaired or replaced immediately. Identify and control sources of erosion damage. Replace or reinforce stone armament whenever only one layer of stone remains.	Professional	
Structural Components	Evidence of structural deterioration				Repair as necessary	Professional	
	Evidence of spalling or cracking of structural components				Repair or replace, as necessary	Professional	
	Grates are in good condition				Repair or replace, as necessary	Owner or professional	
Overall	Access to the Infiltration facility or its components is adequate				Establish adequate access. Remove woody vegetation and debris that may block access. Ensure that manholes, valves and/or locks can be opened and operated.	Professional and, perhaps, the locality	
	There is evidence of standing water				Fill in low spots and stabilize; correct flow problems causing ponding	Owner or professional	

Element of BMP	Potential Problem	Problem? Y / N	Investigate? Y / N	Repaired? Y / N	How to Fix Problem	Who Will Address Problem	Comments
Overall (continued)	Mosquito proliferation				Eliminate standing water and establish vegetation; treat for mosquitoes as needed. If sprays are considered, then a mosquito larvicide, such as Bacillus thurendensis or Altoside formulations can be applied *only if absolutely necessary*.	Owner or professional	
	Complaints from local residents				Correct real problems	Owner or professional	
	Encroachment on the infiltration area or easement by buildings or other structures				Inform involved property owners of BMPs status ; clearly mark the boundaries of the receiving pervious area, as needed	Owner or professional (and perhaps the locality)	

Watershed/Subshed:	Assessed by:
Outfall ID:	Date of Last Rainfall: Rainfall Quantity:
Date: Time:	

TYPE	MATERIAL	SHAPE		SUBMERGED	GENERAL OBSERVATIONS
☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Other:	☐ Trapezoid: ☐ Parabolic: ☐ Other:			
Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
☐ Vegetation	☐Normal ☐Inhibited ☐Excessive	
☐ Pipe Benthic Growth	☐Brown ☐Orange ☐Green ☐ Other_____	
☐ Pool Quality	☐Good ☐Odors ☐Algae ☐Colors ☐Oils ☐Suds	

FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
☐ Color	☐ Clear ☐ Brown ☐ Orange ☐ Grey ☐ Other:_____	☐1 – Trace colors	☐2 – Faint Colors	☐3 – Clearly visible
☐ Turbidity	See Severity	☐1- Slight Cloudiness	☐2 – Cloudy	☐3 - Opaque
☐ Floatables (not including trash)	☐ Sewage ☐ Suds ☐ Iron ☐ Petroleum (oil sheen)	☐1 – Few/slight	☐2 - Some; indication of origin	☐3 – Many

Watershed/Subshed:	Assessed by:
Outfall ID:	Date of Last Rainfall: Rainfall Quantity:
Date: Time:	

TYPE	MATERIAL	SHAPE		SUBMERGED	GENERAL OBSERVATIONS
☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Other:	☐ Trapezoid: ☐ Parabolic: ☐ Other:			
Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
☐ Vegetation	☐Normal ☐Inhibited ☐Excessive	
☐ Pipe Benthic Growth	☐Brown ☐Orange ☐Green ☐ Other_____	
☐ Pool Quality	☐Good ☐Odors ☐Algae ☐Colors ☐Oils ☐Suds	

FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
☐ Color	☐ Clear ☐ Brown ☐ Orange ☐ Grey ☐ Other:_____	☐1 – Trace colors	☐2 – Faint Colors	☐3 – Clearly visible
☐ Turbidity	See Severity	☐1- Slight Cloudiness	☐2 – Cloudy	☐3 - Opaque
☐ Floatables (not including trash)	☐ Sewage ☐ Suds ☐ Iron ☐ Petroleum (oil sheen)	☐1 – Few/slight	☐2 - Some; indication of origin	☐3 – Many

Watershed/Subshed:	Assessed by:
Outfall ID:	Date of Last Rainfall: Rainfall Quantity:
Date: Time:	

TYPE	MATERIAL	SHAPE		SUBMERGED	GENERAL OBSERVATIONS
☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Other:	☐ Trapezoid: ☐ Parabolic: ☐ Other:			
Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
☐ Vegetation	☐Normal ☐Inhibited ☐Excessive	
☐ Pipe Benthic Growth	☐Brown ☐Orange ☐Green ☐ Other_____	
☐ Pool Quality	☐Good ☐Odors ☐Algae ☐Colors ☐Oils ☐Suds	

FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
☐ Color	☐ Clear ☐ Brown ☐ Orange ☐ Grey ☐ Other:_____	☐1 – Trace colors	☐2 – Faint Colors	☐3 – Clearly visible
☐ Turbidity	See Severity	☐1- Slight Cloudiness	☐2 – Cloudy	☐3 - Opaque
☐ Floatables (not including trash)	☐ Sewage ☐ Suds ☐ Iron ☐ Petroleum (oil sheen)	☐1 – Few/slight	☐2 - Some; indication of origin	☐3 – Many

Watershed/Subshed:	Assessed by:
Outfall ID:	Date of Last Rainfall: Rainfall Quantity:
Date: Time:	

TYPE	MATERIAL	SHAPE		SUBMERGED	GENERAL OBSERVATIONS
☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Other:	☐ Trapezoid: ☐ Parabolic: ☐ Other:			
Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
☐ Vegetation	☐Normal ☐Inhibited ☐Excessive	
☐ Pipe Benthic Growth	☐Brown ☐Orange ☐Green ☐ Other_____	
☐ Pool Quality	☐Good ☐Odors ☐Algae ☐Colors ☐Oils ☐Suds	

FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
☐ Color	☐ Clear ☐ Brown ☐ Orange ☐ Grey ☐ Other:_____	☐1 – Trace colors	☐2 – Faint Colors	☐3 – Clearly visible
☐ Turbidity	See Severity	☐1- Slight Cloudiness	☐2 – Cloudy	☐3 - Opaque
☐ Floatables (not including trash)	☐ Sewage ☐ Suds ☐ Iron ☐ Petroleum (oil sheen)	☐1 – Few/slight	☐2 - Some; indication of origin	☐3 – Many

Watershed/Subshed:	Assessed by:
Outfall ID:	Date of Last Rainfall:
Date: Time:	Rainfall Quantity:

TYPE	MATERIAL	SHAPE		SUBMERGED	GENERAL OBSERVATIONS
☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Other:	☐ Trapezoid: ☐ Parabolic: ☐ Other:		Depth:_____ Width (top):_____ (bottom):_____	
Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
☐ Vegetation	☐Normal ☐Inhibited ☐Excessive	
☐ Pipe Benthic Growth	☐Brown ☐Orange ☐Green ☐ Other_____	
☐ Pool Quality	☐Good ☐Odors ☐Algae ☐Colors ☐Oils ☐Suds	

FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
☐ Color	☐ Clear ☐ Brown ☐ Orange ☐ Grey ☐ Other:_____	☐1 – Trace colors	☐2 – Faint Colors	☐3 – Clearly visible
☐ Turbidity	See Severity	☐1- Slight Cloudiness	☐2 – Cloudy	☐3 - Opaque
☐ Floatables (not including trash)	☐ Sewage ☐ Suds ☐ Iron ☐ Petroleum (oil sheen)	☐1 – Few/slight	☐2 - Some; indication of origin	☐3 – Many

Watershed/Subshed:	Assessed by:
Outfall ID:	Date of Last Rainfall: Rainfall Quantity:
Date: Time:	

TYPE	MATERIAL	SHAPE		SUBMERGED	GENERAL OBSERVATIONS
☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Other:	☐ Trapezoid: ☐ Parabolic: ☐ Other:			
Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
☐ Vegetation	☐Normal ☐Inhibited ☐Excessive	
☐ Pipe Benthic Growth	☐Brown ☐Orange ☐Green ☐ Other_____	
☐ Pool Quality	☐Good ☐Odors ☐Algae ☐Colors ☐Oils ☐Suds	

FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
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Watershed/Subshed:	Assessed by:
Outfall ID:	Date of Last Rainfall:
Date: Time:	Rainfall Quantity:

TYPE	MATERIAL	SHAPE		SUBMERGED	GENERAL OBSERVATIONS
☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Other:	☐ Trapezoid: ☐ Parabolic: ☐ Other:		Depth:_____ Width (top):_____ (bottom):_____	
Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
☐ Vegetation	☐Normal ☐Inhibited ☐Excessive	
☐ Pipe Benthic Growth	☐Brown ☐Orange ☐Green ☐ Other_____	
☐ Pool Quality	☐Good ☐Odors ☐Algae ☐Colors ☐Oils ☐Suds	

FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
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Outfall ID:	Date of Last Rainfall: Rainfall Quantity:
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TYPE	MATERIAL	SHAPE		SUBMERGED	GENERAL OBSERVATIONS
☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
☐ Open Channel	☐ Concrete ☐ Earthen ☐ Other:	☐ Trapezoid: ☐ Parabolic: ☐ Other:			
Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
☐ Vegetation	☐Normal ☐Inhibited ☐Excessive	
☐ Pipe Benthic Growth	☐Brown ☐Orange ☐Green ☐ Other_____	
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FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
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TYPE	MATERIAL	SHAPE		SUBMERGED	GENERAL OBSERVATIONS
☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
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Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
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FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
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☐ Open Channel	☐ Concrete ☐ Earthen ☐ Other:	☐ Trapezoid: ☐ Parabolic: ☐ Other:		Depth:_____ Width (top):_____ (bottom):_____	
Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
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FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
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Outfall ID:	Date of Last Rainfall: Rainfall Quantity:
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☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
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FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
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☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
☐ Deposits/Stains	☐Oily ☐Flow Line ☐Paint ☐Iron	
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FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
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Outfall ID:	Date of Last Rainfall:
Date: Time:	Rainfall Quantity:

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☐ Closed Pipe	☐ Concrete ☐ PVC/Plastic ☐ Metal ☐ Brick ☐ Other:	☐ Circular ☐ Other:	☐ Single ☐ Double	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully	
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Flow	☐None ☐Trickle ☐Moderate ☐Substantial ☐Estimate flow rate_____				

FOR BOTH FLOWING and NON-FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	COMMENTS
☐ Pipe Condition	☐Chip/Cracked ☐Corrosion ☐Peeling Paint ☐Other_____	
☐ Odor	☐Gas ☐Sewage ☐Sulfide ☐Other_____	
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FOR FLOWING OUTFALLS:

INDICATOR	DESCRIPTION	RELATIVE SEVERITY INDEX		
☐ Odor	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other: _____	☐1 - Faint	☐2 - Easily detected	☐3 - Noticeable from a distance
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ROUTINE VISUAL INSPECTION LOG

Date of Inspection: _____ **Time of Inspection:** _____
Name of Inspector (s): _____
Signature of Inspector (s): _____

Inspection Period (Check One)
☐ 1st Quarter (January through March) ☐ 2nd Quarter (April through June)
☐ 3rd Quarter (July through September) ☐ 4th Quarter (October through December)

Weather conditions during inspection: _____

Any discharges occurring at time of inspection: ☐ Yes ☐ No
If Yes explain: _____

Any previously unidentified discharges of pollutants from the site: ☐ Yes ☐ No
If Yes explain: _____

Any control measures needing maintenance or repairs: ☐ Yes ☐ No
If Yes explain: _____

Any failed control measures that need replacement: ☐ Yes ☐ No
If Yes explain: _____

Any incidents of Noncompliance observed: ☐ Yes ☐ No
If Yes explain: _____

Any additional control measures needed to comply with the permit requirements:
☐ Yes ☐ No
If Yes explain: _____

In and around catch basin and outfalls		
Catch basin / Outfalls free of debris	☐ Yes	☐ No
Any discharges	☐ Yes	☐ No
Any sheen or chemical odors evident on effluent	☐ Yes	☐ No
General Cleanliness of area	☐ Good	☐ Bad
Comments (Note specific outfall comment is for):		

Additional Comments:

_____
_____
_____
_____

ROUTINE VISUAL INSPECTION LOG

Date of Inspection: _____ **Time of Inspection:** _____
Name of Inspector (s): _____
Signature of Inspector (s): _____

Inspection Period (Check One)
☐ 1st Quarter (January through March) ☐ 2nd Quarter (April through June)
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Weather conditions during inspection: _____

Any discharges occurring at time of inspection: ☐ Yes ☐ No
If Yes explain: _____

Any previously unidentified discharges of pollutants from the site: ☐ Yes ☐ No
If Yes explain: _____

Any control measures needing maintenance or repairs: ☐ Yes ☐ No
If Yes explain: _____

Any failed control measures that need replacement: ☐ Yes ☐ No
If Yes explain: _____

Any incidents of Noncompliance observed: ☐ Yes ☐ No
If Yes explain: _____

Any additional control measures needed to comply with the permit requirements:
☐ Yes ☐ No
If Yes explain: _____

In and around catch basin and outfalls		
Catch basin / Outfalls free of debris	☐ Yes	☐ No
Any discharges	☐ Yes	☐ No
Any sheen or chemical odors evident on effluent	☐ Yes	☐ No
General Cleanliness of area	☐ Good	☐ Bad
Comments (Note specific outfall comment is for):		

Additional Comments:

_____
_____
_____
_____

ROUTINE VISUAL INSPECTION LOG

Date of Inspection: _____ **Time of Inspection:** _____
Name of Inspector (s): _____
Signature of Inspector (s): _____

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If Yes explain: _____

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If Yes explain: _____

Any failed control measures that need replacement: ☐ Yes ☐ No
If Yes explain: _____

Any incidents of Noncompliance observed: ☐ Yes ☐ No
If Yes explain: _____

Any additional control measures needed to comply with the permit requirements:
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If Yes explain: _____

In and around catch basin and outfalls		
Catch basin / Outfalls free of debris	☐ Yes	☐ No
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Comments (Note specific outfall comment is for):		

Additional Comments:

_____
_____
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ROUTINE VISUAL INSPECTION LOG

Date of Inspection: _____ **Time of Inspection:** _____
Name of Inspector (s): _____
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Inspection Period (Check One)
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If Yes explain: _____

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If Yes explain: _____

Any control measures needing maintenance or repairs: ☐ Yes ☐ No
If Yes explain: _____

Any failed control measures that need replacement: ☐ Yes ☐ No
If Yes explain: _____

Any incidents of Noncompliance observed: ☐ Yes ☐ No
If Yes explain: _____

Any additional control measures needed to comply with the permit requirements:
☐ Yes ☐ No
If Yes explain: _____

In and around catch basin and outfalls		
Catch basin / Outfalls free of debris	☐ Yes	☐ No
Any discharges	☐ Yes	☐ No
Any sheen or chemical odors evident on effluent	☐ Yes	☐ No
General Cleanliness of area	☐ Good	☐ Bad
Comments (Note specific outfall comment is for):		

Additional Comments:

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ROUTINE VISUAL INSPECTION LOG

Date of Inspection: _____ **Time of Inspection:** _____
Name of Inspector (s): _____
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Inspection Period (Check One)
☐ 1st Quarter (January through March) ☐ 2nd Quarter (April through June)
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Comments (Note specific outfall comment is for):		

Additional Comments:

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Support Facilities
Inspection Report

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form with the SWPPP for at least 3 years.

INSPECTOR NAME:	**INSPECTION TIME:**	**INSPECTION DATE:**

WEATHER INFORMATION:

Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.):

_____

_____

Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection? **(Yes X No)** **Comments:**

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION

SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection. • Is the Site Map current and accurate? • Is the SWPPP inventory of activities, materials and products current?	**Findings and Remedial Action Documentation:** Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION

Vehicle/Equipment Areas

Equipment cleaning:

Is equipment washed and/or cleaned only in designated areas?

- Observe washing: Is all wash water captured and properly disposed of?

Equipment fueling:

- Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills?
- Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater?
- Are structures in place to prevent precipitation from accumulating in containment areas?
  - If not, is there any water or other fluids accumulated within the containment area?
  - Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of.

Equipment maintenance:

- Are maintenance tools, equipment and materials stored under shelter, elevated and covered?
- Are all drums and containers of fluids stored with proper cover and containment?
- Are exteriors of containers kept outside free of deposits?
- Are any vehicles and/or equipment leaking fluids? Identify leaking equipment.
- Is there evidence of leaks or spills since last inspection? Identify and address.
- Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)?

Add any additional site-specific BMPs:

_____

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Findings and Remedial Action Documentation:

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION

Good Housekeeping BMPs ***Are paved surfaces free of accumulated dust/sediment and debris?*** • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? ***Are all waste receptacles located outdoors:*** • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? ***Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?*** • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards ***Other areas of industrial activity:*** _____ _____ _____ _____ _____	**Findings and Remedial Action Documentation:**
Spill Response and Equipment Are spill kits available, in the following locations? • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas Do the spill kits contain all the permit required items? • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. Are contaminated absorbent materials properly disposed of?	**Findings and Remedial Action Documentation:**

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION	
General Material Storage Areas • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered?	**Findings and Remedial Action Documentation:**
Stormwater BMPs and Treatment Structures Visually inspect all stormwater BMPs and treatment structures devices, discharge areas infiltration and outfalls shown on the Site Map. • Are BMPs and treatment structures in good repair and operational? • Are BMPs and treatment structures free from debris buildup that may impair function? • The permit requires Permittees to clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe. Based on this, do catch basins need to be cleaned? • Are berms, curbing or other methods used to divert and direct discharges adequate and in good condition?	**Findings and Remedial Action Documentation:**

Observation of Stormwater Discharges	**Findings and Remedial Action Documentation:**
• Is the discharge free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam or any other signs of contamination? • Water from washing vehicles or equipment, steam cleaning and/or pressure washing is considered process wastewater and is not allowed to comingle with stormwater or enter storm drains. Is process water comingling with stormwater or entering storm drains? Illicit discharges include domestic wastewater, noncontact cooling water, or process wastewater (including leachate). • Were any illicit discharges observed during the inspection?	

II. CORRECTIVE ACTION AND SWPPP MODIFICATIONS DESCRIPTIONS:

Additional space to describe inspection findings and corrective actions if needed. Provide brief explanation of the general location and the rationale for the additional or different BMPs.

Since the initial site inspection, the following hot spot issues of concern have been addressed:

III. CERTIFICATION STATEMENTS AND SIGNATURES:

Inspector – Certification

This section must be completed by the person who conducted the site inspection prior to submitting this form to the person with signature authority or a duly authorized representative of that person.

☐ The facility is in compliance with the terms and conditions of the SWPPP and the City of Fairfax MS4 Permit.

☐ *The facility is out of compliance with the terms and conditions of the SWPPP and the City of Fairfax MS4 Permit. This report includes the remedial actions that must be taken to meet the requirements of the SWPPP and permit, including a schedule of implementation of the remedial actions.*

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief."

Inspector's Name – Printed	**Inspector's Signature**	**Inspector's Title**	**Date**

Permittee – Certification

☐ The facility is in compliance with the terms and conditions of the SWPPP and the City of Fairfax MS4 Permit.

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"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 gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering 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 knowing violations."

PRINTED NAME of person with **Signature Authority** or a **Duly Authorized Representative**[1]	SIGNATURE of person with **Signature Authority** or a **Duly Authorized Representative**[1]	**DATE**

[1] ***A person is duly authorized representative only if the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated* facility*, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.***

Support Facilities
Inspection Report

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"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief."

Inspector's Name – Printed	**Inspector's Signature**	**Inspector's Title**	**Date**

Permittee – Certification

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"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 gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering 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 knowing violations."

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Support Facilities
Inspection Report

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form with the SWPPP for at least 3 years.

INSPECTOR NAME:	**INSPECTION TIME:**	**INSPECTION DATE:**

WEATHER INFORMATION:

Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.):

_____

_____

Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection? **(Yes X No)** **Comments:**

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION

SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection. • Is the Site Map current and accurate? • Is the SWPPP inventory of activities, materials and products current?	**Findings and Remedial Action Documentation:** Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION

Vehicle/Equipment Areas

Equipment cleaning:

Is equipment washed and/or cleaned only in designated areas?

- Observe washing: Is all wash water captured and properly disposed of?

Equipment fueling:

- Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills?
- Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater?
- Are structures in place to prevent precipitation from accumulating in containment areas?
  - If not, is there any water or other fluids accumulated within the containment area?
  - Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of.

Equipment maintenance:

- Are maintenance tools, equipment and materials stored under shelter, elevated and covered?
- Are all drums and containers of fluids stored with proper cover and containment?
- Are exteriors of containers kept outside free of deposits?
- Are any vehicles and/or equipment leaking fluids? Identify leaking equipment.
- Is there evidence of leaks or spills since last inspection? Identify and address.
- Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)?

Add any additional site-specific BMPs:

_____

_____

_____

_____

_____

Findings and Remedial Action Documentation:

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION

Good Housekeeping BMPs ***Are paved surfaces free of accumulated dust/sediment and debris?*** • Date of last quarterly vacuum/sweep • Are there areas of erosion or sediment/dust sources that discharge to storm drains? ***Are all waste receptacles located outdoors:*** • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? ***Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?*** • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards ***Other areas of industrial activity:*** _____ _____ _____ _____ _____	**Findings and Remedial Action Documentation:**
Spill Response and Equipment Are spill kits available, in the following locations? • Fueling stations • Transfer and mobile fueling units • Vehicle and equipment maintenance areas Do the spill kits contain all the permit required items? • Oil absorbents capable of absorbing 15 gallons of fuel. • A storm drain plug or cover kit. • A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. • A non-metallic shovel. • Two five-gallon buckets with lids. Are contaminated absorbent materials properly disposed of?	**Findings and Remedial Action Documentation:**

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION	
General Material Storage Areas • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered?	**Findings and Remedial Action Documentation:**
Stormwater BMPs and Treatment Structures Visually inspect all stormwater BMPs and treatment structures devices, discharge areas infiltration and outfalls shown on the Site Map. • Are BMPs and treatment structures in good repair and operational? • Are BMPs and treatment structures free from debris buildup that may impair function? • The permit requires Permittees to clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe. Based on this, do catch basins need to be cleaned? • Are berms, curbing or other methods used to divert and direct discharges adequate and in good condition?	**Findings and Remedial Action Documentation:**

Observation of Stormwater Discharges	**Findings and Remedial Action Documentation:**
• Is the discharge free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam or any other signs of contamination? • Water from washing vehicles or equipment, steam cleaning and/or pressure washing is considered process wastewater and is not allowed to comingle with stormwater or enter storm drains. Is process water comingling with stormwater or entering storm drains? Illicit discharges include domestic wastewater, noncontact cooling water, or process wastewater (including leachate). • Were any illicit discharges observed during the inspection?	

II. CORRECTIVE ACTION AND SWPPP MODIFICATIONS DESCRIPTIONS:

Additional space to describe inspection findings and corrective actions if needed. Provide brief explanation of the general location and the rationale for the additional or different BMPs.

Since the initial site inspection, the following hot spot issues of concern have been addressed:

III. CERTIFICATION STATEMENTS AND SIGNATURES:

Inspector – Certification

This section must be completed by the person who conducted the site inspection prior to submitting this form to the person with signature authority or a duly authorized representative of that person.

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- Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills?
- Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater?
- Are structures in place to prevent precipitation from accumulating in containment areas?
  - If not, is there any water or other fluids accumulated within the containment area?
  - Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of.

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- Are exteriors of containers kept outside free of deposits?
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- Is there evidence of leaks or spills since last inspection? Identify and address.
- Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)?

Add any additional site-specific BMPs:

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Findings and Remedial Action Documentation:

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION

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General Material Storage Areas • Are damaged materials stored inside a building or another type of storm resistance shelter? • Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? • Are scrap metal bins covered? • Are outdoor containers covered?	**Findings and Remedial Action Documentation:**
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Observation of Stormwater Discharges	**Findings and Remedial Action Documentation:**
• Is the discharge free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam or any other signs of contamination? • Water from washing vehicles or equipment, steam cleaning and/or pressure washing is considered process wastewater and is not allowed to comingle with stormwater or enter storm drains. Is process water comingling with stormwater or entering storm drains? Illicit discharges include domestic wastewater, noncontact cooling water, or process wastewater (including leachate). • Were any illicit discharges observed during the inspection?	

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Appendix B – IDDE Policy

CHRISTOPHER NEWPORT
UNIVERSITY

Illicit Discharge Detection and Elimination (IDDE) Policy

Grounds Department
1 Avenue of the Arts, Newport News, VA 23606
Phone: (757) 594-8700
Email: Grounds@cnu.edu

Revised: 8/15/22

Background

Christopher Newport University (CNU) is the owner and operator of registered small municipal separate storm sewer system (MS4). A Stormwater Quality and Quantity Management Study was developed for the University by Koontz-Bryant in 2002 and revised in 2008. This study contains detailed information on the existing stormwater conveyance system at the University Based on the stormwater study, the University area encompasses 142.5 acres. The study also provides a map (updated in 2008) showing drainage areas and storm sewer mapping. CNU further had a Stormwater Master Plan developed in 2019 by VHB that updates the stormwater plan for the campus, providing an approximate total institutional footprint of 152 acres that includes the MS4 area and other facilities that CNU operates in the adjacent City of Newport News MS4.

1. Purpose of Policy

The purpose of this policy is to provide protection measures to the environment at CNU, and the surrounding areas, through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable as required by federal, state, and local law. This policy establishes practices in the MS4 to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process, as implemented through the Virginia Stormwater Management Program (VSMP) permit for CNU. The objectives of this policy are as follows:

A. To prevent or minimize to the maximum extent practicable, the discharge of pollutants from University properties and operations into the storm drainage system.

B. To develop, implement and enforce a program to detect and eliminate illicit discharges, as defined by 9VAC25-870-400 and 9VAC25-870-10, into the regulated small MS4.

C. To comply with the requirements of CNU's stormwater permit.

2. Definitions

Best Management Practices (BMPs): Activities, prohibitions of practices, general housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Contractor: Any individual or company, including a subcontractor, hired to perform services on university property.

Hazardous substance: Any substance designated under the Code of Virginia or 40 CFR Part 116 pursuant to § 311 of the CWA.

Illicit discharge: Any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to a separate VPDES or state permit (other than the state permit for discharges from the municipal separate storm sewer), discharges resulting from firefighting activities, and discharges identified by and in compliance with 9VAC25-870-400 D 2 c (3).

Municipal separate storm sewer (MS4): A conveyance or system of conveyances otherwise known as a municipal separate storm sewer system, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains:

1) Owned or operated by a federal, state, city, town, county, district, association, or other public body, created by or pursuant to state law, having jurisdiction or delegated authority for erosion and sediment control and stormwater management, or a designated and approved management agency under § 208 of the CWA that discharges to surface waters;
2) Designed or used for collecting or conveying stormwater;
3) That is not a combined sewer; and
4) That is not part of a publicly owned treatment works.

Municipal Separate Storm Sewer System (MS4): All separate storm sewers that are defined as "large" or "medium" or "small" municipal separate storm sewer systems or designated under 9VAC25-870-380 A 1.

Municipal Separate Storm Sewer System Management Program or MS4 Program: A management program covering the duration of a permit for a municipal separate storm sewer system that includes a comprehensive planning process that involves public participation and intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the CWA and regulations and the Virginia Stormwater Management Act and attendant regulations, using management practices, control techniques, and system, design and engineering methods, and such other provisions that are appropriate.

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit: A permit issued by EPA (or by a State under authority delegated pursuant to 33 USC §1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Non-stormwater discharge: Any discharge to the storm drain system that is not composed entirely of stormwater.

Outfall: When used in reference to municipal separate storm sewers, a point source at the point where a municipal separate storm sewer discharges to surface waters 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 surface waters and are used to convey surface waters.

Point source: Any discernible, confined, and discrete conveyance including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

Pollutant: Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non- hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and

pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Source: Any building, structure, facility, installation, or activity from which there is or may be a discharge of pollutants.

State waters: All water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.

Stormwater: Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Wetlands: Those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Visitor: A person who is not enrolled at, compensated by, or an affiliate of the University.

3. Applicability

This policy is applicable to all students, faculty, staff, contractors, and visitors of the University. This policy shall apply to all water entering the storm drain system generated on any lands owned or operated by the University.

4. Responsibility for Administration.

The University shall administer, implement, and enforce the provisions of this policy.

5. Compatibility with Other Regulations

This policy is not intended to modify or repeal any other policy, ordinance, rule, regulation, or other provision of law. The requirements of this policy are in addition to the requirements of any other policy, ordinance, rule, regulation, or other provision of law, and where any provision of this policy imposes restrictions different from those imposed by any other policy, ordinance, rule, regulation, or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control.

6. Severability

The provisions of this policy are declared to be severable. If any provision of this policy is held invalid, this determination will not affect the other provisions or application of this policy.

7. Illicit Discharges

No CNU employee, student, visitor, contractor, or department shall cause or allow discharges into the University's storm drainage system which are not composed entirely of stormwater, except for the allowed discharges provided in the Virginia Stormwater Management Program (VSMP) Regulations

(9VAC25-870). The spilling, dumping, or disposal of materials other than stormwater to the storm drainage system are strictly prohibited.

Prohibited discharges include, but are not limited to:

- Wastewater from washout of concrete
- Wastewater from the washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance
- Oils, toxic substances, or hazardous substances from spills or other releases
- Soaps, solvents, or detergents used in equipment and vehicle washing

8. Allowed Discharges

The following discharges to the storm drainage system are allowed, as per 9VAC25-890-20 as they are considered to be not significant contributors of pollutants to the MS4:

- Discharges that are covered under a separate individual or general VPDES or VSMP permit for non-stormwater discharges.

- Discharges or flows which are not significant contributors of pollutants to the municipal separate storm sewer system:

    - Water line flushing, managed in a manner to avoid an instream impact;
    - Landscape irrigation;
    - Diverted stream flows;
    - Rising groundwaters;
    - Uncontaminated groundwater infiltration, as defined at 40 CFR 35.2005(20);
    - Uncontaminated pumped groundwater;
    - Discharges from potable water sources;
    - Foundation drains;
    - Air conditioning condensation;
    - Irrigation water;
    - Springs;
    - Water from crawl space pumps;
    - Footing drains;
    - Lawn watering;
    - Individual residential car washing;
    - Flows from riparian habitats and wetlands;
    - Dechlorinated swimming pool discharges;
    - Street wash water;
    - Discharges or flows from firefighting activities;
    - Discharges from noncommercial fundraising car washes if the washing uses only biodegradable, phosphate-free, water-based cleaners; or
    - Other activities generating discharges identified by the department as not requiring VPDES authorization.

9. Procedures

Inspections

CNU shall, at a minimum, visually inspect all outfalls once per year during dry weather conditions to evaluate the physical condition of the outfalls and to ensure that there no flows present from potential illicit discharges. These dry weather screening events shall record the following information:

1. The unique identifier for the outfall or observation point;
2. Time since the last precipitation event;
3. The estimated quantity of the last precipitation event;
4. Site descriptions (e.g., conveyance type and dominant watershed land uses);
5. Observed indicators of possible illicit discharge events, such as floatables, deposits, stains, and vegetative conditions (e.g., dying or dead vegetation, excessive vegetative growth);
6. Whether or not a discharge was observed;
7. If a discharge was observed, the estimated discharge rate and visual characteristics of the discharge (e.g. odor, color, clarify) and the physical condition of the outfall; and
8. For observation points, the location, downstream outfall unique identifier and risk factors or rationale for establishing the observation point.

In the event a flow is observed, or evidence suggests that illicit discharges may exist, further investigation shall be administered by any of the following methods as appropriate:

1. Date of inspection and follow-up;
2. Tracing discharge up the storm sewer system;
3. Sampling of a discharge for analysis in order to determine if a pollutant is present and to identify the pollutant;
4. Implement BMPs to eliminate illicit discharges;
5. Scheduling of follow up observations; and,
6. Any other appropriate measures deemed necessary.

Flows suspected of containing illicit discharges due to the presence of odors, colors or sheens shall be further analyzed, which may include testing. If determined to be a naturally occurring issue and not an illicit discharge, no further analysis will be performed. Test parameters may include but are not limited to ammonia, detergent, chlorine, phosphorus, nitrogen, pH, conductivity, turbidity, temperature, and dissolved oxygen. The results of the inspections and testing shall be maintained in a format to allow tracking of outfall locations, inspection dates, chemical tests conducted, and follow-up procedures implemented to correct any detected illicit discharge. The physical condition of the outfall shall also be noted during the inspections. Illicit discharge data will be used in the preparation of the annual report to the Virginia Department of Environmental Quality.

Notification of Spills and Illicit Discharges

Once a spill or illicit discharge has been observed, the incident shall be immediately reported to the University MS4 Program Coordinator. In the event the program coordinator is unavailable, any member of the Stormwater Pollution Prevention Team or University Police may be notified. Failure to provide notification of the incident shall be a violation of this policy.

The MS4 Program Coordinator, or designee, shall conduct and an initial investigation within one business day of receiving notification. The MS4 Program Coordinator shall determine appropriate measures taken in order to prevent further discharge(s) and to begin remediation of pollution.

Tracking

Field surveys and instances of illicit discharges or spills shall be tracked in our IDDE Database and include:

1. Date discharge observed/reported;
2. Location of discharge;
3. Summary;
    a. Results of investigation;
    b. Any follow-up to investigation;
    c. Resolution of investigation; and,
4. Date investigation closed.

Enforcement and Penalties

Whenever the University finds that a violation of this Policy has occurred, CNU may order compliance by written notice to the responsible party. Such notice may require without limitation:

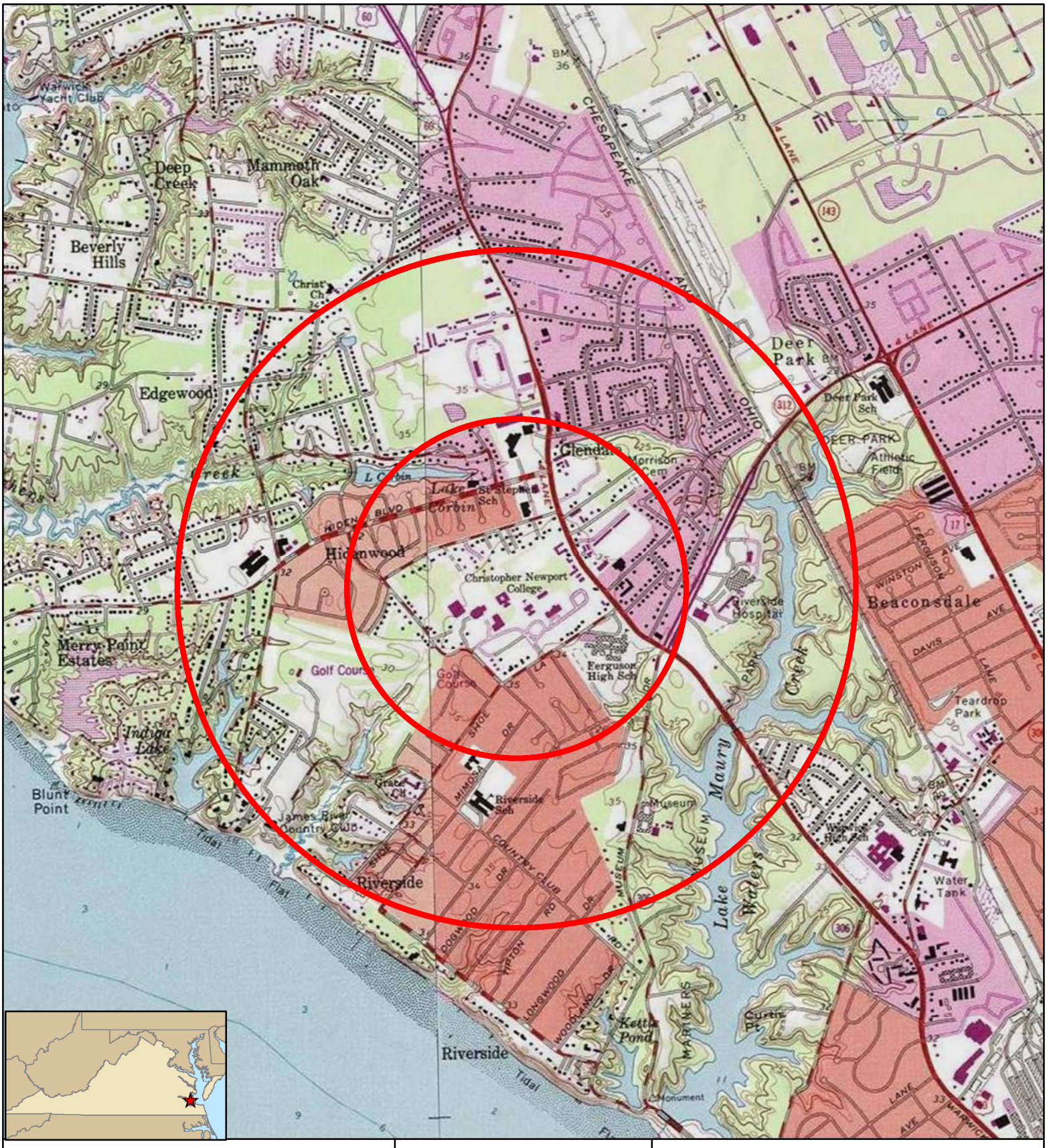
1. The performance of monitoring, analyses, and reporting;
2. The elimination of prohibited discharges or connections;
3. Cessation of any violating discharges, practices, or operations;
4. The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
5. Payment of any fee, penalty, or fine assessed against Christopher Newport University to cover remediation cost;
6. The implementation of new stormwater management practices; and
7. Disciplinary action up to and including dismissal, where appropriate.

The listed requirements will be at the expense of the responsible party. In the event that adequate measures are not initiated, the University may issue work orders to correct the violation and bill the responsible party for expenses incurred.

10. Training and Education

A training program for Stormwater Pollution Prevention/Good Housekeeping and IDDE is presented to applicable employees upon hire and no less than once per 24 months. Educational materials for Stormwater Pollution Prevention and IDDE are distributed through various forms of media to the members of the University.

Appendix C – Maps



The red concentric circles represent a radius of 0.5 miles and 1 mile from the center of the University.

0 0.15 0.3 0.45 0.6

Miles

N

1:24,000

1 inch~2,000 feet

Figure 1: SWPP Site Locus

Christopher Newport University
1 Ave. of the Arts
Newport News, VA

June 2016

CHRISTOPHER NEWPORT UNIVERSITY

Document Path: Z:\Infrastructure Design\Private\Projects\SWPPP_1_site_locus.mxd

Last Updated: 5/31/2016

Legend

- Buildings
- Chesapeake Bay Preservation Areas
- CNU MS4 Boundary
- Half Mile Radius
- PavedAreas
- Roads
- Schools
- WaterBodies
- Wetlands
- Outfalls

Service Layer Credits: MS4 Boundary and outfalls derived from Koontz-Bryant, PC; 2014. All other data derived City of Newport News GIS; 2015. Updated by Timmons Group; 2021.

0 500 1,000

Feet

N

1:10,000

1 inch~833 feet

Figure 2: SWPP GIS Data

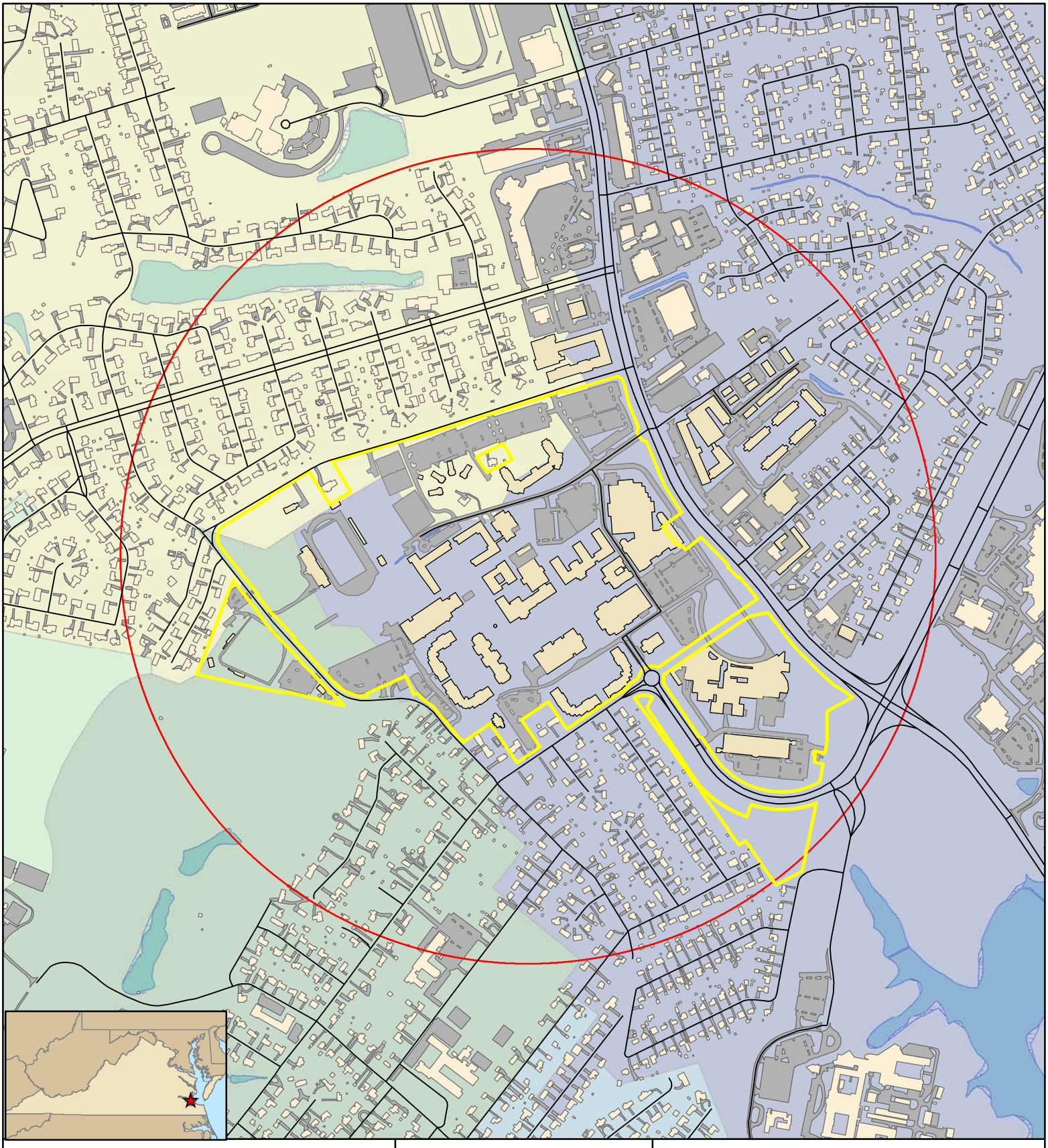
Christopher Newport University
1 Ave. of the Arts
Newport News, VA

June 2016

CHRISTOPHER NEWPORT UNIVERSITY

Document Path: Z:\Infrastructure Design\Private\Projects\SWPPP_2_GIS_Data.mxd

Last Updated: 1/27/2016



Legend

- Buildings
- CNU MS4 Boundary
- Half Mile Radius
- PavedAreas
- Roads
- WaterBodies
- Wetlands

Drainage Basins

- Deep Creek
- Fishers Creek
- Indigo Lake
- Lake Maury
- North Riverside
- South Riverside

Service Layer Credits: MS4 Boundary derived from Koontz-Bryant, PC; 2014. All other data derived from City of Newport News GIS; 2015.

0 500 1,000

Feet

N

1:10,000

1 inch~833 feet

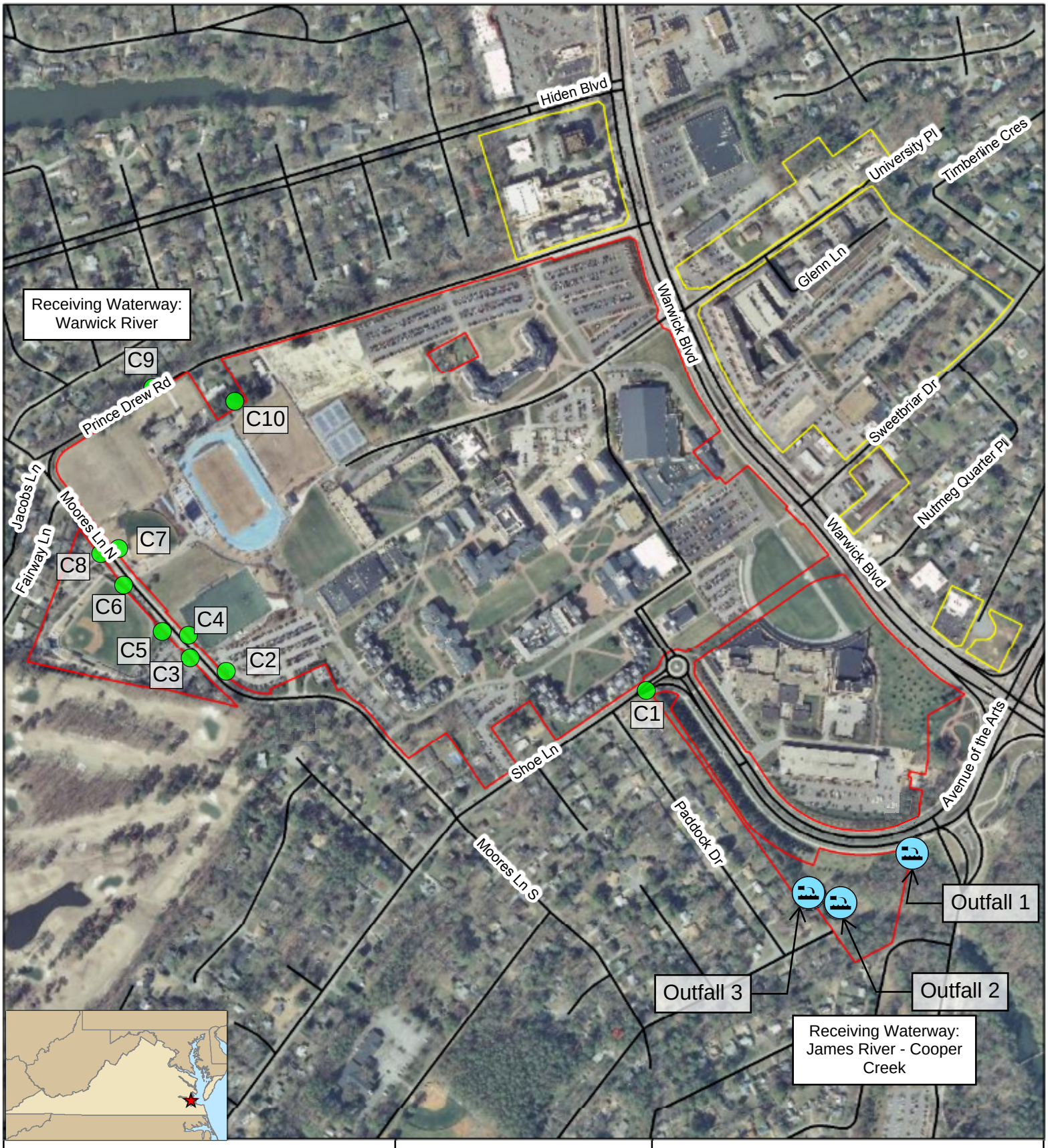
Figure 2.1: SWPP Drainage Basins

Christopher Newport University
1 Ave. of the Arts
Newport News, VA

June 2016

CHRISTOPHER NEWPORT UNIVERSITY

Document Path: Z:\Infrastructure Design\Private\Projects\SWPPP_2.1_drainage_basins.mxd Last Updated: 6/29/2016



Legend

- CNU MS4 General Permit Boundary
- CNU Property under Newport News' MS4
- Roads
- Outfalls
- Connection with City of Newport News

Service Layer Credits: Virginia Geographic Information Network; Road Data from City of Newport News' GIS; 2015. MS4 Boundary data from Koontz-Bryant, PC; 2015.Updated by Timmons Group; 2021.

0 450 900
Feet

N

1:7,000
1 inch ~ 600 feet

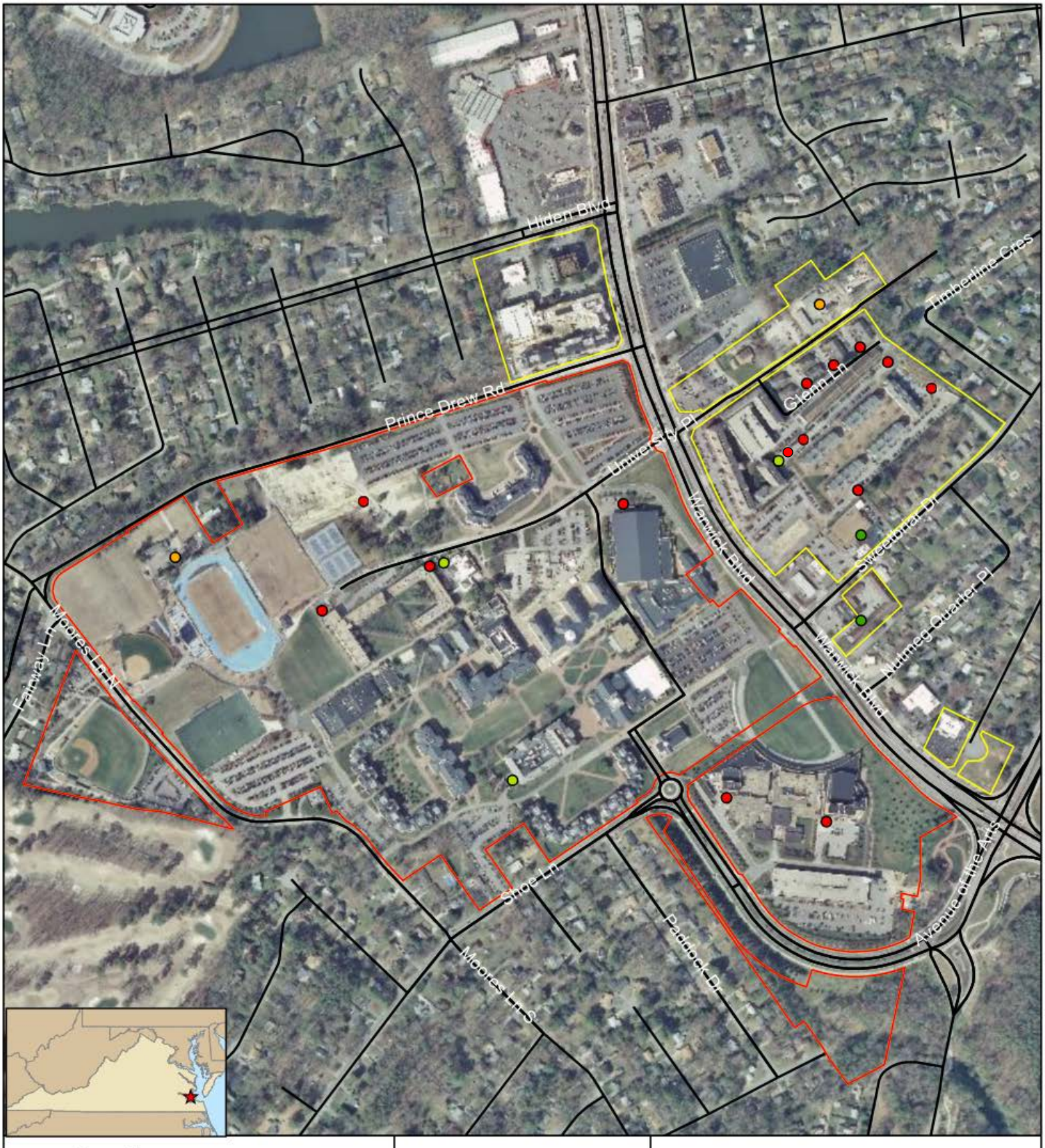
Figure 3: SWPP Orthophotograph

Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2016

CHRISTOPHER NEWPORT UNIVERSITY

Document Path: Z:\Infrastructure Design\Private\Projects\SWPPP_3_Ortho.mxd

Last Updated: 6/27/2016



Legend

- Roads
- CNU MS4 General Permit Boundary
- CNU Property under Newport News' MS4

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area

0 450 900

Feet

N

1:7,000

1 inch ~ 600 feet

Figure 4: SWPP Areas of High Priority

Christopher Newport University
1 Ave. of the Arts
Newport News, VA

June 2020

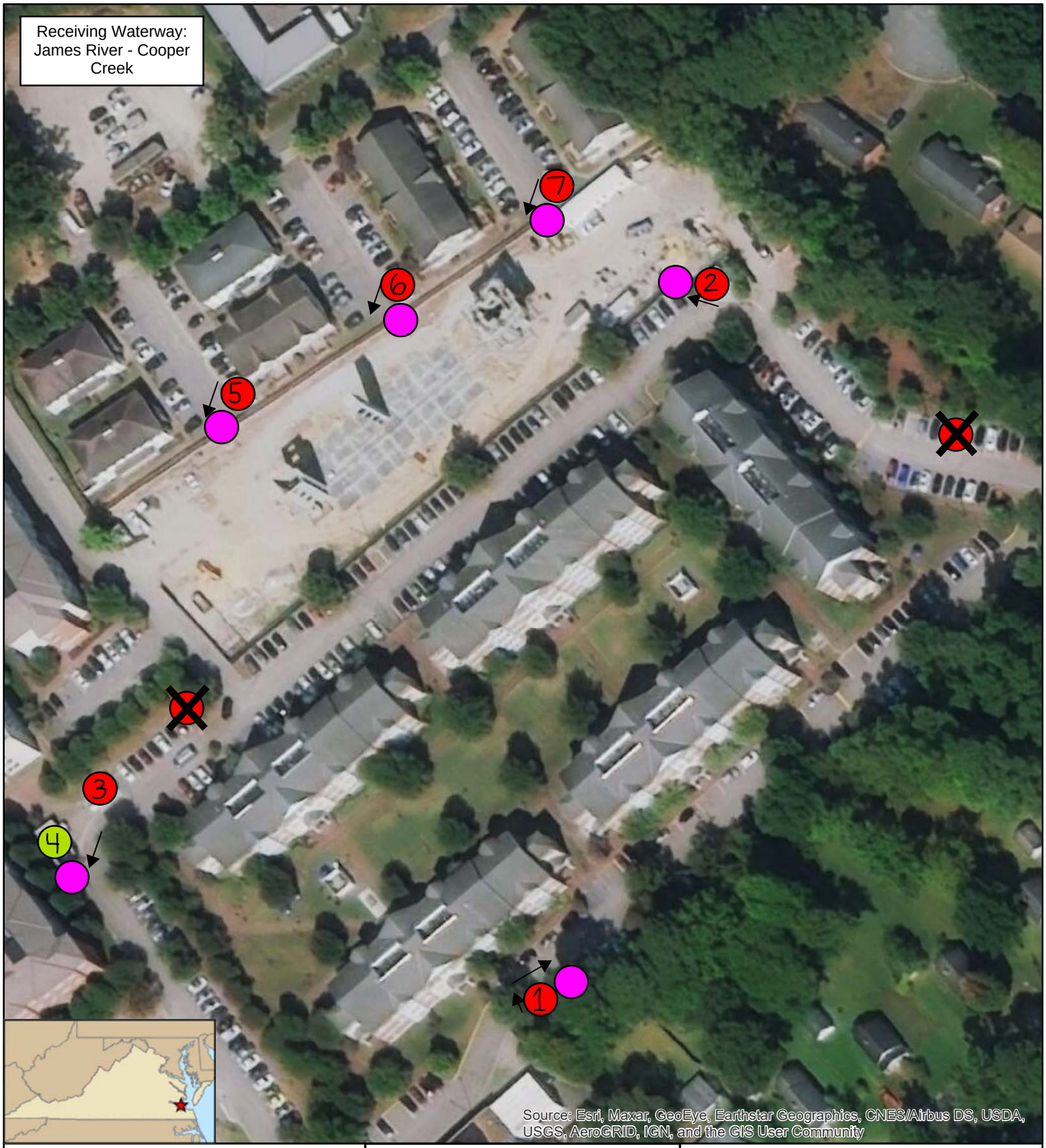
CHRISTOPHER NEWPORT UNIVERSITY

Service Layer Credits: Virginia Geographic Information Network; Road data from City of Newport News GIS; 2015. MS4 Boundary Data derived from Koontz, Bryant, PC; 2015. High Priority Areas identified by CNU; 2016.

Document Path: Z:\Infrastructure Design\Private\Projects\SWPPP_4_High_Priority.mxd

Last Updated: 12/9/2020

Updated by Timmons Group; 2020



Legend

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area
- Loading/Unloading Areas
- Processing and Storage Areas
- Outfalls
- Direction of Drainage

0 62.5 125 250

Feet

N

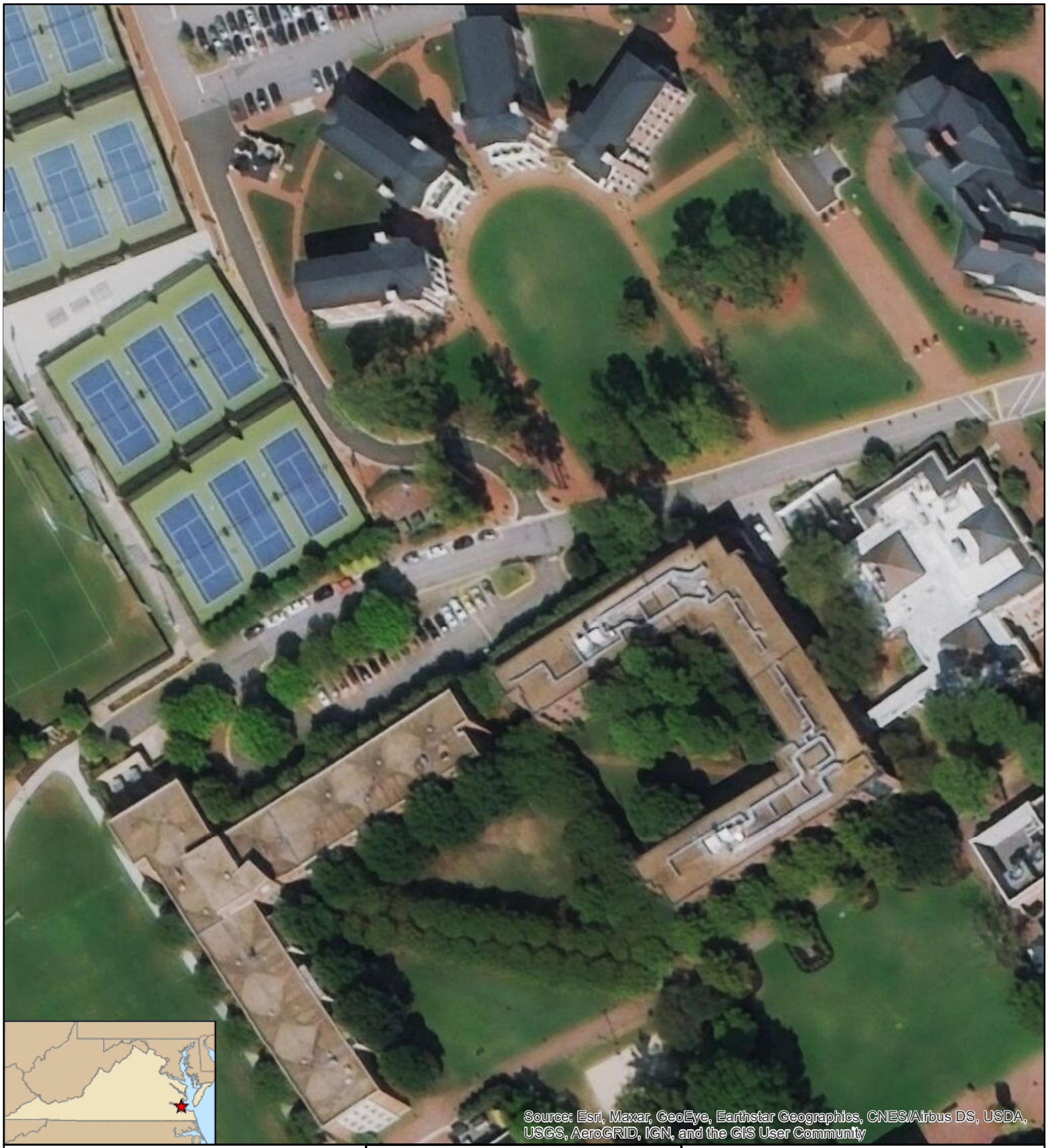
1:1,500

1 inch ~ 125 feet

Figure 4.1: SWPPP Areas of High Priority
CNU Apartments
Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2022

CHRISTOPHER NEWPORT UNIVERSITY

Last Updated: 12/9/2020



Legend

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area
- Loading/Unloading Areas
- Processing and Storage Areas
- Outfalls

Direction of Drainage

0 62.5 125 250

Feet

N

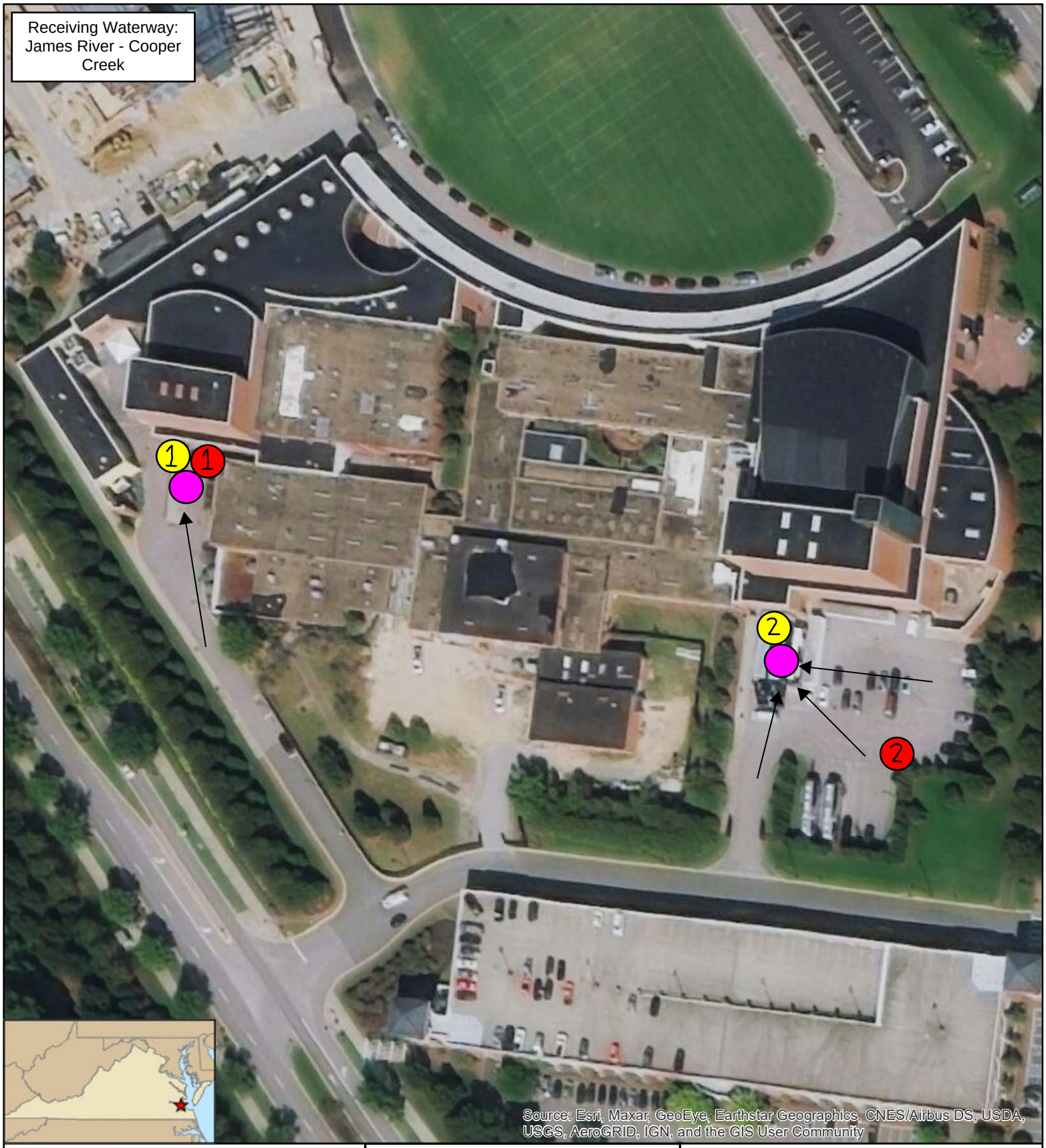
1:1,500

1 inch ~ 125 feet

Figure 4.2: SWPPP Areas of High Priority
Hiden-Hussey Commons
Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2022

CHRISTOPHER NEWPORT UNIVERSITY

Last Updated: 12/9/2020



Legend

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area
- Loading/Unloading Areas
- Processing and Storage Areas
- Outfalls
- Direction of Drainage

0 62.5 125 250

Feet

N

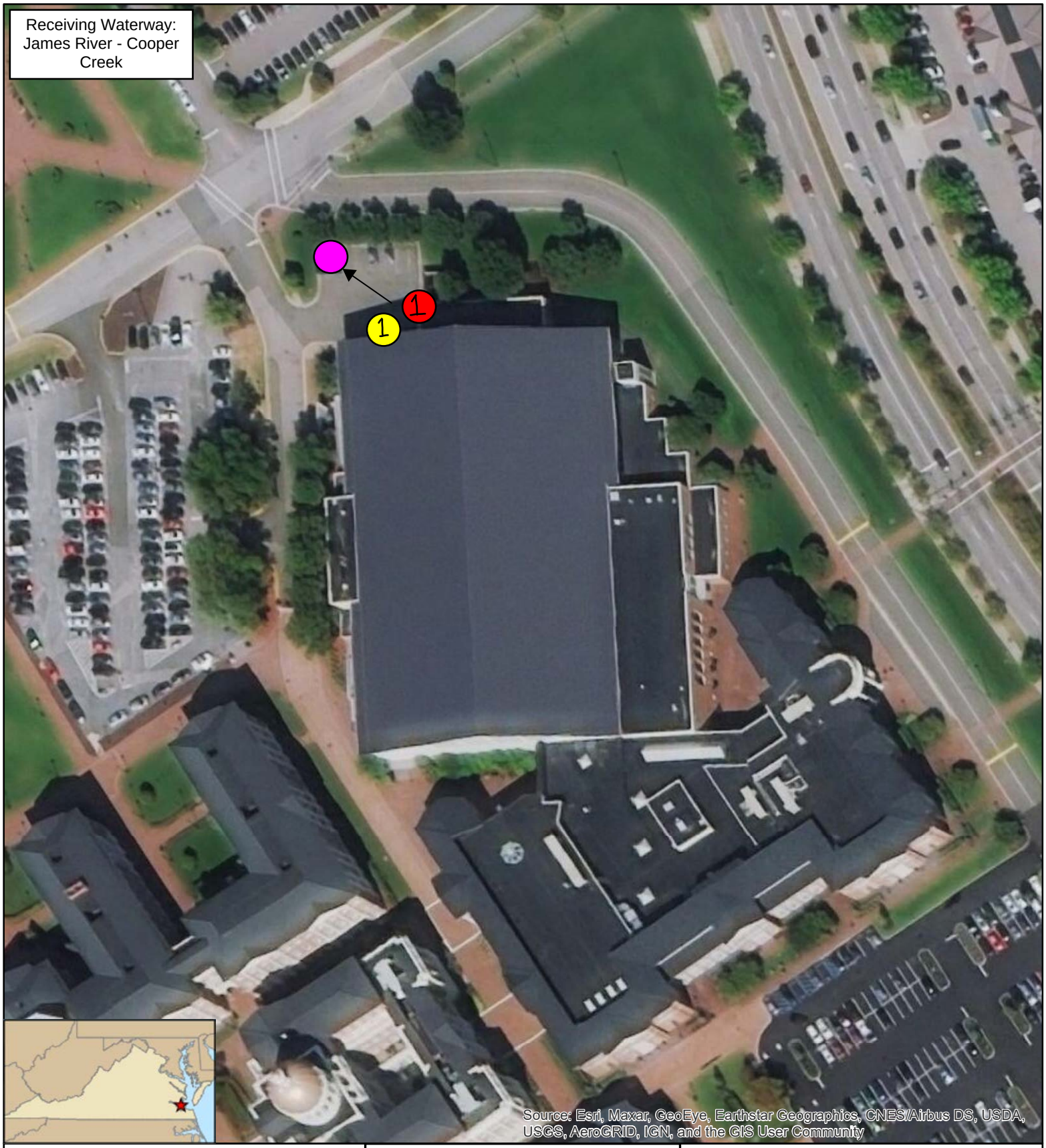
1:1,500

1 inch ~ 125 feet

Figure 4.3: SWPPP Areas of High Priority
Ferguson Center
Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2022

CHRISTOPHER NEWPORT UNIVERSITY

Last Updated: 12/9/2020



Legend

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area
- Loading/Unloading Areas
- Processing and Storage Areas
- Outfalls → Direction of Drainage

0 62.5 125 250

Feet

N

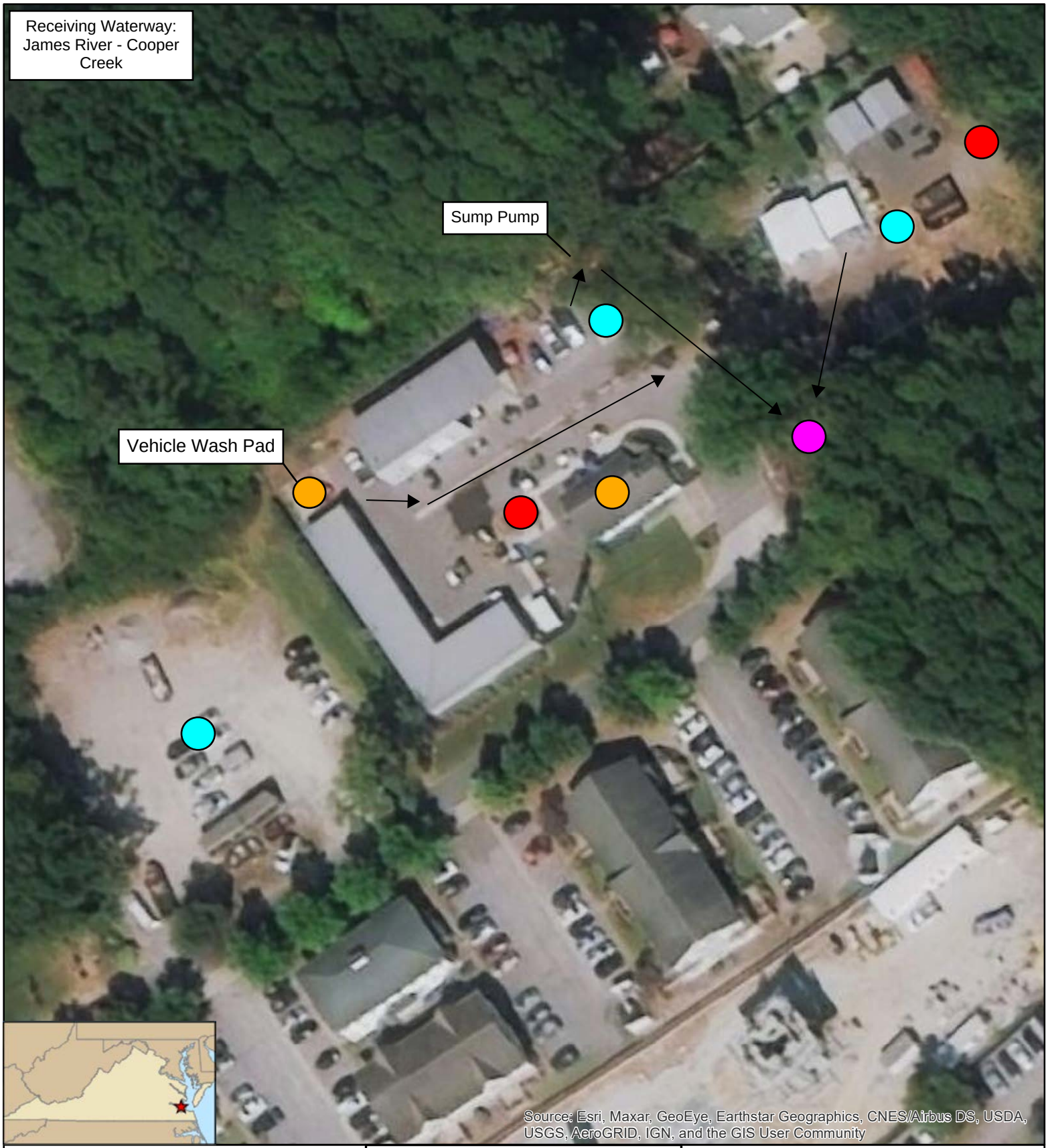
1:1,500

1 inch ~ 125 feet

Figure 4.4: SWPPP Areas of High Priority
Freemen Center (Athletics Ticket Office)
Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2022

CHRISTOPHER NEWPORT UNIVERSITY

Last Updated: 12/9/2020



Legend

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area
- Loading/Unloading Areas
- Processing and Storage Areas
- Outfalls
- Direction of Drainage

0 40 80 160

Feet

N

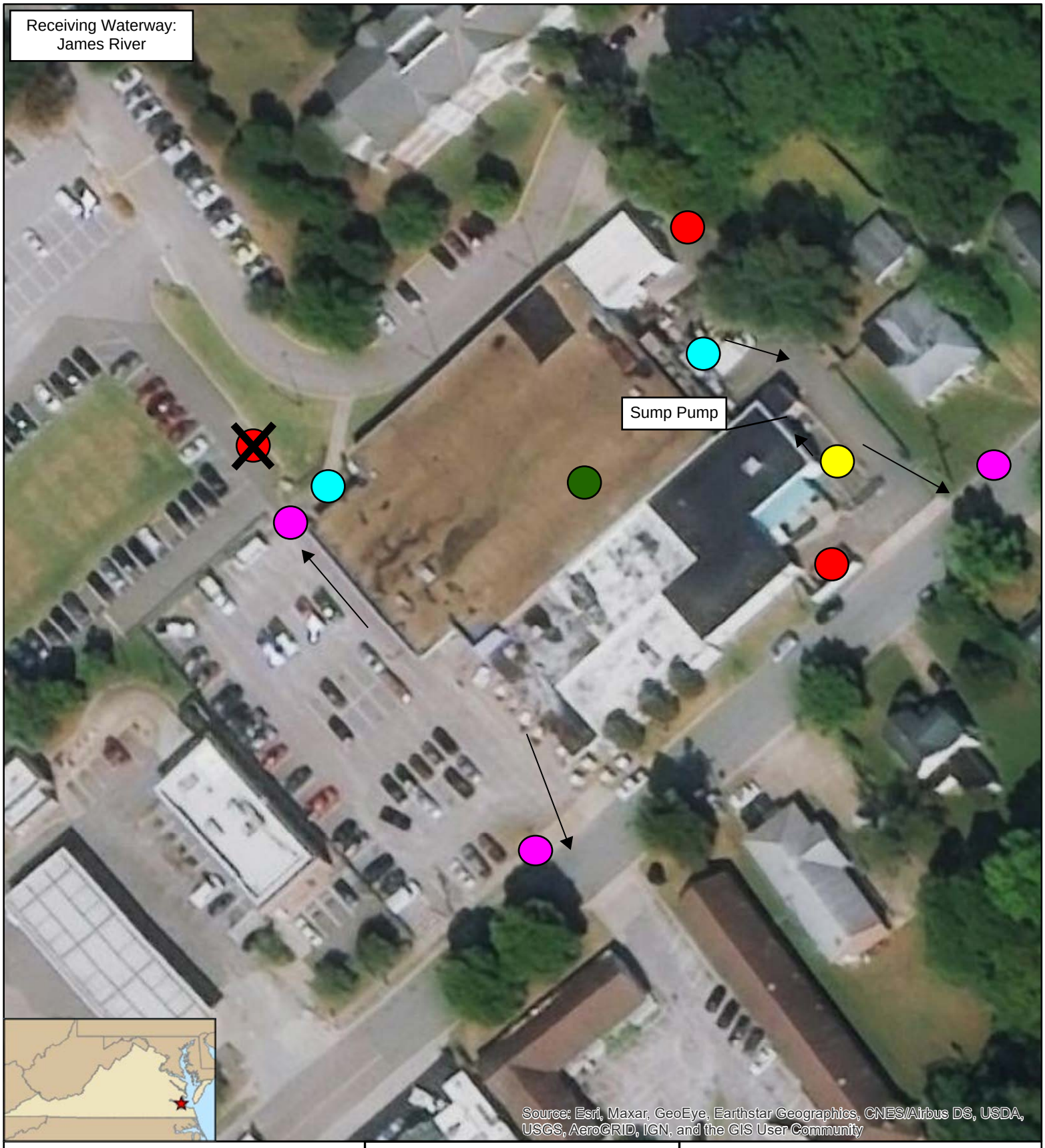
1:1,000

1 inch ~ 83.33 feet

Figure 4.5: SWPPP Areas of High Priority
Grounds Department Compound
Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2022

CHRISTOPHER NEWPORT UNIVERSITY

Last Updated: 12/9/2020



Legend

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area
- Loading/Unloading Areas
- Processing and Storage Areas
- Outfalls
- Direction of Drainage

0 40 80 160

Feet

N

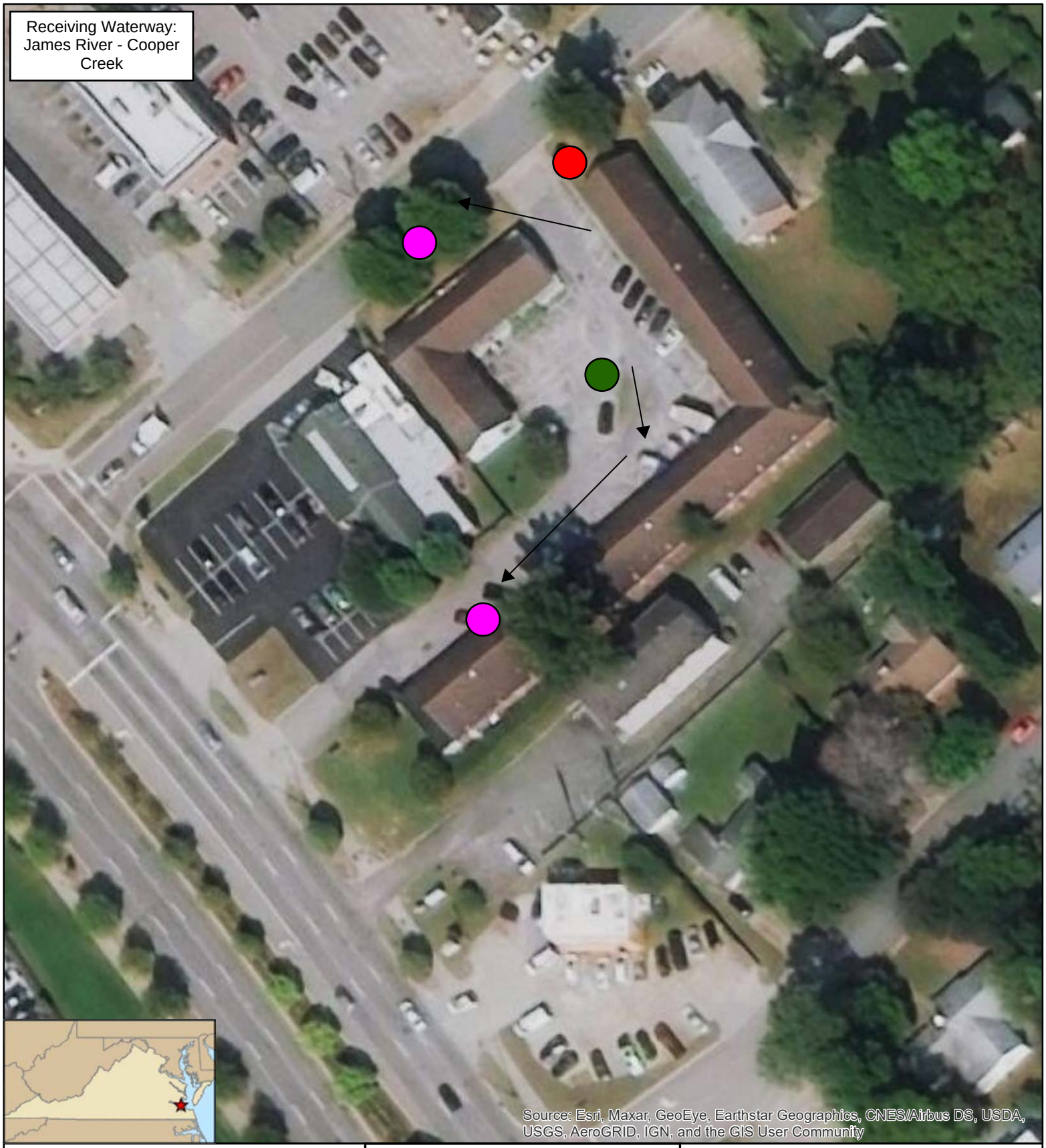
1:1,000

1 inch ~ 83.33 feet

Figure 4.6: SWPPP Areas of High Priority
Plant Operations Building
Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2022

CHRISTOPHER NEWPORT UNIVERSITY

Last Updated: 12/9/2020



Legend

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area
- Loading/Unloading Areas
- Processing and Storage Areas
- Outfalls
- Direction of Drainage

0 40 80 160

Feet

N

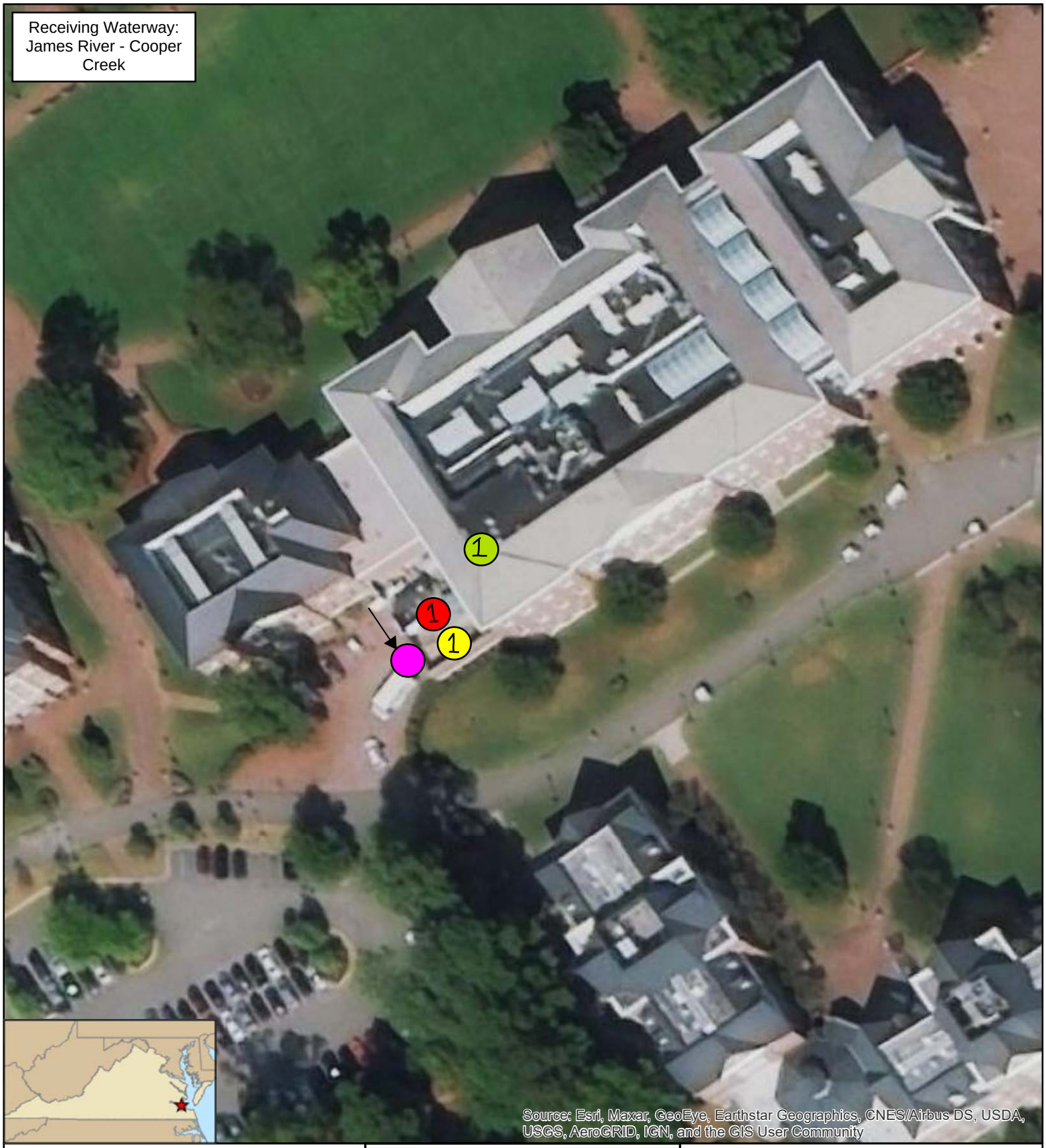
1:1,000

1 inch ~ 83.33 feet

Figure 4.7: SWPPP Areas of High Priority
Commonwealth Hall
Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2022

CHRISTOPHER NEWPORT UNIVERSITY

Last Updated: 12/9/2020



Legend

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area
- Loading/Unloading Areas
- Processing and Storage Areas
- Outfalls

Direction of Drainage

0 40 80 160

Feet

N

1:1,000

1 inch ~ 83.33 feet

Figure 4.8: SWPPP Areas of High Priority
David Student Union
Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2022

CHRISTOPHER NEWPORT UNIVERSITY

Last Updated: 12/9/2020

Legend

High Priority Areas

- Facilities Support Operations
- Food Services - Waste Management Area
- Landscaping Operations
- Waste Management Area
- Loading/Unloading Areas
- Processing and Storage Areas
- Outfalls
- Direction of Drainage

0 40 80 160

Feet

N

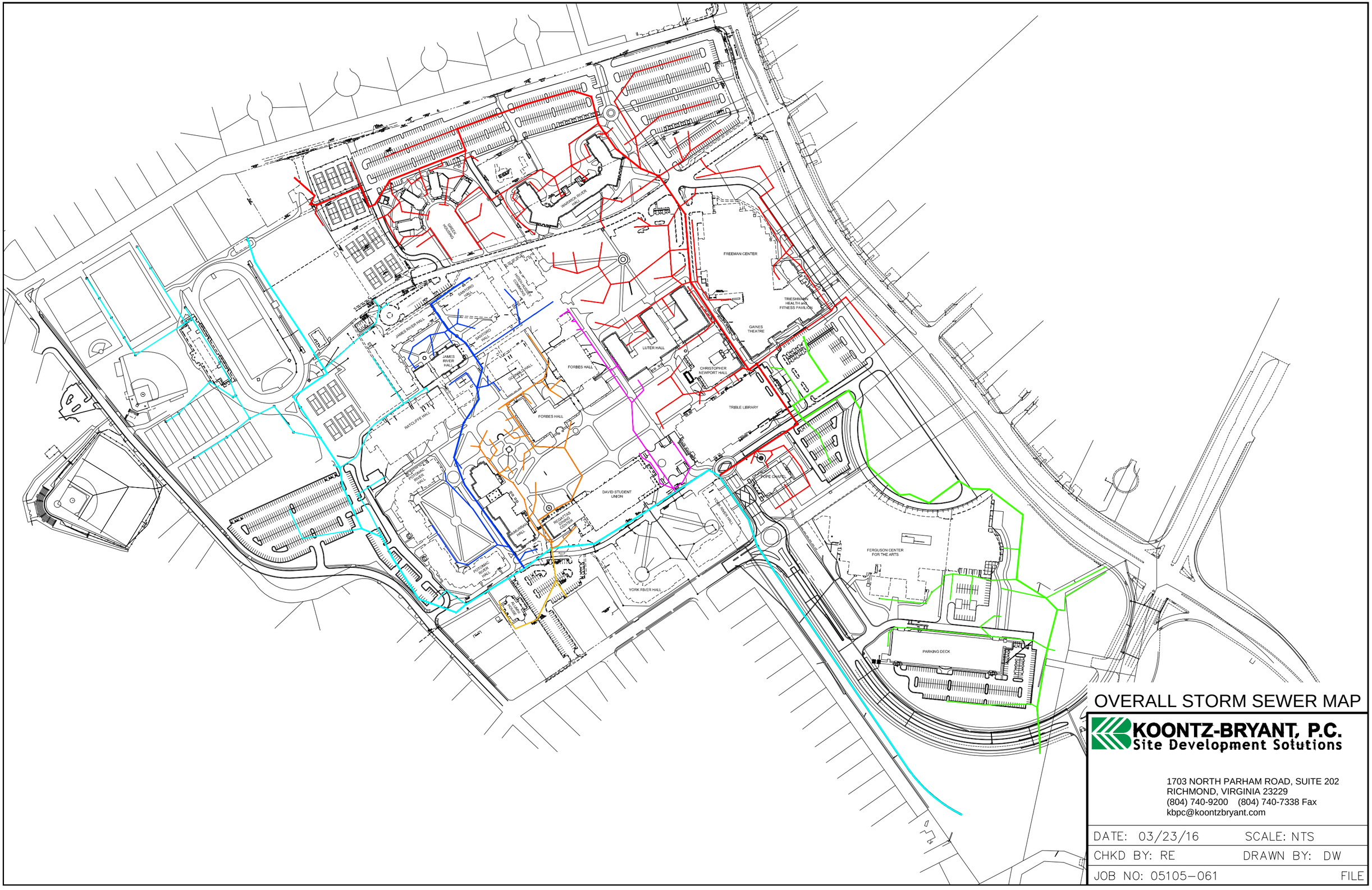
1:1,000

1 inch ~ 83.33 feet

Figure 4.9: SWPPP Areas of High Priority
Athletics Department Operations
Christopher Newport University
1 Ave. of the Arts
Newport News, VA
June 2022

CHRISTOPHER NEWPORT UNIVERSITY

Last Updated: 12/9/2020

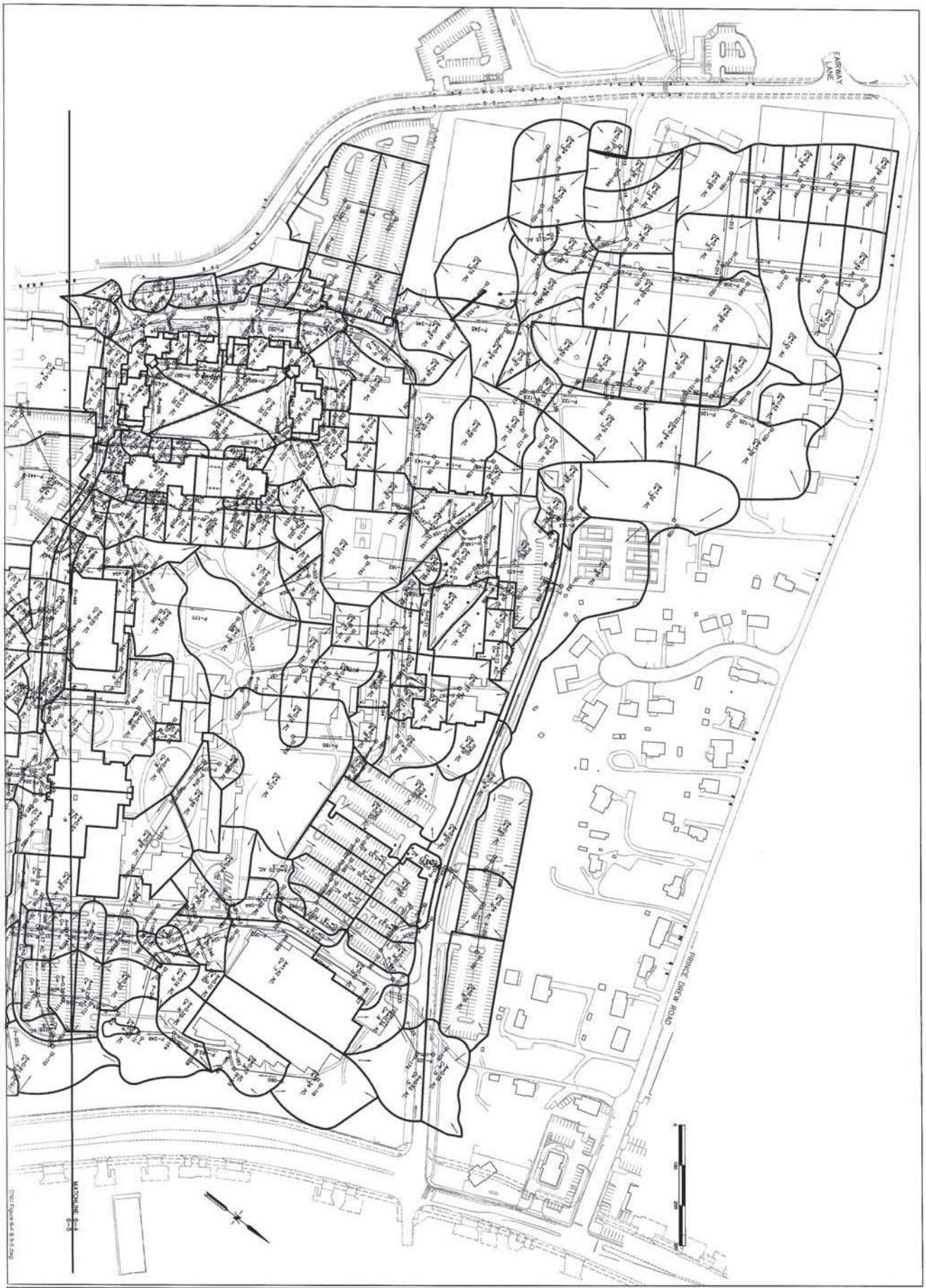


OVERALL STORM SEWER MAP

KOONTZ-BRYANT, P.C.
Site Development Solutions

1703 NORTH PARHAM ROAD, SUITE 202
RICHMOND, VIRGINIA 23229
(804) 740-9200 (804) 740-7338 Fax
kbpc@koontzbryant.com

DATE: 03/23/16	SCALE: NTS
CHKD BY: RE	DRAWN BY: DW
JOB NO: 05105-061	FILE



6-4

JN: 1585

SCALE: 1"= 100'

DATE: APRIL 30, 2002

CHRISTOPHER NEWPORT UNIVERSITY

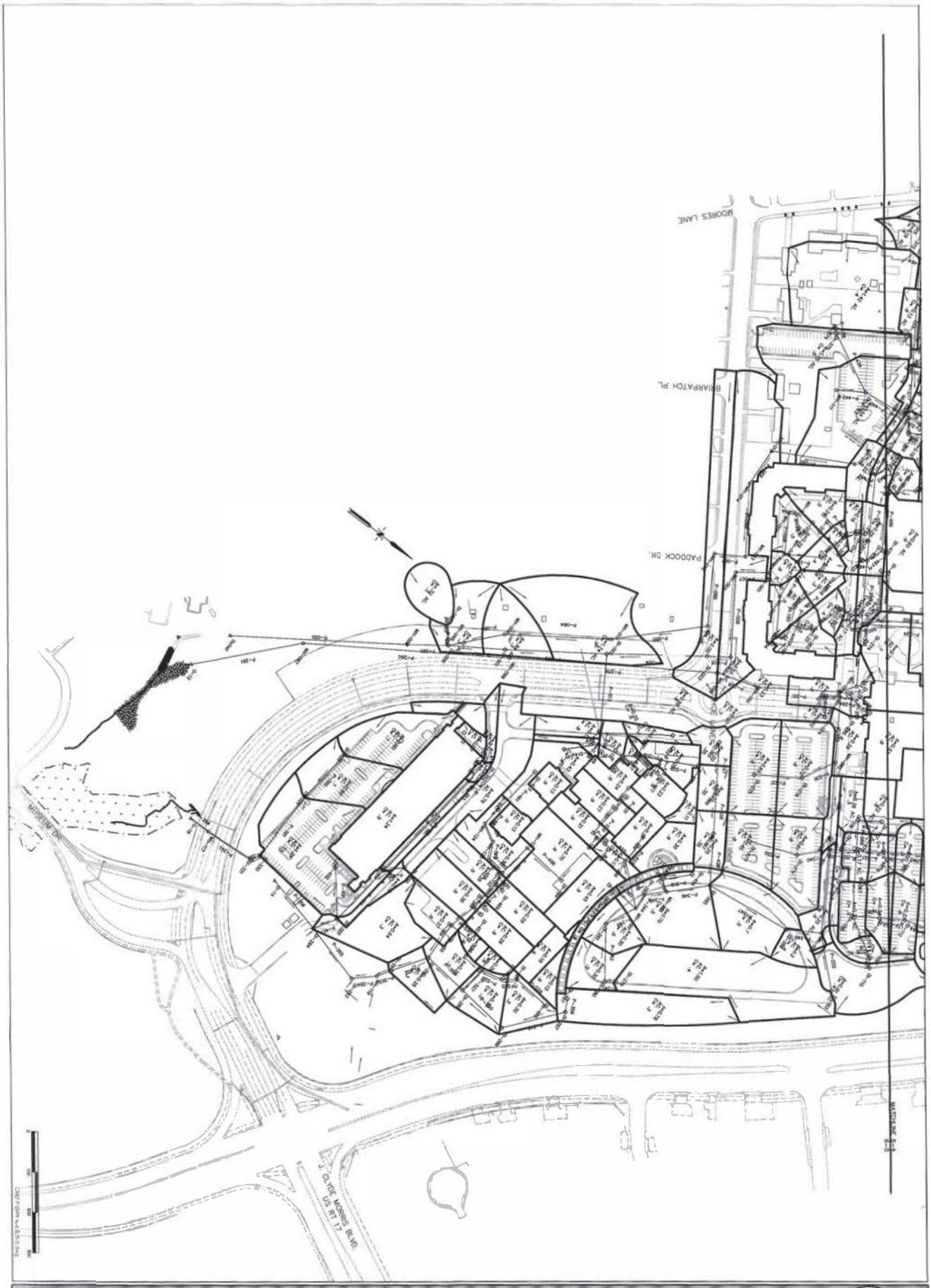
NEWPORT NEWS VIRGINIA

2008 "C" VALUES, DRAINAGE AREAS AND STORM SEWER

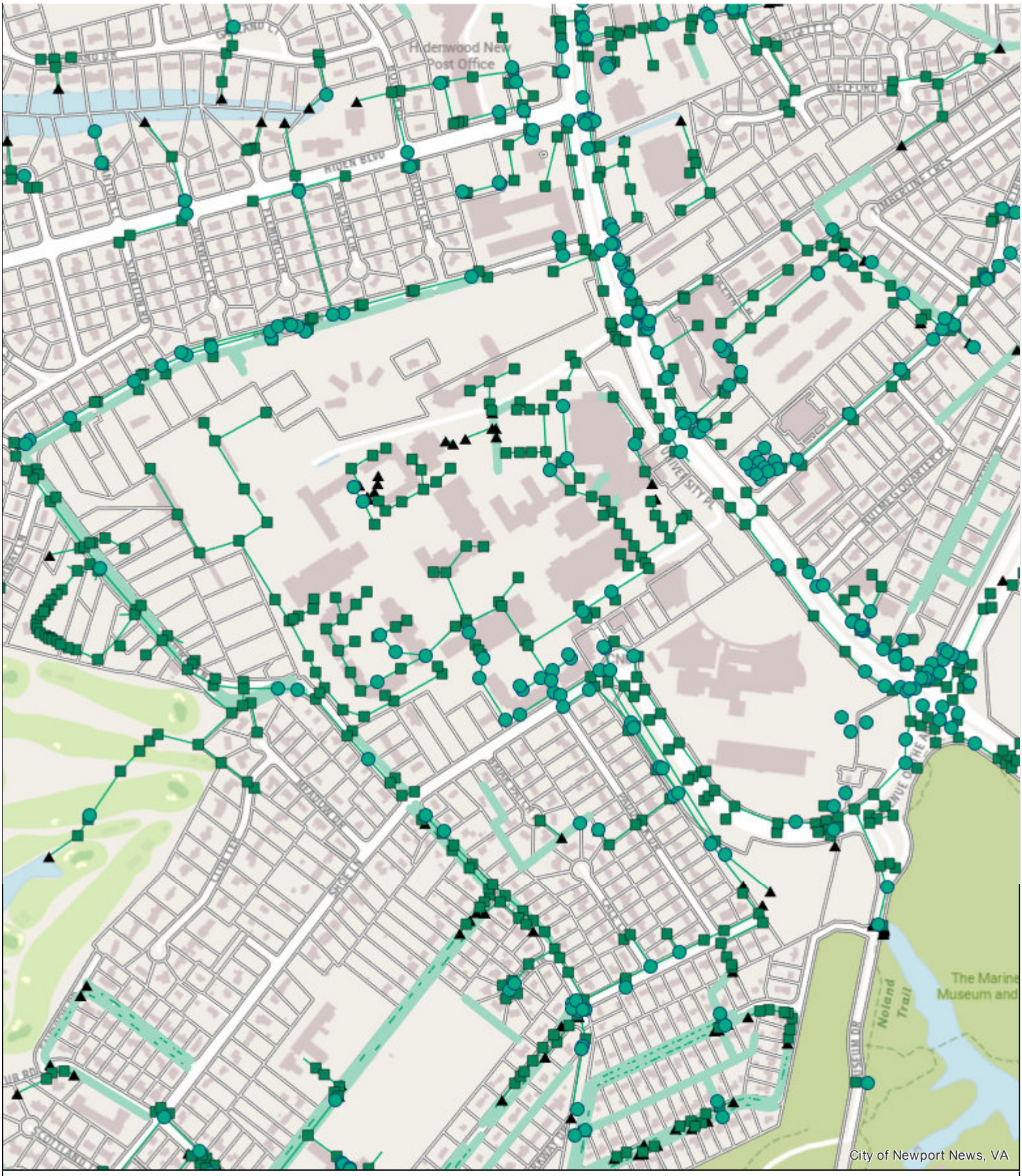
KOONTZ-BRYANT, P.C.
A Full Service Civil Consulting Firm
1703 N PARHAM ROAD, SUITE 202
RICHMOND, VIRGINIA 23229
(804) 740-9200 FAX (804) 740-7338
kbpc@koontzbryant.com

DESIGNED: WWW
DRAWN: VLS
CHECKED: PFH

REVISIONS:



6-5	JN: 1585	SCALE: 1"= 100'	DATE: APRIL 30, 2009	CHRISTOPHER NEWPORT UNIVERSITY NEWPORT NEWS VIRGINIA 2008 "C" VALUES, DRAINAGE AREAS AND STORM SEWER	KOONTZ-BRYANT, P.C. A Full Service Civil Consulting Firm 1703 N PARHAM ROAD, SUITE 202 RICHMOND, VIRGINIA 23229 (804) 740-9200 FAX (804) 740-7338 vbpc@koontzbryant.com	DESIGNED: WWW DRAWN: VLS CHECKED: PFH	REVISIONS:

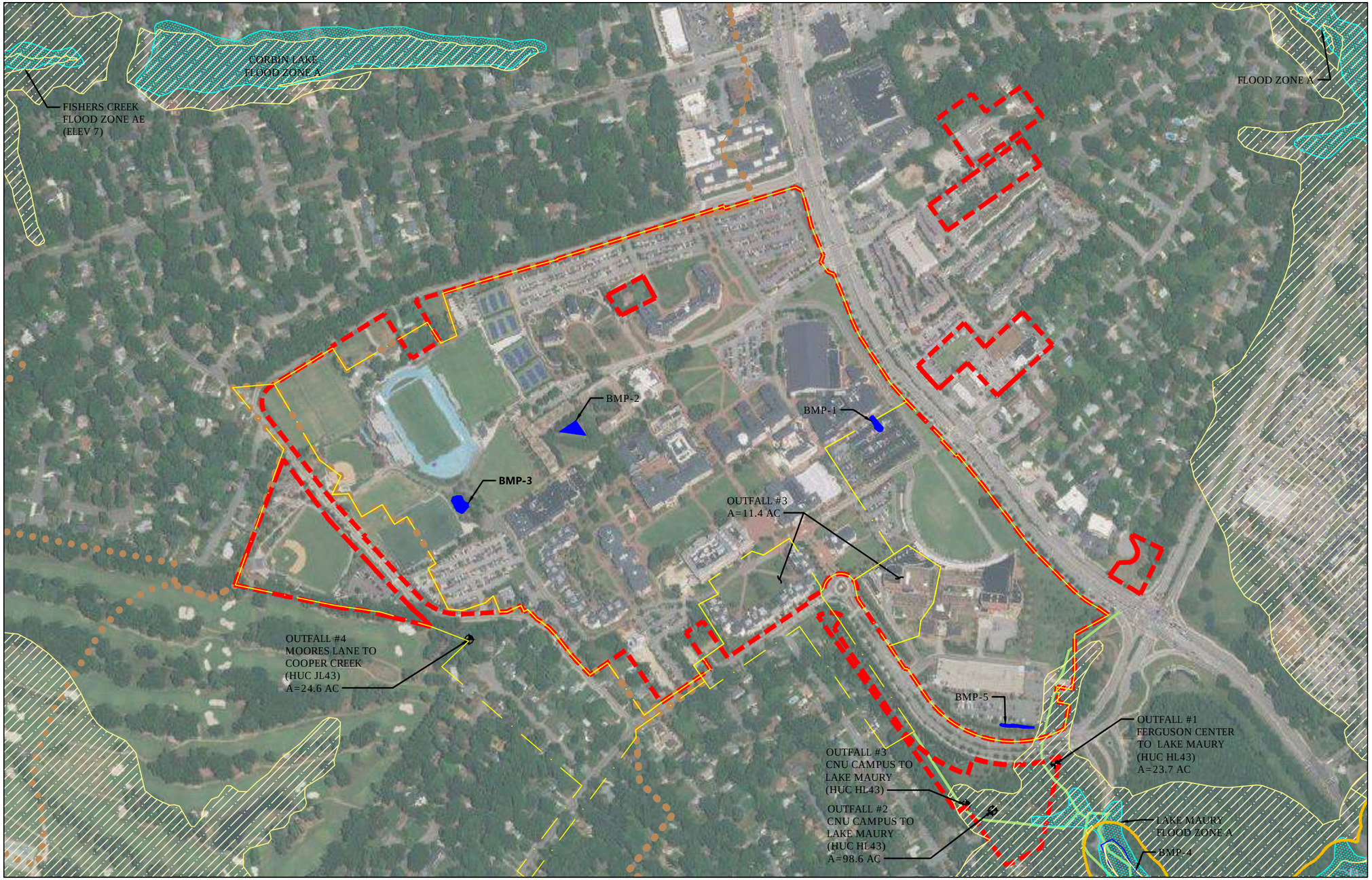


N

City of Newport News Storm System around CNU

0.15 mi

\\vhb\gbl\proj\VirginiaBeach\33935.04 CNU SWMP\tech\Stormwater\FINAL\3393504_CNU-DA.dwg



CHRISTOPHER NEWPORT UNIVERSITY

Legend

- CAMPUS AREA
- HUC DIVIDES
- DRAINAGE AREA
- WETLAND
- RESOURCE PROTECTION AREA (RPA)
- RESOURCE MANAGEMENT AREA (RMA)
- FLOOD ZONE
- EXISTING BMP
- DRAINAGE OUTFALL

EXISTING BMP

BMP-1	CONVOCATION, SPORTS & WELLNESS CENTER- WET POND (REMOVED)
BMP-2	JAMES RIVER RESIDENCE HALL- EXTENDED DETENTION BASIN
BMP-3	TRACK COMPLEX STADIUM SEATING- EXTENDED DETENTION BASIN
BMP-4	LAKE MAURY
BMP-5	LOT A- BIORETENTION (LEVEL 1)

OFFSITE CAMPUS AREA

YODER BARN- 660 HAMILTON DR

PRESIDENT'S HOUSE- 1205 RIVERSIDE DR

Figure 1: Existing Conditions

Stormwater Managment Master Plan

Christopher Newport University

Source:
Prepared for: CNU
Date: May 2019

0 250 500 1000 Feet

vhb

Appendix D – MS4 General Permit

Virginia Administrative Code
Title 9. Environment
Agency 25. State Water Control Board
Chapter 890. Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s)

9VAC25-890-40. General permit.

Any MS4 operator whose registration statement is accepted by the department will receive coverage under the following general permit and shall comply with the requirements in this general permit and be subject to all applicable requirements of the Virginia Stormwater Management Program (VSMP) Regulations (9VAC25-870) and the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulations (9VAC25-31).

General Permit No.: VAR04

Effective Date: November 1, 2023

Expiration Date: October 31, 2028

GENERAL VPDES PERMIT FOR DISCHARGES OF STORMWATER FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA STORMWATER MANAGEMENT PROGRAM REGULATIONS, VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM REGULATIONS, AND THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act, as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, permittees of small municipal separate storm sewer systems are authorized to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except those waters specifically named in State Water Control Board regulations that prohibit such discharges.

The authorized discharge shall be in accordance with the registration statement filed with the department, this cover page, Part I - Discharge Authorization and Special Conditions, Part II - TMDL Special Conditions, Part III - DEQ BMP Warehouse Reporting, and Part IV - Conditions Applicable to All State and VPDES Permits, as set forth in this general permit.

Part I

Discharge Authorization and Special Conditions

A. Coverage under this state permit. During the period beginning with the date of coverage under this general permit and lasting until the expiration and reissuance of this state permit, the permittee is authorized to discharge stormwater and those authorized nonstormwater discharges described in 9VAC25-890-20 D in accordance with this state permit from the small municipal separate storm sewer system identified in the registration statement into surface waters within the boundaries of the Commonwealth of Virginia and consistent with 9VAC25-890-30.

B. The permittee shall develop, implement, and enforce an MS4 program designed to reduce the discharge of pollutants from the MS4 to the MEP in accordance with this permit, to protect water quality, and to satisfy the appropriate water quality requirements of the State Water Control Law and its attendant regulations. The permittee shall utilize the legal authority provided by the laws and regulations of the Commonwealth of Virginia to control discharges to and from the MS4. This legal authority may be a combination of statute, ordinance, permit, policy, specific contract language, order, or interjurisdictional agreements. The MS4 program shall include the minimum control measures (MCM) described in Part I E. For the purposes of this permit term, implementation of MCMs in Part I E and the Chesapeake Bay and local TMDL requirements in Part II (as applicable) consistent with the provisions of an iterative MS4 program required pursuant to this general permit constitutes compliance with the standard of reducing pollutants to the MEP, provides adequate progress in meeting water quality standards, and satisfies the appropriate water quality requirements of the State Water Control Law and its attendant regulations.

C. The MS4 program plan.

1. The MS4 program plan shall include, at a minimum, the following written items:

a. The roles and responsibilities of each of the permittee's divisions and departments in the implementation of the requirements of the permit tasked with ensuring that the permit requirements are met;

b. If the permittee utilizes another entity to implement portions of the MS4 program, a copy of the written agreement. The description of each party's roles and responsibilities, including any written agreements with third parties, shall be updated as necessary;

c. For each MCM in Part I E, the following information shall be included:

(1) Each specific requirement as listed in Part I E for each MCM;

(2) A description of the BMPs or strategies that the permittee anticipates will be implemented to demonstrate compliance with the permit conditions in Part I E;

(3) All standard operating procedures or policies necessary to implement the BMPs;

(4) The measurable goal by which each BMP or strategy will be evaluated; and

(5) The persons, positions, or departments responsible for implementing each BMP or strategy; and

d. A list of documents incorporated by reference, including the version and date of the document being incorporated.

2. If the permittee is receiving initial coverage under this general VPDES permit for the discharge of stormwater, the permittee shall:

a. No later than six months following the date of permit coverage, submit to the department a schedule for the development of each component of the MS4 program plan in accordance with Part I C 1 that does not exceed October 31, 2028, unless the department

grants a later date; and

b. Provide to the department a copy of the MS4 program plan upon completion of development.

3. If the permittee was previously covered under the General VPDES Permit for Discharges of Stormwater from MS4 effective November 1, 2018, the permittee shall update the MS4 program plan to meet the requirements of this permit no later than six months after the effective date of this permit unless otherwise specified in another permit condition and shall post the most up-to-date version of MS4 program plan on the permittee's website or location where the MS4 program plan can be obtained as required by Part I E 2 within 30 days of updating the MS4 program plan. Until such time that the MS4 program plan is updated in accordance with Part I E, the permittee shall continue to implement the MS4 program plan in effect at the time that coverage is issued under this general permit.

4. Revisions to the MS4 program plan are expected throughout the life of this permit as part of the iterative process to reduce pollutant loading and protect water quality to the MEP. As such, revisions made in accordance with this permit as a result of the iterative process do not require modification of this permit. The permittee shall summarize revisions to the MS4 program plan as part of the annual report as described in Part I D 3.

5. The permittee may demonstrate compliance with one or more MCM in Part I E through implementation of separate statutory or regulatory programs provided that the permittee's MS4 program plan identifies and fully describes any program that will be used to satisfy one or more of the minimum control measures of Part I E. If the program that the permittee is using requires the approval of a third party, the program shall be fully approved by the third party, or the permittee shall be working toward getting full approval. Documentation of the program's approval status or the progress toward achieving full approval shall be included in the annual report required by Part I D. The permittee shall remain responsible for compliance with the permit requirements if the other entity fails to implement one or more components of the control measures.

6. The permittee may rely on another entity to satisfy the permit requirements to implement a minimum control measure if:

a. The other entity, in fact, implements the control measure;

b. The particular control measure, or component thereof, is at least as stringent as the corresponding permit requirement;

c. The other entity agrees to implement the control measure on behalf of the permittee; and

d. The agreement between the parties is documented in writing and retained by the permittee with the MS4 program plan for as long as the agreement is active.

The permittee shall remain responsible for compliance with requirements of the permit and shall document in the annual reports required in accordance with Part I D that another entity is being relied on to satisfy all or part of the state permit requirements. The permittee shall

provide the information required in Part I D.

7. If the permittee relies on another governmental entity regulated under 9VAC25-870-380 to satisfy all of the state permit obligations, including the obligation to file periodic reports required by Part I D, the permittee must note that fact in the registration statement, but is not required to file the periodic reports. The permittee remains responsible for compliance with the state permit requirements if the other entity fails to implement the control measures or components thereof.

D. Annual reporting requirements.

1. The permittee shall submit an annual report to the department no later than October 1 of each year in a method, (i.e., how the permittee must submit) and format (i.e., how the report shall be laid out) as specified by the department; the required content of the annual report is specified in Part I E and Part II B. The report shall cover the previous year from July 1 to June 30.

2. Following notification from the department of the start date for the required electronic submission of annual reports, as provided for in 9VAC25-31-1020, such forms and reports submitted after that date shall be electronically submitted to the department in compliance with this section and 9VAC25-31-1020. There shall be at least a three-month notice provided between the notification from the department and the date after which such forms and reports must be submitted electronically.

3. The annual report shall include the following general information:

a. The permittee, system name, and permit number;

b. The reporting period for which the annual report is being submitted;

c. A signed certification as per Part IV K;

d. Each annual reporting item as specified in an MCM in Part I E; and

e. An evaluation of the MS4 program implementation, including a review of each MCM, to determine the MS4 program's effectiveness and whether or not changes to the MS4 program plan are necessary.

4. For permittees receiving initial coverage under this general VPDES permit for the discharge of stormwater, the annual report shall include a status update on each component of the MS4 program plan being developed. Once the MS4 program plan has been updated to include implementation of a specific MCM in Part I E, the permittee shall follow the reporting requirements established in Part I D 3.

5. For those permittees with requirements established under Part II B, the annual report shall include a status report on the implementation of the local TMDL action plans in accordance with Part II B including any revisions to the plan.

6. For the purposes of this permit, the MS4 program plan , annual reports, the Chesapeake Bay TMDL action plan, and Chesapeake Bay TMDL implementation annual status reports shall be

maintained as separate documents and submitted to the department as required by this permit as separate documents.

E. Minimum control measures.

1. Public education and outreach.

a. The permittee shall implement a public education and outreach program designed to:

(1) Increase the public's knowledge of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;

(2) Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and

(3) Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.

b. The permittee shall identify no fewer than three high-priority stormwater issues to meet the goal of educating the public in accordance with Part I E 1 a. High-priority issues may include the following examples: Chesapeake Bay nutrients, pet wastes, local receiving water impairments, TMDLs, high-quality receiving waters, litter control, BMP maintenance, anti-icing and deicing agent application, planned green infrastructure redevelopment, planned ecosystem restoration projects, and illicit discharges from commercial sites.

c. The high-priority public education and outreach program, as a whole, shall:

(1) Clearly identify the high-priority stormwater issues;

(2) Explain the importance of the high-priority stormwater issues;

(3) Include measures or actions the public can take to minimize the impact of the high-priority stormwater issues; and

(4) Provide a contact and telephone number, website, or location where the public can find out more information.

d. The permittee shall use two or more of the strategies listed in Table 1 per year to communicate to the target audience the high-priority stormwater issues identified in accordance with Part I E 1 b, including how to reduce stormwater pollution.

Table 1
Strategies for Public Education and Outreach

Strategies	Examples (provided as examples and are not meant to be all inclusive or limiting)
Traditional written materials	Informational brochures, newsletters, fact

	sheets, utility bill inserts, or recreational guides for targeted groups of citizens
Alternative materials	Bumper stickers, refrigerator magnets, t-shirts, or drink koozies
Signage	Temporary or permanent signage in public places or facilities, vehicle signage, bill boards, or storm drain stenciling
Media materials	Information disseminated through electronic media, radio, televisions, movie theater, newspaper, or GIS story maps
Speaking engagements	Presentations to school, church, industry, trade, special interest, or community groups
Curriculum materials	Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens
Training materials	Materials developed to disseminate during workshops offered to local citizens, trade organization, or industrial officials
Public education activities	Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials

	to schools to meet applicable education Standards of Learning or curriculum requirements, or watershed walks
Public meetings	Public meetings on proposed community stormwater management retrofits, green infrastructure redevelopment, ecosystem restoration projects, TMDL development, climat e change's effects on stormwater management, volunt ary residential low impact development, or other stormwater issues

e. The permittee may coordinate its public education and outreach efforts with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of its state permit requirements.

f. The MS4 program plan shall include:

(1) A list of the high-priority stormwater issues the permittee will communicate to the public as part of the public education and outreach program;

(2) The rationale for selection of each high-priority stormwater issue and an explanation of how each education or outreach strategy is intended to have a positive impact on stormwater discharges;

(3) Identification of the target audience to receive each high-priority stormwater message;

(4) Nontraditional permittees may identify staff, students, members of the general public, and other users of facilities operated by the permittee as the target audience for education and outreach strategies;

(5) Traditional permittees may identify staff and students as part of the target audience for education and outreach strategies; however, staff shall not be the majority of the target audience;

(6) Staff training required in accordance with Part I E 6 d does not qualify as a strategy for public education and outreach;

(7) The strategies from Table 1 of Part I E 1 d to be used to communicate each high-priority stormwater message; and

(8) The anticipated time periods the messages will be communicated or made available to the public.

g. The annual report shall include the following information:

(1) A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program;

(2) A summary of the public education and outreach activities conducted for the report year, including the strategies used to communicate the identified high-priority issues;

(3) A description of any changes in high-priority stormwater issues, including, strategies used to communicate high-priority stormwater issues or target audiences for the public education and outreach plan. The permittee shall provide a rationale for any of these changes ; and

(4) A description of public education and outreach activities conducted that included education regarding climate change.

2. Public involvement and participation.

a. The permittee shall develop and implement procedures for the following:

(1) The public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns;

(2) The public to provide comments on the permittee's MS4 program plan;

(3) Responding to public comments received on the MS4 program plan ; and

(4) Maintaining documentation of public comments received on the MS4 program and associated MS4 program plan and the permittee's response.

b. No later than three months after this permit's effective date, the existing permittee shall update and maintain the webpage dedicated to the MS4 program and stormwater pollution prevention. The following information shall be posted on this webpage:

(1) The effective MS4 permit and coverage letter;

(2) The most current MS4 program plan or location where the MS4 program plan can be obtained;

(3) The annual report for each year of the term covered by this permit no later than 30 days after submittal to the department;

(4) For permittees whose regulated MS4 is located partially or entirely in the Chesapeake Bay watershed, the most current Chesapeake Bay TMDL action plan or location where the Chesapeake Bay TMDL action plan can be obtained;

(5) For permittees whose regulated MS4 is located partially or entirely in the Chesapeake Bay watershed, the Chesapeake Bay TMDL implementation annual status reports for each year of the term covered by this permit no later than 30 days after submittal to the department;

(6) A mechanism for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns in accordance with Part I E 2 a (1);

(7) Methods for how the public can provide comments on the permittee's MS4 program plan in accordance with Part I E 2 a (2) and if applicable, the Chesapeake Bay TMDL action plan in accordance with Part II A 13; and

(8) Federal and state nontraditional permittees with security policies preventing a MS4 program and stormwater pollution prevention webpage from being publicly accessible may utilize an internal staff accessible webpage such as an intranet webpage to meet the requirements of Part 1 E 2 b.

c. Traditional permittees shall implement no fewer than four activities per year from two or more of the categories listed in Table 2 to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.

d. Nontraditional permittees shall implement, promote, participate in, or coordinate on no fewer than four activities per year from two or more of the categories listed in Table 2 to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects.

Table 2
Public Involvement Opportunities

Public involvement opportunities	Examples (provided as example and are not meant to be all inclusive or limiting)
Monitoring	Establish or support citizen monitoring group
Restoration	Stream , watershed, shoreline, beach, or park clean-up day, adopt-a-waterway program, tree plantings, and riparian buffer plantings

Public education activities	Booth at community fair, demonstration of stormwater control projects, climate change's effects on stormwater management, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, or watershed walks
Public meetings	Public meetings on proposed community stormwater management retrofits, green infrastructure redevelopment, ecosystem restoration projects, TMDL development, voluntary residential low impact development, clim ate change's effects on stormwater management, or other stormwater issues
Disposal or collection events	Household hazardous chemicals collection, vehicle fluids collection
Pollution prevention	Adopt-a-storm drain program, implement a storm drain marking

	program, promote use of residential stormwater BMPs, implement pet waste stations in public areas, adopt-a-street program.

e. The permittee may coordinate the public involvement opportunities listed in Table 2 with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of the permit requirements.

f. The permittee may include staff and students in public participation events; however, the activity cannot solely include or be limited to staff participants with stormwater, groundskeeping, and maintenance duties in order for an event to qualify as a public participation event.

g. Staff training required in accordance with Part I E 6 d does not qualify as a public participation event unless the training activity solicits participation from target audiences beyond staff or contractors with stormwater, groundskeeping, and maintenance duties.

h. The MS4 program plan shall include:

(1) The webpage address where mechanisms for the public to report (i) potential illicit discharges, improper disposal, or spills to the MS4, (ii) complaints regarding land disturbing activities, or (iii) other potential stormwater pollution concerns;

(2) The webpage address that contains the methods for how the public can provide input on the permittee's MS4 program; and

(3) A description of the public involvement activities to be implemented by the permittee, the anticipated time period the activities will occur, and a metric for each activity to determine if the activity is beneficial to water quality. An example of metrics may include the weight of trash collected from a stream cleanup or the number of participants in a hazardous waste collection event.

i. The annual report shall include the following information:

(1) A summary of any public comments on the MS4 program received and how the permittee responded;

(2) A summary of stormwater pollution complaints received under the procedures established in Part I E 2 a (1), excluding natural flooding complaints, and how the permittee responded;

(3) A webpage address to the permittee's MS4 program and stormwater website;

(4) Federal and state nontraditional permittees with security policies preventing the MS4 program and stormwater pollution prevention webpage from being publicly accessible utilizing an internal staff accessible website, such as intranet, shall provide evidence of the

current internal MS4 program and stormwater pollution prevention webpage;

(5) A description of the public involvement activities implemented by the permittee, including any efforts to reach out and engage all economic and ethnic groups;

(6) A description of public education and outreach activities conducted that also included education regarding climate change;

(7) A report of the metric as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality; and

(8) The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.

3. Illicit discharge detection and elimination.

a. The permittee shall develop and maintain an accurate MS4 map and information table as follows:

(1) An updated map of the MS4 owned or operated by the permittee within the MS4 regulated service area no later than 24 months after the permit effective date that includes, at a minimum:

(a) MS4 outfalls discharging to surface waters, except as follows:

(i) In cases where the outfall is located outside of the MS4 permittee's legal responsibility, the permittee may elect to map the known point of discharge location closest to the actual outfall; and

(ii) In cases where the MS4 outfall discharges to receiving water channelized underground, the permittee may elect to map the point downstream at which the receiving water emerges above ground as an outfall discharge location. If there are multiple outfalls discharging to an underground channelized receiving water, the map shall identify that an outfall discharge location represents more than one outfall. This is an option a permittee may choose to use and recognizes the difficulties in accessing outfalls to underground channelized stream conveyances for purposes of mapping, screening, or monitoring;

(b) A unique identifier for each mapped item required in Part I E 3;

(c) The name and location of receiving waters to which the MS4 outfall or point of discharge discharges;

(d) MS4 regulated service area; and

(e) Stormwater management facilities owned or operated by the permittee.

(2) The permittee shall maintain an outfall information table associated with the MS4 map that includes the following information for each outfall or point of discharge for those cases in which the permittee elects to map the known point of discharge in accordance with Part I E 3 a (1) (a). The outfall information table may be maintained as a shapefile attribute table. The outfall information table shall contain the following:

(a) A unique identifier as specified on the MS4 map;

(b) The latitude and longitude of the outfall or point of discharge;

(c) The estimated regulated acreage draining to the outfall or point of discharge;

(d) The name of the receiving water;

(e) The 6th Order Hydrologic Unit Code of the receiving water;

(f) An indication as to whether the receiving water is listed as impaired in the Virginia 2022 305(b)/303(d) Water Quality Assessment Integrated Report; and

(g) The name of any EPA approved TMDLs for which the permittee is assigned a wasteload allocation.

(3) No later than 24 months after permit issuance, the permittee shall submit to DEQ, a format file geodatabase or two shapefiles that contain at a minimum:

(a) A point feature class or shapefile for outfalls with an attribute table containing outfall data elements required in accordance with Part I E 3 a (2); and

(b) A polygon feature class or shapefile for the MS4 service area as required in accordance with Part I E 3 a (1) (d) with an attribute table containing the following information:

(i) MS4 operator name;

(ii) MS4 permit number (VAR04); and

(iii) MS4 service area total acreage rounded to the nearest hundredth.

(4) All file geodatabase feature classes or shapefiles shall be submitted in the following data format standards:

(a) Point data in NAD83 or WGS84 decimal degrees global positional system coordinates;

(b) Data projected in Virginia Lambert Conformal Conic format;

(c) Outfall location accuracy shall be represented in decimal degrees rounded to at least the fifth decimal place for latitude and longitude to ensure point location accuracy (e.g., 37.61741, -78.15279); and

(d) Metadata that shall provide a description of each feature class or shapefile dataset, units of measure as applicable, coordinate system, and projection.

(5) No later than October 1 of each year, the permittee shall update the MS4 map and outfall information table to include any new outfalls constructed or TMDLs approved or both during the immediate preceding reporting period.

(6) The permittee shall provide written notification to any downstream adjacent MS4 of any known physical interconnection established or discovered after the effective date of this permit.

b. The permittee shall prohibit, through ordinance, policy, standard operating procedures,

or other legal mechanism, to the extent allowable under federal, state, or local law, regulations, or ordinances, unauthorized nonstormwater discharges into the MS4. Nonstormwater discharges or flows identified in 9VAC25-890-20 D 3 shall only be addressed if they are identified by the permittee as a significant contributor of pollutants discharging to the MS4. Flows that have been identified by the department as de minimis discharges are not significant sources of pollutants to surface water.

c. The permittee shall maintain, implement, and enforce illicit discharge detection and elimination (IDDE) written procedures designed to detect, identify, and address unauthorized nonstormwater discharges, including illegal dumping, to the MS4 to effectively eliminate the unauthorized discharge. Written procedures shall include:

(1) A description of the legal authorities, policies, standard operating procedures, or other legal mechanisms available to the permittee to eliminate identified sources of ongoing illicit discharges, including procedures for using legal enforcement authorities.

(2) Dry weather field screening protocols to detect, identify, and eliminate illicit discharges to the MS4. The protocol shall include:

(a) A prioritized schedule of field screening activities and rationale for prioritization determined by the permittee based on such criteria as age of the infrastructure, land use, historical illegal discharges, dumping, or cross connections;

(b) If the total number of MS4 outfalls is equal to or less than 50, a schedule to screen all outfalls annually;

(c) If the total number of MS4 outfalls is greater than 50, a schedule to screen a minimum of 50 outfalls annually such that no more than 50% are screened in the previous 12-month period. The 50% criteria is not applicable if all outfalls have been screened in the previous three years;

(d) The permittee may adopt a risk-based approach to dry weather screening identifying observation points based upon illicit discharge risks upstream of an outfall. Observation points may include points of interconnection, manholes, points of discharge, conveyances, or inlets suspected to have a high likelihood of receiving illicit discharges;

(e) Each observation point screened may be counted as one outfall screening activity equivalent and counted towards the requirements of Part I E 3 c (2) (b) or (2) (c); however, at least 50% of the minimum annual screening events must include outfall screening;

(f) Illicit discharges reported by the public and subsequent investigations may not be counted as screening events; however once the resolution of the investigation and the date the investigation was closed has been documented, an observation point may be established for future screening events; and

(g) A checklist or mechanism to track the following information for dry weather screening events:

(i) The unique identifier for the outfall or observation point;

(ii) Time since the last precipitation event;

(iii) The estimated quantity of the last precipitation event;

(iv) Site descriptions (e.g., conveyance type and dominant watershed land uses);

(v) Observed indicators of possible illicit discharge events, such as floatables, deposits, stains, and vegetative conditions (e.g., dying or dead vegetation, excessive vegetative growth);

(vi) Whether or not a discharge was observed;

(vii) If a discharge was observed, the estimated discharge rate and visual characteristics of the discharge (e.g., odor, color, clarity) and the physical condition of the outfall; and

(viii) For observation points, the location, downstream outfall unique identifier, and risk factors or rationale for establishing the observation point.

(3) A timeframe upon which to conduct an investigation to identify and locate the source of any observed unauthorized nonstormwater discharge. Priority of investigations shall be given to discharges of sanitary sewage and those believed to be a risk to human health and public safety. Discharges authorized under a separate VPDES or state permit require no further action under this permit.

(4) Methodologies to determine the source of all illicit discharges. If the permittee is unable to identify the source of an illicit discharge within six months of beginning the investigation then the permittee shall document that the source remains unidentified. If the observed discharge is intermittent, the permittee shall document that attempts to observe the discharge flowing were unsuccessful.

(5) Methodologies for conducting a follow-up investigation for illicit discharges that are continuous or that permittees expect to occur more frequently than a one-time discharge to verify that the discharge has been eliminated except as provided for in Part I E 3 c (4);

(6) A mechanism to track all illicit discharge investigations to document the following:

(a) The dates that the illicit discharge was initially observed, reported, or both;

(b) The results of the investigation, including the source, if identified;

(c) Any follow-up to the investigation;

(d) Resolution of the investigation; and

(e) The date that the investigation was closed.

d. The MS4 program plan shall include:

(1) The MS4 map and outfall information table required by Part I E 3 a. The map and outfall information table may be incorporated into the MS4 program plan by reference. The map shall be made available to the department within 14 days upon request;

(2) Copies of written notifications of physical interconnections given by the permittee to

other MS4s; and

(3) The IDDE procedures described in Part I E 3 c.

e. The annual report shall include:

(1) A confirmation statement that the MS4 map and outfall information table have been updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year;

(2) The total number of outfalls and observation points screened during the reporting period as part of the dry weather screening program; and

(3) A list of illicit discharges to the MS4, including spills reaching the MS4 with information as follows:

(a) The location and source of illicit discharge;

(b) The dates that the discharge was observed, reported, or both;

(c) Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe);

(d) How the investigation was resolved;

(e) A description of any follow-up activities; and

(f) The date the investigation was closed.

4. Construction site stormwater runoff and erosion and sediment control.

a. The permittee shall utilize its legal authority, such as ordinances, permits, orders, specific contract language, and interjurisdictional agreements, to address discharges entering the MS4 from regulated construction site stormwater runoff. The permittee shall control construction site stormwater runoff as follows:

(1) If the traditional permittee is a city, county, or town that has adopted a Virginia Erosion and Sediment Control Program (VESCP), the permittee shall implement the VESCP consistent with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840);

(2) If the traditional permittee is a town that has not adopted a VESCP, implementation of a VESCP consistent with the Virginia Erosion and Sediment Control Law (§ 62.1-44:15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840) by the surrounding county shall constitute compliance with Part I E 4 a; such town shall notify the surrounding county of erosion, sedimentation, or other construction stormwater runoff problems;

(3) If the nontraditional permittee is a state agency; public institution of higher education, including community colleges, colleges, and universities; or federal entity and has developed standards and specifications in accordance with the Virginia Erosion and

Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840), the permittee shall implement the most recent department approved standards and specifications; or

(4) If the nontraditional permittee is a state agency; public institution of higher education, including community colleges, colleges, and universities; or federal entity and has not developed standards and specifications in accordance with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840), the permittee shall inspect all land disturbing activities as defined in § 62.1-44.15:51 of the Code of Virginia that result in the disturbance of 10,000 square feet or greater, or 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, as follows:

(a) During or immediately following initial installation of erosion and sediment controls;

(b) At least once per every two-week period;

(c) Within 48 hours following any runoff producing storm event; and

(d) At the completion of the project prior to the release of any performance bond.

(5) If the nontraditional permittee is a school board or other local government body, the permittee shall inspect those projects resulting in a land disturbance as defined in § 62.1-44.15.51 of the Code of Virginia occurring on lands owned or operated by the permittee that result in the disturbance of 10,000 square feet or greater, 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, or in accordance with more stringent thresholds established by the local government, as follows:

(a) During or immediately following initial installation of erosion and sediment controls;

(b) At least once per every two-week period;

(c) Within 48 hours following any runoff producing storm event; and

(d) At the completion of the project prior to the release of any performance bond.

b. The permittee shall require implementation of appropriate controls to prevent nonstormwater discharges to the MS4, such as wastewater, concrete washout, fuels and oils, and other illicit discharges identified during land disturbing activity inspections . The discharge of nonstormwater discharges other than those identified in 9VAC25-890-20 D through the MS4 is not authorized by this state permit.

c. Employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators shall obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations;

d. The permittee's MS4 program plan shall include:

(1) If the permittee implements an erosion and sediment control program for construction site stormwater runoff in accordance with Part I E 4 a (1), the local ordinance citations for

the VESCP program;

(2) If the permittee is a town that does not implement an erosion and sediment control program for construction site stormwater runoff in accordance with Part I E 4 a (2), the county ordinance citations for the VESCP program the town is subject to;

(3) If the permittee implements annual standards and specifications for erosion and sediment control and construction site stormwater runoff in accordance with Part I E 4 a (3):

(a) The most recently approved standards and specifications or if incorporated by reference, the location where the standards and specifications can be viewed; and

(b) A copy of the most recent standards and specifications approval letter from the department;

(4) A description of the legal authorities utilized to ensure compliance with Part I E 4 a for erosion and sediment control and construction site stormwater runoff control, such as ordinances, permits, orders, specific contract language, policies, and interjurisdictional agreements;

(5) For traditional permittees, written inspection procedures to ensure VESCP requirements are maintained in accordance with 9VAC25-840-90 A and onsite erosion and sediment controls are properly implemented in accordance with 9VAC25-840-60 B;

(6) For nontraditional permittees, erosion and sediment control plans or annual standards and specifications shall be approved by the department in accordance with § 62.1-44.15:55 of the Code of Virginia. Compliance with approved erosion and sediment control plans or annual standards and specifications shall be ensured by the permittee with written inspection procedures that at minimum include the following:

(a) An inspection checklist for documenting onsite erosion and sediment control structures and systems are properly maintained and repaired as needed to ensure continued performance of their intended function; and

(b) A list of all associated documents utilized for inspections, including checklists, department approved erosion and sediment control plans, or the most recently department approved annual standards and specifications, and any other documents utilized;

(7) Traditional permittees shall maintain written procedures for requiring VESCP compliance through corrective action or enforcement action in accordance with § 62.1-44.15:58 of the Code of Virginia;

(8) Nontraditional permittees shall maintain written procedures for requiring compliance with department approved erosion and sediment control plans and annual standards and specifications through corrective action or enforcement action to the extent allowable under federal, state, or local law, regulation, ordinance, or other legal mechanisms; and

(9) The roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in implementing erosion and sediment control and construction site

stormwater runoff control requirements in Part I E 4.

e. The annual report shall include the following:

(1) Total number of erosion and sediment control inspections conducted;

(2) Total number of each type of compliance action and enforcement action implemented; and

(3) For nontraditional permittees:

(a) A confirmation statement that land disturbing projects that occurred during the reporting period have been conducted in accordance with the current department approved annual standards and specifications for erosion and sediment control; and

(b) If any land disturbing projects were conducted without department approved annual standards and specifications, a list of all land disturbing projects that occurred during the reporting period with erosion and sediment control plan approval dates for each project.

5. Post-construction stormwater management for new development and development on prior developed lands.

a. The permittee shall address post-construction stormwater runoff that enters the MS4 from the following land disturbing activities by implementing a post-construction stormwater runoff management program as follows:

(1) If the traditional permittee is a city, county, or town, with an approved Virginia Stormwater Management Program (VSMP), the permittee shall implement the VSMP consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) as well as maintain an inspection and maintenance program in accordance with Part I E 5 b and c;

(2) If the traditional permittee is a town that has not adopted a VSMP, implementation of a VSMP consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) by the surrounding county shall constitute compliance with Part I E 5 a; such town shall notify the surrounding county of erosion, sedimentation, or other post-construction stormwater runoff problems and maintain an inspection and maintenance program in accordance with Part I E 5 c and d;

(3) If the traditional permittee is a city, county, or town receiving initial permit coverage during the permit term and must obtain VSMP approval from the department, the permittee shall implement the VSMP consistent with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870) as well as develop an inspection and maintenance program in accordance with Part I E 5 b and c no later than 60 months after receiving permit coverage;

(4) If the nontraditional permittee is a state agency; public institution of higher education, including community colleges, colleges, and universities; or federal entity and has not developed standards and specifications in accordance with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations

(9VAC25-870), the permittee shall implement the most recent department approved standards and specifications and maintain an inspection and maintenance program in accordance with Part I E 5 b;

(5) If the nontraditional permittee is a state agency; public institution of higher education, including community colleges, colleges, and universities; or federal entity, and has not developed standards and specifications in accordance with the Virginia Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and VSMP Regulations (9VAC25-870), the permittee shall implement a post-construction stormwater runoff control program through compliance with 9VAC25-870 and with the implementation of a maintenance and inspection program consistent with Part I E 5 b no later than 60 months after receiving permit coverage; or

(6) If the nontraditional permittee is a school board or other local government body, the permittee shall implement a post-construction stormwater runoff control program through compliance with 9VAC25-870 or in accordance with more stringent local requirements, if applicable, and with the implementation of a maintenance and inspection program consistent with Part I E 5 b.

b. The permittee shall implement an inspection and maintenance program for those stormwater management facilities owned or operated by the permittee as follows:

(1) Within six months of the permit effective date, the permittee shall develop and maintain written inspection and maintenance procedures in order to ensure adequate long-term operation and maintenance of its stormwater management facilities. The permittee may use inspection and maintenance specifications available from the Virginia Stormwater BMP Clearinghouse or inspection and maintenance plans developed in accordance with the department's Stormwater Local Assistance Fund (SLAF) guidelines;

(2) Employees and contractors implementing the stormwater program shall obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations;

(3) The permittee shall inspect stormwater management facilities owned or operated by the permittee no less frequently than once per year. The permittee may choose to implement an alternative schedule to inspect these stormwater management facilities based on facility type and expected maintenance needs provided that the alternative schedule and rationale is included in the MS4 program plan. The alternative inspection frequency shall be no less often than once per five years; and

(4) If during the inspection of the stormwater management facility conducted in accordance with Part I E 5 b (2), it is determined that maintenance is required, the permittee shall conduct the maintenance in accordance with the written procedures developed under Part I E 5 b (1).

c. For traditional permittees described in Part I E 5 a (1) , (2), or (3), the permittee shall:

(1) Implement an inspection and enforcement program for stormwater management

facilities not owned by the permittee (i.e., privately owned) that includes:

(a) An inspection frequency of no less often than once per five years for all privately owned stormwater management facilities that discharge into the MS4; and

(b) Adequate long-term operation and maintenance by the owner of the stormwater management facility by requiring the owner to develop and record a maintenance agreement, including an inspection schedule to the extent allowable under state or local law or other legal mechanism;

(2) Utilize its legal authority for enforcement of the maintenance responsibilities in accordance with 9VAC25-870-112 if maintenance is neglected by the owner;

(3) The permittee may develop and implement a progressive compliance and enforcement strategy provided that the strategy is included in the MS4 program plan;

(4) The permittee may utilize the inspection reports provided by the owner of a stormwater management facility as part of an inspection and enforcement program in accordance with 9VAC25-870-114 C.

d. The MS4 program plan shall include:

(1) If the permittee implements a VSMP in accordance with Part I E 5 a (1) , (2), or (3):

(a) A copy of the VSMP approval letter issued by the department;

(b) Written inspection procedures and all associated documents utilized in the inspection of privately owned stormwater management facilities; and

(c) Written procedures for compliance and enforcement of inspection and maintenance requirements for privately owned stormwater management facilities;

(2) If the permittee implements a post-development stormwater runoff control program in accordance with Part I E 5 a (4):

(a) The most recently approved standards and specifications or if incorporated by reference, the location where the standards and specifications can be viewed; and

(b) A copy of the most recent standards and specifications approval letter from the department;

(3) A description of the legal authorities utilized to ensure compliance with Part I E 5 a for post-construction stormwater runoff control such as ordinances (provide citation as appropriate), permits, orders, specific contract language, and interjurisdictional agreements;

(4) Written inspection and maintenance procedures and other associated template documents utilized during inspection and maintenance of stormwater management facilities owned or operated by the permittee; and

(5) The roles and responsibilities of each of the permittee's departments, divisions, or subdivisions in implementing the post-construction stormwater runoff control program.

e. The annual report shall include the following information:

(1) If the traditional permittee implements a VSMP in accordance with Part I E 5 a (1) , (2), or (3):

(a) The number of privately owned stormwater management facility inspections conducted; and

(b) The number of enforcement actions initiated by the permittee to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action;

(2) Total number of inspections conducted on stormwater management facilities owned or operated by the permittee;

(3) A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection;

(4) For traditional permittees as specified in Part I E 5 a (1), a confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part III B 1 or a statement that the permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities (9VAC25-880);

(5) A confirmation statement that the permittee electronically reported stormwater management facilities using the DEQ BMP Warehouse in accordance with Part III B 1 and 2; and

(6) A confirmation statement that the permittee electronically reported stormwater management facilities inspected using the DEQ BMP Warehouse in accordance with Part III B 5.

6. Pollution prevention and good housekeeping for facilities owned or operated by the permittee within the MS4 service area.

a. The permittee shall maintain and implement written good housekeeping procedures for those activities listed in Part I E 6 b at facilities owned or operated by the permittee designed to meet the following objectives:

(1) Prevent illicit discharges;

(2) Ensure permittee staff or contractors properly dispose of waste materials, including landscape wastes and prevent waste materials from entering the MS4;

(3) Prevent the discharge of wastewater or wash water not authorized in accordance with

9VAC25-890-20 D 3 u, into the MS4 without authorization under a separate VPDES permit; and

(4) Minimize the pollutants in stormwater runoff.

b. The permittee shall develop and implement written good housekeeping procedures that meet the objectives established in Part I E 6 a for the following activities:

(1) Road, street, sidewalk, and parking lot maintenance and cleaning:

(a) Within 24 months of permit issuance, permittees that apply anti-icing and deicing agents shall update and implement procedures in accordance with Part I E to include implementation of best management practices for anti-icing and deicing agent application, transport, and storage;

(b) Procedures developed in accordance with Part I E shall prohibit the application of any anti-icing or deicing agent containing urea or other forms of nitrogen or phosphorus;

(2) Renovation and significant exterior maintenance activities (e.g., painting, roof resealing, and HVAC coil cleaning) not covered under a separate VSMP construction general permit. The permittee shall develop and implement procedures no later than 36 months after permit issuance;

(3) Discharging water pumped from construction and maintenance activities not covered by another permit covering such activities;

(4) Temporary storage of landscaping materials;

(5) Maintenance of permittee owned or operated vehicles and equipment (i.e., prevent pollutant discharges from leaking permittee vehicles and equipment);

(6) Application of materials, including pesticides and herbicides shall not exceed manufacturer's recommendations; and

(7) Application of fertilizer shall not exceed maximum application rates established by applicable nutrient management plans. For areas not covered under nutrient management plans where fertilizer is applied, application rates shall not exceed manufacturer's recommendations.

c. The permittee shall require through the use of contract language, training, written procedures, or other measures within the permittee's legal authority that contractors employed by the permittee and engaging in activities described in Part I E 6 b follow established good housekeeping procedures and use appropriate control measures to minimize the discharge of pollutants to the MS4.

d. The written procedures established in accordance with Part I E 6 a and b shall be utilized as part of the employee training program , and the permittee shall develop a written training plan for applicable field personnel that ensures the following:

(1) Applicable field personnel shall receive training in the prevention, recognition, and elimination of illicit discharges no less often than once per 24 months;

(2) Employees performing road, street, sidewalk, and parking lot maintenance shall receive training in good housekeeping procedures required under Part I E 6 b (1) no less often than once per 24 months;

(3) Employees working in and around facility maintenance, public works, or recreational facilities shall receive training in applicable Part I E 6 a and b good housekeeping procedures required no less often than once per 24 months;

(4) Employees working in and around high-priority facilities with a stormwater pollution prevention plan (SWPPP) shall receive training in applicable site specific SWPPP procedures no less often than once per 24 months;

(5) Employees whose duties include emergency spill control and response shall be trained in spill control and response. Emergency responders, such as firefighters and law-enforcement officers, trained on the handling of spill control and response as part of a larger emergency response training shall satisfy this training requirement and be documented in the training plan; and

(6) Employees and contractors hired by the permittee who apply pesticides and herbicides shall be trained and certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Certification by the Virginia Department of Agriculture and Consumer Services (VDACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement. Contracts for the application of pesticide and herbicides executed after the effective date of this permit shall require contractor certification.

e. The permittee shall maintain documentation of each training activity conducted by the permittee to fulfill the requirements of Part I E 6 d for a minimum of three years after training activity completion. The documentation shall include the following information:

(1) The date when applicable employees have completed the training activity;

(2) The number of employees who have completed the training activity; and

(3) The training objectives and good housekeeping procedures required under Part I E 6 a covered by training activity.

f. The permittee may fulfill the training requirements in Part I E 6 d, in total or in part, through regional training programs involving two or more MS4 permittees; however, the permittee shall remain responsible for ensuring compliance with the training requirements.

g. Within 12 months of permit coverage, the permittee shall identify any new high-priority facilities located in expanded 2020 census urban areas with a population of at least 50,000.

h. Within 36 months of permit coverage, the permittee shall implement SWPPPs for high-priority facilities meeting the conditions of Part I E 6 i and which are located in expanded 2020 census urban areas with a population of at least 50,000.

i. The permittee shall maintain and implement a site specific SWPPP for each high-priority facility as defined in 9VAC25-890-1 that does not have or require separate VPDES permit

coverage, and which any of the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt, or runoff:

(1) Areas where residuals from using, storing, or cleaning machinery or equipment remain and are exposed to stormwater;

(2) Materials or residuals on the ground or in stormwater inlets from spills or leaks;

(3) Material handling equipment;

(4) Materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt);

(5) Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);

(6) Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated, or leaking storage drums, barrels, tanks, and similar containers;

(7) Waste material except waste in covered, nonleaking containers (e.g., dumpsters);

(8) Application or disposal of process wastewater (unless otherwise permitted); or

(9) Particulate matter or visible deposits of residuals from roof stacks, vents, or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.

j. Each SWPPP as required in Part I E 6 g shall include the following:

(1) A site description that includes a site map identifying all outfalls, direction of stormwater flows, existing source controls, and receiving water bodies;

(2) A description and checklist of the potential pollutants and pollutant sources;

(3) A description of all potential nonstormwater discharges;

(4) A description of all structural control measures, such as stormwater management facilities and other pollutant source controls, applicable to SWPPP implementation (e.g., permeable pavement or oil-water separators that discharge to sanitary sewer are not applicable to the SWPPP), such as oil-water separators, and inlet protection designed to address potential pollutants and pollutant sources at risk of being discharged to the MS4;

(5) A maintenance schedule for all stormwater management facilities and other pollutant source controls applicable to SWPPP implementation described in Part I E 6 h (4);

(6) Site specific written procedures designed to reduce and prevent pollutant discharge that incorporate by reference applicable good housekeeping procedures required under Part I E 6 a and b;

(7) A description of the applicable training as required in Part I E 6 d (4);

(8) An inspection frequency of no less often than once per year and maintenance

requirements for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP;

(9) A log of each unauthorized discharge, release, or spill incident reported in accordance with Part IV G including the following information:

(a) Date of incident;

(b) Material discharged, released, or spilled; and

(c) Estimated quantity discharged, released, or spilled;

(10) A log of modifications to the SWPPP made as the result of any unauthorized discharge, release, or spill in accordance Part I E 6 j or changes in facility activities and operation requiring SWPPP modification; and

(11) The point of contact for SWPPP implementation.

k. No later than June 30 of each year, the permittee shall annually review any high-priority facility owned or operated by the permittee for which an SWPPP has not been developed to determine if the facility meets any of the conditions described in Part I E 6 g. If the facility is determined to need an SWPPP, the permittee shall develop an SWPPP meeting the requirements of Part I E 6 h no later than December 31 of that same year. The permittee shall maintain a list of all high-priority facilities owned or operated by the permittee not required to maintain an SWPPP in accordance with Part I E 6 g and this list shall be available upon request.

l. The permittee shall review the contents of any site specific SWPPP no later than 30 days after any unauthorized discharge, release, or spill reported in accordance with Part IV G to determine if additional measures are necessary to prevent future unauthorized discharges, releases, or spills. If necessary, the SWPPP shall be updated no later than 90 days after the unauthorized discharge.

m. The SWPPP shall be kept at the high-priority facility and utilized as part of employee SWPPP training required in Part I E 6 d (4). The SWPPP and associated documents may be maintained as a hard copy or electronically as long as the documents are available to employees at the applicable site.

n. If activities change at a facility such that the facility no longer meets the definition of a high-priority facility , the permittee may remove the facility from the list of high-priority facilities with a high potential to discharge pollutants.

o. If activities change at a facility such that the facility no longer meets the criteria requiring SWPPP coverage as described in Part I E 6 g, the permittee may remove the facility from the list of high-priority facilities that require SWPPP coverage.

p. The permittee shall maintain and implement turf and landscape nutrient management plans that have been developed by a certified turf and landscape nutrient management planner in accordance with § 10.1-104.2 of the Code of Virginia on all lands owned or operated by the permittee where nutrients are applied to a contiguous area greater than

one acre. If nutrients are being applied to achieve final stabilization of a land disturbance project, application shall follow the manufacturer's recommendations.

q. Within 12 months of permit coverage, the permittee shall identify contiguous areas greater than one acre located in expanded 2020 census urban areas with population of at least 50,000 and within the permittee's MS4 service area requiring turf and landscape nutrient management plans.

r. Within 36 months of permit coverage, the permittee shall implement turf and landscape nutrient management plans on contiguous areas greater than one acre located in expanded 2020 census urban areas with a population of least 50,000 and within the permittee's MS4 service area.

s. If nutrients are being applied to achieve final stabilization of a land disturbance project, application shall follow the manufacturer's recommendations. For newly established turf where nutrients are applied to a contiguous area greater than one acre, the permittee shall implement a nutrient management plan no later than six months after the site achieves final stabilization.

t. Nutrient management plans developed in accordance with Part I E 6 n shall be submitted to the Department of Conservation and Recreation (DCR) for approval.

u. Nutrient management plans that are expired as of the effective date of this permit shall be submitted to DCR for renewal within six months after the effective date of this permit. Thereafter, all nutrient management plans shall be submitted to DCR at least 30 days prior to nutrient management plan expiration. Within 36 months of permit coverage, no nutrient management plans maintained by the permittee in accordance with Part I E 6 n shall be expired due to DCR documented noncompliance with 4VAC50-85-130 provided to the permittee.

v. Nutrient management plans may be maintained as a hard copy or electronically as long as the documents are available to employees at the applicable site.

w. Nontraditional permittees with lands regulated under § 10.1-104.4 of the Code of Virginia, including state agencies, state colleges and universities, and other state government entities, shall continue to implement turf and landscape nutrient management plans in accordance with this statutory requirement.

x. The MS4 program plan shall include:

(1) A list of written good housekeeping procedures for the operations and maintenance activities as required by Part I E 6 a and b;

(2) A list of all high-priority facilities owned or operated by the permittee required to maintain an SWPPP in accordance with Part I E 6 g that includes the facility name, facility location, and the location of the SWPPP hardcopy or electronic document being maintained. The SWPPP for each high-priority facility shall be incorporated by reference;

(3) A list of locations for which turf and landscape nutrient management plans are required

in accordance with Part I E 6 n and s, including the following information:

(a) The total acreage covered by each nutrient management plan;

(b) The DCR approval date and expiration date for each nutrient management plan;

(c) The location of the nutrient management plan hardcopy or electronic document being maintained;

(4) A summary of mechanisms the permittee uses to ensure contractors working on behalf of the permittees implement the necessary good housekeeping and pollution prevention procedures, and stormwater pollution plans as appropriate; and

(5) The written training plan as required in Part I E 6 d.

y. The annual report shall include the following:

(1) A summary of any written procedures developed or modified in accordance with Part I E 6 a and b during the reporting period;

(2) A confirmation statement that all high-priority facilities were reviewed to determine if SWPPP coverage is needed during the reporting period;

(3) A list of any new SWPPPs developed in accordance Part I E 6 i during the reporting period;

(4) A summary of any SWPPPs modified in accordance with Part I E 6 j, 6 l, or 6 m;

(5) The rationale of any high-priority facilities delisted in accordance with Part I E 6 l or m during the reporting period;

(6) The status of each nutrient management plan as of June 30 of the reporting year (e.g., approved, submitted and pending approval, and expired);

(7) A list of the training activities conducted in accordance with Part I E 6 d, including the following information:

(a) The completion date for the training activity;

(b) The number of employees who completed the training activity; and

(c) The objectives and good housekeeping procedures covered by the training activity.

Part II

TMDL Special Conditions

A. Chesapeake Bay TMDL special condition.

1. The Commonwealth in its Phase I , Phase II, and Phase III Chesapeake Bay TMDL Watershed Implementation Plans (WIPs) committed to a phased approach for MS4s, affording MS4 permittees up to three full five-year permit cycles to implement necessary reductions. This permit is consistent with the Chesapeake Bay TMDL and the Virginia Phase I , Phase II , and Phase III WIPs to meet the Level 2 (L2) scoping run for existing developed lands as it

represents an implementation of an additional 60% of L2 as specified in the Phase I , Phase II, and Phase III WIPs. In combination with the 40% reduction of L2 that has already been achieved, a total reduction no later than October 31, 2028, of 100% of L2 shall be achieved. Conditions of future permits will be consistent with the TMDL or WIP conditions in place at the time of permit issuance.

2. The following definitions apply to Part II of this state permit for the purpose of the Chesapeake Bay TMDL special condition for discharges in the Chesapeake Bay Watershed:

"Existing sources" means pervious and impervious urban land uses served by the MS4 as of June 30, 2009.

"New sources" means pervious and impervious urban land uses served by the MS4 developed or redeveloped on or after July 1, 2009.

"Pollutants of concern" or "POC" means total nitrogen and total phosphorus.

"Transitional sources" means regulated land disturbing activities that are temporary in nature and discharge through the MS4.

3. Reduction requirements for permittees previously covered under the General VPDES Permit for Discharges of Stormwater from MS4 effective November 1, 2018. No later than October 31, 2028, the permittee shall reduce the load of total nitrogen and total phosphorus from existing developed lands served by the MS4 as of June 30, 2009, within the 2010 Census urbanized areas by at least 100% of the Level 2 (L2) Scoping Run Reductions. The 100% reduction is the sum of (i) the first phase reduction of 5.0% of the L2 Scoping Run Reductions based on the lands located within the 2000 Census urbanized areas required by June 30, 2018; (ii) the second phase reduction of at least 35% of the L2 Scoping Run based on lands within the 2000 Census urbanized areas required by June 30, 2023; (iii) the second phase reduction of at least 40% of the L2 Scoping Run, which shall only apply to the additional lands that were added by the 2010 expanded Census urbanized areas required by June 30, 2023; and (iv) the third phase reduction of least 60% of the L2 Scoping Run based on lands within the 2000 and 2010 expanded Census urbanized areas required by October 31, 2028. The required reduction shall be calculated using Tables 3a, 3b, 3c, and 3d as applicable:

Table 3a

Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the James River, Lynnhaven, and Little Creek Basins

		A	B	C	D	E	F
Pollutant	Subsource	Loading rate (lbs/ac/yr)[1]	Existing developed lands as of 6/30/09 served by the MS4	Load(lbs/yr)[3]	Percentage of MS4 required Chesapeake Bay total L2 loading reduction	100% cumulative reduction Required by 10/31/2028 (lbs/yr)[4]	Sum of 100% cumulative reduction (lb/yr)[5]

			within the 2010 CUA (acres)[2]				
Nitrogen	Regulated urban impervious	9.39			9%		
	Regulated urban pervious	6.99			6%		
Phosphorus	Regulated urban impervious	1.76			16%		
	Regulated urban pervious	0.5			7.25%		

[1]Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2.

[2]To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3]Column C = Column A x Column B.

[4]Column E = Column C x Column D .

[5]Column F = The sum of the subsource cumulative reduction required by 10/31/2028 (lbs/yr) as calculated in Column E.

Table 3b

Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the Potomac River Basin

		A	B	C	D	E	F
Pollutant	Subsource	Loading rate (lbs/ac/yr)[1]	Existing developed lands as of 6/30/09 served by the MS4 within	Load (lbs/yr)[3]	Percentage of MS4 required Chesapeake Bay total L2 loading reduction	100% cumulative reduction required by 10/31/2028 (lbs/yr)[4]	Sum of 100% cumulative reduction (lb/yr)[5]

			the 2010 CUA (acres)[2]				
Nitrogen	Regulated urban impervious	16.86			9%		
	Regulated urban pervious	10.07			6%		
Phosphorus	Regulated Urban Impervious	1.62			16%		
	Regulated urban pervious	0.41			7.25%		

[1]Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2

[2]To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3]Column C = Column A x Column B.

[4]Column E = Column C x Column D .

[5]Column F = The sum of the subsource cumulative reduction required by 10/31/2028 (lbs/yr) as calculated in Column E.

Table 3c

Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the Rappahannock River Basin

		A	B	C	D	E	F
Pollutant	Subsource	Loading rate (lbs/ac/yr)[1]	Existing developed lands as of 6/30/09 served by the MS4 within	Load (lbs/yr)[3]	Percentage of MS4 required Chesapeake Bay total L2 loading reduction	100% cumulative reduction Required by 10/31/2028 (lbs/yr)[4]	Sum of 100% cumulative reduction (lb/yr)[5]

			the 2010 CUA (acres)[2]				
Nitrogen	Regulated urban impervious	9.38			9%		
	Regulated urban pervious	5.34			6%		
Phosphorus	Regulated urban impervious	1.41			16%		
	Regulated urban pervious	0.38			7.25%		

[1]Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2.

[2]To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3]Column C = Column A x Column B.

[4]Column E = Column C x Column D .

[5]Column F = The sum of the subsource cumulative reduction required by 10/31/2028 (lbs/yr) as calculated in Column E.

Table 3d

Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the York River and Poquoson Coastal Basin

		A	B	C	D	E	F
Pollutant	Subsource	Loading rate (lbs/ac/yr)[1]	Existing developed lands as of 6/30/09 served by the MS4 within	Load (lbs/yr)[3]	Percentage of MS4 required Chesapeake Bay total L2 loading reduction	100% cumulative reduction required by 10/31/2028 (lbs/yr)[4]	Sum of 100% cumulative reduction (lb/yr)[5]

			the 2010 CUA (acres)[2]				
Nitrogen	Regulated urban impervious	7.31			9%		
	Regulated urban pervious	7.65			6%		
Phosphorus	Regulated urban impervious	1.51			16%		
	Regulated urban pervious	0.51			7.25%		

[1]Edge of stream loading rate based on the Chesapeake Bay Watershed Model Progress Run 5.3.2.

[2]To determine the existing developed acres required in Column B, permittees should first determine the extent of their regulated service area based on the 2010 Census urbanized area (CUA). Next, permittees will need to delineate the lands within the 2010 CUA served by the MS4 as pervious or impervious as of the baseline date of June 30, 2009.

[3]Column C = Column A x Column B.

[4]Column E = Column C x Column D .

[5]Column F = The sum of the subsource cumulative reduction required by 10/31/2028 (lbs/yr) as calculated in Column E.

4. No later than October 31, 2028, the permittee shall offset 100% of the increased loads from new sources initiating construction between July 1, 2009, and October 31, 2023, and designed in accordance with 9VAC25-870 Part II C (9VAC25-870-93 et seq.) if the following conditions apply:

a. The activity disturbed one acre or greater; and

b. The resulting total phosphorous load was greater than 0.45 lb/acre/year, which is equivalent to an average land cover condition of 16% impervious cover.

The permittee shall utilize Table 4 of Part II A 5 to develop the equivalent pollutant load for new sources of nitrogen meeting the requirements of this condition.

5. No later than October 31, 2028, the permittee shall offset the increased loads from projects grandfathered in accordance with 9VAC25-870-48 that begin construction after July 1, 2014, if the following conditions apply:

a. The activity disturbs one acre or greater; and

b. The resulting total phosphorous load was greater than 0.45 lb/acre/year, which is equivalent to an average land cover condition of 16% impervious cover.

The permittee shall utilize Table 4 to develop the equivalent pollutant load for grandfathered sources of nitrogen meeting the requirements of this condition.

Table 4
Ratio of Phosphorus Loading Rate to Nitrogen Loading Rates for Chesapeake Bay Basins

Ratio of Phosphorus to Other POCs (Based on All Land Uses 2009 Progress Run)	Phosphorus Loading Rate (lbs/acre)	Nitrogen Loading Rate (lbs/acre)
James River Basin, Lynnhaven, and Little Creek Basins	1.0	5.2
Potomac River Basin	1.0	6.9
Rappahannock River Basin	1.0	6.7
York River Basin (including Poquoson Coastal Basin)	1.0	9.5

6. Reductions achieved in accordance with the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems effective July 1, 2013, and November 1, 2018, shall be applied toward the total reduction requirements to demonstrate compliance with Part II A 3, A 4, and A 5.

7. 40% of L2 reductions for total nitrogen and total phosphorus shall be maintained by the permittee during the permit term.

8. Reductions shall be achieved in each river basin as calculated in Part II A 3 or for reductions in accordance with Part II A 4 and A 5 in the basin in which the new source or grandfathered

project occurred.

9. Loading and reduction values greater than or equal to 10 pounds calculated in accordance with Part II A 3, A 4, and A 5 shall be calculated and reported to the nearest pound without regard to mathematical rules of precision. Loading and reduction values of less than 10 pounds reported in accordance with Part II A 3, A 4, and A 5 shall be calculated and reported to two significant digits.

10. Reductions required in Part II A 3, A 4, and A 5 shall be achieved through one or more of the following:

a. BMPs approved by the Chesapeake Bay Program;

b. BMPs approved by the department; or

c. A trading program described in Part II A 11.

11. The permittee may acquire and use total nitrogen and total phosphorus credits in accordance with § 62.1-44.19:21 of the Code of Virginia for purposes of compliance with the required reductions in Table 3a, Table 3b, Table 3c, and Table 3d of Part II A 3; Part II A 4; and Part II A 5, provided the use of credits has been approved by the department. The exchange of credits is subject to the following requirements:

a. The credits are generated and applied to a compliance obligation in the same calendar year;

b. The credits are generated and applied to a compliance obligation in the same tributary;

c. The credits are acquired no later than June 1 immediately following the calendar year in which the credits are applied;

d. No later than June 1 immediately following the calendar year in which the credits are applied, the permittee certifies on an MS4 Nutrient Credit Acquisition Form that the permittee has acquired the credits; and

e. Total nitrogen and total phosphorus credits shall be either point source credits generated by point sources covered by the Watershed Permit for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Bay Watershed general permit issued pursuant to § 62.1-44.19:14 of the Code of Virginia or nonpoint source credits certified pursuant to § 62.1-44.19:20 of the Code of Virginia.

12. Chesapeake Bay TMDL action plan requirements.

a. Permittees applying for initial coverage under this general permit shall submit a draft first phase Chesapeake Bay TMDL action plan to the department no later than October 31, 2028, unless the department grants a later date. The required reduction shall be calculated using Tables 3a, 3b, 3c, and 3d as applicable. The first phase action plan shall achieve a minimum reduction of least 40% of the L2 Scoping Run based on lands within the 2000 and 2010 expanded Census urbanized areas no later than October 31, 2033. The action plan shall include the following information:

(1) The load and cumulative reduction calculations for each river basin calculated in accordance with Part II A 3, A 4, and A 5 ;

(2) The BMPs to be implemented by the permittee to achieve 40% of the reductions calculated in Part II A 13 a:

(a) Type of BMP;

(b) Project name;

(c) Location;

(d) Percent removal efficiency for each pollutant of concern; and

(e) Calculation of the reduction expected to be achieved by the BMP calculated and reported in accordance with the methodologies established in Part II A 9 for each pollutant of concern;

(3) A preliminary schedule for implementation of the BMPs included in the Chesapeake Bay TMDL action plan; and

(4) A summary of any comments received as a result of public participation required in Part II A 14, the permittee's response, identification of any public meetings to address public concerns, and any revisions made to Chesapeake Bay TMDL action plan as a result of public participation.

b. For permittees previously covered under the General VPDES Permit for the Discharge of Stormwater from MS4 effective November 1, 2018, no later than 12 months after the permit effective date, the permittee shall submit a third phase Chesapeake Bay TMDL action plan for the reductions required in Part II A 3, A 4, and A 5 that includes the following information:

(1) Any new or modified legal authorities, such as ordinances, permits, policy, specific contract language, orders, and interjurisdictional agreements, implemented or needing to be implemented to meet the requirements of Part II A 3, A 4, and A 5.

(2) The load and cumulative reduction calculations for each river basin calculated in accordance with Part II A 3, A 4, and A 5.

(3) The total reductions achieved as of November 1, 2023, for each pollutant of concern in each river basin.

(4) A list of BMPs implemented prior to November 1, 2023, to achieve reductions associated with the Chesapeake Bay TMDL, including:

(a) The date of implementation; and

(b) The reductions achieved.

(5) The BMPs to be implemented by the permittee within 60 months of the effective date of this permit to meet the cumulative reductions calculated in Part II A 3, A 4, and A 5, including as applicable:

(a)Type of BMP;

(b) Project name;

(c) Location;

(d) Percent removal efficiency for each pollutant of concern;

(e) Calculation of the reduction expected to be achieved by the BMP calculated and reported in accordance with the methodologies established in Part II A 9 for each pollutant of concern; and

(f) A preliminary schedule for implementation of the BMPs included in the Chesapeake Bay TMDL action plan.

(6) A summary of any comments received as a result of public participation required in Part II A 13, the permittee's response, identification of any public meetings to address public concerns, and any revisions made to Chesapeake Bay TMDL action plan as a result of public participation.

13. Prior to submittal of the action plan required in Part II A 12 a and b, permittees shall provide an opportunity for public comment for no fewer than 15 days on the additional BMPs proposed in the third phase Chesapeake Bay TMDL action plan .

14. Chesapeake Bay TMDL implementation annual status report.

a. Permittees previously covered under the General VPDES Permit for Discharges of Stormwater from MS4 effective November 1, 2018, shall submit a Chesapeake Bay TMDL implementation annual status report in a method (i.e., how the permittee must submit) and format (i.e., how the report shall be laid out) as specified by the department no later than October 1 of each year. The report shall cover the previous year from July 1 to June 30.

b. Following notification from the department of the start date for the required electronic submission of Chesapeake Bay TMDL implementation annual status reports, as provided for in 9VAC25-31-1020, such forms and reports submitted after that date shall be electronically submitted to the department in compliance with 9VAC25-31-1020 and this section. There shall be at least a three-month notice provided between the notification from the department and the date after which such forms and reports must be submitted electronically.

c. The year two Chesapeake Bay TMDL implementation annual status report shall contain a summary of any public comments on the Chesapeake Bay TMDL action plan received and how the permittee responded.

d. Each Chesapeake Bay TMDL implementation annual status report shall include the following information:

(1) A list of Chesapeake Bay TMDL action plan BMPs, not including annual practices, implemented prior to the reporting period that includes the following information for reported BMP;

(a) The number of BMPs for each BMP type;

(b) The estimated reduction of pollutants of concern achieved by each BMP type and reported in pounds of pollutant reduction per year; and

(c) A confirmation statement that the permittee electronically reported Chesapeake Bay TMDL action plan BMPs inspected using the DEQ BMP Warehouse in accordance with Part III B 5.

(2) A list of newly implemented BMPs including annual practices implemented during the reporting period that includes the following information for each reported BMP or a statement that no BMPs were implemented during the reporting period:

(a) The BMP type and a description of the location for each BMP;

(b) The estimated reduction of pollutants of concern achieved by each BMP and reported in pounds of pollutant reduction per year; and

(c) A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part III B 3.

e. If the permittee acquired credits during the reporting period to meet all or a portion of the required reductions in Part II A 3, A 4, or A 5, a statement that credits were acquired.

f. Pollutant load reductions generated by annual practices, such as street and storm drain cleaning, shall only be applied to the compliance year in which the annual practice was implemented.

g. The progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for total nitrogen and total phosphorus.

h. Any revisions made to the Chesapeake Bay TMDL action plan.

i. A list of BMPs that are planned to be implemented during the next reporting period.

15. Within 60 months after permit issuance, the permittee shall update the Phase III Chesapeake Bay TMDL action plan to offset the increased loads from new sources initiating construction between July 1, 2009, and October 31, 2023, that are located in the expanded 2020 census urban areas with a population of at least 50,000, and within the permittee's MS4 service area, and designed in accordance with 9VAC25-870 Part II C (9VAC25-870-93 et seq.), if the following conditions apply:

a. The activity disturbed one acre or greater; and

b. The resulting total phosphorous load was greater than 0.45 pounds per acre per year, which is equivalent to an average land cover condition of 16% impervious cover.

The permittee shall utilize Table 4 of Part II A 5 to develop the equivalent nitrogen pollutant load for new sources meeting the requirements of this condition.

16. Within 60 months after permit issuance, the permittee shall update the Phase III Chesapeake Bay TMDL action plan to offset the increased loads from projects grandfathered in

accordance with 9VAC25-870-48 that are located in the expanded 2020 census urban areas with a population of least 50,000, and within the permittee's MS4 service area, and began construction after July 1, 2014, if the following conditions apply:

a. The activity disturbs one acre or greater; and

b. The resulting total phosphorous load was greater than 0.45 pounds per acre per year, which is equivalent to an average land cover condition of 16% impervious cover.

The permittee shall utilize Table 4 of Part II A 6 to develop the equivalent nitrogen pollutant load for grandfathered sources meeting the requirements of this condition.

B. Local TMDL special condition.

1. Permittees applying for initial coverage under this general permit shall develop a local TMDL action plan designed to reduce loadings for pollutants of concern if the permittee discharges the pollutants of concern to an impaired water for which a TMDL has been approved by the U.S. Environmental Protection Agency (EPA) prior to October 31, 2023, and in which an individual or aggregate wasteload has been allocated to the permittee. The permittee shall develop action plans to meet the conditions of Part II B 4, B 5, B 6, B 7, and B 8 as applicable. Each local TMDL action plan shall be provided to the department no later than October 31, 2028, unless the department grants a later date.

2. Permittees previously covered under the General VPDES Permit for Discharges of Stormwater from MS4 effective November 1, 2018, shall develop and maintain a local TMDL action plan designed to reduce loadings for pollutants of concern if the permittee discharges the pollutants of concern to an impaired water for which a TMDL has been approved by the U.S. Environmental Protection Agency (EPA) as described in Part II B 2 a and 2 b:

a. For TMDLs approved by EPA prior to July 1, 2018, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall develop and initiate or update as applicable the local TMDL action plans to meet the conditions of Part II B 4, B 6, B 7, and B 8, as applicable, no later than 18 months after the permit effective date and continue implementation of the action plan. Updated action plans shall include:

(1) An evaluation of the results achieved by the previous action plan; and

(2) Any adaptive management strategies incorporated into updated action plans based on action plan evaluation.

b. For TMDLs approved by EPA on or after July 1, 2018, and prior to October 31, 2023, and in which an individual or aggregate wasteload has been allocated to the permittee, the permittee shall develop and initiate implementation of action plans to meet the conditions of Part II B 4, B 5, B 6, B 7, and B 8, as applicable no later than 30 months after the permit effective date.

3. The permittee shall complete implementation of the TMDL action plans as determined by the schedule. TMDL action plans may be implemented in multiple phases over more than one permit cycle using the adaptive iterative approach provided adequate progress is achieved in

the implementation of BMPs designed to reduce pollutant discharges in a manner that is consistent with the assumptions and requirements of the applicable TMDL.

4. Each local TMDL action plan developed by the permittee shall include the following:

a. The TMDL project name;

b. The EPA approval date of the TMDL;

c. The wasteload allocated to the permittee (individually or in aggregate), and the corresponding percent reduction, if applicable;

d. Identification of the significant sources of the pollutants of concern discharging to the permittee's MS4 that are not covered under a separate VPDES permit. For the purposes of this requirement, a significant source of pollutants of concern means a discharge where the expected pollutant loading is greater than the average pollutant loading for the land use identified in the TMDL;

e. The BMPs designed to reduce the pollutants of concern in accordance with Part II B 5, B 6, B 7, and B 8;

f. Any calculations required in accordance with Part II B 5, B 6, B 7, or B 8;

g. For action plans developed in accordance with Part II B 5, B 6, and B 8, an outreach strategy to enhance the public's education (including employees) on methods to eliminate and reduce discharges of the pollutants; and

h. A schedule of anticipated actions planned for implementation during this permit term.

5. Bacterial TMDLs.

a. Traditional permittees shall select and implement at least three of the strategies listed in Table 5 designed to reduce the load of bacteria to the MS4. Selection of the strategies shall correspond to sources identified in Part II B 4 d.

b. Nontraditional permittees shall select at least one strategy listed in Table 5 designed to reduce the load of bacteria to the MS4 relevant to sources of bacteria applicable within the MS4 regulated service area. Selection of the strategies shall correspond to sources identified in Part II B 4 d.

Table 5 Strategies for Bacteria Reduction Stormwater Control/Management Strategy	
Source	Strategies (provided as an example and not meant to be all inclusive or limiting)

Domestic pets (dogs and cats)	Provide signage to pick up dog waste, providing pet waste bags and disposal containers. Adopt and enforce pet waste ordinances or policies, or leash laws or policies. Place dog parks away from environmentally sensitive areas. Maintain dog parks by removing disposed of pet waste bags and cleaning up other sources of bacteria. Protect riparian buffers and provide unmanicured vegetative buffers along streams to dissuade stream access.
Urban wildlife	Educate the public on how to reduce food sources accessible to urban wildlife (e.g., manage restaurant dumpsters and grease traps, residential garbage, feed

	pets indoors). Install storm drain inlet or outlet controls. Clean out storm drains to remove waste from wildlife. Implement and enforce urban trash management practices. Implement rooftop disconnection programs or site designs that minimize connections to reduce bacteria from rooftops. Implement a program for removing animal carcasses from roadways and properly disposing of the same (either through proper storage or through transport to a licensed facility).
Illicit connections or illicit discharges to the MS4	Implement an enhanced dry weather screening and illicit discharge, detection, and elimination program

	beyond the requirements of Part I E 3 to identify and remove illicit connections and identify leaking sanitary sewer lines infiltrating to the MS4 and implement repairs. Implement a program to identify potentially failing septic systems. Educate the public on how to determine whether their septic system is failing. Implement septic tank inspection and maintenance program. Implement an educational program beyond any requirements in Part I E 1 though E 6 to explain to citizens why they should not dump materials into the MS4.
Dry weather urban flows (irrigations, car washing, powerwashing, etc.)	Implement public education programs to reduce dry weather flows

	from storm sewers related to lawn and park irrigation practices, car washing, powerwashing and other nonstormwater flows. Provide irrigation controller rebates. Implement and enforce ordinances or policies related to outdoor water waste. Inspect commercial trash areas, grease traps, washdown practices, and enforce corresponding ordinances or policies.
Birds (Canadian geese, gulls, pigeons, etc.)	Identify areas with high bird populations and evaluate deterrents, population controls, habitat modifications and other measures that may reduce bird-associated bacteria loading. Prohibit feeding of birds.

Other sources	Enhance maintenance of stormwater management facilities owned or operated by the permittee. Enhance requirements for third parties to maintain stormwater management facilities. Develop BMPs for locating, transporting, and maintaining portable toilets used on permittee-owned sites. Educate third parties that use portable toilets on BMPs for use. Provide public education on appropriate recreational vehicle dumping practices.

6. Local sediment, phosphorus, and nitrogen TMDLs.

a. The permittee shall reduce the loads associated with sediment, phosphorus, or nitrogen through implementation of one or more of the following:

(1) One or more of the BMPs from the Virginia Stormwater BMP Clearinghouse listed in 9VAC25-870-65 or other approved BMPs found on the Virginia Stormwater BMP Clearinghouse website;

(2) One or more BMPs approved by the Chesapeake Bay Program. Pollutant load reductions generated by annual practices, such as street and storm drain cleaning, shall only be applied to the compliance year in which the annual practice was implemented; or

(3) Land disturbance thresholds lower than Virginia's regulatory requirements for erosion and sediment control and post development stormwater management.

b. The permittee may meet the local TMDL requirements for sediment, phosphorus, or nitrogen through BMPs implemented or sediment, phosphorus, or nitrogen credits acquired. BMPs implemented and nutrient and sediment credits acquired to meet the requirements of the Chesapeake Bay TMDL in Part II A may also be utilized to meet local TMDL requirements as long as the BMPs are implemented or the credits are generated in the watershed for which local water quality is impaired.

c. The permittee shall calculate the anticipated load reduction achieved from each BMP and include the calculations in the action plan required in Part II B 4 f.

d. No later than 36 months after the effective date of this permit, the permittee shall submit to the department an update on the progress made toward achieving local TMDL action plan goals and the anticipated end dates by which the permittee will meet each wasteload allocation for sediment, phosphorus, or nitrogen. The proposed end date may be developed in accordance with Part II B 3.

7. Polychlorinated biphenyl (PCB) TMDLs.

a. For each PCB TMDL action plan, the permittee shall include an inventory of potentially significant sources of PCBs owned or operated by the permittee that drains to the MS4 that includes the following information:

(1) Location of the potential source;

(2) Whether or not the potential source is from current site activities or activities previously conducted at the site that have been terminated (i.e., legacy activities); and

(3) A description of any measures being implemented or to be implemented to prevent exposure to stormwater and the discharge of PCBs from the site.

b. If at any time during the term of this permit, the permittee discovers a previously unidentified significant source of PCBs within the permittee's MS4 regulated service area, the permittee shall notify DEQ in writing within 30 days of discovery.

c. As part of its annual reporting requirements, the permittee shall submit results of any action plan PCB monitoring or product testing conducted and any adaptive management strategies that have been incorporated into the updated action plan based upon monitoring or product testing results if the permittee has elected to perform monitoring or product testing or both.

8. Chloride TMDLs.

a. No later than 36 months after the permit effective date, permittees shall develop an anti-icing and deicing agent education and outreach strategy that identifies target audiences for increasing awareness of anti-icing and deicing agent application impacts on receiving waters and encourages implementation of enhanced BMPs for application, handling, and storage of anti-icing and de-icing agents used for snow and ice management.

b. Anti-icing and deicing agent education and outreach strategies shall contain a schedule to implement two or more of the strategies listed in Part I E 1 d Table 1 per year to communicate to target audiences the importance of responsible anti-icing and deicing agent application, transport, and storage.

c. No later than 36 months after permit issuance, the permittee shall review good housekeeping procedures for anti-icing and deicing agent application, handling, storage, and transport activities required under Part I E 6 b (1) (a) and identify a minimum of two strategies for implementing enhanced BMPs that promote efficient management and application of anti-icing and deicing agents while maintaining public safety.

9. Prior to submittal of the action plan required in Part II B 2, the permittee shall provide an opportunity for public comment for no fewer than 15 days on the proposal to meet the local TMDL action plan requirements .

10. The MS4 program plan as required by Part I B of this permit shall incorporate each local TMDL action plan. Local TMDL action plans may be incorporated by reference into the MS4 program plan provided that the program plan includes the date of the most recent local TMDL action plan and identification of the location where a copy of the local TMDL action plan may be obtained.

11. For each reporting period, each annual report shall include a summary of actions conducted to implement each local TMDL action plan.

C. Inspection and maintenance of ecosystem restoration projects used for TMDL compliance.

1. Within 36 months of permit issuance the permittee shall develop and maintain written inspection and maintenance procedures in order to ensure adequate long-term operation and maintenance of ecosystem restoration projects as defined in 9VAC25-890-1 and implemented as part of a TMDL action plan developed in accordance with Part II A, B, or both. The permittee may utilize inspection and maintenance protocols developed by the Chesapeake Bay Program or inspection and maintenance plans developed in accordance with the department's Stormwater Local Assistance Fund (SLAF) guidelines.

2. The permittee shall inspect ecosystem restoration projects owned or operated by the permittee and implemented as part of a current TMDL action plan developed in accordance with Part II A or B no less than once every 60 months.

Part III

DEQ BMP Warehouse Reporting

A. For the purpose of Part III of this permit, "best management practice" or "BMP" means a practice that achieves quantifiable nitrogen, phosphorus, or total suspended solids reductions, including stormwater management facilities, ecosystem restoration projects, annual practices, and other practices approved by the department for reducing nitrogen, phosphorus, and total suspended solids pollutants.

B. No later than October 1 of each year the permittee shall electronically report new BMPs

implemented and inspected as applicable between July 1 and June 30 of each year using the DEQ BMP Warehouse.

1. The permittee shall use the associated reporting template for stormwater management facilities not reported in accordance with Part III B 5 , including stormwater management facilities installed to control post-development stormwater runoff from land disturbing activities less than one acre in accordance with the Chesapeake Bay Preservation Area Designation and Management Regulations (9VAC25-830), if applicable, and for which a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required.

2. The permittee shall use the DEQ BMP Warehouse to report BMPs that were not reported in accordance with Part III B 1 or B 5 and were implemented as part of a TMDL action plan to achieve nitrogen, phosphorus, and total suspended solids reductions in accordance with Part II A or B.

3. The permittee shall use the DEQ BMP Warehouse to report any BMPs that were not reported in accordance with Part III B 1, B 2, or B 5.

4. The permittee shall use the DEQ BMP Warehouse to report the most recent inspection date for BMPs in accordance with Part I E 5 b or 5 c, or in accordance with Part II C and the most recent associated TMDL action plan.

5. Traditional permittees specified in Part I E 5 a (1) shall use the DEQ Construction Stormwater Database or other application as specified by the department to report each stormwater management facility installed after July 1, 2014, to address the control of post-construction runoff from land disturbing activities for which the permittee is required to obtain a General VPDES Permit for Discharges of Stormwater from Construction Activities.

C. The following information for each new BMP reported in accordance with Part III B 1, B 2, B 3, or B 5 shall be reported to the DEQ BMP Warehouse as applicable:

1. The BMP type;

2. The BMP location as decimal degree latitude and longitude;

3. The acres treated by the BMP, including total acres and impervious acres;

4. The date the BMP was brought online (MM/YYYY). If the date brought online is not known, the permittee shall use 06/2005;

5. The 6th Order Hydrologic Unit Code in which the BMP is located;

6. Whether the BMP is owned or operated by the permittee or privately owned;

7. Whether or not the BMP is part of the permittee's Chesapeake Bay TMDL action plan required in Part II A or local TMDL action plan required in Part II B, or both;

8. If the BMP is privately owned, whether a maintenance agreement exists;

9. The date of the permittee's most recent inspection of the BMP; and

10. Any other information specific to the BMP type required by the DEQ BMP Warehouse (e.g., linear feet of stream restoration).

D. No later than October 1 of each year, the permittee shall electronically report the most recent inspection date for any existing BMP that was previously reported and re-inspected between July 1 and June 30 using the BMP Warehouse. If an existing BMP has not been previously reported, the BMP shall be reported as new in accordance with Part III B and Part III C. No later than October 1 of each year the DEQ BMP Warehouse shall be updated if an existing BMP is discovered between July 1 and June 30 that was not previously reported to the DEQ BMP Warehouse.

E. No later than October 1 of each year the DEQ BMP Warehouse shall be updated if an existing BMP is discovered between July 1 and June 30 that was not previously reported to the DEQ BMP Warehouse.

Part IV

Conditions Applicable to All State and VPDES Permits

NOTE: Discharge monitoring is not required for compliance purposes by this general permit. If the operator chooses to monitor stormwater discharges for informational or screening purposes, the operator does not need to comply with the requirements of Part IV A, B, or C.

A. Monitoring.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitoring activity.

2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this state permit. Analyses performed according to test procedures approved under 40 CFR Part 136 shall be performed by an environmental laboratory certified under regulations adopted by the Department of General Services (1VAC30-45 or 1VAC30-46).

3. The operator shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

B. Records.

1. Monitoring records and reports shall include:

a. The date, exact place, and time of sampling or measurements;

b. The individuals who performed the sampling or measurements;

c. The dates and times analyses were performed;

d. The individuals who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

2. The operator shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this state permit, and records of all data used to complete the registration statement for this state permit, for a period of at least three years from the date of the sample, measurement, report, or request for coverage. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the operator, or as requested by the department.

C. Reporting monitoring results.

1. The operator shall submit the results of the monitoring as may be performed in accordance with this state permit with the annual report unless another reporting schedule is specified elsewhere in this state permit.

2. Monitoring results shall be reported on a discharge monitoring report (DMR); on forms provided, approved, or specified by the department; or in any format provided that the date, location, parameter, method, and result of the monitoring activity are included. Following notification from the department of the start date for the required electronic submission of monitoring reports, as provided for in 9VAC25-31-1020, such forms and reports submitted after that date shall be electronically submitted to the department in compliance with 9VAC25-31-1020 and this section. There shall be at least a three-month notice provided between the notification from the department and the date after which such forms and reports must be submitted electronically.

3. If the operator monitors any pollutant specifically addressed by this state permit more frequently than required by this state permit using test procedures approved under 40 CFR Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this state permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the department.

4. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this state permit.

D. Duty to provide information. The operator shall furnish within a reasonable time, any information that the department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this state permit or to determine compliance with this state permit. The department or EPA may require the operator to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from the permittee's discharge on the quality of surface waters, or such other information as may be necessary to accomplish the purposes of the CWA and Virginia Stormwater Management Act. The operator shall also furnish to the department or EPA upon request, copies of records required to be kept by this state permit.

E. Compliance schedule reports. Reports of compliance or noncompliance with, or any progress

reports on, interim and final requirements contained in any compliance schedule of this state permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized stormwater discharges. Pursuant to § 62.1-44.5 of the Code of Virginia, except in compliance with a state permit issued by the department, it shall be unlawful to cause a stormwater discharge from a MS4.

G. Reports of unauthorized discharges. Any operator of a MS4 who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance or a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, 40 CFR Part 302, or § 62.1-44.34:19 of the Code of Virginia that occurs during a 24-hour period into or upon surface waters or who discharges or causes or allows a discharge that may reasonably be expected to enter surface waters shall notify the department of the discharge immediately (see Part IV I 4) upon discovery of the discharge, but in no case later than within 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the department within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;

2. The cause of the discharge;

3. The date on which the discharge occurred;

4. The length of time that the discharge continued;

5. The volume of the discharge;

6. If the discharge is continuing, how long it is expected to continue;

7. If the discharge is continuing, what the expected total volume of the discharge will be; and

8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this state permit.

Discharges reportable to the department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of unusual or extraordinary discharges. If any unusual or extraordinary discharge, including a bypass in Part IV U or an upset in Part IV V, should occur from a facility and the discharge enters or could be expected to enter surface waters, the operator shall promptly notify (see Part IV I 4), in no case later than within 24 hours, the department after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The operator shall reduce the report to writing and shall submit it to the department within five days of discovery of the discharge in accordance with Part IV I 2. Unusual and extraordinary discharges include any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;

2. Breakdown of processing or accessory equipment;

3. Failure or taking out of service some or all of the facilities; and

4. Flooding or other acts of nature.

I. Reports of noncompliance.

1. The operator shall report any noncompliance that may adversely affect surface waters or may endanger public health.

a. A report to the department shall be provided within 24 hours from the time the operator becomes aware of the circumstances. The following shall be included as information that shall be reported within 24 hours under Part IV I:

(1) Any unanticipated bypass; and

(2) Any upset that causes a discharge to surface waters.

b. A written report shall be submitted within five days and shall contain:

(1) A description of the noncompliance and its cause;

(2) The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and

(3) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The department may waive the written report on a case-by-case basis for reports of noncompliance under Part IV I if the report has been received within 24 hours and no adverse impact on surface waters has been reported.

2. The operator shall report all instances of noncompliance not reported under Part IV I 1 b, in writing, as part of the annual reports that are submitted. The reports shall contain the information listed in Part IV I 2.

3. The immediate (within 24 hours) reports required in Part IV G, H, and I shall be made to the department. Reports may be made by telephone, email , or online at https://www.deq.virginia.gov/our-programs/pollution-response/pollution-data-and-reporting . For reports outside normal working hours, the online portal shall be used. For emergencies, call the Virginia Department of Emergency Management's Emergency Operations Center (24-hours) at 1-800-468-8892.

4. Where the operator becomes aware of a failure to submit any relevant facts, or submittal of incorrect information in any report, including a registrations statement, to the department, the operator shall promptly submit such facts or correct information.

J. Notice of planned changes.

1. The operator shall give notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The operator plans an alteration or addition to any building, structure, facility, or installation that may meet one of the criteria for determining whether a facility is a new source in 9VAC25-870-420:

b. The operator plans an alteration or addition that would significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this state permit; or

2. The operator shall give advance notice to the department of any planned changes in the permitted facility or activity that may result in noncompliance with state permit requirements.

K. Signatory requirements.

1. Registration statement. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this chapter, a responsible corporate officer means: (i) 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-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for state permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this chapter, a principal executive officer of a public agency includes:

(1) The chief executive officer of the agency, or

(2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports and other information. All reports required by state permits, including annual reports, and other information requested by the department shall be signed by a person described in Part IV K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part IV K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the operator. (A duly authorized representative may thus be either a named

individual or any individual occupying a named position.); and

c. The signed and dated written authorization is submitted to the department.

3. Changes to authorization. If an authorization under Part IV K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the MS4, a new authorization satisfying the requirements of Part IV K 2 shall be submitted to the department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Part IV K 1 or K 2 shall make the following certification:

"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 knowing violations."

L. Duty to comply. The operator shall comply with all conditions of this state permit. Any state permit noncompliance constitutes a violation of the Virginia Stormwater Management Act and the Clean Water Act, except that noncompliance with certain provisions of this state permit may constitute a violation of the Virginia Stormwater Management Act but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for state permit termination, revocation and reissuance, or modification; or denial of a state permit renewal application.

The operator shall comply with effluent standards or prohibitions established under § 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this state permit has not yet been modified to incorporate the requirement.

M. Duty to reapply. If the operator wishes to continue an activity regulated by this state permit after the expiration date of this state permit, the operator shall submit a new registration statement at least 90 days before the expiration date of the existing state permit, unless permission for a later date has been granted by the department. The department shall not grant permission for registration statements to be submitted later than the expiration date of the existing state permit.

N. Effect of a state permit. This state permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State law. Nothing in this state permit shall be construed to preclude the institution of any legal action under, or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by § 510 of the Clean Water Act. Except as provided in state permit conditions on bypassing in Part IV U and

upset in Part IV V nothing in this state permit shall be construed to relieve the operator from civil and criminal penalties for noncompliance.

P. Oil and hazardous substance liability. Nothing in this state permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties to which the operator is or may be subject under §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law or § 311 of the Clean Water Act.

Q. Proper operation and maintenance. The operator shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed or used by the operator to achieve compliance with the conditions of this state permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by the operator only when the operation is necessary to achieve compliance with the conditions of this state permit.

R. Disposal of solids or sludges. Solids, sludges, or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering surface waters and in compliance with all applicable state and federal laws and regulations.

S. Duty to mitigate. The operator shall take all reasonable steps to minimize or prevent any discharge in violation of this state permit that has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to halt or reduce activity not a defense. It shall not be a defense for an operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this state permit.

U. Bypass.

1. "Bypass," as defined in 9VAC25-870-10, means the intentional diversion of waste streams from any portion of a treatment facility. The operator may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions of Part IV U 2 and U 3.

2. Notice.

a. Anticipated bypass. If the operator knows in advance of the need for a bypass, the operator shall submit prior notice to the department, if possible at least 10 days before the date of the bypass.

b. Unanticipated bypass. The operator shall submit notice of an unanticipated bypass as required in Part IV I.

3. Prohibition of bypass.

a. Except as provided in Part IV U 1, bypass is prohibited, and the department may take

enforcement action against an operator for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The operator submitted notices as required under Part IV U 2.

b. The department may approve an anticipated bypass, after considering its adverse effects, if the department determines that it will meet the three conditions listed in Part IV U 3 a.

V. Upset.

1. An "upset," as defined in 9VAC25-870-10, means an exceptional incident in which there is unintentional and temporary noncompliance with technology based state permit effluent limitations because of factors beyond the reasonable control of the operator. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based state permit effluent limitations if the requirements of Part IV V 4 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

3. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

4. An operator who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the operator can identify the causes of the upset;

b. The permitted facility was at the time being properly operated;

c. The operator submitted notice of the upset as required in Part IV I; and

d. The operator complied with any remedial measures required under Part IV S.

5. In any enforcement proceeding the operator seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and entry. The operator shall allow the department , EPA, or an authorized

representative (including an authorized contractor), upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the operator's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this state permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this state permit;

3. Inspect and photograph at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this state permit; and

4. Sample or monitor at reasonable times, for the purposes of ensuring permit compliance or as otherwise authorized by the Clean Water Act and the Virginia Stormwater Management Act, any substances or parameters at any location.

For purposes of this subsection, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. State permit actions. State permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the operator for a state permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any state permit condition.

Y. Transfer of state permits.

1. State permits are not transferable to any person except after notice to the department. Except as provided in Part IV Y 2, a state permit may be transferred by the operator to a new operator only if the state permit has been modified or revoked and reissued, or a minor modification made, to identify the new operator and incorporate such other requirements as may be necessary under the Virginia Stormwater Management Act and the Clean Water Act.

2. As an alternative to transfers under Part IV Y 1, this state permit may be automatically transferred to a new operator if:

a. The current operator notifies the department at least 30 days in advance of the proposed transfer of the title to the facility or property;

b. The notice includes a written agreement between the existing and new operators containing a specific date for transfer of state permit responsibility, coverage, and liability between them; and

c. The department does not notify the existing operator and the proposed new operator of its intent to modify or revoke and reissue the state permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part IV Y 2 b.

Z. Severability. The provisions of this state permit are severable, and if any provision of this state permit or the application of any provision of this state permit to any circumstance is held invalid,

the application of such provision to other circumstances, and the remainder of this state permit, shall not be affected thereby.

Statutory Authority

§62.1-44.15:28 of the Code of Virginia.

Historical Notes

Former 4VAC50-60-1240, derived from Virginia Register Volume 21, Issue 3, eff. January 29, 2005; amended, Virginia Register Volume 24, Issue 20, eff. July 9, 2008; Volume 29, Issue 4, eff. November 21, 2012; Volume 29, Issue 17, eff. July 1, 2013; amended and renumbered, Virginia Register Volume 30, Issue 2, eff. October 23, 2013; amended, Virginia Register Volume 35, Issue 2, eff. November 1, 2018; Volume 40, Issue 3, eff. November 1, 2023; Volume 40, Issue 4, eff. October 9, 2023.

Appendix E –
Standard Operating Procedures (SOPs)

CHRISTOPHER NEWPORT
UNIVERSITY

Standard Operating Procedures (SOPS) to Prevent Stormwater Pollution

Grounds Department
1 Avenue of the Arts, Newport News, VA 23606
Phone: (757) 594-8700
Email: Grounds@cnu.edu

Table of Contents:

Christopher Newport University (CNU), an agency of the Commonwealth of Virginia, has a permit to operate a Municipal Separate Storm Sewer System (MS4) issued by the Virginia Department of Environmental Quality. This permit authorizes CNU to discharge stormwater pursuant to the Virginia Stormwater Management Program and the Virginia Stormwater Management Act. Since storm drain systems are not connected to a sanitary sewer treatment plant, water traveling through the storm drain system flows untreated directly to local streams, rivers and lakes.

Standard Operating Procedures (SOPS) have been developed to prevent pollution from entering our storm drain system. Each SOP has been written to identify procedures and methods that will prevent illicit discharges. Illicit discharges are not allowed and can result in significant fines and other penalties from regulatory agencies.

The SOPS herein were developed and adopted on June 30, 2016. They will be reviewed annually, before September 1, to make any modifications or additions to the procedures.

Christopher Newport University
Standard Operating Procedures to Prevent Stormwater Pollution
Modification Table

Record of Change	Type	Notes
6/30/2016	Development of SOP	
8/15/2022	SOP Addition	Added Dewatering Utility Construction and Maintenance Activities
9/21/2022	Annual Review, Update and Reformatting	
12/13/2023	SOP Addition	Added Anti-icing and Dicing Application, Transport, and Storage

SOP:	**Equipment Maintenance and Washing**
Purpose of SOP:	**Procedures for the proper management of equipment maintenance and washing.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Grounds, Facilities, Housing, Dining, Catering**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)
- Drip pans
- Wash Pad

II. Standard Operating Procedures

1. Equipment Maintenance and Repair
    a. Move leaking equipment indoors or onto impervious surface and under cover.
    b. Use drip pans or absorbent pads under equipment if needed.
2. If equipment is inoperable tag equipment, "**DO NOT USE"**.
3. Perform all maintenance activities (expect for emergencies) indoors.
4. Transfer fluids from drip pans to appropriate waste containers.
5. Routinely check equipment for signs of leaks.
    a. Notify supervisor if a leak is discovered or suspected.
6. Sweep and pick up trash in maintenance and repair areas daily.

III. Equipment Washing

1. Small equipment should only be washed inside at designated washing areas.
    a. Mop buckets and mop water may only be dumped inside at designated areas.
2. Large equipment in good condition, with no signs of leaks, may be washed at the wash pad located at the Grounds Department.
3. Make sure equipment is properly drained of all fluids prior to washing at the wash pad.
    a. In the event of leak or spill, immediately reposition the equipment, and notify your supervisor.
4. Only use approved water-based or detergent cleaners.

SOP:	**Outdoor Events**
Purpose of SOP:	**Procedures for outdoor events to prevent wastes or wastewater from entering storm drains and waterways.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Grounds, Facilities Management, Events, Catering**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Covered waste and recycling containers
- Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)
- Storm drain inlet protection (drain covers, booms, berms)

II. Standard Operating Procedures

1. General Stormwater Protection
   a. Do NOT dump any liquids or other materials outside.
   b. Have the proper equipment available to clean-up spills and be ready to clean-up spills immediately.
   c. Ensure that vendors dispose of the wastes in an appropriate manner.
   d. Ensure storm drains have adequate inlet protection.

2. Waste Management and Disposal
   a. Provide an adequate number of receptacles to prevent litter.
   b. Empty waste and recycling containers as needed to prevent overflow.
   c. Waste and recycling receptacles should have a weather proof cover.

3. Cleaning Up After the Event
   a. Clean the area using dry methods (sweeping, absorbents, etc.).
   b. Pick up all litter and garbage and properly dispose. Do not sweep anything into a storm drain.
   c. Discard waste drinks down a kitchen drain.

4. Spills
   a. Refer to SOP: Spill Prevention, Control, Clean Up and Reporting on page 20.
   b. Small spills (<5 gallons) that pose no immediate danger to human life or property notify MS4 Program Manager (4-8700).
   c. Small Spills (<5 gallons) of a hazardous substance that is an immediate danger to human life or property notify CNU Police (4-7777), EHS Director (4-7280), and MS4 Program Manager (4-8700).
   d. Large Spills (>5 gallons) of any substance report to CNU Police (4-7777), EHS Director (4-7280), and MS4 Program Manager (4-8700).

   *** Things to Know: What spilled; Where it is located; Estimate of amount of product***

SOP:	**Kitchen Waste: Fats, Oils, and Greases (FOG) Transfer, Storage, and Disposal**
Purpose of SOP:	**Procedures for the management, handling, and storage of kitchen grease to prevent the discharge of pollutants to stormwater.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Dining Services, Catering**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Weather proof and double walled FOG containers
- Tight sealing transfer containers
- Tarps and tie downs
- Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)

II. Standard Operating Procedures

1. Kitchen Management of Fats, Oils, and Greases (FOG)
    a. Scrape, wipe, or sweep off FOG using dry methods (e.g. paper towels) before washing any cooking equipment.
    b. Equipment (including trays, carts, pots, pans, etc.) may only be washed indoors.
    c. Use dry methods (absorbents) to clean up spills in the kitchen.
    d. Mop water may only be disposed of into indoor drains connected to the sanitary sewer.
    e. Empty collection pans or grease recovery devices before they become full.
    f. Collect used oil into transfer container with a sealing lid.

2. Transfer of FOG from Kitchen to Exterior FOG Container
    a. Prepare your route from the kitchen to the exterior FOG container.
        - Eliminate and obstacles that might lead to a slip, trip, fall and potential spill.
        - Ensure that a spill kit is easily accessible in the event of spill.
        - Place absorbent pads in the FOG transfer area.
    b. Use a container with a sealing lid to bring waste FOG outside to the Grease Receptacle. Do not transport waste FOG with pots, pans, trays, or other containers that lack a sealing lid.
        - It is safer to make multiple transfers of smaller volumes than to attempt to handle larger quantities at once.
        - Whenever possible, only transfer to the exterior FOG container when it is not raining.
    c. Using both hands carefully transfer the waste FOG from transfer container to the exterior FOG container. Pour the FOG in such a way to minimize splashes and drips.
        - In the event of a spill notify your supervisor immediately and refer to SOP: Spill Prevention, Clean Up and Reporting.
    d. Ensure that the exterior FOG container is properly covered.
    e. Return transfer container inside and wipe any excess FOG with a paper towel.

3. Contractor Pickup of Exterior FOG Container
    a. The disposal truck driver shall check in with the University upon arrival.

b. The University representative shall ensure that the appropriate spill cleanup and response equipment and personal protective equipment are readily available and easily accessible. Refer to SOP - Spill Prevention, Control, Clean Up and Reporting.
c. The University representative shall verify that the volume of waste FOG in the tank does not exceed the available capacity of the disposal hauler's vehicle.
d. Catch basins and drain manholes are adequately protected during transfer.
e. The truck driver and the University representative shall both remain with the vehicle during the tank draining process.
f. When draining is complete and the hoses are removed, buckets should be placed underneath connection points to catch drippings.
g. The disposal hauler vehicle shall be inspected prior to departure to ensure that the hose is disconnected from the tank.
h. The University representative shall inspect the loading point and the tank to verify that no leaks have occurred, or that any leaked or spilled material has been cleaned up and disposed of properly (SOP - Spill Prevention, Control, Clean Up and Reporting and SOP - Pressure Washing and Exterior Surface Cleaning).

SOP:	**Equipment Fueling Activities**
Purpose of SOP:	**Procedures for the proper management of the transfer and dispensing of fuel.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Grounds, Facilities Management, Housing, Building Operations, Athletics**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)
- Drip pans

II. Standard Operating Procedures

1. Dispensing of Fuel from Above Ground Storage Tanks (ASTs)
    - Turn off all equipment prior to dispensing fuel.
        - Do not use any mobile electronic devices when dispensing fuel.
    - Ensure that the fuel type is the proper type of fuel.
    - Inspect the fueling hose and dispenser for any signs of cracking or leaking prior to dispensing any fuel.
        - Report leaks in hoses or tanks to your supervisor immediately.
    - Stay with the equipment while dispensing fuel, do not "top off" fuel tanks.
        - In the event of spill use dry methods (absorbents) to clean up the spill (refer to SOP: Spill Prevention, Control, Clean Up and Reporting).
        - Notify your supervisor immediately.

2. Dispensing of Fuel from Flammable Containers

    a. Mobile/field fueling shall be minimized. Whenever, practical equipment should be transported to a designated fueling area at Grounds.
    b. When performing mobile/field fueling select an area on concrete at least 25 feet up gradient from a storm drain.
    c. Turn off all equipment
        - Do not use any mobile electronic devices when transferring fuel.
        - If possible, transfer fuel over a drip pan or absorbent pad.
        - In the event of a spill use dry methods to clean up the spill.
        - Notify your supervisor immediately.

3. Maintenance & Inspection

    a. Fueling areas, storage tanks, and transfer equipment should be inspected monthly.
    b. Spill Kits should be inspected and inventoried on a regular basis.
    c. Any equipment, tanks, pumps, piping and fuel dispensing equipment found to be leaking or in disrepair must be repaired or replaced immediately.

SOP:	**Grounds Maintenance**
Purpose of SOP:	**Procedures for grounds keeping maintenance activities.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Grounds**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Spill kit and equipment for dry clean up (socks, absorbent pads, absorbent materials, broom, and dustpan)
- Storm drain inlet protection devices (drain covers, booms, berms)
- Tarps with tie downs

II. Standard Operating Procedures

1. General Landscaping Maintenance
   a. Remove litter, debris, and trash from the landscape prior to mowing activities. Properly dispose of the materials in a designated receptacle.
   b. During blowing operations take care not to blow clippings, dirt, sand, or debris into storm drains or stormwater conveyance structures.
   c. After mowing or pruning activities, all debris should be disposed of at designated area.
   d. Five-day weather forecast should be checked to avoid fertilizing before heavy rain or during a drought. Fertilizers applications are made during period of maximum plant uptake based on plant species.
   e. Whenever possible, control soil erosion by seeding, sod, mats, mulching, terracing or other approved methods.
   f. Do not apply bark or mulch on top of plastic sheeting unless the area is enclosed. Bark or mulch on plastic is easily washed off by heavy rainfall.

2. Landscaping Materials Storage
   a. All bagged materials (i.e. fertilizer, ice melt, etc.) must be stored indoors whenever possible. If they must be stored outdoors, place them under cover.
   b. All dry materials stored outside should be covered and when possible have secondary containment.
      - When storing stockpiles of sand, salt, dirt, mulch, gravel cover piles with a tarp.
      - Contain stormwater run-off from stock piles using a barrier or berm.
   c. Place containers on paved or impervious surfaces and as far from (or at a lower elevation than) storm drain inlets and drainage ditches as possible.
   d. Provide a spill kit near storage areas.
   e. Clean-up any spills, leaks or discharges promptly.
   f. Inspect all containers stored outdoors regularly.
   g. If a container is found to be leaking, either empty the contents into a leak-tight container or place entire leaking container inside of a larger leak-tight container. Clean up any spills or leaks promptly.
   h. Do not drain accumulated water from secondary containment structures unless approved by a supervisor.

3. Contractors
    a. Contracts should include Stormwater Pollution Prevention language (e.g. The contactor, including any associated subcontractors, shall use the correct controls to ensure that all activities do not cause a condition of pollution at the University).
    b. Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution and know whom to contact in case of spill.

SOP:	**Liquid Materials Loading, Unloading, and Storage**
Purpose of SOP:	**Procedures for the proper management of the loading, unloading, and storage of liquid materials.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Grounds, Facilities Management, Warehouse**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)
- Drip pans
- Storm drain pollution control devices (berms or covers)
- Wheel chocks

II. Standard Operating Procedures

1. Transfer of Liquid Materials
   a. Direct delivery and receiving vehicles to park in a designated area where leaks can be contained and where they will not enter a storm drain or ditch.
   b. Only transfer liquids only over paved (impervious) surfaces. Spills on soils are very difficult to clean up.
   c. Do not load or unload materials near a storm drain inlet unless it is equipped with a shut-off valve, drain cover or seal or other method to keep spills out of the storm sewer or the drain is at a higher elevation.
   d. If transfers must take place near a storm drain inlet, place a cover or mat over the inlet to protect it during transfer operations.
   e. Only load or unload a vehicle after it is immobilized (e.g., wheels are chocked) and (if flammable materials are involved) grounding cables are attached. These measures will prevent accidental movement and static build-up.
   f. At least one qualified University representative must attend any transfer operation for the entire duration of the loading or unloading operation.
   g. Place drip pans or buckets under all hose or pipe connections and leave them in- place until the loading or unloading operation is complete. Dispose of any leaked material properly.
   h. Keep loading and unloading areas neat and tidy. Sweep outdoor areas as needed.

2. Contractors
   a. Contracts should include Stormwater pollution prevention language (e.g. The contactor, including any associated subcontractors, shall use the correct controls to ensure that all activities do not cause a condition of pollution at the University).
   b. Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution and know whom to contact in case of spill.

SOP:	**Trash & Recycling Handling, Storage, Transfer, and Disposal**
Purpose of SOP:	**Procedures for the proper management, handling, and storage of waste, trash, or recycling to prevent the discharge of pollutants to stormwater.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Grounds, Facilities Management, Housing, Dining, Catering, Events, Building Operations, Athletics**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the university.

I. Stormwater Protection Equipment and Materials

- Dumpster lids/covers (Tarps with tie-downs are acceptable)
- Storm drain inlet protection devices (drain covers, booms, berms, and/or filter fabric)

II. Standard Operating Procedures

1. Trash & Recycling Handling, Storage, Transfer, and Disposal
    a. All waste and recycle receptacles must be leak-tight with tight-fitting lids or covers.
    b. Place waste or recycle receptacles indoors or under a roof or overhang whenever possible.
    c. Prior to transporting waste, trash, or recycling ensure that containers are not leaking (double bag if needed) and properly secure to the vehicle.
    d. Clean and sweep up around outdoor waste containers regularly.
    e. Clean up any liquid leaks or spills with dry clean-up methods. (See SOP: Spill Prevention, Clean Up and Reporting).
    f. Arrange for wastes or recyclables to be picked up regularly and disposed at approved disposal facilities.
    g. Never place hazardous materials, liquids, or liquid-containing wastes in a dumpster, recycle or trash receptacle.
        - Please contact the Environmental Health Safety Department for information on proper disposal
    h. If any liquid, non-hazardous waste is generated, it must be disposed in the sanitary sewer (if approved), transported to a disposal site that will accept that type of wastewater, or cleaned up using dry methods.
    i. Do not wash out waste containers (trash cans) or recycling containers outdoors or in a parking lot.
    j. Containers, compactors and dumpsters must be returned to the waste disposal contractor for cleaning at the contractor's facility.
    k. When working in the field, place all wastes in appropriate containers near the work site. If no public containers are available, containerize or bag the wastes and bring them back the shop for proper disposal.

2. Dumpster Areas
    a. Locate dumpsters on a flat, paved surface and install berms or curbs around the storage area to prevent run-on and run-off.
    b. Keep lids on dumpsters closed at all times unless adding or removing material.
    c. In the event that a dumpster lid is missing or damaged report it to Facilities Management.
    d. If using an open top roll off dumpster, cover and tie down with a tarp unless adding materials.
    e. Inspect regularly for leaks and correct if there is a problem.
    f. Regularly sweep the area and pick up trash/debris.

3. Compactors
    a. Regularly check the hydraulic fluid hoses and reservoir to ensure there are no cracks or leaks.
        - In the event of leak report it immediately to the compactor service contractor and refer to SOP: Spill Prevention, Clean Up and Reporting.
        - Inspect regularly for leaks and correct if there is a problem.
        - Regularly sweep the area and pick up trash/debris.

SOP:	**Parking Lot, Streets, and Roads Maintenance**
Purpose of SOP:	**Procedures for general maintenance of parking lots, parking garages, elevated parking structures, streets, or roads.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Grounds, Facilities Management**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Spill kit and equipment for dry clean up (socks, absorbent pads, absorbent materials, broom, and dustpan)
- Storm drain inlet protection devices (drain covers, booms, berms, and/or filter fabric)

II. Standard Operating Procedures

1. General Maintenance
   a. Clean leaves, trash, and other debris from parking lots and garages including stormwater conveyance systems regularly.
   b. Sweep parking lots with a street sweeper annually.
      - Sweeping should occur after sanding/deicing events.
      - Sweeping should occur after special events or construction.
   c. Use dry clean-up methods (e.g. absorbents) to clean up any automotive spills/leaks and dispose of them properly.
   d. Ensure any storm drains/catch basins are marked with a stormwater medallion.

2. Paving, Patching, Re-surfacing, and Concrete Projects
   a. Re-seal, pave, or patch on dry days when no rain is expected and stop paving activities well before rainfall is expected.
   b. Use cold patch products when possible.
   c. Pre-heat, transfer, or load hot asphalt far away from storm drain inlets.
   d. Protect or block nearby, downstream, storm drain inlets from debris from maintenance work (asphalt cap, chip sealing, concrete breaking, or saw cutting). Leave inlet protection in place until the job is complete. Clean up debris from around inlets and dispose of properly.
   e. A concrete wash-out area shall be designated at each capital construction site and managed by the project superintendent for the duration of the project. For all university projects, the washout site shall be next to the Ground Department off University Place. It shall include, at a minimum:
      - A concrete wash-out bag or other leak-proof container/settling basin.
      - A pool or containment system that holds the bag to prevent any seepage into the ground or overflows due to inadequate sizing or precipitation.
      - The bag can be disposed of properly after the material has dried in a manner consistent with the handling of other construction wastes. Liquid concrete wastes shall not be discharged to surface waters.

3. Painting and Striping
   a. Schedule painting, marking, and striping projects during dry weather only. Cease all activities when rain threatens.
   b. Set-up a preparation area on a tarp/drop cloth to catch any drips or spills.

c. Block nearby storm drain inlets (within 25 feet and down gradient of project) when painting or striping.
d. Take care not to paint over storm drain medallions.
e. Properly clean painting supplies at your shop, do not wash out paint to the storm drains.

4. Contractors
   a. Contracts should include Stormwater pollution prevention language (e.g. The contactor, including any associated subcontractors, shall use the correct controls to ensure that all activities do not cause a condition of pollution at the University).
   b. Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution and know whom to contact in case of spill.

SOP:	**Pressure Washing and Exterior Surface Cleaning**
Purpose of SOP:	**Stormwater pollution prevention procedures for the cleaning of exterior surfaces such as sidewalks, building exteriors, and graffiti removal.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Facilities Management, Housing, Building Operations, Athletics**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Spill kit and equipment for dry clean up (socks, absorbent pads, absorbent materials, broom, and dustpan)
- Wet vacuum and holding tank
- Storm drain inlet protection devices (drain covers, booms, berms)

II. Standard Operating Procedures

1. General Surface Cleaning and Pressure Washing
    a. Use dry clean-up methods prior to any pressure washing. Use absorbents (kitty litter, rags, sand, etc.) to clean up spills, sweeping, vacuuming, and scrapping off dried debris. The waste material should be disposed of as solid waste.
    b. Pressure wash with minimal water.
    c. If you do not use any chemicals or detergents and are only cleaning surfaces of ambient dust, then you may direct the wastewater to nearby landscaping or vegetated area or contain it onsite and allow it to evaporate.
    d. When discharging wash water to landscaping, make sure water is absorbed into vegetated or permeable surfaces (gravel, porous pavement) and does not cause erosion or run off into a storm drain or paved area.
    e. All other wash water must be captured for proper disposal.
    f. Solids should be removed from the area prior to pressure washing and a filter bag or similar filtration device should be used to remove suspended solids from the wastewater.
    g. A visible sheen must not be evident in the discharge. Use an absorbent pad or boom to eliminate any oil from the discharge.
    h. Do not pressure wash an entire building. Spot clean, steam clean, or scrape dirty areas rather than pressure washing the entire structure.

1. Heat Transfer Equipment and HVAC Equipment Cleaning
    a. HVAC or chiller condenser tube flushing liquid must be captured and disposed of properly.

2. Storm Drain Protection
    a. Prior to pressure washing, identify where all storm drains are located; wash water must not be allowed to flow down gutters or enter storm drains.
    b. Block or cover all storm drains with booms and weighted storm drain covers before pressure washing.
    c. Determine where water will pool for collection. Use a wet vacuum up the wastewater or allow water to evaporate.

3. Disposal of Wash Water
    a. Use a wet vacuum to collect water for disposal to the sanitary sewer.

b. Once water is collected, dispose of it properly. Check with CNU Grounds to see if collected wash water may be disposed of into a sanitary sewer drain.

4. Contractors
    a. Contracts should include Stormwater pollution prevention language (e.g. The contactor, including any associated subcontractors, shall use the correct controls to ensure that all activities do not cause a condition of pollution at the University).
    b. Ensure that contractors implement proper Best Management Practices (BMPs) to prevent stormwater pollution and know whom to contact in case of spill.

SOP:	**Dewatering Utility Construction and Maintenance Activities**
Purpose of SOP:	**Procedure for disposal of water pumped during maintenance or construction operations.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Facilities Management, Capital Outlay**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Drum (55 gallon)
- Sediment bag
- Storm drain inlet protection devices (drain covers, booms, berms)
- Vegetated Swale
- Silt Fence
- Straw bales

II. Standard Operating Procedures

1. Tunnels, Vaults, Electrical Manholes, and other Structures
    a. Visually inspect the water to be removed. Determine if there are visible pollutants in the water to be pumped and the potential sources of those pollutants on site.
    b. Water collected in vaults or tunnels often results from rainwater or groundwater infiltration. If there is no reason to suspect the water has become contaminated as determined by the visual inspection and lack of potential pollutant sources, clear water can be pumped into a nearby vegetated area and allowed to infiltrate. The dewatering procedure should be monitored to ensure the pumped water does not travel from the vegetated area or cause localized erosion. If a suitable vegetated area is not available, the pumped water can be discharged to the sanitary sewer or hauled off from site for disposal at an appropriate treatment facility.
    c. Water that is suspected of having chemical or biological contamination or to contain anything other than pure rain or groundwater should be evaluated for proper disposal options by Environmental Health and Safety (EHS) or MS4 Program Coordinator. Proper disposal options could include discharging the water to the sanitary sewer, hauling it to an off-site permitted disposal facility, or if it is deemed appropriate, to the surface.

2. Excavations
    a. CNU staff and/or the contractor are encouraged to take appropriate measures to restrict the flow of water from the surface into an excavation if possible.
    b. Visually inspect the water to be removed. Water in excavations usually results from groundwater infiltration or rainfall. Determine if the water is laden with sediment or shows visible signs of any other contaminants.
    c. Sediment laden water may be allowed to settle to remove suspended solids prior to dewatering. Once the water is clear, the water can be pumped into a nearby vegetated area to promote infiltration and filtration.
    d. Sediment laden water that needs to be removed immediately must be pumped through an appropriately sized sediment bag following manufacturer's specifications. Discharge water from the sediment bag should be directed into a vegetated area, wherever possible, but is allowed to discharge into stormwater conveyances after passing through the sediment bag. The sediment bag must be routinely inspected during the pumping operation to make sure that it is

functioning properly and has not become clogged. If muddy water is being released from the sediment bag, additional measures may be needed to minimize impacts from the discharge. This could include surrounding the bag with silt fence and straw bales or placing the bag on a gravel pad.

SOP:	**Spill Prevention, Control, Clean Up and Reporting**
Purpose of SOP:	**Procedures for spill prevention, control, clean up and reporting.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**All**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)
- Storm drain inlet protection (drain covers, booms, berms)

II. Standard Operating Procedures

1. Spill Prevention
    a. Whenever possible, liquid or hazardous materials should be handled, used, stored, re-packing, and transferred indoors or under cover.
    b. Deliveries of bulk liquids should be supervised. Down gradient storm drain inlets should be covered during deliveries.
    c. Cover and contain containers, materials, and wastes.
2. Spill Kit Maintenance
    a. Spill kits are located at each high priority area identified in the SWPPP.
    b. Each department manager is responsible for spill kit(s) inventory and the reordering of supplies.
3. Spill Clean Up and Storm Drain Protection
    - Clean up minor spills (< 5 gallons) immediately.
    - Block any down gradient storm drains with berms, covers, absorbent socks or “pigs”.
    - Never hose down spills or leaks.
    - Always use “Dry Clean-up Methods” for clean-up of liquid spills (gasoline, diesel, paint, kitchen grease).
    - Absorbents (loose absorbents, sheets, pillows, pigs, or socks) on the spill.
    - Spread Sweep up or pick up the absorbed materials.
    - Dispose of wastes properly and in accordance with all regulations.
    - If fluids are leaking or have spilled on an impermeable surface, such as a roadway, locate nearest down gradient storm drain and dike or berm the drain to prevent fluids from entering it.
    - After clean up, be sure to sweep up the contaminated absorbent and remove the berm or dike at storm drain.
    - If fluids are leaking or have spilled on a permeable surface, such as gravel, soil or grass, mark the area and report the spill your supervisor.
4. Internal Reporting of Spills

    For Employees (Non-supervisors)
    a. Notify your direct supervisor immediately
        - What spilled, Where it is located, Estimated amount of product

    For Supervisors
    a. Small spills (<5 gallons) that pose no immediate danger to human life or property notify MS4 Program Manager (4-8700).
    b. Small spills (<5 gallons) of a hazardous substance that is an immediate danger to human life or property notify CNU Police (4-7777), EHS Director (4-7280), and MS4 Program Manager (4-8700).

c. Large Spills (>5 gallons) of any substance report to CNU Police (4-7777), EHS Director (4-7280), and MS4 Program Manager (4-8700).

5. Regulatory (External) Reporting of Spills
    a. If a spill or leak is of a hazardous substance that exceeds 1 pint or is of an unknown substance of any amount, call **CNU PD.**
        - Notify the **Virginia Department of Environmental Quality.**
        - If spill occurs during *nights, weekends, or holidays* notify the **Virginia Department of Emergency Management's 24-hour hotline.**
        - **Notify the National Response Center.**
        - Any spill or discharge of any pollutant (ex: oil, paints, fuels, hazardous liquids, sediment, or super-chlorinated water) that reaches storm drains or enters "Waters of the State" must be reported to the Virginia Department of Environmental Quality (757-518-2000) within 24 hours of the release or suspected release.
    b. If the spill is more than 25 gallons of a petroleum product from a regulated storage tank or delivery truck or any amount that causes a sheen on nearby surface water, it must be reported immediately to:
        - **Virginia Department of Environmental Quality.**
        - **National Response Center.**

SOP:	**Anti-icing and Deicing Agent Application, Transport, and Storage**
Purpose of SOP:	**Procedures for anti-icing and deicing agent application, transport and storage.**
SOP Administrator:	**Grounds Department**
Responsible Department:	**Grounds Department**

Managers and Supervisors are responsible for ensuring that employees are properly informed of and trained on how to follow the procedures for this SOP. Contractors should also be notified to follow SOP while working for the University.

I. Stormwater Protection Equipment and Materials

- All anti-icing and deicing agents applied must be free of urea or other forms of nitrogen and phosphorus
- Tarps with tie downs

II. Standard Operating Procedures

1. Application
    a. If anti-icing or deicing agents are spilled or overapplied during application, excess material should be swept and disposed of immediately.
    b. Bulk products are to be applied to roads and parking lots by means of truck spreader.
    c. Bagged products are to be applied to sidewalks by means of push spreader or mechanized spreader attached to the back of utility carts.
    d. Product should be applied at rate specified by manufacturer.
2. Transport
    a. Whenever possible, anti-icing and deicing agents should be transported under cover.
3. Storage
    a. Whenever possible, bagged anti-icing and deicing agents should be stored, indoors or under cover.
    b. Whenever possible, bulk anti-icing and deicing agents should be stored in concrete containment with tarp cover.
        - Excess bulk material left after a storm event should be bagged and stored indoors. This material should be used prior to new bulk material.

Appendix F –

Log of UNAUTHORIZED DISCHARGE, RELEASE, OR SPILL INCIDENT REPORTED

Documentation of any unauthorized discharges, release, or spill incidents reported must be noted and retained with the SWPPP as required by the MS4 General Permit 9VAC25-890-40. Please contact CNU to see findings, responses, and follow-up actions for potential illicit discharges.

Incident date	Site	Material discharged, released, or spilled	Estimated quantity of material discharged, released, or spilled