

RADFORD UNIVERSITY



MS4 PROGRAM PLAN 2018 TO 2023

Radford University – Radford, Virginia
MS4 Program Plan

General VPDES Permit for Discharge of Stormwater from Small Municipal Separate Storm Sewer
Systems

General Permit No: VAR040136

In compliance with the Virginia Pollutant Discharge Elimination System (VPDES) Regulators

Last Updated March 2019

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Section 1: Introduction



1.1 Plan Purpose

Stormwater runoff plays a critical role in the quality of water resources within the Commonwealth and regulatory language requires that Phase II (small) municipalities develop a plan with the purpose of describing best management practices to be implemented in order to ensure their impact on the environment is minimal.

Radford University has been authorized to discharge stormwater from its municipal separate storm sewer system (MS4) by having coverage under the Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems.

From the regulatory language, the permittee shall develop, implement, and enforce a MS4 program designed to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP), to protect water quality, to ensure compliance by the permittee with water quality standards, and to satisfy the appropriate water quality requirements of the State Water Control Law and its regulations.

1.2 Regulatory Background

The 1972 amendments to the Federal Water Pollution Control Act, also known as the Clean Water Act or CWA; provides the statutory basis for the National Pollution Discharge Elimination System (NPDES) permit program and the basic structure for regulating the discharge of pollutants from point source to waters of the United States. Under Section 402 of the CWA the Environmental Protection Agency is the authorized agency to develop and implement the NPDES program. Therefore, Congress amended the Federal Water Pollution Control Act to prohibit the discharge of any pollutant to waters of the United

States from a point source unless the discharge is authorized by an NPDES permit. The NPDES program is designed to track point source and require the implementation of the best management practices or control necessary to minimize the discharge of pollutants. Initial efforts to improve water quality under the NPDES program primarily focused on reducing pollutants in industrial process wastewater and municipal sewage. These discharge sources were easily identified as responsible for poor water quality.

As pollution control measures for industrial process wastewater and municipal sewage were implemented and refined, it became increasingly evident that stormwater runoff was found to be a major cause of water quality impairment. In response to the 1987 Amendment to the Clean Water Act, the U.S. Environmental Protection Agency developed Phase I of the NPDES Stormwater Program in 1990. The Phase I program addressed sources of stormwater runoff that had the greatest potential to impact water quality. Under Phase I, EPA required NPDES permit coverage for stormwater discharges from Medium and Large Municipal Separate Storm Water Systems with populations of 100,000 or more people, industrial activities, and construction activities that disturbed 5 or more acres.

In 1999, the EPA developed the Stormwater Phase II Final Rule which tightened the regulations that requires operators of regulated small municipal separate storm sewer systems (MS4s) to obtain a NPDES permit and develop a stormwater management program designed to prevent pollutants from being washed into MS4 systems during storm events (or from being discharged directly into the MS4) and then discharged from the MS4 into local water bodies.

Radford University falls under the Phase II regulations as a small municipal storm sewer system operator. Based on 40 CFR 122.26(b)(8), the definition of a “municipal separate storm sewer” means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Also what defines Radford University under the MS4 program is that the university is considered within an urbanized area. By definition, an urbanized area (UA) is a land area comprising one or more places – central places(s) – and the adjacent densely settled surrounding area – urban fringe – that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile. It is a calculation used by the Bureau of the Census to determine the geographic boundaries of the most heavily developed and dense urban areas.

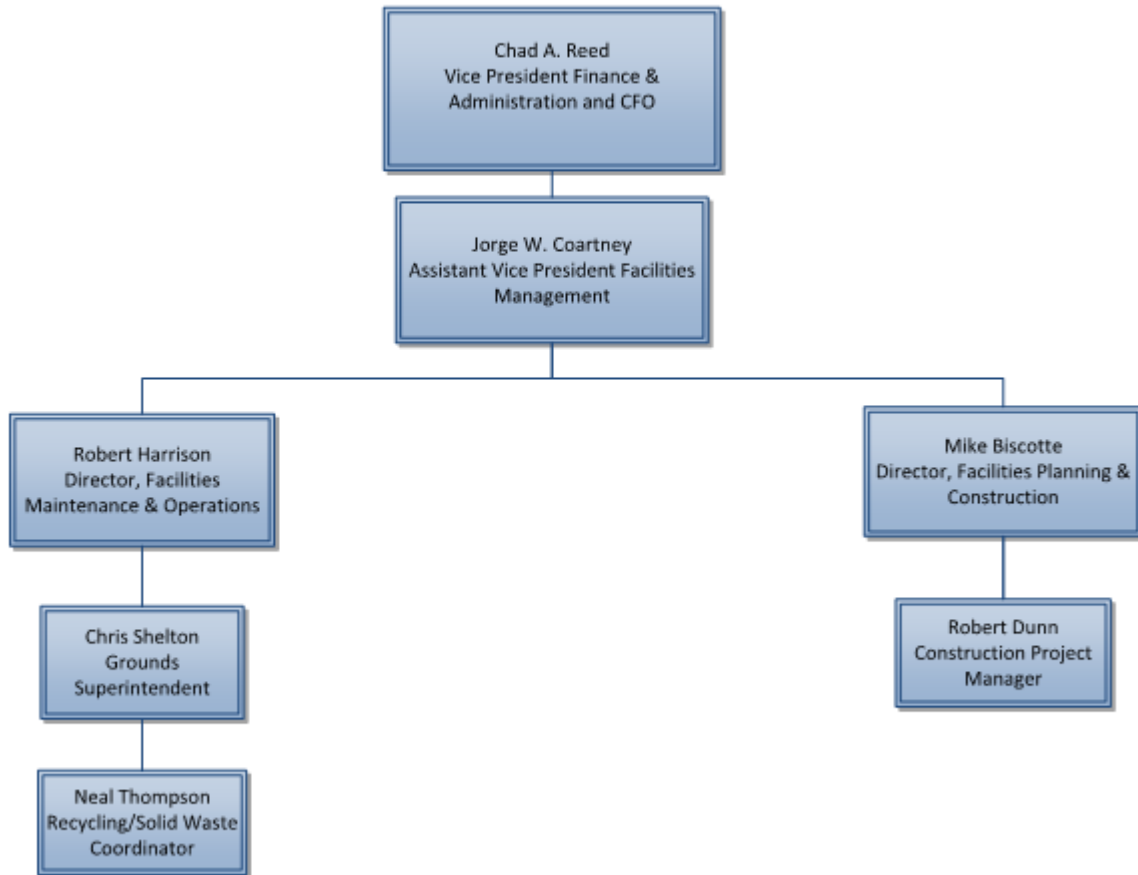
Section 2: Administration



2.1 Organizational Structure

The primary responsibilities for coordinating, educating, and reporting for compliance with the MS4 General Permit is held by the Recycling Coordinator within Facilities Management. Some activities within the procedural minimum control measures (MCM) provided in section 3 are carried out by individuals within other departments within Facilities Management as shown in the organizational chart below. Each MCM practice described will identify the primary department implementing the practice. Radford University does rely on outside sources to provide implementation of some of the MCM practices listed in section 3.

Facilities Management (MS4)



2.2 Responsible Party Contact Information

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2.3 Description of Drainage Areas

Radford University is located within in the City of Radford and has approximately 9,400 students and 1,600 faculty and staff. Campus consists of approximately 204 acres of developed and undeveloped land comprising of academic buildings, student housing, recreation buildings, dining halls, parking areas, maintenance yard, athletic fields, and a boiler plant. All 204 acres drains directly into the New River and Connelly’s Run, which is a tributary to the New River.



Section 3. Minimum Control Measures



The permittee shall develop, implement, and enforce a MS4 program designed to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (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.

3.1 MCM 1: Public Education and Outreach

This section describes the best management practices for public education and outreach about the impacts of stormwater discharges in water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. These best management practices include posting of educational materials around campus, hosting informative workshops, and other activities. The goal of this measure includes increasing target audience knowledge about steps that can be taken to reduce stormwater pollution, increasing audience knowledge of hazards associated with illegal discharges and the improper disposal of waste.

The “public” in the case of Radford University is defined as the faculty, students, employees, and visitors to the campus. Therefore, most of these outreach efforts will be part of an on-campus effort to increase Radford University’s community knowledge about the steps that they can take to reduce stormwater pollutants.

More information can be found on at:

<https://www.radford.edu/content/sustainability/home/resources/stormwater-management.html>

General Permit Requirement Reference

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.*

The permittee shall identify no less 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, and illicit discharges from commercial sites.

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 name and telephone number 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 below per year to communicate to the public the high-priority stormwater issues identified in accordance with Part I E 1 b including how to reduce stormwater pollution.

3.1.1 BMP: Identification of High-Priority Stormwater Issues

Radford University has identified 3 high-priority stormwater issues that contribute to pollutants being introduced in to stormwater systems.

- 1. Vehicle Maintenance (Petroleum Release)** - Vehicle maintenance activities can contribute contaminants to runoff when measures have not been taken to prevent these discharges. Vehicle maintenance activities include, but are not limited to, changing vehicle oil, washing vehicles, checking fluids, refueling, and general maintenance. Improper disposal or dumping of antifreeze, oil, and vehicle wash waters causes pollution of campus streams. With approximately 4,035 parking passes issued annually at Radford University, improper vehicle maintenance can contribute to pollutants entering stormwater systems and eventually entering into waterways.

In order to educate the public about this high-priority stormwater issue, Radford University has created and posted, on the MS4 website, an educational video about the explaining how improper vehicle maintenance can contribute to the pollutants entering our stormwater systems and surrounding waterways. This educational video is available, via the MS4 website, to all faculty, students, employees, and visitors to campus. Also all

stormwater inlets on Radford University's campus are marked with a medallion indicating that all discharges entering will eventually end up in the stormwater system.



Radford University has thousands of students, employees — and cars. If leaking auto fluids wash from the parking lots into storm drains, local waterways could be at risk.

Good auto maintenance keeps your car running — and keeps the rivers running, too.

Your car uses six different fluids:

- Motor oil
- Brake fluid
- Coolant
- Transmission fluid
- Power steering fluid
- Windshield washer fluid

Replenish and change these fluids according to the car's maintenance schedule.

Properly dispose of the old fluids. Many of these substances are hazardous to people and animals.

Keep the campus clean and healthy — keep your car in top shape!



Responsible Department: Radford University Facilities Management

2. **Trash Elimination and Recycling** - Any trash that is improperly disposed of can potentially enter a waterway and have negative impacts on aquatic animals, plants, and humans. Litter not only detracts from the beauty of a riverside, park, or beach, but also can be a health and safety hazard for humans, and aquatic wildlife. Another big impact of litter is the cost to society. Millions of dollars are spent every year in Virginia by state and local governments, parks, schools, and businesses to pick up litter. Habitat destruction or harm is caused when submerged debris (for example, a piece of plastic sheeting) covers seagrass beds, or smothers bottom-dwelling species. Some debris can also cause physical damage. Debris can also affect the water quality by adding chemicals to the water. Construction waste illegally dumped in a stream can include buckets that once held paints, solvents, and other chemicals that can enter the water. Cigarette butts and some other littered items contain toxic chemicals that leach into the water.

Flyers, emails, and postings on the video message boards will be sent out in order to reach and educate facility, students, and employees at Radford University. These multimedia strategies will be sent throughout the year in order to educate and create awareness of the negative impacts that trash and debris can have on stormwater systems and waterways.

Responsible Department: Radford University Facilities Management

3. **Pet Waste** - Pollutants from improperly disposed pet waste may be washed into storm sewers by rain or melting snow. Storm sewers usually drain directly into our lakes and streams, carrying many pollutants along with the water. When pet waste is washed into lakes or streams the waste decays, using up oxygen and sometimes releasing ammonia. Low oxygen levels and ammonia combined with warm temperatures can kill fish. Pet waste also contains nutrients that encourage weed and algae growth. Overly fertile water becomes cloudy and green — unattractive for swimming, boating and fishing. Perhaps most importantly, pet waste carries diseases which make water unsafe for swimming or drinking.

Flyers, emails, and postings on the video message boards will be sent out in order to reach and educate faculty, students, and employees at Radford University. These multimedia strategies will be sent throughout the year in order to educate and create awareness of the negative impacts that pet waste can have on stormwater systems and waterways.



Is your pet a polluter?

When your pet goes potty, what happens to the waste? If you leave it to decay on the grass or the sidewalk, you may be causing environmental or health problems.

In lakes and streams

Pet waste washed into waterways will decay, using up oxygen and sometimes releasing ammonia. Those factors, combined with warm temperatures, can kill aquatic life. Pet waste also contains nutrients that foster weed and algae growth, resulting in cloudy and green water.

In your body

Pets, children who play outside and adults who garden are most at risk from the bacteria and parasites found in pet waste. The symptoms vary from stomach cramps and diarrhea to fever and vision loss. Pregnant women and people with depressed immune systems face greater danger.

What to do?

Cleaning up is as simple as taking a plastic bag or pooper scooper along on your next walk.

Keep the campus clean and healthy. Pick up after your pet!



Responsible Department: Radford University Facilities Management

3.2 MCM 2: Public Involvement and Participation

This section describes best management practices for public involvement and participation by making the MS4 Program Plan available for public review and input. The Program Plan was placed on the Radford University website.

General Permit Requirement Reference

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 input on the permittee's MS4 program;*
- 3. Receiving public input or complaints;*
- 4. Responding to public input or complaints; and*
- 5. Maintaining documentation of public input received and the permittee's response.*

No later than three months after this permit's effective date, the permittee shall develop and maintain a 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. 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); and
5. (5) Methods for how the public can provide input on the permittee's MS4 program plan in accordance with Part I E 2 a (2).

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

<i>Table 2 Public Involvement Opportunities</i>	
<i>Public involvement Opportunities</i>	<i>Examples (provided as example and are not meant to be all inclusive or limiting)</i>
<i>Monitoring</i>	<i>Establish or support citizen monitoring group</i>
<i>Restoration</i>	<i>Stream or watershed clean-up day, adopt-a water way program,</i>
<i>Educational events</i>	<i>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, watershed walks, participation on environmental advisory committees</i>
<i>Disposal or collection events</i>	<i>Household hazardous chemicals collection, vehicle fluids collection</i>
<i>Pollution prevention</i>	<i>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</i>

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.

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, the number of participants in a hazardous waste collection event, etc.*

The annual report shall include the following information:

- 1. A summary of any public input on the MS4 program received (including stormwater complaints) and how the permittee responded;*
- 2. A webpage address to the permittee's MS4 program and stormwater website;*
- 3. A description of the public involvement activities implemented by the permittee;*
- 4. 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*
- 5. The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.*

3.2.1 BMP: Stormwater Management Website

BMP Description: Through the sustainability stormwater website, which can be found at www.radford.edu/content/sustainability/home/resources/stormwater-management.html , documents are available for access such as this MS4 Plan, stormwater related policies and procedures, and other relevant information. An email and phone number is listed in order for the public to provide input, comments, complaints, or to report potential illicit discharges.

Measurable Goals: Confirmation that information on the stormwater website is up to date along with page views for the stormwater related pages will be provided in annual reports.

Responsible Department: Radford University Facilities Management

3.2.2 BMP: Disposal or Collection Events

BMP Description: NRV Regional Household Hazardous Waste Collection Day



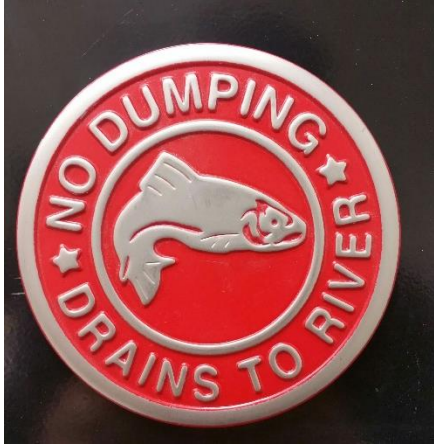
Radford University along with the New River Resource Authority will be hosting annually the Regions HHW Event. The intention of this event will be to collect hazardous wastes such as paints, chemicals, pesticides, and electronic waste that if disposed improperly could leach in the stormwater systems and surrounding waterways.

Measurable Goals: To dispose and recycle the Hazardous waste generated by the local community in a way that save health and nature against hazardous elements present in them. Data to include weights of items collected and the number of participants

Responsible Department: Radford University Facilities Management

3.2.3 BMP: Pollution Prevention- Stormwater Marking Program

BMP Description: Radford University will participate and maintain a “Storm Inlet Marking” program. This program involves labeling stormwater inlets, with a marker educating residents not to dump pollutants into the stormwater inlet. The message, “No Dumping, Drains to Waterways” is a simple phrase to remind those passing by that the stormwater inlets connect to local waterways and that dumping will pollute those waters.



Measurable Goals: to use the storm drain inventory map and identify the drains that directly lead to the river. Once these drains are identified a medallion will be placed and maintained

Responsible Department: Radford University Facilities Management

3.2.4 BMP: Education Events

BMP Description:



Join Radford University clubs and organizations at its biannual celebration of student involvement. Take advantage of this biannual opportunity to educate and inform Radford University Students on Stormwater issues. The events take place on the first Friday of both the fall and spring semesters.

Measurable Goals: There are more than 200 clubs and organizations represented, as well as more than 35 local vendors. Visitors to our booth will be given materials on stormwater issues and asked to sign our log book.

Responsible Department: Radford University Facilities Management

3.3 MCM 3: Illicit Detection and Elimination (IDDE)

This section describes the best management practices that will be implemented in order to meet regulatory requirements for illicit detection and elimination as set forth in the General Permit found at VAR040136 Part I E 3.

General Permit Requirement Reference

The permittee shall develop and maintain an accurate MS4 map and information table. 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 non-stormwater discharges into the storm sewer system. Non-stormwater 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 minimus discharges are not significant sources of pollutants to surface water. The permittee shall maintain and implement illicit discharge detection and elimination (IDDE) written procedures to detect, identify, and address unauthorized nonstormwater discharges, including illegal dumping, to the small MS4 with the goal of eliminating the unauthorized discharge.

3.3.1 BMP: MS4 Map

BMP Description: Radford University maintains a map with a database that contains the locations and attributes of the storm sewer system, structural best management practices, and MS4 outfalls that the university is responsible for within their municipal jurisdiction. Maps may be viewed at Radford University's MS4 web page:

<https://www.radford.edu/content/sustainability/home/resources/stormwater-management.html>

Information will be made available to share with adjacent MS4's and the Department of Environmental Quality as requested.

Measurable Goals: Maps will be maintained as new construction is completed and additional information is received concerning existing infrastructure. A confirmation statement that the MS4 map and corresponding database will be provided in annual reports.

Responsible Department: Radford University Facilities Management

3.3.2 BMP: Notification of Interconnections with Adjacent MS4's

BMP Description: Radford University's MS4 system interconnects with the City of Radford. Radford City have previously been notified and is aware that our systems interconnect. Radford University will continue to notify any adjacent MS4's of new interconnections established or discovered.

Measurable Goals: Knowledge of interconnections will assist with future IDDE investigations. A list of new interconnections communicated to adjacent MS4's or received will be provided in annual reports.

Responsible Department: Radford University Facilities Management

3.3.3 BMP: IDDE Procedures

BMP Description: The University has implemented a campus wide IDDE procedures in order to establish methods for controlling the introduction of pollutants into the MS4. The procedures include for field screening, notification of spills and illicit discharges, tracking, enforcement and training with the goal of eliminating unauthorized discharges.

Measurable Goals: The procedures will be updated as needed and will be available within Radford University's stormwater web page. Through annual MS4 outfall screening, prompt detection and elimination of illicit discharges can be achieved. The total number of MS4 outfall screenings along with a summary of findings will be provided with annual reports.

Responsible Department: Radford University Facilities Management

3.4 MCM 4: Construction Site Stormwater Runoff Control

This section describes the best management practices that will be implemented in order to meet regulatory requirements for construction site stormwater runoff control as set forth in the General Permit VAR040136 Part I E 4

General Permit Requirement Reference

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

If the permittee is a state agency; public institution of higher education including community colleges, colleges, 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.

3.4.1 Standards and Specifications for ESC and SWM

BMP Description: The Radford University Annual Standards and Specifications (AS&S) for Erosion and Sediment Control (ESC) and Stormwater Management (SWM), are integral components of Radford University's design, construction, and maintenance of the University's facilities and campuses. The Radford University Annual Standards and Specifications for ESC and SWM are administered by Radford University Facilities Planning and Construction and apply to all design, construction, and maintenance activities on property owned by Radford University, either by its internal workforce or contracted to external entities, where such activities are regulated by the Virginia ESC Law and Regulations or the Virginia SWM Act and VSMP Regulations.

These standards layout the framework for the administration and implementation of projects within the university concerning erosion and sediment control, and stormwater management. Certification requirements are listed for appropriate personnel along with the structure for plan review and approvals, construction inspections, variances and expectations and long-term maintenance. Annual Standards and Specifications (AS&S) for Erosion and Sediment Control (ESC) can be found on the Radford University MS4 website

<https://www.radford.edu/content/sustainability/home/resources/stormwater-management.html>

Measurable Goals: The Radford University Annual Standards and Specifications for ESC and SWM are submitted to the Virginia Department of Environmental Quality (DEQ) for review and approval on an annual basis. Radford University shall ensure that project specific plans are developed and implemented in accordance with the Radford University Annual Standards and Specifications for ESC and SWM. Radford University will evaluate the effectiveness of its construction site runoff control efforts. Any observed weaknesses or shortcomings found during the evaluation will be appropriately addressed. This evaluation will be included in each MS4 Annual Report.

Responsible Department: Radford University Facilities Planning and Construction

3.5 MCM 5: Post-Construction Stormwater Management

This section describes the best management practices that will be implemented in order to meet regulatory requirements for post-construction stormwater management for new development and development on prior developed lands as set forth in the General Permit found at VAR040136 Part 1 E 5.

3.5.1 Standards and Specifications for ESC and SWM

BMP Description: The Radford University Annual Standards and Specifications (AS&S) for Erosion and Sediment Control (ESC) and Stormwater Management (SWM), appendix A, are integral components of Radford University's design, construction, and maintenance of the University's facilities and campuses. The Radford University Annual Standards and Specifications for ESC and SWM are administered by Radford University Facilities Planning and Construction and apply to all design, construction, and maintenance activities on property owned by Radford University, either by its internal workforce or contracted to external entities, where such activities are regulated by the Virginia ESC Law and Regulations or the Virginia SWM Act and VSMP Regulations.

These standards layout the framework for the administration and implementation of projects within the university concerning erosion and sediment control, and stormwater management. Certification requirements are listed for appropriate personnel along with the structure for plan review and approvals, construction inspections, variances and expectations and long-term maintenance.

Measurable Goals: Radford University will continue to maintain Department approval of its Standards and Specifications for ESC and SWM and continue to follow procedures set forth in these Standards to ensure compliance with the General Permit and DEQ.

Responsible Department: Radford University Facilities Planning and Construction

3.6 MCM 6: Pollution Prevention and Good Housekeeping

This section describes the best management practices that will be implemented in order to meet regulatory requirements for pollution prevention and good housekeeping for facilities owned or operated by the permittee as set forth in the General Permit found at VAR040136 Part I E 6.

General Permit Requirement Reference

The permittee shall maintain and implement written procedures for those activities at facilities owned or operated by the permittee, such as road, street, and parking lot maintenance; equipment maintenance; and the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers be designed to:

- 1. Prevent illicit discharges;*
- 2. Ensure the proper disposal of waste materials, including landscape wastes;*
- 3. Prevent the discharge of wastewater or vehicle wash water or both into the MS4 without authorization under a separate VPDES permit;*

4. *Require implementation of best management practices when discharging water pumped from utility construction and maintenance activities;*
5. *Minimize the pollutants in stormwater runoff from bulk storage areas (e.g., salt storage, topsoil stockpiles) through the use of best management practices;*
6. *Prevent pollution discharge into the MS4 from leaking municipal automobiles and equipment; and*
7. *Ensure that the application of materials, including fertilizers and pesticides, is conducted in accordance with the manufacturer's recommendations.*

3.6.1 BMP: Daily Operational Procedures

BMP Description: As a MS4 permittee, Radford University is responsible for preventing, or minimizing to the maximum extent practicable, any discharges to the storm sewer system, or waterways, that is not entirely composed of stormwater run-off. This policy was created to implement written procedures for activities such as road, street, and parking lot maintenance; equipment maintenance; and the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers

These procedures will be utilized as part of FM employee training and will be an effective way to ensure that employees are aware of proper procedures associated with typical operations and the possible impacts on local waterways.

Measurable Goals: The procedures will continue to be updated as needed and are available on the Radford University MS4 website. Any updates will be summarized with annual reports. The number of individuals receiving training will be provided along with the reason for the training (e.g., new employee training, refresher training, etc.) in annual reports.

Responsible Department: Radford University Facilities Management

3.6.2 BMP: SWPPP's for High-Priority Facilities

BMP Description: Facilities Management at Radford University met the criteria listed in the general permit as high-priority facilities and is considered to have a high potential for discharging pollutants. This facility is required to maintain and implement a stormwater pollution prevention plan (SWPPP) to provide a summary description of the facility and activities, description of potential pollutants and sources, procedures for reducing and preventing pollutant discharges and procedures for inspections and maintenance.

Measurable Goals: SWPPP's will continue to be maintained and implemented, and facilities inspected on a regular basis. Newly constructed facilities or facilities with updated activities meeting the criteria for a high-priority facility will have a SWPPP developed and implemented and added to the list in annual reports. Radford University's SWPPP is available on the MS4 website.

Responsible Department: Radford University Facilities Management

3.6.3 BMP: Nutrient Management Plan (NMP)

BMP Description: The University currently implements a Nutrient Management Plan that cover the lawn and landscaped areas of the University that receives nutrient applications. The plan outline the rates and frequencies that nutrients may be applied, and covers best management practices to follow regarding the application of these nutrients. By following this Plan, it can be ensured that nutrients are applied in a manner that will minimize their impact on stormwater quality. A copy of the NMP's may be viewed by appointment in the Facilities Management – Landscaping office.

Measurable Goals: NMP's will continue to be updated and implemented as required and new plans created as the University grows and re-develops. Updates and additions will be provided in annual reports. The number of certified applicator will be provided in annual reports.

Responsible Department: Radford University Facilities Management

3.6.4 BMP: Facilities Management Training Plan

BMP Description: A “Stormwater Pollution Prevention/IDDE” presentation has been developed for use with Facilities Management employee training. For Facilities personnel, a presentation is given introducing them to basic stormwater information, pollution prevention, good housekeeping measures, related policies and procedures, and how to recognize and report illicit discharges. Refresher training will be provided no less than once per 24 months through the use of a presentation, guidebook, or other similar format.

In addition to regular stormwater training at the university, any individuals performing activities listed on the following list have obtained and maintained their needed certification:

- Application of fertilizer and pesticides;
- Plan reviewers, inspectors, program administrators, and construction site operators as required under the Virginia Erosion and Sediment Control Law and its attendant regulations;
- Plan reviewers, inspectors, and program administrators implementing the stormwater program as required under the Virginia Stormwater Management Act and its attendant regulations;
- And individuals whose duties include emergency response have been trained in spill response.

Through these training and certification activities, an increase of the overall awareness of stormwater impacts and the measures that the University is undertaking to improve stormwater quality by prevention pollution in the area can be observed.

Measurable Goals: The number of individuals receiving training will be provided along with the reason for the training (e.g., new employee training, refresher training, etc.). A listing will also be provided listing the number of individuals certified for the application of fertilizers and pesticides, ESC and VSMP activities, and spill response in annual reports.

Responsible Departments: Radford University Facilities Management