



**Christopher Newport University (CNU)  
– Municipal Separate Storm Sewer  
System (MS4) Annual Report –  
Reporting Year July 1<sup>st</sup>, 2021 –  
June 30<sup>th</sup>, 2022**

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## Sign-off Sheet

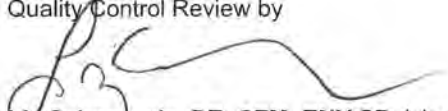
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## Abbreviations

|       |  |
|-------|--|
| AS&S  | Annual Standards and Specifications                      |
| BMP   | Best Management Practice                                 |
| CFA   | Certified Fertilizer Applicator                          |
| CGP   | Construction General Permit                              |
| CNU   | Christopher Newport University                           |
| DCR   | Department of Conservation and Recreation                |
| DEQ   | Department of Environmental Quality                      |
| ESC   | Erosion and Sediment Control                             |
| FOG   | Fats, Oils, and Greases                                  |
| HUC   | Hydrologic Unit Code                                     |
| IDDE  | Illicit Discharge Detection and Elimination              |
| LDA   | Land Disturbing Activity                                 |
| MCM   | Minimum Control Measure                                  |
| MEP   | Maximum Extent Practicable                               |
| MS4   | Municipal Separate Storm Sewer System                    |
| NMP   | Nutrient Management Plan                                 |
| NPDES | National Pollutant Discharge Elimination System          |
| SIP   | Stormwater Improvement Project                           |
| SOP   | Standard Operating Procedure                             |
| SWM   | Stormwater Management                                    |
| SWPPP | Stormwater Pollution Prevention Plan                     |
| TMDL  | Total Maximum Daily Load                                 |
| VDACS | Virginia Department of Agriculture and Consumer Services |
| VPDES | Virginia Pollution Discharge Elimination System          |
| VSMP  | Virginia Stormwater Management Program                   |
| WLA   | Waste Load Allocation                                    |

Introduction

## **1.0 INTRODUCTION**

### **1.1 BACKGROUND INFORMATION**

The Virginia Pollution Discharge Elimination System (VPDES) General 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 MS4 General Permit VAR040090. The General Permit term is from November 1<sup>st</sup>, 2018 to October 31<sup>st</sup>, 2023. However, this Annual Report covers information for the reporting year of July 1<sup>st</sup>, 2021 through June 30<sup>th</sup>, 2022 which is the fourth year of the permit cycle. The Annual Report for the 2021-2022 reporting year will cover information for Year 4 under the new MS4 Permit which was effective on November 1<sup>st</sup>, 2018.

CNU's SWM 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 MS4 Annual Report will serve to convey the required information and detail the status of compliance with all permit conditions as well as the appropriateness of best management practices (BMPs) identified in the MS4 Program Plan towards achieving measurable goals for each MCM.

### **1.2 SIGNED CERTIFICATION**

As required by the CNU MS4 Permit (VAR040090), the following certification is provided in accordance with Section 9VAC25-870-370 of the Virginia Stormwater Management Program (VSMP) Regulations, and as a required part of the submittal of CNU's MS4 Annual Report for 2021-2022.

## Certification Statement and Requirements

As required by 9VAC25-870-370 B, all reports required by state permits, and other information requested by the board shall, be signed by a responsible official or by a duly authorized representative of that person. A responsible official is:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, 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 environmental 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;
2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
3. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

### Duly Authorized Representatives


A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above;
2. 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 company. A duly authorized representative may thus be either a named individual or any individual occupying a named position;
3. If an authorization under Part III 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 III K 2 shall be submitted to the department prior to or together with any reports, or information to be signed by an authorized representative; and
4. The written authorization is submitted to the department.

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### 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.

 September 14, 2022  
Responsible Official Signature Date

VAR040090  
Permit Number

Christopher Newport University  
MS4 Name

Minimum Control Measure No. 1 – Public Education and Outreach on Stormwater Impacts

## 2.0 MINIMUM CONTROL MEASURE NO. 1 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

MCM No. 1 provides for a public education and outreach program to develop and conduct outreach activities about the impacts of stormwater discharges on water bodies and steps the public can take to reduce pollutants in stormwater runoff. This measure includes the posting of educational materials around the campus, hosting informational workshops, and other activities.

The “public” in the case of CNU is defined as the faculty, students, employees, contractors, and visitors to the campus. Therefore, most of these outreach efforts are part of an on-campus effort to increase the CNU community’s knowledge about the steps they can take to reduce stormwater pollution. These efforts can also be coordinated with MCM No. 2 in order to increase individual and group involvement in local water quality improvement initiatives. CNU continues to explore opportunities to partner with the adjacent MS4s on education and outreach efforts to engage the broader community through an off-campus effort where possible.

CNU identified three high-priority water quality issues that contribute to the discharge of stormwater. These issues have remained as the high-priority water quality issues for the CNU stormwater program. The three issues are listed below along with associated public education and outreach information:

### 1) Litter & Street Debris – Faculty, Staff, Students, and Visitors

Litter and street debris is a water quality issue that is constantly observed and managed by the Grounds Department. Contributors towards this water quality issue include all the CNU public that work, attend, or visit the University. Therefore, the public/audience for this issue includes faculty, students, staff, and visitors.

In this permit year, Grounds Department staff distributed drink coasters with stormwater educational information on them for staff and students.

CNU is continuing to investigate alternative ways to distribute educational materials to the CNU MS4 public including use of social media. For the 2021-2022 reporting year, the CNU Sustainability Facebook account (@sustainCNU) posted information on stormwater issues under the hashtag #stormwaterMonday. Though litter and street debris – as a high-priority issue – is one of the topics that was regularly included in the educational information posted on the CNU Sustainability Facebook page, this form of outreach is used to educate on various stormwater topics. In recovery of the SARS-COV-2 Global Pandemic, CNU held both virtual and in-person events this year to promote education of different stormwater topics. CNU plans to continue to ramp up virtual, in-person, and social media outreach in recovery of the SARS-COV-2 Global Pandemic, which led to cancelling many planned in person events in spring and summer of the previous permit years. CNU staff is identifying student groups to coordinate outreach for projects related to stormwater. CNU’s Green Team supported a beach cleanup on April 23, 2022 with 12 participants and collected three full bags of trash. CNU also participated in a parking lot clean up in October 2021 with six volunteers on campus.

## CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR JULY 1<sup>st</sup>, 2021 – JUNE 30<sup>th</sup>, 2022

### Minimum Control Measure No. 1 – Public Education and Outreach on Stormwater Impacts

Additional ongoing programs to support this message include the installation/replacement of storm drain medallions on all campus storm drain inlets. Initial installation was completed in 2009-2010 and the program is still ongoing with missing or damaged medallions replaced annually. None were replaced this reporting year. The storm drain medallions which read, “No Dumping, Drains to Waterway,” are visible on nearly every storm drain inlet throughout the CNU campus and serve as a visual reminder to not pollute.

#### 2) Construction Site Runoff – Contractors

At times, the University has several construction projects ongoing at any one time. Therefore, construction site runoff is a high-priority water quality issue. The public or audience for this issue are the contractors, subcontractors, and VSMP inspectors who are working on-campus at the construction sites. Educational signs are installed at all active on-campus construction projects. The signs are visible on-campus to all persons who walk next to the construction fencing adjacent to the project location.

#### 3) Nutrient Management – Grounds staff

The CNU Grounds Department identified nutrient management as a third high-priority water quality issue. The University takes pride in a clean and green campus but also works to not over-apply nutrients, and diligently follows the approved Nutrient Management Plans (NMPs) for the campus. The public or audience for this water quality issue includes students, faculty, and staff that can all be educated on nutrient management topics for their personal use, as well as the Grounds Department staff as they are the only ones involved in nutrient application and management directly to campus and athletic grounds. The CNU Grounds Department currently has three Certified Fertilizer Applicators (CFAs), and two Certified Nutrient Management Planners through the Virginia Department of Agriculture and Consumer Services (VDACS). At least annually by September 1<sup>st</sup>, information will be made available to appropriate parts of CNU’s public on nutrient management that can be used at their personal residences. Information will be collected from sources such as askHRgreen.org.

In addition to the high-priority issues listed above, the CNU Stormwater website (<http://cnu.edu/public/stormwater/>) is an important part of the public education and outreach program at CNU. The website contains MS4 information including the Annual Report and Program Plan. It has been updated each year to include additional information related to stormwater and pollution prevention including copies of the permit, Illicit Discharge Detection and Elimination (IDDE) information, Annual Reports, the Program Plan, educational information about stormwater, links to other stormwater-related websites, and stormwater incident reporting information. In addition, CNU contracted with Timmons Group to provide training for all staff on stormwater topics including MS4 permit requirements, IDDE, inspections, maintenance, nutrient management, and SWPPP high priority information. A total of 165 participants completed the required training questionnaire after watching the presentation. A copy of the slides from the recorded presentation are available in Appendix D.

CNU implements this MCM through the BMPs provided below. Information concerning each BMP is provided in Table 1-1. Additional public education and outreach information is provided in Appendix A.

- MS4 Program Update



**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR JULY 1<sup>st</sup>, 2021 – JUNE 30<sup>th</sup>, 2022**

Minimum Control Measure No. 1 – Public Education and Outreach on Stormwater Impacts

- CNU MS4 Website
- Campus Public Involvement
- Storm Drain Medallions
- Construction Signage
- Construction Site Runoff
- Litter and Street Debris Education
- Nutrient Management Training

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR JULY 1<sup>st</sup>, 2021 – JUNE 30<sup>th</sup>, 2022**

Minimum Control Measure No. 1 – Public Education and Outreach on Stormwater Impacts

**Table 1-1. MCM No. 1 – Public Education and Outreach on Stormwater Impacts**

| <b>BMP</b>                      | <b>Description</b>  | <b>Measurable Goal</b>   | <b>BMP Status</b>  | <b>Future Activities</b>  |
|---------------------------------|---|--|--|---|
| 1.1 – MS4 Program Update        | Conduct a self-assessment and update of the MS4 Program to identify and proactively address issues and deficiencies, as well as identify opportunities to improve program effectiveness.  | Complete self-assessment and update.   | Completed 2008-2009; MS4 Program Plan Update in 2019-2020. Annual reviews and updates as needed.   | The MS4 Program was revised during the 2019-2020 reporting year to reflect CNU updates. The plan will continue to be updated annually as needed to reflect requirements outlined in the permit. |
| 1.2 – CNU MS4 Website           | Update the CNU website to include information on the MS4 Program, MS4 General Permit, MS4 Program Plan and Annual Reports, educational information about stormwater, links to other stormwater-related websites, and stormwater incident reporting information. | Update CNU website to include information on the MS4 Program. Review website annually and update any necessary information based on changes to CNU policies and/or staffing.   | Website initially updated to include MS4 information in 2009-2010; Additional information was added to the website in subsequent years. Annual reviews and updates as needed.  | Additional stormwater information will continue to be added to the website in Permit Year 4 as the website is updated.  |
| 1.3 – Campus Public Involvement | CNU Grounds Department staff annually hosts a table providing stormwater education materials at the Garden Symposium every spring.  | Participate through promotion, sponsorship, or other involvement, in a minimum of four local activities annually. These activities must be aimed at increasing public participation to reduce stormwater pollutant loads, improving water quality, and supporting local restoration and clean up projects. | During the Annual Garden Symposium on March 19 <sup>th</sup> , 2022, a booth was set up to provide education on proper stormwater care (216 participants). Drink coasters were distributed during this reporting year to highlight stormwater. | CNU will look to provide stormwater educational materials at future Garden Symposiums at CNU and other similar events.  |

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR JULY 1<sup>st</sup>, 2021 – JUNE 30<sup>th</sup>, 2022**

Minimum Control Measure No. 1 – Public Education and Outreach on Stormwater Impacts

| <b>BMP</b>                               | <b>Description</b>  | <b>Measurable Goal</b>  | <b>BMP Status</b>   | <b>Future Activities</b>   |
|--|---|---|---|--|
| 1.4 – Storm Drain Medallions             | Install storm drain medallions on all campus storm drain inlets to help remind the CNU community about stormwater pollution. The medallions read, “No Dumping, Drains to Waterway.”   | Install storm drain medallions on all campus storm drain inlets. Evaluate storm drain medallions annually. Replace any missing or damaged medallions annually.  | During this permit year, no new medallions were necessary, and no medallions needed replacement.  | Monitoring of the storm drain medallions is an ongoing activity. Any missing or damaged medallions will be replaced. New medallions will be installed on newly constructed campus storm drains.  |
| 1.5 – Construction Signage               | Have a sign to be placed on construction site fencing at all on-campus construction projects explaining the importance of proper erosion and sediment control (ESC) practices, and their connection to stormwater quality.            | Install educational signage on fencing at all on-campus construction projects. Inspect and replace any missing or damaged signs as needed.  | Signs located at the Fine Arts Center Construction site were removed upon the project’s completion during this permit term. There are currently no active construction projects in the MS4.   | Installation of educational signage at new on-campus construction projects will be an ongoing activity. Any missing or damaged signs observed will be replaced.  |
| 1.6 – Construction Site Runoff           | Construction site runoff was identified as one of the three high-priority water quality issues at CNU. The University conducts biennial training for contractors on construction site runoff pollution prevention.                    | Conduct biennial training with contractors on construction site runoff pollution prevention. Document each training event including the training date, number of people attending the training, and the objective of each training event. Training to occur during PY4. | Training was not completed during this permit year as no new projects commenced and training had been done previously for active projects. No new active construction will occur prior to the next active construction project commences.   | Construction site runoff pollution prevention training will be a biennial and ongoing activity, as needed based on active construction projects, for contractors associated with all new regulated land disturbing activities (LDAs) on-campus. CNU is looking at rotating biennial presentations/training materials to present similar but varying content. |
| 1.7 – Litter and Street Debris Education | Litter and street debris were identified as one of the three high-priority water quality issues at the University. CNU conducts public education/outreach regarding the impacts of litter and street debris on stormwater discharges. | Conduct public education/outreach to increase the CNU community’s knowledge about steps they can take to reduce stormwater pollution associated with litter and street debris.  | The CNU Sustainability (@sustainCNU) Facebook account posted monthly information on stormwater issues under the hashtag #stormwaterMonday. Litter and street debris is one of the topics that was regularly included in the educational information posted on the CNU Sustainability Facebook page. See Appendix B. | Distribution of educational materials to the CNU public related to litter and street debris is an ongoing activity. CNU will continue to conduct public education/outreach regarding this issue and continue to look into alternative ways to distribute educational materials to the CNU MS4 public.  |

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR JULY 1<sup>st</sup>, 2021 – JUNE 30<sup>th</sup>, 2022**

Minimum Control Measure No. 1 – Public Education and Outreach on Stormwater Impacts

| BMP                                | Description   | Measurable Goal   | BMP Status   | Future Activities   |
|------------------------------------|---|---|--|---|
| 1.8 – Nutrient Management Training | Nutrient management was identified as one of the three high-priority water quality issues at CNU. | Provide information to the staff, faculty, and students on ways to use nutrient management – this information will be intended for use at personal residences.<br>Train CNU Grounds Department staff as certified fertilizer applicators and/or Nutrient Management Planners to ensure that nutrients are only applied in accordance with CNU’s approved Nutrient Management Plans. | Preparing information for distribution by Sept 1 <sup>st</sup> of each year from sources such as askHRgreen.org.<br>Continue training Grounds Department staff regarding nutrient management and document names, date, etcetera.<br>CNU has hired a new turfgrass technician and is anticipated to attend training in the coming year with the Turf grass supervisor at a course such as provided by the Virginia Tech School of Turf Grass Ecology. | This is an ongoing program with annual information distribution to the general public and with biennial training for staff. In addition to any in-house training, staff are sent to training courses. |

Minimum Control Measure No. 2 – Public Involvement/Participation

### 3.0 MINIMUM CONTROL MEASURE NO. 2 – PUBLIC INVOLVEMENT/PARTICIPATION

MCM No. 2 provides for public involvement and participation by making the MS4 Program Plan available for public review and input. The Program Plan can be found on the CNU website at the link provided below. More importantly, MCM No. 2 provides for public participation in watershed activities that further the education and awareness of stormwater impacts to receiving water quality.

<http://cnu.edu/public/stormwater/>

In this reporting year, the University did not receive any public input concerning stormwater or ESC issues, practices, or programs. CNU has created a comment response form and request for information from the public. A link was added to the stormwater portion of CNU's website for requesting this public input. Information will be maintained and documented, and appropriate comments/input will be responded to in a timely manner.

Through this MCM, CNU developed a series of activities which actively involve the students, faculty, staff, and to the MEP – the community at large. During the reporting year, CNU participated in a variety of public service announcements via social media. These were aimed at increasing public participation to reduce stormwater pollutant loads, improve water quality, and support local restoration and clean-up projects, programs, groups, meetings, and other opportunities for public involvement. During the 2021-2022 reporting year, CNU began hosting annual in person events, as well as virtual events, rather than cancelling due to the SARS-COV-2 Global Pandemic. CNU is investigating methods to expand public involvement and participation in safe ways during recovery from the Pandemic. CNU's Director of the Center for Sustainability and Education is also reviewing possible engagement activities such as having the public involved in painting construction fencing or stormwater inlets. CNU provided information on Earth Month in April to all students and a separate email to all faculty. CNU also sent an email to faculty to "Help Protect Our Waterways."

During the 2021-2022 reporting year CNU did not install any additional Pet Waste Stations as the campus coverage was deemed sufficient. All currently installed Pet Waste Stations were maintained and refilled with bags as necessary to encourage faculty, staff, students, and visitors to collect and properly dispose of pet waste. The Pet Waste Stations will continue to remain on-campus to educate faculty, staff, students, and visitors on the importance of water quality.

CNU increased student involvement through a student project where students interviewed the Director of Grounds about stormwater and environmental issues on campus. Students then created video presentations to educate fellow peers on campus stormwater and environmental issues. Two in particular focused on nutrient management and sustainability/environmental issues.

CNU implements this MCM through the BMPs provided below. Information concerning each BMP including detailed descriptions, measurable goals, and implementation dates are provided in Table 2-1. Additional information on MCM No. 2 can be found in Appendix B.

- MS4 Program Update
- CNU MS4 Website
- Campus Public Involvement
- Pet Waste Stations
- Outreach/Participation Events

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR JULY 1<sup>st</sup>, 2021 – JUNE 30<sup>th</sup>, 2022**

Minimum Control Measure No. 2 – Public Involvement/Participation

**Table 2-1. MCM No. 2 – Public Involvement/Participation**

| <b>BMP</b>                      | <b>Description</b>   | <b>Measurable Goal</b>  | <b>BMP Status</b>   | <b>Future Activities</b>  |
|---------------------------------|--|---|---|---|
| 2.1 – MS4 Program Update        | Conduct a self-assessment and update of the MS4 Program to identify and proactively address issues and deficiencies, as well as identify opportunities to improve program effectiveness.   | Complete self-assessment and update.  | Completed 2008-2009; MS4 Program Plan Update in 2019-2020. Annual reviews and updates as needed.  | The MS4 Program was revised during the 2019-2020 reporting year to reflect MS4 Program Plan updates required in the General Permit. The plan will continue to be updated annually as needed to reflect requirements outlined in the permit. |
| 2.2 – CNU MS4 Website           | Update the CNU website to include information on the MS4 Program, MS4 General Permit, MS4 Program Plan and Annual Reports, educational information about stormwater, links to other stormwater-related websites and stormwater incident reporting information. | Update CNU website to include information on the MS4 Program. Review website annually and update any necessary information based on changes to CNU policies and/or staffing.  | Website initially updated to include MS4 information in 2009-2010; additional information was added to the website in subsequent years. Annual reviews and updates as needed.   | Additional stormwater information will continue to be added to the website in Permit Year 4 as the website is updated.  |
| 2.3 – Campus Public Involvement | Drink coasters were distributed during the year to highlight stormwater. During the 2021-2022 reporting year, several in person events occurred along with virtual information.  | Participate through promotion, sponsorship, or other involvement in a minimum of four local activities annually. These activities must be aimed at increasing public participation to reduce stormwater pollutant loads, improve water quality, and support local restoration and clean up projects, as adjusted during recovery from the Pandemic. | CNU staff distributed stormwater educational coasters (approximately 1,050 to staff and 2,400 to students). CNU students engaged in a project to educate their peers on stormwater. CNU participated in the Garden Symposium on March 19, 2022 with 216 total participants where around 200 stormwater coasters were distributed. | CNU will look to provide stormwater educational materials for future events at the University and other similar events. Additionally, CNU plans to schedule virtual and in-person events.   |

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Minimum Control Measure No. 2 – Public Involvement/Participation

| <b>BMP</b>                          | <b>Description</b>  | <b>Measurable Goal</b>  | <b>BMP Status</b>   | <b>Future Activities</b>   |
|-------------------------------------|---|---|---|--|
| 2.4 – Pet Waste Stations            | CNU did not install any new Pet Waste Stations but refilled and maintained the ones already on-campus. Proper maintenance encourages faculty, staff, students, and visitors to collect and properly dispose of pet waste. | Use of Pet Waste Stations and increasing public participation to reduce stormwater bacteria loads. Staff replaces bags on a regular basis.  | CNU installed Pet Waste Stations on-campus in previous reporting years to encourage faculty, staff, students, and visitors to collect and properly dispose of pet waste. These were refilled and maintained this permit year. | The Pet Waste Stations will continue to remain on-campus to educate faculty, staff, students, and visitors on the importance of water quality.                       |
| 2.5 – Outreach/Participation Events | CNU students, faculty, and staff participate in service events throughout the permit year.  | Participation through promotion, sponsorship, or other involvement in a minimum of four local activities annually. These activities must be aimed at increasing public participation to reduce stormwater pollutant loads, improve water quality, and support local restoration and clean up projects or other means as possible during recovery from the Pandemic. | Community service activities are ongoing with various clubs and organizations. CNU will continue to pursue other virtual, social media, and in-person participation measures.   | Additional community service opportunities for public education/outreach associated with high-priority water quality issues may also be identified during 2021-2022. |

Minimum Control Measure No. 3 – Illicit Discharge Detection and Elimination

## 4.0 MINIMUM CONTROL MEASURE NO. 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION

MCM No. 3 requires a program to detect and eliminate illicit discharges into the regulated small MS4. This MCM includes the development and implementation of an IDDE Policy that effectively prohibits non-stormwater discharges into the MS4. Some BMPs include mapping of the MS4 and tabular development of stormwater outfalls that were updated and reported to DEQ in the BMP Warehouse and in the Outfall table in the Program Plan. An additional item created through this MCM is any necessary notification of neighboring or interconnected MS4s, as added to the Outfall table in the Program Plan. This measure also provides for the development of a process with which CNU will track the number and nature of any illicit discharges and the manner in which they are eliminated.

CNU developed and adopted an IDDE Policy on July 1<sup>st</sup>, 2010. The IDDE Policy and information about it were added to the University's website, a link to the policy is provided below. CNU developed a procedure and format for tracking training efforts, inspections, and other activities related to the IDDE Program. Illicit discharge detection tracking and reporting is an ongoing activity. CNU relies on the City of Newport News to respond to any spill emergencies on-campus. Relying on the updated training and capabilities of emergency responders is an integral component of the University's IDDE Plan. CNU will document any illicit discharges that are detected annually.

<http://cnu.edu/public/stormwater/>

There were no IDDE investigations completed during the 2021-2022 reporting year as a result of the inspections completed in the 2020-2021 reporting year as all potential issues were determined to be natural occurrences or to not require additional investigations. Follow up inspections based on this reporting year's inspections will be conducted as needed and reported in the PY5 Annual Report.

The CNU MS4 contains one main stormwater outfall (Outfall 1), a second outfall (Outfall 2) which drains stormwater from the area of the Ferguson Center for the Arts, and a third outfall (Outfall 3) which drains the campus area adjacent to the Avenue of the Arts along with the adjacent neighborhood. These are all part of CNU and within the MS4 boundary. Outfalls are inspected annually as part of the dry weather screening program and the inspection reports are included in each year's Annual Report. Outfall 2 was maintained and cleaned during this permit year to remove vegetation in response to the PY3 inspections. Sediment removal maintenance is planned in the coming year.

CNU implements this MCM through the BMPs provided below. Information concerning each BMP including detailed descriptions, measurable goals, and implementation dates are provided in Table 3-1. Additional IDDE program information is provided in Appendix C

- IDDE Policy
- CNU Stormwater Study
- CNU MS4 Website
- Map of Storm Sewer System
- Storm Sewer System Table
- Illicit Discharge Detection Tracking and Reporting
- Outfall Inspections
- Pollution Prevention Materials
- Pollution Prevention Training



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Minimum Control Measure No. 3 – Illicit Discharge Detection and Elimination

**Table 3-1. MCM No. 3 – Illicit Discharge Detection and Elimination**

| <b>BMP</b>                 | <b>Description</b>  | <b>Measurable Goal</b>  | <b>BMP Status</b>   | <b>Future Activities</b>   |
|----------------------------|---|---|---|--|
| 3.1 – IDDE Policy          | Develop and adopt an IDDE Policy to prevent the discharge of contaminated stormwater runoff from CNU properties and operations into the MS4.  | Develop and adopt the IDDE Policy to let the public know about unauthorized stormwater discharges and what to do if one is suspected.   | IDDE Policy was adopted by CNU on July 1 <sup>st</sup> 2010. Continued implementation of University IDDE Policy.  | Information on the IDDE Policy is on the University's website. The IDDE Policy will be reviewed and updated as needed.   |
| 3.2 – CNU Stormwater Study | Develop and maintain an updated storm sewer system map and outfall table. CNU developed a Stormwater Quality and Quantity Study in 2002 which was revised in 2008, 2011, and 2019.  | Storm sewer system map and outfall table. Review CNU Stormwater Plan and update any necessary information based on changes to the campus and/or stormwater conveyance system as needed. | Review and update as needed. Information from the Stormwater Study is provided in Appendix A.   | The Stormwater Study will continue to be reviewed and updated as needed based on changes to the University's stormwater conveyance system and permit requirements. |
| 3.3 – CNU MS4 Website      | Update the CNU website to include information on the MS4 Program, MS4 General Permit, MS4 Program Plan, Annual Reports, educational information about stormwater, links to additional stormwater-related websites, and stormwater incident reporting information. | Update CNU website to include information on the MS4 Program. Review website annually and update any necessary information based on changes to CNU policies and/or staffing.            | Website initially updated to include MS4 information in 2009-2010; additional information was added to the website in subsequent years. Annual reviews and updates as needed. | Additional stormwater information will continue to be added to the website in 2021-2022 as the website is updated.   |

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Minimum Control Measure No. 3 – Illicit Discharge Detection and Elimination

| <b>BMP</b>                        | <b>Description</b>  | <b>Measurable Goal</b>   | <b>BMP Status</b>   | <b>Future Activities</b>   |
|-----------------------------------|---|--|---|--|
| 3.4 Map of the Storm Sewer System | <p>Maintain a map of the storm sewer system containing:</p> <ul style="list-style-type: none"> <li>• MS4 outfalls</li> <li>• Name and location of receiving waters</li> <li>• Unique identifiers for each mapped item</li> <li>• MS4 regulated service area</li> <li>• SWM facilities</li> </ul>  | Evaluate on an annual basis, by October 1 <sup>st</sup> of each year, and update as necessary. | Submitted to DEQ in July 2019 and put on CNU stormwater website. University staff will maintain map and continue to update as necessary. No updates needed in the 2020-2021 reporting year. | Evaluate on an annual basis, by October 1 <sup>st</sup> of each year, and update as necessary. |
| 3.5 Storm Sewer System Table      | <p>Maintain a table of the storm sewer system. Each outfall should contain:</p> <ul style="list-style-type: none"> <li>• Unique identifiers</li> <li>• Estimated drainage acres</li> <li>• Name of receiving waters, 6<sup>th</sup> order Hydrologic Unit Code (HUC)</li> <li>• Unique identifiers</li> <li>• Whether or not it drains to a water on the 2016 303(d) list</li> <li>• EPA approved Total Maximum Daily Loads (TMDLs) with a waste load allocation (WLA)</li> </ul> | Evaluate on an annual basis, by October 1 <sup>st</sup> of each year, and update as necessary. | Submitted to DEQ in July 2019 and put on CNU stormwater website. University staff will maintain map and continue to update as necessary. No updates needed in the 2020-2021 reporting year. | Evaluate on an annual basis, by October 1 <sup>st</sup> of each year, and update as necessary. |

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Minimum Control Measure No. 3 – Illicit Discharge Detection and Elimination

| <b>BMP</b>   | <b>Description</b>   | <b>Measurable Goal</b>   | <b>BMP Status</b>  | <b>Future Activities</b>  |
|--|--|--|--|---|
| 3.6 – Illicit Discharge Detection Tracking and Reporting | Develop a procedure and format for tracking training efforts, inspections, and other activities related to the IDDE program. As part of the IDDE program, CNU will document any illicit discharges detected. | Implementation of the procedure and format for tracking training efforts, inspections, and other activities related to the IDDE program. Documentation of any illicit discharges detected on an annual basis.  | A standard operating procedure (SOP) for stormwater outfall screening, a standard outfall reconnaissance inventory, and sample collection field sheet to be used when staff is conducting illicit discharge inspections of storm drainage system outfalls. Copies of the SOP and field sheet are provided in Appendix C. | Illicit discharge detection, tracking, and reporting will be an ongoing activity. There were no illicit discharge complaints reported for PY3. Investigated potential issues but none were non-compliance or IDDE issues. CNU tracks and maintains records of these potential issues. |
| 3.7 – Outfall Inspections                                | Inspect each MS4 outfall on an annual basis. Outfall inspections will be documented and kept as part of the MS4 documentation.   | Inspect each MS4 outfall on an annual basis. Maintain records of outfalls that were inspected.   | Inspect all outfalls annually using SOP. Outfalls 1, 2 and 3 were inspected on June 8 <sup>th</sup> , 2022.  | MS4 outfalls will continue to be inspected on an annual basis.  |
| 3.8 – Pollution Prevention Materials                     | CNU will prepare and distribute educational materials about the impacts of stormwater discharges on water bodies.  | Prepare and distribute educational materials regarding pollution prevention to faculty, staff, and students.   | Drink coasters were distributed during the year to highlight stormwater. During the 2021-2022 reporting year the annual in person events held were not cancelled due to the SARS-COV-2 Global Pandemic. Please see Appendix B for records of E-mail correspondence between CNU and the Regional DEQ Office.              | Distribution of pollution prevention materials will be an ongoing activity. Materials will be distributed annually.   |
| 3.9 – Pollution Prevention Training                      | CNU will conduct biennial training to applicable staff on pollution prevention.  | Conduct biennial training to applicable staff on pollution prevention/good housekeeping SOPs and IDDE. Documentation of each training event including the training date, number of employees attending the training, and the objective of each training event. | CNU updated departmental training for pollution prevention/good housekeeping and IDDE using PowerPoint in Appendix D. Training was conducted between April and June 2022. Training is biennial and will be conducted in PY1 of the new Program Plan.   | Pollution prevention training will be a biennial and ongoing activity.  |

Minimum Control Measure No. 4 – Construction Site Stormwater Runoff Control

## 5.0 MINIMUM CONTROL MEASURE NO. 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Any construction activities that take place on the CNU campus and meet required thresholds for land disturbance are regulated by the Virginia Stormwater Management Act and VSMP Regulation (9VAC25-870). In addition, all projects must obtain a Construction General Permit (CGP) if the area of disturbance is greater than or equal to one acre. A project must also obtain a CGP if it is less than one acre and part of a larger common plan of development or sale. Therefore, MCM No. 4 includes provisions to verify all construction activities are in compliance with these regulations and permits.

CNU developed and submitted Annual Standards and Specifications (AS&S) to DEQ. The AS&S were reviewed in response to DEQ comments and updated to match the SOP and IDDE revisions. The 2021 and 2022 AS&S are being submitted in conjunction with this Annual Report and Program Plan. The University Architect's office maintains copies of permit authorization letters for all construction projects, reviews each project's Stormwater Pollution Prevention Plan (SWPPP), and reviews copies of all contractors' inspection reports on a quarterly basis to track compliance with the SWPPP.

Since the University has approved AS&S, they no longer need to rely on the City of Newport News for permit support or plan review. CNU contracts a DEQ-Certified inspector for the purposes of providing enhanced training and oversight for the University's qualified personnel performing routine operator SWPPP inspections. The ESC/SWM inspector performs regular inspections of on-campus active construction projects with CGP coverage and documents inspection findings in regular inspection reports. CNU audits the compliance of the contractors on-campus by reviewing the inspection documentation, revisions to the SWPPP, and overall site compliance on a quarterly basis. All LDAs that occur during the reporting period are conducted in accordance with the current department approved standards and specifications for ESC. No land disturbing construction projects occurred during this reporting period.

The contractor for each construction project is required to inspect the project in accordance with the inspection frequency specified in the CGP and per the stormwater and erosion and sediment control standards. CNU audits the compliance of the contractor by reviewing the inspection documentation, revisions to the SWPPP, and overall site compliance quarterly.

CNU implements this MCM through the BMPs provided below. Information concerning each BMP including a detailed description, measurable goals, and implementation dates are provided in Table 4-1. Additional construction site stormwater runoff control information is provided in Appendix D including the MS4/Inspection/SWPPP training presentation slides provided to CNU staff.

- AS&S
- Project Inspections
- ESC Contract Provisions
- Construction Site Runoff
- Construction Signage
- LDA Tracking

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Minimum Control Measure No. 4 – Construction Site Stormwater Runoff Control

**Table 4 MCM No. 4-1. – Construction Site Stormwater Runoff Control**

| <b>BMP</b>                    | <b>Description</b>   | <b>Measurable Goal</b>   | <b>BMP Status</b>  | <b>Future Activities</b>  |
|-------------------------------|--|--|--|---|
| 4.1 – AS&S                    | As a state entity, CNU developed AS&S. Annual updates/revisions are submitted to VADEQ.  | Develop and implement AS&S.  | Compliance with AS&S is mandatory for all phases of all construction projects on-campus.   | Continue current program, comply with approved AS&S.  |
| 4.2 – Project Inspections     | The contractor for each construction project is required to inspect the project in accordance with the inspection frequency specified in the CGP. CNU audits the compliance of the contractor by reviewing the inspection documentation, revisions to the SWPPP, and overall site compliance.  | Review copies of all contractors' inspection reports and all DEQ-Certified Inspector's Reports. Review each project's SWPPP on a quarterly basis to track compliance with the SWPPP. | Reviewing copies of inspection reports is an ongoing activity; review of each project's SWPPP on a quarterly basis.                  | Continue current program, evaluate annually. Records maintained by the University Architect's office. |
| 4.3 – ESC Contract Provisions | Require all contracts for construction projects with land disturbing activities meet the requirements in the MS4 Permit and CGP. The primary contractor must obtain a CGP and must also carry out all the provisions required of the Construction Site Operator. Keep copies of permit notice of coverage letters for all construction projects and review each project's SWPPP to ensure adequacy of the SWPPP. | Maintain copies of permit notice of coverage letters for all construction projects and review each project's SWPPP on a quarterly basis to track compliance with the SWPPP.          | Maintaining copies of permit notice of coverage letters is an ongoing activity; review of each project's SWPPP on a quarterly basis. | Continue current program, evaluate annually. Records maintained by the University Architect's office. |

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Minimum Control Measure No. 4 – Construction Site Stormwater Runoff Control

| <b>BMP</b>                                | <b>Description</b>   | <b>Measurable Goal</b>  | <b>BMP Status</b>  | <b>Future Activities</b>  |
|---|--|---|--|---|
| 4.4 – Construction Site Runoff            | Construction site runoff was identified as one of the three high-priority water quality issues at CNU. CNU will conduct biennial training for contractors on construction site runoff pollution prevention.                              | Conduct biennial training to contractors on construction site runoff pollution prevention. Document each training event including the training date, number of people attending the training, and the objective of each training event. Training to occur in with the next construction project, likely in PY5. | No training was held as there were no construction projects.   | Training is planned again for any new. Construction site runoff pollution prevention training will be an ongoing activity, as needed based on active construction projects, for contractors associated with all new regulated land disturbing activities on-campus. |
| 4.5 – Construction Signage                | Have a sign to be placed on construction site fencing at all on-campus construction projects explaining the importance of proper ESC practices and their connection to stormwater quality.   | Install educational signage on fencing at all on-campus construction projects. Inspect and replace any missing or damaged signs as needed.  | No signs were installed as there were no construction projects.  | Installation of educational signage at new on-campus construction projects will be an ongoing activity. Any missing or damaged signs observed will be replaced.   |
| 4.6 – Land Disturbing Activities Tracking | Track and submit regulated land disturbing activities on-campus including the total disturbed acreage associated with each. Keep this information on file as part of the MS4 documentation and include as part of the MS4 Annual Report. | Track the number of regulated land disturbing activities on-campus and report the total disturbed acreage.  | Updated annually. Regulated land disturbing activities for PY4 are listed in Appendix D of this Annual Report. | Continue current program, evaluate annually.  |

Minimum Control Measure No. 5 – Post-Construction SWM

## 6.0 MINIMUM CONTROL MEASURE NO. 5 – POST-CONSTRUCTION SWM

All known permanent SWM facilities that are operator owned and within the MS4 boundary are inspected by DEQ-Certified CNU or contract personnel on an annual basis. Inspections are performed based on the *Written Procedures for the Inspection of Operator Owned Stormwater Management Facilities* prepared by CNU during the 2014-2015 reporting year. Copies of the inspection reports are kept on file as part of the MS4 documentation. Records of past BMP inspections are maintained as part of the MS4 program and the inspection program will be continued and evaluated annually. CNU will perform maintenance of permanent SWM facilities, if needed, based on the results of the BMP inspections and document and include as part of the Annual Report. There were no non-compliance issues this reporting year. CNU investigated potential issues, but none were non-compliance or IDDE issues. CNU tracks and maintains records of these potential issues.

Inspection reports to be used for inspections of BMPs are the DEQ Example BMP Inspection and Maintenance checklists from the DEQ 2013 Virginia Stormwater Management Handbook, Chapter 9 – BMP Inspection and Maintenance, provided on the DEQ website at the link below.

<https://swbmp.vwrrc.vt.edu/references-tools/2013-draft-handbook/>

CNU will continue to update the electronic spreadsheet with any new or newly discovered BMP, or any BMP that meets a local or Chesapeake Bay TMDL requirement. Also, CNU will add new BMPs to the VA CGP database to report each facility installed for which a VPDES permit is obtained and will also add new BMPs to the DEQ BMP Warehouse as needed.

There were no new BMPs to report in the 2021-2022 permit year.

CNU implements MCM No. 5 through the BMPs provided below. Information concerning each BMP including a detailed description, measurable goals, and implementation dates is provided in Table 5-1. The MCM Summary Table in Appendix E provides the responsible party and key personnel for each MCM and BMP identified in the approved MS4 Program Plan. Additional post-construction SWM information is provided in Appendix E.

- CNU Stormwater Study
- ESC Contract Provisions
- Implement AS&S
- BMP Inspections
- BMP Tracking
- BMP Maintenance

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Minimum Control Measure No. 5 – Post-Construction SWM

**Table 5-1. MCM No. 5 – Post-Construction SWM**

| <b>BMP</b>                    | <b>Description</b>   | <b>Measurable Goal</b>  | <b>BMP Status</b>  | <b>Future Activities</b>  |
|-------------------------------|--|---|--|---|
| 5.1 – CNU Stormwater Study    | Develop and maintain an updated storm sewer system map and outfall table. CNU developed a Stormwater Quality and Quantity Study in 2002 which was revised in 2008, 2011, and 2019 during PY1.  | Storm sewer system map and outfall table. Review CNU Stormwater Plan and update any necessary information based on changes to the campus and/or stormwater conveyance system as needed. | Review and update as needed. Information from the stormwater study is provided in Appendix E. There were no updates in PY4           | The stormwater study will continue to be reviewed and updated as needed based on changes to the University's stormwater conveyance system and based on permit requirements. |
| 5.2 – ESC Contract Provisions | Require that all contracts for construction projects with land-disturbing activities meeting the requirements in the MS4 Permit and CGP. The primary contractor must obtain a CGP and must also carry out all provisions required of the Construction Site Operator. Keep copies of permit notice of coverage letters for all construction projects and review each project's SWPPP to ensure adequacy of the SWPPP. | Maintain copies of permit notice of coverage letters for all construction projects and review each project's SWPPP on a quarterly basis to track compliance with the SWPPP.             | Maintaining copies of permit notice of coverage letters is an ongoing activity; review of each project's SWPPP on a quarterly basis. | Continue current program, evaluate annually. Records maintained by the University Architect's office.   |
| 5.3 – AS&S                    | As a state entity, CNU developed AS&S. They were most recently approved by VADEQ in a letter dated March 12 <sup>th</sup> , 2020.  | Develop and implement AS&S.   | Compliance with AS&S is mandatory for all phases of all construction projects on-campus.   | Continue current program, comply with approved AS&S.  |
| 5.4 – BMP Inspections         | Inspect all known permanent SWM facilities on an annual basis. Keep copies of inspection reports on file as part of the MS4 documentation.   | Continue CNU BMP inspection program. Maintain records of BMPs that were inspected.  | BMPs were inspected on June 1 <sup>st</sup> , 2022 and June 28 <sup>th</sup> , 2022.   | Continue current program, evaluate annually.  |



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Minimum Control Measure No. 5 – Post-Construction SWM

| BMP                   | Description   | Measurable Goal  | BMP Status  | Future Activities  |
|-----------------------|---|--|---|--|
| 5.5 – BMP Tracking    | <p>Track all known permanent SWM facilities in an electronic format annually including:</p> <ul style="list-style-type: none"> <li>• Install date</li> <li>• Type of facility</li> <li>• Latitude and longitude</li> <li>• Geographic location, 6<sup>th</sup> order HUC</li> <li>• Acres treated inc. total, pervious, and impervious</li> <li>• Whether part of Chesapeake Bay/local TMDL AP</li> <li>• The date of most recent inspection</li> </ul> | Track all known permanent SWM facilities on an annual basis.   | Continue current program, evaluate annually.  | Continue current program, evaluate annually.   |
| 5.6 – BMP Maintenance | Properly maintain all structural BMPs on the CNU campus and/or operated by CNU in accordance with good engineering practices and, where applicable, manufacturer specifications. Maintenance of permanent SWM facilities will be performed, if needed, based on the results of BMP inspections performed as part of this MS4 Program Plan.  | Continue CNU BMP maintenance program as needed based on results of annual BMP inspections. Maintain records of BMP maintenance activities. | Ongoing BMP maintenance as needed based on annual BMP inspections. Last maintenance was performed at the Outfalls and BMPs in June/July 2022. | Continue current program, evaluate annually. Any necessary maintenance performed on permanent SWM facilities will be documented and included as part of the MS4 Annual Report. |

Minimum Control Measure No. 6 – Pollution Prevention/Good Housekeeping

## 7.0 MINIMUM CONTROL MEASURE NO. 6 – POLLUTION PREVENTION/GOOD HOUSEKEEPING

MCM No. 6 provides for a comprehensive pollution prevention and good housekeeping program. The ultimate goal of pollution prevention/good housekeeping is to prevent or reduce pollutant runoff from campus operations. This measure includes both training and awareness of stormwater impacts to receiving water quality as well as on-campus activities which both prevent and reduce pollutant runoff to the MS4.

This MCM includes a requirement for the development, maintenance, and implementation of written procedures designed to minimize or prevent pollutant discharge from: (i) daily operations such as road, street, and parking lot maintenance; (ii) equipment maintenance; and (iii) the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers. CNU has developed SOPs for various activities with the potential to impact water quality. The SOPs include the following:

- Equipment maintenance and washing
- Outdoor special events and festivals
- Kitchen waste: fats, oils, and greases (FOG) transfer, storage, and disposal
- Equipment fueling activities
- Landscape maintenance
- Liquid materials loading, unloading, and storage
- Trash & recycling handling, storage, transfer, and disposal
- Parking lot, street, and road maintenance
- Pressure washing and exterior surface cleaning
- Spill prevention, control, clean up and reporting

The following webpage contains a link to CNU's SOPs. The site-specific SOPs are also included in departmental training where applicable.

<http://cnu.edu/public/stormwater/>

CNU identified the Grounds (includes Athletics Department staff) and Plant Operations Departments as well as the dumpster refuse area as being high-priority facilities. There are a total of twenty high-priority facilities on-campus per Figure 4 in Appendix E. CNU published and posted on the website the SWPPP for high-priority facilities. A link to the SWPPP is provided at the website below.

<http://cnu.edu/public/stormwater/>

This MCM includes a requirement to implement turf and landscape NMP developed by a certified turf and landscape nutrient management planner on all lands owned or operated by the MS4 operator where nutrients are applied to a contiguous area greater than one acre. The University takes pride in a clean and green campus but also works to not over-apply nutrients and diligently follows the approved NMPs for the campus.

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Minimum Control Measure No. 6 – Pollution Prevention/Good Housekeeping

There are two separate NMPs that cover the CNU campus, one for the main campus grounds/turf and a separate one for the athletics fields/turf.

- The current NMP for the main campus was resubmitted on July 9<sup>th</sup>, 2021 for approval and covers an area of 48 acres.
- The athletics NMP covers an area of 13.73 acres and is effective until April 19<sup>th</sup>, 2024.

The CNU Grounds Department will continue to operate using the approved NMPs and will continue to evaluate/update the NMPs once every three years, as needed. The NMPs will be reviewed/updated again in 2021 and re-submitted to the Department of Conservation and Recreation (DCR) for review and approval.

The CNU Grounds Department currently has three CFAs and two Certified Nutrient Management Planners through the VDACS.

All CNU employees from every department were required to watch a 30-minute training video on SWPPP and MS4 education. The training was conducted from April 2022 to June 2022 during this reporting year.

CNU continues to perform maintenance by cleaning a portion of the campus stormwater infrastructure (catch basins, storm drainpipes) on an annual basis. Street sweeping of campus roads and parking lots was performed by Commercial Power Sweeping between May 4-11<sup>th</sup>, 2022. Storm drainpipes on-campus were not contracted to be cleaned this reporting year as no maintenance was needed based on inspections.

CNU implements this MCM through the BMPs provided below. Information concerning each BMP including a detailed description, measurable goals, and implementation is provided in Table 6-1. Additional post-construction SWM information is provided in Appendix F.

- Pollution Prevention Training
- High-Priority Facility SWPPP Implementation
- Illicit Discharge Detection Tracking and Reporting
- NMPs
- Nutrient Management Training
- AS&S
- Underground Infrastructure Cleaning
- Street Sweeping
- Storm Drain Medallions
- Daily Good Housekeeping SOPs

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Minimum Control Measure No. 6 – Pollution Prevention/Good Housekeeping

**Table 6-1. MCM No. 6 – Pollution Prevention/Good Housekeeping**

| <b>BMP</b>   | <b>Description</b>   | <b>Measurable Goal</b>  | <b>BMP Status</b>   | <b>Future Activities</b>  |
|--|--|---|---|---|
| 6.1 – Pollution Prevention Training                      | CNU will conduct biennial training to applicable staff on pollution prevention.  | Conduct biennial training to applicable staff on pollution prevention/good housekeeping SOPs an IDDE. Documentation of each training event including the training date, number of employees attending the training, and the objective of each training event. | CNU updated departmental training for pollution prevention/good housekeeping, and IDDE using a video prepared by Timmons Group with PowerPoint slides in Appendix D. Training was conducted this permit year on during April, May, and June. Training is biennial and will be conducted again in PY1 of the next permit.  | Pollution prevention training will be biennial and an ongoing activity.   |
| 6.2 – High-Priority Facility SWPPP Implementation        | Continue to implement stormwater pollution prevention plans for high-priority facilities.  | Conduct an annual comprehensive site compliance evaluation.   | Ongoing; annually. Conduct inspection of high-priority facilities and ensure they are following proper good housekeeping procedures. Re-evaluate facilities annually to be sure they are the highest priority on campus. Last SWPPP inspection of high-priority facilities occurred on June 1 <sup>st</sup> , 2022 and June 8 <sup>th</sup> , 2022. SWPPP revisions were made during PY4 and will be reviewed annually. | The next inspection is planned for summer 2023.   |
| 6.3 – Illicit Discharge Detection Tracking and Reporting | Develop a procedure and format for tracking training efforts, inspections, and other activities related to the IDDE program. As part of the IDDE program, CNU will document any illicit discharges detected. | Implementation of the procedure and format for tracking training efforts, inspections, and other activities related to the IDDE program. Documentation of any illicit discharges detected on an annual basis.   | A SOP for stormwater outfall screening and a standard outfall reconnaissance inventory and sample collection field sheet to be used when staff is conducting illicit discharge inspections of storm drainage system outfalls. Copies of the SOP and field sheet are provided in Appendix F.   | Illicit discharge detection tracking and reporting will be an ongoing activity. There were no illicit discharges reported for PY3 and none in PY4 to track. |

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1<sup>st</sup>, 2021 – JUNE 30<sup>th</sup>, 2022**

Minimum Control Measure No. 6 – Pollution Prevention/Good Housekeeping

| <b>BMP</b>                                | <b>Description</b>   | <b>Measurable Goal</b>   | <b>BMP Status</b>   | <b>Future Activities</b>  |
|---|--|--|---|---|
| 6.4 – NMP                                 | There are two separate approved NMPs that cover the CNU campus. The CNU Grounds and Athletics Departments currently operate using approved NMPs and will continue to evaluate/update the NMPs once every three years and provide any updates, as needed. | Continue operating under approved NMPs for the CNU campus. Review the NMP and update any necessary information.  | CNU main campus NMP submitted for approval July 5 <sup>th</sup> , 2024; CNU athletics NMP approved and valid until April 19 <sup>th</sup> , 2024. Review once every three years and update as needed. | The CNU grounds and athletics departments will continue to operate using the approved NMPs. The NMPs will be reviewed/updated again in 2024 and re-submitted to DCR for approval. |
| 6.5 – Nutrient Management Training        | Nutrient management was identified as one of the three high-priority water quality issues at CNU.  | Train CNU Grounds Department staff as CFAs and/or Nutrient Management Planners to ensure that nutrients are only applied in accordance with CNU's approved NMPs. | Continue to train Grounds Department staff and document training (names, date, etcetera) regarding nutrient management.   | This is an ongoing program with biennial training. In addition to any in-house training, staff are sent to training courses.  |
| 6.6 – AS&S                                | As a state entity, CNU developed AS&S. They were most recently approved by VADEQ in a letter dated March 12 <sup>th</sup> , 2020.  | Develop and implement AS&S.  | Compliance with AS&S is mandatory for all phases of all construction projects on-campus.  | Continue current program, comply with approved AS&S.  |
| 6.7 – Underground Infrastructure Cleaning | Perform maintenance by cleaning a portion of the campus stormwater infrastructure (catch basins, storm drainpipes) on an annual basis.   | Continue CNU underground infrastructure maintenance program.   | Ongoing; annually; no cleaning contracted for this reporting year based off no need during visual inspection.   | Continue current program, evaluate annually.  |

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1<sup>st</sup>, 2021 – JUNE 30<sup>th</sup>, 2022**

Minimum Control Measure No. 6 – Pollution Prevention/Good Housekeeping

| <b>BMP</b>                          | <b>Description</b>   | <b>Measurable Goal</b>   | <b>BMP Status</b>   | <b>Future Activities</b>  |
|-------------------------------------|--|--|---|---|
| 6.8 – Street Sweeping               | Continue the ongoing street sweeping program. Vacuum sweep selected campus roads and parking lots on an annual basis. Document the quantity of material collected on an annual basis.  | Continue CNU street sweeping program. Record the amount of material that is removed annually.  | Ongoing; selected campus roads and parking lots are vacuum swept on an annual basis. Street sweeping of campus roads and parking lots was performed by Commercial Power Sweeping between May 4-11 <sup>th</sup> , 2022. CNU Grounds personnel also blow debris from roads and parking lot areas onto turf areas to be mulched or picked up with turf maintenance activities on a regular basis. | Continue current program, evaluate annually. Debris removal from roads and parking lots is an ongoing activity.   |
| 6.9 – Storm Drain Medallions        | Install storm drain medallions on all campus storm drain inlets to help remind the CNU community about stormwater pollution. The medallions read, “No Dumping, Drains to Waterway.”  | Install storm drain medallions on all campus storm drain inlets. Evaluate storm drain medallions annually. Replace any missing or damaged medallions annually. | During this permit year, no new medallions were necessary and no medallions needed replacement.   | Monitoring of the storm drain medallions is an ongoing activity. Any missing or damaged medallions will be replaced. New medallions will be installed on newly constructed campus storm drains. |
| 6.10 – Daily Good Housekeeping SOPs | Develop and implement written procedures designed to minimize or prevent pollutant discharge from: (i) daily operations such as road, street, and parking lot maintenance; (ii) equipment maintenance; and (iii) the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers. | Complete and implement written good housekeeping procedures. Train staff biennially and in new staff orientation.  | Daily good housekeeping written procedures were developed and were incorporated in staff training regarding pollution prevention. SOPs are available on the campus stormwater website.  | Continue to include written procedures in pollution prevention training; update as needed.  |

Chesapeake BAY TMDL ACTION PLAN IMPLEMENTATION

## 8.0 CHESAPEAKE BAY TMDL ACTION PLAN IMPLEMENTATION

There are currently no waste load allocations assigned to the University from any approved local TMDL reports, so there is no anticipated TMDL Action Plan for CNU for special conditions other than the Chesapeake Bay TMDL. The Chesapeake Bay TMDL Action Plan was developed by Koontz-Bryant and was submitted under separate cover to the DEQ following the 2014-2015 reporting year. A draft second phase Chesapeake Bay TMDL Action Plan was submitted by CNU to the DEQ on June 1<sup>st</sup>, 2018 as part of the permit reapplication package as required by the Virginia General Permit. An updated Chesapeake Bay TMDL Action Plan was submitted to the DEQ on November 22<sup>nd</sup>, 2019.

The phosphorus reduction goals for the first permit cycle have been met by the installation of a level one bioretention BMP in Parking Lot A. This project resulted in a pollutant reduction of 1.44 lbs/yr. The University is now working towards its 2023 goals of 9.43 lbs/yr reductions. Table 7-1 depicts the phosphorus removal goals for all three permit cycles, through 2028.

**Table 7-1. TMDL Phosphorus Reduction Requirement (lbs/yr)**

| End of Permit Cycle    | Campus Area (ac) | Acquired Area (ac) | Impervious Area (ac) | First Permit Cycle Reduction Goal (lbs.) | Second Permit Cycle Reduction Goal (lbs.) | Third Permit Cycle Reduction Goal (lbs.) | Total TMDL Reduction (lbs) |
|------------------------|------------------|--------------------|----------------------|--|---|--|----------------------------|
| 2009 (1)               | 141.87           | 0                  | 62.14                | 1.02                                     | 7.14                                      | 12.23                                    | 20.39                      |
| 2018 (2)               | 147.24           | 5.37               | 71.59                | 1.15                                     | 8.02                                      | 13.74                                    | 22.90                      |
| 2018 (3)               | 158.17           | 10.93              | 76.90                | 1.23                                     | 8.61                                      | 14.76                                    | 24.60                      |
| Lake Maury (4)         |                  |                    |                      | 0.07                                     | 0.51                                      | 0.88                                     | 1.46                       |
| <b>2018 Total</b>      | <b>158.17</b>    | <b>16.30</b>       | <b>76.90</b>         | <b>1.30</b>                              | <b>9.12</b>                               | <b>15.64</b>                             | <b>26.06</b>               |
| Acquired Property (5)  | 3.75             | 3.75               | 2.65                 | -  | 0.31                                      | 0.48                                     | 0.79                       |
| <b>2023/2028 Total</b> | <b>161.92</b>    | <b>3.75</b>        | <b>79.55</b>         | <b>1.30</b>                              | <b>9.43</b>                               | <b>16.02</b>                             | <b>26.85</b>               |

Keeping in mind pollutant reduction goals, all new construction projects take steps to find solutions to preserve water quality on and around campus. In addition, CNU is investigating other potential options and will update the TMDL action plan implementation in the last permit year, in order to effectively plan out the next steps in CNU’s pollutant reduction goals. An updated action plan was provided to VADEQ within twelve months of this permit coverage as directed by the 2018-2023 permit. Additional options include an agreement with the HRSD SWIFT initiative that will help meet the 2023 goals and beyond. CNU will continue to review and update the approach as necessary.

# **CNU MS4 ANNUAL REPORT APPENDICES**

**Reporting Year July 1<sup>st</sup>, 2021 – June 30<sup>th</sup>, 2022**



Appendix A Minimum Control Measure One (MCM1) Information

## **Appendix A MINIMUM CONTROL MEASURE 1 (MCM1) SUPPLEMENTAL INFORMATION**

CNU Stormwater Website (BMP 1.2, 3.3)

Construction Site (BMP 1.6, 4.5)

Other Places for Information on MCM1:

- Employee MS4 and SWPPP Training (BMP 1.7, 4.4) in Appendix D

# Public Information

Public Information / Stormwater Management

- Public Information
- University Policies
- Campus Safety
- Student Achievement
- Freedom of Information Act
- Free Speech and Expression
- Stormwater Management**
- Privacy Policy
- Institutional Research Analysis and Reports

- ### RELATED DOCUMENTS
- MS4 Program Plan
  - MS4 Permit 2018-2023
  - MS4 Annual Report
  - IDDE Plan and Policy
  - CNU Stormwater Pollution Prevention Plan (SWPPP)
  - Stormwater discharges at the campus
  - Standard Operating Procedures (SOPs)
  - CNU Stormwater Pollution Prevention Training
  - Construction Site Signage

## Stormwater Management

In managing the Christopher Newport campus grounds, we strive to be good environmental stewards. We work closely with the Virginia Department of Environmental Quality (DEQ) to ensure our efforts are up to current standards and practices.

If you have any questions, please contact the Grounds Department at (757) 594-8700 or [grounds@cnu.edu](mailto:grounds@cnu.edu).

### PROGRAM PLAN

The stormwater management program plan is based on six minimum control measures as required by the Virginia General Permit. These goals and objectives were developed to reduce the discharge of pollutants from the university's Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable, protect water quality, ensure compliance with water quality standards, and to satisfy the appropriate water quality requirements of the State Water Control Law and its attendant regulations. You are welcome to review and make comments on our program by filling out this form.

### MS4 GENERAL PERMIT

The General Virginia Pollutant Discharge Elimination System Permit for Discharges of Stormwater from Small MS4s requires Christopher Newport to develop and implement a comprehensive stormwater management program consistent with the Virginia General Permit.

The University re-registered for continuation of coverage on June 1, 2018 (permit number VAR040090). The new general permit is valid until October 31, 2023.

### ANNUAL REPORT

The MS4 Annual Report serves to convey the required information and detail the status of compliance with all permit conditions, as well as the appropriateness of best management practices identified in the MS4 Program Plan toward achieving measurable goals for each minimum control measure.

| YEAR      | PDF                 |
|-----------|---------------------|
| 2018-2019 | <a href="#">PDF</a> |
| 2019-2020 | <a href="#">PDF</a> |
| 2020-2021 | <a href="#">PDF</a> |

### Stormwater Management Master Plan

In 2019, Christopher Newport worked with a consultant to create a Stormwater Management Master Plan. This plan provides guidance in the form of stormwater management concepts to help meet our TMDL Reduction Requirements as set forth by the Virginia Department of Environmental Quality. This plan addresses those requirements through 2028.

### POLLUTION PREVENTION AND CONTROL

Pollution prevention is any practice that reduces, eliminates or prevents pollution at its source. Reducing the amount of pollution produced means less waste to control, treat or dispose. Less pollution also means fewer hazards are posed to public health and the environment.

Under our permit, we must develop, implement and enforce a program that includes the following six minimum control measures:

1. Public education and outreach
2. Public involvement and participation
3. Illicit discharge detection and elimination
4. Construction site stormwater runoff control
5. Post-construction stormwater management

6. Pollution prevention/good housekeeping

These control measures are designed and implemented to control the discharge of pollutants from our storm sewer system to the maximum extent practicable in a manner that protects the water quality in nearby streams, rivers, wetlands and bays.

**Illicit Discharge Detection and Elimination (IDDE)**

The IDDE policy and program provide for the protection of the environment at CNU and the surrounding areas.

An illicit discharge is the discharge of any substance into a storm sewer system\* that is not stormwater. Some examples of these substances include:

- Wastewater
- Concrete washout
- Cleaning supplies
- Construction waste  
(e.g., debris, sludge)
- Vehicle washing
- Paint
- Fuels and oils
- Pet Waste

/

VISIT

The following do not constitute an illicit discharge:

- Discharges or flows from firefighting activities
- Landscape irrigation and lawn watering
- Foundation/footing drains
- Water line flushing
- Discharges from potable (drinkable) water sources
- Street wash water
- Air conditioning condensation

\*Storm sewers are designed to carry stormwater and runoff. Storm sewers are not treated and lead directly into our natural environment. Substances that are not stormwater should never be released into the storm sewer system. The University's storm sewer inlets are marked with a "No Dumping – Drains to Bay" medallion.

**If you witness an illicit discharge, you can report it to the Grounds Department by calling (757) 594-8700 or University Police at (757) 594-7777.**

### STORMWATER POLLUTION PREVENTION PLAN (SWPPP)





As part of our MS4 program the University maintains a [Stormwater Pollution Prevention Plan](#) (SWPPP)

An SWPPP is designed to reduce the impact of stormwater runoff on receiving water bodies to the maximum extent practicable and to meet water quality standards, and identifies the following:

- Stormwater pollution prevention team
- [Stormwater discharges at the campus](#)
- Actual and potential sources of stormwater contamination
- Structural and non-structural best management practices
- Good housekeeping practices
- [Standard operating procedures](#) for activities with the potential to impact water quality

**Stormwater Pollution Prevention Training** SWPPP training is available to all members of the campus community. We provide training to all employees whose job duties may include activities with the potential to contribute to stormwater pollution.

### Public Education and Outreach

| Description   | PDF   |
|---|---|
| <b>Only Rain Down the Drain</b><br>A reminder about water pollution with an emergency call list on the back.  |  |
| <b>Be a Solution to Water Pollution</b><br>An informational flier about water pollution.  |  |
| <b>Guidelines for Charity Car Wash Fund Raisers</b><br>Car washes to raise funds for charities, schools activities or community groups often occur in densely populated urban areas. Car-washing activities can a water quality if not properly managed. Wash water from these activities may flow into surface waters or into a storm drain. |  |
| <b>CNU Garden Symposium</b><br>The Grounds Department provides an educational stormwater table at the annual Garden Symposium. We provide advice and literature related to rain gardens, stormwater runoff, urban nutrient management and environmentally friendly landscaping.   |  |

### Construction Sites

Construction projects that disturb more than one acre are required to obtain a Virginia Stormwater Management Program construction permit from the Virginia Department Environmental Quality.



1 Avenue of the Arts  
Newport News, VA 23606  
(757) 594 7000



#### Resources

- Jobs at CNU
- Academic Calendar
- Map & Directions
- Public Information
- Student Consumer Information

#### Services

- Trible Library
- Request Admission Information
- Campus Safety
- Title IX and Equal Opportunity
- Emergency Alerts



## CONSTRUCTION SITE STORMWATER RUNOFF – PROTECTING WATER QUALITY

Construction projects that disturb more than one acre are required to obtain a Virginia Stormwater Management Program (VSMP) permit from the Virginia Department of Conservation and Recreation (DCR). As part of the permit requirements, a Stormwater Pollution Prevention Plan (SWPPP) must be developed for the project. The SWPPP must identify practices that will help to reduce erosion, minimize sediment loss from the construction site, and address pollution prevention.

- Construction sites without proper erosion and sediment controls can contribute large amounts of sediment and other pollutants to downstream waterways.
- Good housekeeping measures include:
  - Storing waste materials in proper containers;
  - Properly disposing of all waste materials;
  - Preventing spills by tightly sealing containers; and,
  - Storing materials with the potential for contaminating runoff during storm events in watertight containers or under cover so they are not exposed to precipitation.
  - Establish vehicle and equipment parking areas away from waterways and storm drain inlets.
  - Conduct fueling, major maintenance and washing off-site whenever feasible.
- Effective erosion and sediment controls require proper installation and maintenance.
- Concrete trucks should only wash out or discharge surplus concrete or drum wash water at approved locations in accordance with State and local regulations.
- Construction sites should be inspected every seven calendar days or every fourteen calendar days and within 48 hours following any runoff producing storm event. Inspections should include all areas of the site disturbed by construction activity and areas used for storage of materials.

*Erosion and sediment controls in combination with pollution prevention and “good housekeeping measures” can reduce the amount of pollution leaving construction*

### Erosion and Sediment Controls

Properly installed and maintained erosion and sediment control practices help to reduce pollution loading from construction sites.



**Construction Entrance**



**Inlet Protection**



**Silt Fence**

**CNU Pollution Prevention Materials (BMP 3.7, 6.1)**

CNU distributed drink coasters with stormwater educational information on them to students and staff throughout the permit year.

| Month        | # coasters given out | Group             |
|--------------|----------------------|-------------------|
| January 2022 | 1200                 | Freshman Class    |
| June 2022    | 1200                 | Incoming Freshman |
| August 2021  | 1050                 | Staff             |



Side 1



Side 2

Appendix B Minimum Control Measure Two (MCM2) Information

## **Appendix B    MINIMUM CONTROL MEASURE 2 (MCM2) SUPPLEMENTAL INFORMATION**

Participation and Outreach Events Statement (BMP 1.3, 2.5)

## **CNU Outreach and Participation Events Statement 2021-2022**

CNU planned several in person annual events, as well as virtual events this reporting year. CNU is continuing to look into alternative ways to distribute educational materials to the CNU MS4 public including use of social media. For the 2021-2022 reporting year, the CNU Sustainability (@sustainCNU) Facebook account continued to post information on stormwater issues under the hashtag #stormwaterMonday. Litter and street debris is one of the topics that was regularly included in the educational information posted on the CNU Sustainability Facebook page. The 2021-2022 Annual Garden Symposium happened in person on March 19, 2022. A booth was set up and resources were passed out to educated students on stormwater issues. The University is working with their campus Student Organizations via the CNU Community Engagement and Sustainability Coordinators to identify projects related to stormwater. CNU plans to continue to ramp up virtual and social media outreach in light of the ongoing SARS-COV-2 Global Pandemic.



Appendix C Minimum Control Measure three (MCM3) Supplemental Information

## **Appendix C MINIMUM CONTROL MEASURE 3 (MCM3) SUPPLEMENTAL INFORMATION**

CNU IDDE Policy (BMP 3.1)

CNU IDDE Standard Procedures (BMP 3.6, 6.3)

Stormwater Master Plan updated study for 2019 – cover page and Table of Contents (BMP 3.2, 5.1)

Dry Weather screening/Outfall Inspection summary (BMP 3.7)

Other Places for Information on MCM3:

- CNU Stormwater Website (BMP 1.2, 3.3) in Appendix A



## **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](mailto: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 for the protection of 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 MS4 in order 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](#).

**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 to evaluate the physical condition of the outfalls and to ensure that there no flows present from potential illicit discharges. 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.



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MASTER PLAN

# Stormwater Management Master Plan

Christopher Newport University



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PREPARED FOR



1 Avenue of the Arts  
Newport News, VA 23606  
757.594.7000

---

PREPARED BY



4500 Main Street, Suite 400  
Virginia Beach, VA 23462  
757.490.0132

June 28<sup>th</sup>, 2019

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Christopher Newport University  
 Outfall Reconnaissance/Dry Weather Screening  
 Results 2021 - 2022

| Name           | Location                            | Construction Year | Drainage Area | Closed or Open pipe | Inspection Date | Flow Present   | Maintenance Needed | Indicators (odor, color, film, etc.) |
|----------------|-------------------------------------|-------------------|---------------|---------------------|-----------------|----------------|--------------------|--------------------------------------|
| CNU Outfall #1 | Lat. 37.059069,<br>Long. -76.489810 | 2008              | Institutional | Closed RCP          | 6/8/2022        | Trickle        | None               | Minor natural suds present           |
| CNU Outfall #2 | Lat. 37.058908,<br>Long. -76.489148 | 2005              | Institutional | Closed RCP          | 6/8/2022        | Standing Water | None               | None                                 |
| CNU Outfall #3 | Lat. 37.05901,<br>Long. -76.49012   | 2008 or earlier   | Institutional | Closed RCP          | 6/8/2022        | No water       | None               | None                                 |

Appendix D Minimum Control Measure four (MCM4) Supplemental Information

## **Appendix D MINIMUM CONTROL MEASURE 4 (MCM4) SUPPLEMENTAL INFORMATION**

AS&S Information (BMP 4.1, 5.3, 6.6)

Land Disturbing Activities (BMP 4.6)

Employee Good Housekeeping Training Records (BMP 1.7, 4.4)

Other Places for Information on MCM4:

- Construction Site information (BMP 1.6, 4.5) in Appendix A

2021 and 2022 Annual Standards and Specifications were submitted to DEQ concurrently with this Annual Report submittal by 10/1/2022. The 2022 AS&S incorporates comments from DEQ during a recent audit which include modifications to the SOPs, IDDE policy, and overall procedures.

*For MS4 Report (BMP 4.2 and 4.6)*

**CNU Record of Land Disturbing Activities  
and Compliance Inspections  
2021- 2022**

No Land disturbing activities occurred during this permit year.



1

**AGENDA**

- Stormwater in an MS4
- Role of Employees
- MS4 Inspections & Maintenance
- Examples

MS4 Permit Requirements

2



## MAJOR PERMIT REQUIREMENTS

- REDUCE DISCHARGE OF POLLUTANTS TO THE MAXIMUM EXTENT PRACTICABLE.
- PROHIBIT ILLICIT DISCHARGES
- CONTROL DISCHARGE OF SPILLS AND DUMPING OR DISPOSAL OF MATERIALS OTHER THAN STORMWATER
- CARRY OUT INSPECTIONS, SURVEILLANCE AND MONITORING PROCEDURES NECESSARY



MS4 Permit Requirements

3

3

## URBAN IMPACTS TO STORMWATER

- FLOW AND CHANNEL ALTERATION
  - INCREASING IMPERVIOUS SURFACES ALTERS WATERSHED HYDROLOGY & INCREASES FLOODING OPPORTUNITIES
- NUTRIENTS
  - EXCESS NUTRIENTS IN WATER BODIES LEADS TO "DEAD ZONES" CAUSED BY EUTROPHICATION
- TOXIC SUBSTANCES
  - IMPACTS TO ORGANISMS LIVING IN A CONTAMINATED ENVIRONMENT
- BACTERIA
  - FECAL COLIFORMS ARE A HUMAN PATHOGEN AND CAUSE ILLNESS
- TEMPERATURE
  - ALTERING HABITAT THROUGH NATIVE PLANT AND TREE REMOVAL INCREASES TEMPERATURES OF SURROUNDING WATER BODIES

MS4 Permit Requirements

4

4


# TMDL ACTION PLAN

TOTAL MAXIMUM DAILY LOAD (TN, TP, TSS)

- 1<sup>ST</sup> PERMIT – 5% REDUCTION
- 2<sup>ND</sup> PERMIT – ADDITIONAL 35% REDUCTION
- 3<sup>RD</sup> PERMIT – ADDITIONAL 60% REDUCTION

- MAY BE REQUIRED TO ACCELERATE REDUCTIONS

- OTHER TMDLS
  - EX) BACTERIA




Main Campus

Campus athletics

5


5

# NUTRIENT MANAGEMENT



**Area's nutrients are applied greater than one contiguous acre:**

- 12 months to identify and establish NMPs
- 24 months to meet 15% of plan requirements
- 36 months to meet 40% of plan requirements
- 48 months to meet 75% of plan requirements



**Two NMPs:**

- Main campus (48 acres)
- Campus athletics (14 acres)

6

6

# CLEAN WATER ACT

CNU'S STORMWATER MANAGEMENT PROGRAM IS BASED ON SIX MINIMUM CONTROL MEASURES (MCMs) AS REQUIRED BY THE GENERAL PERMIT. THESE WERE DEVELOPED TO REDUCE THE DISCHARGE OF POLLUTANTS FROM THE UNIVERSITY'S MS4 TO THE MAXIMUM EXTENT PRACTICABLE, PROTECT WATER QUALITY, ENSURE COMPLIANCE WITH WATER QUALITY STANDARDS, AND TO SATISFY THE APPROPRIATE WATER QUALITY REQUIREMENTS OF THE CLEAN WATER ACT

- MCM No. 1 – Public Education and Outreach
- MCM No. 2 – Public Involvement/Participation
- MCM No. 3 – Illicit Discharge Detection & Elimination
- MCM No. 4 – Construction Site Stormwater Runoff Control
- MCM No. 5 – Post-Construction Stormwater Management
- MCM No. 6 – Pollution Prevention/Good Housekeeping

MS4 Permit Requirements 7

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## MCM NO 1 – PUBLIC EDUCATION & OUTREACH

| <u>PRACTICE</u>                      | <u>DESCRIPTION</u>                   | <u>STATUS</u>                         |
|--------------------------------------|--------------------------------------|---------------------------------------|
| o MS4 Program Update                 | o Identify & address deficiencies    | o Completed '08-'09; updated annually |
| o CNU MS4 Website                    | o Update with MS4 content            | o Uploaded '09-'10; updated annually  |
| o Campus Public Involvement          | o Garden Symposium table             | o Drink coasters distributed          |
| o Storm Drain Medallions             | o "No Dumping, Drains to Waterway"   | o Replace as necessary                |
| o Construction Signage               | o Signs placed at construction sites | o Signs removed upon completion       |
| o Construction Site Runoff           | o Biennial training for contractors  | o No new projects; no new trainings   |
| o Litter and Street Debris Education | o Public outreach/education          | o #stormwaterMonday                   |
| o Nutrient Management Training       | o Nutrient Management Plans (NMPs)   | o Turfgrass Technician position       |

MS4 Permit Requirements 8

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## MCM NO 2 – PUBLIC INVOLVEMENT/PARTICIPATION

| <u>PRACTICE</u>   | <u>DESCRIPTION</u>  | <u>STATUS</u>   |
|---|---|---|
| <ul style="list-style-type: none"> <li>o MS4 Program Update</li> <li>o CNU MS4 Website</li> <li>o Campus Public Involvement</li> <li>o Pet Waste Stations</li> <li>o Outreach/Participation Events</li> </ul> | <ul style="list-style-type: none"> <li>o Identify and address deficiencies</li> <li>o Update with MS4 related content</li> <li>o Distribution of drink coasters</li> <li>o Encouraging proper waste disposal</li> <li>o Service events</li> </ul> | <ul style="list-style-type: none"> <li>o Completed '08-'09; updated annually</li> <li>o Uploaded '09-'10; updated annually</li> <li>o CNU staff distributed coasters</li> <li>o No new installed this permit year</li> <li>o Virtual involvement due to Pandemic</li> </ul> |

MS4 Permit Requirements

9

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## MCM NO 3 – ILLICIT DISCHARGE DETECTION & ELIMINATION

| <u>PRACTICE</u>   | <u>DESCRIPTION</u>  | <u>STATUS</u>   |
|---|---|---|
| <ul style="list-style-type: none"> <li>o IDDE Policy</li> <li>o CNU Stormwater Study</li> <li>o CNU MS4 Website</li> <li>o Map of Storm Sewer System</li> <li>o Storm Sewer System Table</li> <li>o Illicit Discharge Detection Tracking &amp; Reporting</li> <li>o Outfall Inspections</li> <li>o Pollution Prevention Materials</li> <li>o Pollution Prevention Training</li> </ul> | <ul style="list-style-type: none"> <li>o Contaminant discharge protection</li> <li>o Storm sewer system map &amp; table</li> <li>o Update with MS4 content</li> <li>o MS4 outfalls, receiving waters, etc.</li> <li>o Unique identifiers, drainage area, etc.</li> <li>o Procedure for tracking and responding</li> <li>o Documentation of each outfall status</li> <li>o Educational material distributed</li> <li>o Biennial pollution prevention training</li> </ul> | <ul style="list-style-type: none"> <li>o Available online; updated as needed</li> <li>o Updated as needed</li> <li>o Uploaded '09-'10; updated annually</li> <li>o Evaluated annually by October 1<sup>st</sup></li> <li>o Evaluated annually by October 1<sup>st</sup></li> <li>o Ongoing reporting; no reports PY2</li> <li>o Outfalls inspected annually</li> <li>o Materials distributed annually</li> <li>o Ongoing biennial training</li> </ul> |

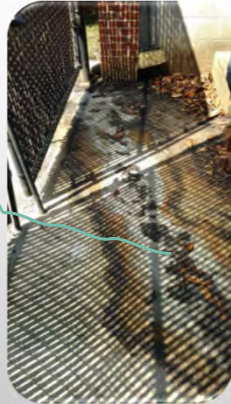
MS4 Permit Requirements

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## MCM NO 3 – ILLICIT DISCHARGE DETECTION & ELIMINATION

Evidence of previous discharge to curb inlet



Evidence of discharge from compressor



MS4 Permit Requirements

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## MCM NO 4 – CONSTRUCTION SITE RUNOFF CONTROL

| <u>PRACTICE</u>   | <u>DESCRIPTION</u>  | <u>STATUS</u>   |
|---|---|---|
| <ul style="list-style-type: none"> <li>Annual Standards &amp; Specifications</li> <li>Project Inspections</li> <li>ESC Contract Provisions</li> <li>Construction Site Runoff</li> <li>Construction Signage</li> <li>LDA Tracking</li> </ul> | <ul style="list-style-type: none"> <li>Ensures compliance with permits</li> <li>Ensures site compliance</li> <li>Ensures adequacy of SWPPP</li> <li>Training for contractors on site</li> <li>Signage about ESC practices</li> <li>Tracking all land disturbing activities</li> </ul> | <ul style="list-style-type: none"> <li>VADEQ approved March 12th, 2020</li> <li>Implement program; update annually</li> <li>Implement program; update annually</li> <li>Training planned as new projects arise</li> <li>Install at start; remove at completion</li> <li>Implement program; update annually</li> </ul> |

MS4 Permit Requirements

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## MCM NO 5 – POST CONSTRUCTION MANAGEMENT

| <u>PRACTICE</u>                     | <u>DESCRIPTION</u>                       | <u>STATUS</u>                        |
|-------------------------------------|--|--------------------------------------|
| o CNU Stormwater Study              | o Storm sewer system map and table       | o Updated as needed                  |
| o ESC Contract Provisions           | o Ensures adequacy of SWPPP              | o Implement program; update annually |
| o Annual Standards & Specifications | o Ensures compliance with permits        | o VADEQ approved March 12th, 2020    |
| o BMP Inspections                   | o Inspect permanent SWM facilities       | o Implement program; update annually |
| o BMP Tracking                      | o Tracking SWM facilities electronically | o Implement program; update annually |
| o BMP Maintenance                   | o Ensuring functionality of BMPs         | o Implement program; update annually |

MS4 Permit Requirements

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## MCM NO 6 – POLLUTION PREVENTION/GOOD HOUSEKEEPING

| <u>PRACTICE</u>                          | <u>DESCRIPTION</u>                        | <u>STATUS</u>                            |
|--|---|--|
| o Pollution Prevention Training          | o Pollution prevention training to staff  | o Biennial ongoing activity              |
| o SWPPP Implementation                   | o Implement for high-priority facilities  | o Inspection scheduled for summer 2020   |
| o Illicit Discharge Tracking & Reporting | o Tracking activities involving IDDE      | o Reporting is an ongoing activity       |
| o Nutrient Management Plans              | o Two separate NMPs on campus             | o Update scheduled for 2024              |
| o Nutrient Management Training           | o Ensures nutrients are applied properly  | o Ongoing biennial training              |
| o Standards & Specifications             | o Ensures compliance with permits         | o VADEQ approved March 12th, 2020        |
| o Infrastructure Cleaning                | o Cleaning stormwater infrastructure      | o Implement program; evaluate annually   |
| o Street Sweeping                        | o Streets cleaned and quantity reported   | o Implement program; evaluate annually   |
| o Storm Drain Medallions                 | o "No Dumping, Drains to Waterway"        | o Replace as necessary                   |
| o Daily Good Housekeeping SOPs           | o Methods to minimize pollutant discharge | o Include in trainings; update as needed |

MS4 Permit Requirements

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# EMPLOYEE ROLE

**EVERYONE IS RESPONSIBLE**


“EVERYONE” FOR CNU IS THE  
FACULTY, STUDENTS, STAFF,  
CONTRACTORS, AND VISITORS  
TO CAMPUS


| Member Title                               | Member Responsibility  |
|--|--|
| VP for Administrative & Auxiliary Services | <u>Team Member</u> – Certifying official and provides upper management   |
| Director of Grounds                        | <u>SWPPP Coordinator/Team Leader</u> – Coordinates plan development, implementation, training, inspections, and BMPs |
| Director of Facilities Management          | <u>Team Member</u> – Supports Director of Grounds  |
| Associate Director of Grounds              | <u>Team Member</u> – Oversees preventative maintenance and monthly inspections                                       |
| Environmental Health & Safety Manager      | <u>Team Member</u> – Supports Director of Grounds  |
| Sustainability Coordinator                 | <u>Team Member</u> – Supports Director of Grounds  |
| Consultant                                 | Assists in plan development and provides technical advice on plan implementation                                     |

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# EMPLOYEE ROLE – KEY ACTION ITEMS

- KNOW YOUR STANDARD OPERATING PROCEDURES (SOPS)
- KNOW YOUR SWPPP
- KNOW WHO TO REPORT CONCERNS TO
- KNOW HOW OFTEN TO THINK ABOUT IT
  - A WEEKLY MENTAL REMINDER
- WE’LL LOOK AT INSPECTION EXAMPLES
  - WHAT TO DO AND NOT DO
  - WHAT TO KEEP AN EYE OUT FOR
  - ESPECIALLY WATCH HIGH PRIORITY FACILITIES





MS4 Permit Requirements 16

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## SOPS

- EQUIPMENT MAINTENANCE, WASHING, AND FUELING ACTIVITIES
- GROUNDSKEEPING MAINTENANCE ACTIVITIES; LANDSCAPING
- OUTDOOR SPECIAL EVENTS AND FESTIVALS
- PROPER TRANSFER, STORAGE, AND DISPOSAL OF KITCHEN WASTE
- PROPER LOADING, UNLOADING, AND STORAGE OF LIQUID MATERIALS
- PROPER HANDLING, STORAGE, TRANSFER, AND DISPOSAL OF WASTE, TRASH, AND RECYCLING
- MAINTENANCE OF PARKING LOTS, GARAGES, STREETS, AND ROADS
- PRESSURE WASHING AND EXTERIOR SURFACE CLEANING
- SPILL PREVENTION, CONTROL, CLEAN UP, AND REPORTING

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## SWPPP – STORMWATER POLLUTION PREVENTION PLAN



Goal: Improve water quality through stormwater pollutant reduction



A copy of the SWPPP shall be kept onsite

Quarterly revisions and compliance checks

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## SWPPP HIGH PRIORITY FACILITIES

MS4 Permit Requirements


- WHEN SWPPPS ARE NECESSARY
  - AREAS WHERE RESIDUALS FROM USING, CLEANING, OR STORING MACHINERY/EQUIPMENT REMAIN EXPOSED
  - SPILLS OR LEAKS
  - MATERIAL HANDLING EQUIPMENT
  - TRANSPORTATION ACTIVITIES
    - ROCK, FILL, DIRT, ETC.
  - LEAK STORAGE CONTAINERS
  - WASTE MATERIAL
  - VISIBLE DEPOSITS (PARTICLES) FROM ROOF STACKS OR VENTS NOT OTHERWISE REGULATED


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## SWPPP SHALL INCLUDE


 Site description and map(s)


 Trainings


 Pollutant & source checklist


 Modifications due to spills/releases


 Non-stormwater discharges

 Compliance evaluation procedures

 Maintenance schedule for controls

 Dry weather screening procedures

 Policies/procedures to reduce sources

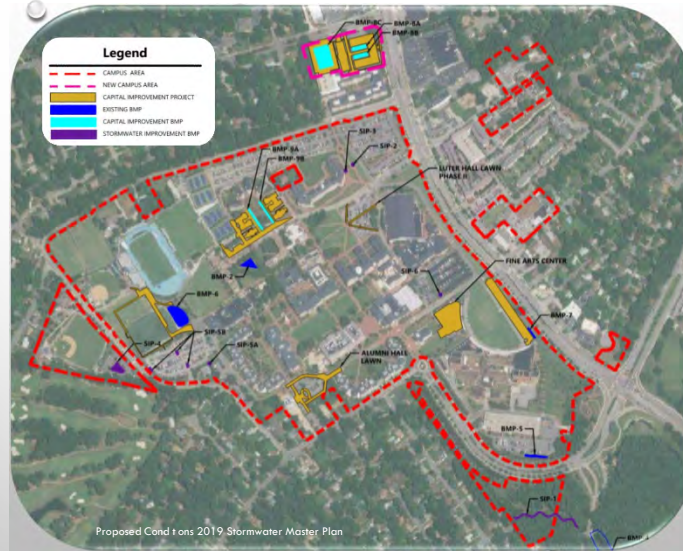
 Inspection schedule & checklist

MS4 Permit Requirements

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# 2019 PROPOSED CAMPUS CONDITIONS



MS4 Permit Requirements

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# HIGH-PRIORITY AREAS

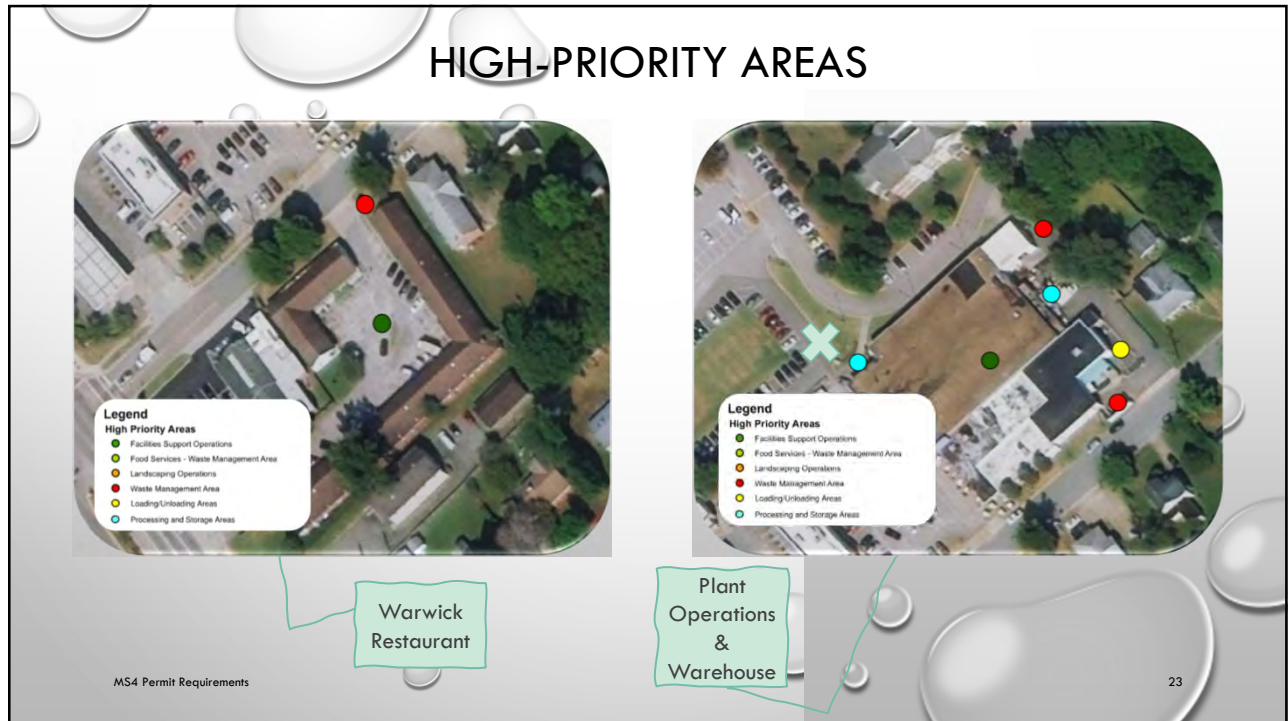


20 total high-priority facilities identified

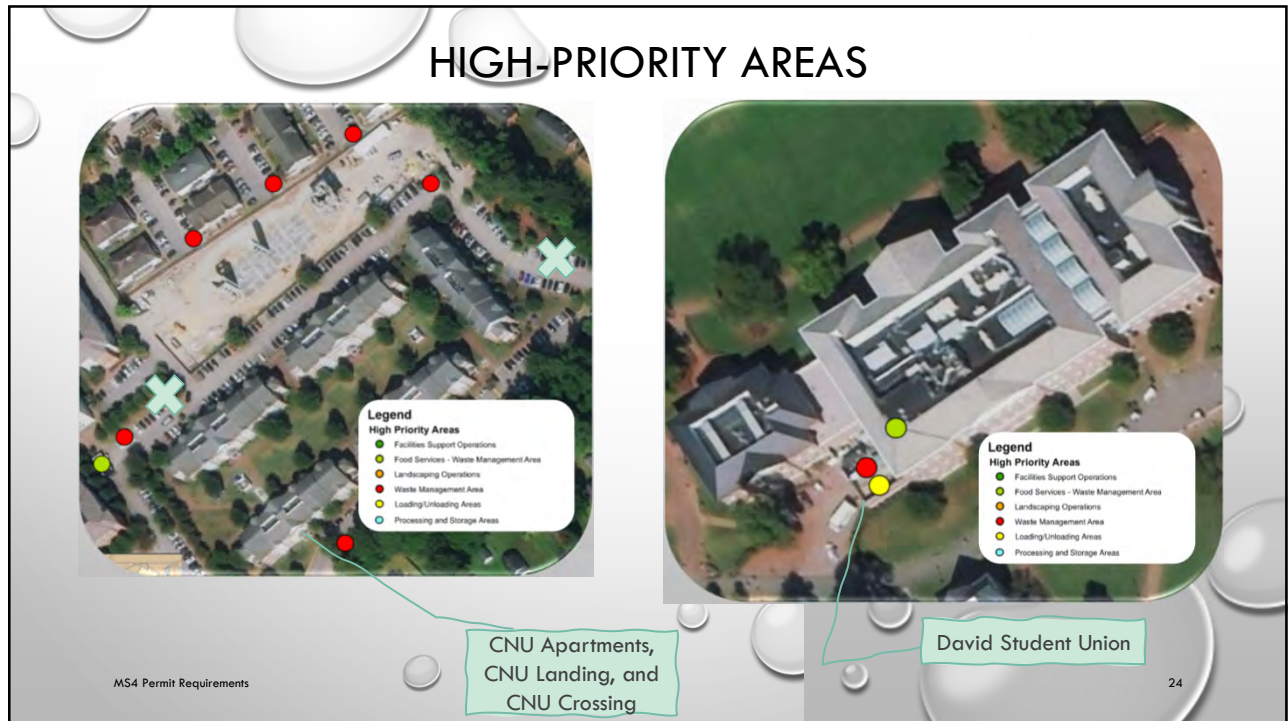
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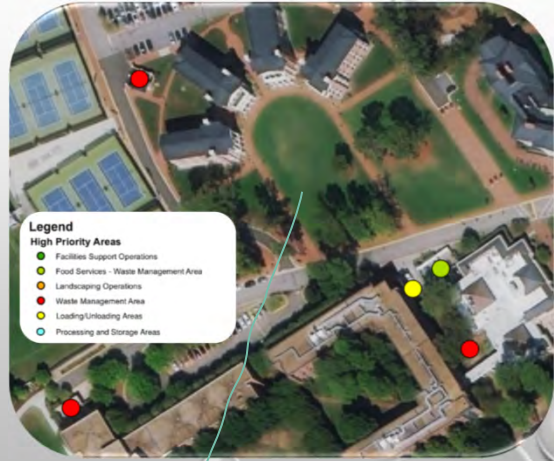
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# HIGH-PRIORITY AREAS



Rear of TowneBank Stadium

Greek Life Housing, James River Residence Hall, Hidden-Hussey Commons, and Santoro Residence Hall

MS4 Permit Requirements

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# HIGH-PRIORITY AREAS



Freeman Sports and Convocation Center

Ferguson Center for the Arts

MS4 Permit Requirements

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## HIGH-PRIORITY AREAS

Vehicle Wash Pad

Grounds Department

**Legend**  
High Priority Areas

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

MS4 Permit Requirements

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## INSPECTIONS

|  |                                 |                         |
|--|---------------------------------|-------------------------|
|  | Inspection schedule & checklist | SWPPP Appendix A        |
|  | Quarterly site compliance forms | SWPPP Appendix A        |
|  | Dry weather screening forms     | Program Plan Appendix F |

MS4 Permit Requirements

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# IDDE

- LIST ILLICIT DISCHARGE(S) IDENTIFIED, REMEDIAL MEASURES TAKEN, AND DESCRIPTION OF FOLLOW-UP MONITORING
- DRY WEATHER SCREENING (SECTION 10)
- PROCEDURES AND IMPLEMENTATION PLAN TO REDUCE FLOATABLES



Open storage area with exposed stockpile



Active construction site

MS4 Permit Requirements

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# SPILLS & LEAKS



PROVIDE LIST OF SPILLS THAT QUALIFY FOR IMMEDIATE REPORTING



IDENTIFY SOURCE OF SPILL

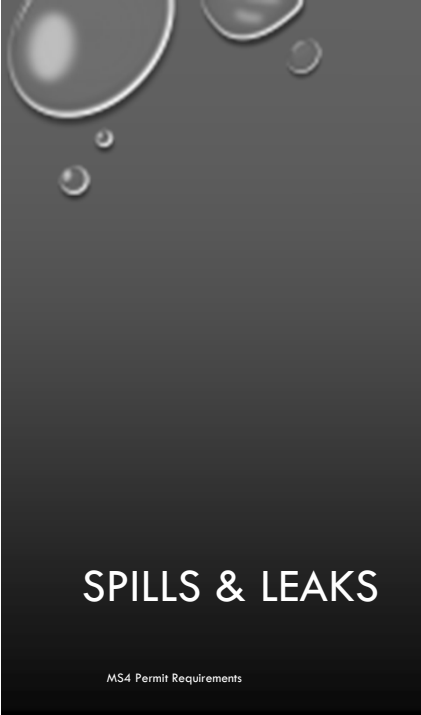


DESCRIBE FOLLOW-UP ACTIVITIES

MS4 Permit Requirements

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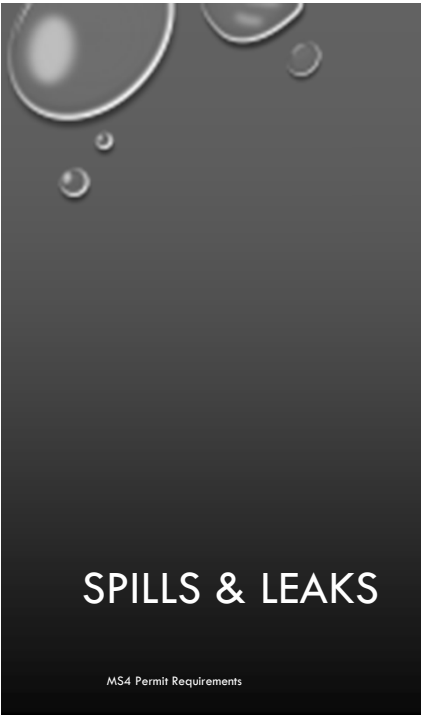
## SPILLS & LEAKS

MS4 Permit Requirements

- INTERNAL REPORTING OF SPILLS & LEAKS
  - EMPLOYEES
    - NOTIFY YOUR DIRECT SUPERVISOR IMMEDIATELY
      - WHAT SPILLED
      - HOW MUCH
      - WHERE IS IT
  - SUPERVISORS
    - POSES NO IMMEDIATE DANGER TO HUMAN LIFE OR PROPERTY AND <5 GALLONS
      - CLEAN UP *IMMEDIATELY*, SOPS CAN BE FOUND IN APPENDIX E
      - NOTIFY CNU POLICE (4-7777)
    - HAZARDOUS SUBSTANCE <5 GALLONS
      - NOTIFY CNU POLICE (4-7777)
    - LARGE SPILLS <5 GALLONS
      - NOTIFY CNU POLICE (4-7777)

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## SPILLS & LEAKS

MS4 Permit Requirements

- EXTERNAL REPORTING OF SPILLS & LEAKS
  - ALL HAZARDOUS OR UNKNOWN SPILLS EXCEEDING 1 PINT:
    - CALL CNU POLICE AT (4-7777)
    - NOTIFY VIRGINIA DEQ (757) 518-2000
    - NOTIFY THE NATIONAL RESPONSE CENTER (800) 424-8802
    - IF NIGHT, WEEKEND, OR HOLIDAY NOTIFY THE VIRGINIA DEPARTMENT OF EMERGENCY MANAGEMENT'S 24-HOUR HOTLINE (800) 468-8892
  - ANY SPILL OF ANY POLLUTANT (EX: OIL, PAINTS, FUELS, HAZARDOUS LIQUIDS, SEDIMENT, OR SUPER-CHLORINATED WATER) REACHING STORM DRAINS OR ENTERING "WATERS OF THE STATE":
    - NOTIFY VIRGINIA DEQ (757) 518-2000 WITHIN 24-HOURS OF THE RELEASE OR SUSPECTED RELEASE
  - IF ANY AMOUNT OF PETROLEUM CAUSES A SHEEN ON NEARBY SURFACE WATER OR IS MORE THAN 25 GALLONS:
    - NOTIFY VIRGINIA DEQ (757) 518-2000
    - NOTIFY THE NATIONAL RESPONSE CENTER (800) 424-8802

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## PERMIT COMPLIANCE AND ENFORCEMENT

- STORMWATER MANAGEMENT FACILITY TYPE, LOCATION, AND PUBLIC OR PRIVATE
- AREA BEING TREATED
- IMPAIRED WATERSHED SEGMENTS
- IF THE AREA DISCHARGES TO THE MS4
- DATE OF LAST INSPECTION
- SUMMARY OF ACTIONS TO ENSURE MAINTENANCE OF PRIVATE STORMWATER MANAGEMENT FACILITIES
- SUMMARY OF PROGRAM TO ENSURE MAINTENANCE
- ACCESS TO INFORMATION ONLINE

MS4 Permit Requirements

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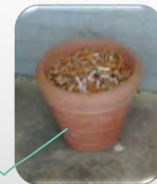
## INSPECTIONS

- ROUTINE INSPECTIONS DURING OPERATING HOURS
  - AREAS WHERE MATERIALS/ACTIVITIES ARE EXPOSED TO STORMWATER
  - AREAS IDENTIFIED IN SWPPP AS POTENTIAL POLLUTANT SOURCES
  - AREAS WHERE SPILLS OR LEAKS HAVE OCCURRED IN THE PAST 3-YEARS
  - DISCHARGE POINTS
  - CONTROL MEASURES USED TO COMPLY THE PERMIT



Damaged staircase

Uncovered smoking receptacle



Broken trash can lid



MS4 Permit Requirements

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# VISUAL INSPECTIONS

Record a physical assessment of sample

Be sure to remediate if necessary

### QUARTERLY VISUAL ASSESSMENT LOG

Date Sample Taken: \_\_\_\_\_ Time Sample Taken: \_\_\_\_\_  
 Name of Sampler (s): \_\_\_\_\_  
 Signature of Sampler (s): \_\_\_\_\_  
 Date of Visual Assessment: \_\_\_\_\_ Time of Visual Assessment: \_\_\_\_\_  
 Name of Assessor (s): \_\_\_\_\_  
 Signature of Assessor (s): \_\_\_\_\_

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

Sample location(s): \_\_\_\_\_ Outfall #: \_\_\_\_\_ Other: \_\_\_\_\_  
 If other explain: \_\_\_\_\_

Weather conditions during sampling: \_\_\_\_\_

Nature of discharge: \_\_\_\_\_ Runoff; \_\_\_\_\_ Snowmelt; \_\_\_\_\_ Other \_\_\_\_\_  
 If other explain: \_\_\_\_\_

Sample taken within first 30 minutes of Discharge: \_\_\_\_\_ Yes; \_\_\_\_\_ No  
 If no explain why: \_\_\_\_\_

Quality of sample:

- Color \_\_\_\_\_
- Odor \_\_\_\_\_
- Clarity \_\_\_\_\_
- Floating Solids \_\_\_\_\_
- Settled Solids \_\_\_\_\_
- Suspended Solids \_\_\_\_\_
- Foam \_\_\_\_\_
- Oil Sheen \_\_\_\_\_
- Other \_\_\_\_\_

Probable sources of any observed stormwater contamination: \_\_\_\_\_  
 \_\_\_\_\_

Any corrective action required as a result of quarterly visual assessment: \_\_\_\_\_ Yes; \_\_\_\_\_ No  
 If yes explain: \_\_\_\_\_  
 \_\_\_\_\_

MS4 Permit Requirements 35

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# VISUAL INSPECTIONS

Be sure to update measures and documents as necessary

Immediately **take action** with noncompliance observations

Inspect outfalls to ensure pollutants are being prevented and flow is not obstructed

### 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           | <input type="checkbox"/> Yes <input type="checkbox"/> No   |
| Any discharges                                  | <input type="checkbox"/> Yes <input type="checkbox"/> No   |
| Any sheen or chemical odors evident on effluent | <input type="checkbox"/> Yes <input type="checkbox"/> No   |
| General Cleanliness of area                     | <input type="checkbox"/> Good <input type="checkbox"/> Bad |

Comments (Note specific outfall comment is for): \_\_\_\_\_  
 \_\_\_\_\_

Additional Comments: \_\_\_\_\_  
 \_\_\_\_\_

MS4 Permit Requirements 36

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# INSPECTIONS

- OBSERVATIONS RELATING TO INSPECTION TO NOTE
  - DESCRIPTION OF DISCHARGE AT TIME OF INSPECTION
  - PREVIOUSLY UNIDENTIFIED DISCHARGES AND/OR POLLUTANTS FROM SITE
  - EVIDENCE OR POTENTIAL OF POLLUTANTS ENTERING DRAINAGE SYSTEM
  - OBSERVATIONS REGARDING PHYSICAL CONDITION OF AND AROUND OUTFALLS
    - FLOW DISSIPATION DEVICES
    - EVIDENCE OF POLLUTANTS IN DISCHARGE AND/OR RECEIVING WATER
  - CONTROL MEASURES NEEDING MAINTENANCE, REPAIRS, OR REPLACEMENT

Curb cut out from parking lot inhibiting flow to inlet



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*Commonwealth Hall*  
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.

|   |                                    |                                      |
|---|------------------------------------|--------------------------------------|
| <b>INSPECTOR NAME:</b><br>Ima Inspector | <b>INSPECTION TIME:</b><br>9:40 am | <b>INSPECTION DATE:</b><br>6/23/2021 |
|---|------------------------------------|--------------------------------------|

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

Was stormwater (e.g., runoff from site or elsewhere) flowing at outfalls and/or discharge areas during this Site Map data/at site inspection? (Yes/No)  Yes  No  
Comments:

---

**1. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION**

|   |  |
|---|--|
| <p><small>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.</small></p> <ul style="list-style-type: none"> <li>• Is the Site Map current and accurate? <input checked="" type="checkbox"/></li> <li>• Is the SWPPP inventory of activities, materials and products current? <input checked="" type="checkbox"/></li> </ul> | <p><small>Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date indicated and date completed or expected to be completed.</small></p> <p>* Suppp available online</p> |
|---|--|

Report weather conditions and type of stormwater

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Schedule time to observe washing

Ensure materials are properly stored, covered, and containing all necessary equipment

**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 contaminants 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 wear 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 (confirm the storage of fluids or leak prone vehicles and equipment awaiting maintenance to protected areas)?

**Did my additional site-specific BMPs:** N/A


**Findings and Remedial Action Documentation:**

No Equipment / Vehicle Areas

**Diesel tank uncovered without spill kit**



**Covered vehicle storage**




MS4 Permit Requirements 39

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**Waste receptacle lid open**

Ensure waste receptacles are **CLOSED**



**I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION**

**Good Housekeeping BMPs**

**Are paved surfaces free of accumulated dust/dirt and debris?**

- Date of last quarterly vacuum/sweep
- Are there areas of erosion or sediment that transport that discharge to storm drains?

**Are all waste receptacles fenced outdoors?**

- In good condition?
- Not leaking contaminants?
- Closed when in use being accessed? Lid Not Closed

**Are the following areas free of accumulated dust/dirt, debris, contaminants, and/or spills/leaks of fluids?**

- External surfaces and area free of excessive contaminants buildup?
- Pallet, bin, and drum storage areas
- Maintenance shops?
- Equipment staging areas (loaders, tractors, trailers, forklifts, etc.)
- Around hog-barns?
- Around bore yards

**Other areas of industrial activity:**

**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 non-metallic plug or cover kit
- A non-water containment berm, a minimum of 10 feet in length with a 12 gallon absorber, capacity
- A non-metallic absorbent
- Two five-gallon buckets with lids


Are contaminated absorbent materials properly disposed of?

**Findings and Remedial Action Documentation:**


No standing water after rain yesterday  
Sediment accumulation @ office 5 drain  
erosion along planter beds Fall  
Trash cans in good condition (no leaks) @ office 18  
Trash @ office 29 OK  
Recycle & trash @ housing OK  
accumulation of leaf litter in planter beds  
bed @ Nasty has no plants

**Ensure findings are remediated with action and documentation**

**Sediment buildup at inlet 5**





**Waste receptacle left open**






MS4 Permit Requirements 40

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| I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BMP EVALUATION  |  |
|---|--|
| <p><b>General Material Storage Areas</b></p> <ul style="list-style-type: none"> <li>• Are damaged materials stored inside a building or another type of storm resistance shelter?</li> <li>• Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater?</li> <li>• Are scrap metal bins covered?</li> <li>• Are outdoor containers covered?</li> </ul>   | <p><b>Findings and Remedial Action Documentation:</b></p> <ul style="list-style-type: none"> <li>• Materials stored indoors</li> </ul> |
|    | <p>← .....<br/>Not all materials appear to be stored indoors</p>   |
| <p><b>Stormwater BMPs and Treatment Structures</b></p> <p>Visually inspect all stormwater BMPs and treatment structures devices, discharge areas infiltration and outfalls shown on the Site Map.</p> <ul style="list-style-type: none"> <li>• Are BMPs and treatment structures in good repair and operational?</li> <li>• Are BMPs and treatment structures free from debris buildup that may impair function?</li> <li>• 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?</li> <li>• Are berms, curbing or other methods used to divert and direct discharges adequate and in good condition?</li> </ul> | <p><b>Findings and Remedial Action Documentation:</b></p> <ul style="list-style-type: none"> <li>• No BMPs at site</li> </ul>          |
|   | <p>← .....<br/>Does not correlate to documented BMPs</p> <p>Bare spots and standing water along berm</p>                               |

MS4 Permit Requirements 41

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|   |   |   |
|---|---|---|
|                            | <p><b>Observation of Stormwater Discharges</b></p> <ul style="list-style-type: none"> <li>• Is the discharge free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam or any other signs of contamination?</li> <li>• Water from washing vehicles or equipment, steam cleaning and/or pressure washing is considered process wastewater and is not allowed to connect with stormwater or enter storm drains. Is process water coalescing with stormwater or clogging storm drains?</li> </ul> <p> illicit discharges include domestic wastewater, noncontact cooling water, or process wastewater (including leachate)</p> <ul style="list-style-type: none"> <li>• Were any illicit discharges observed during the inspection?</li> </ul> | <p><b>Findings and Remedial Action Documentation:</b></p> <ul style="list-style-type: none"> <li>• No Discharges</li> </ul>   |
| <p>Ensure findings are remediated with <b>action</b> and documentation</p>                                    | <p><b>II. CORRECTIVE ACTION AND SWPPP MODIFICATIONS DESCRIPTIONS:</b></p> <p>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.</p> <ul style="list-style-type: none"> <li>• Stabilize bank of SWS in planter beds</li> <li>• Remove dirt / sediment from parking lot / curb and gutter</li> <li>• Ensure trash lid remains closed at all times</li> </ul>  |  <p>Sheen on water (potential pollutant)</p>  |
| <p>Sediment buildup recorded in many areas – It was also noted there is no drainage from this parking lot</p> | <p>Since the initial site inspection, the following hot spot issues of concern have been addressed:</p> <ul style="list-style-type: none"> <li>• N/A</li> </ul>   |  <p>Sparse vegetation in check dam potentially related to nutrient application and buildup of sediment/debris</p> |

MS4 Permit Requirements 42

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**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."*

|                            |                       |                       |                |
|----------------------------|-----------------------|-----------------------|----------------|
| <b>Ima Inspector</b>       | <i>Ima Inspector</i>  | <b>Good Inspector</b> | <b>6/23/21</b> |
| 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.

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 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 | SIGNATURE of person with Signature Authority or a Duly Authorized Representative | DATE |
|---|--|------|



*"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 equipment responsibility, or an individual or position having overall responsibility for environmental matters."*

MS4 Permit Requirements 45

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## INSPECTION FINDINGS

- CONDUCTED JUNE 23<sup>RD</sup>, 2021
- ISSUES TO BE ADDRESSED:
  - SEDIMENT BUILD-UP AROUND DROP INLETS AND INLET PROTECTION NEEDS ROUTINE MAINTENANCE, CLEANING, REINSTALLATION, AND/OR REPLACEMENT

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# INSPECTION FINDINGS

- CONDUCTED JUNE 23<sup>RD</sup>, 2021
  - ISSUES TO BE ADDRESSED:
    - COVER AND PROTECT UNCOVERED STOCKPILES

MS4 Permit Requirements 47

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# INSPECTION FINDINGS

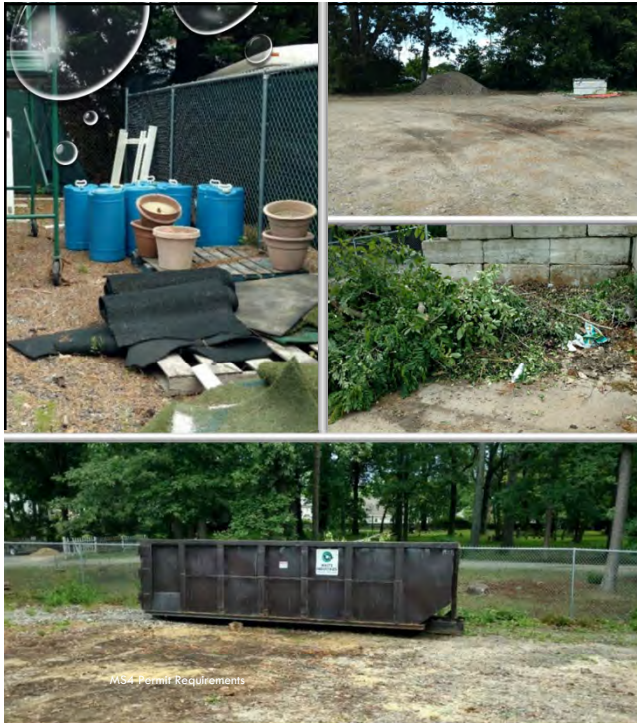
- CONDUCTED JUNE 23<sup>RD</sup>, 2021
  - ISSUES TO BE ADDRESSED:
    - EVIDENCE OF POLLUTANT DISCHARGE; FIND SOURCE AND **IMPLEMENT SOLUTION**

MS4 Permit Requirements 48



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## INSPECTION FINDINGS

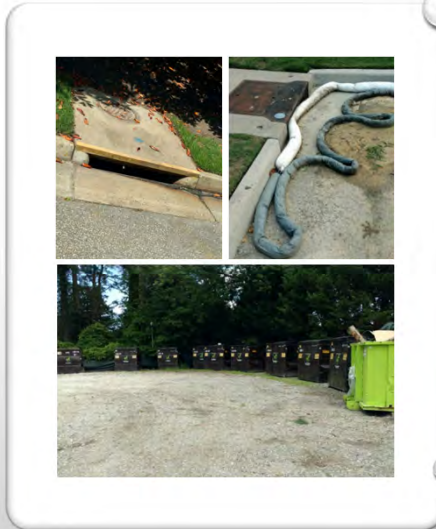
- CONDUCTED JUNE 23<sup>RD</sup>, 2021
- ISSUES TO BE ADDRESSED:
  - OPEN DUMPSTERS/GARBAGE RECEPTACLES AND STORAGE AREAS; **COVER THEM**

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## INSPECTION FINDINGS

- POSITIVE ASPECTS OF THIS INSPECTION SCHEDULE & CHECKLIST:
  - WASHING OF SWEEPER TRUCKS IS BEING DONE IN THE APPROPRIATE LOCATION
  - STORAGE AREAS MOSTLY WELL ORGANIZED
  - GOOD IMPLEMENTATION OF FILTER SOCKS BEFORE INLETS
  - MOST DUMPSTER LIDS BEING KEPT CLOSED



MS4 Permit Requirements

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## MAINTENANCE

### ○ PROVIDE SUMMARY OF ACTIVITIES:

- LIST OF STRUCTURES INSPECTED
- DATE OF INSPECTION
- TYPE OF STRUCTURE
- LOCATION
- MAINTENANCE NEEDS
- WHEN MAINTENANCE PERFORMED

Sparse vegetation, excessive nutrients applied, sediment and debris build-up in check dam



### ○ PRIORITIZING SCHEDULE

- MAINTENANCE IS **KEY** TO MAINTAINING A PROPER FUNCTIONING – LONG LASTING STRUCTURE

MS4 Permit Requirements

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## MAINTENANCE

### ○ INSPECTIONS AND PREVENTATIVE MAINTENANCE OF:

- STORMWATER DRAINAGE
- SOURCE CONTROLS
- EQUIPMENT AND SYSTEMS POSSIBLY ABLE TO FAIL

### ○ MAINTAINING NONSTRUCTURAL CONTROL MEASURES

### ○ CLEANING CATCH BASINS:

- WHEN DEBRIS DEPTH REACHES 2/3 OF SUMP DEPTH
- KEEPING THE DEBRIS SURFACE AT LEAST 6-IN BELOW OUTLET PIPE



Inlets at end of berm

Unretrieved inlet protection post construction completion



MS4 Permit Requirements

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# MAINTENANCE

MS4 Permit Requirements

- RECOMMENDED MAINTENANCE SCHEDULE FOR SOURCE CONTROLS:
  - ROOF DRAINS – SEMI ANNUALLY (SPRING/FALL)
  - STORM STRUCTURES – ANNUALLY (SPRING)
  - VISUAL INSPECTION OF OUTFALLS – ANNUALLY (SPRING)

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## THANK YOU FOR DOING YOUR PART!

STORMWATER QUALITY IS IMPORTANT

**EVERYONE** HAS A ROLE TO PLAY

KEEP AN EYE OUT FOR ISSUES, ESPECIALLY AROUND HIGH PRIORITY FACILITIES AND CONSTRUCTIONS SITES

TAKE ACTION – NOTIFY AUTHORITIES AND WORK TO CORRECT ISSUES

MS4 Permit Requirements



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Appendix E Minimum Control Measure five (MCM5) supplemental Information

## **Appendix E    MINIMUM CONTROL MEASURE 5 (MCM5) SUPPLEMENTAL INFORMATION**





Post-Construction BMP Inspections BMP (5.4)

BMP E-tracking (BMP 5.5)

Other Places for Information on MCM5:

- Stormwater Master Plan updated study for 2019 (BMP 3.2, 5.1) in Appendix C
- AS&S (BMP 4.1, 5.3, 6.6) in Appendix D

CNU Post-Construction BMP Inspection Permit Year 4

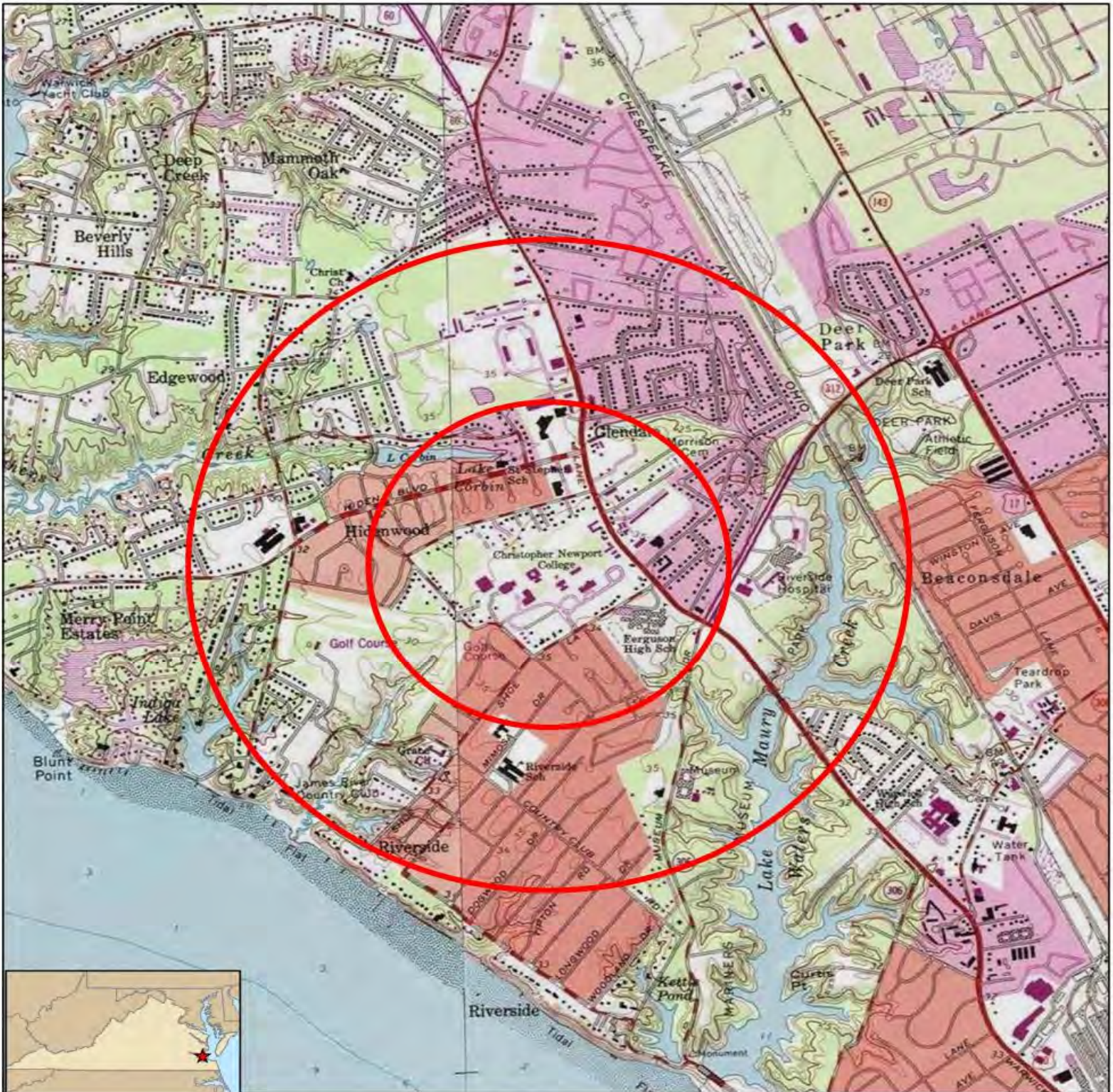
| <b>BMP</b> | <b>Location</b>            | <b>Type</b>                | <b>Inspection Date</b> | <b>Condition</b> | <b>Notes</b>                                      | <b>Photos</b>   |
|------------|----------------------------|----------------------------|------------------------|------------------|---|---|
| BMP 2      | James River Residence Hall | Extended Detention         | 6/1/22                 | Acceptable       | Sediment debris/buildup removed from inlets       |    |
| BMP 4      | Lake Maury                 | Retention                  | N/A                    | N/A              | This BMP is inspected by the City of Newport News | N/A   |
| BMP 5      | Parking Lot A              | Bioretention               | 6/8/22                 | Acceptable       | Vegetation added                                  |    |
| BMP 6      | Turf Field Replacement     | Bioretention               | 6/8/22                 | Acceptable       | Plants and Vegetation healthy.                    |   |
| BMP 7      | Parking Lot C1/C2          | Stormkeeper Sediment Strip | 6/1/22                 | Acceptable       | Underground facility.                             |  |

Christopher Newport University  
BMPs 2021 - 2022

| <b>BMP</b> | <b>Description</b>         | <b>Type</b>                | <b>Coordinates</b>                  | <b>HUC</b> | <b>Discharge into Impaired Water</b> | <b>Acres Treated</b> |
|------------|----------------------------|----------------------------|-------------------------------------|------------|--------------------------------------|----------------------|
| BMP 2      | James River Residence Hall | Extended Detention         | Lat. 37.064330<br>Long -76.496709   | JL 38      | N/A                                  | 5.37                 |
| BMP 4      | Lake Maury                 | Wet Pond                   | Lat. 37.056520<br>Long. -76.484747  | JL 43      | N/A                                  | 153.7                |
| BMP 5      | Parking Lot A              | Bioretention               | Lat. 37.060208 Long.<br>-76.489488  | JL 43      | N/A                                  | 1.69                 |
| BMP 6      | Turf Field Replacement     | Bioretention               | Lat. 37.063252<br>Long. -76.498511  | JL 43      | N/A                                  | 2.18                 |
| BMP 7      | Parking Lot C1/C2          | Stormkeeper Sediment Strip | Lat. 37.062798,<br>Long. -76.489513 | JL 43      | N/A                                  | 1.39                 |

Notes:





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







**Legend**

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

0 500 1,000



Feet

N



1:10,000

1 inch=833 feet

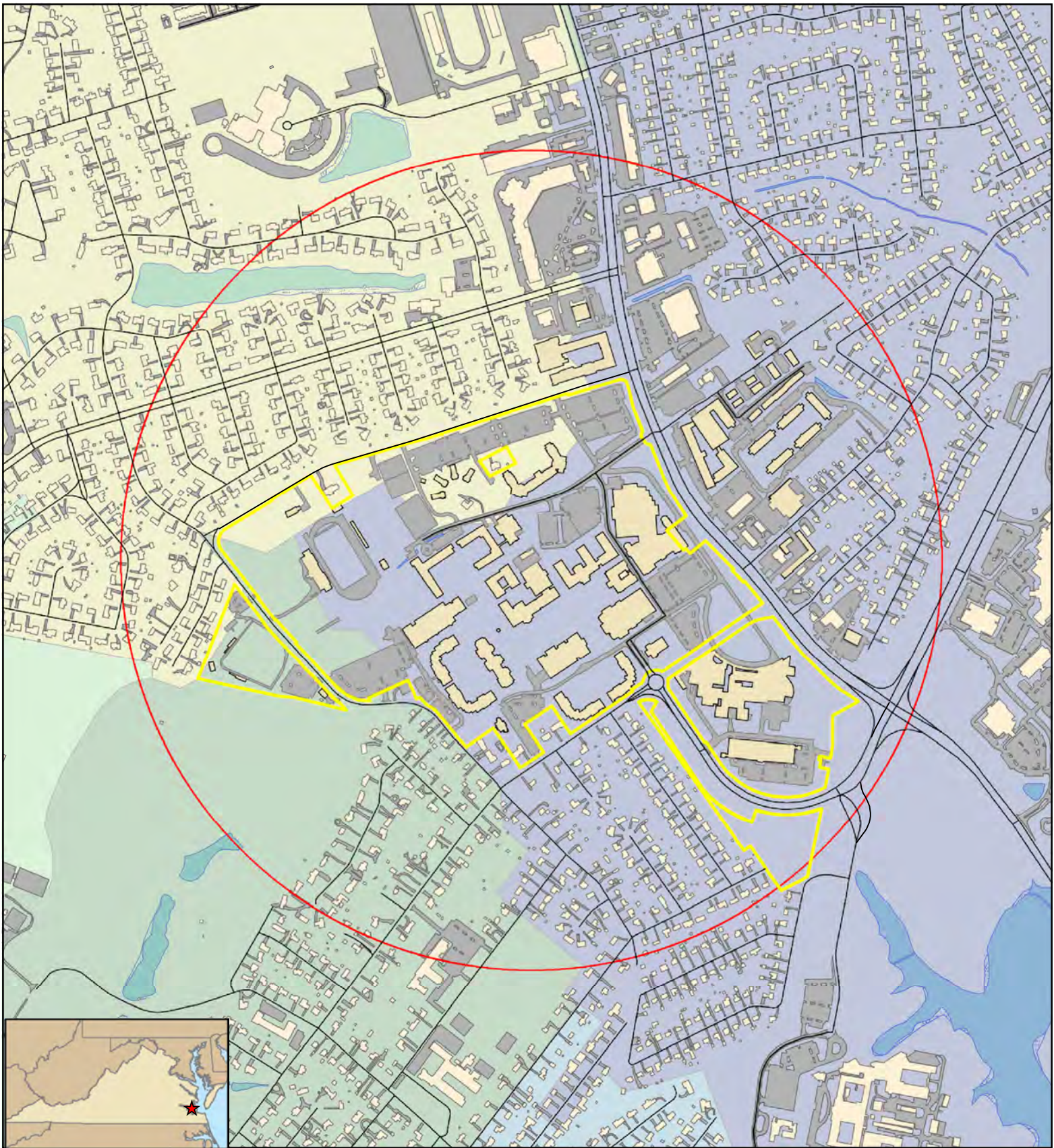
Figure 2: SWPP GIS Data

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



Service Layer Credits: MS4 Boundary and Outfalls derived from Korte Bryant, PC, 2014. All other data derived City of Newport News GIS, 2015. Updated by Elinor Group, 2021.





| 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  |

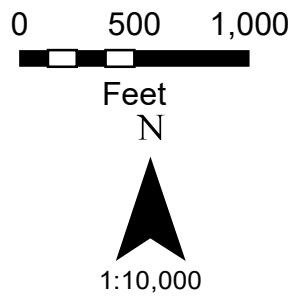
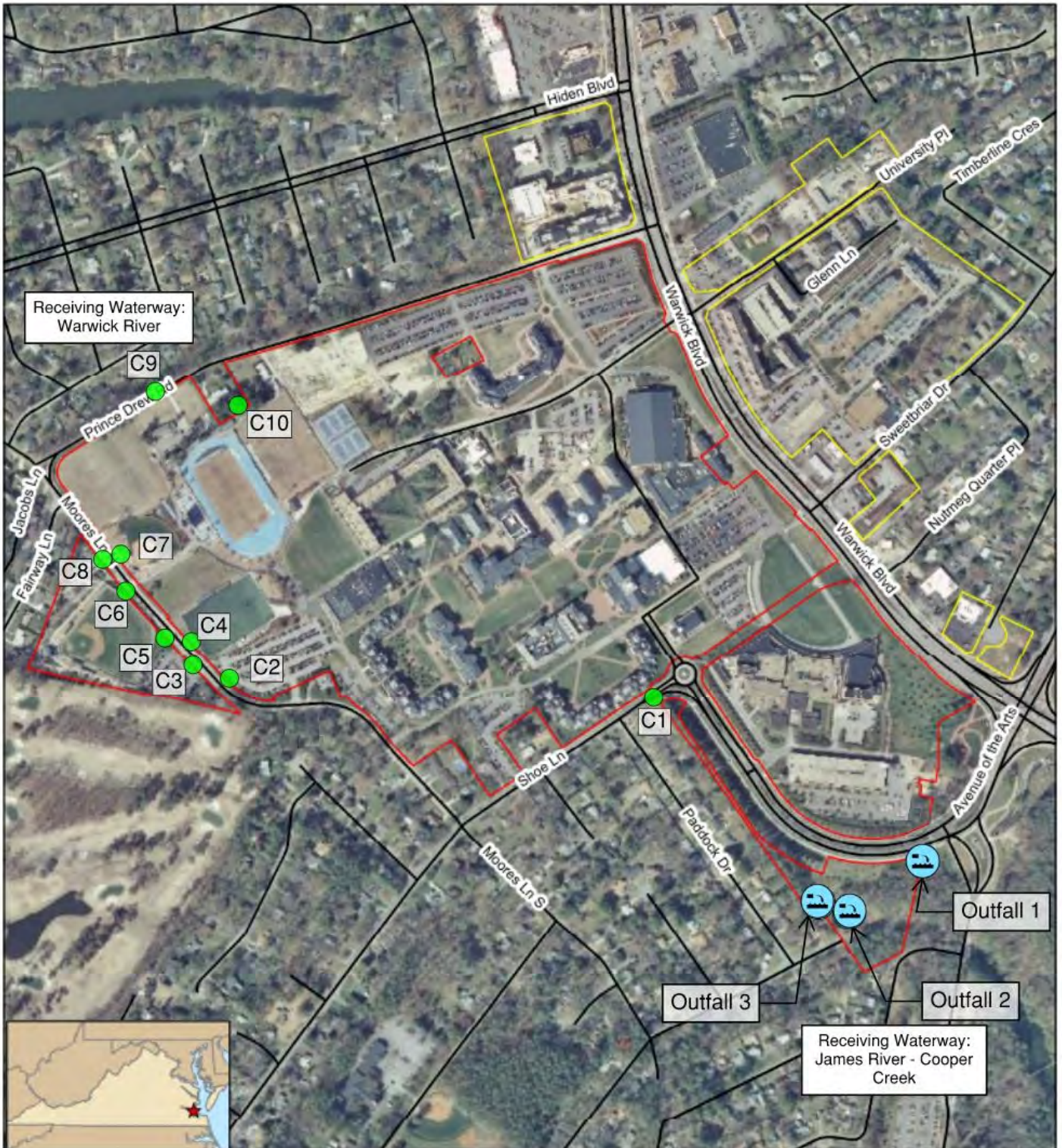


Figure 2.1: SWPP Drainage Basins  
Christopher Newport University  
1 Ave. of the Arts  
Newport News, VA  
June 2016





**Legend**

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

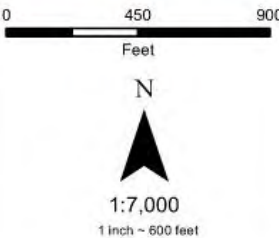


Figure 3: SWPP Orthophotograph  
Christopher Newport University  
1 Ave. of the Arts  
Newport News, VA  
June 2016



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





- 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
- F# = Facility [#]  
W# = Waste Receptacle [#]

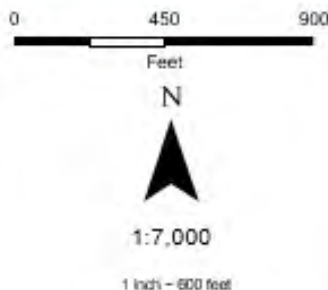


Figure 4: SWPP Areas of High Priority  
Christopher Newport University  
1 Ave. of the Arts  
Newport News, VA

Appendix F Minimum Control Measure six (MCM6) supplemental Information

## **Appendix F    MINIMUM CONTROL MEASURE 6 (MCM6) SUPPLEMENTAL INFORMATION**

High-Priority SWPPPs – Cover Page and Table of Contents (BMP 6.2)

NMPs (BMP 6.4)

SOPs (BMP 6.10)

Other Places for Information on MCM6:

- CNU IDDE Standard Procedures (BMP 3.6, 6.3) in Appendix C
- AS&S information (BMP 4.1, 5.3, 6.6) in Appendix D



CHRISTOPHER NEWPORT  

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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**



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Matthew J. Strickler  
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Thomas L. Smith  
*Deputy Director of Operations*

**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

August 4, 2021

Christopher Newport University-Athletics  
1 Avenue of the Arts  
Newport News VA 23606

Your nutrient management plan (NMP) dated 4/19/2021 for Christopher Newport University-Athletics located in City of Newport News has been approved by the Virginia Department of Conservation and Recreation (DCR). The approved plan is for 17 acres.

This site has not been inspected by DCR and this approval is contingent upon field conditions being as stated in the NMP. Any revisions to this plan must be approved by DCR. Please note that this letter should be kept with the NMP and supporting documentation including nutrient application records. This plan expires on 4/19/2024. Please feel free to contact me with any questions or concerns regarding this approval.

Best regards,

A handwritten signature in cursive script that reads "Anita Tuttle".

Anita Tuttle  
Urban Nutrient Management Coordinator  
Division of Soil and Water Conservation  
600 East Main Street, 24<sup>th</sup> Floor  
Richmond VA 23219  
(804) 513-5958

Matthew J. Strickler  
*Secretary of Natural and Historic  
Resources and Chief Resilience Officer*

Clyde E. Cristman  
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**COMMONWEALTH of VIRGINIA**  
DEPARTMENT OF CONSERVATION AND RECREATION

September 16, 2021

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Nathan Burrell  
*Deputy Director of  
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Darryl M. Glover  
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Dam Safety & Floodplain  
Management and Soil & Water  
Conservation*

Thomas L. Smith  
*Deputy Director of  
Operations*

Chris Webb  
Christopher Newport University  
1 Avenue of the Arts  
Newport News VA 23606

Your nutrient management plan (NMP) dated 7/5/2021 located in the City of Newport News has been approved by the Virginia Department of Conservation and Recreation (DCR). The approved plan is for 48.0 acres. Only nutrient recommendations for applications to be made after the date of this letter are approved by this letter. Your NMP was written by a nutrient management planner certified by DCR.

This site has not been inspected by DCR and this approval is contingent upon site conditions being as stated in the NMP. Any revisions to this plan must be approved by DCR. Please note that this letter should be kept with the NMP and supporting documentation including nutrient application records. This plan expires on 7/5/2024. Please feel free to contact me with any questions or concerns regarding this approval.

Best regards,

A handwritten signature in cursive script that reads "Anita Tuttle".

Anita Tuttle  
Urban Nutrient Management Coordinator  
Division of Soil and Water Conservation  
600 East Main Street, 24<sup>th</sup> Floor  
Richmond VA 23219  
(804) 513-5958





## 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](mailto:Grounds@cnu.edu)

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## Contact Information

| Title or Organization  | Contact           | Office Phone   |
|--|-------------------|----------------|
| CNU Police Department (CNU PD)                                     | Dispatch          | 4-7777         |
| National Response Center (NRC)                                     | Call Center       | 800-424-8802   |
| Virginia Department of Environmental Quality (DEQ)                 | Tidewater Office  | 757-518-2000   |
| Virginia Department of Environmental Quality 24-Hour Hotline (DEQ) | Call Center       | 1-800-468-8892 |
| Director of Grounds/MS4 Program Manager                            | Dean Whitehead    | 4-8416         |
| Director of Environmental, Health, & Safety (EHS)                  | Jackie Roquemore  | 4-7280         |
| Director of Housing  | Zac Holmes        | 4-8480         |
| Director of Facilities Management                                  | Scott Gesele      | 4-7863         |
| Dining of Dining Services  | June Miles        | 4-7624         |
| Director of Catering   | Erika Nestler     | 4-7007         |
| Director of Events, Scheduling and Conferences                     | John Murray       | 4-8164         |
| Director of Building Operations                                    | Wes Mann          | 4-8517         |
| Director of Capital Outlay Management                              | Michelle Campbell | 4-7867         |
| Associate Director of Athletics                                    | Matt Kelchner     | 4-7584         |
| Executive Director of University Events and Special Projects       | Amie Dale         | 4-7672         |

|                                |   |
|--------------------------------|---|
| <b>SOP:</b>                    | <b>Equipment Maintenance and Washing</b>  |
| <b>Purpose of SOP:</b>         | <b>Procedures for the proper management of equipment maintenance and washing.</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>   |
| <b>Responsible Department:</b> | <b>Grounds, Facilities Management, Housing, Dining, Building Operations</b>       |

*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 (except for emergencies) indoors.
4. Transfer fluids from drip pans to appropriate waste containers.
5. Routinely check equipment for signs of leaks.
  - a. Notify the 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.

|                                |   |
|--------------------------------|---|
| <b>SOP:</b>                    | <b>Outdoor Events</b>   |
| <b>Purpose of SOP:</b>         | <b>Procedures for outdoor events to prevent wastes or wastewater from entering storm drains and waterways</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>   |
| <b>Responsible Department:</b> | <b>Grounds, Facilities Management, Events, Catering</b>   |

*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 of it. 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, Estimated amount of product\***

|                                |   |
|--------------------------------|---|
| <b>SOP:</b>                    | <b>Kitchen Waste: Fats, Oils, and Greases (FOG) Transfer, Storage, and Disposal</b>   |
| <b>Purpose of SOP:</b>         | <b>Procedures for the management, handling, and storage of kitchen grease to prevent the discharge of pollutants to stormwater.</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>   |
| <b>Responsible Department:</b> | <b>Dining Services, Catering</b>  |

*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 obstacles that might lead to a slip, trip, fall and potential spill.
  - Ensure that a spill kit is easily accessible in the event of a 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 should be 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).



|                                |   |
|--------------------------------|---|
| <b>SOP:</b>                    | <b>Equipment Fueling Activities</b>   |
| <b>Purpose of SOP:</b>         | <b>Procedures for the proper management of the transfer and dispensing of fuel.</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>   |
| <b>Responsible Department:</b> | <b>Grounds, Facilities Management, Housing, Building Operations, Athletics</b>      |

*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 (AGSTs)
  - a. Turn off all equipment prior to dispensing fuel.
    - Do not use any mobile electronic devices when dispensing fuel.
  - b. Ensure that the fuel type is the proper type of fuel.
  - c. 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.
  - d. 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 prior to dispensing fuel.
    - 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.

|                                |  |
|--------------------------------|--|
| <b>SOP:</b>                    | <b>Grounds Maintenance</b>                                   |
| <b>Purpose of SOP:</b>         | <b>Procedures for grounds keeping maintenance activities</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>                                    |
| <b>Responsible Department:</b> | <b>Grounds</b>   |

*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. Fertilizer 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, and 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 contractor, 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.

|                                |   |
|--------------------------------|---|
| <b>SOP:</b>                    | <b>Liquid Materials Loading, Unloading, and Storage</b>   |
| <b>Purpose of SOP:</b>         | <b>Procedures for the proper management of the loading, unloading, and storage of liquid materials.</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>   |
| <b>Responsible Department:</b> | <b>Grounds, Facilities Management, Warehouse</b>  |

*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.

|                                |  |
|--------------------------------|--|
| <b>SOP:</b>                    | <b>Trash &amp; Recycling Handling, Storage, Transfer, and Disposal</b>   |
| <b>Purpose of SOP:</b>         | <b>Procedures for the proper management, handling, and storage of waste, trash, or recycling to prevent the discharge of pollutants to stormwater.</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>  |
| <b>Responsible Department:</b> | <b>Grounds, Facilities Management, Housing, Dining, Catering, Events, Building Operations, Athletics</b>   |

*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 proof with tight-fitting lids and closed at all times.
- 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 of 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 to the shop for proper disposal.

### **2. Dumpsters**

- 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.



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|--------------------------------|---|
| <b>SOP:</b>                    | <b>Parking Lot, Streets, and Roads Maintenance</b>  |
| <b>Purpose of SOP:</b>         | <b>Procedures for general maintenance of parking lots, parking garages, elevated parking structures, streets, or roads.</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>   |
| <b>Responsible Department:</b> | <b>Grounds, Facilities Management</b>   |

*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. Preheat, 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 other 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 contractor, 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.

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|--------------------------------|---|
| <b>SOP:</b>                    | <b>Pressure Washing and Exterior Surface Cleaning</b>   |
| <b>Purpose of SOP:</b>         | <b>Stormwater pollution prevention procedures for the cleaning of exterior surfaces such as sidewalks, building exteriors, and graffiti removal</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>   |
| <b>Responsible Department:</b> | <b>Facilities Management, Housing, Building Operations, Athletics</b>   |

*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 scraping 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 contractor, 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.

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|--------------------------------|---|
| <b>SOP:</b>                    | <b>Dewatering Utility Construction and Maintenance Activities</b>                           |
| <b>Purpose of SOP:</b>         | <b>Procedure for disposal of water pumped during maintenance or construction operations</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>   |
| <b>Responsible Department:</b> | <b>Facilities Management, Capital Outlay</b>  |

*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 a silt fence and straw bales or placing the bag on a gravel pad.



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|--------------------------------|--|
| <b>SOP:</b>                    | <b>Spill Prevention, Control, Clean Up and Reporting</b>                 |
| <b>Purpose of SOP:</b>         | <b>Procedures for spill prevention, control, clean up and reporting.</b> |
| <b>SOP Administrator:</b>      | <b>Grounds Department</b>  |
| <b>Responsible Department:</b> | <b>All</b>   |

*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)

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**II. Stormwater Pollution Prevention Plan**

1. Standard Operating Procedures

1. Spill Prevention

- Whenever possible, liquid or hazardous materials should be handled, used, stored, re-packing, and transferred indoors or under cover.
- Deliveries of bulk liquids should be supervised. Down gradient storm drain inlets should be covered during deliveries.
- Cover and contain containers, materials, and wastes.

2. Spill Kit Maintenance

- Spill kits are located at each high priority area identified in the SWPPP.
- 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 the 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 to 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 a spill occurs during *nights, weekends, or holidays* notify the **Virginia Department 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**.

**\*Emergency Numbers are found on page 4. \***