



**Christopher Newport University  
– Municipal Separate Storm Sewer  
System (MS4) Annual Report –  
Reporting Year July 1, 2020 – June  
30, 2021**

Prepared for:

Christopher Newport University  
1 Avenue of the Arts  
Newport News, VA 23606

Prepared by:

Timmons Group  
2901 S Lynnhaven Road Suite 200  
Virginia Beach, VA 23452



## Sign-off Sheet

This document, entitled Christopher Newport University – Municipal Separate Storm Sewer System (MS4) Annual Report, was prepared by Timmons Group in September 2021 for Reporting Year July 1, 2020 – June 30, 2021, for the account of Christopher Newport University (the "Client"). Any reliance on this document by any third party is strictly prohibited. The updated material in it reflects Timmons Group's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Timmons Group and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and has been updated to take account for any subsequent changes that have occurred since September 2020 through September 2021. In preparing the document, Timmons Group did not verify information supplied to it by the Client. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Timmons Group shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by

**Amanda Johnson** (signature)

Reviewed by

**David Duncan, PE, ENV SP** (signature)

Quality Control Review

**Liz Scheessele, PE,**  
Virginia DEQ Stormw:

## Table of Contents

<b>ABBREVIATIONS .....</b>	<b>II</b>
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
<b>2.0 MINIMUM CONTROL MEASURE NO. 1 – PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS .....</b>	<b>3</b>
<b>3.0 MINIMUM CONTROL MEASURE NO. 2 – PUBLIC INVOLVEMENT/PARTICIPATION .....</b>	<b>8</b>
<b>4.0 MINIMUM CONTROL MEASURE NO. 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION .....</b>	<b>12</b>
<b>5.0 MINIMUM CONTROL MEASURE NO. 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL .....</b>	<b>16</b>
<b>6.0 MINIMUM CONTROL MEASURE NO. 5 – POST-CONSTRUCTION STORMWATER MANAGEMENT.....</b>	<b>19</b>
<b>7.0 MINIMUM CONTROL MEASURE NO. 6 – POLLUTION PREVENTION/GOOD HOUSEKEEPING .....</b>	<b>22</b>
<b>8.0 TMDL ACTION PLAN IMPLEMENTATION .....</b>	<b>27</b>

### LIST OF TABLES

Table 1-1. MCM No. 1 – Public Education and Outreach on Stormwater Impacts .....	5
Table 2-1. MCM No. 2 – Public Involvement/Participation .....	9
Table 3-1. MCM No. 3 – Illicit Discharge Detection and Elimination .....	13
Table 4-1. MCM No. 4 – Construction Site Stormwater Runoff Control.....	17
Table 5-1. MCM No. 5 – Post-Construction Stormwater Management .....	20
Table 6-1. MCM No. 6 – Pollution Prevention/Good Housekeeping.....	24
Table 7-1. TMDL Phosphorus Reduction Requirement (lb/yr) .....	27

### LIST OF APPENDICES

APPENDIX A MINIMUM CONTROL MEASURE 1 (MCM1) SUPPLEMENTAL INFORMATION	
APPENDIX B MINIMUM CONTROL MEASURE 2 (MCM2) SUPPLEMENTAL INFORMATION	
APPENDIX C MINIMUM CONTROL MEASURE 3 (MCM3) SUPPLEMENTAL INFORMATION	
APPENDIX D MINIMUM CONTROL MEASURE 4 (MCM4) SUPPLEMENTAL INFORMATION	
APPENDIX E MINIMUM CONTROL MEASURE 5 (MCM5) SUPPLEMENTAL INFORMATION	
APPENDIX F MINIMUM CONTROL MEASURE 6 (MCM6) SUPPLEMENTAL INFORMATION	

## 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 General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) requires Christopher Newport University (CNU) to develop and implement a comprehensive stormwater management (SWM) program consistent with the Virginia General Permit MS4 General Permit VAR040090. The general permit term is from November 1, 2018 to June 30, 2023. However, this annual report covers information for the reporting year of July 1, 2020 through June 30, 2021 which is the third year of the permit cycle. The annual report for the 2020-2021 reporting year will cover information for Year 3 under the new MS4 permit which was effective on November 1, 2018.

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

This 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 Christopher Newport University's 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 required as part of the submittal of University's MS4 Annual Report for 2020-2021.

## 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.*

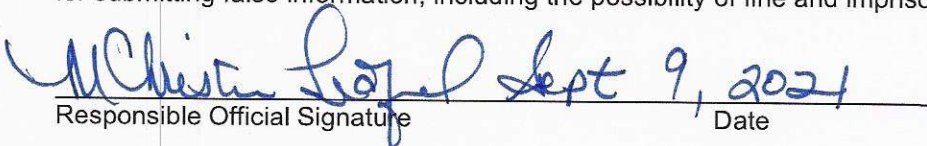
### Duly Authorized Representatives

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.*

### 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.

  
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**

MCM1 provides for a public education and outreach program to develop and conduct outreach activities about the impacts of stormwater discharges on water bodies and the steps that 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 that they can take to reduce stormwater pollution. These efforts can also be coordinated with MCM2 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 during room inspections related to fire/life safety emergencies for ingress/egress into buildings and rooms during the month of September.

CNU is continuing to look into alternative ways to distribute educational materials to the CNU MS4 public including use of social media. For the 2020-2021 reporting year, the CNU Sustainability (@sustainCNU) Facebook account 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. CNU plans to continue to ramp up virtual and social media outreach in light of the SARS-COV-2 Global Pandemic, which led to cancelling many planned in person events in Spring and Summer of the permit year. CNU staff is identifying student groups to coordinate outreach for projects related to stormwater.

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR JULY 1, 2020 – JUNE 30, 2021**

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 is 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 is the Grounds Department staff as they are the only ones involved in nutrient application and management to campus and athletic grounds. The CNU Grounds Department currently has three (3) Certified Fertilizer Applicators, and two (2) Certified Nutrient Management Planners through the Virginia Department of Agriculture and Consumer Services (VDACS).

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 and has been updated each year to include additional information related to stormwater and pollution prevention including copies of the permit, IDDE information, annual reports, the program plan, educational information about stormwater, links to other stormwater-related websites and stormwater incident reporting information.

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
- 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, 2020 – JUNE 30, 2021**

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 2 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 help every Spring.	Participate through promotion, sponsorship, or other involvement, in a minimum of four local activities annually aimed at increasing public participation to reduce stormwater pollutant loads, improve water quality, and support local restoration and clean-up projects.	The annual Garden Symposium event was cancelled due to the SARS-COV-2 outbreak. Drink coasters were distributed during this reporting year to highlight stormwater. Please see Appendix B for records of Email correspondence between CNU and the Regional DEQ Office.	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, 2020 – JUNE 30, 2021**

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 practices and its connection to stormwater quality.	Install educational sign 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. CNU conducts 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 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 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 was identified as one of the three high-priority water quality issues at CNU. 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 the steps that 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.	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, 2020 – JUNE 30, 2021**

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>
1.8 – 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 certified fertilizer applicators and/or Nutrient management Planners to ensure that nutrients are only applied in accordance with CNU’s approved Nutrient Management Plans.	Continue to train Grounds Department staff and document training (names, date, etc.) regarding nutrient management. Last year, the University’s turfgrass technician attended the 3-day training course (Virginia Turfgrass Short Course) sponsored by the Virginia Turfgrass Council. Position is now vacant. Next training to occur once the position is filled.	This is an ongoing program with biennial training. 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 erosion and sediment control issues, practices, or programs.

Through this MCM, CNU developed a series of activities that actively involves the students, faculty, and staff and, to the maximum extent practicable (MEP), the community at large. During the reporting year, CNU participated in a variety of PSA's via Social media 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 2020-2021 reporting year the annual in person events were again canceled due to the on-going SARS-COV-2 Global Pandemic. Please see Appendix B for records of Email correspondence between CNU and the Regional DEQ Office from the 2019-2020 reporting year. CNU is investigating methods to expand public involvement and participation in safe ways during this ongoing Pandemic.

During the 2020-2021 reporting year CNU installed one new Pet Waste Station on November 1<sup>st</sup> 2020 at Warwick River Hall and 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 implements this MCM through the BMPs provided below. Information concerning each BMP including a detailed description, measurable goals, and implementation dates is provided in Table 2-1. Additional information can be found in Appendix B (MCM2 Supplemental Information).

- 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, 2020 – JUNE 30, 2021**

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 2020-2021 reporting year the annual in person were again canceled due to the ongoing SARS-COV-2 Global Pandemic. Please see Appendix B for records of Email correspondence between CNU and the Regional DEQ Office.	Participate through promotion, sponsorship, or other involvement, in a minimum of four local activities annually aimed at increasing public participation to reduce stormwater pollutant loads, improve water quality, and support local restoration and clean-up projects, as adjusted during the Pandemic	CNU staff distributed stormwater educational coasters.	CNU will look to provide stormwater educational materials at future events at CNU and other similar events and look to schedule virtual events as necessary during the Pandemic.

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR JULY 1, 2020 – JUNE 30, 2021**

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 to encourage 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.	Participate through promotion, sponsorship, or other involvement, in a minimum of four local activities annually 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 the Pandemic.	Community service activities are ongoing with various clubs and organizations. Due to the pandemic these events were cancelled. CNU will continue to pursue other virtual and social media participation measures during the ongoing Pandemic.	Additional community service opportunities for public education/outreach associated with high-priority water quality issues may also be identified during 2021-2022 as possible during the Pandemic.

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 Illicit Discharge Detection and Elimination (IDDE) Policy that effectively prohibits non-stormwater discharges into the MS4. Other BMPs include mapping of the MS4 and development of a table of stormwater outfalls. There were no updates to these items during this reporting year. An additional item created through this MCM is any necessary notification of neighboring or interconnected MS4s. 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, 2010. The IDDE Policy and information about it was added to the university's website and 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, and 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 2020-2021 reporting year as a result of the inspections completed in the 2019-2020 reporting year. Follow-up inspections based on this reporting year's inspections will be conducted as needed and reported in the PY4 annual report.

The CNU MS4 contains one main stormwater outfall (Outfall 1) and a second outfall (Outfall 2) that drains stormwater from the area of the Ferguson Center for the Arts which is 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. Maintenance for the Outfalls is planned for December 2021 in response to PY3 inspections.

CNU implements this MCM through the BMPs provided below. Information concerning each BMP including a detailed description, measurable goals, and implementation dates is provided in Table 3-1. Additional illicit discharge detection and elimination 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

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1, 2020 – JUNE 30, 2021**

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 Illicit Discharge, Detection and Elimination (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 7/1/10. Continue to implement 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 based on permit requirements.
3.3 – 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 2020-2021 as the website is updated.



**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1, 2020 – JUNE 30, 2021**

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	Maintain a map of the storm sewer system containing: <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>• Stormwater management facilities</li> </ul>	Evaluate on an annual basis, by October 1 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 of each year, and update as necessary.
3.5 Storm Sewer System Table Updates	Maintain a table of the storm sewer system. Each outfall should contain: <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 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 TMDLs with a wasteload allocation (WLA)</li> </ul>	Evaluate on an annual basis, by October 1 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 of each year, and update as necessary.

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1, 2020 – JUNE 30, 2021**

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 that are 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 that are detected on an annual basis.	A standard operating procedure (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 C.	Illicit discharge detection tracking and reporting will be an ongoing activity. There were no illicit discharge complaints reported for PY2.
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 standard operating procedure. Outfalls 1 and 2 were inspected on 6/24/2021.	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 2020-2021 reporting year the annual in person events held were again canceled due to the ongoing SARS-COV-2 Global Pandemic. Please see Appendix B for records of Email 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 on 7/16/2019 and 7/5/2019. Training is biennial and will be conducted in PY4.	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 Virginia Stormwater Management Program (VSMP) Regulation (9VAC25-870). In addition, all projects must obtain a CGP if the area of disturbance is equal to or greater than one acre or less than one acre that is part of a larger common plan of development or sale. Therefore, this MCM includes provisions to verify that all construction activities are in compliance with these regulations and permits.

CNU developed and submitted annual standards and specifications (AS&S) to DEQ that were most recently approved by DEQ in a letter dated March 12, 2020. 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.

Because the University has approved Annual Standards and Specifications (AS&S), they no longer have the 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.

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 quarterly. For PY3, eight (8) compliance inspections were conducted by DEQ-certified personnel for active construction projects. No enforcement actions were necessary in 2020-2021.

CNU implements this MCM through the BMPs provided below. Information concerning each BMP including a detailed description, measurable goals, and implementation dates is provided in Table 4-1. Additional construction site stormwater runoff control information is provided in Appendix D.

- Annual Standards and Specifications
- Project Inspections
- Erosion and Sediment Control (ESC) Contract Provisions
- Construction Site Runoff
- Construction Signage
- Land Disturbing Activities Tracking

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1, 2020 – JUNE 30, 2021**

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 – Annual Standards and Specifications	As a state entity, CNU developed annual standards and specifications (AS&S). Annual update/revisions were approved by VA DEQ in a letter dated 3/12/2020.	Develop and implement annual standards and specifications.	Compliance with annual standards and specifications (AS&S) is mandatory for all phases of all construction projects on campus.	Continue current program, comply with approved annual standards and specifications (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 Stormwater Pollution Prevention Plan (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 that for 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 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 Stormwater Pollution Prevention Plan (SWPPP) to ensure adequacy of the SWPPP.	Maintain copies of permit notice of coverage letters for all construction projects and review each project's Stormwater Pollution Prevention Plan (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.

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1, 2020 – JUNE 30, 2021**

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 PY4.	No training was held in PY2. Training logs show that five people or over 80% of the target audience (site contractors, CNU representatives, and general contractors' project managers) were trained with educational information presented by DEQ-certified personnel.	Training is planned again for any new contractors and those who did not receive training during 2020-2021. 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 erosion and sediment control practices and its connection to stormwater quality.	Install educational sign on fencing at all on-campus construction projects. Inspect and replace any missing or damaged signs as needed.	Signs installed on 3/08/19 were maintained on the Fencing surrounding the Fine Arts Center construction site.	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 regulated land-disturbing activities on campus and submit the number of regulated land-disturbing activities and 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 PY3 are listed in Appendix D of this annual report.	Continue current program, evaluate annually.

Minimum Control Measure No. 5 – Post-Construction Stormwater Management

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

All known permanent stormwater management 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 stormwater management 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.

Inspection reports to be used for inspections of Best Management Practices (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 Construction General Permit 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 2020-2021 permit year.

CNU implements this MCM 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 stormwater management information is provided in Appendix E.

- CNU Stormwater Study
- ESC Contract Provisions
- Implement Annual Standards and Specifications
- BMP Inspections
- BMP Tracking
- BMP Maintenance

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1, 2020 – JUNE 30, 2021**

Minimum Control Measure No. 5 – Post-Construction Stormwater Management

**Table 5-1. MCM No. 5 – Post-Construction Stormwater Management**

<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 PY3.	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 for 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 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 Stormwater Pollution Prevention Plan (SWPPP) to ensure adequacy of the SWPPP.	Maintain copies of permit notice of coverage letters for all construction projects and review each project's Stormwater Pollution Prevention Plan (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 – Annual Standards and Specifications	As a state entity, CNU developed annual standards and specifications (AS&S). They were most recently approved by VA DEQ in a letter dated 3/12/2020.	Develop and implement annual standards and specifications.	Compliance with annual standards and specifications (AS&S) is mandatory for all phases of all construction projects on campus.	Continue current program, comply with approved annual standards and specifications (AS&S).
5.4 – BMP Inspections	Inspect all known permanent stormwater management 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 6/23/2021 & 6/24/2021.	Continue current program, evaluate annually.

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1, 2020 – JUNE 30, 2021**

Minimum Control Measure No. 5 – Post-Construction Stormwater Management

BMP	Description	Measurable Goal	BMP Status	Future Activities
5.5 – BMP Tracking	<p>Track all known permanent stormwater management 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 Ches Bay/local TMDL AP</li> <li>• The date of most recent inspection</li> </ul>	Track all known permanent stormwater management 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 stormwater management 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 Outfall 1 channel on 6/25/18. BMP maintenance is scheduled for December 2021 based on inspections performed on 6/23/2021 and 6/24/2021.	Continue current program, evaluate annually. Any necessary maintenance performed on permanent stormwater management 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 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 Standard Operating Procedures (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, streets, and roads 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 20 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 nutrient management plans 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 Nutrient Management Plans (NMPs) for the campus.

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR JULY 1, 2020 – JUNE 30, 2021**

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 DCR for review and approval.

The CNU Grounds Department currently has two (2) Certified Fertilizer Applicators, and two (2) Certified Nutrient Management Planners through the Virginia Department of Agriculture and Consumer Services (VDACS).

Approximately 200 employees from the Auxiliary Services, Facilities Management, Residential Housing, Grounds Department, Athletics Department, and Dining Services attended a 1hr Good House Keeping Training. The training was conducted on 7/16/19 and 9/5/19 during last reporting year.

CNU continues to perform maintenance by cleaning a portion of the campus stormwater infrastructure (catch basins, storm drain pipes) on an annual basis. Street sweeping of campus roads and parking lots was performed by Sweeping Corporation of America on June 28<sup>th</sup> and 29<sup>th</sup>, 2021. Storm drain pipes 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 stormwater management information is provided in Appendix F.

- Pollution Prevention Training
- High Priority Facility SWPPP Implementation
- Illicit Discharge Detection Tracking and Reporting
- Nutrient Management Plan
- Nutrient Management Training
- Annual Standards and Specifications (AS&S)
- Underground Infrastructure Cleaning
- Street Sweeping
- Storm Drain Medallions
- Daily Good Housekeeping Standard Operating Procedures (SOPs)

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1, 2020 – JUNE 30, 2021**

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 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 this permit year on 7/16/19 and 9/5/19. Training is biennial and will be conducted again in PY4.	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 6/23/2021 & 6/24/2021. SWPPP revisions were made during PY3 and will be reviewed annually.	The next Inspection is planned for summer 2022.
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 that are 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 that are detected on an annual basis.	A standard operating procedure (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.

**CHRISTOPHER NEWPORT UNIVERSITY – MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) ANNUAL REPORT – REPORTING YEAR  
JULY 1, 2020 – JUNE 30, 2021**

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 – Nutrient Management Plan	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 7/9/2021; CNU athletics NMP approved and valid until 4/19/2024. 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 certified fertilizer applicators and/or Nutrient management Planners to ensure that nutrients are only applied in accordance with CNU's approved Nutrient Management Plans.	Continue to train Grounds Department staff and document training (names, date, etc.) 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 – Annual Standards and Specifications	As a state entity, CNU developed annual standards and specifications (AS&S). They were most recently approved by VA DEQ in a letter dated 3/12/2020.	Develop and implement annual standards and specifications.	Compliance with annual standards and specifications (AS&S) is mandatory for all phases of all construction projects on campus.	Continue current program, comply with approved annual standards and specifications (AS&S).
6.7 – Underground Infrastructure Cleaning	Perform maintenance by cleaning a portion of the campus stormwater infrastructure (catch basins, storm drain pipes) on an annual basis.	Continue CNU underground infrastructure maintenance program.	Ongoing; Annually; No cleaning contracted for this reporting year based off of 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, 2020 – JUNE 30, 2021**

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 Sweeping Corporation of America on July 28 <sup>th</sup> and 29 <sup>th</sup> , 2021. 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 Standard Operating Procedures (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 wasteload 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, 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, 2019.

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

**Table 7-1. TMDL Phosphorus Reduction Requirement (lb/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. The Fine Arts Center project replaces Parking Lot B and results in an increase in impervious cover, but 1.74 lbs/yr of offsite credits are anticipated to be purchased for this project, which was completed in March 2021. Documentation will be provided in PY4. The C2 Parking project included the installation of a Stormkeeper Sediment Strip which will remove 0.85 lb/yr.

Aside from BMPs to offsite new development/redevelopment, an important aspect of the TMDL action plan implementation is an updated campus-wide master stormwater study that the university invested in during 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.

# **CNU MS4 ANNUAL REPORT APPENDICES**

**Reporting Year July 1, 2020 – June 30, 2021**

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 Signage (BMP 1.6, 4.5)

Social Media (BMP 1.8, 3.8)

Outreach Items - Coaster Distribution (BMP 1.3)

Other Places for Information on MCM1:

- Participation and Outreach Events (BMP 1.3, 2.5) in Appendix B
- Employee Good Housekeeping Training Records (BMP 1.7, 4.4)



## 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.

## 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.

## 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.

## 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
-

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> A reminder about water pollution with an emergency call list on the back.	<a href="#">PDF</a>
<b>Be a Solution to Water Pollution</b> An informational flier about water pollution.	<a href="#">PDF</a>
<b>Guidelines for Charity Car Wash Fund Raisers</b> Car washes to raise funds for charities, schools activities or community groups often occur in densely populated urban areas. Car-washing activities can affect water quality if not properly managed. Wash water from these activities may flow into surface waters or into a storm drain.	<a href="#">PDF</a>
<b>CNU Garden Symposium</b> 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.	<a href="#">PDF</a>

### 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

Explore Our Campus Now



## 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



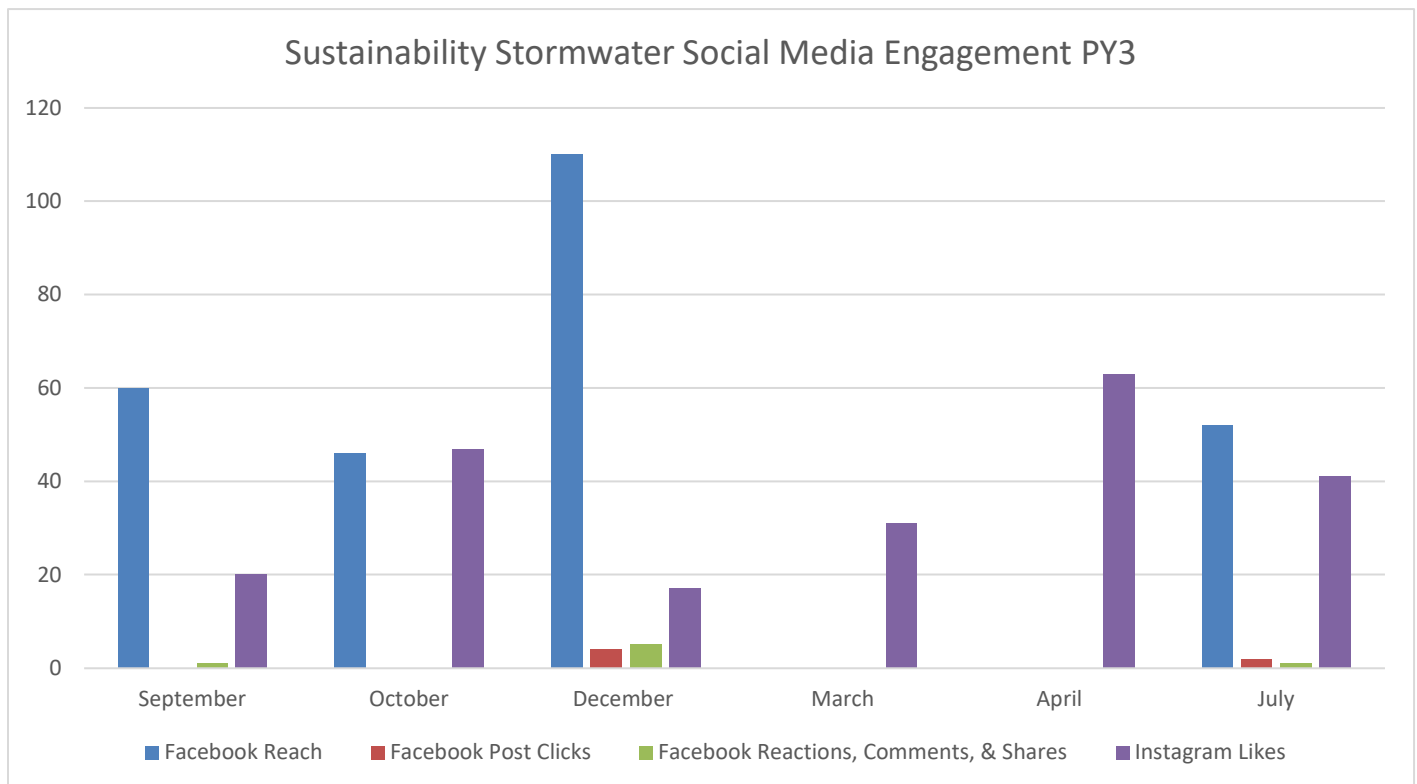
Inlet Protection



Silt Fence

**Stormwater Social Media Posts  
Permit Year 3**

Month & Social Media Topic	Facebook Reach	Facebook Post Clicks	Facebook Reactions, Comments, & Shares	Instagram Likes
September – Oil and Antifreeze Leaks	60	0	1	20
October – Local Voting	46	0	0	47
December – Household Hazardous Waste Collection	110	4	5	17
March – Nitrogen Soil Testing	-	-	-	31
April – Earth Day Campus Clean Up	-	-	-	63
July – Make your own Sunscreen	52	2	1	41



**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
October 2020	1400	Freshman Class
June 2021	1500	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)

Record of Correspondence between CNU and Local DEQ representative

## **CNU Outreach and Participation Events Statement 2020-2021**

CNU had planned to continue several in person annual events this reporting year, however in light of the ongoing SARS-COV-2 Global Pandemic all planned in person events in Spring and Summer of the permit year were cancelled. CNU is continuing to look into alternative ways to distribute educational materials to the CNU MS4 public including use of social media. For the 2020-2021 reporting year, the CNU Sustainability (@sustainCNU) Facebook account posted 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 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.

Correspondence between R. Dean Whitehead (Director of Grounds at CNU) and David A. Taylor (Regional MS4 Coordinator for the Tidewater Regional Office VADEQ) from the 2019-2020 reporting year is provided on the next page. This correspondence references CNU's planned events that were subsequently cancelled, and DEQ's guidance on how to proceed with permit requirements while the SARS-COV-2 outbreak continues.

## Amanda Johnson

---

From: **Taylor, David** <[david.a.taylor@deq.virginia.gov](mailto:david.a.taylor@deq.virginia.gov)>  
Date: Tue, Jun 30, 2020 at 2:49 PM  
Subject: Re: MS 4 Program Plan  
To: Dean Whitehead <[dean.whitehead@cnu.edu](mailto:dean.whitehead@cnu.edu)>

Mr. Whitehead,

Thank you for sending this notification along. You are correct that I am the correct individual to receive these notifications!

I understand the situation the University is facing in light of the pandemic severely limiting both the ability to host or participate in events and the normal "audience" that would be engaging in public events.

Please ensure that you document this email correspondence as notification made to DEQ of shortfalls due to the COVID-19 pandemic, and that you document these challenges in your annual report and MS4 files. While we understand that this pandemic is severely limiting the ability of permittees to engage in public outreach and participation activities, we certainly encourage other means to connect with target audiences remotely (i.e. webinars, staff trainings, etc.) if possible. If any other alternative measures are used to help "fill the gap" please ensure that those are also documented.

At any rate, thank you for the notification. I hope that you all stay safe and healthy in these challenging times.

Please let me know if I can be of any further assistance.

Respectfully,

**David A. Taylor**

Regional MS4 Coordinator, Tidewater Regional Office

Virginia Department of Environmental Quality

5636 Southern Boulevard, Virginia Beach, VA 23462

Office: (757) 518-2038

Email: [David.A.Taylor@deq.virginia.gov](mailto:David.A.Taylor@deq.virginia.gov)

Report pollution here: <https://portal.deq.virginia.gov/prep/Report/Create>

On Tue, Jun 30, 2020 at 2:34 PM Dean Whitehead <[dean.whitehead@cnu.edu](mailto:dean.whitehead@cnu.edu)> wrote:

Mr. Taylor,

I'm the Stormwater Program Manager for Christopher Newport University and I understand that you are the new MS4 Regional Coordinator for the Tidewater office so I assume you are the correct individual to receive this email. The COVID 19 pandemic has left us with some items that we were unable to complete with regards to our MCM



requirements. I'll try to be brief and include everything. Our students and staff have been gone since early March which has made some of our educational opportunities irrelevant.

- 1) We normally have the HR Green Trailer come to campus in April during our farmers market at which we normally have some additional information for stormwater management. So we did not have any farmers markets this year.
- 2) We normally host a CNU Garden Symposium at which we have a table and literature to talk about stormwater. The symposium was cancelled.
- 3) We usually distribute stormwater literature to incoming freshmen at orientation in June. Orientation was cancelled.
- 4) We usually distribute stormwater literature with all parking decal purchases. Parking services has not distributed any decals as far as I know, thus we have not been able to distribute any material.
- 5) Many of our outreach opportunities that our students due in the spring(i.e., beach cleanup, earth day, Lake Maury cleanup, etc.) were not able to be performed.
- 6) During new employee orientation for the university we pass out desktop coasters to new staff. We have been under a hiring freeze.
- 7) Due to limited staff hours, we have not installed any new/replacement drain markers on campus.

I'm sure we are not the only university with these problems and I am hopeful once things normalize in August/September, we can once again accomplish these tasks. I look forward to meeting you and feel free to reach out if you have any questions.

Best regards,  
Dean

--

*R. Dean Whitehead  
Director of Grounds  
Christopher Newport University  
1 Avenue of the Arts  
Newport News, Va 23606  
Phone: 757-594-8416*

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 Inspections (BMP 3.7)

Other Places for Information on MCM3:

- CNU Stormwater Website (BMP 1.2, 3.3) in Appendix A
- Social Media (BMP 1.8, 3.8) in Appendix A

## 1. 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.

## 2. 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 [9VAC25-89-40](#) and [9VAC25-870-10](#), into the regulated small MS4.
- C. To comply with the requirements of CNU's stormwater permit.

## 3. Definitions

**Best Management Practices (BMPs):** means schedules of 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:** means any individual or company, including a subcontractor, hired to perform services on university property.

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

**Illicit discharge:** means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to a NPDES or VSMP permit (other than the VSMP 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):** means 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):** means all separate storm sewers that are defined as "large" or "medium" or "small" municipal separate storm sewer systems or designated under [9VAC25-890-30](#).

**Municipal Separate Storm Sewer System Management Program or MS4 Program:** means 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:** means 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:** means any discharge to the storm drain system that is not composed entirely of stormwater.

**Outfall:** means, 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:** means 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:** means 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:** means any building, structure, facility, installation, or activity from which there is or may be a discharge of pollutants.

**State waters:** means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands (Virginia Code § 62.1-44.3).

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

**Wetlands:** means those areas that are inundated or saturated by surface 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 (Virginia Code § 62.1-44.3).

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

## 4. 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.

## 5. Responsibility for Administration.

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

## 6. 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.

## 7. 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.

## 8. 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) Permit 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:

- Oil;
- Anti-freeze;
- Grease;
- Chemicals;
- Wash water;
- Paint;
- Animal waste;
- Garbage;
- Litter; and,
- Landscaping debris.

## 9. Allowed Discharges

The following discharges to the storm drainage system are allowed, as per [9VAC25-870-400 \(D\)\(2\)\(c\)\(3\)](#), 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;
  - Landscape irrigation;
  - Diverted stream flows;
  - Uncontaminated groundwater infiltration;
  - 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; and,
  - Flows that have been identified in writing by the Department of Environmental Quality as *de minimis* discharges that are not significant sources of pollutants to state waters and not requiring a VPDES permit.

## 10. Procedures

### Inspections

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

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

Flows suspected of containing illicit discharges due to the presence of odors, colors or sheens shall be tested. 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 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 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 a database. Data fields to be included shall be:

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.

## 11. Training and Education

A training program for Stormwater Pollution Prevention/Good Housekeeping and IDDE is presented to applicable employees upon hire and on an annual basis. Educational materials for Stormwater Pollution Prevention and IDDE are distributed through various forms of media to the members of the University.



---

MASTER PLAN

# Stormwater Management Master Plan

Christopher Newport University



---

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, 2019

## Contents

<b>List of Tables and Appendices</b>	<b>2</b>
<b>Acknowledgements</b>	<b>3</b>
<b>Planning Team</b>	<b>3</b>
<b>List of Abbreviations</b>	<b>4</b>
<hr/>	
<b>Executive Summary</b>	<b>5</b>
<hr/>	
<b>Institutional Background</b>	<b>12</b>
<hr/>	
<b>Existing Conditions</b>	<b>13</b>
• <b>Geotechnical Information</b>	
• <b>Infiltration Information</b>	
• <b>Wetlands Information</b>	
• <b>Chesapeake Bay Preservation Area</b>	
• <b>Tidal Conditions</b>	
• <b>Floodplain</b>	
• <b>Sea Level Rise</b>	
• <b>Major Watersheds/ Outfalls</b>	
<hr/>	
<b>SWM Water Quality Constraints</b>	<b>17</b>
• <b>Regulatory Considerations</b>	
<hr/>	
<b>Methodology</b>	<b>20</b>
<hr/>	
<b>2009 Baseline Condition</b>	<b>21</b>
<hr/>	
<b>2009 to 2018 Existing Condition</b>	<b>21</b>
<hr/>	
<b>2023 Proposed Condition- Under Design</b>	<b>23</b>
<hr/>	
<b>2023 Proposed Condition</b>	<b>24</b>
<hr/>	
<b>2028 Proposed Condition</b>	<b>25</b>
<hr/>	
<b>Stormwater Management Plan</b>	<b>26</b>
• <b>Approach</b>	
• <b>Stormwater Improvement Projects (SIPs)</b>	
• <b>CNU Specific Stormwater Practices</b>	
• <b>Stormwater Conveyance System Overview</b>	
<hr/>	
<b>Recommendations and Conclusions</b>	<b>35</b>
• <b>Maintenance/Repairs</b>	
• <b>Best Management Practices</b>	
• <b>Future Maintenance of the Stormwater Master Plan</b>	
<hr/>	
<b>References</b>	<b>37</b>

## List of Tables and Appendices

Table	Description
1	Phase II MS4 - TMDL Reduction Requirement ..... 5
2	Stormwater Improvement Projects Summary ..... 7
3	Capital Improvement Projects Summary ..... 8
4	Operation and Maintenance Cost Summary ..... 11

Appendix	Description
A	<b>Figures – Overall Campus</b> Figure 1: Existing Conditions Figure 2: Proposed Conditions
B	<b>Figures and Calculations - Baseline Condition and TMDL Target</b>
C	<b>Figures and Calculations – Capital Improvement Projects</b>
D	<b>Figures and Calculations – Stormwater Improvement Projects</b>
E	<b>Construction Cost Opinions – Capital Improvement Projects and Stormwater Improvement Projects</b>
F	<b>Long Term Maintenance of Campus Best Management Practices</b>
G	<b>References</b>

Christopher Newport University  
Outfall Reconnaissance/Dry Weather Screening  
Results 2020 - 2021

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, Long. -76.489810	2008	Institutional	Closed RCP	6/24/2021	Trickle	None	Soap suds present
CNU Outfall #2	Lat. 37.058908, Long. -76.489148	2005	Institutional	Closed RCP	6/24/2021	Standing Water	Minor Vegetation Removal	Oil sheen visible

Appendix D Minimum Control Measure four (MCM4) Supplemental Information

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

Annual Standards and Specifications (BMP 4.1, 5.3, 6.6)

Construction Inspections (BMP 4.2)

Land Disturbing Activities (BMP 4.6)

Employee Good Housekeeping Training Records (BMP 1.7, 4.4)

Other Places for Information on MCM4:

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



*Commonwealth of Virginia*

***VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY***

1111 E. Main Street, Suite 1400, Richmond, Virginia 23219

P.O. Box 1105, Richmond, Virginia 23218

(800) 592-5482

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Matthew J. Strickler  
Secretary of Natural Resources

David K. Paylor  
Director  
(804) 698-4000

March 12, 2020

Ms. M. Christine Ledford  
Senior Associate Vice President for Administration and Finance  
1 Avenue of the Arts  
Newport News, VA 23606

*Transmitted electronically:* [christine.ledford@cnu.edu](mailto:christine.ledford@cnu.edu)

Subject: Christopher Newport University – Annual Standards and Specifications for Erosion & Sediment Control and Stormwater Management (AS&S for ESC and SWM)

Dear Ms. Ledford:

The Virginia Department of Environmental Quality ("DEQ") hereby approves the Annual Standards and Specifications for Erosion & Sediment Control and Stormwater Management for Christopher Newport University's (CNU) dated "December 2019". This coverage is effective from March 12, 2020 to March 11, 2021.

To ensure compliance with approved specifications, the Virginia Erosion and Sediment Control Law and the Virginia Stormwater Management Act, DEQ staff will conduct random site inspections, respond to complaints, and provide on-site technical assistance with specific erosion and sediment control and stormwater management measures and plan implementation.

Please note that your approved Annual Standards and Specifications include the following requirements:

1. Variance, exception, and deviation requests must be submitted separately from this Annual Standards and Specifications submission to DEQ. DEQ may require project-specific plans associated with variance requests to be submitted for review and approval.
2. The following information must be submitted to DEQ for each project at least two weeks in advance of the commencement of regulated land-disturbing activities. Notifications shall be sent by email to: [StandardsandSpecs@deq.virginia.gov](mailto:StandardsandSpecs@deq.virginia.gov)
  - i: Project name or project number;
  - ii: Project location (including nearest intersection, latitude and longitude, access point);
  - iii: On-site project manager name and contact info;
  - iv: Responsible Land Disturber (RLD) name and contact info;
  - v: Project description;
  - vi: Acreage of disturbance for project;

- vii: Project start and finish date; and
  - viii: Any variances/exceptions/waivers associated with this project.
3. Project tracking of all regulated land disturbing activities (LDA) must be submitted to the DEQ on an annual basis. Project tracking records shall contain the same information as required in the two week e-notifications for each regulated LDA.
  4. Erosion & Sediment Control and Stormwater Management plans must be reviewed by DEQ-Certified Plan Reviewers. CNU, as the AS&S holder, retains the authority to approve plans and must do so in writing. Should an AS&S holder contract out to a third party to fulfill the Plan Reviewer certification, this certified Plan Reviewer may recommend approval of the plan but final approval must come from the AS&S holder.

To ensure an efficient information exchange and response to inquiries, the DEQ Central Office is your primary point of contact. Central Office staff will coordinate with our Regional Office staff as appropriate.

Thank you very much for your submission and continued efforts to conserve and protect Virginia's precious natural resources.

Sincerely,



Erin Ervin Belt, Manager  
Office of Stormwater Management

Case Decision Information:

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

**CNU Record of Land Disturbing Activities  
and Compliance Inspections  
2020 - 2021**

Project Name	Total Disturbed Acres	Compliance Inspection Dates	Enforcement Action Necessary
Fine Arts Center	4.00	08/26/2020	No
		09/21/2020	No
		10/21/2020	No
		11/19/2020	No
		12/23/2020	No
		01/20/2021	No
		02/25/2021	No
		03/30/2021	No

Note: These compliance inspections were performed by a contracted VADEQ certified inspector. These inspections are in addition to the on-site SWPPP inspections performed by construction staff regularly and in conjunction with rain events.



## CNU Record of Land Disturbing Activities Presidents Hall (Apartment/Residence Hall)

Presidents Hall was a City monitored/inspected project, all under the City's purview. Below is a table for the project's BMP. Refer to City of Newport News.

**Table 1: BMP Information**

BMP Name	Treated Area (ac)	Impervious Area (ac)	Runoff treated (AF) *	Phosphorus Removed (lbs)	Geographic Coordinates (Lat/Long)	Expected Life Span (yr)
Composted Amended Soils/DEQ Specification 4	0.47	0.07	0.04	0.19	LAT N37° 04' 02.6" LONG W76° 29' 20.7"	20 years

\*Runoff treated by practice=Treated areas (ac) \* 1" of treatment

**Table 2: Responsible Party for Stormwater Management Facility Inspection & Maintenance**

Inspection & Maintenance
CNU Grounds Departments Dean Whitehead 1 Avenue of the Arts Newport News, VA 23606 Phone: (757) 594-8416

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
- Annual Standards and Specifications (BMP 4.1, 5.3, 6.6) in appendix D

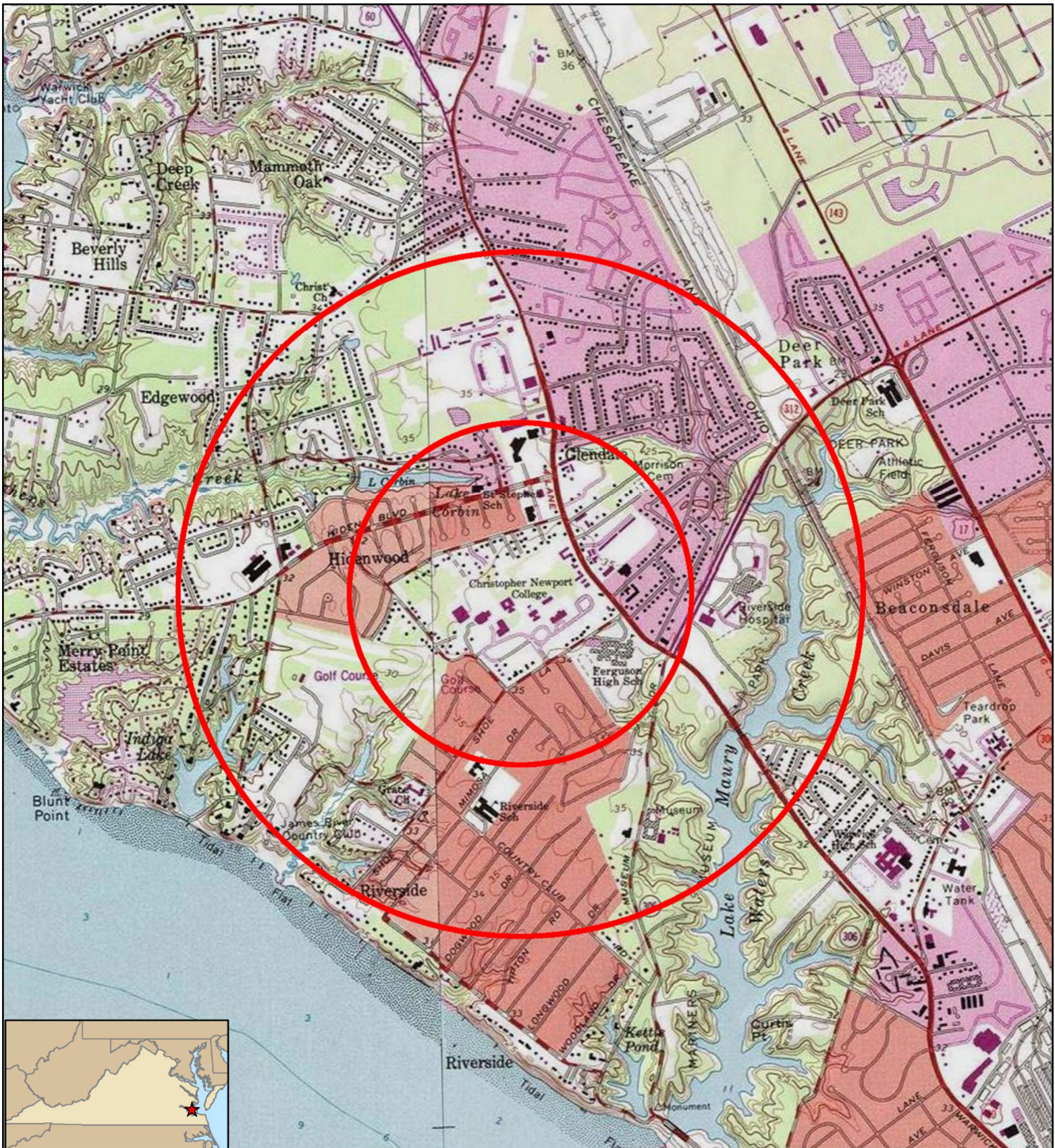
CNU Post Construction BMP Inspection Permit Year 3

<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		Acceptable	Re-seed bare areas to reduce erosive impacts	
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		Acceptable	Installed in the 2017- 2018 permit year. Plants healthy but needs additional vegetation.	
BMP 6	Turf Field Replacement	Bioretention		Acceptable	New Bioretention as of 2019-2020 permit year. Plants and Vegetation healthy.	
BMP 7	Parking Lot C1/C2	Stormkeeper Sediment Strip		Acceptable	New Bioretention as of 2019-2020 permit year. Underground facility.	

## Christopher Newport University BMPs 2020 - 2021

<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 Long -76.496709	JL 38 & 43	N/A	5.37
BMP 4	Lake Maury	Retention	Lat. 37.056520 Long. -76.484747	JL 38 & 43	N/A	153.7
BMP 5	Parking Lot A	Bioretention	Lat. 37.060194 Long. -76.489635	JL 38 & 43	N/A	1.06
BMP 6	Turf Field Replacement	Bioretention	Lat. 37.063347 Long. -76.498495	JL 38 & 44	N/A	2.18
BMP 7	Parking Lot C1/C2	Stormkeeper Sediment Strip	Lat. 37.063249, Long. -76.490021	JL 38 & 45	N/A	1.39

Notes: BMPs 2 and 3 are owned and maintained by CNU but were removed from the CNU Stormwater Master Plan when Lake Maury was approved as the CNU BMP. These BMPs will continue to be inspected until they are removed from the campus. The Lake Maury BMP project was completed during the 2011-2012 reporting year. BMP 1 was removed with the Freeman Center Expansion under an approved plan. BMP 6 and 7 came online this permit year.



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
- PavedAreas
- Roads
- Schools
- WaterBodies
- Wetlands
- Outfalls

0 500 1,000



Feet

N



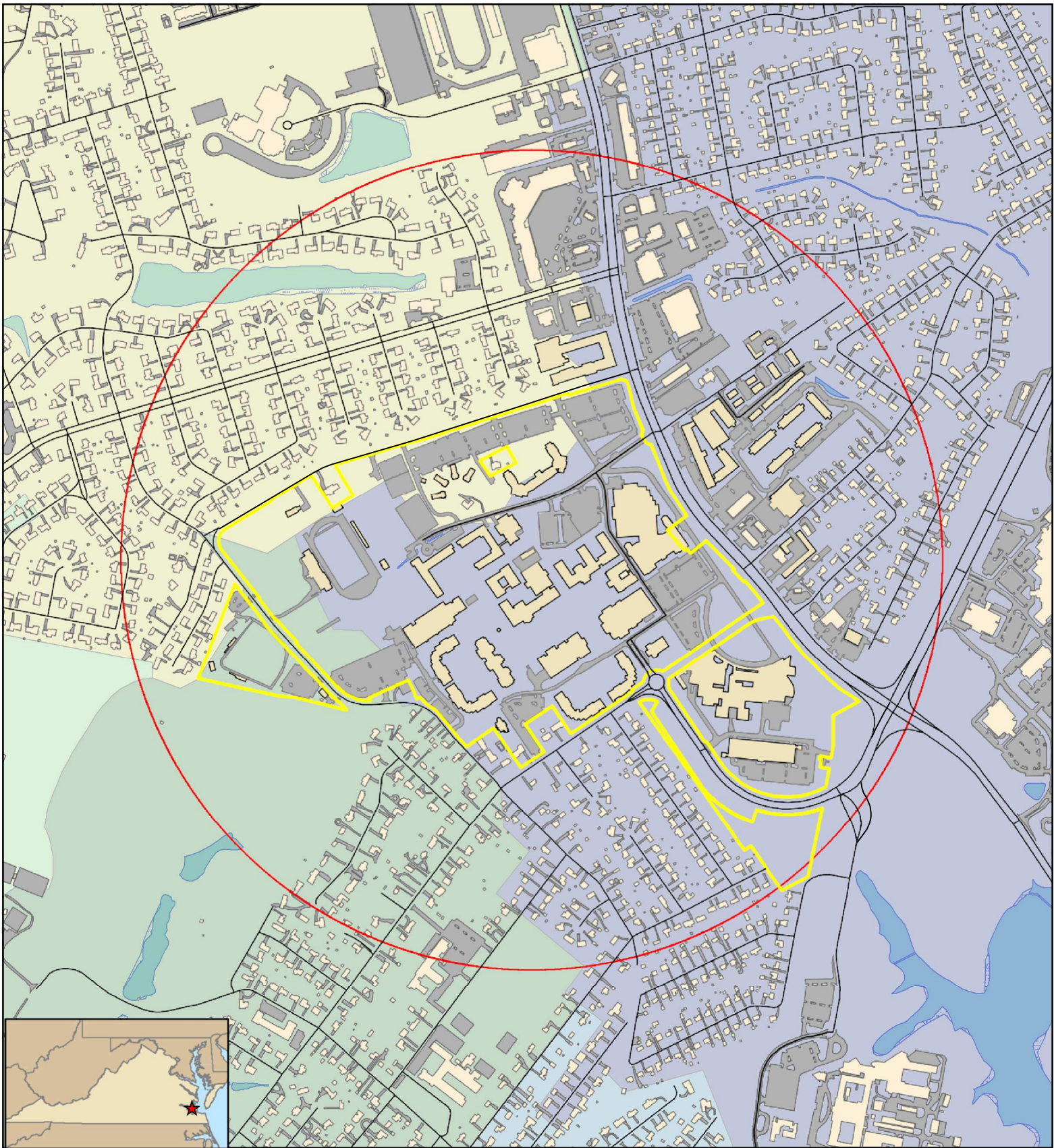
1:10,000














1 inch=833 feet

Figure 2: SWPP GIS Data

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





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

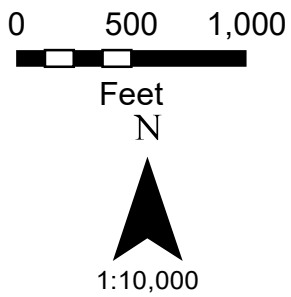


Figure 2.1: SWPP Drainage Basins  
Christopher Newport University  
1 Ave. of the Arts  
Newport News, VA  
June 2016



**Legend**

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

Service Layer Credits: Virginia Geographic Information Network; Road Data from City of Newport News' GIS; 2015. MS4

0                      450                      900

Feet

N



1:7,000

1 inch ~ 600 feet

Figure 3: SWPP Orthophotograph

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







- 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 [#]

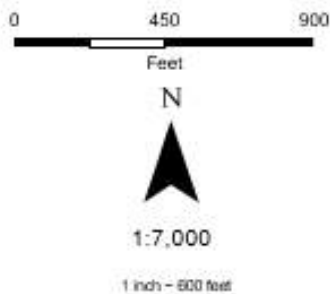


Figure 4: SWPP Areas of High Priority  
Christopher Newport University  
1 Ave. of the Arts  
Newport News, VA

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)

Nutrient Management Plans (BMP 6.4)

Standard Operating Procedures (BMP 6.10)

Other Places for Information on MCM6:

- CNU IDDE Standard Procedures (BMP 3.6, 6.3) in Appendix C
- Annual Standards and Specifications (BMP 4.1, 5.3, 6.6) in Appendix D







Matthew J. Strickler  
Secretary of Natural Resources

Clyde E. Cristman  
Director



Rochelle Altholz  
Deputy Director of  
Administration and Finance

Russell W. Baxter  
Deputy Director of  
Dam Safety & Floodplain  
Management and Soil & Water  
Conservation

Thomas L. Smith  
Deputy Director of Operations

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

Chris Webb  
1 Avenue of the Arts  
Newport News, VA 23606

8/2/2018

Subject: Christopher Newport University: Main Campus Nutrient Management Plan Approval

The following nutrient management plan has been reviewed by Chantel Wilson and approved by the Virginia Department of Conservation & Recreation as compliant with the provisions of the Code of Virginia 10.1-104.4. Please note that this plan has not been reviewed for compliance with more restrictive requirements from other specific legislative, regulatory or incentive programs.

Plan Name	Planner	Acres	Start Date	Expiration Date
Christopher Newport University: Main Campus	Chris Webb	48.0	6/4/2018	6/4/2021

A copy of this letter should be kept with your nutrient management plan. Initiation of plan revision is recommended by the Department to occur at least six months prior to the expiration date. If you have any questions concerning this letter or approvals, please contact me via phone or email.

Sincerely,

A handwritten signature in cursive script, appearing to read "Chantel Wilson".

Chantel Wilson  
Urban Nutrient Management Specialist  
Department of Conservation and Recreation  
600 East Main St., 24<sup>th</sup> Floor  
Richmond, Virginia 23219  
(804) 887-8917  
chantel.wilson@dcr.virginia.gov

600 East Main Street, 24<sup>th</sup> Floor | Richmond, Virginia 23219 | 804-786-6124

*State Parks • Soil and Water Conservation • Outdoor Recreation Planning  
Natural Heritage • Dam Safety and Floodplain Management • Land Conservation*

Matthew J. Strickler  
Secretary of Natural Resources

Clyde E. Cristman  
Director



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

Rochelle Altholz  
Deputy Director of  
Administration and Finance

Russell W. Baxter  
Deputy Director of  
Dam Safety & Floodplain  
Management and Soil & Water  
Conservation

Thomas L. Smith  
Deputy Director of Operations

Dean Whitehead  
1 Avenue of the Arts  
Newport News, VA 23606

3/1/2018

Subject: Christopher Newport University: Athletics Nutrient Management Plan Approval

The following nutrient management plan has been reviewed by Chantel Wilson and approved by the Virginia Department of Conservation & Recreation as compliant with the provisions of the Code of Virginia 10.1-104.4. Please note that this plan has not been reviewed for compliance with more restrictive requirements from other specific legislative, regulatory or incentive programs.

Plan Name	Planner	Acres	Start Date	Expiration Date
Christopher Newport University: Athletics	Dean Whitehead	17.0	2/6/2018	2/6/2021

A copy of this letter should be kept with your nutrient management plan. Initiation of plan revision is recommended by the Department to occur at least six months prior to the expiration date. If you have any questions concerning this letter or approvals, please contact me via phone or email.

Sincerely,

A handwritten signature in black ink, appearing to read "Chantel Wilson".

Chantel Wilson  
Urban Nutrient Management Specialist  
Department of Conservation and Recreation  
600 East Main St., 24<sup>th</sup> Floor  
Richmond, Virginia 23219  
(804) 887-8917  
chantel.wilson@dcr.virginia.gov

600 East Main Street, 24<sup>th</sup> Floor | Richmond, Virginia 23219 | 804-786-6124

State Parks • Soil and Water Conservation • Outdoor Recreation Planning  
Natural Heritage • Dam Safety and Floodplain Management • Land Conservation

<b>Standard Operating Procedures (SOPs) for: Landscape Maintenance</b>	
Last Revision:	9/28/2016
Purpose of SOP:	Stormwater pollution prevention procedures for grounds keeping maintenance activities.
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_Landscape.docx

### Prerequisites

Employees should attend stormwater pollution prevention training prior to performing the activities in this SOP. Employees performing the procedures in this SOP should read and refer to the materials in the References and Related Procedures section of this SOP.

### Stormwater Protection Equipment and Materials

1. Spill kit and equipment for dry clean up (socks, absorbent pads, absorbent materials, broom, and dustpan)
2. Storm drain inlet protection devices (drain covers, booms, berms)
3. Tarps with tie downs

### Standard Operating Procedures

#### General Landscaping Maintenance

- a. Remove litter, debris, and trash from the landscaped and surrounding areas 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 activities collect all clippings/trimming/waste and take to the designated area. Do not hose down outside areas.
- d. Five day weather forecast is checked to avoid fertilizing before heavy rain or during a drought. Fertilizers applications are made during period of maximum plant uptake based on plant species.
- e. Whenever possible control soil erosion by seeding, sod, mats, mulching, terracing or other approved methods.
- f. Do not apply bark or mulch on top of plastic sheeting unless the area is enclosed. Bark or mulch on plastic is easily washed off by heavy rainfall.

#### 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.
  - i. When storing stockpiles of sand, salt, dirt, mulch, gravel cover piles with a tarp in good condition
  - ii. 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.

#### 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>Standard Operating Procedures (SOPs) for: Equipment Maintenance and Washing</b>	
Last Revision:	6/30/2016
Purpose of SOP:	Stormwater pollution prevention procedures for the proper management of equipment maintenance and washing.
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_equipment_maint.docx

### Prerequisites

Employees should attend stormwater pollution prevention training prior to performing the activities in this SOP. Employees performing the procedures in this SOP should read and refer to the materials in the References and Related Procedures section of this SOP.

### Stormwater Protection Equipment and Materials

1. Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)
2. Drip pans
3. Wash Pad

### Standard Operating Procedures

#### Equipment Maintenance and Repair

- a. Move leaking equipment indoors or onto impervious surface and under cover.
  - i. Use drip pans or absorbent pads.
- b. If equipment is inoperable tag equipment "**DO NOT USE**"
- c. Perform all maintenance activities (except for emergencies) indoors.
- d. Transfer fluids from drip pans to appropriate waste containers.
- e. Routinely check equipment for signs of leaks.
  - i. Notify supervisor if a leak is discovered or suspected.
- f. Sweep and pick up trash in maintenance and repair areas daily.

#### Equipment Washing

- a. Small equipment should only be washed inside at designated washing areas.
- b. Large equipment in good condition, with no signs of leaks, may be washed at the wash pad located at Grounds Department.
  - a. Contact Grounds to schedule a time.
  - b. Only wash on non-rainfall days.
  - c. Perform fewer than 30 wash events per week.
- c. 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
- d. Only use approved water-based or detergent cleaners.
- e. Mop buckets and mop water may only be dumped inside at designated areas.

### References and Related Procedures

BMP: Good Housekeeping & Spill Prevention  
 SOP: Spill Prevention, Control, Clean Up and Reporting  
 SOP: Kitchen Waste: Fats, Oils, and Greases (FOG) Transfer, Storage, and Disposal  
 Policy: Illicit Discharge Detection and Elimination (IDDE)

<b>Standard Operating Procedures (SOPs) for: Outdoor Special Events &amp; Festivals</b>	
Last Revision:	6/30/2016
Purpose of SOP:	Stormwater pollution prevention procedures for outdoor special events to prevent wastes or wastewater from entering storm drains and waterways.
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_EVENTS.docx

### Prerequisites

Event organizers, points of contact, and contractors should review the IDDE Policy and the SWPPP training. Individuals responsible for the procedures in this SOP should read and refer to materials in the References Section. If animals are going to present at the event, the University's [Institutional Animal Care and Use Committee \(IACUC\)](#) requires a protocol submission.

### Stormwater Protection Equipment and Materials

1. Covered waste and recycling containers
2. Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)
3. Storm drain inlet protection (drain covers, booms, berms)

### Standard Operating Procedures

#### 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.

#### 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.

#### Cleaning Up After the Event

- a. Clean the area using dry methods (sweeping, absorbents, etc.).
- b. Pick up all litter and garbage and properly dispose. Do not sweep anything into a storm drain.
- c. Discard waste drinks down a kitchen drain.

### Spills

- a. Refer to SOP: Spill Prevention, Control, Clean Up and Reporting
- b. Small spills (<5 gallons) that pose no immediate danger to human life or property notify CNU Police (4-7777)
  - i. What spilled?
  - ii. How much ?
  - iii. Where is it?
- c. Small Spills (<5 gallons) of a hazardous substance that is an immediate danger to human life or property notify CNU Police 4-7777.
- d. Large Spills ( >5 gallons) report to CNU Police (4-7777)

### References and Related Procedures

SOP: Spill Prevention, Control, Clean Up, and Reporting

Policy: Illicit Discharge Detection and Elimination (IDDE)

Policy: [IACUC Policies and Procedures](#)

Training: SWPPP Training

<b>Standard Operating Procedures (SOPs) for: Kitchen Waste: Fats, Oils, and Greases (FOG) Transfer, Storage, and Disposal</b>	
Last Revision:	6/30/2016
Purpose of SOP:	Stormwater pollution prevention procedures for the proper management, handling, and storage of kitchen grease to prevent the discharge of pollutants to stormwater.
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_FOG.docx

### Prerequisites

Employees should attend stormwater pollution prevention training prior to performing the activities in this SOP. Employees performing the procedures in this SOP should read and refer to the materials in the References and Related Procedures section of this SOP.

### Stormwater Protection Equipment and Materials

1. Weather proof and double walled FOG containers
2. Tight sealing transfer containers
3. Tarps and tie downs
4. Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)

### Standard Operating Procedures

#### 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.

#### Transfer of FOG from Kitchen to Exterior FOG Container

- a. Prepare your route from the kitchen to the exterior FOG container.
  - i. Eliminate and obstacles that might lead to a slip, trip, fall and potential spill
  - ii. Ensure that a spill kit is easily accessible in the event of spill
  - iii. 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.
  - i. It is safer to make multiple transfers of smaller volumes than to attempt to handle larger quantities at once.
  - ii. 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.
  - i. 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

#### Contractor Pickup of Exterior FOG Container

- a. The disposal truck driver shall check in with the University upon arrival.
- b. The University representative shall ensure that the appropriate spill cleanup and response equipment and personal protective equipment are readily available and easily accessible. Refer to SOP - Spill Prevention, Control, Clean Up and Reporting
- c. The University representative shall verify that the volume of waste FOG in the tank does not exceed the available capacity of the disposal hauler's vehicle.
- d. Catch basins and drain manholes are adequately protected.
- 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.

<b>Standard Operating Procedures (SOPs) for: Landscape Maintenance</b>	
Last Revision:	6/30/2016
Purpose of SOP:	Stormwater pollution prevention procedures for grounds keeping maintenance activities.
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_Landscape.docx

### Prerequisites

Employees should attend stormwater pollution prevention training prior to performing the activities in this SOP. Employees performing the procedures in this SOP should read and refer to the materials in the References and Related Procedures section of this SOP.

### Stormwater Protection Equipment and Materials

1. Spill kit and equipment for dry clean up (socks, absorbent pads, absorbent materials, broom, and dustpan)
2. Storm drain inlet protection devices (drain covers, booms, berms)
3. Tarps with tie downs

### Standard Operating Procedures

#### General Landscaping Maintenance

- a. Remove litter, debris, and trash from the landscaped and surrounding areas 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 activities collect all clippings/trimming/waste and take to the designated area. Do not hose down outside areas.
- d. Whenever possible control soil erosion by seeding, sod, mats, mulching, terracing or other approved methods.
- e. 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.

#### Landscaping Materials Storage

- a. Store all containers indoors whenever possible. If containers must be stored outdoors, place them under cover.
- b. All dry materials stored outside should be covered and when possible have secondary containment.
  - i. When storing stockpiles of sand, salt, dirt, mulch, gravel cover piles with a tarp in good condition
  - ii. 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.

#### 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>Standard Operating Procedures (SOPs) for: Liquid Materials Loading, Unloading, and Storage</b>	
Last Revision:	6/30/2016
Purpose of SOP:	Stormwater pollution prevention procedures for the proper management of the loading, unloading, and storage of liquid materials.
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_liquid_mats.docx

### Prerequisites

Employees should attend stormwater pollution prevention training prior to performing the activities in this SOP. Employees performing the procedures in this SOP should read and refer to the materials in the References and Related Procedures section of this SOP.

### Stormwater Protection Equipment and Materials

1. Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)
2. Drip pans
3. Storm drain pollution control devices (berms or covers)
4. Wheel chocks

### Standard Operating Procedures

#### 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.

#### 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.

### References and Related Procedures

BMP: Good Housekeeping & Spill Prevention  
 SOP: Spill Prevention, Control, Clean Up and Reporting  
 Policy: Illicit Discharge Detection and Elimination (IDDE)

<b>Standard Operating Procedures (SOPs) for: Trash &amp; Recycling Handling, Storage, Transfer, and Disposal</b>	
Last Revision:	6/30/2016
Purpose of SOP:	Stormwater pollution prevention procedures for the proper management, handling, and storage of waste, trash, or recycling to prevent the discharge of pollutants to stormwater.
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_MSW.docx

### Prerequisites

Employees should attend stormwater pollution prevention training prior to performing the activities in this SOP. Employees performing the procedures in this SOP should read and refer to the materials in the References and Related Procedures section of this SOP.

### Stormwater Protection Equipment and Materials

1. Dumpster lids/covers
  - a. Tarps with tie-downs are acceptable
2. Storm drain inlet protection devices (drain covers, booms, berms, and/or filter fabric)

### Standard Operating Procedures

#### Trash & Recycling Handling, Storage, Transfer, and Disposal

- a. All waste and recycle receptacles must be leak-tight with tight-fitting lids or covers.
- b. Keep lids on dumpsters and containers closed at all times unless adding or removing material.
  - i. In the event that a dumpster lid is missing or damaged report it to Plant Operations
  - ii. If using an open top roll off dumpster, cover and tie down with a tarp unless adding materials
- c. Place waste or recycle receptacles indoors or under a roof or overhang whenever possible.
- d. Locate dumpsters on a flat, paved surface and install berms or curbs around the storage area to prevent run-on and run-off.
- e. Prior to transporting waste, trash, or recycling ensure that containers are not leaking (double bag if needed) and properly secure to the vehicle.
- f. Clean and sweep up around outdoor waste containers regularly.
- g. Clean up any liquid leaks or spills with dry clean-up methods. (See SOP: Spill Prevention, Clean Up and Reporting).
- h. Arrange for wastes or recyclables to be picked up regularly and disposed at approved disposal facilities.
- i. Never place hazardous materials, liquids, or liquid-containing wastes in a dumpster, recycle or trash receptacle.
  - i. Please contact the Environmental Health Safety Department for information on proper disposal
- j. If any liquid, non-hazardous waste is generated, it must be disposed in the sanitary sewer (if approved), transported to a disposal site that will accept that type of wastewater, or cleaned up using dry methods.
- k. Do not wash out waste containers (trash cans) or recycling containers outdoors or in a parking lot.
- l. Containers, compactors and dumpsters must be returned to the waste disposal contractor for cleaning at the contractor's facility.
- m. When working in the field, place all wastes in appropriate containers near the work site. If no public containers are available, containerize or bag the wastes and bring them back the shop for proper disposal.

#### Dumpster Areas

- a. Regularly pick up trash and debris.
- b. Regularly sweep the area.

#### Compactor Areas

- a. Regularly check the hydraulic fluid hoses and reservoir to ensure there are no cracks or leaks
  - i. In the event of leak report it immediately to the compactor service contractor and refer to SOP: Spill Prevention, Clean Up and Reporting
- b. Regularly sweep the area.

<b>Standard Operating Procedures (SOPs) for: Parking Lot, Streets, and Roads Maintenance</b>	
Last Revision:	6/30/2016
Purpose of SOP:	Stormwater pollution prevention procedures for general maintenance of parking lots, parking garages, elevated parking structures, streets, or roads.
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_Parking_Lot_Maint.docx

### Prerequisites

Employees should attend stormwater pollution prevention training prior to performing the activities in this SOP. Employees performing the procedures in this SOP should read and refer to the materials in the References and Related Procedures section of this SOP.

### Stormwater Protection Equipment and Materials

1. Spill kit and equipment for dry clean up (socks, absorbent pads, absorbent materials, broom, and dustpan)
2. Storm drain inlet protection devices (drain covers, booms, berms, and/or filter fabric)

### Standard Operating Procedures

#### 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.
  - i. Sweeping should occur after sanding/deicing events
  - ii. 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 properly.
- d. Ensure any storm drains/catch basins are marked with a stormwater medallion.

#### Paving, Patching, Re-surfacing, and Concrete Projects

- a. Re-seal, pave, or patch on dry days when no rain is expected and stop paving activities well before rainfall is expected.
- b. Use cold patch products when possible.
- c. Pre-heat, transfer, or load hot asphalt far away from storm drain inlets.
- d. Protect or block nearby, downstream, storm drain inlets from debris from maintenance work (asphalt cap, chip sealing, concrete breaking, or saw cutting). Leave inlet protection in place until the job is complete. Clean up debris from around inlets and dispose of properly.
- e. Designate a "Concrete Wash-Out Area" on the job site - in a grassy or graveled area where pooled water can soak into the ground. If no "Wash-Out Area" is available, wash out into a container (pool, bucket or wheelbarrow) and dispose of material properly.

#### 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.

#### 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>Standard Operating Procedures (SOPs) for: Pressure Washing and Exterior Surface Cleaning</b>	
Last Revision:	6/30/2016
Purpose of SOP:	Stormwater pollution prevention procedures for the cleaning of exterior surfaces such as sidewalks, building exteriors, and graffiti removal
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_Pressure_wash_exterior_cleaning.docx

### Prerequisites

Employees should attend stormwater pollution prevention training prior to performing the activities in this SOP. Employees performing the procedures in this SOP should read and refer to the materials in the References and Related Procedures section of this SOP.

### 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)

### Standard Operating Procedures

#### General Surface Cleaning and Pressure Washing

- a. Use dry clean-up methods prior to any pressure washing. Use absorbents (kitty litter, rags, sand, etc) to clean up spills, sweeping, vacuuming, and scrapping off dried debris. The waste material should be disposed of as solid waste.
- b. Pressure wash with minimal water.
- c. If you do not use any chemicals or detergents and are only cleaning surfaces of ambient dust, then you may direct the wastewater to nearby landscaping or vegetated area or contain it onsite and allow it to evaporate.
- d. When discharging wash water to landscaping, make sure water is absorbed into vegetated or permeable surfaces (gravel, porous pavement) and does not cause erosion or run off into a storm drain or paved area.
- e. All other wash water must be captured for proper disposal.
- f. Solids should be removed from the area prior to pressure washing and a filter bag or similar filtration device should be used to remove suspended solids from the wastewater.
- g. A visible sheen must not be evident in the discharge. Use an absorbent pad or boom to eliminate any oil from the discharge.
- h. Do not pressure wash an entire building. Spot clean, steam clean, or scrape dirty areas rather than pressure washing the entire structure.

#### Heat Transfer Equipment and HVAC Equipment Cleaning

- a. HVAC or chiller condenser tube flushing liquid must be captured and disposed of properly.

#### 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.

#### 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.

#### 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>Standard Operating Procedures (SOPs) for: Spill Prevention, Control, Clean Up and Reporting</b>	
Last Revision:	6/30/2016
Purpose of SOP:	Stormwater pollution prevention procedures for the spill prevention, control, clean up and reporting.
SOP Administrator:	Grounds Department
Location of SOP:	Z:\Sustainability Committee\EHS\SWPPP\SOPs\SOP_SPILLS.docx

### Prerequisites

Employees should attend stormwater pollution prevention training prior to performing the activities in this SOP. Employees performing the procedures in this SOP should read and refer to the materials in the References and Related Procedures section of this SOP.

### Stormwater Protection Equipment and Materials

1. Spill Kit and equipment for dry clean up (socks, absorbent pads, absorbents, broom, and dustpan)
2. Storm drain inlet protection (drain covers, booms, berms)
3. Stormwater Pollution Prevention Plan

### Standard Operating Procedures

#### Spill Prevention

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

#### Spill Kit Maintenance

- a. Spill kits are located at each high priority area identified in the SWPPP.
- b. Each department manager is responsible for spill kit(s) inventory and the reordering of supplies.

#### Spill Clean Up and Storm Drain Protection

- a. Clean up minor spills (< 5 gallons) immediately.
- b. Block any down gradient storm drains with berms, covers, absorbent socks or "pigs".
- c. Never hose down spills or leaks.
- d. Always use "Dry Clean-up Methods" for clean-up of liquid spills (gasoline, diesel, paint, kitchen grease)
  - i. Spread absorbents (loose absorbents, sheets, pillows, pigs, or socks) on the spill.
  - ii. Sweep up or pick up the absorbed materials.
  - iii. Dispose of wastes properly and in accordance with all regulations.
- e. 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.
- f. After clean up, be sure to sweep up the contaminated absorbent and remove the berm or dike at storm drain.
- g. If fluids are leaking or have spilled on a permeable surface, such as gravel, soil or grass, mark the area and report the spill your supervisor.

#### Internal Reporting of Spills

##### For Employees (Non-supervisors)

- a. Notify your direct supervisor immediately
  - i. What spilled
  - ii. How much
  - iii. Where is it

##### For Supervisors

- Small spills (<5 gallons) that pose no immediate danger to human life or property notify CNU Police (4-7777)
- Small spills (<5 gallons) of a hazardous substance that is an immediate danger to human life or property notify CNU Police 4-7777.
- Large Spills (>5 gallons) report to CNU Police (4-7777)

#### 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 Police at 4-7777**
  - Notify the **Virginia Department of Environmental Quality (757-518-2000)**
  - If spill occurs during *nights, weekends, or holidays* notify the **Virginia Department of Emergency Management's 24-hour hotline (800-468-8892)**
  - Notify the **National Response Center (800-424-8802)**
- b. 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.
- c. 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 (757-518-2000)
  - National Response Center (800-424-8802)

#### References and Related Procedures

BMP: Good Housekeeping & Spill Prevention

Policy: Illicit Discharge Detection and Elimination (IDDE)