
Central State Hospital

Petersburg, Virginia

Municipal Separate Storm Sewer System Program Plan

For

General Permit No. VAR040006

During

Permit Year 2021 - 2022

From November 1, 2018 until October 31, 2023, in accordance the VAR04 General Permit Central State Hospital is authorized to discharge stormwater and authorized non-stormwater discharges described in 9VAC25-890-20 D from the small municipal separate storm sewer system into surface waters within the boundaries of the Commonwealth of Virginia consistent with 9VAC25-890-30.

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ACRONYMS

BMP	Best Management Practice
DBHDS	Department of Behavioral Health and Developmental Services
DCR	Virginia Department of Conservation and Recreation
DEQ	Virginia Department of Environmental Quality.
ESC	Erosion and Sediment Control
HUC	Hydrologic Unit Code
MEP	Maximum Extent Practicable
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
NMP	Nutrient Management Plan
POC	Pollutants of Concern
SWM	Stormwater Management
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
VPDES	VAR04 General Virginia Pollutant Discharge Elimination System Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems
VCACS	Virginia Department of Agriculture and Consumer Services
VESCP	Virginia Erosion and Sediment Control Program
VSMA	Virginia Stormwater Management Act
VSMP	Virginia Stormwater Management Program
WLA	Waste Load Allocation

DEFINITIONS

"Best management practice" means schedules of activities, prohibitions of practices, including both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities.

"Chesapeake Bay Preservation Act land-disturbing activity" means a land-disturbing activity including clearing, grading, or excavation that results in a land disturbance equal to or greater than 2,500 square feet and less than one acre in all areas of jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations (9VAC25-830) adopted pursuant to the Chesapeake Bay Preservation Act.

"Chesapeake Bay Watershed" means all land areas draining to the following Virginia river basins: Potomac River Basin, James River Basin, Rappahannock River Basin, Chesapeake Bay and its small coastal basins, and York River Basin.

"Construction activity" means any clearing, grading or excavation associated with large construction activity or associated with small construction activity.

"Date brought online" means the date when CSH determines that a new stormwater management facility is properly functioning.

"Discharge," when used without qualification, means the discharge of a pollutant.

"Drainage area" means a land area, water area, or both from which runoff flows to a common point.

"High-priority facilities" means facilities owned or operated by CSH that actively engage in one or more of the following activities: (i) composting, (ii) equipment storage and maintenance, (iii) materials storage, (iv) pesticide storage, (v) storage for public works, (vi) recycling, (vii) salt storage, (viii) solid waste handling and transfer, and (ix) vehicle storage and maintenance.

"Hydrologic Unit Code" means a watershed unit established in the most recent version of Virginia's 6th Order National Watershed Boundary Dataset.

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges resulting from firefighting activities (Discharges or flows from firefighting activities need only be addressed where they are identified as significant sources of pollutants to surface waters.), water line flushing, landscape irrigation, diverted stream flows, rising groundwaters, 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, noncommercial fundraising car washes if the washing uses only biodegradable, phosphate-free, water-based cleaners; or other activities generating discharges identified by the department as not requiring VPDES authorization.

"Impervious cover" means a surface composed of material that significantly impedes or prevents natural infiltration of water into soil.

"Land disturbance" or "land-disturbing activity" means a manmade change to the land surface that potentially changes its runoff characteristics including clearing, grading, or excavation, except that the term shall not include the following potential activities:

- Land-disturbing activities that disturb less than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Act or activities that are part of a larger common plan of development or sale that is one acre or greater of disturbance;
- Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original construction of the project. The paving of an existing road with a compacted or impervious surface and reestablishment of existing associated ditches and shoulders shall be deemed routine maintenance;
- Land-disturbing activities in response to a public emergency where the related work requires immediate authorization to avoid imminent endangerment to human health or the environment. In such situations, DEQ shall be advised of the disturbance within seven days of commencing the land-disturbing activity, and compliance with the administrative requirements within 30 days of commencing the land-disturbing activity.

"Municipal separate storm sewer system" means a conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains.

"MS4 Program Plan" means the completed registration statement and all approved additions, changes and modifications detailing the comprehensive program implemented by the operator under this state permit to reduce the pollutants in the stormwater discharged from its municipal separate storm sewer system (MS4) that has been submitted and accepted by DEQ.

"MS4 regulated service area" or "service area" means for Phase II permittees, the drainage area served by CSH's MS4 that is located within an urbanized area as determined by the 2010 decennial census performed by the Bureau of the Census. MS4 regulated service area may also be referred to as "served by the MS4" as it pertains to the tables in Part II A of this permit.

"Outfall" means, when used in reference to municipal separate storm sewers, a point source at the point where a MS4 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.

"Physically interconnected" means that one MS4 is connected to a second MS4 in such a manner that it allows for direct discharges to the second system.

"Pollutants of concern" means pollutants specifically identified in a U.S. Environmental Protection Agency approved total maximum daily load report as causing a water quality impairment.

"Public" means, for the purpose of this Program Plan, the staff employed by Central State Hospital. The resident population is excluded.

"Point of discharge" means a location at which concentrated stormwater runoff is released.

"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.

"Stormwater" means precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

"Stormwater management plan" means a document(s) containing material for describing methods for complying with the requirements of the Virginia Stormwater Management Program.

"Total maximum daily load" means the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, natural background loading and a margin of safety. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. The TMDL process provides for point versus nonpoint source trade-offs.

"Wasteload allocation" or "wasteload" means the portion of receiving surface water's loading or assimilative capacity allocated to one of its existing or future point sources of pollution. WLAs are a type of water quality-based effluent limitation.

"Watershed" means a defined land area drained by a river or stream, karst system, or system of connecting rivers or streams such that all surface water within the area flows through a single outlet.

1.0 MS4 PROGRAM PLAN

The Program Plan when implemented constitutes compliance with the standard of reducing pollutants to the maximum extent practicable (MEP) of the VAR04 General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s), referred to in the remainder of this Plan as the General Permit.

1.1 Minimum Control Measures

The General Permit requires the Program Plan to include Best Management Practices (BMP) to address the requirements of six minimum control measures (MCMs) described in Part I E of the General Permit. The MCMs are summarized as:

- MCM 1: Public Education and Outreach on Stormwater Impacts
- MCM 2: Public Involvement and Participation
- MCM 3: Illicit Discharge Detection and Elimination
- MCM 4: Construction Site Stormwater Runoff Control
- MCM 5: Post-construction Stormwater Management
- MCM 6: Pollution Prevention/Good Housekeeping for Operations

Section 3.1 of this Program Plan includes BMPs developed to explicitly address the General Permit requirements for each MCM. The title of each BMP is followed with a reference to the corresponding permit section. Each BMP included in the Program Plan is intended to specifically address permit requirements and includes the following information described in Part I C of the General Permit:

- The roles and responsibilities of each of CSH's divisions and departments in the implementation of the requirements of the permit tasked with ensuring that the permit requirements are met;
- If CSH utilizes another entity to implement portions of the MS4 program, a copy of the written agreement. The description of each party's roles and responsibilities, including any written agreements with third parties, shall be updated as necessary;
- For each MCM in Part I E, the following information shall be included:
 - Each specific requirement as listed in Part I E for each MCM;
 - A description of the BMPs or strategies that CSH anticipates will be implemented to demonstrate compliance with the permit conditions in Part I E;
 - All standard operating procedures or policies necessary to implement the BMPs;
 - The measurable goal by which each BMP or strategy will be evaluated; and
 - The persons, positions, or departments responsible for implementing each BMP or strategy; and
- A list of documents incorporated by reference including the version and date of the document being incorporated.

1.2 Special Conditions for TMDLs

CSH is subject to the Special Conditions for the Chesapeake Bay TMDL that requires the development and submission to DEQ, for its review and acceptance, an approvable second phase TMDL Action Plan by November 1, 2019. A BMP is provided in Section 3.2 for development of the Action Plan, and a second BMP is developed for implementation of the Action Plan. BMPs are also provided to ensure CSH annually determines if a wasteload allocation (WLA) has been assigned during the reporting year and to provide public opportunity for participation in development of new TMDLs.

1.3 Roles and Responsibilities (Part I C 1 a & b)

Each BMP lists the individual(s) responsible for implementation. At CSH the Director of Physical Plant Services implements the MS4 Program Plan and is the signatory authority in accordance with Part III K. The Director of Physical Plant reports to the Director of CSH who reports to the Director of the Department of Behavioral Health and Developmental Services (DBHDS). DBHDS opted out of becoming an ESC and VSMP authority; therefore, CSH does not operate under Annual Standards and Specifications. CSH utilizes DEQ to implement portions of the MS4 Program Plan, specifically MCM 4 concerning land disturbing activities. DEQ is CSH's ESC and VSMP plan approving authority.

1.4 Program Modifications (Part I C 4)

Revisions to the MS4 program plan are expected throughout the life of the General Permit as part of the iterative process to reduce pollutant loading and protect water quality to the MEP. As such, revisions made in accordance with the General Permit as a result of the iterative process do not require modification of this permit. CSH shall summarize revisions to the MS4 program plan as part of the annual report as described in Part I D 2 of the General Permit.

1.5 List of Reference Materials (Part I C 1 d)

The list of documentation below is incorporated into the Program Plan via reference along with any associated maps and forms, where applicable. All necessary documents for implementation not listed here, not provided in the MS4 Program Plan and may or may not be provided in the annual reports are retained on file for a minimum of 3 years and are available upon request.

- *Illicit Discharge Detection and Elimination Manual*, June 2019
- *Good Housekeeping and Pollution Prevention Manual*, June 2019
- *Post-Construction Stormwater Management Inspection & Maintenance Manual*, June 2019
- *Chesapeake Bay TMDL Action Plan (2013-2018 MS4 General Permit)*, September 2016
- *Chesapeake Bay TMDL Action Plan (2018-2023 General Permit)*, November 2019

1.6 Annual Reporting (Part I D)

This Program Plan includes requirements to satisfy annual reporting of the General Permit:

- CSH shall submit an annual report to the department no later than October 1 of each year in a format as specified by the department. The report shall cover the previous year from July 1 to June 30.
- The annual report shall include the following general information:
 - CSH, system name, and permit number;
 - The reporting period for which the annual report is being submitted;
 - A signed certification as per Part III K;
 - Each annual reporting item as specified in an MCM in Part I E; and
 - An evaluation of the MS4 program implementation, including a review of each MCM, to determine the MS4 program's effectiveness and whether or not changes to the MS4 program plan are necessary.
- CSH shall include a status report on the implementation of the Chesapeake Bay TMDL action plan in accordance with Part II A of this permit including any revisions to the plan.
- When applicable, CSH shall include a status report on the implementation of the local TMDL action plans in accordance with Part II B including any revisions to the plan.
- For the purposes of the General Permit, the MS4 program plan and annual report shall be maintained separately and submitted to the department as required by this permit as two separate documents.

2.0 SCHEDULE

Some of the BMPs require program documents or actions to address permit requirements. Table 1 lists some of these documents and actions with dates critical for assuring compliance with the General Permit. Table 1 is intended to assist with Program Plan implementation.

Table 1: Summary of Critical Items and Deadlines for Program Implementation.		
BMP/Regulation	Necessary Action	Due date*
9VAC-23-890-30	Submit Registration Statement, Draft Chesapeake Bay TMDL Action Plan/Public Comment Period	June 1, 2018/15 days
9VAC-23-890-40D	Submit Annual Report	Annually (October 1)
2.1	Develop and maintain a stormwater webpage	January 1, 2019
2.1	Post updated version of MS4 Program Plan on Permittee's Website	May 1, 2019
2.1	Post Annual Report on Website	Annually (Within 30 days)
2.2	Implement Public Participation Activities	4x annually
3.1, 3.5	Update MS4 Map and Information Table	Annually (June 30)
3.1	Submit GIS Shapefile of MS4 Map	July 1, 2019
5.2	Update Post Construction electronic database	30 days after new facility online
6.1	Review High Priority Facilities	Annually (June 30)
3.4, 6.1, 6.3	Conduct GHPP/IDDE Training	Once every 24 months
CB-SC.1	Submit Final Chesapeake Bay TMDL Action Plan	November 1, 2019
Part III B 1 a	Update Existing Local TMDL Action Plan/Public Comment Period	May 1, 2020/15 days (Not Applicable)
Part III B 1 b	Develop New TMDL Action Plan/Public Comment Period	May 1, 2020/15 days (Not Applicable)

*Not bolded text indicates schedule item is complete or not applicable. **Bolded** text indicates the schedule item is not complete or is completed continuously throughout the permit cycle.

3.0 PROGRAM PLAN BEST MANAGEMENT PRACTICES

This Section includes the BMPs that CSH will implement to meet the requirements for each MCM and the applicable Special Conditions described in the General Permit.

BMP 1.1 Public Education and Outreach Program (Part I E 1)

Description: CSH shall implement a public education and outreach program designed to:

- Increase the public's knowledge of how to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;
- Increase the public's knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications; and
- Implement a diverse program with strategies that are targeted toward individuals or groups most likely to have significant stormwater impacts.

CSH shall identify no less than three high-priority stormwater issues to meet the goal of educating the public in accordance with Part I E 1 a. High-priority issues may include the following examples: Chesapeake Bay nutrients, pet wastes, local receiving water impairments, TMDLs, high-quality receiving waters, and illicit discharges from commercial sites. The high-priority public education and outreach program, as a whole, shall:

- Clearly identify the high-priority stormwater issues;
- Explain the importance of the high-priority stormwater issues;
- Include measures or actions the public can take to minimize the impact of the high-priority stormwater issues; and
- Provide a contact and telephone number, website, or location where the public can find out more information.

CSH shall use two or more of the strategies listed in Table 2 below per year to communicate to the public the high-priority stormwater issues identified in accordance with Part I E 1 b including how to reduce stormwater pollution.

Table 2: Strategies for Public Education and Outreach	
Strategies	Examples (not meant to be all inclusive or limiting)
Traditional written materials	Informational brochures, newsletters, fact sheets, utility bill inserts, or recreational guides for targeted groups of citizens
Alternative materials	Bumper stickers, refrigerator magnets, t-shirts, or drink koozies
Signage	Temporary or permanent signage in public places or facilities, vehicle signage, billboards, or storm drain stenciling
Media materials	Information disseminated through electronic media, radio, televisions, movie theater, or newspaper
Speaking engagements	Presentations to school, church, industry, trade, special interest, or community groups
Curriculum materials	Materials developed for school-aged children, students at local colleges or universities, or extension classes offered to local citizens
Training materials	Materials developed to disseminate during workshops offered to local citizens, trade organization, or industrial officials

A summary of the CSH's anticipated Public Education and Outreach Activities for the permit year are below in Table 3.

Table 3: Summary of Anticipated Public Education & Outreach Activities for 2021-2022 Permit Year			
#	Water quality Issue	Strategy	Communication
1	Public education on stormwater runoff	Media materials	Brochure distributed via email
2	TMDLs and Local Impaired Waters	Speaking engagements	Presentation to staff
3	Motor oil from vehicles in parking lot	Media materials	Flyer distributed via email

Water Quality Issue No. 1: Public education on stormwater runoff

Rationale: This issue was selected based on the results of the public survey that indicate a strong need for increased knowledge on the steps to reduce stormwater pollution.

Public Audience: CSH's public audience is approximately 975 employees.

Strategy to Communicate High Priority Stormwater Message: An email sent to the entire target audience that includes an informational brochure with the relevant message and a link to the CSH stormwater webpage. Email with an attached brochure was selected as the appropriate mechanism based on survey respondents identifying the methods as the most effective way to reach them with educational material.

Relevant Message: To address goals of the Program and concerns stemming from the survey results, the relevant message will include:

- Information regarding CSH's stormwater program
- Steps that can be taken to reduce stormwater pollution
- Knowledge of hazards associated with illegal discharges and improper disposal of waste, including pertinent legal implications
- Information for reporting a potential illicit discharge

Time Period: The information brochure will be distributed a minimum of once a year to the public audience during the permit year.

Measurable Goal: The dissemination of the informational brochure via email once a year to the public audience within the permit year.

Water Quality Issue No. 2: TMDLs and Local Impaired Waters

Rationale: Survey results indicate that 78% percent of the public audience does not know that storm inlets on the campus drain straight to local waterways; and sediment, bacteria and fertilizer were the three least selected that could negatively impact a local waterway near campus. Due to the technical nature of educating the public audience concerning TMDLs, the relevant message is best presented to a small group of interested and engaged members of the public; therefore, a classroom environment has been chosen to disseminate this information.

Public Audience: CSH's staff that attend a speaking engagement where the PowerPoint presentation is conducted concerning TMDLs and local impaired waters.

Strategy to Communicate High Priority Stormwater Message: The message will be conveyed using a PowerPoint presentation.

Relevant Message: To address goals of the Program and concerns stemming from the survey results, the relevant message will include:

- General information about stormwater runoff (where it drains, pollutants, etc.)
- Explanation of TMDL as a pollution diet and WLAs
- Chesapeake TMDL POCs, causes and effects, and how CSH addresses TMDLs
- Local TMDL POCs causes and effects, and how CSH addresses TMDLs

Time Period: The PowerPoint will be given in a minimum of once a year to the during the permit year.

Measurable Goal: The PowerPoint presentation conducted a minimum of once a year to the public audience within the permit year.

Water Quality Issue No. 3: Motor Oil from Vehicles Parked in Parking Lot

Rationale: Although source controls and operational practices used by CSH staff can prevent pollutant exposure to precipitation, sources from the public's activities are observed to predominantly come from employee cars (i.e. oil leaks, trash) in the parking lot.

Public Audience: Employees parking in outdoor parking lots. The audience includes approximately 975 employees.

Strategy to Communicate High Priority Stormwater Message: Flyers distributed via email.

Relevant Message: Information regarding steps to prevent pollutant discharge onto the parking lot with proper car maintenance. The message will also address trash in the parking lot and the fate of these pollutants to potentially runoff into the storm sewer a local creek.

Time Period: The flyer will be distributed a minimum of once a year to the public audience during the permit year.

Measurable Goal: The flyer distributed a minimum of once a year to the public audience within the permit year.

Necessary documentation for implementation: (1) Survey results; (2) Email of distributed brochure addressing steps to reduce stormwater pollution; (3) Attendance roster from PowerPoint presentation concerning TMDLs and local impaired waters; and (4) Email distributed with flyer concerning motor oil from vehicles parked in parking lot

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: Outreach will be conducted a minimum of once a year to the public audience for each water quality issue identified.

Measurable goal: Effectiveness of the BMP will be determined by the communication of the two selected strategies to convey the three water quality issues.

BMP 2.1 Webpage Dedicated to MS4 Program & Stormwater Pollution Prevention (Part 1 E 2 a & b)

Description: CSH shall develop and implement procedures for the following:

- The public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns;
- The public to provide input on CSH's MS4 program plan;
- Receiving public input or complaints;
- Responding to public input received on the MS4 program plan or complaints; and
- Maintaining documentation of public input received on the MS4 program and associated MS4 program plan and the CSH's response.

No later than three months after November 1, 2019, CSH shall develop and maintain a webpage dedicated to the MS4 program and stormwater pollution prevention. The following will be maintained on the CSH's Stormwater Management webpage:

- The effective MS4 permit and coverage letter;
- The most current MS4 program plan or location where the MS4 program plan can be obtained;
- The annual report for each year of the term covered by this permit no later than 30 days after submittal to the department;
- A mechanism for the public to report potential illicit discharges, improper disposal, or spills to the MS4, complaints regarding land disturbing activities, or other potential stormwater pollution concerns in accordance with Part I E 2 a (1);
- Methods for how the public can provide input on CSH's MS4 program plan in accordance with Part I E 2 a (2); and

Webpage address: <http://www.csh.dbhds.virginia.gov/StormwaterManPlan.html>

Necessary documentation for implementation: (1) Public input received on the MS4 Program and associated CSH responses; (2) Effective MS4 Permit and coverage letter; (3) Most current CSH MS4 Program Plan; and (4) CSH MS4 Annual Reports within permit cycle.

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: CSH shall provide mechanisms on the CSH website for public input, reporting illicit discharges or complaints by January 31, 2019. The Program Plan will be posted on the CSH website within by May 1, 2019. Annual reports will be posted on the webpage within 30 days of submittal to DEQ, or by November 1st of each year.

Measurable goal: Effectiveness will be determined by the webpage including: (1) effective MS4 permit and coverage letter;(2) most current MS4 Program Plan; (3) each of the annual reports developed within the permit cycle no later than 30 days after submittal to the department; (4) a mechanism for the public to report potential illicit discharges, improper disposal, or spills to CSH, complaints regarding land disturbing activities, or other potential pollution concerns; (5) methods for how the public can provide input on the CSH's MS4 Program Plan and other documents that have a required public comment period; (6) responding to public input; and (7) maintaining public input received and CSH responses.

BMP 2.2 Public Involvement and Participation (Part 1 E 2 c)

Description: CSH will implement no less than four activities per year for two or more of the categories listed in Table 4 below to provide an opportunity for public involvement to improve water quality and support local restoration and clean-up projects. CSH may coordinate the public involvement opportunities listed in Table 4 with other MS4 permittees; however, each permittee shall be individually responsible for meeting all of the permit requirements.

Table 4 below provides the anticipated activities for the permit reporting year including:

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

Table 4: Public Involvement Opportunities	
Public Involvement Opportunity Categories	Examples (provided as example & are not meant to be all inclusive or limiting)
Monitoring	Establish or support citizen monitoring group
Restoration	Stream or watershed clean-up day, adopt-a-water way program,
Educational events	Booth at community fair, demonstration of stormwater control projects, presentation of stormwater materials to schools to meet applicable education Standards of Learning or curriculum requirements, watershed walks, participation on environmental advisory committees
Disposal or collection events	Household hazardous chemicals collection, vehicle fluids collection
Pollution prevention	Adopt-a-storm drain program, implement a storm drain marking program, promote use of residential stormwater BMPs, implement pet waste stations in public areas, adopt-a-street program.

Table 5: Anticipated Public Involvement Activities for 2021 – 2022 Permit Reporting Year			
Category	Activity Description	Time Period Activity to Occur	Metric to Determine Benefit
Restoration	Stream clean-up event	Fall 2021	Number of people reached
Restoration	Stream clean-up event	Spring 2022	Number of people reached
Pollution Prevention	Storm Drain Marking	Spring 2022	Number of people reached
Educational Event	Stormwater Presentation	Spring 2022	Number of people reached

Necessary documentation for implementation: (1) A description of public involvement activities to be implemented; (2) Anticipated time period the activities will occur; and (3) Metric for each activity to determine if the activity is beneficial to water quality.

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: Public participation will be conducted a minimum of four times a year at the anticipated times indicated in Table 5.

Measurable goal: Effectiveness will be determined by the selected metric for each activity.

BMP 3.1 Storm Sewer Map and Outfall Information Table (Part 1 E 3 a)

Description: CSH shall develop and maintain an accurate MS4 map and information table as follows:

- A map of the storm sewer system owned or operated by CSH within the census urbanized area identified by the 2010 decennial census that includes, at a minimum:
 - MS4 outfalls discharging to surface waters, except as follows:
 - In cases where the outfall is located outside of the MS4 permittee's legal responsibility, CSH may elect to map the known point of discharge location closest to the actual outfall; and
 - In cases where the MS4 outfall discharges to receiving water channelized underground, CSH may elect to map the point downstream at which the receiving water emerges above ground as an outfall discharge location. If there are multiple outfalls discharging to an underground channelized receiving water, the map shall identify that an outfall discharge location represents more than one outfall. This is an option a permittee may choose to use and recognizes the difficulties in accessing outfalls to underground channelized stream conveyances for purposes of mapping, screening, or monitoring.
 - A unique identifier for each mapped item required in Part I E 3;
 - The name and location of receiving waters to which the MS4 outfall or point of discharge discharges;
 - MS4 regulated service area; and
 - Stormwater management facilities owned or operated by CSH.
- CSH shall maintain an information table associated with the storm sewer system map that includes the following information for each outfall or point of discharge for those cases in which CSH elects to map the known point of discharge in accordance with Part I E 3 a (1) (a):
 - A unique identifier as specified on the storm sewer system map;
 - The latitude and longitude of the outfall or point of discharge;
 - The estimated regulated acreage draining to the outfall or point of discharge;
 - The name of the receiving water;
 - The 6th Order Hydrologic Unit Code of the receiving water;
 - An indication as to whether the receiving water is listed as impaired in the Virginia 2016 305(b)/303(d) Water Quality Assessment Integrated Report;
 - The predominant land use for each outfall discharging to an impaired water; and
 - The name of any EPA approved TMDLs for which CSH is assigned a wasteload allocation.
- No later than July 1, 2019, CSH shall submit to DEQ a GIS-compatible shapefile of CSH's MS4 map as described in Part I E 3 a. If CSH does not have an MS4 map in a GIS format, CSH shall provide the map as a PDF document.
- No later than October 1 of each year, CSH shall update the storm sewer system map and outfall information table to include any new outfalls constructed or TMDLs approved or both during the immediate preceding reporting period.
- CSH shall provide written notification to any downstream adjacent MS4 of any known physical interconnection established or discovered after the effective date of this permit.

Table 6: List of Interconnected MS4 Regulated Area(s)
Virginia Department of Transportation

Necessary documentation for implementation: (1) Storm sewer system map; (2) Outfall Information Table in Appendix B; and (3) GIS compatible shapefile of MS4 map; and (4) If applicable, written notification of physical interconnections to the downstream MS4 in Appendix C.

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: The map and information table will be updated annually at the end of each reporting year. Any new MS4 interconnections will be notified upon discovery.

Measurable goals: Effectiveness will be determined by maintaining an up-to-date map of the storm sewer map and outfall information table and by submitting the GIS-compatible shapefile of the storm sewer map; and notifying any discovered interconnected MS4s.

BMP 3.2 Prohibit Non-Stormwater Discharges (Part 1 E 3 b)

Description: CSH shall prohibit, through ordinance, policy, standard operating procedures, or other legal mechanism, to the extent allowable under federal, state, or local law, regulations, or ordinances, unauthorized non-stormwater discharges into the storm sewer system. Non-stormwater discharges or flows identified in 9VAC25-890-20 D 3 shall only be addressed if they are identified by CSH as a significant contributor of pollutants discharging to the MS4. Flows that have been identified by the department as de minimis discharges are not significant sources of pollutants to surface water.

CSH will prohibit non-stormwater discharges into the storm sewer system through language provided within the Standards of Conduct for Employees and the Student Handbook for Students, each of which provide methods and procedures for reporting and corrective and disciplinary action.

For effective prohibition of non-stormwater discharges from contractors operating on campus, refer to BMP 6.4.

Necessary documentation for implementation: (1) Standards of Conduct for Employees; and (2) Student Handbook.

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: Implementation of the Standards of Conduct for Employees and the Student Handbook for students will continue.

Measurable goal: Effectiveness will be determined based upon all students, faculty and staff having access to the Standards of Conduct for Employees and the Student Handbook for Students.

BMP 3.3 Implement Illicit Discharge Detection and Elimination Procedures (Part 1 E 3 c)

Description: CSH shall maintain, implement, and enforce illicit discharge detection and elimination (IDDE) written procedures designed to detect, identify, and address unauthorized non-stormwater discharges, including illegal dumping, to the small MS4 to effectively eliminate the unauthorized discharge. Written procedures shall include:

- A description of the legal authorities, policies, standard operating procedures or other legal mechanisms available to CSH to eliminate identified sources of ongoing illicit discharges including procedures for using legal enforcement authorities.
- Dry weather field screening protocols to detect, identify, and eliminate illicit discharges to the MS4. The protocol shall include:
 - A prioritized schedule of field screening activities and rationale for prioritization determined by CSH based on such criteria as age of the infrastructure, land use, historical illegal discharges, dumping or cross connections;
 - If the total number of MS4 outfalls is equal to or less than 50, a schedule to screen all outfalls annually;
 - If the total number of MS4 outfalls is greater than 50, a schedule to screen a minimum of 50 outfalls annually such that no more than 50% are screened in the previous 12-month period. The 50% criteria is not applicable if all outfalls have been screened in the previous three years; and
 - A mechanism to track the following information:
 - The unique outfall identifier;
 - Time since the last precipitation event;
 - The estimated quantity of the last precipitation event;
 - Site descriptions (e.g., conveyance type and dominant watershed land uses);
 - Whether or not a discharge was observed; and
 - If a discharge was observed, the estimated discharge rate (e.g., width and depth of discharge flow rate) and visual characteristics of the discharge (e.g., odor, color, clarity, floatables, deposits or stains, vegetation condition, structural condition, and biology).
- A timeframe upon which to conduct an investigation to identify and locate the source of any observed unauthorized non-stormwater discharge. Priority of investigations shall be given to discharges of sanitary sewage and those believed to be a risk to human health and public safety. Discharges authorized under a separate VPDES or state permit require no further action under this permit.
- Methodologies to determine the source of all illicit discharges. If CSH is unable to identify the source of an illicit discharge within six months of beginning the investigation then CSH shall document that the source remains unidentified. If the observed discharge is intermittent, CSH shall document that attempts to observe the discharge flowing were unsuccessful.
- Methodologies for conducting a follow-up investigation for illicit discharges that are continuous or that permittees expect to occur more frequently than a one-time discharge to verify that the discharge has been eliminated except as provided for in Part I E 3 c (4);

- A mechanism to track all illicit discharge investigations to document the following:
 - The dates that the illicit discharge was initially observed, reported, or both;
 - The results of the investigation, including the source, if identified;
 - Any follow-up to the investigation;
 - Resolution of the investigation; and
 - The date that the investigation was closed.

The IDDE procedures described in Part I E 3 c., the storm sewer map and outfall information table are incorporated into the MS4 program plan by reference. The map shall be made available to the department within 14 days upon request.

Necessary documentation for implementation: (1) Illicit Discharge Detection and Elimination (IDDE) Manual; (2) Outfall information table; (3) Storm sewer map; (4) Outfall screening field forms; and (5) Findings and Follow Up Form.

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: Annual outfall screening, as described in CSH's IDDE Program Manual that includes the schedules, mechanisms, and procedures described in this BMP and the General Permit.

Measurable goals: Effectiveness will be determined by maintaining, implementing, and enforcing illicit discharge detection and elimination (IDDE) written procedures.

BMP 4.1 ESC Compliance for Land Disturbing Activities (Part 1 E 4)

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

- DBHDS has not developed standards and specifications in accordance with the Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq. of the Code of Virginia) and Virginia Erosion and Sediment Control Regulations (9VAC25-840), CSH shall inspect all land disturbing activities as defined in § 62.1-44.15:51 of the Code of Virginia that result in the disturbance activities of 10,000 square feet or greater, or 2,500 square feet or greater in accordance with areas designated under the Chesapeake Bay Preservation Act, as follows:
 - During or immediately following initial installation of erosion and sediment controls;
 - At least once per every two-week period;
 - Within 48 hours following any runoff producing storm event; and
 - At the completion of the project prior to the release of any performance bond.

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

Regulated land disturbing activity on the CSH campus is managed by the latest edition of DGS CPSM. Regulated land disturbing activities are those that disturb greater than 2,500 square feet except for the exceptions listed in the definition for “land disturbing activity” provided in the Definitions section of this document. The DGS CPSM provide for the following:

- Erosion and Sediment (ESC) plan approval by DEQ. An approved plan is required prior to commencement of a regulated land disturbing activity and shall be compliant with the minimum standards listed in 9VAC25-840-40 of the Erosion and Sediment Control Regulations and the approved Annual Standards and Specifications.
- ESC inspection of land disturbing activities for compliance to the ESC Plan during or immediately following initial installation of ESC measures, at least once every two weeks, within 48 hours of a runoff-producing event; and at project completion. Inspections shall be conducted by an individual with a current ESC Inspector's Certification from DEQ.
- Documentation for plan review and inspection procedures, by reference to laws, regulations, and the Virginia Erosion and Sediment Control Handbook (VESCH).
- A description of circumstances that allow the CSH Project Manager to make changes to an approved plan when found inadequate to address ESC.
- A description of the legal authorities utilized to ensure compliance with Part I E 4 a to control construction site stormwater runoff control such as ordinances, permits, orders, specific contract language, policies, and interjurisdictional agreements;
- Written inspection procedures to ensure the erosion and sediment controls are properly implemented and all associated documents utilized during inspection including the inspection schedule;
- Written procedures for requiring compliance through corrective action or enforcement action to the extent allowable under federal, state, or local law, regulation, ordinance, or other legal mechanisms; and
- The roles and responsibilities of each of CSH's departments, divisions, or subdivisions in implementing the construction site stormwater runoff control requirements in Part I E 4.

Necessary documentation for implementation: (1) ESC Plan(s) approved by DEQ; (2) Documentation of ESC Inspector Certification; (3) Completed ESC Inspection Forms for each regulated project; and (4) Notice to Comply and/or Stop Work Orders documentation and documentation of follow-up actions.

Roles and responsible individual for implementation: CSH Director of Physical Plant: ESC Inspections and coordination with DEQ for plan review.

Implementation schedule: The implementation of this BMP will be on-going with all regulated land disturbing activities on campus.

Measurable goals: Effectiveness will be determined by the implementation of Department of General Services Construction Professional Services Manual.

BMP 5.1 Compliance to Post-Construction Stormwater Management Regulation (Part 1 E 5)

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

- CSH shall implement a post-construction stormwater runoff control program through compliance with 9VAC25-870 and with the implementation of a maintenance and inspection program consistent with Part I E 5 b.

CSH shall include in the MS4 Program Plan the following:

- A description of the legal authorities utilized to ensure compliance with Part I E 5 a for post-construction stormwater runoff control such as ordinances (provide citation as appropriate), permits, orders, specific contract language, and interjurisdictional agreements;
- Written inspection procedures and all associated documents utilized during inspection of stormwater management facilities owned or operated by CSH;
- The roles and responsibilities of each of CSH's departments, divisions, or subdivisions in implementing the post-construction stormwater runoff control program; and
- The stormwater management facility spreadsheet or database incorporated by reference and the location or webpage address where the spreadsheet or database can be reviewed.

CSH shall implement an inspection and maintenance program for those stormwater management facilities owned or operated by CSH that discharges to the MS4 as follows:

- CSH shall develop and maintain written inspection and maintenance procedures in order to ensure adequate long-term operation and maintenance of its stormwater management facilities;
- CSH shall inspect stormwater management facilities owned or operated by CSH no less than once per year. CSH may choose to implement an alternative schedule to inspect these stormwater management facilities based on facility type and expected maintenance needs provided that the alternative schedule and rationale is included in the MS4 program plan. The alternative inspection frequency shall be no less than once per five years; and
- If during the inspection of the stormwater management facility conducted in accordance with Part I E 5 b (2), it is determined that maintenance is required, CSH shall conduct the maintenance in accordance with the written procedures developed under Part I E 5 b (1).

CSH will ensure post-construction stormwater management (SWM) for all regulated land disturbing activities over 2,500 square feet through DEQ plan approval in accordance with the Erosion and Sediment Control and Stormwater Management laws and regulations. Approval from DEQ will ensure the SWM plan has been prepared per the VSMP Regulations that, in part, require that stormwater runoff controls:

- are designed and installed in accordance with the appropriate water quality and water quantity design criteria as required in Part II (9VAC25-870-40 et seq.) of 9VAC25-870; and
- have an inspection and maintenance plan.

Implementation of this BMP will be accomplished through the verification of a DEQ approved stormwater management plan prior to providing written approval that allows the start of the land disturbance.

CSH will extract and retain a copy of SWM facility inspection and maintenance plans from the approved stormwater management plan for proposed stormwater management facilities to be used with the implementation of BMP 5.3.

CSH will perform long-term operations and maintenance of all stormwater facilities on campus utilizing the inspection and maintenance plans obtained from implementation of BMP 5.1. Where inspection and maintenance plans are not available from approved SWM plans, CSH will utilize BMP-specific inspection and maintenance instruction from the Virginia Stormwater Management Handbook or the CSH Post-Construction Stormwater Manual. Inspections will be performed either:

- As dictated on the schedule provided on the inspection and maintenance plans; or
- A minimum of once annually, whichever are the more frequent criteria.

Inspections will be performed using the best management practice (BMP) inspection and maintenance checklist, corresponding with the type of BMP, as provided in either the CSH Post-Construction Stormwater Manual or the latest edition of the Virginia Stormwater Management Handbook. The checklists provide lists of potential issues and methods to address the issue. Necessary maintenance identified during inspections will be conducted in a timely manner or depending on the complexity of the maintenance which may result in an alternative schedule indicated on the SWM Facility Tracking Database.

Necessary documentation for implementation: (1) Post-Construction Stormwater Management Inspection & Maintenance Manual; (2) DEQ approved SWM Plans and Calculations; (3) SWM Facility Inspection and Maintenance Plans; (4) Inspection Forms; and (5) SWM Facility Tracking Database in Appendix E.

Responsible individual for implementation: CSH Director of Physical Plant: tracking required information for reporting and obtaining inspection and maintenance plans for stormwater facilities.

Implementation schedule: The implementation of this BMP will be on-going with all regulated land disturbing activities.

Measurable goal: Effectiveness will be measured by the implementation of the Inspection and maintenance program on post-construction stormwater management facilities.

BMP 5.2 Stormwater Management Facility Tracking and Reporting (Part I E 5 d)

Description: CSH shall maintain an electronic database or spreadsheet of all known CSH-owned stormwater management facilities that discharge into the MS4. The database shall also include all BMPs implemented by CSH to meet the Chesapeake Bay TMDL load reduction as required in Part II A. A database shall include the following information as applicable:

- The stormwater management facility or BMP type;
- The stormwater management facility or BMPs location as latitude and longitude;
- The acres treated by the stormwater management facility or BMP, including total acres, pervious acres, and impervious acres;
- The date the facility was brought online (MM/YYYY). If the date brought online is not known, CSH shall use June 30, 2005;
- The 6th Order Hydrologic Unit Code in which the stormwater management facility is located;
- Whether the stormwater management facility or BMP is owned or operated by CSH;
- Whether or not the stormwater management facility or BMP is part of CSH's Chesapeake Bay TMDL action plan required in Part II A or local TMDL action plan required in Part II B, or both; and
- If the stormwater management facility or BMP is privately owned, whether a maintenance agreement exists; and
- The date of CSH's most recent inspection of the stormwater management facility or BMP.

The electronic database or spreadsheet shall be updated no later than 30 days after a new stormwater management facility is brought online, a new BMP is implemented to meet a TMDL load reduction as required in Part II or discovered if it is an existing stormwater management facility.

CSH shall use the DEQ Construction Stormwater Database or other application as specified by the department to report each stormwater management facility installed after July 1, 2014, to address the control of post-construction runoff from land disturbing activities for which CSH is required to obtain a General VPDES Permit for Discharges of Stormwater from Construction Activities.

No later than October 1 of each year, CSH shall electronically report the stormwater management facilities and BMPs implemented between July 1 and June 30 of each year using the DEQ BMP Warehouse and associated reporting template for any practices not reported in accordance with Part I E 5 f including stormwater management facilities installed to control post-development stormwater runoff from land disturbing activities less than one acre in accordance with the Chesapeake Bay Preservation Act regulations (9VAC25-830) and for which a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required.

Necessary documentation for implementation: (1) SWM Facility Tracking Database in Appendix E

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: The implementation of this BMP will be on-going as inspections are performed as specified for each BMP in the SWM Facility Tracking Database.

Measurable goal: Effectiveness will be measured by the completeness of the annually reported database by October 1 each year.

BMP 6.1 Pollution Prevention Procedures for Operations & Maintenance Activities (Part 1 E 6)

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

- Prevent illicit discharges;
- Ensure the proper disposal of waste materials, including landscape wastes;
- Prevent the discharge of wastewater or permittee vehicle wash water or both into the MS4 without authorization under a separate VPDES permit;
- Require implementation of best management practices when discharging water pumped from utility construction and maintenance activities;
- Minimize the pollutants in stormwater runoff from bulk storage areas (e.g., salt storage, topsoil stockpiles) through the use of best management practices;
- Prevent pollutant discharge into the MS4 from leaking municipal automobiles and equipment; and
- Ensure that the application of materials, including fertilizers and pesticides, is conducted in accordance with the manufacturer's recommendations.

Necessary documentation for implementation: (1) CSH Good Housekeeping/Pollution Prevention Program Manual; (2) Campus-specific SWPPP; (3) Training documentation; and (4) Completed Comprehensive Campus Evaluation form. All documentation is incorporated into the CSH Good Housekeeping/Pollution Prevention Program Manual.

Responsible individual for implementation: CSH Director of Physical Plant

Objectives and expected results in meeting measurable goals: The objective is to minimize or prevent pollutant discharges from campus operations and maintenance activities. The expected result is campus staff adherence to the CSH Good Housekeeping/Pollution Prevention Manual during daily activities.

Implementation schedule: Training will be provided once every 24 months, and campus evaluations will be performed with the schedule described in BMP 6.2. No later than June 30 of each year, CSH will annually review any high-priority facility owned or operated by CSH for which a SWPPP has not been developed to determine if the facility has a high potential to discharge potential pollutants. If the facility is determined to be a high priority facility with a high potential to discharge pollutants, CSH will develop a SWPPP no later than December 31 of that same year.

Measurable goals: Effectiveness will be measured the implementation of a campus-specific Stormwater Pollution Prevention Plan (SWPPP) as described in BMP 6.2, evaluated with a campus compliance evaluation as described for the measure of effectiveness for BMP 3.4, and the Pollution Prevention training described in BMP 6.3.

BMP 6.2 Campus Stormwater Pollution Prevention Plan (Part 1 E 6 c)

Description: CSH shall identify which of the high-priority facilities have a high potential of discharging pollutants. CSH shall maintain and implement a site-specific stormwater pollution prevention plan (SWPPP) for each facility identified. High priority facilities that have a high potential for discharging pollutants are those facilities that are not covered under a separate VPDES permit and which any of the following materials or activities occur and are expected to have exposure to stormwater resulting from rain, snow, snowmelt or runoff:

- Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater;
- Materials or residuals on the ground or in stormwater inlets from spills or leaks;
- Material handling equipment;
- Materials or products that would be expected to be mobilized in stormwater runoff during loading or unloading or transporting activities (e.g., rock, salt, fill dirt);
- Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants);
- Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
- Waste material except waste in covered, nonleaking containers (e.g., dumpsters);
- Application or disposal of process wastewater (unless otherwise permitted); or
- Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.

Each SWPPP as required in Part I E 6 c shall include the following:

- A site description that includes a site map identifying all outfalls, direction of stormwater flows, existing source controls, and receiving water bodies;
- A description and checklist of the potential pollutants and pollutant sources;
- A description of all potential non-stormwater discharges;
- Written procedures designed to reduce and prevent pollutant discharge;
- A description of the applicable training as required in Part I E 6 m;
- Procedures to conduct an annual comprehensive site compliance evaluation;
- An inspection frequency of no less than once per year and maintenance requirements for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP; and
- A log of each unauthorized discharge, release, or spill incident reported in accordance with Part III G including the following information:
 - Date of incident;
 - Material discharged, released, or spilled; and
 - Estimated quantity discharged, released or spilled.

No later than June 30 of each year, CSH shall annually review any high-priority facility owned or operated by the CSH for which a SWPPP has not been developed to determine if the facility has a high potential to discharge pollutants as described in Part I E 6 c. If the facility is determined to be a high-priority facility with a high potential to discharge pollutants, CSH shall develop a SWPPP meeting the requirements of Part I E 6 d no later than December 31 of that same year.

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

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

If activities change at a facility such that the facility no longer meets the criteria of a high-priority facility with a high potential to discharge pollutants as described in Part I E 6 c, CSH may remove the facility from the list of high-priority facilities with a high potential to discharge pollutants.

CSH will not apply any deicing agent containing urea or other forms of nitrogen or phosphorus to parking lots, roadways, and sidewalks, or other paved surfaces in accordance with Part I E 6 k. The ingredients of deicers used on campus will be maintained.

The SWPPP will provide instruction for updates, as necessary, to reflect changes on campus, modifications to operations and maintenance procedures, or short-comings resulting in a reportable spill. Inspection forms will be completed in accordance with the prescribed schedule within the SWPPP and maintained on file with the Director of Physical Plant.

CSH shall provide a list of all high-priority facilities owned or operated by CSH required in accordance with Part I E 6 c, and whether or not the facility has a high potential to discharge.

Table 7: List of High Priority Facilities	
High Priority Facility	Address
Central State Hospital	26317 West Washington Street, Petersburg, VA 23803

Necessary documentation for implementation: (1) Good Housekeeping & Pollution Prevention Manual; (2) Campus-specific SWPPP; (3) Annual comprehensive site compliance evaluation forms; and (4) Ingredients of deicers used on campus.

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: By June 30th every year CSH will review its properties to determine if the facilities meet the criteria of a high priority facility and develop a SWPPP by December 31 of the same permit year. CSH will also review its properties to determine if the properties no longer meet the criteria of a high priority facility. CSH will review the campus SWPPP no later than 30 days after an unauthorized discharge, release or spill reported in accordance with Part III G to determine if additional measures are necessary to prevent future unauthorized discharges, releases or spills. The SWPPP shall be updated no later than 90 days after the unauthorized discharge. The annual comprehensive campus compliance evaluation will be completed once per year.

Measurable goals: Effectiveness will be measured by the completed annual comprehensive campus compliance evaluation once per year; a review of the SWPPP within 30 days after an unauthorized discharge, release or spill reported; and an update to the SWPPP within 90 days after an unauthorized

discharge. In addition, effectiveness will be measured by the review of CSH's properties to determine if the properties meet the criteria of a high priority facility and a SWPPP is developed, or no longer meet the criteria of a high priority facility.

BMP 6.3 Turf and Landscape Management (Part I E 6 j)

Description: CSH does not apply nutrients to lands regulated under § 10.1-104.4 of the Code of Virginia; and therefore, is not required to develop or implement turf and landscape nutrient management plans in accordance with Part I E 5 j.

If, in the future CSH decides to apply nutrients; CSH shall implement a Department of Conservation and Recreation (DCR) approved and campus-specific Nutrient Management Plan (NMP) prepared by a Certified Nutrient Management Planner. Fertilizer application records will be maintained with each application using the application record provided in the NMP.

CSH shall provide a list of lands for which turf and landscape nutrient management plans are required in accordance with Part I E 6 i and j, including the following information:

- The total acreage on which nutrients are applied;
- The date of the most recently approved nutrient management plan for the property; and
- The location in which the individual turf and landscape nutrient management plan is located.

Table 8: List of Lands where Nutrient Management Plans are Required			
Property Name	Application Area (ac.)	NMP Date	Location of NMP Area
Not Applicable			

Necessary documentation for implementation: (1) CSH Nutrient Management Plan; and (2) Completed Fertilizer Application Record.

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: The NMP will continue to be updated and modified as needed. Fertilizer application records will be maintained with each application.

Measurable goals: Effectiveness will be measured by the implementation of the NMP through completion of the application record and periodic updates to the NMP to make necessary adjustments based on soil conditions.

BMP 6.4 Contractor Safeguards to Ensure Program Consistent Measures and Procedures (Part I E 6 I)

Description: CSH shall require through the use of contract language, training, standard operating procedures, or other measures within the CSH's legal authority that contractors employed by CSH and engaging in activities with the potential to discharge pollutants use appropriate control measures to minimize the discharge of pollutants to the MS4.

CSH will use contract language that references the CSH Good Housekeeping and Pollution Prevention Manual to require campus contractors to use appropriate control measures and procedures for stormwater discharges, when applicable. Oversight will be provided by CSH through periodic inspections. Contract language will require contractors to address items identified during inspections within a time period appropriate to prevent the potential of non-stormwater discharges. The contract language will also allow the college to stop-work, address the problem, and recoup cost for the remedy from the contractor.

Contractors implementing the stormwater program shall obtain the appropriate certifications as required under the Virginia Stormwater Management Act (VSMA) and its attendant regulations.

A summary of mechanisms CSH uses to ensure contractors working on behalf of CSHs implement the necessary good housekeeping and pollution prevention procedures, and stormwater pollution plans as appropriate:

- CSH incorporates contract language that includes a reference to the Good Housekeeping and Pollution Prevention Manual located on CSH's website.

Contract language described in this BMP is not intended for regulated land disturbing activity addressed with BMPs 4.1, 4.2, and 4.3.

Necessary documentation for implementation: (1) CSH Good Housekeeping and Pollution Prevention Manual; (2) Contract language; and (3) Good Housekeeping and Pollution Prevention Manual

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: CSH will continue to incorporate language into contracts to ensure contractors engaging in activities with the potential to discharge pollutants use appropriate control measures to minimize the discharge of pollutants to the MS4.

Measurable goals: Effectiveness will be measured by all signed contracts executed with contract good housekeeping and pollution prevention language.

BMP 6.5 Contractor Certification for Pesticide Application (Part I E 6 m 4)

Description: Contractors hired by CSH who apply pesticides and herbicides are trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Certification by the Virginia Department of Agriculture and Consumer Services (VDACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement.

Necessary documentation for implementation: (1) Contract language; and (2) Proof of certifications

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: CSH will continue to obtain proof of certifications from contractors applying pesticide and herbicide.

Measurable goal: Effectiveness will be measured by all signed contracts executed for pesticide and herbicide application maintain proof of certifications on file.

BMP 6.6 Employee Good Housekeeping/Pollution Prevention Training Plan (Part 1 E 6 m)

Description: CSH shall develop a training plan in writing for applicable staff that ensures the following:

- Field personnel receive training in the recognition and reporting of illicit discharges no less than once per 24 months;
- Employees performing road, street, and parking lot maintenance receive training in pollution prevention and good housekeeping associated with those activities no less than once per 24 months;
- Employees working in and around maintenance, public works, or recreational facilities receive training in good housekeeping and pollution prevention practices associated with those facilities no less than once per 24 months;
- Employees who apply pesticides and herbicides are trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia). Certification by the Virginia Department of Agriculture and Consumer Services (VCACS) Pesticide and Herbicide Applicator program shall constitute compliance with this requirement;
- Employees serving as plan reviewers, inspectors, program administrators, and construction site operators obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations;
- Employees and contractors implementing the stormwater program obtain the appropriate certifications as required under the Virginia Stormwater Management Act and its attendant regulations; and
- Employees whose duties include emergency response have been trained in spill response. Training of emergency responders such as firefighters and law-enforcement officers on the handling of spill releases as part of a larger emergency response training shall satisfy this training requirement and be documented in the training plan.

CSH shall maintain documentation of each training event conducted by CSH to fulfill the requirements of Part I E 6 m for a minimum of three years after the training event. The documentation shall include the following information:

- The date of the training event;
- The number of employees attending the training event; and
- The objective of the training event.

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

CSH will incorporate a written training plan into its Good Housekeeping/Pollution Prevention and IDDE Program Manuals, including a schedule of training events. The Program Manuals will serve as the training material and include Appendices to document training and list relevant staff for the following specific training:

- Training once every 24 months to relevant field personnel in the recognition and reporting of illicit discharges. Training will utilize the IDDE Manual described in BMP 3.3.
- Training once every 24 months to relevant employees in good housekeeping and pollution prevention practices that are to be employed during road and parking lot maintenance and around maintenance and operations facilities. Training will utilize the CSH Good Housekeeping/Pollution Prevention Manual described in BMP 6.1.

The plan will also require the following:

- Training or certification in spill response for emergency response employees.
- Training or certification for applying pesticides and herbicides in accordance with the Virginia Pesticide Control Act (§ 3.1-249.27 et seq. of the Code of Virginia) for employees performing applications.

Training required by the General Permit that is not applicable to CSH includes the following:

- Training to employees in and around recreational facilities.
- Certifications as required under the Virginia Erosion & Sediment Control Law (See BMPs 4.1 and 4.3).
- Certifications as required under the Virginia Stormwater Management Act and its attendant regulations.

Necessary documentation for implementation: (1) Training documentation or appropriate certifications for employees; (2) CSH IDDE Manual; and (3) CSH Good Housekeeping/Pollution Prevention Program Manual.

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: Training for illicit discharge and good housekeeping will occur no less than every 24 months. Certifications will be maintained, and proof of certification updated as appropriate.

Measurable goals: Effectiveness will be determined by the training occurring no less than every 24 months, and proof of certifications updated as appropriate.

3.1 SPECIAL CONDITIONS FOR THE CHESAPEAKE BAY TMDL

BMP CB-SC.1 Chesapeake Bay TMDL Action Plan (Part II A)

Description: CSH will develop a second phase 2018 – 2023 Chesapeake Bay TMDL Action Plan that incorporates public comment and includes:

- Any new or modified legal authorities, such as ordinances, permits, policy, specific contract language, orders, and interjurisdictional agreements, implemented or needing to be implemented;
- The load and cumulative reduction calculations for each river basin;
- The total reductions achieved as of July 1, 2018, for each pollutant of concern in each river basin;
- A list of BMPs implemented prior to July 1, 2018, to achieve reductions associated with the Chesapeake Bay TMDL including the date of implementation and the reductions achieved;
- The BMPs to be implemented by CSH prior to the expiration of this permit to meet the cumulative reductions, including as applicable:
 - Type of BMP;
 - Project name;
 - Location;
 - Percent removal efficiency for each pollutant of concern; and
 - Calculation of the reduction expected to be achieved by the BMP calculated and reported in accordance with the methodologies established for each pollutant of concern.
- A summary of any comments received as a result of public participation, CSH's response, and any revisions made to 2018 – 2023 Chesapeake Bay TMDL action plan as a result of public participation.

The Action Plan development will consider DEQ's Chesapeake Bay Action Plan Guidance.

Prior to submittal of the action plan required in Part II A 11, CSH shall provide an opportunity for public comment on the additional BMPs proposed to meet the reductions not previously approved by the department in the first phase Chesapeake Bay TMDL action plan for no less than 15 days.

Necessary documentation for implementation: (1) 2018 – 2023 Chesapeake Bay TMDL Action Plan; (2) Summary of public comments and CSH's responses; and (3) CSH Program Plan Updates, as necessary.

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: The 2018 -2023 Chesapeake Bay Action Plan was developed by November 1, 2019. The schedule developed in the Action Plan will be implemented thereafter.

Measurable goal: Effectiveness will be determined by the consideration of public comments; and the selection of cost effective BMPs supported by model quantification to achieve the required pollutant reductions.

BMP CB-SC.2 Chesapeake Bay TMDL Action Plan Implementation (Part II A)

Description: CSH will implement the second phase 2018 – 2023 Chesapeake Bay TMDL Action Plan per a schedule developed in the Final 2018 – 2023 Chesapeake Bay TMDL Action Plan.

Necessary documentation for implementation: 2018 – 2023 Chesapeake Bay TMDL Action Plan

Responsible individual for implementation: CSH Director of Physical Plant

Implementation schedule: Table 9 includes the implementation schedule in the 2018 – 2023 Chesapeake Bay TMDL Action Plan.

Table 9: 2018 – 2023 Chesapeake Bay TMDL Action Plan Implementation Schedule			
Step	General Description	Measurable Goal	Completion Date
1	Complete 5% reduction requirement. Evaluate lbs. swept.	Completed tracking documentation.	July 2019
2	Complete 5% reduction requirement. Evaluate lbs. swept. Make adjustments to frequency based on 2019 information obtained.	Completed tracking documentation with increase sweeping frequency.	July 2020
3	Complete 5% reduction requirement. Evaluate lbs. swept. Determine if 40% can be achieved w/ street sweeping alone. If not, evaluate alternate means to achieve 40% reduction. Secure funding for future implementation of new BMPs. Revise Action Plan accordingly.	Completed tracking documentation. If required, revise Action Plan.	July 2021
4	Complete 5% reduction requirement. Evaluate lbs. swept. Ensure means and methods are in place to meet 40% reduction including additional BMPs if necessary.	Completed tracking documentation and support documentation from any new BMPs employed to meet 40% reduction.	July 2022
5	Complete 40% reduction requirement with selected means and methods.	Completed tracking documentation and support documentation from any new BMPs employed to meet 40% reduction.	July 2023
6	Report on Chesapeake Bay TMDL 40% reduction achievement.	Record results in Annual Report.	October 2023

Measurable goal: Effectiveness will be determined by the implementation of the actions in the schedule.

3.2 SPECIAL CONDITIONS FOR EXISTING LOCAL TMDLS

BMP SC1.1 Existing Local TMDL Action Plan (Part II B)

CSH has not been assigned a waste load allocation for any Local TMDL special conditions.

3.3 SPECIAL CONDITIONS FOR NEW LOCAL TMDLS

BMP SC2.1 New Local TMDL Action Plan (Part II B)

CSH has not been assigned a waste load allocation for any Local TMDL special conditions.

Appendix A - BMP 1.1 Public Education and Outreach Survey



EEE Consulting, Inc.

Environmental, Engineering and Educational Solutions

Memo

To: Andrew Conti

From: Sara Rilveria

CC: Chris Schrinel

Date: 6/29/2018

Re: Central State Hospital PEOP 2018 Survey Results – Addendum 1

Consistent with Central State Hospital's (CSH) Public Education and Outreach Plan (PEOP), a survey was conducted in June of 2018 as part of the iterative program that measures effectiveness of CSH's PEOP by assessing the level of knowledge over time of the CSH's target audience (public) which is defined as the facility's staff. The survey included questions regarding stormwater runoff and surface water quality; and is intended to gage the public's knowledge of stormwater impacts.

The desired outcome from the survey is for the results to show an overall increase in awareness over time. Attached is a summary comparison between the first survey conducted in August 2016 and the recent survey conducted in June 2018. Questions #1, #2, #6, #7, & #10 in the attached are the most pertinent questions; and the comparison of their average scores from survey to survey are used to measure the PEOP's percentage of effectiveness that is reported on CSH's MS4 Annual Report. Table 1 below provides the overall end results related to program effectiveness and demonstrates that the PEOP has been communicated and is effective.

Table 1: Average PEOP Scores

2016 Survey	2018 Survey
36%	56%

The survey results are useful in identifying trends over time, potential weaknesses, and new ways to focus efforts for CSH's PEOP. For instance, when results from year to year have slight or significant increases it can be deduced that the program is effective. Based on the survey responses, it appears that the PEOP is effective. Similarly, slight or significant decreases may indicate the need for adjustments to the PEOP.

Regards,

EEE Consulting, Inc.

A handwritten signature in cursive script that reads "Sara Rilveria".

Sara Rilveria, CLA
Senior Landscape Architect

Attachment: 2018 PEOP Survey Data Comparison
2018 PEOP Survey Data

CSH	2016	2018
1. Are you aware that CSH has a stormwater program in place to protect surface waters? (Yes)	38%	72%
2. How much do you feel you know about the steps you can take to reduce stormwater pollution (1 being the least and 5 being the most)? (Quite a bit + Expert)	4%	26%
6. If you observed an issue that is negatively impacting environmental water quality on campus who would you contact? (Physical Plant Services)	66%	86%
7. Do you know where stormwater inlets on the CSH campus drain? (Straight to waterways)	9%	22%
10. Are there any legal/disciplinary implications for either directly or indirectly contributing pollutants to surface waters (lakes, streams, river, etc.)? (Yes)	63%	73%
Average Score	36%	56%

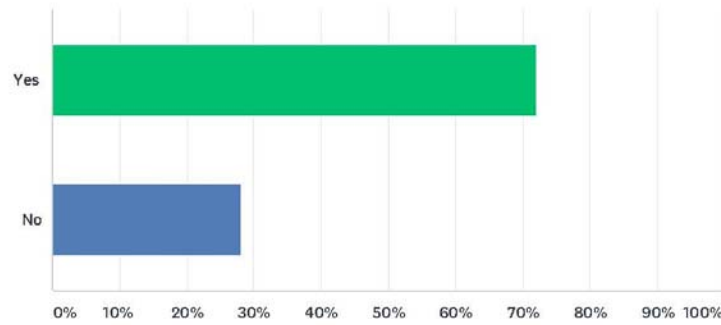
2018 PEOP Survey Data Comparison: CSH

Question	Description	2016	2018
1	Aware CSH has a Stormwater Program? (Yes)	38%	72%
2	Know how to reduce stormwater pollution? (Quite a bit + Expert)	4%	26%
3	Interested in improving water quality? (Yes)	88%	80%
	(Yes + Maybe)	96%	98%
4	Interested in volunteering? (2 Yes answers + Maybe)	55%	58%
5	Aware of stormwater projects at CSH? (Yes)	12%	39%
6	Aware who to report negative impacts to water quality? (Physical Plant Services)	66% (Physical Plant Services) 25% (Don't Know)	86% (Physical Plant Services) 11% (Don't Know)
7	Aware where Stormwater Inlets Drain? (Straight to waterways)	9% (Straight to Waterways) 82% (Don't Know)	22% (Straight to Waterways) 57% (Don't Know)
8	Most effective method of outreach?	83% (Email) 9% (Brochures) 0% (Facebook) 8% (Other)	66% (Email) 25% (CSH website) 8% (Brochures) 1% (Other)
9	Rank pollutants of concern, 1 being most important and 7 being least. (Average ranking)	1) Bacteria in waterways 2) Pesticides/insecticides 3) Motor oil from cars 4) Too much fertilizer 5) Not enough education on stormwater 6) Sediment/silt in waterways 7) Leaves in gutters	1) Pesticides/insecticides 2) Bacteria in waterways 3) Motor oil from cars 4) Too much fertilizer 5) Sediment/silt in waterways 6) Not enough education on stormwater 7) Leaves in gutters
10	Aware of legal/ disciplinary implications for polluting? (Yes)	63%	73%
11	Top 4 answers for pollutants that negatively impact surface water. (Oil/gas, pesticides/insecticides, fertilizer, sediment, bacteria, animal waste, trash)	36% (Oil/gas) 34% (Pesticides/insecticides) 33% (Fertilizer) 33% (Animal Waste)	36% (Oil/gas) 34% (Pesticides/insecticides) 33% (Fertilizer) 33% (Trash)
12	Comments	N/A	N/A

Central State Hospital - 2018 Stormwater Survey

Q1 Are you aware that Central State Hospital has a stormwater program in place to protect surface waters?

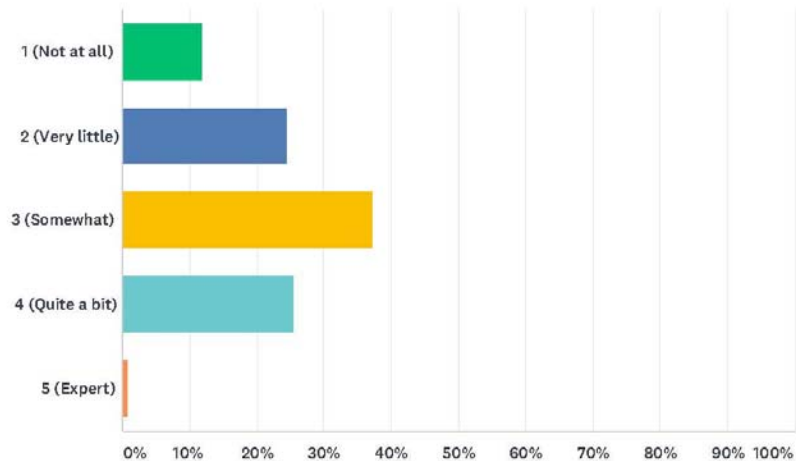
Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	72.03%	85
No	27.97%	33
TOTAL		118

Q2 How much do you feel you know about the steps you can take to reduce stormwater pollution (1 being the least and 5 being the most)?

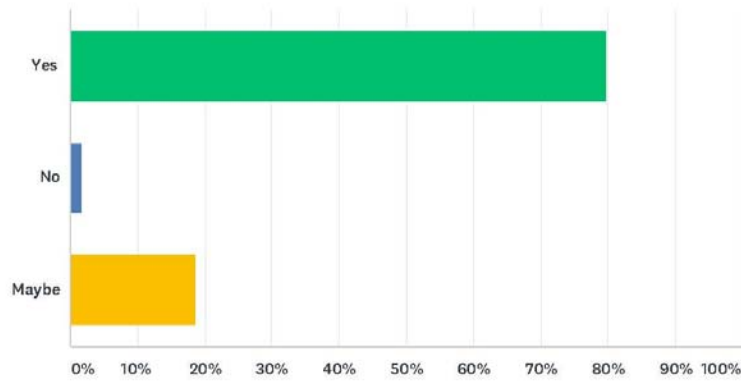
Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
1 (Not at all)	11.86%	14
2 (Very little)	24.58%	29
3 (Somewhat)	37.29%	44
4 (Quite a bit)	25.42%	30
5 (Expert)	0.85%	1
TOTAL		118

Q3 Are you interested in improving environmental water quality (Creeks, Lakes, Bays, etc.)?

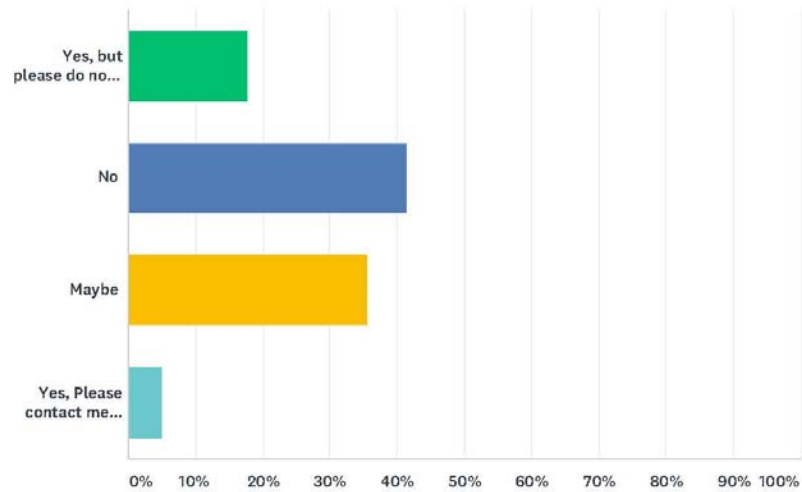
Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	79.66%	94
No	1.69%	2
Maybe	18.64%	22
TOTAL		118

Q4 Are you interested in volunteering with local projects to improve environmental water quality?

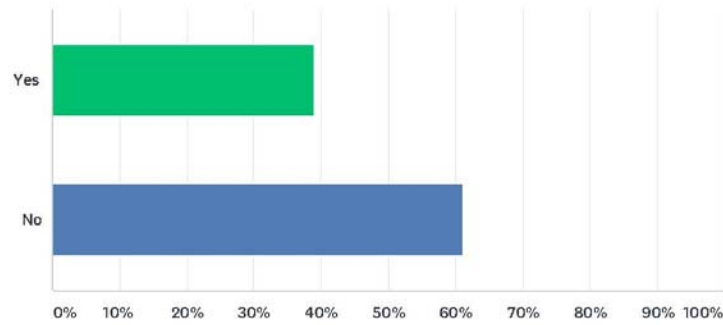
Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes, but please do not contact me regarding opportunities.	17.80%	21
No	41.53%	49
Maybe	35.59%	42
Yes, Please contact me about opportunities (Please provide contact information below).	5.08%	6
TOTAL		118

Q5 Are you aware of any Central State Hospital projects to improve environmental water quality?

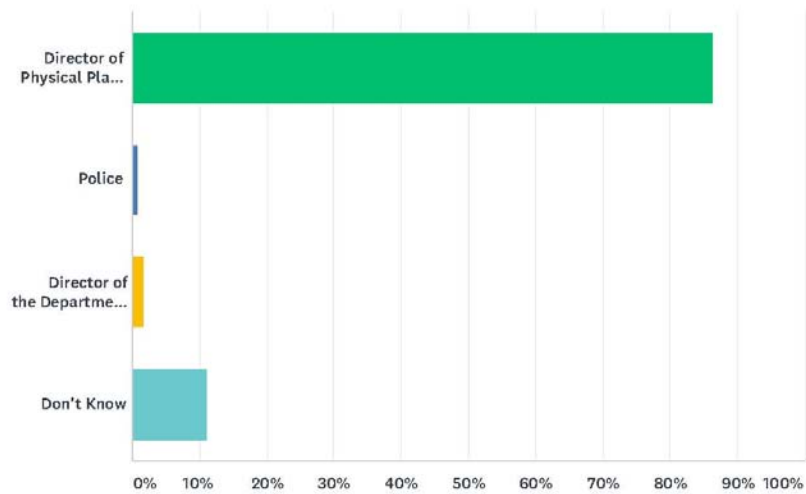
Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	38.98%	46
No	61.02%	72
TOTAL		118

Q6 If you observed an issue that is negatively impacting environmental water quality on Central State Hospital Property who would you contact?

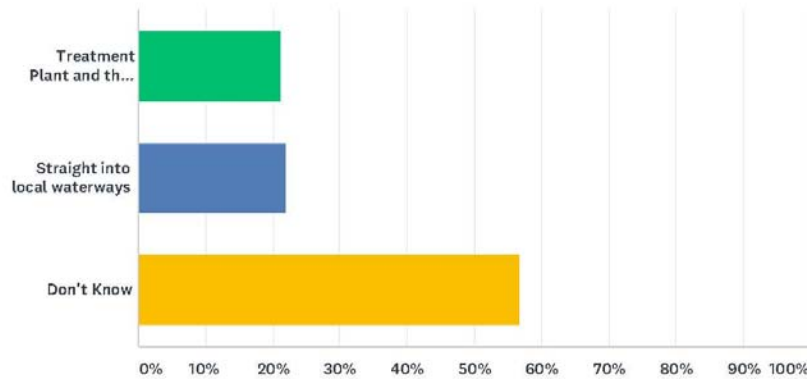
Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
Director of Physical Plant Services for Central State Hospital	86.44%	102
Police	0.85%	1
Director of the Department of Behavioral Health and Developmental Services	1.69%	2
Don't Know	11.02%	13
TOTAL		118

Q7 Do you know where stormwater inlets on the Central State Hospital's Property drain?

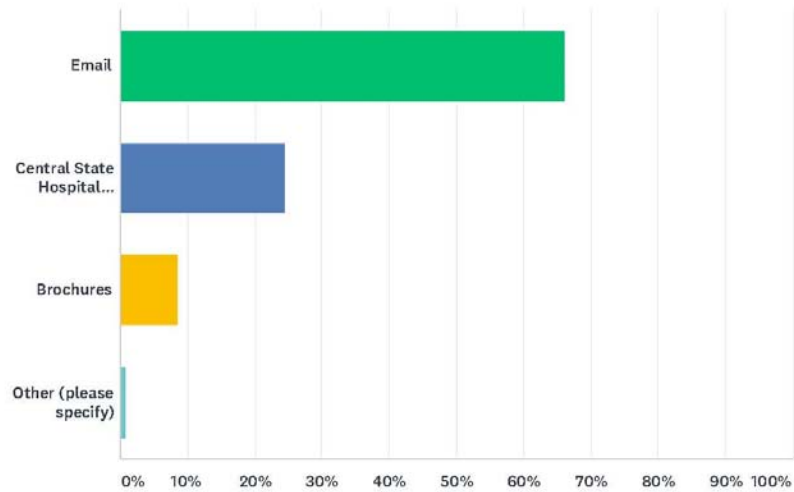
Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
Treatment Plant and then into the waterway	21.19%	25
Straight into local waterways	22.03%	26
Don't Know	56.78%	67
TOTAL		118

Q8 Which of the following would be the most effective method to reach you regarding water quality education?

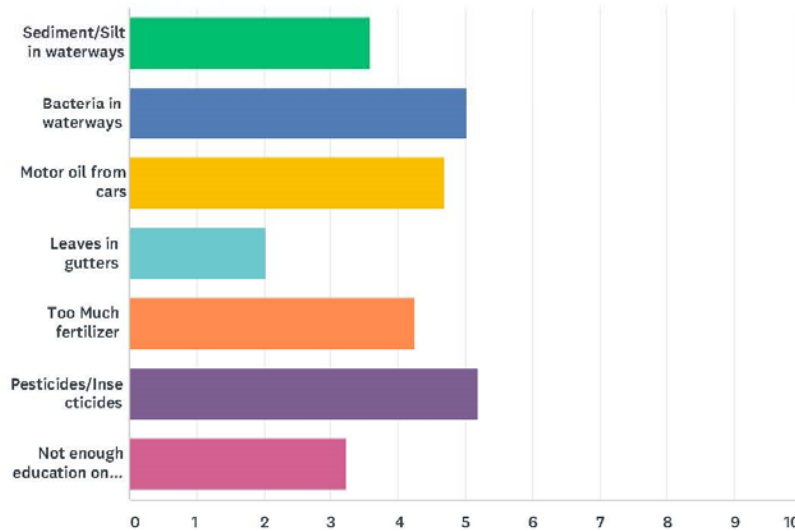
Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
Email	66.10%	78
Central State Hospital Website	24.58%	29
Brochures	8.47%	10
Other (please specify)	0.85%	1
TOTAL		118

Q9 Please rank the following stormwater pollution concerns in order of importance with 1 being the most important and 7 being the least important (Note: Each concern must have a unique ranking number):

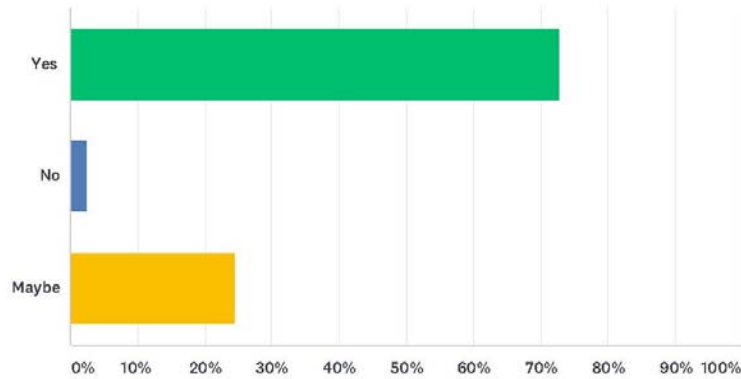
Answered: 118 Skipped: 0



	1	2	3	4	5	6	7	TOTAL	SCORE
Sediment/Silt in waterways	5.93% 7	14.41% 17	11.02% 13	9.32% 11	27.97% 33	21.19% 25	10.17% 12	118	3.57
Bacteria in waterways	32.20% 38	14.41% 17	10.17% 12	22.03% 26	13.56% 16	4.24% 5	3.39% 4	118	5.03
Motor oil from cars	12.71% 15	15.25% 18	31.36% 37	21.19% 25	9.32% 11	8.47% 10	1.69% 2	118	4.69
Leaves in gutters	0.85% 1	1.69% 2	3.39% 4	6.78% 8	11.02% 13	33.90% 40	42.37% 50	118	2.03
Too Much fertilizer	7.63% 9	15.25% 18	23.73% 28	17.80% 21	21.19% 25	12.71% 15	1.69% 2	118	4.25
Pesticides/Insecticides	20.34% 24	35.59% 42	14.41% 17	15.25% 18	4.24% 5	7.63% 9	2.54% 3	118	5.19
Not enough education on stormwater	20.34% 24	3.39% 4	5.93% 7	7.63% 9	12.71% 15	11.86% 14	38.14% 45	118	3.23

Q10 Are there any legal/disciplinary implications for either directly or indirectly contributing pollutants to surface waters (lakes, streams, river, etc.)?

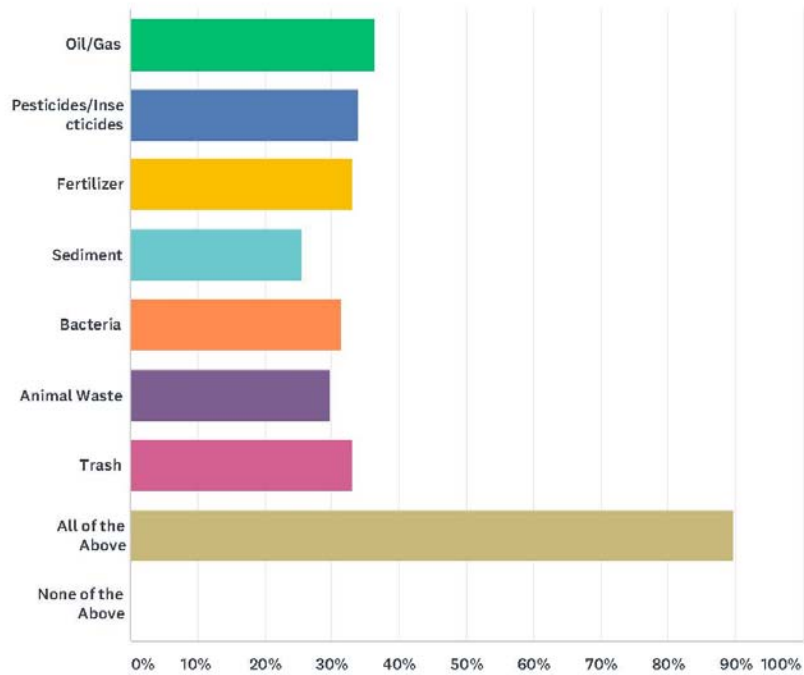
Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	72.88%	86
No	2.54%	3
Maybe	24.58%	29
TOTAL		118

Q11 Which of the following would you classify as pollutants that can negatively impact surface waters?

Answered: 118 Skipped: 0



ANSWER CHOICES	RESPONSES	
Oil/Gas	36.44%	43
Pesticides/Insecticides	33.90%	40
Fertilizer	33.05%	39
Sediment	25.42%	30
Bacteria	31.36%	37
Animal Waste	29.66%	35
Trash	33.05%	39
All of the Above	89.83%	106
None of the Above	0.00%	0
Total Respondents: 118		

Q12 Please use the below space to write any other comments or concerns you have about Central State Hospital's stormwater program. Otherwise, please click on the button labeled "Done" below to submit your answers.

Answered: 10 Skipped: 108

#	RESPONSES	DATE
1	Not sure if we have new up to date facilities	6/21/2018 3:37 PM
2	We use too much herbicide on campus to kill grasses that could be trimmed backed, ie; around curbs, signs, parking lot medians. Too much sand is used in the winter on the campus roads and it washes into the storm drains.	6/19/2018 8:04 AM
3	lead washing off old paint on bldg.s	6/18/2018 2:11 AM
4	none	6/12/2018 4:26 PM
5	If you post an educational piece about CSH's program I will read it. Thank you!	6/12/2018 4:05 PM
6	Would be good to include in an article in the next newsletter... with the hurricane season around the corner, or should I say here now...	6/12/2018 3:32 PM
7	It is very clear that chemicals were used to kill grass on the CSH property. Why is that?	6/12/2018 12:51 PM
8	none	6/12/2018 12:25 PM
9	I felt uncomfortable about this survey because I have no idea or education on how to respond to the questions.	6/12/2018 12:23 PM
10	It's great to have a stormwater program, but why don't we have a recycling program? We have so much waste that can be recycled.	6/12/2018 11:39 AM

Appendix B - BMP 3.1 Outfall Information Table

Central State Hospital Outfall Reconnaissance Inventory (2020-2021)

Outfall ID	Latitude	Longitude	Area Drainage to Outfall (Acres)	Name of Receiving Water	12-Digit HUC	Direct Discharge to Receiving Water Impaired as of 2016? (2016 303(d)/305(b))	Predominant Land Use to Impaired Water	Applicable TMDL(s) and Pollutants of Concern	Date of Last Screening	Summary of Screening Results
CS-01	37° 12' 15.196" N	77° 27' 18.923" W	0.04	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-02	37° 12' 15.162" N	77° 27' 18.544" W	0.09	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-03	37° 12' 16.188" N	77° 27' 18.173" W	1.01	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-04	37° 12' 18.825" N	77° 27' 17.270" W	0.62	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-05	37° 12' 20.295" N	77° 27' 17.484" W	0.95	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-06	37° 12' 23.177" N	77° 27' 17.075" W	1.23	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-07	37° 12' 25.507" N	77° 27' 18.923" W	0.74	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-08	37° 12' 28.073" N	77° 27' 20.815" W	0.30	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-09	37° 12' 29.436" N	77° 27' 21.441" W	1.27	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-10	37° 12' 31.503" N	77° 27' 22.462" W	0.37	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-11	37° 12' 34.611" N	77° 27' 25.703" W	0.89	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Forest, Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-12	37° 12' 35.687" N	77° 27' 26.272" W	0.56	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Forest, Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-13	37° 12' 40.387" N	77° 27' 17.523" W	4.71	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-14	37° 12' 46.465" N	77° 27' 4.947" W	0.25	Cattail Run	20802071001	Yes (E. coli)	Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-15	37° 12' 43.538" N	77° 27' 6.497" W	3.98	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-17	37° 12' 45.834" N	77° 27' 7.196" W	0.19	Cattail Run	20802071001	Yes (E. coli)	Lawn, Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-18	37° 12' 45.905" N	77° 27' 7.061" W	1.46	Cattail Run	20802071001	Yes (E. coli)	Lawn, Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-19	37° 12' 39.678" N	77° 26' 51.948" W	0.42	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-20	37° 12' 38.910" N	77° 26' 52.204" W	1.71	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-21	37° 12' 38.985" N	77° 26' 52.208" W	0.39	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-22	37° 12' 26.829" N	77° 26' 44.182" W	7.23	Unnamed Tributary to Rohoic Creek	20802071001	Not Assessed	Lawn, Forest, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-23	37° 12' 23.631" N	77° 26' 51.002" W	0.17	Unnamed Tributary to Rohoic Creek	20802071001	Not Assessed	Lawn, Forest	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-24	37° 12' 24.188" N	77° 26' 52.503" W	1.30	Unnamed Tributary to Rohoic Creek	20802071001	Not Assessed	Lawn, Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-25	37° 12' 24.774" N	77° 26' 52.874" W	0.96	Unnamed Tributary to Rohoic Creek	20802071001	Not Assessed	Lawn, Asphalt	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-26	37° 12' 24.370" N	77° 26' 50.238" W	0.10	Unnamed Tributary to Rohoic Creek	20802071001	Not Assessed	Lawn, Forest	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-27	37° 12' 54.081" N	77° 27' 11.733" W	1.12	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Asphalt, Lawn	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found
CS-28	37° 12' 18.086" N	77° 27' 17.123" W	0.50	Unnamed Tributary to Cattail Run	20802071001	Not Assessed	Asphalt, Buildings	Chesapeake Bay (TSS, TN, TP)	12/11/2020	No Illicit Discharges Found

Appendix C - BMP 5.2 SWM Facility Tracking Database

Central State Hospital Stormwater Management Facility Inventory (2020-2021)

Facility ID	Facility Type	Latitude	Longitude	Total Drainage Area (Acres)	Pervious Area (Acres)	Impervious Area (Acres)	Year Built	12-Digit HUC	Receiving Water	2016 303(d)/305(b) Impairment(s)	Used for Chesapeake Bay TMDL Reductions	Operator or Privately Owned?	Maintenance Agreement?	Date of Last Inspection	Inspection Schedule	# of Inspections Completed During Reporting Year
CSH-1	Extended Detention Basin	37° 12' 34.778" N	77° 26' 52.074" W	3.09	1.66	1.43	6/30/2005	20802071001	Unnamed Tributary to Cattail Run	Not Assessed	No	Operator (Central State Hospital)	N/A (Applies only to Private)	12/11/2020	Annual	1