

Fredericksburg Campus

Municipal Separate Storm Sewer System

Program Plan & Annual Report

For

General Permit No. VAR040125

And

Annual Reporting through

July 1, 2017 through June 30, 2018

This plan and annual report is submitted in accordance with 9VAC25-890-30 and 9VAC25-890-40 as part of registration statement for permit coverage to discharge stormwater to surface waters of the Commonwealth of Virginia consistent with the VAR04 General Permit, effective per letter dated April 18, 2014, from DEQ.

Submitted: September 28, 2018

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CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Printed Name:	John M. Davis	_ Title: UP of Idn Sowey
Signature:	JNDS	Date: 7 / 18/18

DEFINITIONS

"Best management practice" or "BMP" 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 landdisturbing 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.

"DEQ" means the Virginia Department of Environmental Quality.

"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.

"Hydrologic Unit Code" or "HUC" 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, 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, and street wash water, unless identified by the MS4 operator as significant contributors of pollutants.

"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:

- Campus land-disturbing activities that disturb less than 2,500 square feet;
- 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.

"Municipal separate storm sewer system" or "MS4" 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.

"Outfall" means, when used in reference to municipal separate storm sewers, a point source at the point where a municipal separate storm sewer discharges to surface waters and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other surface waters and are used to convey surface waters.

"Public" means, for the purpose of this Program Plan, the students, faculty, and staff population attending or employed by Germanna Community College's Fredericksburg campus.

"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" or "TMDL" means the sum of the individual wasteload allocations for point sources, load allocations (LAs) 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.

"Virginia Stormwater Management Handbook" means a collection of pertinent information that provides general guidance for compliance with the Act and associated regulations and is developed by DEQ with advice from a stakeholder advisory committee.

"Wasteload allocation" or "wasteload" or "WLA" 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 PROGRAM PLAN STRUCTURE

The Program Plan is structured to serve as a stand-alone document that, when implemented, meets the requirements 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. However, the MS4 Program is intended to be subject to modifications throughout the 5-year permit cycle as part of an iterative process that seeks to improve the effectiveness of best management practices (BMPs). To facilitate the iterative process, measure(s) of effectiveness are incorporated in each BMP and annual reporting form in Section 3.0.

1.1 Minimum Control Measures

The General Permit requires the Germanna Community College (GCC) Program Plan to include BMPs to address the requirements of six minimum control measures (MCMs) described in Section II 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 3.0 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:

- A description of the BMP.
- A list of the necessary documentation to implement the BMP. This information is considered part of the Program and is readily available and updated, as necessary, and developed consistent with the BMP's implementation schedule.
- The identification of the individual(s) responsible for implementation of the BMP.
- The objective of the BMP and the result expected from implementation of the BMP.
- An implementation schedule consistent with the General Permit.
- A description of the method(s) to be used to assess the effectiveness of the BMP.

1.2 Special Conditions for TMDLs

GCC 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 TMDL Action Plan by April 18, 2016. The Action Plan becomes effective and enforceable 90 days after the date received by DEQ. A BMP is provided in Section 3.2 for development of the Action Plan, and a second BMP is reserved to be developed for implementation of the Action Plan. BMPs are also provided to ensure GCC annually determines if a WLA has been assigned during the reporting year and to provide public opportunity for participation in development of new TMDLs.

1.3 Annual Reporting

GCC will submit an Annual Report to the DEQ by October 1st of each year with the reporting period spanning from July 1st through June 30th. This Program Plan includes annual reporting forms in "fillable form" format. The annual completion of these forms provides all of the reporting requirements to satisfy the General Permit and include the:

- Cover sheet updated with the specific reporting year;
- Certification following the Table of Contents;
- "Annual Reporting General Information" form on the following page completed annually; and
- The annual reporting form following each BMP in Section 3.0 completed annually.

Information compiled for effectiveness for each BMP in Section 3.0 is utilized to evaluate and, if necessary, modify the corresponding BMP. Any modifications will be reported in the "Annual Reporting – General Information" form. Modification(s) to the Program made by GCC will be done in accordance with the General Permit requirements described in Section 1.5.

The General Permit requires certification of the annual report and is provided immediately after the Table of Contents of this document. Certification is required by a principle executive officer or a duly authorized representative. The duly authorized representative must have overall responsibility of the campus operations and written authorization must be provided to DEQ.

1.4 Annual Reporting – General Information Form				
 The BMPs described in Section 3.0 are the stormwater activities that GCC plans to undertake during the next reporting cycle. GCC relies on the Virginia Community College System (VCCS) for implementation of BMP 4.1, 4.3, and 4.4 through the DEQ approved VCCS Annual Standards and Specifications for Stormwater and Erosion and Sediment Control. Completed Annual Reporting Forms for each BMP in Section 3.0 provide an assessment of the appropriateness of each BMP, progress towards achieving each measurable goal, and results of 				
Were modifications to the responsibility or specific BMP i reporting year? (yes/no)	oonsible individu included in the Pi	rogram that occurred during the	⊠Yes □No	
If yes, modifications are listed below (provide BMP # in Section 3.0 to reference modification rationale): <u>The Public Education and Outreach Plan was updated to more accurately reflect current information</u> <u>and data. The revised plan is included in Appendix A. The Good Housekeeping and Pollution Prevention</u> <u>Manual was revised to remove the Contractor Oversight Form. GCC will continue to provide contractor</u> <u>oversight in accordance with BMP 6.5; however, a form will not be required to be filled out after each</u> <u>inspection.</u>				
Number of new MS4 outfalls:	0	Associated acreage for the new outfalls (the entire campus drains to HUC6 RA-47):	N/A	
GCC finds the college compliar	nt with the permi	t conditions (yes/no):	⊠Yes □No	
If no, listed below are additional BMPs and/or changes made to BMPs or measurable goals for any of the MCMs, including steps to address any deficiencies:				
		above, follow the guidance in Section	on 1.4 *	
Does GCC's MS4 directly discharge to waters that are identified as impaired in the 2010 § 305(b)/303(d) Water Quality Assessment Integrated Report? (yes/no)				
If yes, list the impaired waters and pollutant impairment: <u>N/A</u>				
Based on the water quality issues identified in BMP 1.2 and impairments identified above, does a review of the effectiveness of the BMPs listed in the Program Plan indicate they are appropriate? (yes/no) Please explain why they are effective for the impairments or identify potential modifications if not effective: BMPs address potential pollutants into the system and therefore are considered appropriate and effective based on the measure of effectiveness for each BMP provided in Section 3.				

1.5 Program Modifications

Modifications to the MS4 Program may occur throughout the life of this Program Plan as part of an iterative process to reduce the pollutant loadings and to protect water quality. Modifications will most often be made when a BMP is deemed ineffective, based on reporting for the "Measure of Effectiveness" for each BMP in Section 3.0. When a BMP is determined ineffective, updates and modifications to the MS4 Program must be made in accordance with the following procedures:

- Adding (but not eliminating or replacing) BMPs may be made by GCC at any time. Additions shall be reported as part of the annual report in the "Annual Reporting General Information" form in Section 1.3.
- Updates and modifications to specific standards and specifications, schedules, operating procedures, manuals, checklists, and other documents routinely evaluated and modified are permitted provided that the updates and modifications are done in a manner that:
 - o Is consistent with the conditions of the General Permit;
 - Follow any public notice and participation requirements established in the General Permit; and
 - Are documented in the annual report in the "Annual Reporting General Information" form in Section 1.3.
- Replacing, or eliminating without replacement, any ineffective or infeasible strategies, policies, and BMPs with alternate strategies, policies, and BMPs may be requested at any time. Such requests must include the following:
 - An analysis of how or why the BMPs, strategies, or policies are ineffective or infeasible, including cost prohibitive;
 - Expectations on the effectiveness of the replacement BMPs, strategies, or policies;
 - An analysis of how the replacement BMPs are expected to achieve the goals of the BMPs to be replaced;
 - A schedule for implementing the replacement BMPs, strategies, and policies;
 - An analysis of how the replacement strategies and policies are expected to improve GCC's ability to meet the goals of the strategies and policies being replaced; and
 - Requests or notifications must be made in writing to DEQ and signed by a principle executive officer or a duly authorized representative. The duly authorized representative must have overall responsibility of the campus operations and written authorization must be provided to DEQ.
 - o GCC follows the public involvement requirements identified in the General Permit.

2.0 SCHEDULE

As discussed in Section 1.0, each BMP described in Section 3.0 of the Program Plan includes an implementation 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. The Table is not intended to provide schedules for BMP implementation described for each BMP in Section 3.0; but only to assist with Program Plan implementation.

BMP	Necessary Action	Due date*
1.1, 1.2	Provide for public participation for education and outreach plan	Complete
1.2	Public Education/Outreach Plan (PEOP)	Complete
2.1	Post Annual Report on website	30 days after submittal annually
2.2	Public Participation Activities	4x annually
1.2, 2.1, 3.5, 4.2	Website postings (see BMPs for details)	Update annually
3.1	Notification of MS4 Interconnections	Complete
3.3	Develop IDDE Program Manual	Complete
3.5	Written Training program	Complete
6.2	Identify high priority areas	Complete
5.3	Develop Post-construction SWM Inspection/Maintenance Program Manual	Complete
3.4, 6.1	Develop Good Housekeeping/Pollution Prevention Program Manual	Complete
6.5	Good housekeeping contract language for contractors	Complete
6.3b	Pesticides/herbicides contract language	Complete
CB-SC.1	Chesapeake Bay TMDL Action Plan	Complete
3.1	Storm sewer mapping/information table	Complete
6.2	Campus-Specific SWPPP	Complete

Table 1. Summary of critical items and deadlines for program implementation.

3.0 PROGRAM PLAN BEST MANAGEMENT PRACTICES

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

3.1 Minimum Control Measures

BMP 1.1 Public Participation for Public Education and Outreach Plan Development (Section II B.1.c.4)

Description: Provide for public participation during public education and outreach program development through a survey distributed to students, faculty, and staff. The survey will be developed to assess the GCC's public knowledge regarding stormwater with the intent of assisting with the selection of high priority water quality issues. Opportunity to provide written comment will also be available with the survey.

Necessary documentation for implementation: (1) Survey and survey results

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: The objective is to include the public in the selection of water quality issues selected for Public Education and Outreach Plan.

Implementation schedule: An opportunity for public participation was provided via a distributed survey in February of 2015 to allow time for incorporation into the Public Education and Outreach Plan (described in BMP 1.2). A public survey will be distributed again in the spring of 2017 and the Public Education and Outreach Plan revised as necessary.

Method to determine effectiveness: Effectiveness will be measured by the number of individuals responding to the survey and the incorporation of survey results into the Public Education and Outreach Plan.

BMP 1.1 Annual Reporting Form			
(Completed once during the development of the Public Education and	d Outreach Plan)		
Dates that survey was distributed:	April 2017		
Number of surveys completed: 217			
Description of how survey results and responses were incorporated into the Program: Survey responses			
were used to gage GCC students, faculty, and staff on their knowledge of stormwater impacts.			

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

BMP 1.2 Develop Public Education and Outreach Program (Section II B.1.c.1-6)

Description: Identify three (3) high priority water quality issues contributed to by the discharge of stormwater. For each issue identified, provide

- Rationale for the selection of each issue;
- An identification and estimate of population size of the target audience who is most likely to have significant impacts on the water quality issue; and
- A relevant message and educational and outreach materials to convey the message for distribution to the target audience.

Necessary documentation for implementation: (1) Survey results from BMP 1.1; (2) Written Plan describing the rationale of the selection of each water quality issue, identification of target audience and estimated population, and relevant message; (3) Materials described in the written Plan.

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: Objectives are to convey relevant information to target audiences regarding water quality issues. The expected result is that the target audiences will have an increased knowledge of the water quality issues over time.

Implementation schedule: Outreach will be conducted a minimum of once a year to at least 20% of each target audience for each water quality issue identified in the written plan. A public survey to measure knowledge on the identified issues was conducted in February of 2015 and will be distributed again in the spring of 2017 to measure effectiveness.

Method to determine effectiveness: A public survey will be distributed via email to assess the effectiveness of the message delivered for each water quality issue, as noted in the implementation schedule. The survey will be distributed once every two years, as determined appropriate for a community college. Effectiveness will be measured by using a scoring system to compare results of the latest survey to the previous survey to determine if public knowledge regarding each water quality issue has increased.

BMP 1.2 Annual Re	BMP 1.2 Annual Reporting Form				
Has a written Public	Has a written Public Education and Outreach Plan been developed?				
If no, explain. If yes	, summarize below: <u>N/A</u>				
Water quality Issue #	List of educational and outreach activities identified in Public Education and Outreach Plan	# people reached	% of target audience		
1	Brochure distributed via email	± 7,300	100%		
2 Staff training for good housekeeping, pollution prevention, illicit discharge detection/elimination ±5		± 5	100%		
3	Flyers distributed via email in Spring of 2017	± 7,300	100%		
Water quality Issue #	List of educational and outreach activities that will be conducted during the <i>next</i> reporting year	# people to be reached	% of target audience to be reached		
1	Stormwater brochure distributed via email	± 7,300	At least 20%		
2	Staff training for good housekeeping, pollution prevention, illicit discharge detection/elimination	± 5	100%		
3	Flyers distributed via email	± 7,300	At least 20%		

Necessary documents for implementation are not provided in the annual report, but will be retained for a minimum of 3 years and are available upon request.

Measure of Effectiveness				
Average "knowledge" score from previous survey:	34%			
Average "knowledge" score from latest survey:	46%			
Has the "knowledge" score gone up over the permit cycle?	Yes (BMP effective) No (See below) N/A (See below)			
If no, discuss potential ineffectiveness of the BMP (outreach materials, student retention time, etc.). <u>N/A</u>				
If no, Suggest BMP modifications to the Program Plan with rationale to increase effectiveness: <u>N/A</u>				

BMP 2.1 Public Involvement through web posting of MS4 Program information (Section II B.2.a.1-2)

Description: The following documentation will be maintained on the GCC stormwater website:

- The latest version of this MS4 Program Plan
- Each of the annual reports developed within the permit cycle.

Public education and outreach materials developed for BMP 1.2 will include links to the Program Plan and Annual Reports.

Necessary documentation for implementation: (1) GCC MS4 Program Plan; (2) GCC MS4 Annual Reports; (3) Web address of posted materials; (4) Educational and outreach material from BMP 1.2

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: Objectives are to provide opportunity to the public to review GCC MS4 Program documentation. Expected results are an increase in public knowledge of the BMPs implemented by GCC to improve water quality from stormwater runoff.

Implementation schedule: The Program Plan will be posted on the GCC website 30 days after approval from DEQ. Within 30 days of any modification to the Program Plan, the latest version will be posted. Annual reports will be posted on the web page within 30 days of submittal to DEQ, or by November 1st of each year.

Method to determine effectiveness: Same as BMP 1.2.

BMP 2.1 Annual Reporting Form				
Web links to posted	Web links to posted program material are provided below			
Program Plan Link: http://www.germanna.edu/facilities/environmental-sustainability/				
Annual Report Link:	http://www.germanna.edu/facilities/environmental-sustainability/			

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

BMP 2.2 Public participation (Section II B.2.b)

Description: GCC will participate, through promotion, sponsorship, or other involvement, in a minimum of four local activities annually.

Necessary documentation for implementation: (1) A list of public participation opportunities; (2) Documentation of participation.

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: The objective is to increase public participation to reduce stormwater pollutant loads; improve water quality; and support local restoration and clean-up projects, programs, groups, meetings, or other opportunities for public involvement. Measurable goals will include a measure or estimation of the number of people that participate in each local activity.

Implementation schedule: Public participation will be conducted a minimum of four times a year.

Method to determine effectiveness: Effectiveness will be determined by successful public turn-out to each event. Selection of specific events may be modified from year to year based public on turn-out.

BMP 2.2 Annual Reporting Form				
Local activity	Type of GCC MS4 Program participation (e.g. promotion, sponsorship, other)	# people reached	Summary of documentation* that demonstrates participation	
Environmental Science Class Presentation (9 am on 9/25/2017)	Promotion - PowerPoint presentation on stormwater management	25	Email, class roster and presentation	
Environmental Science Class Presentation (2 pm on 9/25/2017)	Promotion - PowerPoint presentation on stormwater management	24	Email, class roster and presentation	
Biology Class Presentation (9 am on 11/28/2017)	Promotion - PowerPoint presentation on stormwater management	14	Email, sign in sheet and presentation	
Biology Class Presentation (12pm on 11/28/2017)	Promotion - PowerPoint presentation on stormwater management	18	Email, sign in sheet and presentation	

* Documentation is attached in Appendix B.

Measure of Effectiveness			
Local Activity (same as above)	Rationalization of effectiveness or ineffectiveness		
Environmental Science Class	Effective, interested and captive audience.		
Environmental Science Class	Effective, interested and captive audience.		
Biology Class	Effective, interested and captive audience.		
Biology Class	Effective, interested and captive audience.		
For an ineffective activity identified above describe modifications to be made for payt reporting year			

For an ineffective activity identified above, describe modifications to be made for next reporting year (e.g. different activity or different approach): N/A

BMP 3.1 Storm Sewer Map and Outfall Information Table (Section II B.3.a.1-5)

Description: GCC will maintain an accurate storm sewer system map and information table. The map, at a minimum, will:

- Include the mapped location of all MS4 outfalls with a unique identifier that corresponds to the information table;
- Include the name and location of all waters receiving discharges from GCC's MS4 outfalls and the associated sixth order hydrologic unit code (HUC) from Virginia's 6th Order National Watershed Boundary Dataset; and
- Be updated in the case of installation of new storm sewer or outfalls.

The information table, at a minimum, will include for each outfall the:

- Unique identifier;
- Estimated campus acreage served;
- Name of the receiving surface water and indication as to whether the receiving water is listed as impaired on the Virginia 2010 303(d)/305(b) list; and
- Name of any applicable TMDL or TMDLs.

The information table will be updated as new outfalls come on-line. GCC will notify Spotsylvania County, where applicable, in writing, of any known physical connection to their MS4 regulated area or new interconnections that occur with new development.

Necessary documentation for implementation: (1) Storm sewer system map; (2) Outfall information table; (3) List of construction/development activity on campus; (4) Written notification of physical interconnections to the downstream MS4.

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: The objective is to maintain an up-todate map of the storm sewer that provides a tool for IDDE procedures (see BMP 3.3). Expected results are that the mapping and the information table serves as a useful tool for tracking illicit discharges.

Implementation schedule: The storm sewer mapping and information table has been completed with the GCC IDDE Program Manual. Subsequently, the map and information table will be updated annually at the end of each reporting year. MS4 interconnections will be notified.

Method to determine effectiveness: Effectiveness will be determined based on its use as a tool for identifying illicit discharges.

BMP 3.1 Annual Reporting Form

Storm Sewer System Information Table

See Appendix C for outfall inventory.

If interconnected MS4s, have the downstream MS4s been notified of the outfall? 🔀 Yes	🗌 No
If no, please explain why: <u>N/A.</u>	

Necessary documents for implementation are not provided in the annual report, but will be retained for a minimum of 3 years and are available upon request.

Measure of Effectiveness

If any potential illicit discharges were identified or reported (refer to reporting for BMP 3.2 and 3.3), was outfall mapping used to address the issue: <u>Yes, See BMP 3.5 for potential illicit discharges that were identified and remediated prior to reaching a nearby outfall.</u>

BMP 3.2 Prohibit non-stormwater discharges (Section II B.3.b)

Description: GCC 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. Students, faculty, and staff will be made aware of the methods and procedures for reporting and corrective and disciplinary action as part of the Public Education and Outreach Program described in BMP 1.2.

For effective prohibition of non-stormwater discharges from contractors operating on campus, refer to BMP 6.5.

Necessary documentation for implementation: (1) Standards of Conduct for employees; (2) Student Handbook; (3) A list of any instances of violation and summary of actions taken by GCC.

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: The objective is to effectively prohibit non-stormwater discharge to the extent allowable under federal, state, or local law, regulation, or ordinance. Expected result is an effective deterrent for students, faculty, and staff from willingly introducing non-stormwater discharges to the MS4.

Implementation schedule: Implementation of the Standards of Conduct for employees and the Student Handbook for students will continue. The Public Education and Outreach Program will be implemented with the schedule described in BMP 1.2.

Method to determine effectiveness: Effectiveness will be determined based on the elimination or reduction in the number of reported or observed non-stormwater discharges committed by students, faculty, or staff. Effectiveness will also be based on implementation of methods and procedures in the Standards of Conduct for employees and the Student Handbook for students in response to reports.

BMP 3.2 Annual Reporting Form

Non-stormwater discharge violations

Total number of violations for reporting year:

0

Violation #	Date of violation	Location of violation	Description of violation	Corrective or Disciplinary Action taken
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

Necessary documents for implementation are not provided in the annual report, but will be retained for a minimum of 3 years and are available upon request.

Measure of Effectiveness			
Non-stormwater discharge violations committed by students, faculty, or staff			
Total number of violations for reporting year 1:	0		
Total number of violations for reporting year 2:	0		
Total number of violations for reporting year 3:	0		
Total number of violations for reporting year 4:	0		
Total number of violations for reporting year 5:	N/A		
Has the # of violations trended downward year to year or stayed at zero?	Yes (BMP effective)		
If no, discuss potential cause of observed trend and determination if the BMP is ineffective. In deemed ineffective, suggest BMP modifications with rationale: <u>N/A</u>			
Were methods and procedures in the Standards of Conduct for Yes employees and the Student Handbook for students used where violations No (See below) were determined to have occurred? N/A (No violations)			
If no, explain why and if modifications are necessary to the BMP to improve effectiveness: <u>N/A</u>			

BMP 3.3 Develop Illicit Discharge Detection and Elimination Procedures (Section II B.3.c)

Description: GCC will develop and implement an Illicit Discharge Detection and Elimination (IDDE) Program Manual that includes written procedures to detect, identify, and address non-stormwater discharges, including illegal dumping, to the small MS4. Procedures will include written dry weather field screening methodologies that include field observations and field screening monitoring and that provide:

- A schedule of field screening activities to ensure all outfalls are screened annually;
- Methodologies to collect information such as time since the last rain, the quantity of the last rain, site descriptions (e.g., conveyance type and dominant watershed land uses), estimated discharge, and visual observations (e.g., order, color, clarity, floatables, deposits or stains, vegetation condition, structural condition, and biology);
- A time frame upon which to conduct an investigation to identify and locate the source of any observed continuous or intermittent non-stormwater discharges prioritized based on potential hazard to human health;
- Methodologies to determine the source of all illicit discharges shall be conducted with the required minimum investigations and timeframes per the college's General Permit;
- Mechanisms to eliminate identified sources of illicit discharges including a description of the policies and procedures for when and how to use legal authorities;
- Methods for conducting a follow-up investigation in order to verify that the discharge has been eliminated; and
- A mechanism to track all investigations to document, at a minimum, the date(s) that the illicit discharge was observed and reported; the results of the investigation; any follow-up of the investigation; resolution of the investigation; and the date that the investigation was closed.

Necessary documentation for implementation: (1) Illicit Discharge Detection and Elimination (IDDE) Manual; (2) Outfall information table; (3) Outfall screening schedule and field forms.

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: The objective is to establish effective methods and procedures for detecting, identifying, and addressing non-stormwater discharges, including illegal dumping, into the storm sewer. Expected results are effective response to reports of illicit discharge and detection of non-stormwater discharges during outfall screenings.

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

Method to determine effectiveness: Effectiveness will be determined based on the percentage of the reported and identified non-stormwater discharges that are eliminated.

BMP 3.3 Annual Reporting Form		
Outfall Screening Record		
Total # of outfalls (refer to BMP 3.1):	2	
Total # of outfalls screened during the reporting year:	2	
If 100% of outfalls were not screened during the reporting year, explain why: <u>N/A</u>		
See Appendix C for outfall inventory and required reporting information.		

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

Measure of Effectiveness

Percentage of identified non-stormwater discharges during screening that are eliminated: N/A

Please provide rationale that describes if the percentage listed indicates the BMP is effective. If not, describe modifications to increase effectiveness: N/A

BMP 3.4 Eliminate or minimize discharge of hazardous substances or oil (Section II B.3.d)

Description: GCC will eliminate or minimize the potential for hazardous substance or oil in stormwater runoff through:

- The implementation of the methods, inspection schedules, and procedures in the GCC Good Housekeeping & Pollution Prevention Manual described in BMP 6.1 and the Stormwater Pollution Prevention Plan described in BMP 6.2; and
- The expected measurable goals of the training component provided in BMP 6.4 for spill response, good housekeeping and pollution prevention for maintenance workers, and reporting illicit discharges.

Necessary documentation for implementation: (1) Good Housekeeping and Pollution Prevention Manual; (2) Training documentation; (3) Completed Comprehensive Campus Compliance Evaluation Forms provided in the Good Housekeeping and Pollution Prevention Manual.

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: The objective of the Good Housekeeping & Pollution Prevention Manual and associated training is to provide reference procedures, schedules, resource material and education to campus staff that result in daily operations that eliminate or prevent potential introduction of hazardous substances and oil to stormwater runoff. The expected result is the elimination of hazardous substances and oil spills and exposure.

Implementation schedule: The GCC Good Housekeeping & Pollution Prevention Program Manual and incorporated training program are complete. Annual training will begin in the fall of 2015.

Method to determine effectiveness: Effectiveness will be determined by each of the following:

- Effectiveness will be measured by recurring issues related to campus staff activities identified during the annual comprehensive campus compliance evaluation beginning in the spring of 2015, as described in BMP 6.2. The Comprehensive Campus Compliance Evaluation Form provided in the Good Housekeeping and Pollution Prevention Manual will be completed and include physical field inspection of:
 - Locations where hazardous chemicals or oil are used or stored;
 - Locations where equipment or vehicles are stored or where vehicle or equipment maintenance occurs; and
 - Other areas with potential for hazardous substances or oil to be exposed to precipitation.
- 2) The number of hazardous substances or oils related to illicit discharges reported or identified in the reporting forms for BMPs 3.2 and 3.3, respectively, that are found to originate from campus staff activities.

BMP 3.4 Annual Reporting Form

No additional reporting necessary.

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

Measure of Effectiveness	
Results from Comprehensive Campus Evaluation (see BMP 6.2)	
Total number of recurring items originating from campus activities identified Spring 2016*:	0
Total number of recurring items originating from campus activities identified Spring 2017:	0
Total number of recurring items originating from campus activities identified Spring 2018:	0
Has the # of recurring items trended downward or remained at zero from year to year?	Yes (BMP effective)
If no, discuss the specific recurring items and describe how the BMP can effectiveness to specifically address recurring items (e.g. improved training, in or describe why modification is not necessary: <u>N/A</u>	
Were any illicit discharges reported or identified in the reporting forms for BMPs 3.2 and 3.3 found to originate from campus staff activities?	☐ Yes (See below) ⊠ No (BMP effective)
If yes, describe how the BMP can be modified to improve effectiveness to specause of the illicit discharge(s) or describe why modification is not necessary:	•

BMP 3.5 Facilitate public reporting of illicit discharges and provide response (Section II B.3.e)

Description: GCC will promote, publicize, and facilitate public reporting of illicit discharges into or from MS4s with information describing an illicit discharge and contact information on the GCC stormwater website. GCC will investigate all reports using methods and procedures described in the GCC IDDE Manual described in BMP 3.3. Tracking of reports will be recorded in the IDDE Tracking Form in Appendix D of the GCC IDDE Program Manual.

Necessary documentation for implementation: (1) Web address of posted material; (2) Completed IDDE Tracking Form for each incident.

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: The objective is to first educate the public to recognize an illicit discharge and provide contact information that allows for the reporting of an observed illicit discharge. The ultimate objective is to track and eliminate reported illicit discharges.

Implementation schedule: Illicit discharge material and contact information will be placed on the website by April 18, 2015. Response to illicit discharge reports will be on-going, occurring in response to reports per the IDDE Manual.

Method to determine effectiveness: Effectiveness will be measured percentage of illicit discharge reports closed (as will be documented in the IDDE Tracking Forms).

BMP 3.5 Annual Rep	oorting Form			
	Pot	ential Illicit Discharge Repo	rts	
Total # of potential i	llicit discharge rep	oorts for the reporting year:		1
Description of reported potential illicit discharge	Date observed and/or reported	Description of how the investigation was resolved/followed-up	Resolution of the investigation	Close date
Snow removal contractor dumped a load of salt/sand on the parking lot during the overnight	1/9/18	Maintenance staff discovered pile & removed pile from pavement	Contractor was not hired by the College. The violator was unknown; therefore, no enforcement was possible	1/9/18
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

Measure of Effectiveness

Percentage of reported potential illicit discharge instances that have been closed: 100

If not all reports have been closed, please provide the reason and any necessary modification to the BMP: N/A

BMP 4.1 ESC compliance for land disturbing activities (Section II B.4.a-c3, c5 c6, e1-6)

Description: Regulated land disturbing activity on the GCC campus is managed by the latest edition of DEQ approved Virginia Community College System's (VCCS) "Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management." 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 VCCS Annual Standards and Specifications provide for the following:

- Erosion and Sediment (ESC) plan approval by VCCS through recommendation of a VCCS contracted consultant. 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 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 VCCS Annual Standards and Specifications Project Manager (VCCS AS&S Project Manager) to make changes to an approved plan when found inadequate to address ESC.

Necessary documentation for implementation: (1) VCCS Annual Standards and Specifications for Erosion and Sediment Control; (2) ESC Plan(s) approved by VCCS; (3) Documentation of ESC Inspector Certification; (4) Completed ESC Inspection Forms for each regulated project; (5) Notice to Comply and/or Stop Work Orders documentation and documentation of follow-up actions.

Responsible individual for implementation: VCCS AS&S Project Manager (ESC Plan approval and inspections); GCC Facilities Director (Coordination with VCCS and obtaining information to determine effectiveness as described in this BMP).

Objectives and expected results in meeting measurable goals: The objective is to ensure ESC plans are prepared according to ESC Laws and Regulations, that ESC inspections are performed as specified in the regulations, and that correction or enforcement, when appropriate, occurs when inspections find deficiencies. The expected result is that all regulated land disturbances have an approved ESC plan, the appropriate number of inspections are performed, and a minimization of the number of recurring violations such as issued Notices to Comply and Stop Work Orders.

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

Method to determine effectiveness: Effectiveness will be measured by the percentage of regulated land disturbing activities that have an approved ESC Plan, and the implementation of the required inspection schedule.

BMP 4.1 Annual	Reporting For	m				
_	Annual Land Disturbance Activity Record Total # of regulated land disturbing activities that commenced or occurred during the reporting year: 0					
	uction Site Pla			VCCS	Contracted Ins	pector
Regulated land disturbing activity description	Approved plan (yes/no)	Total disturbed acreage	Number # and type of of enforcement inspections actions taken			Description of enforcement Actions
N/A	Yes No	N/A	N/A		N/A	N/A
N/A	Yes No	N/A	N/A		N/A	N/A
N/A	☐Yes ☐ No	N/A	N/A		N/A	N/A

Necessary documents for implementation are not provided in the annual report, but will be retained for a minimum of 3 years and are available upon request.

Measure of Effectiveness			
Do inspections appear to have been conducted every 2 weeks and within 48 hours of a runoff producing event?	 ☐ Yes (BMP effective) ☐ No (See below) ☑ N/A (No activities) 		
Describe program modifications to ensure inspections are conducted as required: <u>N/A</u>			

BMP 4.2 Receive and respond to complaints regarding land disturbing activity (Section II B.4.c4)

Description: GCC will promote to the public through the stormwater webpage information on land disturbance erosion and sediment controls and provide a contact number for reporting complaints regarding regulated land disturbing activities. GCC will initiate investigation of all reports within 72-hours and address the issue with the construction site operator by requiring maintenance to ESC controls, or plan modifications, as necessary, in accordance with the Virginia Community College System's "Annual Standards and Specifications for Erosion and Sediment Control."

Necessary documentation for implementation: (1) Web address of posted material; (2) Land disturbance complaint/report tracking record with date, description, and resolution for each complaint.

Responsible individual for implementation: GCC Facilities Director (Receiving and recording complaint); Certified ESC Construction Inspector (Assuring contractor implements ESC Plan); VCCS AS&S Project Manager (Approves ESC Plan modifications).

Objectives and expected results in meeting measurable goals: The objective is to educate the public to understand the purpose of ESC controls on a land disturbing activity, recognize the off-site impacts resulting from potential failure of ESC controls, and provide contact information that allows for the reporting of an off-site impact and ultimately the resolution of a reported issue.

Implementation schedule: Information regarding ESC controls for land disturbing activities and for reporting complaints on the website.

Method to determine effectiveness: Effectiveness will be measured by the percentage of resolved complaints that are reported by the public.

BMP 4.2 Annua	BMP 4.2 Annual Reporting Form				
The # of complaints from the public related to land disturbing activity during the reporting year:			y during the	N/A	
Complaint #	Date of complaint	Description of complaint	Resolution of th	e investigation	
N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A		

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

Measure of Effectiveness	
Were all complaints resolved?	 ☐ Yes (BMP effective) ☐ No (See below) ☑ N/A (no complaints)
Describe the reason for any unresolved complaint and any necessary progra ensure complaints are resolved in the future. If no modifications are needed	

BMP 4.3 Ensure land disturbing activities secure VSMP General Permit (Section II B.4.c.7, d)

Description: Regulated land disturbing activity for stormwater management on the GCC campus is managed by the latest edition of DEQ approved Virginia Community College System's "Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management." 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. In addition to the above, and in absence of a VAR10, the Annual Standards and Specifications require a Stormwater Pollution Prevention Plan (SWPPP) be developed and submission for the VSMP General Permit Registration Statement – Construction Activity Stormwater Discharge (VAR10) prior to land disturbance. Through the development of the SWPPP, consistent with the VSMP General Permit, a pollution prevention plan will ensure implementation of appropriate controls to prevent non-stormwater discharges such as wastewater, concrete washout, fuels and oils, and other illicit discharges.

Necessary documentation for implementation: (1) VCCS Annual Standards and Specifications (Plan approval, VAR10 verification and SWPPP verification at the preconstruction meeting through VCCS Form LD-03); (2) Project-specific SWPPPs; (3) Project-specific General Permits for Construction Activity (VAR10).

Responsible individual for implementation: VCCS AS&S Project Manager; GCC Facilities Director (Tracking required information for reporting)

Objectives and expected results in meeting measurable goals: The objectives are: (1) To provide a mechanism for assuring that VSMP General Permit coverage is obtained for all land disturbances exceeding 1-acre. The expected result is that coverage is obtained for all applicable land disturbances prior to commencement; (2) Ensure development and implementation of SWPPPs through the contractor's requirement to develop and implement the plan.

Implementation schedule: All regulated land disturbing activities that disturb greater than 1-acre will continue to obtain a VAR10 General Permit.

Method to determine effectiveness: Effectiveness will be determined based on: (1) all regulated land disturbing activity operating under VSMP General Permit coverage and a SWPPP, (2) the number of violations related to pollution prevention from a construction site identified in the reporting for BMP 3.2, 3.3, 3.5, and 4.2.

BMP 4.3 Annual Reporting Form					
The # of regulated land	disturbing activities du	ring the reporting year:	0		
1	2	3	4		
Regulated land disturbing activity description (should match 4.1 reporting column)	If greater than 1- acre, was VSMP General Permit coverage obtained? (yes/no)	If permit coverage is required, is a site- specific SWPPP available on site for the project? (yes/no)	Any illicit discharge reports from construction activities (see reporting for BMPs 3.2, 3.3, 3.5, and 4.2? (yes/no)		
N/A	🗌 Yes 🗌 No	🗌 Yes 🗌 No	Yes No		
N/A	Yes 🗌 No	Yes No	Yes No		
N/A	Yes 🗌 No	Yes No	Yes No		

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

Measure of Effectiveness

If no is answered in columns 2 or 3 above, explain why and actions taken to address the issue. Include rationale that describes if the BMP is ineffective, and if so, modification to the BMP to improve effectiveness: N/A

Is yes answered in column 4? (yes/no)	

If yes, describe the instance(s) and provide rationale if BMP modification is necessary, or not necessary, to improve the effectiveness of the BMP? N/A

Yes (See below)
 No (Effective BMP)
 N/A (No activity)

BMP 5.1 Compliance to post-construction stormwater management regulation (Section II B.5.a, b. d.1,2)

Description: GCC will ensure post-construction stormwater management (SWM) for all regulated land disturbing activities over 2,500 square feet through VCCS plan approval in accordance with the VCCS Annual Standards and Specifications for Erosion and Sediment Control and Stormwater Management. approval from VCCS 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 VCCS approved stormwater management plan by the Associate Vice Chancellor prior to providing written approval that allows the start of the land disturbance.

GCC 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.

Necessary documentation for implementation: (1) VCCS approved SWM Plans and Calculations; (2) SWM Facility Inspection and Maintenance Plans.

Responsible individual for implementation: VCCS AS&S Project Manager (verification of approved plan prior to approval to start land disturbance); GCC Facilities Director (tracking required information for reporting and obtaining inspection and maintenance plans for stormwater facilities)

Objectives and expected results in meeting measurable goals: The objective is to ensure regulated projects are in compliance with the VSMP Stormwater Management Regulations. The expected goal is that all regulated projects have VCCS approved SWM Plans with SWM facility inspection and maintenance plans.

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

Method to determine effectiveness: Effectiveness will be measured by: (1) all regulated land disturbing activities having a VCCS approved SWM Plan; and (2) all stormwater management facilities with inspection and maintenance plans.

BMP 5.1 Annual Reporting Form				
The # of regulated la	The # of regulated land disturbing activities during the reporting year: 0			
1	2	3	4	
Regulated land disturbing activity description (Same as BMP 4.1)	If greater than 2,500 square feet, does it have an approved SWM plan? (yes/no)	If SWM Plan includes a SWM facility, does it have an inspection and maintenance plan? (yes/no/no facility required)	If has an inspection and maintenance plan, has GCC retained it on file? (yes/no/no facility)	
N/A	Yes No	☐ Yes ☐ No ☐ No Facility	☐ Yes ☐ No ☐ No Facility	
N/A	Yes No	☐ Yes ☐ No ☐ No Facility	☐ Yes ☐ No ☐ No Facility	
N/A	☐ Yes ☐ No	☐ Yes ☐ No ☐ No Facility	☐ Yes ☐ No ☐ No Facility	

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

Measure of Effectiveness	
Was yes answered for all activities in Column 2 above?	 ☐ Yes (BMP effective) ☐ No (See below) ☑ N/A (No activity)
Describe the reason that an activity does not have an approved SWM plan a program modifications to the BMP to ensure an approved plan is obtained. needed, provide rationale: <u>N/A</u>	
Was yes answered for all activities in Column 3 above?	Yes (BMP effective) No (See below) N/A (No activity)
Describe the reason that an activity does not have an approved inspection a any necessary program modifications to the BMP to ensure a plan is obtaine needed, provide rationale: <u>N/A</u>	•

BMP 5.2 Stormwater management facility tracking and reporting (Section II B.5.e)

Description: GCC will maintain an updated electronic database in Excel format of all known stormwater management (SWM) facilities that discharge into the MS4. The database will include:

- The SWM facility ID #;
- The stormwater management facility type;
- A general description of the facility's location, including the address or latitude and longitude;
- The acres treated by the facility, including total acres, as well as the breakdown of pervious and impervious acres;
- The date the facility was brought online (MMYYYY);
- The sixth order hydrologic unit code (HUC) in which the stormwater management facility is located;
- The name of any impaired water segments within each HUC listed on the 2010 § 305(b)/303(d) Water Quality Assessment Integrate Report to which the stormwater management facility discharges;
- Whether the stormwater management facility is operator-owned or privately-owned;
- The date of the last inspection.

Upon final inspection of a newly constructed stormwater management facility, the facility will be included within the database.

Necessary documentation for implementation: (1) Updated SWM Tracking and Reporting Excel database; (2) Completed inspection checklist forms (see BMP 5.2)

Responsible individual for implementation: GCC Facilities Director

Objectives and expected results in meeting measurable goals: The objective is to maintain an updated record of all of the SWM facilities. The expected result is that the list will be utilized to assist with implementation of BMP 5.3 and will be maintained as new SWM facilities come online.

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

Method to determine effectiveness: Effectiveness will be measured by the completeness of the annually reported database.

BMP 5.2 Annual Reporting Form	
Stormwater Management Facility Tracking and Reporting*	
Did any new SWM facilities come on-line during the reporting year? (yes/no)	☐Yes ⊠No
If yes, was the electronic database updated? (yes/no)	Yes No
	🛛 N/A (No facilities)
If no, explain why the database was not updated: <u>N/A</u>	
* Provided as electronic database with annual report in Excel format and hard copy as Appendix D.	
Measure of Effectiveness	
Is the database complete to include all of the attributes for each new facility described above in this BMP?	Yes (BMP effective) No (See below) N/A (No facilities)

If no, describe the reason that the database is incomplete and provide rationale that determines whether or not the BMP needs to be modified to ensure completion of the data base: N/A

BMP 5.3 Inspection, operation, and maintenance verification of SWM facilities (Section II B.5.c, d.3, 5)

Description: GCC 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, GCC will utilize BMP-specific inspection and maintenance instruction from the Virginia Stormwater Management Handbook or the GCC 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 GCC 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 as indicated on the checklist or no later than the next scheduled inspection.

Necessary documentation for implementation: (1) BMP Database described in BMP 5.2; (2) BMPspecific Inspection and Maintenance Plan; (3) Completed BMP Specific inspection and maintenance checklist from either the GCC Post-Construction Stormwater Manual or the Virginia Stormwater Management Handbook.

Responsible individual for implementation: GCC Facilities Director

Objectives and expected results in meeting measurable goals: The objective is to ensure the intended function of all SWM facilities through long-term maintenance. The expected result is completed inspection forms in accordance with the schedule described in the description above.

Implementation schedule: The implementation of this BMP will be on-going as inspections, operations and maintenance are performed for each facility.

Method to determine effectiveness: Effectiveness will be measured by: (1) Completion of required inspections, as scheduled, and (2) timely maintenance once a maintenance issue is identified during inspections.

BMP 5.3 Annual Reporting Form

Stormwater Management Facility Inspection Record*

- The following information is provided in SWM Facility database described in BMP 5.2:
 - SWM Facility ID
 - Inspection Schedule (e.g. monthly, quarterly, annually)
 - Dates of inspection(s) for the reporting year
 - If inspected, any identified necessary maintenance per inspection form
 - If maintenance is necessary, type and date the maintenance was performed

* Provided as electronic database with annual report in Excel format and hard copy as Appendix D.

Measure of Effectiveness	
Do dates in the database indicate that inspections were performed as required for each BMP for the reporting year?	Yes (BMP effective)
Describe the reason for inspections that were not performed and provide raw whether or not the BMP needs to be modified to ensure completion of inspections of the provide to be modified to ensure completion of the provide raw of the provide	
Do dates in the database indicate that maintenance was performed, where necessary, in a timely manner?	Yes (BMP effective) No (See below) N/A (No Maintenance Required)
Describe the reason for that maintenance was not performed in a timely ma needed that does not affect function of the facility) and provide rationale the not the BMP needs to be modified to ensure completion of inspections: <u>Insp</u> <u>any necessary maintenance.</u>	at determines whether or

BMP 6.1 Pollution Prevention Procedures for Operations & Maintenance Activities (Section II B.6.a)

Description: GCC will develop and implement comprehensive written procedures for good housekeeping and pollution prevention for daily operations and equipment maintenance within the GCC Good Housekeeping and Pollution Prevention Program Manual. At a minimum the written procedures will include procedures that include the following goals:

- Prevent illicit discharges;
- Ensure the proper disposal of waste materials, including landscape waste;
- Prevent discharge of vehicle wash water to the storm sewer;
- Prevent the discharge of wastewater to the storm sewer;
- Require best management practices to filter water pumped from maintenance activities;
- Require best management practices to prevent pollutants in runoff from stored and stockpiled materials (e.g., soil stockpiles and salt storage);
- Prevent pollution discharges from leaking college automobiles and equipment;
- Ensure application of materials, such as pesticides, is conducted in accordance with manufacturer's specifications.

Effective implementation will be supported with 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.

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

Responsible individual for implementation: GCC Facilities Director

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 GCC Good Housekeeping/Pollution Prevention Manual during daily activities.

Implementation schedule: The Good Housekeeping/Pollution Prevention Manual is complete. Training will be provided annually and campus evaluations will be performed with the schedule described in BMP 6.2.

Method to determine effectiveness: Effectiveness will be measured by the results of the annual comprehensive campus compliance evaluations, as described in BMP 6.2. Measure of effectiveness for this BMP will be the same as described for BMP 3.4.

BMP 6.1 Annual Reporting Form	
Good Housekeeping/Pollution Prevention Manual	
Has a Good Housekeeping/Pollution Prevention Manual been developed? (yes/no)	Yes 🗌 No
If no, explain why: <u>N/A</u>	·

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

Measure of Effectiveness

See measure of effectiveness for BMP 3.4 and BMP 6.2

BMP 6.2 Campus Stormwater Pollution Prevention Plan (Section II B.6.b)

Description: GCC will develop and implement a campus-specific Stormwater Pollution Prevention Plan (SWPPP) that identifies areas on campus having a potential for the discharge of chemicals and other materials in stormwater. The SWPPP will include:

- Mapping that identifies all outfalls, direction of flows, existing source controls, and receiving water bodies;
- A discussion and checklist of potential pollutants and pollutant sources;
- A discussion of all potential non-stormwater discharges;
- Written procedures, or reference to written procedures, designed to reduce and prevent pollutant discharge;
- A description of the applicable training described in BMP 6.3;
- Procedures to conduct an annual comprehensive campus compliance evaluation; and
- An inspection and maintenance schedule for site specific source controls. The date of each inspection and associated findings and follow-up shall be logged in each SWPPP.

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 Facilities Director.

Necessary documentation for implementation: (1) GCC Good Housekeeping/Pollution Prevention Manual; (2) Campus Specific SWPPP; (3) Completed annual comprehensive site compliance evaluation forms. All documentation is incorporated into the GCC Good Housekeeping/Pollution Prevention Program Manual.

Responsible individual for implementation: GCC Facilities Director

Objectives and expected results in meeting measurable goals: The objective and expected result is to minimize or prevent pollutant discharges from campus facilities through adherence to the campus specific SWPPP.

Implementation schedule: GCC has incorporated areas of campus with potential for the discharge of chemicals and other materials into stormwater in a campus-wide SWPPP. The annual comprehensive campus compliance evaluation will be completed in the spring of each year beginning in 2015.

Method to determine effectiveness: Effectiveness will be measured by: the results of the annual comprehensive campus compliance evaluation. Measure of effectiveness for this BMP will be the same as described for BMP 3.4.

BMP 6.2 Annual Reporting Form	
Stormwater Pollution Prevention Plan	
Did any changes on campus that could potentially affect stormwater runoff occur during the reporting year (e.g. new outfalls, facilities)? (yes/no)	☐Yes ⊠No
If yes, are the changes reflected in the SWPPP? (yes/no/not applicable)	Yes No N/A
If the changes were not reflected, explain why: <u>N/A</u>	

Measure of Effectiveness

See measure of effectiveness for BMP 3.4

BMP 6.3a Employee Good Housekeeping/Pollution Prevention Training Plan (Section II B.6.d)

Description: GCC 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:

- Annual training to relevant field personnel in the recognition and reporting of illicit discharges. Training will utilize the IDDE Manual described in BMP 3.3.
- Annual training 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 GCC 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 Virginian 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 GCC 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)

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

Responsible individual for implementation: GCC Facilities Director

Objectives and expected results in meeting measurable goals: The objective is to ensure effective training on the procedures provided in the Good Housekeeping/Pollution Prevention and IDDE Program Manuals and to have them carried out during employee daily operations. The expected result is well trained employees that minimize pollutant discharges through good housekeeping practices and IDDE screening and source identification and elimination.

Implementation schedule: The written training plan is complete and incorporated in the GCC Good Housekeeping/Pollution Prevention and IDDE Program Manuals. Training and certification requirements will occur prior to April 18, 2015, with illicit discharge and good housekeeping training occurring once every year thereafter.

Method to determine effectiveness: Effectiveness will be measured by the results of a "Knowledge Check" quiz that will be taken by each employee that takes the training. The "Knowledge Check" quiz in provided in the Appendix of the GCC Good Housekeeping/Pollution Prevention Program Manual.

BMP 6.3a Annual Reporting Form			
Training Plan			
Has the GCC annual written Training Plan been developed? (yes/no)	Yes 🗌 No		
Training & Certifications			
Has employee training been provided per the plan? (yes/no)	Yes 🗌 No		
If no, explain: <u>N/A</u>			
Date of latest training to relevant field personnel in the recognition and reporting of illicit discharges:	5/2/2018		
Number of employees that participated in the latest training in the recognition and reporting of illicit discharges:	5		
Date of last training to relevant employees in good housekeeping and pollution prevention practices:	5/2/2018		
Number of employees that participated in the latest training in good housekeeping and pollution prevention practices:	5		
Do the number of individuals reported above that participated in training represent all employees that conduct daily activities that could potentially affect stormwater runoff? (yes/no)	Yes 🗌 No		
If no, explain: <u>N/A</u>			
Did any employees apply pesticides and herbicides? (yes/no)	Yes 🗌 No		
If yes, identify the employee and their certification: <u>Sean Ahmad, Certification #137701-T</u>			
Provide a summary of the training or certification program provided to emergency response employees that includes training in spill response: <u>Emergency and spill response training were included in the training described above</u> . The fire department is notified in the case of need for a major spill response.			
Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.			
Measure of Effectiveness			
Did scores from the "Knowledge Check" quiz improve from the previous training? (yes/no)Image: Yes (BMP Image: No (See b Image: N/A (See b)	-		
If no or N/A, describe modifications to the BMP to increase effectiveness (e.g. training frequency, training material, etc.): <u>The decrease was from an average score of 96 out of two people to a 92 out of five people, not a significant difference to warrant a modification.</u>			

BMP 6.3b Contractor Certification for Pollution Prevention (Section II B.6.d.4)

Description: GCC will require, through contract language, the certification for contractors applying pesticides and herbicides in accordance with the Virginia Pesticide Control Act (§ 3.1-249.27 et seq. of the Code of Virginia). Contract language will require contractors to provide proof of the appropriate certification prior to contract execution.

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

Responsible individual for implementation: GCC Facilities Director

Objectives and expected results in meeting measurable goals: The objectives are to ensure the proper application of pesticides and herbicides. The expected result is that contractors used by the college will have appropriate certifications for application of pesticides and herbicides.

Implementation schedule: GCC will develop and begin implementation of contract language by April 18, 2016.

Method to determine effectiveness: Effectiveness will be measured by evaluation of trends in confirmed reports of illicit discharge related to herbicides and pesticides.

BMP 6.3b Annu	ual Reporting	
	Pesticides and Herbicides	
Number of con of pesticides ar	tracts executed during the reporting year that includes application Ind herbicides?	0
•	ertification provided for each contract that includes the application ad herbicides? (yes/no)	☐Yes ☐No ⊠N/A
If no, explain:	N/A, performed by certified employee.	

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

Measure of Effectiveness	
Were any illicit discharges related to herbicides and pesticides application by contractors reported or identified in the reporting forms for BMPs 3.2 and 3.3?	Yes (See below)
If yes, describe how the BMP can be modified to improve effectiveness to specifically address the cause of the illicit discharge(s) or describe why modification is not necessary: <u>N/A</u>	

BMP 6.4 Turf and Landscape Management (Section II B.6.c)

Description: GCC is regulated under §10.1-104.4 of the Code of Virginia and therefore will continue to implement 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.

In addition, GCC 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.

Necessary documentation for implementation: (1) GCC Nutrient Management Plan; (2) Completed Fertilizer Application Record; (3) Ingredients of deicers used on campus.

Responsible individual for implementation: GCC Facilities Director

Objectives and expected results in meeting measurable goals: The objective is to avoid excessive application of nutrients where applied on campus. The expected results are reduction of downstream impacts from nutrient loads.

Implementation schedule: The NMP will continue to be implemented.

Method to determine effectiveness: 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 Annual Reporting Form			
Nutrient Management Plans			
Were nutrients used during the reporting year?	Yes No	-	urther reporting for this BMP
Total acreage of lands where nutrient management plans are required:		22.5	
Acreage of lands upon which nutrient management plans have been implemented:		22.5	
Date of last NMP update:		1/1/2018	

Necessary documents for implementation are not provided in the annual report, but will be retained on file for 3 years.

Measure of Effectiveness		
Was the NMP's fertilizer application record maintained and in adherence to the NMP? (yes/no)	Yes (BMP effective) No (See below) N/A	
If no, describe how the BMP can be modified to improve effectiveness. Provide rationalization for modification or if modification is deemed unnecessary. <u>N/A.</u>		

BMP 6.5 Contractor Safeguards to Ensure Program Consistent Measures and Procedures (Section II B.6.e)

Description: GCC will use contract language that references sections within the GCC 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 GCC 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.

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) GCC Good Housekeeping and Pollution Prevention Manual; (2) Completed inspection forms; (3) Contract language.

Responsible individual for implementation: GCC Facilities Director

Objectives and expected results in meeting measurable goals: The objective and expected result is to minimize or prevent pollutant discharges from contractor activities.

Implementation schedule: By April 18, 2016, GCC will have developed and begin execution of contract language to require contractors to use appropriate control measures and procedures for stormwater discharges.

Method to determine effectiveness: Effectiveness will be measured by the inspection results specific to work performed by contractors, the responsiveness of contractors to address observed issues, and reported illicit discharges originating from contracted work on campus.

BMP 6.5 Annual Reporting Form		
Contractor Safeguards		
Has contract language, as described above, been included in contracts with all contractors where the work performed could require appropriate control measures and procedures for stormwater discharges? This does not include regulated land disturbing activity addressed with BMPs 4.1, 4.2, and 4.3 (yes/no)	⊠Yes □No	
If no, explain:		
Were periodic inspections performed to ensure oversight? (yes/no)	⊠Yes □No □N/A (no contracts)	
If no, explain: N/A		
Necessary documents for implementation are not provided in the annual report,	but will be retained on	

file for 3 years.	
Measure of Effectiveness	
Were any illicit discharges related to contracted work on campus (other than regulated land disturbing activity) reported or identified in the reporting forms for BMPs 3.2 and 3.3?	Yes (See below)
If yes, describe how the BMP can be modified to improve effectiveness to spec of the illicit discharge(s) or describe why modification is not necessary: <u>N/A</u>	ifically address the cause

3.2 Special Conditions for the Chesapeake Bay TMDL

BMP CB-SC.1 Chesapeake Bay TMDL Action Plan (Section I C.2)

Description: GCC will develop a phased Chesapeake Bay TMDL Action Plan that incorporates public comment and includes:

- A review of the Program Plan BMPs described in Section 3.1 for consistency with the TMDL and for the purpose of identifying necessary modifications;
- An estimate of the annual POC loads discharged from the existing sources as of June 30, 2008, based on the 2009 progress run;
- An estimate of the total reductions necessary to reduce the annual POC loads from existing sources to the L2 implementation level;
- The means and methods that will be utilized to implement sufficient reductions from existing sources equal to 5.0% of the estimated total reductions necessary;
- Mechanism to address any modification to the TMDL or watershed implementation plan that occurs during the term of this state permit as part of its permit reapplication and not during the term of this state permit;
- An estimate of the expected costs to implement the requirements of this special condition during the state permit cycle;
- An opportunity for receipt and consideration of public comment regarding the draft Chesapeake Bay TMDL Action Plan; and
- A draft second phase Chesapeake Bay TMDL Action Plan designed to reduce the existing pollutant load by an additional 35%.

The Action Plan development will consider DEQ's Chesapeake Bay Action Plan Guidance. Additional BMPs will be included in this Section of the Program Plan to include the identified means and methods.

Necessary documentation for implementation: (1) Chesapeake Bay TMDL Action Plan; (2) Documentation of public participation; (3) GCC Program Plan Updates, as necessary.

Responsible individual for implementation: GCC Facilities Manager

Objectives and expected results in meeting measurable goals: The objective is to achieve reductions required by the Chesapeake Bay TMDL for sediment, phosphorus, and nitrogen. The expected result is the development of a TMDL Action Plan.

Implementation schedule: The Chesapeake Bay Action Plan will be developed by April 18, 2016. The schedule developed in the Action Plan will be implemented thereafter.

Method to determine effectiveness: Effectiveness will be determined by the selection of cost effective BMPs supported by model quantification to achieve the required pollutant reductions.

Chesapeake Bay Action Plan		
Method to receive and consider public comment, including dates: <u>An online public comment forum</u> was established and available for public comment for at least 14 days prior to submitting the plan.		
Date of Action Plan submittal to DEQ: September 7, 2016		
Has the GCC Chesapeake Bay Action Plan been developed?*	⊠ Yes □ No	
If no, please explain and provide expected date of completion: <u>N/A</u>		
Does model quantification demonstrate the selected means and methods in the completed Action Plan can achieve the required reductions?	Yes	
Necessary documents for implementation are not provided in the annual report, but will be retained on		

file for 3 years. *Note: the draft 2019 – 2023 Chesaneake Bay Action Plan was submitted in June of 2018 with the

*Note: the draft 2019 – 2023 Chesapeake Bay Action Plan was submitted in June of 2018 with the registration statement.

Implementation

On an annual basis, GCC will report progress on the implementation of the Chesapeake Bay TMDL Action Plan. GCC plans to employ street sweeping to satisfy the required Pollutants of Concerns (POC) reductions. GCC must collect a minimum of 326 pounds of material to meet the POC reduction requirements by the end of the permit cycle in 2018.

Has GCC met the required POC reduction requirements this reporting year?

No N/A (Not required this reporting year)

X Yes

If no, explain how the Action Plan can be modified to achieve the required reductions in the required time frames: <u>N/A</u>

Measure of Effectiveness	
Does model quantification demonstrate the selected means and methods in the completed Action Plan can achieve the required reductions in the required time frames?	Yes No
If no, explain how the Action Plan can be modified to achieve the required r	eductions in the required

If no, explain how the Action Plan can be modified to achieve the required reductions in the req time frames: N/A

Appendix A - BMP 1.2 Documentation of Public Education and Outreach Activities

Public Education and Outreach Plan

(Effective April 18, 2015) Revised September 2018

Germanna Community College (GCC) operates a Stormwater Management Program in compliance with the Virginia General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit). In accordance with



Section II.B.1 of the permit, GCC implements a Public Education and Outreach Program on stormwater impacts (the Program).

Consistent with the MS4 General Permit, the Program considers the following goals:

- Increase the knowledge of GCC's students, faculty, and staff about the steps that can be taken to reduce stormwater pollution, placing priority on reducing impacts to impaired waters and other local water pollution concerns;
- Increase GCC's students, faculty, and staff 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 towards audiences most likely to have significant stormwater impacts.

These goals are intended to be met as part of an iterative program that will assess effectiveness of the Program by assessing the level of knowledge over time of the college's public, defined as their students, faculty, and staff. The Program is designed consistent with the MS4 General Permit to:

- Identify 3 high-priority water quality issues and provide rationale for the selection of each issue;
- Identify and estimate the population size of the target audience who is most likely to have significant impacts on each water quality issue;
- Identify the relevant message and associated educational and outreach materials for distribution to the target audiences.

Public participation during the development of this Program included the distribution of a survey through email that incorporated questions regarding stormwater runoff and surface water quality (Attachment A). The survey was intended to gage GCC students, faculty, and staff on their knowledge of stormwater impacts. Response to the survey included 82 students, 52 faculty, and 55 staff members. Insightful results towards the development of the Program include:

- 68% of respondents were not aware GCC has a stormwater program.
- 85% felt they had somewhat, very little, or no knowledge of steps to take to reduce stormwater pollution.
- 81% are interested in improving surface water quality, with 71% potentially interested in volunteering on local projects.
- 81% were not aware of any GCC projects to improve surface water quality
- 61% did not know who to contact if they observed a negative impact to surface water quality (illicit discharge).
- 87% do not know where storm inlets on campus discharge to surface waters.

Selection of high-priority water quality issues were selected based on results disseminated from the survey results (Attachment A), applicable Total Maximum Daily Loads (TMDLs) and general knowledge of campus operations. GCC's high-priority water quality issues for the Public Education and Outreach Program are provided below. Based on measures of effectiveness for each, any may be replaced or refined through the annual reporting process.

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

<u>Rationale:</u> This issue was selected based on the results of the public survey that indicate a strong need for improved public education. This rationale is supported with the survey results summarized above and written comments from the survey.

<u>Target Audience:</u> Survey results indicate that the entirety of GCC's public audience needs increased education since all could have an impact in the improvement of stormwater runoff with knowledge of steps to reduce stormwater pollution. This audience includes approximately 7,300 students, faculty and staff.

<u>Relevant Message:</u> 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.)
- 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
- Information regarding GCC's stormwater program

<u>Outreach Materials to Convey the Relevant Message:</u> An email sent to the entire target audience that includes a brochure with the relevant message and a link to the GCC 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 (77%).

<u>Schedule:</u> Outreach material will be distributed a minimum of once a year to at least 20% of each target audience during the fall semester.

<u>Method to Determine Effectiveness</u>: As deemed appropriate for a community college, the public survey described above will be distributed biennially. Results will be disseminated to determine if the public's knowledge of stormwater runoff and its impacts have increased.

Water Quality Issue No. 2: Good Housekeeping and Pollution Prevention Practices on GCC campuses

<u>Rationale:</u> The potential for pollutants to be exposed to precipitation on the GCC campuses is most likely to occur from day-to-day operational activities. Further, the most likely sources of the top three pollution concerns identified in the public survey (pesticides/insecticides, fertilizer, and motor oil) would be the result of GCC grounds operational procedures.

<u>Target Audience:</u> Staff performing day-to-day activities that include materials that could be exposed to precipitation if improperly managed, handled, or stored. This audience includes 5 staff.

<u>Relevant Message:</u> Information incorporated into GCC's Good Housekeeping/Pollution Prevention Program Manual.

<u>Outreach Materials to Convey the Relevant Message:</u> The message will be conveyed using the GCC Good Housekeeping/Pollution Prevention and Illicit Discharge Detection and Elimination Program Manuals during annual training of the target audience.

<u>Schedule:</u> Frequency of required training will be increased from the permit-required biennial training to be provided to the target audience annually.

<u>Method to Determine Effectiveness:</u> GCC will measure effectiveness based on the number of recurring issues related to campus staff activities identified during the annual comprehensive campus evaluation (see BMP 3.4 of the GCC Program Plan). Effectiveness will also be based on the illicit discharges reported or observed that are related to day-to-day staff activities (see BMP 3.2 and 3.3 of the GCC Program Plan.)

Water Quality Issue No. 3: Parking lot pollutants

<u>Rationale:</u> Although source controls and operational practices used by GCC staff can prevent pollutant exposure to precipitation, sources from the public's activities are observed to predominantly come from cars (i.e. oil leaks, trash). Commuter cars are especially a concern considering a majority of the campuses developed area is parking lot. Public input further supports this issue with motor oil from cars ranking as the second highest pollutant of concern in the public survey response.

Target Audience: Commuters parking in outdoor parking lots.

• ± 800 (estimated based on approximately 80% utilization of outdoor parking spaces)

<u>Relevant Message:</u> 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.

Outreach Materials to Convey the Relevant Message: Flyers distributed via email.

<u>Schedule:</u> Outreach material will be distributed a minimum of once a year to at least 20% of each target audience during the spring semester.

<u>Method to Determine Effectiveness</u>: Effectiveness will also be based on the illicit discharges reported or observed that are related to commuter vehicles (see BMP 3.2 and 3.3 of the GCC Program Plan.) Effectiveness will also be measured based on results of future public surveys, specifically in regards to the trend of the public's knowledge of the fate of stormwater runoff (i.e. surface waters).



Memo

To:	Garland Fenwick
From:	Sara Rilveria
CC:	Chris Schrinel
Date:	5/17/2017
Re:	GCC PEOP 2017 Survey Results – Addendum 1

Consistent with Germanna Community College's (GCC) Public Education and Outreach Plan (PEOP), a survey was conducted in April of 2017 as part of the iterative program that measures effectiveness of GCC's PEOP by assessing the level of knowledge over time of the college's target audience (public) which is defined as the GCC students, faculty and 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 April 2015 and the recent survey conducted in April 2017. Questions #2, #3, #7, #8 & #11 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 GCC's MS4 Annual Report. Table 1 below demonstrates the overall end the results related to program effectiveness and demonstrates that the PEOP has been communicated and is effective.

Table 1: Average PEOP Scores

2015 Survey	2017 Survey
34%	46%

In general, community colleges have a greater challenge then many other MS4's because the public tends to change significantly from one year to the next. Despite this fact, the survey results are also useful in identifying trends over time, potential weaknesses and new ways to focus efforts for GCC's PEOP. For instance, when results from year to year have slight or

significant increases it can be deduced that the program is effective. Similarly, slight or significant decreases may indicate the need for adjustments to the PEOP.

Regards,

EEE Consulting, Inc.

Jara Riberia \subset

Sara Rilveria, CLA Senior Landscape Architect

Attachment: 2017 PEOP Survey Data Comparison 2017 PEOP Survey Data

GCC PEOP Key Questions	2015	2017
Are you aware that GCC has a stormwater program in place to protect surface waters and posts the stormwater Program Plan and Annual Reports online regarding the progress and accomplishments? (Yes)	32%	52%
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)	15%	25%
If you observed an issue that is negatively impacting environmental water quality on campus who would you contact? (Facilities Management)	40%	71%
Do you know where stormwater inlets on the GCC campus drain? (Straight to waterways)	13%	17%
Are there any legal/disciplinary implications for either directly or indirectly contributing pollutants to surface waters (lakes, streams, river, etc.)? (Yes)	69%	67%
Average Score	34%	46%

GCC 2017 PEOP Survey Data Comparison

Question	Description	2015	2017
1	Student, Faculty or Staff?	44%, 27%, 29%	45%, 27%, 28%
2	Aware GCC has a Stormwater Program? (Yes)	32%	52%
3	Know how to reduce stormwater pollution? (Quite a bit + Expert)	15%	25%
4	Interested in improving water quality? (Yes)	81%	82%
5	Interested in volunteering? (2 Yes answers + maybe)	71%	73%
6	Aware of stormwater projects at GCC? (Yes)	20%	26%
7	Aware who to report negative impacts to water quality? (Facilities Management)	40%	71%
8	Aware where Stormwater Inlets Drain? (Straight to waterways)	13%	17%
		64% (Email)	74% (Email)
9	Most effective method of outreach?	13% (Brochures) 12% (TV	11% (TV Monitors)
		Monitors)	7% (Brochures)
10	Rank pollutants of concern	1)Pesticides/Insecticides 2) Motor Oil from Cars 3) Too much Fertilizer	1)Pesticides/Insecticides 2) Bacteria in waterways 3) Motor oil from cars
11	Aware of legal/ disciplinary implications for polluting? (Yes)	69% (Yes)	67% (Yes)
12	Top 3 pollutants impact surface water?	43% Oil/Gas, 42% Pesticides/Insecticides, 40% Fertilizer	44% Pesticides/Insecticides 43% Oil/Gas, 41% Fertilizer, Bacteria & Trash
13	Comments		

GCC 2017 PEOP Stormwater Survey

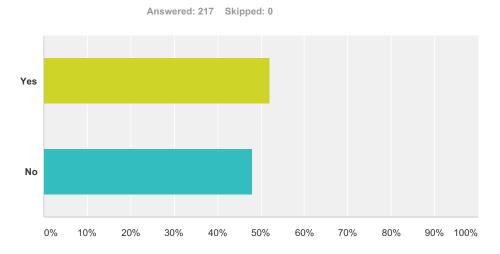
Q1 Are you a Student, Faculty, or Staff Member?

 Student
 Faculty

 9%
 10%
 20%
 30%
 40%
 50%
 60%
 70%
 80%
 90%
 100%

Answer Choices	Responses
Student	45.16% 98
Faculty	27.19% 59
Staff Member	27.65% 60
Total	217

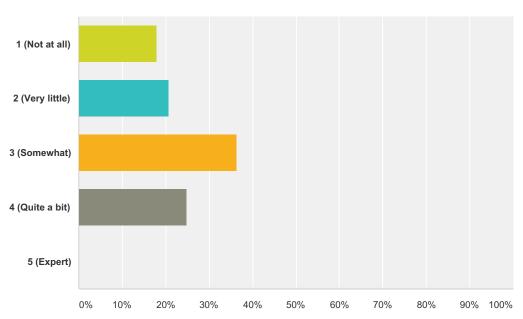
Q2 Are you aware that GCC has a stormwater program in place to protect surface waters and posts the stormwater Program Plan and Annual Reports online regarding the progress and accomplishments?



Answer Choices	Responses	
Yes	52.07%	113
No	47.93%	104
Total		217

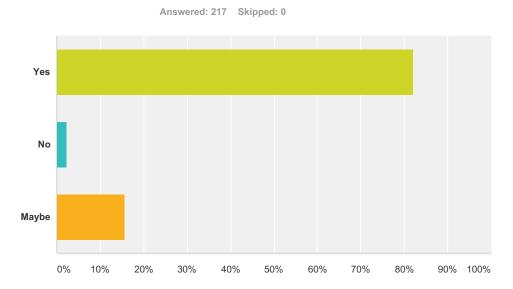
Q3 How much do you feel you know about the steps you can take to reduce stormwater pollution (1 being the least and 5 being the most)?

Answered: 217 Skipped: 0



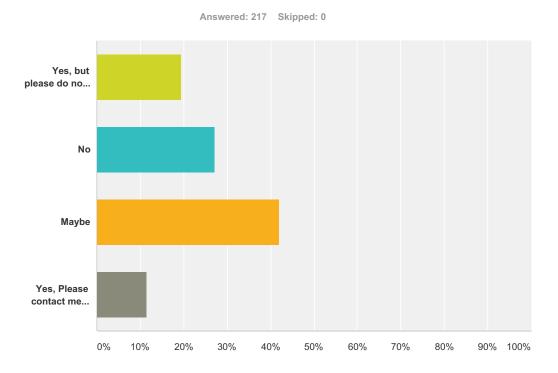
Answer Choices	Responses	
1 (Not at all)	17.97%	39
2 (Very little)	20.74%	45
3 (Somewhat)	36.41%	79
4 (Quite a bit)	24.88%	54
5 (Expert)	0.00%	0
Total		217

Q4 Are you interested in improving environmental water quality (Creeks, Lakes, Bays, etc.)?



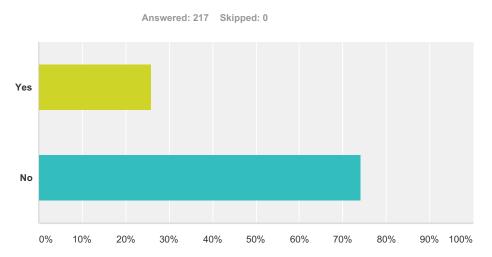
Answer Choices	Responses	
Yes	82.03%	178
No	2.30%	5
Maybe	15.67%	34
Total		217

Q5 Are you interested in volunteering with local projects to improve environmental water quality?

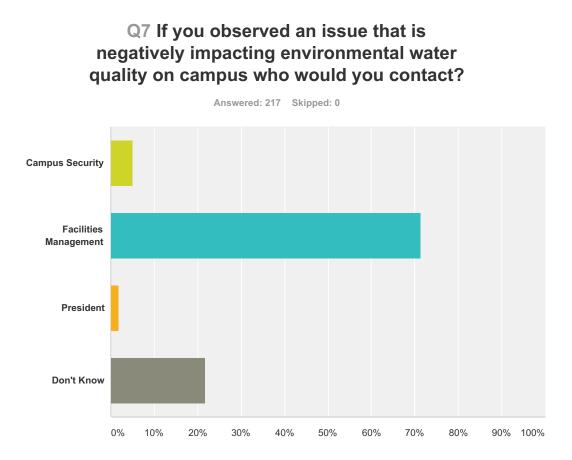


Answer Choices	Responses	
Yes, but please do not contact me regarding opportunities.	19.35%	42
No	27.19%	59
Maybe	41.94%	91
Yes, Please contact me about opportunities (Please provide contact information below).	11.52%	25
Total		217

Q6 Are you aware of any GCC projects to improve environmental water quality?

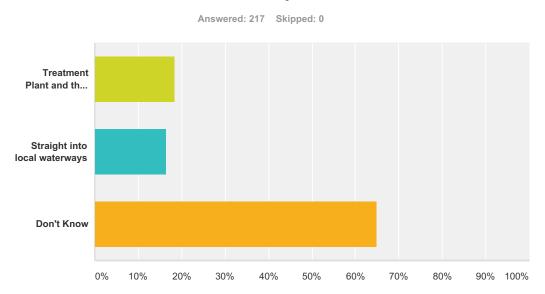


Answer Choices	Responses	
Yes	25.81%	56
No	74.19%	161
Total		217



Answer Choices	Responses
Campus Security	5.07% 11
Facilities Management	71.43% 155
President	1.84% 4
Don't Know	21.66% 47
Total	217

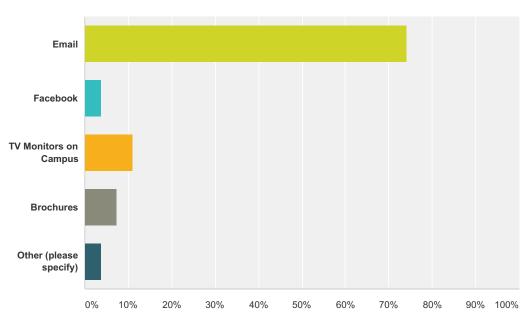
Q8 Do you know where stormwater inlets on the GCC campus drain?



Answer Choices	Responses	
Treatment Plant and then into the waterway	18.43%	40
Straight into local waterways	16.59%	36
Don't Know	64.98%	141
Total		217

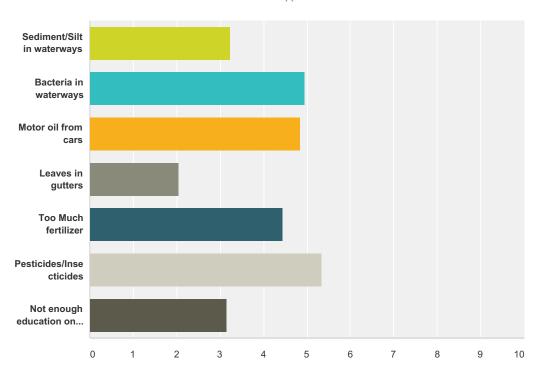
Q9 Which of the following would be the most effective method to reach you regarding water quality education?





Answer Choices	Responses	
Email	74.19%	161
Facebook	3.69%	8
TV Monitors on Campus	11.06%	24
Brochures	7.37%	16
Other (please specify)	3.69%	8
Fotal		217

Q10 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):

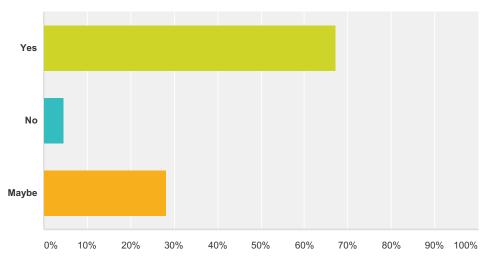


Answered: 217 Skipped: 0

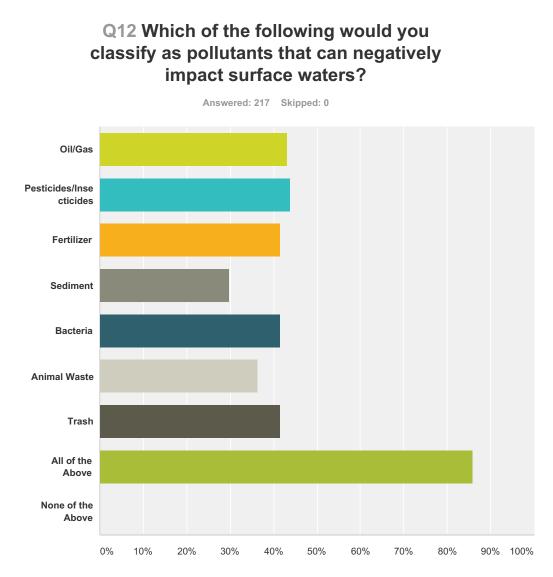
	1	2	3	4	5	6	7	Total	Score
Sediment/Silt in waterways	2.30%	6.91%	7.83%	17.51%	33.64%	23.04%	8.76%		
	5	15	17	38	73	50	19	217	3.2
Bacteria in waterways	26.27%	18.43%	11.98%	21.66%	12.44%	6.45%	2.76%		
	57	40	26	47	27	14	6	217	4.9
Motor oil from cars	18.43%	19.82%	22.58%	17.05%	13.82%	5.99%	2.30%		
	40	43	49	37	30	13	5	217	4.8
Leaves in gutters	3.23%	2.30%	1.84%	4.61%	7.83%	36.87%	43.32%		
	7	5	4	10	17	80	94	217	2.
Too Much fertilizer	7.83%	17.97%	27.19%	20.28%	14.29%	10.14%	2.30%		
	17	39	59	44	31	22	5	217	4.
Pesticides/Insecticides	23.04%	30.88%	24.42%	10.14%	4.61%	4.15%	2.76%		
	50	67	53	22	10	9	6	217	5.3
Not enough education on stormwater	18.89%	3.69%	4.15%	8.76%	13.36%	13.36%	37.79%		
	41	8	9	19	29	29	82	217	3.

Q11 Are there any legal/disciplinary implications for either directly or indirectly contributing pollutants to surface waters (lakes, streams, river, etc.)?

Answered: 217 Skipped: 0



Answer Choices	Responses	
Yes	67.28%	146
No	4.61%	10
Maybe	28.11%	61
Total		217



Answer Choices	Responses	
Oil/Gas	43.32%	94
Pesticides/Insecticides	43.78%	95
Fertilizer	41.47%	90
Sediment	29.95%	65
Bacteria	41.47%	90
Animal Waste	36.41%	79
Trash	41.47%	90
All of the Above	85.71%	186
None of the Above	0.00%	0
Total Respondents: 217		

Q13 Please use the below space to write any other comments or concerns you have about GCC's stormwater program. Otherwise, please click on the button labeled "Done" below to submit your answers.

Answered: 23 Skipped: 194

#	Responses	Date
1	In terms of brochures for education: To the point, pics, facts and relatable information is desired	4/19/2017 3:48 AM
2	There has been a good effort at Germanna to educate and communicate. Folks are busy and they don't like meetings, but sometimes meetings should be mandatory and cover things like this to make people really pay attention. This would be worth a meeting. I have read the emails and the flyers. Could we be offered a walking tour through the campuses that show us areas that are vulnerable or that demonstrate the issues we are facing? If folks could look at something, and see it, it would make a difference. I know we are stretched for employees and time, but I would really appreciate a tour around our campuses to see the issues that are going onand what I should look out for. I would report stuff, if I knew what I should report? I would report it to Garland Fenwick and his staff. That I do know. This is serious. Folks don't realize that our water is an essential and critical part of our ecosystem.	4/17/2017 2:33 PM
3	I'd like to see more about it at Germanna. It needs to be more visible.	4/17/2017 12:39 PM
4	Keep up the good work!	4/17/2017 8:44 AM
5	none	4/17/2017 8:30 AM
6	a weekly/monthly newsletter? Maybe incorporate other information as well?	4/17/2017 4:39 AM
7	If you have regularly fertilized grass on a steep slope, I would suggest a garden with a retaining wall at the bottom. I'm sure that runoff is already properly sent to be treated, but even if the fertilizer isn't going into the river, y'all would want to waste as little of it as possible, the phosphorus mining needed to make more of it isn't good for the environment either.	4/17/2017 4:05 AM
8	Educating the student body through observation, demonstration, and conservation is key to awareness. I would suggest implementing a "trash / pollutant awareness week", which would include presentations and trash collection programs.	4/17/2017 1:30 AM
9	If there is any way to "reuse" some of the storm water runoff, that might be a good thing.	4/17/2017 1:17 AM
10	Junkyards in Virginia that are not forced to clean up because they are grandfathered due to being in place prior to the laws.	4/13/2017 12:22 PM
11	Moerings(Semper Green) has a storm water retention program maintaining green roofs. This topic is very big in Europe. Its time our country does what it can to protect our waters.	4/10/2017 9:56 AM
12	Mr. Garland Fenwick presented my Bio 102 class with the GCC storm water strategy. He also assisted us in our project to sample water for E.coli.	4/10/2017 9:11 AM
13	I think it would be great to have Friends of the Rappahannock or Tri-County Water and Soil start a project here.	4/10/2017 8:16 AM
14	Done	4/10/2017 7:44 AM
15	N/a	4/10/2017 5:55 AM
16	I would like to know more about what I can personally do to find non-point source pollution solutions. My email is ndzurenda@gmail.com	4/10/2017 5:11 AM
17	I would like to know more about what I can personally do to find non-point source pollution solutions. My email is ndzurenda@gmail.com	4/10/2017 4:52 AM
18	I realized I am not well informed about storm water management and pollution. I need to learn more	4/10/2017 3:25 AM
19	I think the GCC stormwater will be a great idea for students to partcipate, which I'm not joining because I'm not interested. I came to GCC to learn and focus on my education. But like I said, it's a great idea.	4/10/2017 3:17 AM

GCC 2017 PEOP Stormwater Survey

20	WE could learn about this in the next Faculty meeting.	4/10/2017 3:07 AM
21	Thank you for your diligence in keeping us informed.	4/10/2017 2:58 AM
22	I think more education for the community would be a good thing!	4/10/2017 2:39 AM
23	Done	4/10/2017 2:35 AM

ALL

From: Jent: To: Cc: Subject: Attachments: Garland Fenwick Wednesday, October 4, 2017 1:05 PM 'gc-students@lists.vccs.edu' Garland Fenwick RE: Important Municipal Separate Storm Sewer System Program(MS-4) Parking Lot Pollutants Flyer.pdf

Attached is a flyer that provides important information pertaining to Municipal Separate Storm Sewer System Program(MS-4) at the Fredericksburg Area Campus. Please take a few minutes to review the flyer and help GCC improve their MS-4 program.

Thank you

arland Fenwick	Germanna Community
acilities Manager acilities Management	College 10000 Germanna Point
	Drive
	Fredericksburg, VA 22408
ermanna provides accessible, high quality educational a pportunities that address our communities' diverse and eeds.	
	tel:
	(540) 423-9046 🖸
fenwick@germanna.edu	fax: (540) 727-3205

FALL

Garland Fenwick

From: Jent: To: Cc: Subject: Attachments: Garland Fenwick Wednesday, October 4, 2017 1:07 PM *All-Germanna* Garland Fenwick RE: Important Municipal Separate Storm Sewer System Program(MS-4) Parking Lot Pollutants Flyer.pdf

Dear Faculty and Staff,

Attached is a flyer that provides important information pertaining to Municipal Separate Storm Sewer System Program(MS-4) at the Fredericksburg Area Campus. Please take a few minutes to review the flyer and help GCC improve their MS-4 program.

Thank you

GERMANNA COMMUNITY COLLEGE	
Garland Fenwick	Germanna Communit
Facilities Manager	Colleg
acilities Management	10000 Germanna Poin Driv
	Fredericksburg, VA 2240
Germanna provides accessible, high quality educational and training opportunities that address our communities' diverse and changing le needs.	
	tel: (540) 423-9046
zfenwick@germanna.edu	fax: (540) 727-3205

Parking Lot Pollutants

WHEN YOU LEAVE A PARKING SPACE...

> Do you leave <u>trash</u> behind?

These Pollutants

end up in storm drains and sewers...

Polluted storm water often flows directly to a River causing disease and harm to wildlife and the environment.

Help Improve Stormwater Run Off!

- ✓ Place litter and cigarette butts in trash receptacles.
- Promptly repair vehicle leaks.
- ✓ Take your car to the *car wash* instead of washing it in a driveway or parking lot.

To report a potential illicit discharge or improper disposal...

Contact Facilities Management 540-423-9185



SPRING

From: Sent: To: Cc: Subject: Attachments:

Garland Fenwick Thursday, April 19, 2018 1:47 PM *All-Germanna* Garland Fenwick Important Municipal Separate Storm Sewer System Program(MS-4) Municipal Separate Storm Sewer System Program(MS-4)_Flyer.pdf

Dear Faculty and Staff,

Attached is a flyer that provides important information pertaining to Municipal Separate Storm Sewer System Program(MS-4) at the Fredericksburg Area Campus. Please take a few minutes to review the flyer and help GCC improve their MS-4 program.

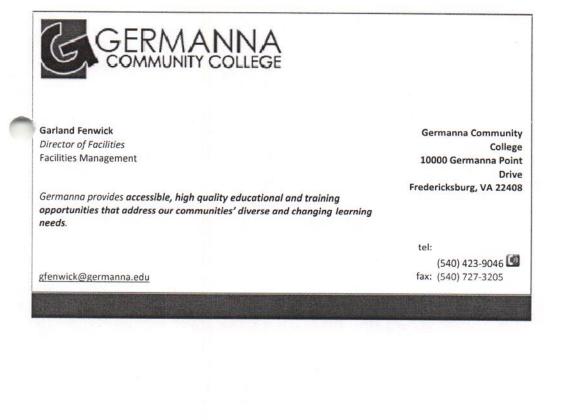
Thank you

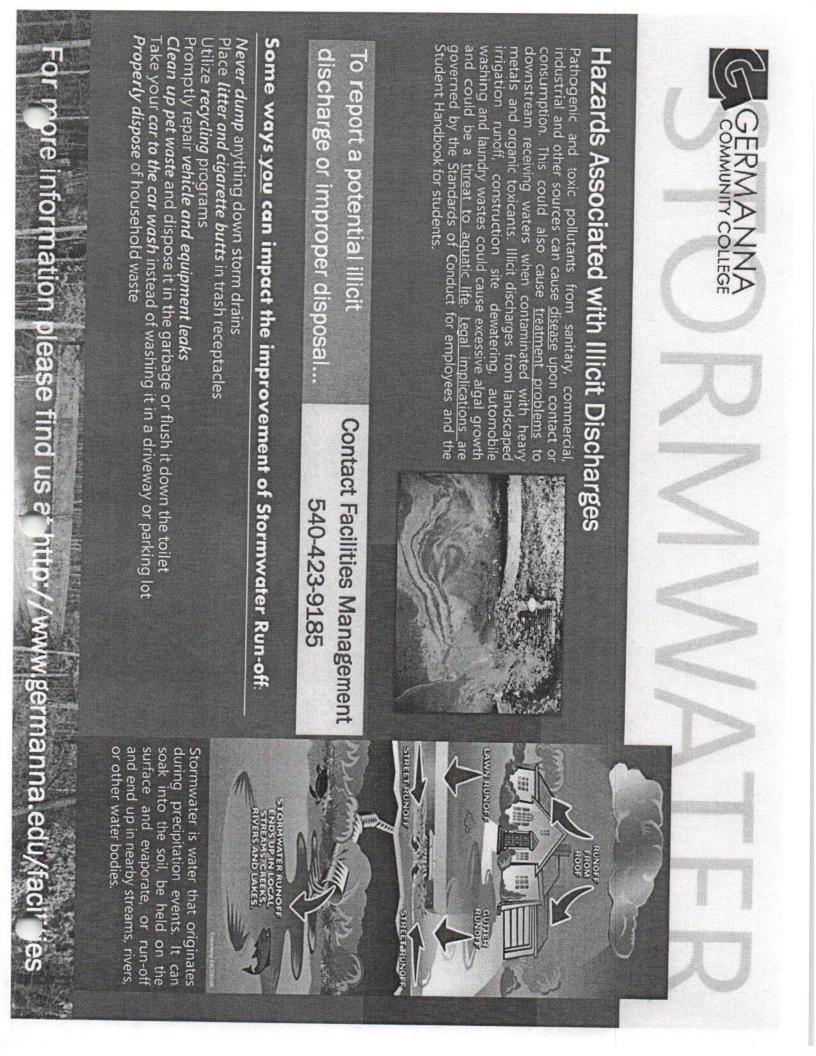
GERMANNA COMMUNITY COLLEGE	
arland Fenwick	Germanna Community
lirector of Facilities	College
acilities Management	10000 Germanna Point
	Drive
	Fredericksburg, VA 22408
ermanna provides accessible, high quality educational and training	
pportunities that address our communities' diverse and changing learning eeds.	
	tel:
	(540) 423-9046 🖼
fenwick@germanna.edu	fax: (540) 727-3205

From:Garland FenwickSent:Thursday, April 19, 2018 1:39 PMTo:'gc-students@lists.vccs.edu'Cc:Garland FenwickSubject:Important Municipal Separate Storm Sewer System Program(MS-4)Attachments:Municipal Separate Storm Sewer System Program(MS-4)_Flyer.pdf

Attached is a flyer that provides important information pertaining to Municipal Separate Storm Sewer System Program(MS-4) at the Fredericksburg Area Campus. Please take a few minutes to review the flyer and help GCC improve their MS-4 program.

Thank you





SPATHO

From: Sent: To: Cc: Subject: Attachments: Garland Fenwick Monday, March 26, 2018 1:27 PM 'gc-students@lists.vccs.edu' Garland Fenwick Important Municipal Separate Storm Sewer System Program(MS-4) Parking Lot Pollutants Flyer.pdf

Attached is a flyer that provides important information pertaining to Municipal Separate Storm Sewer System Program(MS-4) at the Fredericksburg Area Campus. Please take a few minutes to review the flyer and help GCC improve their MS-4 program.

Thank you

Garland Fenwick		Germanna Communit Colleg
Director of Facilities Facilities Management		10000 Germanna Poin
		Driv Fredericksburg, VA 2240
	ble, high quality educational and training our communities' diverse and changing learning	
		tel: (540) 423-9046
fenwick@germanna.edu		fax: (540) 727-3205

SPFING

From: Sent: To: Cc: Subject: Attachments: Garland Fenwick Monday, March 26, 2018 1:32 PM *All-Germanna* Garland Fenwick Important Municipal Separate Storm Sewer System Program(MS-4) Parking Lot Pollutants Flyer.pdf

Dear Faculty and Staff,

Attached is a flyer that provides important information pertaining to Municipal Separate Storm Sewer System Program(MS-4) at the Fredericksburg Area Campus. Please take a few minutes to review the flyer and help GCC improve their MS-4 program.

Thank you

Garland Fenwick	
Director of Facilities Facilities Management Germanna provides accessible, high quality educational and training opportunities that address our communities' diverse and changing learning	Germanna Community College 10000 Germanna Point Drive Fredericksburg, VA 22408
needs. gfenwick@germanna.edu	tel: (540) 423-9046 🕼 fax: (540) 727-3205

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 ✓ Promptly *repair vehicle leaks*.
- ☑ Take your car to the *car wash* instead of washing it in a driveway or parking lot.

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Contact Facilities Management 540-423-9185



THIS SECTION TO BE COMPLETE BY FA	THIS SECTION TO BE COMPLETE BY FACILITIES MANAGER OR DESIGNEE ONLY Staff identified to receive training	THIS SECTION T	THIS SECTION TO BE COMPLETED BY STAFF RECEIVING TRAINING
Name (Printed)	Position	Staff Signature	Date of Training
ANAKEY COLLER	TLADES TECH IN		ONDERE TRAFFT
AUTO	They t		THAT
SPAN Atman	TRAVIES TECH IT		OPTER THAT A
PETE WIDLERANS	THAVES TECH HE		TIASIT
CHIT'S Cooker	THAVES NELY IV		OFLAVE THAT AL
		5.4 	

mmunity College Annual Pollution Prevention/Good Housekeeping Training Documentation Form

GCC Annual Training Documentation									
Training Event Date	# of Attendees	Average Exam Scores							
5/2/2018	5	92							
9/11/2017	2	96							

Appendix B - BMP 2.2 Documentation of Public Participation Activities

Environmental Science September 25, 2017 9:00am 25 students

Environmental Science September 25, 2017 2:00pm 24 students

Biology 102 November 28, 2017 9:00am 14 students

Biology 102 November 28, 2017 12:00pm 18 students

From: Sent: To: Subject: Joann Schrass Monday, September 25, 2017 10:22 PM Garland Fenwick Re: Stormwater Management

Both classes meet in SP#3, room 323. I'm delighted that you can do this for us this semester.

JoAnn M. Schrass, Ph.D. jschrass@germanna.edu Germanna Community College Biology Department Science & Engineering Building room 212

From: Garland Fenwick Sent: Monday, September 25, 2017 1:12:56 PM To: Joann Schrass Subject: RE: Stormwater Management

Can you give me your room number?

Thanks,

Garland

(540) 423-9046 gfenwick@germanna.edu

From: Garland Fenwick Sent: Monday, September 25, 2017 1:09 PM To: Joann Schrass <JSchrass@germanna.edu> Subject: RE: Stormwater Management

I sure can. See you then.

Thanks,

Garland

(540) 423-9046 gfenwick@germanna.edu

From: Joann Schrass Sent: Wednesday, September 20, 2017 9:05 PM To: Garland Fenwick <<u>GFenwick@germanna.edu</u>> Subject: Re: Stormwater Management

Hi Garland:

Thanks. I will take you up on that offer. Can you visit my 9 a.m. and noon classes on Tuesday, Nov 28?

All the best JoAnn

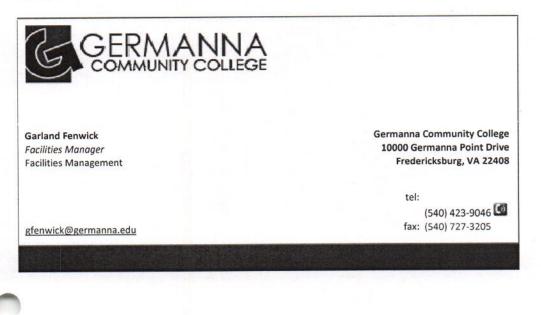
JoAnn M. Schrass, Ph.D. jschrass@germanna.edu Germanna Community College Biology Department Science & Engineering Building room 212

From: Garland Fenwick Sent: Wednesday, September 20, 2017 12:31:54 PM To: Joann Schrass Subject: Stormwater Management

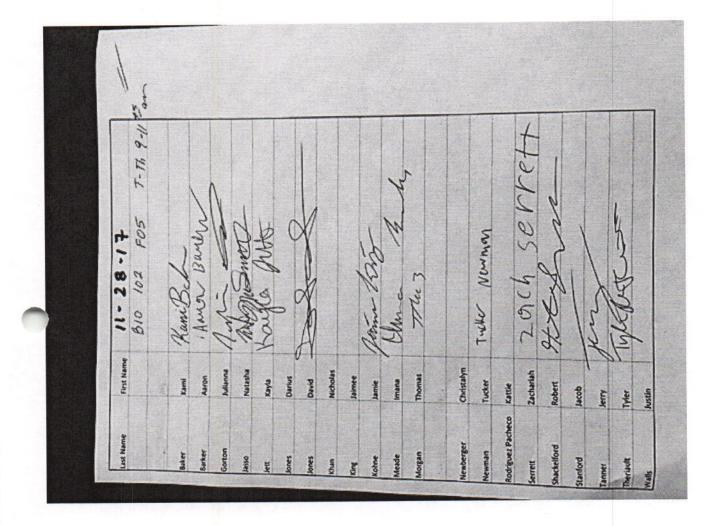
Hi Joann,

I don't know if you are teaching your Biology class this fall but would like me to pay a visit and talk about Stormwater I would be happy to do so.

Thanks Garland

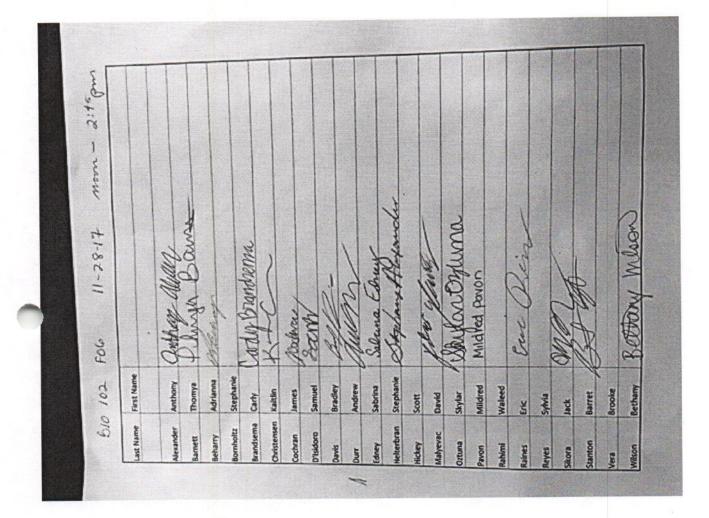


From: Sent: To: Subject: JoAnn Schrass <joannschrass@me.com> Tuesday, November 28, 2017 10:11 AM Garland Fenwick Bio 102F05 sign in sheet



Sent from my iPhone

From: Sent: To: Subject: JoAnn Schrass <joannschrass@me.com> Tuesday, November 28, 2017 1:03 PM Garland Fenwick Bio 102 F06. Noon to 2:45



Sent from my iPhone

From: Sent: To: Subject: Attachments: Harvey Gold Wednesday, September 27, 2017 1:01 PM Garland Fenwick Class rosters FO1.docx; FO2.docx

Garland: Thank you for once again allowing my students to understand their world a little better. I have attached both class rosters. Please let me know if you need anything more or different.

Again thanks for taking time out of your busy schedule to talk to now, not one, but two of my classes.

Harvey Harvey S. Gold Adjunct Professor Environmental Science Germanna Community College 804-450-5261

From: Sent: To: Subject: Harvey Gold Monday, September 11, 2017 6:10 AM Garland Fenwick Re: Possible visit to my Environmental Class

That works! ! Many thanks. See you then!

Harvey Harvey S. Gold Adjunct Professor Environmental Science Germanna Community College 804-450-5261

From: Garland Fenwick Sent: Sunday, September 10, 2017 6:56:56 PM To: Harvey Gold Subject: RE: Possible visit to my Environmental Class

Harvey,

can't do the 18th but I have you on my calendar for the 25th at 9am and 2pm.

Thanks,

Garland

(540) 423-9046 gfenwick@germanna.edu

From: Harvey Gold Sent: Friday, September 8, 2017 6:48 PM To: Garland Fenwick <GFenwick@germanna.edu> Subject: Possible visit to my Environmental Class

Garland. It is that time again and I would like to invite you to do your usual presentation. Would Sept 18 be possible? If not how about Sept 25. There is an added wrinkle this time. My enrollment has grown and I am teaching 2 sections. Both are Mon-Wed. The first starts at 9 am and you could speak at 9 am or 10:30 am. The second is later that day and you could speak at 2pm or 3:30 pm. You know I will work with you...so just let me know what is good for you and we will work it out. I am aware that you have some major equipment changes going on so if this can't work now, we can look at a later time. As always...thank for considering this. All the best.

Harvey Harvey S. Gold Adjunct Professor Environmental Science Germanna Community College 804-450-5261

9:000-

	Notify	ID	Name	Email	Main Phone	Business Phone	Home Phone	Grade Basis	Un
1		7033906	ANDERSON,LAUREN ASHLEIGH	laa29744@email.vccs.edu	540/785- 5085	301/594- 9425		Non- Graded	0.0
2		6641250	ARMSTRONG,KRISTEN ELIZABETH	kea2537@email.vccs.edu	540/582- 6053			Non- Graded	0.0
3		5903016	BLACKSHEAR,DENISE JAMES	djb22145@email.vccs.edu	540/785- 4341			Non- Graded	0.0
4		7139099	BORING,ANDREW DOUGLAS	adb21185@email.vccs.edu	540/455- 8526			Non- Graded	0.0
5		6873333	BRENNAN, KELLY ELISE	keb2978@email.vccs.edu	540/288- 8724	540/659- 9600		Non- Graded	0.0
6		5678116	COMBS, DAVID AUSTIN	dac2201@email.vccs.edu	540/399- 1525			Non- Graded	0.0
7		6795183	DASENT,SAVANNAH	sd2027@email.vccs.edu	540/834- 8859			Non- Graded	0.
8		6715499	DZURENDA,NICHOLAS THOMAS	ntd2194@email.vccs.edu	540/424- 0611			Non- Graded	0.
9		6780963	FAUSTOR,CHINNAE ROSE	cf27115@email.vccs.edu	540/522- 7990			Non- Graded	0.
10		6484881	FLEET II,JAMES MATHEW	jmf21576@email.vccs.edu	540/841- 7394	540/841- 7394		Non- Graded	0.0
11		7217829	HANSON,LOGAN BRANDT	lbh2996@email.vccs.edu	954/292- 1505	954/292- 1505		Non- Graded	0.
12		7032602	HEFLIN,ANNA MARGARET	amh26437@email.vccs.edu	540/907- 5614			Non- Graded	0.

13	6625637	NAMEROFF,GRIFFIN PATRICK	gpn2104@email.vccs.edu	540/659- 1647		Non- Graded	0.0
14	6428444	PARKS, EMILY JOANNE	ejp2631@email.vccs.edu	804/224- 6134	540/663- 4300	Non- Graded	0.0
15	7218100	PONS,FRANK JOSEPH	fjp2397@email.vccs.edu	540/446- 9993		Non- Graded	0.0
16	6265436	RANDALL, DONNIE LEE	dlr2291@email.vccs.edu	540/848- 5948	540/710- 9310	Non- Graded	0.0
17	7190220	REILLY, KEVIN CHARLES	kcr2324@email.vccs.edu	804/572- 8772		Non- Graded	0.0
18	6812470	SARACENO,NICHOLAS WILLIAM	nws2162@email.vccs.edu	530/907- 9661		Non- Graded	0.0
19	6794194	SHORT JR.,GARY LAYTON	gls2721@email.vccs.edu	540/645- 0533		Non- Graded	0.0
20	0647726	SIMS,KEVIN L	ksims0014@email.vccs.edu	337/404- 8150	703/329- 4655	Non- Graded	0.0
21	7043963	SMITH,MEGAN LYNEE	mls27451@email.vccs.edu	540/273- 0800	540/786- 1949	Non- Graded	0.0
22	6996550	THOMPSON DVM,SARAH IRENE	sit2007@email.vccs.edu	540/621- 0089	540/621- 0089	Non- Graded	0.0
23	6853617	TUBMAN,CRYSTAL LEE ANNE	clt23077@email.vccs.edu	804/787- 3153		Non- Graded	0.0
24	6073324	WOZNICK,KARISSA	kcw2249@email.vccs.edu	540/424- 2825		Non- Graded	0.0
25	6858170	ZARAGOZA,LUIS YAHIR	lyz24@email.vccs.edu	571/991- 5192		Non- Graded	0.0

			2:0	00 P~~				
			FO2				Grade Basis	
1		6712910	BROWNE, JOSHUA THOMAS	JBrowne@germanna.edu	540/399- 9629	540/399- 9629	Graded	
2	Г	7173960	BUCKNER, TOMORAH N	tnb2492@email.vccs.edu	540/846- 6723	540/846- 6723	Graded	- Internet and the second seco
3		6953206	COLE-THOMAS,MELISSA CHRISTINA	mcc21344@email.vccs.edu	540/376- 2943	540/891- 3000	Graded	
4	Г	5380535	CUPID, BARRY OTIS	boc27@email.vccs.edu	540/498- 1268	540/741- 1100	Graded	
5		7022044	CURRAN, JORDAN LEE	jlc24029@email.vccs.edu	540/412- 2885		Graded	
6		6996599	DICK,ANDREA KELLY	akd20093@email.vccs.edu	540/645- 1602		Graded	
7		6819780	FINCHAM, CAITLYN MARIE	cmf2507@email.vccs.edu	540/543- 2465	540/718- 0859	Graded	
8		7177705	HOLMES, VERONICA ANGEL	vah29500@email.vccs.edu	540/842- 7172	540/548- 8886	Graded	
9		7162503	HUFFMAN, WESLEY HUNTER	whh2827@email.vccs.edu	540/905- 9103		Graded	
10		6856974	JAMISON, JORDAN RACHON	jrj28373@email.vccs.edu	540/288- 2097		Graded	
11		6491695	JENKINS II, DAVID-MICHAEL	dj2392@email.vccs.edu	540/760- 2360		Graded	-
12		7042048	JONES, HUNTER GRANT	hgj240@email.vccs.edu	804/633- 5236	804/370- 5770	Graded	

13	Г	6534023	MILLS, HEATHER ELIZABETH	hem20213@email.vccs.edu	540/872- 8491		Graded	4
14		7113219	MILLS, JEREMY WADE	jwm22291@email.vccs.edu	540/872- 8505		Graded	4
15		5684818	PASH,LOGAN GARRETT	lgp231@email.vccs.edu	540/699- 4267		Graded	4
16	Г	6780271	PLUMMER,LISAUNDRA KATHLEEN	lkp2874@email.vccs.edu	540/898- 0449		Graded	4
17	_	6648022	SCHENEMANN, JACOB KENNETH	jks27232@email.vccs.edu	540/834- 8096		Graded	4
18		7027874	SHANK, THOMAS CODY	tcs2641@email.vccs.edu	540/548- 1665	540/785- 6634	Graded	4
19		7016450	STANTON,BARRET CHRISTIAN	bcs2779@email.vccs.edu	540/623- 2987		Graded	4
20		6018317	SULLIVAN, SHAMUS T.	sts20427@email.vccs.edu	270/564- 5740	703/680- 1523	Graded	4
21	Г	7171167	WALKER, MADISON ALEXANDRA	maw23548@email.vccs.edu	540/845- 4324		Graded	4
22		7050559	WASHINGTON, DARRIUS RENDEL	drw2847@email.vccs.edu	540/840- 2973	540/710- 9310	Graded	4
23		6776465	WRIGHT, RIANE A'NADJA	raw20389@email.vccs.edu	540/353- 0938	540/890- 4766	Graded	4
24		6235233	ZURITA, JOSE A	jaz212@email.vccs.edu	540/368- 1287		Graded	4

Parking Lot Pollutants

WHEN YOU LEAVE A PARKING SPACE...

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These Pollutants

end up in storm drains and sewers...

SERMANNA

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- ✓ Take your car to the *car wash* instead of washing it in a driveway or parking lot.

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Hazards Associated with Illicit Discharges

Pathogenic and toxic pollutants from sanitary, commercial, industrial and other sources can cause <u>disease</u> upon contact or consumption. This could also cause <u>treatment problems</u> to downstream receiving waters when contaminated with heavy metals and organic toxicants. Illicit discharges from landscaped irrigation runoff, construction site dewatering, automobile washing and laundry wastes could cause excessive algal growth and could be a <u>threat to aquatic life</u>. Legal implications are governed by the Standards of Conduct for employees and the Student Handbook for students.



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Contact Facilities Management 540-423-9185

Some ways you can impact the improvement of Stormwater Run-off:

Promptly repair vehicle and equipment leaks Place *litter and cigarette butts* in trash receptacles Take your *car to the car wash* instead of washing it in a driveway or parking lot Clean up pet waste and dispose it in the garbage or flush it down the toilet Never dump anything down storm drains Utilize *recycling* programs

Properly dispose of household waste

Stormwater is water that originates during precipitation events. It can soak into the soil, be held on the surface and evaporate, or run-off and end up in nearby streams, rivers, or other water bodies.





more info mation please find us at http://www.germanna.edu/

Examples of BMP's structural control measures:

Retention basins - used to manage stormwater run-off to prevent flooding and downstream erosion, and improve water quality in an adjacent river, stream, lake or bay.

Sometimes called a **wet pond or wet detention basin**, it is an artificial lake with vegetation around the perimeter, and includes a permanent pool of water in its design.



Bioswales are landscape elements designed to remove silt and pollution from surface run-off water.



Additional examples of BMP's structural control measures:

Bioswales



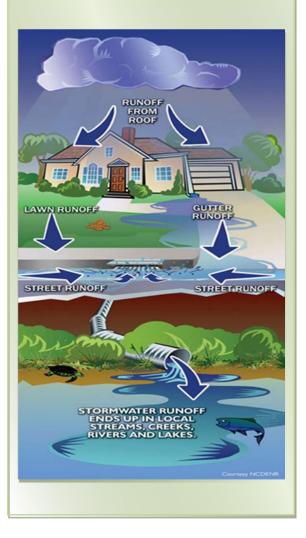






Germanna Community College

Stormwater Manangement What is stormwater? Water that originates during precipitation events. Stormwater can soak into the soil (infiltrate), be held on the surface and evaporate, or run-off and end up in nearby streams, rivers, or other water bodies (<u>surface water</u>).



What is stormwater management? Stormwater management is the process of controlling stormwater run-off for the purpose of reducing erosion, water quality degradation, and flooding.

Stormwater management control measures are often referred to as **Best Management Practices (BMPs)**.

Stormwater Management Best

Management Practices can either be nonstructural or structural measures taken to mitigate changes to both the quantity and quality of runoff.



Examples of BMP's nonstructural control measures:

Never dump anything down storm drains

Placing **litter and cigarette butts** in trash receptacles

Utilize recycling programs

Promptly **repair vehicle** and **equipment leaks**

Clean up pet waste and dispose it in the garbage or flush it down the toilet

Take your **car to the car wash** instead of washing it in a driveway or parking lot

Properly dispose household waste



Appendix C – BMP 3.1 Outfall Inventory

Germanna Community College Outfall Reconaissance Inventory

Outfall ID	Area Draining to Outfall (Acres)	Receiving Water	Receiving Water Impaired (2010 303(d)/305(b))	нис	Applicable TMDL(s)	TMDL Pollutants	Date of Last Screening	Summary of Screening Result	Details of Any Necessary Followup	Date of Followup Resolution
GCC-1	21.6	Unnamed Tributary	N/A	RA-47	Chesapeake Bay	Nitrogen, Phosphorous, and Sediment	5/25/2018	Outfall had TRICKLE FLOW with NO PHYSICAL INDICATORS of Illicit Discharge (ID) present. Inspector concluded an ID at this outfall was UNLIKELY and that NO MAINTENANCE repair was necessary on the outfall.	N/A*	N/A*
GCC-2	0.8	Unnamed Tributary	N/A	RA-47	Chesapeake Bay	Nitrogen, Phosphorous, and Sediment	5/25/2018	Outfall had NO FLOW with NO PHYSICAL INDICATORS of Illicit Discharge (ID) present. Inspector concluded an ID at this outfall was UNLIKELY and that NO MAINTENANCE repair was necessary on the outfall.	N/A*	N/A*

Note: All outfalls are received by an unnamed tributary with no impairments (2010 303(d)/305(b)), HUC RA-47. Applicable TMDLs: Nitrogen, Phosphorus, Sediment.

* Inventory and screening will be maintained per BMP 3.1 and 3.3 of the MS4 Program Plan.

Appendix D- BMP 5.2 SWM Facility Tracking Database

Germanna Community College Stormwater Facility Inventory

Facility ID	Latitude	Longitude	Type or Facility	Total Acres Treated	Pervious Acres	Impervious Acres	Date Facility Brought Online	нис	Receiving Water Impaired (2010 303(d)/305(b))	Publically or Privately Owned?	Does a Maintenace Agreement Exist?	Date of Last Inspection	# Inspections Completed During Reporting Year
GCC-SWM-1	38°14'01.0"N	77°29'42.8"W	Retention Pond	19.65	5.79	13.86	6/30/2005	RA-47	N/A	Public	N/A	5/25/2018	1
GCC-SWM-2	38°13'58.6"N	77°29'39.7"W	Bioretention	0.38	0	0.38	6/30/2012	RA-47	N/A	Public	N/A	5/25/2018	1
GCC-SWM-3	38°13'56.1"N	77°29'36.6"W	Vegetated Roof	0.13	N/A	0.13	6/30/2012	RA-47	N/A	Public	N/A	5/25/2018	1
GCC-SWM-4	38°13'47.7"N	77°29'35.2"W	Permeable Paving	0.55	N/A	0.55	6/30/2011	RA-47	N/A	Public	N/A	5/25/2018	1