MS4 Annual Report

Permit No. VAR040052

Reporting Period

July 1, 2019 – June 30, 2020

for the

Virginia Institute of Marine Science

Gloucester Point, Virginia

Contact Person: Mark Brabham Title: Director of Facilities Management

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Certification:

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

Signature: John W. Wells

Printed Name: Dr. John Wells

Title: Dean/Director

Date: October 1, 2020

GENERAL

There have been no new MS4 outfalls added during the permit year. There has been new information collected during the reporting period. There were no changes and or additions to the best management practices and the minimum control measures that had been identified in the June, 2020 reporting period. VIMS does not rely on any other government entity to satisfy any permit obligations. VIMS has not sought board approval of programs that would substitute for the requirements of §4VAC 50-60-1240, Section II B in accordance with section II C. The Total Maximum Daily Load (TMDL) requirements that are applicable to the VIMS MS4 permit are submitted in a separate report. There were no illicit discharges identified at VIMS in reference to §4VAC 50-60-1240, Section II 3 f. There were no new land disturbing activities during the reporting year. VIMS has not entered into any agreements with any third parties to implement minimum control measures or portions of minimum control measures. There are no written comments received during any public comment periods.

SUMMARY OF STORMWATER ACTIVITIES ADDED DELETED THIS REPORTING CYCLE

1. There were no stormwater BMP activities added, deleted or modified during this reporting cycle.

2. The three high-priority water quality issues that contribute or mitigate the discharge of stormwater are: vehicular pollutants, liter and debris, and sediment deposition from construction activities. These have been identified and detailed in the VIMS Illicit Discharge Detection and Elimination Program dated September 30, 2016.

3. BMPs for public involvement, outreach, and education strategy was adjusted to target the campus community directly, as well as, the region. Following are programs performed annually:

   Marine Science Day – Annual VIMS science fair that educates visitors regarding water quality and Chesapeake Bay health. This reaches 2,000 to 3,000 people annually.

   Shoreline cleanup – VIMS staff volunteer annually to clean the shoreline of the river that boarders over 50% of the campus.

   VIMS Green Team – This environmental focused committee is made up of several staff members from various departments throughout campus and meets several times a year.

   Waste Cleanup Day – Annual day to clean up debris stockpiled throughout campus. Debris are sorted for recycling.

   Campus wide communications – Messages detailing high-priority issues are addressed in a message that reaches 100% of the population. There are also strategically placed fliers to further remind and educate off campus visitors of these impacts. VIMS has also deployed markers that identifies the campuses stormwater structures.

   Various weekly and monthly educational seminars held by VIMS departments. These seminars are focused on water quality and bay health and reach thousands of people outside of the VIMS community.

4. **Future Education and Outreach:** VIMS will continue to offer annual events supporting bay life and water quality. These events can be found on the events page of the https://events.wm.edu/index.php/go/vims webpage or by contact the facilities management offices (maintenance@vims.edu) for assistance.

STATUS OF COMPLIANCE AND ASSESSMENT OF APPROPRIATENESS

The MS4 Program Plan Update required by Section II.A of 4VAC50-60-1240 renumbered as 9VAC25-890-40, *General Permit for Discharges of Stormwater from Small Municipal Separate Storm Systems* for the Virginia Institute of Marine Science, (VIMS) indicates that the objectives are appropriate to the function of VIMS and the schedule proposed to achieve the measurable goals is compliant with the conditions established by the permit.

VIMS is a Graduate School of Marine Science of the College of William and Mary, a research institute, and an advisory agency for the citizens, agencies, and government of the Commonwealth. The VIMS campus at Gloucester Point is situated on approximately 40 acres split into upper and lower areas. There are approximately 40 buildings along with parking areas, roads, sidewalks, a boat basin and canal, grassy areas, light woods, beaches, and dunes. The campus is approximately 37 percent impervious.

Public Education and Outreach on Storm Water Impacts

Permit Condition: Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impact of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

Compliance: Compliant in nine of nine BMP's.

Minimum Measure Objective: VIMS will continue the education of campus occupants and visitors, as well as, provide advisory services to policy makers, industry and the public on storm water.

Schedule: 2019-2020; Continue the approved levels of public education and outreach on storm water impacts.

Future Education and Outreach: VIMS will continue to offer annual events supporting the bay and water quality. These will include Marine Science Day, shoreline cleanup, VIMS Green Team meetings and coordinated activities, Waste Cleanup Day, campus wide communications, and various weekly and monthly educational seminars held by VIMS departments. These events can be found on the events page of the https://events.wm.edu/index.php/go/vims webpage or by contact the facilities management offices (maintenance@vims.edu) for assistance.

Assessment of Appropriateness of Best Management Practices (BMP's): Nine (9) BMP's with measurable goals are listed in the annual report. The objective is appropriate to the function of VIMS. The progress in achieving the measurable goals is compliant with the schedule.

Public Involvement/Participation

Permit Condition: At a minimum, comply with applicable state, tribal, and local public notice requirements when implementing the storm water management program.

Compliance: Compliant in five of five BMP's.

Minimum Measure Objective: Involve local stakeholder groups, including local governments, businesses, and citizens in making decisions about storm water management priorities and programs.

Schedule: 2019-2020; Continue the approved levels of public involvement/participation related to storm water impacts.

Assessment of Appropriateness of Best Management Practices (BMP's): Five (5) BMP's with measurable goals are listed in the annual report. The objective is appropriate to the function of VIMS. The progress in achieving the measurable goals is compliant with the schedule.

Illicit Discharge Detection and Elimination

Permit Condition:

a. Develop, implement and enforce a program to detect and eliminate illicit discharges, as defined in 4VAC50-60-10 renumbered as 9VAC25-870-10, into the small MS4 plan.

b. (1) Develop, if not already completed, a storm sewer map, showing the location of all major outfalls and the names and location of all surface waters that receive discharges from those outfalls;

(2) To the extent allowable under state, tribal, or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the storm sewer system and implement appropriate enforcement procedures and actions;

(3) Develop and implement a plan to detect and address non-storm water discharges including illegal dumping, to the system and

(4) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

c. The following categories of non-storm water discharges or flows (i.e., illicit discharges) must be addressed only if they are identified by the permittee or by

the Board as significant contributors of pollutants to the small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street waste water, and discharges or flows from firefighting activities.

Compliance: Compliant in nine of nine BMP's.

Minimum Measure Objective: Provide a comprehensive emergency response plan to cover the unplanned release of any hazardous material to the soil, air or water.

Schedule: 2019-2020; Continue the approved levels of proactive illicit discharge and elimination measures.

Assessment of Appropriateness of Best Management Practices (BMP's): Nine (9) BMP's with measurable goals are listed in the annual report. These practices have continued and there have been no illicit discharges. The practices are appropriate for VIMS. The progress in achieving the measurable goals is compliant with the schedule. VIMS will continue to have zero illicit discharges.

Construction Site Runoff Control

Permit Condition:

a. Develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the Board waives requirements for storm water discharges associated with small construction activity in accordance with the definition in 9 VAC 25-31-10, the permitee is not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.

b. The program must include the development and implementation of, at a minimum:

   (1) An ordinance or other regulatory mechanism to require erosion and

sediment controls, as well as sanctions to ensure compliance, to the extent allowable under state, tribal or local law;

(2) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(3) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemical, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

(4) Procedures to ensure that construction site operators have secured or will secure a VPDES construction permit;

(5) Procedures for site plan review which incorporate consideration of potential water quality impacts;

(6) Procedures for receipt and consideration of information submitted by the public, and

(7) Procedures for site inspection and enforcement of control measures.

c. Track regulated land disturbing activities and submit the following information for the reporting period with the annual report:

(1) Total number of regulated land disturbing activities; and

(2) Total disturbed acreage.

Compliance: Compliant in eight of eight BMP's.

Minimum Measure Objective: Establish erosion and sediment control (ESC) plans for all construction sites that disturb more than 2,500 square feet, including planning, installation, inspection, and maintenance of ESC practices.

Schedule: 2019-2020; Continue to implement the current measures for construction site runoff control.

Assessment of Appropriateness of Best Management Practices (BMP's): Eight (8) BMP's with measurable goals are listed in the annual report. All BMP's have continued to be practiced. The overall BMP is appropriate for VIMS. The progress in achieving the measurable goals is compliant with the schedule. There were no land disturbing activities.

Post-construction Storm Water Management in New Development and Redevelopment

Permit Condition:

a. Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts.

(1) Develop and implement strategies which include a combination of structural and/or non-structural Best Management Practices (BMPs) appropriate for your community;

(2) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under state, tribal or local law; and

(3) Ensure adequate long-term operation and maintenance by the owner of BMPs.

(4) If the MS4 discharges to the Chesapeake Bay watershed, track all permanent BMP's installed in the MS4 (structural and non-structural), and submit the following information with the annual report as required:

(a) type of BMP installed;
(b) geographic location (Hydrologic Unit Code)
(c) waterbody the BMP is discharging into
(d) number of acres treated
(e) whether or not the BMP is inspected or maintained
(f) how often the BMP is maintained (quarterly, annually, etc.).

Compliance: Compliant with twelve of twelve BMP's.

Minimum Measure Objective: Reduce the volume and improve the water quality of storm water runoff by disconnecting the impervious surfaces and installing and maintaining structural storm water controls in addition to the non-structural BMP's previously described.

Schedule: 2019-2020; Plant SAV and deploy oysters.

Assessment of Appropriateness of Best Management Practices (BMP's): Twelve (12) BMP's with measurable goals are listed in the annual report. Progress has continued on nine of eleven BMP's listed for this minimum control measure. The overall BMP is appropriate to the function of VIMS. The progress in achieving the measurable goals is compliant with the timetable.

BMP1

Type of BMP installed	**biofiltration bed (Completed 2005)**
Geographical location (Hydrologic Unit Code)	**YO69**
Waterbody the BMP is discharging into	York River
Number of acres treated	1.63
Inspected and maintained	Semi-Annually
Frequency of maintenance	N/A

BMP4

Type of BMP	**biofiltration bed (Completed 2007)**
Geographical location (Hydrologic Unit Code)	**YO69**
Waterbody the BMP is discharging into	York River
Number of acres treated	1.85
Inspected and maintained	N/A
Frequency of maintenance	N/A

BMP5

Type of BMP	**stormceptor (Completed 2007)**
Geographical location (Hydrologic Unit Code)	**YO69**
Waterbody the BMP is discharging into	York River
Number of acres treated	0.75
Inspected and maintained	Semi-Annually
Frequency of maintenance	N/A

BMP6

Type of BMP	**bioretention pond (Completed 2007)**
Geographical location (Hydrologic Unit Code)	**YO69**
Waterbody the BMP is discharging into	York River
Number of acres treated	0.23
Inspected and maintained	Semi-Annually
Frequency of maintenance	N/A

BMP7

Type of BMP	**stormceptor (Completed 2007)**
Geographical location (Hydrologic Unit Code)	**YO69**
Waterbody the BMP is discharging into	York River

Number of acres treated	0.37
Inspected and maintained	Semi-Annually
Frequency of maintenance	N/A

BMP8

Type of BMP	**biofiltrations bed (Completed 2007)**
Geographical location (Hydrologic Unit Code)	**YO69**
Waterbody the BMP is discharging into	York River
Number of acres treated	1.22
Inspected and maintained	Semi-Annually
Frequency of maintenance	N/A

BMP9

Type of BMP	**bioretention pond (Completed 2010)**
Geographical location (Hydrologic Unit Code)	**YO68**
Waterbody the BMP is discharging into	York River
Number of acres treated	0.85
Inspected and maintained	Semi-Annually
Frequency of maintenance	N/A

BMP10

Type of BMP	**bioretention basin (Completed 2017)**
Geographical location (Hydrologic Unit Code)	**YO68**
Waterbody the BMP is discharging into	York River
Number of acres treated	0.26
Inspected and maintained	Semi-Annually
Frequency of maintenance	N/A

BMP11

Type of BMP	**bioretention basin (Completed 2017)**
Geographical location (Hydrologic Unit Code)	**YO68**
Waterbody the BMP is discharging into	York River
Number of acres treated	0.24
Inspected and maintained	Semi-Annually
Frequency of maintenance	N/A

BMP12

Type of BMP	**hydro dynamic separator (Completed 2018)**
Geographical location (Hydrologic Unit Code)	**YO68**
Waterbody the BMP is discharging into	York River

Number of acres treated	5.06
Inspected and maintained	Semi-Annually
Frequency of maintenance	N/A

Pollution Prevention/Good Housekeeping for Institutional Operations

Permit Condition: Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials that are available from EPA, state, tribe, or other organizations, the program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

Compliance: Compliant with seven of seven BMP's.

Minimum Measure Objective: Reduce the amount of nutrients entering receiving waters through prudent handling of automotive fluids and materials, fertilizers, herbicides, pesticides, and snow removal chemicals.

Schedule: 2019-2020: Continue pollution/prevention/good housekeeping for institutional operations.

Assessment of Appropriateness of Best Management Practices (BMP's): Seven (7) BMP's with measurable goals are listed in the annual report. The pollution prevention BMP's have continued and are appropriate to the function of VIMS. The progress in achieving the measurable goals is compliant with the schedule.

PROGRESS ON ACTIVITIES FOR ANNUAL REPORT

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s)
1.1	Reduction of liter and debris and vehicular pollutants	Facilities Management Mark Brabham	Educated the campus community of the impact from their daily activities	Group message to the entire campus that reaches 100% of the staff and students (543 total).
1.2	Reduce and consolidate wash down areas of vehicles and equipment	Facilities Management Mark Brabham	Reduce impact of wash down runoff	Targeted loading dock and maintenance areas. Total contacted approximately 150 people (35% of active staff).
1.3	Reduction of sediment deposits	Facilities Management Mark Brabham	Create awareness of the publics impact on sediment deposits	Stencils are a reminder of the impact of illicit materials entering the stormwater system. Target to reach approximately 1,000 people (combination of staff and visitors).
1.4	VIMS Consolidated Outreach Program	Various departments throughout campus	VIMS holds various weekly and monthly seminars to educate the public's impact on water quality and the bays ecosystems health.	These seminars are held throughout the year and repeated annually reaching an estimated 5,000 – 10,000 people throughout the tidewater region. Virtual seminars will potentially increase the audiences.
1.5	Graduate-level Education in Marine Science	School of Marine Science/Dr. John Wells	Provide multiple graduate level courses in marine science.	There were 87 graduate students enrolled during the reporting period.

1.6	Volunteer Mentors for High School Students for Virginia Junior Academy of Science	Various departments throughout campus	Provide mentors for community students in areas of marine science. Provide at least one mentor	VIMS personnel mentored or advised high school students.
1.7	Provide Mentors and Judges for Science Fairs	Various departments throughout campus	Provide mentors and judges for various science fairs and the Blue Crab Bowl in areas of marine science. Host Annual Blue Crab Bowl.	VIMS provided at least 7 judges or mentors for science fairs or student symposia. VIMS hosted the Blue Crab Bowl. The event reached over 150 high school students, teachers and guests.
1.8	Provide Internet Education on Bay-Related issues	Advisory Services Dr. David Rudders	Sponsor BRIDGE program for Educators on VIMS website.	Links to 49 resources related to Chesapeake Bay lessons, data and programs are featured on the VIMS-hosted Bridge website.
1.9	CBNERRVA Outreach Program	CBNERRVA Dr. William Reay	Enhance public appreciation and awareness of estuaries. Reach 100 participants.	CBNERR Public Outreach programs (including Discovery Labs, Estuaries Day, Virginia and County Science Festivals) reached over 1,000 participants. The Institute's Marine Science Day reached approximately 3,000 individuals.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s)
2.1	Shoreline Cleanup	VIMS Green Team Meredith Evans Seeley	Sponsor a cleanup event for the campus river shoreline.	Annual cleanup events involving volunteers from campus staff target campus the shoreline and other areas throughout the county.
2.2	Environmental Advisory Committee	VIMS Green Team Meredith Evans Seeley	Develop a committee to promote sustainable best practices and manage environmental programs and projects.	VIMS students, faculty, staff, and members of the local community have come together to address our impact on both the Chesapeake Bay watershed and the planet as a whole.
2.3	Campus Waste Cleanup Day	Facilities Management Mark Brabham	Sponsor a cleanup event for the campus grounds.	Annual cleanup event involving volunteers from campus staff targeted to cleanup deteriorating stockpiled metals for recycling.
2.4	Storm Water Reduction Education	Communications David Malmquist	Participate in public events to promote Chesapeake Bay preservation issues. Reach 500 participants.	Marine Science Day at VIMS reached 3,000 participants.
2.5	Publish MS4 Plan and Report on VIMS Website	Facilities Management Mark Brabham	Maintain MS4 Update/Report on website annually	The MS4 Update and Report is published on the Facilities Management website annually.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s)
3.1	Hazardous Materials Emergency Response Plan	Safety Eric Fidler	Maintain a hazardous materials management plan in accordance with OSHA on the website.	Complete
3.2	Train Personnel for Hazardous Material Handling	Safety Eric Fidler	Provide yearly training for personnel involved in hazmat handling.	Complete
3.3	Participate in State Hazardous Material Initiatives	Safety Eric Fidler	Participate in the Virginia Emergency Operations Plan annually.	Respond as required or requested
3.4	Participate in Local Emergency Planning	Chief Operating Officer Joseph Martinez	Participate in Local Emergency Planning Committee annually.	Attended Gloucester County's Local Emergency Planning Committee meeting
3.5	Hazardous Material Storage Safety	Safety Eric Fidler	Provide two containment facilities for hazmat.	Refurbishment of one facility complete. Further changes to the program will be incorporated with an upcoming capital construction project.

3.6	Hazardous Material Spill Plan	Safety Eric Fidler	Maintain a Spill Prevention Contingency on the website.	Hazardous Spill plan is published on the Office of Safety and Environmental Programs website.
3.7	Ensure No Failing Septic Systems	Facilities Management Mark Brabham	Inspect and/or replace septic systems.	VIMS has removed all septic systems.
3.8	Storm Sewer Map	Facilities Management Mark Brabham	Maintain Storm Sewer Map.	VIMS has maintained the Storm Sewer Map.
3.9	Inspect Outfalls	Facilities Management Mark Brabham	Inspect 12 outfalls annually.	All outfalls were inspected during the reporting period.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s)
4.1	Responsible Land Disturber	Facilities Management Mark Brabham	Have certified responsible land disturber on campus.	VIMS has maintained a certified land disturber on campus.
4.2	Erosion and Soil Control Plans	Facilities Management Mark Brabham	Require ESC for any disturbance greater than 2,500 sq. ft.	VIMS has required ESC for any disturbance greater than 2,500 square feet.
4.3	Perimeter Controls	Facilities Management Mark Brabham	Require perimeter controls in accordance with DEQ	Controls were not required.
4.4	Inspect Erosion & Soil Control Measures	Facilities Management Mark Brabham	VIMS project managers to inspect sites daily	Inspections are performed on construction projects as required.
4.5	Stabilize Soils at End of Projects	Facilities Management Mark Brabham	Stabilize soils before erosion and soil controls are removed.	VIMS requires that soils be stabilized at the end of a construction project.
4.6	VPDES Construction Permits	Facilities Management Mark Brabham	Obtain VPDES permits for one acre or more.	VIMS has obtained a VPDES VSMP permit for every project of one acre or more and for those that disturb more than 2,500 sq. ft. in the RMA.

4.7	Follow College of William and Mary ESC Plan Review Procedure	Facilities Management Mark Brabham	Maintain records of all projects submitted for plan review	VIMS has followed the College of William and Mary ESC procedures.
4.8	Ensure ESC inspectors are certified by DCR	Facilities Management Mark Brabham	Check DEQ certifications of ESC inspectors annually.	VIMS employees have attended required DEQ training and are certified.

5. Post-Construction Storm Water Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s)
5.1	Determine Impervious/Pervious Area of VIMS	Facilities Management Mark Brabham	Baseline impervious/pervious area and update as needed.	The plan was updated in September, 2016.
5.2	Develop Topographical Maps for Drainage	Facilities Management Mark Brabham	Develop electronic files of drainage patterns.	The plan was updated in September, 2016.
5.3	Determine Present and Planned Pollutant, Phosphorus	Facilities Management Mark Brabham	Determine baseline and expansion phosphorus loadings.	Current baseline and expansion loadings was updated in June, 2018.
5.4	Add Structural BMP's	Facilities Management Mark Brabham	Divert storm water from running to York River with BMP's	No new structural BMPs were required.
5.5	Reduce Impervious Surfaces	Facilities Management Mark Brabham	Demolish old structures after planned expansion & plant green space.	This was accomplished in a previous reporting period.
5.6	Coordinate BMP's With Agencies at Gloucester Point	Facilities Management Mark Brabham	Coordinate a comprehensive storm water plan for Gloucester Point.	VIMS has coordinated the maintenance of stormwater structures with the Gloucester County and VDOT.

5.8	Stormwater Master Plan	Facilities Management Mark Brabham	Develop and submit a master plan to CBLAD.	The master stormwater management plan completed in September, 2016.
5.10	Alternative non-structural BMP's	Coastal Resources Management Dr. Carl Hershner	Improve watersheds on and off campus like the teaching marsh.	We continue to maintain the floating wetland islands in the non-tidal portion of the teaching marsh as potential water quality improvement and include them on teaching marsh tours
5.11	Shellfish BMP's	Aquaculture Breeding Technology Dr. Standish Allen	Deploy shellfish as filtering BMP's. Deploy 200,000 shellfish annually.	We deployed approximately 1 million oysters as part of our farm that will act as filtering BMPs.
5.12	Inspect Structural BMP's	Facilities Management Mark Brabham	Inspect twelve BMP's annually for sedimentation and capture of flow.	Twelve Structural BMP's were inspected during the reporting period.

6. Pollution Prevention and Good Housekeeping in Institutional Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s)
6.1	Automotive Recycling Storage	Facilities Management Mark Brabham	Store batteries, anti-freeze, and oils indoors or approved containers	Batteries, anti-freeze, and oils have either been stored indoors or in double walled containers.
6.2	No Lawn Fertilizers on Steep Slopes	Facilities Management Mark Brabham	Do not apply fertilizers on slopes over 5%.	VIMS has not applied fertilizer on slopes over 5%. As mentioned less than 30 pounds of fertilizer are applied annually to an area less than an acre.
6.3	Do Not Apply Herbicides	Facilities Management Mark Brabham	Do not apply herbicides.	VIMS has not applied herbicides in the reporting period.
6.4	Store and Apply Snow Removal Chemicals Sensibly	Facilities Management Mark Brabham	Store calcium chloride in protected areas.	Sodium chloride was stored in covered sheds during the reporting period.
6.5	Spill Control Response	Facilities Management Mark Brabham	VIMS has extensive response plans as described earlier.	VIMS has maintained the spill control plans
6.6	Pollution Prevention Training	Facilities Management Mark Brabham	VIMS will train FM staff in Pollution Prevention Annually.	All of the Facilities Management staff received pollution prevention training during this reporting period.

6.7	Nutrient Management Plan	Facilities Management Mark Brabham	Develop and maintain a nutrient management plan	A second nutrient management plan was developed for and approved by DCR in a previous reporting period. An update to the plan is being developed for the next reporting period.
6.8	SWPPP #1 Vehicle Pollutants	Facilities Management Mark Brabham	Develop and maintain a prevention plan for High Priority Quality Issue	Vehicles are maintained within a covered garage. Vehicles are cleaned in a designed vehicle washing station.
6.9	SWPPP #2 Litter and Debris	Facilities Management Mark Brabham	Develop and maintain a prevention plan for High Priority Quality Issue	Grounds staff police grounds on a daily basis. Waste and recycling receptacles are provided throughout the campus on pedestrian routes.
6.10	SWPPP #3 Sediment Deposit from Land Dist. Activities	Facilities Management Mark Brabham	Develop and maintain a prevention plan for High Priority Quality Issue	There were no Land disturbing projects performed during this reporting period. Future projects will be designed and maintained in accordance to the W&M ESC Procedures.
6.11	SWPPP #4 – Boat Basin Activities	Field Operations Stuart Lambert	Develop and maintain a prevention plan for High Priority Quality Issue	Field Ops will be trained during the next reporting period. Field Ops work areas are reviewed on a regular basis.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) *<<if applicable>>*

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s)
				See separate document for TMDL Action Plan

Part IV. Summary of Information Collected and Analyzed

Monitoring of stormwater runoff is not required.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	n
Annual program budget/expenditures	($)	TBD

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	1,000's
Stormwater management committee established	(y/n)	n
Stream teams established or supported	(# or y/n)	n
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y / 0.50 miles
Institute Hazardous Waste Collection Days		
▪ days sponsored	(#)	y
▪ community participation	(%)	0
▪ material collected	(tons or gal)	unknown
School curricula implemented	(y/n)	y

Legal/Regulatory

Regulatory Mechanism Status (indicate with "**X**")			dopt
▪ Illicit Discharge Detection & Elimination			x
▪ Erosion & Sediment Control			x
▪ Post-Development Stormwater Management			x
Accompanying Regulation Status (indicate with "**X**")			
▪ Illicit Discharge Detection & Elimination			x
▪ Erosion & Sediment Control			x
▪ Post-Development Stormwater Management			x

Mapping and Illicit Discharges

Outfall mapping complete	(%)	100
Estimated or actual number of outfalls	(#)	12
System-Wide mapping complete	(%)	y
Mapping method(s)		
▪ Paper/Mylar	(%)	100
▪ CADD	(%)	100
▪ GIS	(%)	0
Outfalls inspected/screened	(# or %)	100
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0

% of population on sewer	(%)	100
% of population on septic systems	(%)	0

Construction

Number of construction starts (>1-acre)	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100
Site inspections completed	(# or %)	100
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and $)	0
Complaints/concerns received from public	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100
Site inspections completed	(# or %)	100
Estimated volume of stormwater recharged	(gpy)	205,600

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	0

Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1
Total number of structures cleaned	(#)	1
Storm drain cleaned	(LF or mi.)	0
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	0
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	($)	0

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	0
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	0
Qty. of sand/debris collected by sweeping	(lbs. or tons)	0
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	0
Cost of sweepings disposal	($)	0
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	0

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	Less than 100#

▪ Herbicides	(lbs. or %)	0
▪ Pesticides	(lbs. or %)	0

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	0 10 90
Pre-wetting techniques utilized	(y/n)	n
Manual control spreaders used	(y/n)	y
Automatic or Zero-velocity spreaders used	(y/n)	n
Estimated net reduction in typical year salt application	(lbs. or %)	0
Salt pile(s) covered in storage shed(s)	(y/n)	y
Storage shed(s) in design or under construction	(y/n)	N/A

APPENDIX A: INSPECTION FORMS