

Facilities Management P.O. Box 8795 Williamsburg, VA 23187-8795 (757) 221-2275

September 29, 2017

Matt Fanghella Commonwealth of Virginia Department of Environmental Quality 5636 Southern Blvd. Virginia Beach, VA 23462

RE: MS4 Annual Report for the College of William and Mary Permit #VAR040039

Dear Mr. Fanghella:

Enclosed is the referenced annual report for your review. Please do not hesitate to contact me with any questions.

Sincerely,

Van Dobson, P.E.

Associate VP for Facilities Management / Chief Facilities Officer

Copy to:

File

Glenn Telfer, P.E., Draper Aden

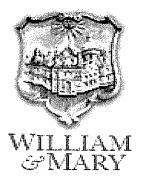
Jeff Brancheau, P.E.

Gregg Shipp, P.E.

## VPDES MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT VAR040039

## ANNUAL REPORT PERIOD JULY 1, 2016 TO JUNE 30, 2017

## THE COLLEGE OF WILLIAM & MARY



September 29, 2017

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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.

Responsible Official Signature

Date

S-429,17

Van Dobson, Vice President for Facilities Management

VAR040039

College of William and Mary

Permit Number

MS4 Name

#### I. INTRODUCTION

The College of William and Mary (university) was issued an MS4 permit in 2003 by the Commonwealth of Virginia. This permit sets forth minimum requirements for the operation of the College's storm sewer system, including storm water treatment systems (BMPs) and is reissued every five years. The permit requires an annual report to be submitted to Virginia DEQ by October 1, 2017 describing progress on meeting permit requirements during the period July 1, 2016 to June 30, 2017. The College has met all permit requirements during the reporting period.

## II. COMPLIANCE SUMMARY

In multiple sections of the MS4 permit, the permit lists specific items to be addressed in the Annual Report. The following are the items listed in the permit in italic typeface followed by responses in bold typeface:

#### Section I, Part B5

a. The operator shall submit the required TMDL Action Plans with the appropriate annual report and in accordance with the associated schedule identified in this state permit.

Response: There are no TMDL Action Plans required to be submitted in the reporting cycle as specified in Table 1 of the permit. The Powhatan/Mill Creek Action Plan and the Chesapeake Bay TMDL Action Plan were included in previous Annual reports and have been approved by DEQ. The university has raised questions concerning the Powhatan/Mill Creek approval letter which have not been addressed by DEQ. Relevant correspondence attached as Appendix A.

b. On an annual basis, the operator shall report on the implementation of the TMDL Action Plans and associated evaluation including the results of any monitoring conducted as part of the evaluation.

Response: The implementation of the two TMDL Action Plans are summarized below:

#### **Chesapeake Bay TMDL**

The university has achieved compliance with the current permit term of the Chesapeake Bay TMDL through existing non-regulatory BMPs, therefore no action is required this permit term (2013-2018). The university has started construction to provide permanent pools and sediment forebays on two existing BMPs to provide nutrient and TSS removals in compliance with the next permit term (2018-2023).

Monitoring is not required and no monitoring is currently being conducted as part of TMDL compliance.

#### Powhatan/Mill Creek TMDL

In compliance with the Powhatan/Mill Creek TMDL, the university is continuing existing efforts documented in the TMDL Action Plan. Ongoing observations of the Dillard Complex indicate that measures have been successful in preventing the deposition of pet waste.

Monitoring is not required and no monitoring is currently being conducted as part of TMDL compliance.

#### Section I, Part C (Special Condition for the Chesapeake Bay TMDL)

- 4. Annual reporting requirements.
- a. In accordance with Table 1, the operator shall submit the Chesapeake Bay Action Plan with the appropriate annual report.
  - Response: The Chesapeake Bay TMDL Action Plan was submitted to DEQ in the 2015 Annual Report and was approved by DEQ (letter dated February 22, 2016).
- b. Each subsequent annual report shall include a list of control measures implemented during the reporting period and the cumulative progress toward meeting the compliance targets for nitrogen, phosphorus, and total suspended solids.
  - Response: The Chesapeake Bay TMDL Action Plan does not have any required reductions in this permit term (2013 2018), therefore no control measures to achieve reductions in nitrogen, phosphorus, or suspended solids will be implemented during the next reporting period.
- c. Each subsequent annual report shall include a list of control measures, in an electronic format provided by the department, that were implemented during the reporting cycle and the estimated reduction achieved by the control. For stormwater management controls, the report shall include the information required in Section II B 5 e and shall include whether an existing stormwater management control was retrofitted, and if so, the existing stormwater management control type retrofit used.
  - Response: The Chesapeake Bay TMDL Action Plan does not have any required reductions in this permit term (2013 2018), therefore no control measures to achieve reductions in nitrogen, phosphorus, or suspended solids will be implemented during the next reporting period.
- d. Each annual report shall include a list of control measures that are expected to be implemented during the next reporting period and the expected progress toward meeting the compliance targets for nitrogen, phosphorus, and total suspended solids.
  - Response: The Chesapeake Bay TMDL Action Plan does not have any required reductions in this permit term (2013 2018), therefore no control measures to achieve reductions in nitrogen, phosphorus, or suspended solids will be implemented during the next reporting period.

#### Section II, Part B, MCM #1

- g. The operator shall include the following information in each annual report submitted to the department during this permit term:
  - (1) A list of the education and outreach activities conducted during the reporting period for each highpriority water quality issue, the estimated number of people reached, and an estimated percentage of the target audience or audiences that will be reached; and

Response: The high priority water quality issues identified by the university are: Nutrient Management, Erosion Control, and Plastics Diversion. Total target population is approximately 8,500 students, 1,500 faculty, and 2,400 staff. Below is a summary of activities with required information:

High-Priority Water Quality Issue	Education and Outreach Activities	Target Audience	Percentage of Target Audience Reached	Documentation
Nutrients Management (includes water chemistry)	Staff Training	Grounds supervisors and Turf Mgmt. Staff -15 personnel	100% of staff trained	Training records available upon request
Erosion Control	ESC Briefings prior to start of Construction  W&M EH&S Newsletter  Monthly New Employee Orientation	Contractors  Students – 8,500  Faculty & staff – 3,900	100% of Contractor representatives for construction projects over 2,500 sf disturbance  75% of W&M target audience reached through education & outreach activities  98% New Employees	EH&S Newsletter Summer 2017 – email distribution; 75% target population  Approved Erosion & Sediment Control Plans available upon request. ESC inspection reports available upon request.
Plastics Diversion	Seminars  W&M EH&S Newsletter  Monthly New Employee Orientation  Facebook, twitter, weekly Sustainability announcements, student blogs	Students – 8,500 Faculty & staff – 3,900	75% of target audience reached through various education and outreach activities	EH&S Newsletter Summer 2017 - email distribution; 75% target population  APPA Facilities Manager Article: Reducing Harmful Environmental Effects of Cigarette Butt Litter - National publication

(2) A list of the education and outreach activities that will be conducted during the next reporting period for each high-priority water quality issue, the estimated number of people that will be reached, and an estimated percentage of the target audience or audiences that will be reached.

Response: The university plans to continue similar education and outreach activities during the next reporting period and expects that approximately the same number of people and percentage of the target audience will be reached.

#### Section II, Part B, MCM #2

- e. Each annual report shall include:
  - (1) A web link to the MS4 Program Plan and annual report; and

Response: This Annual Report, including the current MS4 Program Plan will be posted to the following link within 30 days of submittal of this Annual Report to DEQ: Link:

http://www.wm.edu/offices/facilities/services/stormwater/folder-with-content-page/index.php

(2) Documentation of compliance with the public participation requirements of this section.

Response: The university participated in the following local activities:

Meet the Greens Event, Hosted by W&M Sustainability, August 30, 2016, Sunken Gardens

Recycle Mania's Annual Tournament, February 5 - April 1, 2017

Link: http://www.wm.edu/sites/sustainability/initiatives/recycling/recycle mania/index.php

<u>Lake Matoaka Clean-up Day</u>, April 22, 2017, faculty led clean-up activity – focus on stream that runs from Crim Dell to Lake Matoaka. EH&S donated trash bags and disposable gloves for the event.

Earth Week, April 17-22, 2017

Link: http://www.wm.edu/sites/sustainability/initiatives/earth-week/index.php

**4th Annual Sustainability Summit: Food for Thought, Food for Action** - The Summit brings together campus and community to engage on sustainable food issues, such as hunger, environmental impacts, and the history of what we eat. 32 interested; 59 attended **Link:** <a href="http://www.wm.edu/sites/sustainability/initiatives/sustainabilitysummit/">http://www.wm.edu/sites/sustainability/initiatives/sustainabilitysummit/</a>

Eco-Schools Leadership Initiative, W&M Student Environmental Action Coalition Link: <a href="http://seac.blogs.wm.edu/campaigns/eco-school-leadership-initiative">http://seac.blogs.wm.edu/campaigns/eco-school-leadership-initiative</a>

Talia Schmitt: Eco-Schools - 2017 Campus Safety Health and Environmental Management Association (CSHEMA) Scholarship Award Winner for environmental sustainability work. Link: http://www.eslileaders.org/executive-board.html

**Faculty Presentation to City of Williamsburg, October 2016** - Presented a local water quality overview as part of the Earth Stewardship Program at the Williamsburg Presbyterian Church. 20 People

Presented a local water quality overview, October 2016 - part of the Earth Stewardship Program at the Williamsburg Presbyterian Church. 20 People

<u>Conference: Living with the Water – Too Much and Too Little, December 2, 2016</u> - W&M Law School's Virginia Coastal Policy Center

Link:

http://law.wm.edu/academics/programs/jd/electives/clinics/vacoastal/conferences/Living%20with%20the%20Water%20Too%20Much%20and%20Too%20Little/index.php

#### Section II, Part B, MCM #3

(3) Within 48 months of coverage under this state permit, the operator shall have a complete and updated storm sewer system map and information table that includes all MS4 outfalls located within the boundaries identified as "urbanized" areas in the 2010 Decennial Census and shall submit the updated information table as an appendix to the annual report.

Response: The university's MS4 system is completely mapped and is included in both the Stormwater Management Plan and the university's GIS system. The required table was submitted with a previous Annual Report. The university is in the process of updating mapping to add two outfalls constructed during the reporting period.

- f. Annual reporting requirements. Each annual report shall include:
  - (1) A list of any written notifications of physical interconnection given by the operator to other MS4s;

Response: The university's MS4 system is interconnected with systems owned by the City of Williamsburg and VDOT. The university has and continues to coordinate with both of these entities to identify the location and number of interconnections. No written notice of physical interconnections was given by the university during this reporting period because no new interconnections were made.

(2) The total number of outfalls screened during the reporting period, the screening results, and detail of any follow-up actions necessitated by the screening results; and

Response: During the reporting period, the university screened all of its 55 outfalls. There were no signs of illicit discharges and no follow-up actions were required.

(3) A summary of each investigation conducted by the operator of any suspected illicit discharge. The summary must include: (i) the date that the suspected discharge was observed, reported, or both; (ii) how the investigation was resolved, including any follow-up, and (iii) resolution of the investigation and the date the investigation was closed.

Response: During the reporting period, there were two investigations of suspected illicit discharges. These investigations were as follows:

#### Campus Center Wash Water Discharge

On October 28, 2016, a member of Facilities Management noticed contract employees cleaning kitchen grease hood filters outside near a storm inlet. The university stopped the operation and implemented written procedures. It was determined that wash water containing a degreasing chemical had reached a stormwater inlet, but since the inlet had a sump, no wash water had reached the storm sewer. The contaminated water was removed from the inlet and contractor personnel were retrained.

Landrum Drive Pump Station Sanitary Spill

On August 19, 2016, the Landrum Drive sanitary pump station overflowed within the containment berm. Less than 500 gallons overflowed the containment. The university

implemented written procedures and cleaned up the spill using an emergency contractor. It was determined that a lightning strike caused a power outage and surge that disabled the pump and high level alarm.

#### Section II, Part B, MCM #4

- g. Reporting requirements. The operator shall track regulated land-disturbing activities and submit the following information in all annual reports:
  - (1) Total number of regulated land-disturbing activities;

#### Response:

Of the land disturbance activities listed in the previous report, the following were on-going at the end of the current reporting period (July 1, 2016 – June 30, 2017):

**Integrated Science Center (ISC3)** 

Of the land disturbance activities listed in the previous report, the following were completed during the current reporting period (July 1, 2016 – June 30, 2017):

Dillard Soccer Practice Field Law School Addition Zable Stadium Tyler Hall

During the current reporting period (July 1, 2016 – June 30, 2017), the following land disturbance activities were initiated:

Lodges demo/Integrated Wellness Center (IWC) building
Busch Field Turf install
Landrum Hall renovation
Dillard Soccer Practice field (initiated and completed in reporting period)

The following land disturbance activities were initiated after the current reporting period and will be included in the next Annual Report:

Plumari Field drainage improvements

(2) Total number of acres disturbed;

#### Response:

The following are the disturbed areas for each of the land disturbance activities initiated during the current reporting period (July 1, 2016 - June 30, 2017):

Lodges demo/Integrated Wellness Center (IWC) building – 1.85 acres Busch Field Turf install – 1.65 acres Landrum Hall renovation – .98 acres Dillard Soccer Practice field – 3.71 acres

(3) Total number of inspections conducted; and

Response: During construction, 55 inspections were conducted by the university's ESC Inspector after every significant rain event and at least every two weeks.

(4) A summary of the enforcement actions taken, including the total number and type of enforcement actions taken during the reporting period.

Response: As the university is the contract holder for all of the land disturbance activities on campus and the ESC inspector represents the university, any deficiencies in ESC measures or practices are resolved immediately. There were no enforcement actions taken during the reporting period.

#### Section II, Part B, MCM #5

The operator shall submit an electronic database or spreadsheet of all stormwater management facilities brought online during each reporting year with the appropriate annual report. Upon such time as the department provides the operators access to a statewide web-based electronic database or spreadsheet, the operator shall utilize such database to complete the pertinent reporting requirements of this state permit.

Response: The following are the stormwater management facilities brought online during the reporting period:

Law School addition detention system (detention only) Busch Field level spreader

Required stormwater management facility reporting information is attached as Appendix B.

#### Section II, Part B, MCM #6

- h. Annual reporting requirements.
  - (1) A summary report on the development and implementation of the daily operational procedures;

Response: The MS4 permit requires the development and implementation of written procedures to minimize pollutant discharge from (i) daily operations such as road, street, and parking lot maintenance; (ii) equipment maintenance; and (iii) the application, storage, transport, and disposal of pesticides, herbicides, and fertilizers.

All required written procedures have been developed and were implemented during the reporting period.

(2) A summary report on the development and implementation of the required SWPPPs;

Response: After a complete analysis of all of the university's maintenance and operations facilities, it was determined that none meet the criteria for a "high-priority" facility provided in the MS4 permit. Therefore, no SWPPPs for maintenance and operations facilities are required.

- (3) A summary report on the development and implementation of the turf and landscape nutrient management plans that includes:
  - (a) The total acreage of lands where turf and landscape nutrient management plans are required; and

Response: 54.2 acres

(b) The acreage of lands upon which turf and landscape nutrient management plans have been implemented; and

Response: Nutrient management plans have been implemented for all required areas (54.2 acres).

(4) A summary report on the required training, including a list of training events, the training date, the number of employees attending training and the objective of the training.

Response: A summary of training information is provided as Appendix C.

On a routine basis good housekeeping practices, illicit discharge prevention and response, and nutrient management training is conducted with all Grounds supervisors. The supervisors provide training to all workers. In addition, good housekeeping and illicit discharge prevention and response training is provided at monthly crew meetings.

#### Section II, Part E3 (Conditions Common to All Permits)

- 3. Annual reports. The operator must submit an annual report for the reporting period of July 1 through June 30 to the department by the following October 1 of that year. The reports shall include:
- a. Background Information.
  - (1) The name and state permit number of the program submitting the annual report;

Response: The required information is on the cover sheet of this Annual Report.

(2) The annual report permit year;

Response: The required information is on the cover sheet of this Annual Report.

(3) Modifications to any operator's department's roles and responsibilities;

Response: During the reporting period there have been no modifications to roles or responsibilities. During the reporting period, the Director of Facilities Planning, Design, and Construction retired. His replacement commenced employment after the reporting period.

(4) Number of new MS4 outfalls and associated acreage by HUC added during the permit year; and

Response: The following outfalls were added during the reporting period:

Law School addition – a pipe outfall Busch Field Turf install – a level spreader

See Appendix B for additional details on the new outfalls. Outfall mapping is in the process of being updated.

(5) Signed certification;

Response: See signed certification immediately after the cover page of this report.

b. The status of compliance with state permit conditions, an assessment of the appropriateness of the identified best management practices and progress towards achieving the identified measurable goals for each of the minimum control measures;

Response: The university is in compliance with MS4 permit conditions. The university has assessed the BMPs in the Program Plan and determined that they are appropriate. Specific progress on the measurable goals within the Program Plan, required to be reported by the permit, is included in the Annual Report.

Additionally, the university reviewed all requirements of the Program Plan and determined that required goals were generally met for this reporting period subject to the following additional comments:

MCM No. 6: Requirement 6.d (7) and (8): Athletics, Recreational Sports, and William & Mary Police Department conduct and document their own training. In accordance with Requirement 6.d (9), FM continues to work toward consolidation of training conducted by other departments in FY18 and future years.

Additional information is available upon request.

There were no updates to the Program Plan made during the reporting period.

c. Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

Response: There was no reportable information collected during the reporting period.

d. A summary of the stormwater activities the operator plans to undertake during the next reporting cycle;

Response: During the next reporting period (July 1, 2017 to June 30, 2018) the university plans to complete construction of some of the projects required to address Chesapeake Bay TMDL compliance for the next permit cycle (2018 - 2023). The university also plans to continue to review and amend the MS4 Program Plan in accordance with the terms of the current permit.

e. A change in any identified best management practices or measurable goals for any of the minimum control measures including steps to be taken to address any deficiencies;

Response: There were no updates to the Program Plan made during the reporting period.

f. Notice that the operator is relying on another government entity to satisfy some of the state permit obligations (if applicable);

Response: While the College of William & Mary is closely coordinating efforts with adjacent government entities, the university is not relying on another government entity to satisfy any of the state permit obligations.

g. The approval status of any programs pursuant to Section II C (if appropriate), or the progress towards achieving full approval of these programs; and

Response: The university has not sought approval for alternate programs under Section IIC.

h. Information required for any applicable TMDL special condition contained in Section I.

Response: There are no special condition applicable to the university in Section I.

## APPENDIX A

Correspondence regarding Powhatan/Mill Creek TMDL Action Plan



## COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

Molly Joseph Ward Secretary of Natural Resources 5636 Southern Boulevard, Virginia Beach, Virginia 23462 (757) 518-2000 Fax (757) 518-2009 www.deq.virginia.gov

David K. Paylor Director

Muria R. Nold Regional Director

02/23/2016

Van Dobson College of William and Mary P.O. Box 8795 Williamsburg, VA 23187

Transmitted electronically:

vdobson@wm.edu

RE:

Virginia Pollutant Discharge Elimination System (VPDES) MS4 Permit #VAR040039, College of William and Mary, Local TMDL Action Plan Approval

Dear Mr. Dobson:

The Virginia Department of Environmental Quality (DEQ) has reviewed the Local TMDL Action Plan(s) received on October 1, 2015 in accordance with Section I.B of the General VPDES Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4). Additional information was received November 17, 2015 and January 29, 2016.

The following Local TMDL Action Plan is approved and is an enforceable part of the MS4 Program Plan:

TMDL Name	Pollutant of Concern	Individual Watershed WLAs	
Bacteria Total Maximum Daily	E. Coli (Mill Creek)	0.4 x 10 <sub>12</sub>	
Load Development for Mill Creek	Enterococci (Powhatan Creek)	0.03 x 10 <sub>12</sub>	
and Powhatan Creek	E. Coli (Powhatan Creek)	0.2 x 10 <sub>12</sub>	

Please note any modifications to an approved Local TMDL Action Plan shall be made in accordance with the Program Plan Modification Section of the MS4 General Permit (Section II.F).

Please contact Angela McDowell at (757) 518-2136 or at <a href="mailto:angela.mcdowell@deq.virginia.gov">angela.mcdowell@deq.virginia.gov</a> if you have any questions.

Sincerely,

anet F. Weyland

Deputy Regional Director





Facilities Management P.O. Box 8795 Williamsburg, VA 23187-8795 (757) 221-2275

May 6, 2016

Ms. Janet F. Weyland
Deputy Regional Director
Department of Environmental Quality
Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, VA 23462

RE: Virginia Pollutant Discharge Elimination System (VPDES) MS4 Permit VAR0400039, College of William & Mary, DEQ letter dated 02/23/2016

Dear Ms. Weyland:

The College of William and Mary is in receipt of your letter dated February 23, 2016 providing approval of the Powhatan/Mill Creek TMDL Action Plan. This letter includes a statement "The following Local TMDL Action Plan is approved and is an enforceable part of the MS4 Program Plan:" which is followed by a table assigning individual watershed Waste Load Allocations (WLAs) to the College for three pollutants of concern. The three pollutants of concern are listed as: E. Coli (Mill Creek), Enterococci (Powhatan Creek), and E. Coli (Powhatan Creek).

When we compare the WLAs listed in the approval letter to the TMDL document, we have noted the following:

- The WLA values in the approval letter seem to match the WLAs in the TMDL document (Tables ES-9, ES-10, and ES-11 on page 11), but seem to be switched between categories. For example the WLA for E. Coli (Powhatan Creek) is 0.4 x 10^12 in the TMDL document, but 0.2 x 10^12 in the approval letter.
- The TMDL document developed WLAs only for James City County and the City of Williamsburg. The load from the College was aggregated with the City of Williamsburg. However, the WLAs in the approval letter seems to assign the entire WLA in each category to the College.
- The TMDL Action Plan that was submitted to DEQ was clear that no portion of the College drains to Mill Creek, however the approval letter assigns a WLA for Mill Creek to the College.

The College understands that this approval letter is enforceable by DEQ and requests that DEQ provides clarifications and, if necessary, a revised approval letter.

Any correspondence should be addressed to Mr. Van Dobson, Associate VP of Facilities Management, College of William & Mary, 115 Grigsby Drive, Williamsburg, VA 23185. Please also copy the Mr. Gregg Shipp, Director of Operations and Maintenance and Mr. Glenn—Telfer with Draper Aden Associates. If you have any questions, please feel free to contact Gregg Shipp at 757-221-1205 or <a href="maintenance">gshipp@wm.edu</a>.

Sincerely,

Van Dobson

Associate VP of Facilities Management

Cc: Aaron Small – City of Williamsburg Glenn Telfer, Draper Aden Associates

### APPENDIX B

New Stormwater Management Facilities

# Appendix 🗣 🛭

College of William & Mary Stormwater Manangement Facilities New Stormwater Management Facilities July 1, 2016 to June 30, 2017

## APPENDIX C Summary Report of Training Events

## Appendix 🛡 Ҁ

College of William & Mary Stormwater Manangement Facilities Summary Report of Training Events July 1, 2016 to June 30, 2017

6.a - Operations and Maintenance Activities 7/1/16 - 6/30/17

Measurable Goals

2017 Grounds and Gardens Response

Record NMP and pollution prevention training.

Training 2017

Attending

Stormwater Updates, Phase III 2017 - higher

Purpose

standards for nutrient removal

Nutrient Management License Update

McFarlane, Morie, Trowbridge, Harris, Groman, Morrison, Russell Pesticide Recertification

Fertilizer updates, calibration, applying correctly

BMP water quality, role of trees in BMPs

McFarlane, Morie, Trowbridge, Mattie, Owen, Seawell

McFarlane, Morie, Russell, Groman, Morrison

Upgrading plantings in BMPs to slow down runoff

Monitoring and correct use of systems

1/25/17 BMP Training

1/17-19/17 Mid-Atlantic Horticulture Short Course (MAHSC) McFarlane, Morie

Mattie

9/27/2017 Chesapeake Stormwater Network

2/1/17 NMP Training

McFarlane, Mattie, Trowbridge, Owen, Morie

McFarlane, Groman, Morie

4/5/17 Irrigation Systems 3/8/17 BMP Plantings