

**VPDES MUNICIPAL SEPARATE STORM SEWER SYSTEM
(MS4) PERMIT
VAR 040128**

REPORTING PERIOD JULY 1, 2017 TO JUNE 30, 2018

**DEPARTMENT OF JUVENILE JUSTICE (DJJ) BON AIR
FACILITY**



September 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 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.

J.C. Patten 10/1/18
Responsible Official Signature Date

Print Name: Jamie Patten Title: Deputy Director of Administration & Finance Division

VAR040128 VA Dept. of Juvenile Justice - Consolidated MS4s at Bon Air
Permit Number MS4 Name

I. INTRODUCTION

On April 18, 2014, the Department of Juvenile Justice (DJJ) was issued an MS4 permit by the Virginia Department of Environmental Quality (DEQ) for the Bon Air facility. This permit sets forth minimum requirements for the operation and maintenance of the 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 DEQ by October 1, 2018 describing progress on meeting permit requirements during the period from July 1, 2017 to June 30, 2018.

DJJ Bon Air has met the permit requirements during the reporting period. DJJ Bon Air will continue to comply with the current permit until the new MS4 General Permit is issued. The new permit is expected to be issued in November of 2018.

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:

A. Background Information.

1. Permittee name and permit number;

Response: VA Dept. of Juvenile Justice - Consolidated MS4s at Bon Air, permit VAR040128.

2. The annual report permit year and reporting period;

Response: This Annual Report is for 2017 covering the reporting period July 1, 2017 to June 30, 2018.

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

Response: There have been no changes in any operator's department's roles and responsibilities.

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

Response: There have been no new MS4 outfalls added during the permit year.

5. Signed certification (See Attachment 1);

Response: See page 1 for signed certification.

B. Minimum Control Measure Implementation.

1. MCM1 – Public Education and Outreach

a. Items relating to Permit Section II.B.1.g(1)

Response: The updated Program Plan is attached. Revisions are highlighted.

Education and Outreach activities have been added to the program plan as a result of DEQ input during the MS4 audit. The next Annual Report will provide documentation of Public Education and Outreach activities conducted during the period July 1, 2018 to June 30, 2019 for each of the high-priority water quality issues, including the number of people reached and the estimated percentages of target audiences.

b. Items relating to Permit Section II.B.1.g(2)

Response: During the next reporting period, the Education and Outreach items listed in the revised Program Plan will be implemented. The new MS4 General Permit is expected to be issued in November 2018. The measurable goal will be reviewed against any changes in the upcoming permit during the next reporting period. The next Annual Report will provide a list of Public Education and Outreach activities to be conducted in the next reporting period for each of the high-priority water quality issues, including the number of people reached and the estimated percentages of target audiences.

c. Status of compliance with permit conditions

Response: Development of the Education and Outreach activities is in compliance with the current permit and the response letter to the DEQ MS4 audit, attached.

d. BMP assessment

Response: The revised BMP is directed toward staff only, which is a better fit to the nature of the DJJ Bon Air facility.

e. Progress toward achieving measurable goal identified in the MS4 Program Plan

Response: The updated Program Plan is attached. Revisions are highlighted.

The three high-priority water-quality issues have been identified and relevant messages and means of communication have been developed. The next annual report will contain

documentation of Public Education & Outreach activities conducted during the reporting period July 1, 2018 to June 30, 2019.

2. MCM2 – Public Involvement/Participation

a. Items relating to Permit Section II.B.2.d(1)

Response: The following is the web link to the MS4 Program Plan and annual report:

<http://www.djj.virginia.gov/pages/admin/capital-outlay.htm>

b. Items relating to Permit Section II.B.2.d(2)

Response: Four potential public participation events have been identified. The next annual report will contain documentation of Public Involvement/Participation activities conducted during the reporting period July 1, 2018 to June 30, 2019.

c. Status of compliance with permit conditions

Response: The updated Program Plan is attached. Revisions are highlighted.

Four potential public participation events have been identified. The next annual report will contain documentation of Public Involvement/Participation activities conducted during the reporting period July 1, 2018 to June 30, 2019.

d. BMP assessment

Response: The revised BMP fits with the limitation imposed by the nature of the DJJ Bon Air facility.

e. Progress toward achieving measurable goal identified in the MS4 Program Plan

Response: Four potential public participation events have been identified. The next annual report will contain documentation of Public Involvement/Participation activities conducted during the reporting period July 1, 2018 to June 30, 2019. The new MS4 General Permit is expected to be issued in November 2018. The measurable goal will be reviewed against any changes in the upcoming permit during the next reporting period.

3. MCM3 – Illicit Discharge Detection and Elimination

a. Items relating to Permit Section II.B.3.f(1)

Response: DJJ Bon Air's MS4 system is interconnected with the VDOT MS4.

b. Items relating to Permit Section II.B.3.f(2)

Response: DJJ Bon Air has 15 outfalls from the MS4 service area. All outfalls were screened by the MS4 consultant (Draper Aden Associates) in 2018. No indications of illicit discharge were found and no follow-up actions were required.

c. Items relating to Permit Section II.B.3.f(3)

Response: No investigations were conducted by the operator of any suspected illicit discharge.

d. Status of compliance with permit conditions

Response: All permit conditions under this section were met.

e. BMP assessment

Response: Current BMPs in the MCM Program Plan are adequate.

f. Progress toward achieving measureable goal identified in the MS4 Program Plan

Response: The storm sewer system has been mapped, outfall screening procedures have being updated.

4. MCM4 – Construction Site Stormwater Runoff Control

a. Items relating to Permit Section II.B.4.f(1)

Response: There were no regulated land-disturbing activities during the reporting period.

b. Items relating to Permit Section II.B.4.f(2)

Response: Zero acres were disturbed during the reporting period.

c. Items relating to Permit Section II.B.4.f(3)

Response: No inspections were conducted during the reporting period.

d. Items relating to Permit Section II.B.4.f(4)

Response: No enforcement actions were taken during the reporting period.

e. Status of compliance with permit conditions

Response: All permit conditions under this section were met.

f. BMP assessment

Response: Current BMPs in the MCM Program Plan are adequate.

g. Progress toward achieving measureable goal identified in the MS4 Program Plan

Response: As no construction projects were undertaken during the reporting period, the measureable goals were not applicable. These goals will be maintained as part of the MS4 program plan and instituted for the next applicable construction project.

5. MCM5 – Post-Construction Stormwater Management

a. Items relating to Permit Section II.B.5.e

Response: The information required by Section II.B.5.e has been added to the updated Program Plan.

All stormwater SMFs were inspected by the MS4 consultant (Draper Aden Associates) in 2018 and were found to require removal of brush. Required maintenance has been scheduled for October of 2018.

b. Status of compliance with permit conditions

Response: All permit conditions under this section were met.

c. BMP assessment

Response: Current BMPs in the MCM Program Plan are adequate to ensure that plan review and approval is obtained for all applicable projects.

d. Progress toward achieving measureable goal identified in the MS4 Program Plan

Response: No project RFPs have been required, so development of language to include MS4 requirements has not yet been accomplished. Development of written procedures for BMP inspection and maintenance is ongoing. Development of electronic database has been determined to be of limited value given there is only one stormwater quality BMP.

6. MCM6 – Pollution Prevention/Good Housekeeping for Municipal Operations

a. Items relating to Permit Section II.B.6.g(1)

Response: After review of existing procedures, facilities, and daily operations, no new daily operational procedures were required to be developed.

b. Items relating to Permit Section II.B.6.g(2)

Response: After a complete analysis of all of DJJ Bon Air'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.

c. Items relating to Permit Section II.B.6.g(3)

Response: There is no application of fertilizers or general herbicides on lawn areas, therefore no turf and landscape nutrient management plans are required.

d. Items relating to Permit Section II.B.6.g(4)

Response: After review of existing training and daily operations, no new training needs related to stormwater were identified. This will continue to be reviewed and stormwater specific onsite training will be provided by the operator's consultant (Draper Aden Associates).

e. Status of compliance with permit conditions

Response: All permit conditions under this section were met.

f. BMP assessment

Response: The BMP in the MCM Program Plan has been revised to reflect that there is no application of fertilizers or general herbicides on lawn areas.

g. Progress toward achieving measurable goal identified in the MS4 Program Plan;

Response: All permit conditions under this section were met.

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

Response: No information, including monitoring data, was collected during the reporting period.

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

Response: The next reporting cycle (July 1, 2018 to June 30, 2019) will be the first cycle of the new MS4 general Permit. This permit has not yet been issued, so planned activities listed below are based on the current permit and the new draft permit.

- **Chesapeake Bay TMDL: Once the new MS4 permit is issued, DJJ plans to update the TMDL Action Plan, including WLA calculations to reflect the new permit and any changes in land cover. Compliance measures in the plan will be revised, if necessary, to reflect changes in WLAs.**

In 2017, DJJ changed land cover from lawn to forest in accordance with the approved TMDL Action Plan for Phase I. DJJ will plant additional trees in this area to replace dead and missing trees.

- **Program Plan: DJJ will implement measures in the revised Program Plan, attached. The new MS4 General Permit is expected to be issued in November 2018. The Program Plan will be reviewed against any changes in the upcoming permit during the next reporting period.**

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: See previous responses.

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

Response: DJJ Bon Air is not relying on any other government entity to satisfy state permit obligations.

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

Response: No alternate programs are being pursued under Section IIC.

H. Information required for any applicable TMDL special condition contained in Section I of the general permit.

Response: The only TMDL applicable to the DJJ Bon Air facility is the Chesapeake Bay TMDL. No other information is required.

I. Signed certification statement. See Attachment 2.

Response: See page 1 for signed certification statement.

III. DEQ AUDIT FINDINGS & REPSONSES

On June 8, 2017, DEQ conducted an audit of the DJJ Bon Air MS4 Permit. The following are the original recommendations and corrective actions from the audit with updated responses to these items:

RECOMMENDATIONS

1. For MCM #1:

a. Consider focusing the Public Education and Outreach program towards staff whose duties include activities that can affect stormwater.

Response: The Program Plan has been revised to focus the program towards staff whose duties include activities that can affect stormwater. The updated Program Plan is attached. Revisions are highlighted.

2. For MCM #2: a. Consider co-sponsoring or promoting activities and events held by other MS4s (e.g. Chesterfield County) to fulfill the requirements of MCM2.

Response: On January 23, 2018, a meeting was help with the Chesterfield County Environmental Outreach Coordinator, Lorne Field, to review coordination between DJJ Bon Air and the County for activities and events. DJJ Bon Air will continue to reach out to Chesterfield County to be aware of activities that can be supported.

3. For MCM #3: a. Consider developing an outfall dry weather screening checklist and an illicit discharge investigation checklist for the purposes of documenting screenings and investigations in the field. These checklists are often combined so that illicit discharge investigations can occur immediately upon discovery during a dry weather screening.

Response: The outfall dry weather screening checklist is attached. The illicit discharge investigation checklist is also attached.

4. For MCM #5: a. Consider developing SMF-specific inspection checklists for the purposes of documenting inspections in the field and to inform future maintenance activities.

Response: The Stormwater Management Facility (SMF)-specific inspection checklist is attached.

5. For MCM #6: a. Consider placing a spill kit near the fueling tank adjacent to the Maintenance Facility in case of minor spills during fueling operations (Attachment 1, Photo 11).

Response: A spill kit has been placed in this area.

CORRECTIVE ACTIONS

1. For MCM #1:

- a. Update the Program Plan per Part II.B.1.c to: 1) indicate the three high priority issues identified by DJJ and the rationale for the selection of each issue, 2) identify and estimate the population size of the target audiences who are most likely to have significant impact for each water quality issue, and 3) identify what relevant messages and associated educational materials will be distributed to the target audiences.

Response: The Program Plan has been updated to indicate the three high-priority issues (litter, facilities operations, and illicit discharges) and to identify and estimate the target population. The updated Program Plan is attached. Revisions are highlighted.

- b. Provide in each Annual Report a list of the education and outreach activities conducted during the reporting period for each high-priority water quality issue, the estimated number of people reached, and an estimated percentage of the target audience or audiences that were reached per Part II.B.1.g.(1) of the permit. c. Provide in each Annual Report a plan for the next reporting period per Part II.B.1.g.(2) of the permit.

Response: The updated Program Plan is attached. Revisions are highlighted. The next Annual Report will provide documentation of Public Education and Outreach activities conducted during the period July 1, 2018 to June 30, 2019.

2. For MCM #2: a. Participate in a minimum of four local activities annually per Part II.B.2.b of the permit.

Response: The Program Plan has been updated to indicate the four local activities. Participation will take place in the next permit cycle (July 1, 2018 to June 30, 2019).

3. For MCM #3:

- a. Develop an outfall information table to include all the items listed in Part II.B.3.a.(2) of the permit.

Response: The Existing Storm Sewer Plan is attached. This map has been revised to include the required information.

- b. Update the Program Plan to reference the legal mechanisms identified per Part II.B.3.b of the permit.

Response: The Program Plan has been revised to acknowledge the existing legal mechanisms under Chesterfield County ordinances and the Virginia Plumbing Code.

- c. Update the Program Plan to incorporate written procedures for dry weather screening and illicit discharge investigations per Part II.B.3.c.(1)(a-h) of the permit.

Response: The updated Program Plan is attached. Revisions are highlighted.

- d. Screen all outfalls on an annual basis per Part II.B.3.c.(1)(b) of the permit.

Response: All outfalls have been screened.

4. For MCM #5:

- a. Update the Program Plan to include the SMF information required by Part II.B.5.e of the permit either directly or by reference.

Response: The required information is included with the revised Program Plan as the last sheet, attached.

- b. Update the Program Plan to include SMF inspection and maintenance procedures either directly or by reference per Part II.B.5.c.(2)(a) of the permit.

Response: The updated Program Plan is attached. Revisions are highlighted.

- c. Inspect all SMF annually per Part II.B.5.c.(2)(b) of the permit.

Response: All SMPs have been screened.

- d. Provide documentation that the eroded ditch, filled culvert, and deposited sediment noted along Chatsworth Avenue has been mitigated (Attachment 1, Photos 1-3).
Response: This is under design. Construction is expected to be completed by June 20, 2018. If completed by that date, it will be documented in the next Annual Report.
 - e. Remove woody vegetation from the embankment of BMP 2 adjacent to the parking lot (Attachment 1, Photo 4).
Response: This task requires the use of an outside contractor. The services of a contractor have been procured and required maintenance has been scheduled for October of 2018.
 - f. Clear vegetation away from the outlet structure of BMP 2 to prevent the blockage of the outlet orifice (Attachment 1, Photo 5).
Response: This task requires the use of an outside contractor. The services of a contractor have been procured and required maintenance has been scheduled for October of 2018.
 - g. Clear vegetation away from the inlet pipe to BMP 1 such that it can be observed during annual SMF inspections (Attachment 1, Photo 6).
Response: This task requires the use of an outside contractor. The services of a contractor have been procured and required maintenance has been scheduled for October of 2018.
 - h. Clear vegetation and debris away from the outlet pipe of BMP 1 (Attachment 1, Photo 7).
Response: This task requires the use of an outside contractor. The services of a contractor have been procured and required maintenance has been scheduled for October of 2018.
5. For MCM #6:
- a. Update the Program Plan to include existing good housekeeping procedures applicable to Part II.B.6.a of the permit.
Response: The updated Program Plan is attached. Revisions are highlighted.

APPENDIX A
Revised MS4 Program Plan

MS4 Program Plan

Department of Juvenile Justice - Consolidated MS4s at Bon Air

Rev. Date 9/27/18

The following plan provides an initial MS4 Program Plan framework. During the course of accomplishing the tasks in this framework, DJJ will revise and amend in accordance with Table 1 of the MS4 Permit. Compliance with the first milestone (5%) of the Chesapeake Bay TMDL is due 8/21/2018.

Permit Date: April 18, 2014

Minimum Control Measure No. 1: Public Education and Outreach on Storm Water Impacts

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
1.a - Continue to implement the public education and outreach program	Develop outreach strategy	See below	See below	See below	See below
1.b-f - Public education and outreach programs and initiatives - due 8/21/2014	Develop outreach strategy	Identify three high-priority water quality issues	Three high-priority water quality issues identified: Litter, facilities operations, and illicit discharges. The rationale is as follows: All three categories can be positively affected by changes in staff behavior.	Complete	CO
		Identify and estimate target population size	Target population identified and size estimated. Litter: 200 total staff, facilities operations: 21 O&M staff, and illicit discharges: 200 total staff.	Complete	CO
		Develop relevant messages and means of communication	Flyers to be posted in employee break rooms. Flyers to be obtained from Chesterfield County and other sources.	Underway	CO

Minimum Control Measure No. 1: Public Education and Outreach on Storm Water Impacts

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
		Provide for public participation in development of education and outreach	The flyer will contain an email address for staff comments.	Underway	CO
1.g - Annual reporting requirements - first report due 10/1/2014	Document results of workshop and commitments to further action	Prepare documentation to be included in annual report	The next annual report will contain documentation of Public Education & Outreach activities conducted during the reporting period July 1, 2018 to June 30, 2019.	10/1/2019	CO

CO - Capital Outlay Unit of DJJ Administration & Finance Division

Department of Juvenile Justice - Consolidated MS4s at Bon Air

Minimum Control Measure No. 2: Public Involvement/Participation

Permit requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
2.a. - Public involvement	Develop public involvement strategy	Develop procedures to solicit and public input to the development of the MS4 Program Plan	Procedures developed and recorded	Complete	CO
	Post MS4 Program Plan to website	Post initial MS4 Program Plan (this document) to DJJ website	Document posted within 30 days of submittal of registration statement	Complete	CO
	Post MS4 annual reports to website	Identify procedures and contact for posting to DJJ website	Procedures and contact identified	Complete	CO
2.b. - Public participation	Develop public participation strategy	Identify a minimum of four local activities	Four activities identified: Chesterfield Shred & E-Cycle Event, November 2018; Project Clean Stream, April 2019; Chesterfield County Earth Day Cleanup, April 2019; Clean the Bay Day, June 2019	Complete	CO
2.c. - Written procedures	Develop written procedures for implementing program	Prepare documentation to be included in annual report	The next annual report will contain documentation of Public Involvement/Participation activities conducted during the reporting period July 1, 2018 to June 30, 2019.	10/1/2019	CO

CO - Capital Outlay Unit of DJJ Administration & Finance Division

Department of Juvenile Justice - Consolidated MS4s at Bon Air

Minimum Control Measure No. 3: Illicit Discharge Detection and Elimination

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
3.a - Storm sewer system mapping and information table - due 8/21/2017	Survey existing storm sewer	Map to include: location of all outfalls, outfall identifiers, name and location of receiving waters & name and location of all receiving waters	Develop completed map	Completed	Draper Aden Associates (consultant)
		Information table to include for each outfall: identifier, estimate MS4 acreage served, name of receiving water with impairment status, & name of TMDLs.	Assign outfall identifiers	Completed	Draper Aden Associates (consultant)
3.b - Prohibition of Non-stormwater Discharges - due 8/21/2014	Create or locate existing written documentation to prohibit nonstormwater discharges to the storm sewer.	Create written documentation summarizing existing applicable documentation and, if required, the schedule for making necessary revisions.	Chesterfield County ordinance (Section 8-36b) prohibits nonstormwater discharges to the storm sewer. The Virginia Plumbing Code prohibits connection of sanitary waste lines to stormwater systems.	Completed	CO
3.c - Develop, implement, and update written procedures to detect, identify, and address unauthorized nonstormwater	Dry weather field screening procedures	Develop written procedures	Written documentation created	Completed	CO
		Conduct outfall screenings	All outfalls screened	Completed	CO

Minimum Control Measure No. 3: Illicit Discharge Detection and Elimination

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
discharges, including illegal dumping, to the MS4 - due 8/21/2014	Procedures to locate source of any observed continuous or intermittent nonstormwater discharge	Maintain inspection program that includes all stormwater outfalls. Inspectors use visual observation, odors and other indicators to identify potential illicit discharges.	Written documentation created	Completed	CO
3.d - Promote, publicize, and facilitate reporting of illicit discharges into or from MS4 - due 8/21/2014	Existing spill reporting procedures	Identify existing spill reporting procedures	Written documentation created	6/1/2014	CO
3.e & f - MS4 Program Plan & annual reporting - first report due 10/1/2014	Document results of workshop and commitments to further action	Prepare documentation to be included in annual report	Documentation prepared	9/1/2015	CO

CO - Capital Outlay Unit of DJJ Administration & Finance Division

Department of Juvenile Justice - Consolidated MS4s at Bon Air

Minimum Control Measure No. 4: Construction Site Stormwater Runoff Control

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
4.a - Applicable oversight requirements	Address post-construction stormwater that enters MS4 from construction	Ensure compliance with DEQ ESC design requirements for all proposed projects over 2,500 sf of disturbance	Include language in all project RFPs for design services	ongoing	CO
4.b - Required plan approval prior to commencement of land disturbance activity	Ensure that land disturbance does not begin until an ESC plan is approved	Plan review and approval is by DEQ	Include language in all project RFPs for design services to require A/E to obtain required approvals	ongoing	CO

Minimum Control Measure No. 4: Construction Site Stormwater Runoff Control

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
<p>4.c - Compliance and enforcement</p>	<p>Inspect land-disturbing activities for compliance with approved ESC plan</p>	<p>Inspect land-disturbing projects upon initial installation of ESC measures, at least once during every two-week period, within 48-hours of runoff-producing storm event, and upon completion of the project</p>	<p>Review E&S inspection procedures</p>	<p>ongoing</p>	<p>CO</p>
		<p>Ensure ESC inspector holds current DEQ ESC certification</p>			<p>CO</p>
		<p>Document inspections, findings of deficiencies, and corrective actions taken by contractor.</p>			<p>CO</p>

Minimum Control Measure No. 4: Construction Site Stormwater Runoff Control

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
4.d - Regulatory coordination	Implement enforceable procedures to require that construction activities secure necessary state permits.	Create written procedures	Create written procedures	8/1/2014	CO
4.e - MS4 Program requirements	MS4 Program Plan to include: description of legal authorities, written plan review procedures, written inspection procedures,	Revise MS4 Program Plan	Revise MS4 Program Plan	8/1/2014	CO
4.f - Reporting requirements - first report due 10/1/2014	Document results of workshop and commitments to further action	Prepare documentation to be included in annual report	Documentation prepared	10/1/2019	CO

CO - Capital Outlay Unit of DJJ Administration & Finance Division

Department of Juvenile Justice - Consolidated MS4s at Bon Air

Minimum Control Measure No. 5: Post-Construction Stormwater Management in New Development and Redevelopment

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
5.a - Applicable oversight requirements - due 8/21/2014	Address post-construction stormwater that enters MS4 from construction	Ensure compliance with DEQ stormwater design requirements for all proposed projects over 2,500 sf of disturbance	Include language in all project RFPs for design services	ongoing	CO
5.b - Required design criteria for stormwater runoff controls - due 8/21/2014	Utilize specific contract language to require project design to comply	Ensure compliance with DEQ stormwater design requirements for all proposed projects over 2,500 sf of disturbance	Include language in all project RFPs for design services	ongoing	CO
		Ensure that all proposed projects obtain coverage under VSMP General Construction Permit	Include language in all project RFPs for construction services	ongoing	CO
5.c - Inspection, operation, and maintenance verification of	Provide for adequate long-term operation and maintenance of structural stormwater	Create written inspection procedures	Written procedures	Complete	CO

Minimum Control Measure No. 5: Post-Construction Stormwater Management in New Development and Redevelopment

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
stormwater management facilities - due 8/21/2014	BMPs	Inspect existing BMPs	BMPs inspected and written reports created	Complete	CO
5.d - MS4 Program Plan requirements - due 8/21/2014	Create MS4 Program Plan	MS4 Program Plan to include list of legal authorities, written policies and procedures, inspection and maintenance policies, and roles and responsibilities	MS4 Program Plan created	6/1/2014	CO
5.e - Stormwater management facility tracking and reporting requirements - due 8/21/2014	Maintain an electronic database of all stormwater management facilities	Create electronic database with existing BMPs to include type, location, acres treated (total and impervious), date brought online, HUC, impaired water segments, and last inspection and maintenance dates.	Required BMP information included in Program Plan, see attached sheet	Complete	CO

CO - Capital Outlay Unit of DJJ Administration & Finance Division

Department of Juvenile Justice - Consolidated MS4s at Bon Air

Minimum Control Measure No. 6: Pollution Prevention/Good Housekeeping for Facility Operations

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
6.a - Operations and maintenance activities - due 8/21/2015	Develop and implement written procedures to minimize pollutant discharge from (i) daily operations such as road, street, and parking lot maintenance; (ii) equipment maintenance; and (iii) application, storage, transport, and disposal of pesticides, herbicides, and fertilizers	Review required procedure categories with DJJ maintenance and grounds department heads to identify existing written procedures and gaps where new written procedures are required.	Hold workshop with DJJ maintenance and grounds.	Complete	CO
		Create new written procedures, if required	No new written procedures are required.	Complete	CO

Minimum Control Measure No. 6: Pollution Prevention/Good Housekeeping for Facility Operations

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
6.b - Municipal facility pollution prevention and good housekeeping - due 8/21/2014	Identify all high-priority facilities, including: (i) compost facilities, (ii) equipment storage and maintenance facilities, (iii) materials storage yards, (iv) pesticide storage facilities, (v) public works yards, (vi) recycling facilities, (vii) salt storage facilities, (viii) solid waste handling and transfer facilities, and (ix) vehicle storage and maintenance yards.	Review existing facilities with DJJ maintenance and grounds department heads to identify which operations are conducted at the facility and locations.	Hold workshop with DJJ maintenance and grounds	None identified	CO
	Identify which of the high-priority facilities have a high potential of discharging pollutants based on the criteria provided in the permit.	Review high-priority facilities with DJJ maintenance and grounds department heads to identify which meet the permit criteria.	Hold workshop with DJJ maintenance and grounds	None identified	CO
	Develop SWPPPs for for required facilities	SWPPPs shall provide criteria listed in permit, as a minimum	SWPPPs prepared for any required high-priority facilities	Not required	CO
	Implement SWPPPs - due 8/21/2017	Implement SWPPPs	Implement SWPPPs	Not required	CO

Minimum Control Measure No. 6: Pollution Prevention/Good Housekeeping for Facility Operations

Permit Requirements	Proposed BMP	Elements of BMP	Measurable Goals	Preliminary Implementation Schedule	Preliminary Responsible Department
6.c - Turf and landscape management - due 8/21/2014	Develop Nutrient Management Plans (NMPs).	Identify applicable areas: contiguous areas greater than one acre where nutrients are applied.	Sketch developed showing areas where nutrients are applied	not required, no fertilizer applied to lawn areas	CO
		Develop NMPs for all applicable areas, if any.	Contract with outside consultant to develop NMPs	not required, no fertilizer applied to lawn areas	CO
	Implement NMPs - due 8/21/2018	Implement NMPs	Implement NMPs	not required, no fertilizer applied to lawn areas	CO
6.d - Training - due 8/21/2014	Conduct annual training for employees	Review existing training programs against permit requirements	Existing training is adequate	Complete	CO
6.e - Oversight procedures	Require that contractors use appropriate control measures and procedures for stormwater discharges to the MS4 system.	Determine if there any contractors for which this would apply	There are no contractor to which this applies	Complete	CO
6. f-g MS4 Program Plan documentation and annual reporting - first report due 10/1/2014	Document results of workshop and commitments to further action	Prepare documentation to be included in annual report	No documentation prepared	Complete	CO

CO - Capital Outlay Unit of DJJ Administration & Finance Division

BMP Name	BMP Type	Location	Number of Acres Treated	Date Brought Online	HUC (6th Order)	Impaired Water (If Applicable)	Ownership	Date of Last Inspection	Total Number of Inspections Completed*
Medium Security Facility Basin	Detention, quantity only	Approximately 70 feet north of Chatsworth Ave, directly across from Medium Security Facility	10.8 Ac total, 4.0 Ac impervious	3/15/1996	Powwhite Creek - 020802050607	None	Operator Owned	9/6/2018	1
Parking Lot Basin	Detention for quality & quantity	Approximately 160 feet north of Chatsworth Ave, directly across from Keller Cottage	1.4 Ac total, 1.0 Ac impervious	5/15/1997	Powwhite Creek - 020802050607	None	Operator Owned	9/6/2018	1

* Previous inspections completed, but not documented

APPENDIX B

DJJ Audit Finding Response Letter

February 12, 2018

Ms. Emilee C. Adamson
Planning and Water Permit Manager
Virginia DEQ – Piedmont Regional Office
4949A Cox Road
Glen Allen, VA 23060

**RE: DJJ Bon Air – MS4 Permit - VPDES Permit No. VAR040128
MS4 Program Audit Findings Responses
Draper Aden Associates Project No. 21162-30**

Dear Ms. Adamson:

RECOMMENDATIONS

1. For MCM #1:
 - a. Consider focusing the Public Education and Outreach program towards staff whose duties include activities that can affect stormwater.
Response: There are approximately two staff whose duties include activities that can affect stormwater. The Program will be revised to focus on all staff.
2. For MCM #2: a. Consider co-sponsoring or promoting activities and events held by other MS4s (e.g. Chesterfield County) to fulfill the requirements of MCM2.
Response: On January 23, 2018, a meeting was held with the Chesterfield County Environmental Outreach Coordinator, Lorne Field, to review coordination between DJJ Bon Air and the County for activities and events.
3. For MCM #3: a. Consider developing an outfall dry weather screening checklist and an illicit discharge investigation checklist for the purposes of documenting screenings and investigations in the field. These checklists are often combined so that illicit discharge investigations can occur immediately upon discovery during a dry weather screening.
Response: An outfall dry weather screening checklist will be developed by June 30, 2018.
4. For MCM #5: a. Consider developing SMF-specific inspection checklists for the purposes of documenting inspections in the field and to inform future maintenance activities.
Response: A SMF-specific inspection checklist will be developed by June 30, 2018.
5. For MCM #6: a. Consider placing a spill kit near the fueling tank adjacent to the Maintenance Facility in case of minor spills during fueling operations (Attachment 1, Photo 11).
Response: A spill kit will be placed in this area.

CORRECTIVE ACTIONS

1. For MCM #1:
 - a. Update the Program Plan per Part II.B.1.c to: 1) indicate the three high priority issues identified by DJJ and the rationale for the selection of each issue, 2) identify and estimate the population size of the target audiences who are most likely to have significant

impact for each water quality issue, and 3) identify what relevant messages and associated educational materials will be distributed to the target audiences.

Response: DJJ Bon Air has started the process of further developing the Program Plan to provide the required information. This will be completed by June 30, 2018 and documented in the Annual Report.

- b. Provide in each Annual Report a list of the education and outreach activities conducted during the reporting period for each high-priority water quality issue, the estimated number of people reached, and an estimated percentage of the target audience or audiences that were reached per Part II.B.1.g.(1) of the permit. c. Provide in each Annual Report a plan for the next reporting period per Part II.B.1.g.(2) of the permit.

Response: The next Annual Report will not include any Education and Outreach items as they are in the process of being developed. The next Annual Report will provide a plan for the next reporting period.

2. For MCM #2: a. Participate in a minimum of four local activities annually per Part II.B.2.b of the permit.

Response: The next Annual Report will not include documentation of participation in a total of four local activities as these are in the process of being identified. The next Annual Report will provide a list of possible activities for the next reporting period. These will include promoting activities sponsored by Chesterfield County.

3. For MCM #3:

- a. Develop an outfall information table to include all the items listed in Part II.B.3.a.(2) of the permit.

Response: This will be completed by June 30, 2018 and documented in the next Annual Report.

- b. Update the Program Plan to reference the legal mechanisms identified per Part II.B.3.b of the permit.

Response:

- c. Update the Program Plan to incorporate written procedures for dry weather screening and illicit discharge investigations per Part II.B.3.c.(1)(a-h) of the permit.

Response: This will be completed by June 30, 2018 and documented in the next Annual Report.

- d. Screen all outfalls on an annual basis per Part II.B.3.c.(1)(b) of the permit.

Response: This will be completed by June 30, 2018 and documented in the next Annual Report.

4. For MCM #5:

- a. Update the Program Plan to include the SMF information required by Part II.B.5.e of the permit either directly or by reference.

Response: This will be completed by June 30, 2018 and documented in the next Annual Report.

- b. Update the Program Plan to include SMF inspection and maintenance procedures either directly or by reference per Part II.B.5.c.(2)(a) of the permit.

Response: This will be completed by June 30, 2018 and documented in the next Annual Report.

- c. Inspect all SMF annually per Part II.B.5.c.(2)(b) of the permit.
Response: This will be completed by June 30, 2018 and documented in the next Annual Report.
 - d. Provide documentation that the eroded ditch, filled culvert, and deposited sediment noted along Chatsworth Avenue has been mitigated (Attachment 1, Photos 1-3).
Response: This is under design. Construction is expected to be completed by June 20, 2018. If completed by that date, it will be documented in the next Annual Report.
 - e. Remove woody vegetation from the embankment of BMP 2 adjacent to the parking lot (Attachment 1, Photo 4).
Response: This will be completed by June 30, 2018 and documented in the next Annual Report.
 - f. Clear vegetation away from the outlet structure of BMP 2 to prevent the blockage of the outlet orifice (Attachment 1, Photo 5).
Response: This will be completed by June 30, 2018 and documented in the next Annual Report.
 - g. Clear vegetation away from the inlet pipe to BMP 1 such that it can be observed during annual SMF inspections (Attachment 1, Photo 6).
Response: This will be completed by June 30, 2018 and documented in the next Annual Report.
 - h. Clear vegetation and debris away from the outlet pipe of BMP 1 (Attachment 1, Photo 7).
Response: This will be completed by June 30, 2018 and documented in the next Annual Report.
5. For MCM #6:
- a. Update the Program Plan to include existing good housekeeping procedures applicable to Part II.B.6.a of the permit.
Response: This will be completed by June 30, 2018 and documented in the next Annual Report.

Sincerely,
Draper Aden Associates



Glenn Telfer, P.E.
Associate

cc: Robert Willburn – DJJ
Glenn Custis - DAA

APPENDIX C

Outfall Dry Weather Screening Checklist

DJJ Bon Air

Outfall Dry Weather Screening Checklist

The purpose of this inspection is to detect unauthorized (illicit) discharges to the storm sewer. If illicit discharges are detected during this inspection, inform the Grounds Supervisor to start an investigation to determine the source and to take measures to prevent further illicit discharges.

The following substances are not allowed to be in storm sewer discharges:

Sanitary sewage, petroleum products, food oils & greases, cleaning products, paint, sediment, grass clippings, and trash.

Conduct outfall inspections during dry weather. If flow is coming out of the pipe in dry periods, it could be an indication of an illicit discharge.

Each inspection should take no more than 5 minutes per outfall

Any changes from previous inspections are particularly important and should be circled.

Date

Outfall Number

Obtain numbers from Outfall Map

Days since significant rainfall

	Yes	No	
Flow from pipe	<input type="checkbox"/>	<input type="checkbox"/>	Flow rate (ex. Trickle, more than a garden hose) Color (ex. Clear, red)
Sediment	<input type="checkbox"/>	<input type="checkbox"/>	Amount (ex. Less or more than 5 gallons)
Odor	<input type="checkbox"/>	<input type="checkbox"/>	Type of odor (ex. Gasoline, garbage)
Trash	<input type="checkbox"/>	<input type="checkbox"/>	Type of trash (ex. water bottles, styrofoam cups)
Staining	<input type="checkbox"/>	<input type="checkbox"/>	Color (ex. Black, red)
Dead Vegetation	<input type="checkbox"/>	<input type="checkbox"/>	Extent (ex. A couple of plants, 100 sf)
Sanitary Discharge	<input type="checkbox"/>	<input type="checkbox"/>	Signs (ex. Toilet paper, odor)
Erosion	<input type="checkbox"/>	<input type="checkbox"/>	Extent (ex. 12" deep, extends 100 feet downstream)
Landscape Waste	<input type="checkbox"/>	<input type="checkbox"/>	Type (ex. Grass clippings, leaves)

APPENDIX D

Illicit Discharge Investigation Checklist

DJJ Bon Air

Illicit Discharge Investigation Checklist

The purpose of this checklist is to provide a procedure for DJJ Bon Air Facilities staff to follow in case of an illicit discharge to the storm sewer to determine the source and prevent further illicit discharges

The MS4 Permit allows only the following sources to enter the storm sewer:

- Runoff from rainfall events;
- Water line flushing;
- Landscape irrigation;
- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration (as defined at 40 CFR Part 35.2005(20));
- 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 wash water;
- Discharges or flow from from firefighting activities

The presence of any other substance in a storm sewer is evidence of an illicit discharge

Common illicit discharges are:

Sanitary sewage, petroleum products, food oils & greases, cleaning products, paint, sediment, grass clippings, and trash.

If you believe an illicit discharge has occurred, complete the following checklist:

Date Detected

Time Detected

Outfall Number

Obtain numbers from Outfall Map

Sample obtained

Yes or no

Photos taken

Yes or no

Days since significant rainfall

Amount

(ex. 100 gallons, less than 5 gallons)

Color

(ex. Clear, red)

Odor

(ex. Gasoline, sewage)

Dead Vegetation

(ex. A couple of plants, 100 sf)

**Substance &
Likely Source**

(ex. Fuel spill from tank filling, oil dumped
in storm inlet by unknown persons)

Further Action

(ex. Sampling & testing of material,
DEQ notified)

APPENDIX E
SMF Inspection Form

**DJJ Bon Air
Stormwater Management Facility (SMF) Inspection Form
Inspections to be conducted annually**

**BMP #1
Type Detention - Quantity Only**



Inspection Date:

Vegetation

Banks and bottom are free of trees and shrubs
Banks and bottoms have good growth of grass with no eroded areas

Sediment

No accumulated sediment or minor amounts (less than 20 gallons)

Outlet Structure

Outlet orifice clear of debris and obstructions
Top grate clear of debris

Trash

No trash (water bottles, plastic bags, etc.) in basin

Yes **No** If "no" is checked, corrective action is required as indicated:

Cut trees and shrubs at grade
Fill eroded areas and re-seed

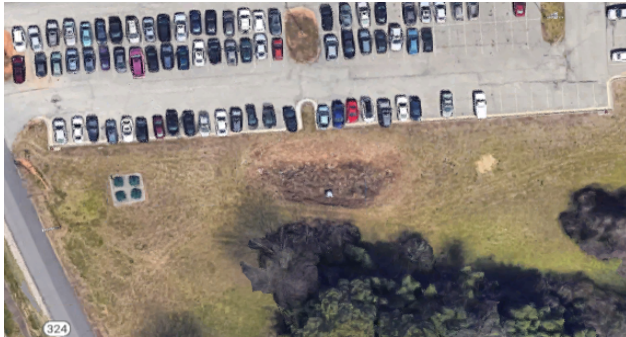
Remove sediment with shovel, larger amounts may require equipment
Inspect contributing drainage area and correct any sources of sediment

Remove debris and obstructions to allow water to drain freely
Remove debris

Remove trash

**DJJ Bon Air
Stormwater Management Facility (SMF) Inspection Form
Inspections to be conducted annually**

**BMP #2
Type Extended Detention - dry**



Inspection Date:

Vegetation

Banks and bottom are free of trees and shrubs
Banks and bottoms have good growth of grass with no eroded areas

Sediment

No accumulated sediment or minor amounts (less than 20 gallons)

Outlet Structure

Outlet orifice clear of debris and obstructions
Top grate clear of debris

Trash

No trash (water bottles, plastic bags, etc.) in basin

Yes No If "no" is checked, corrective action is required as indicated:

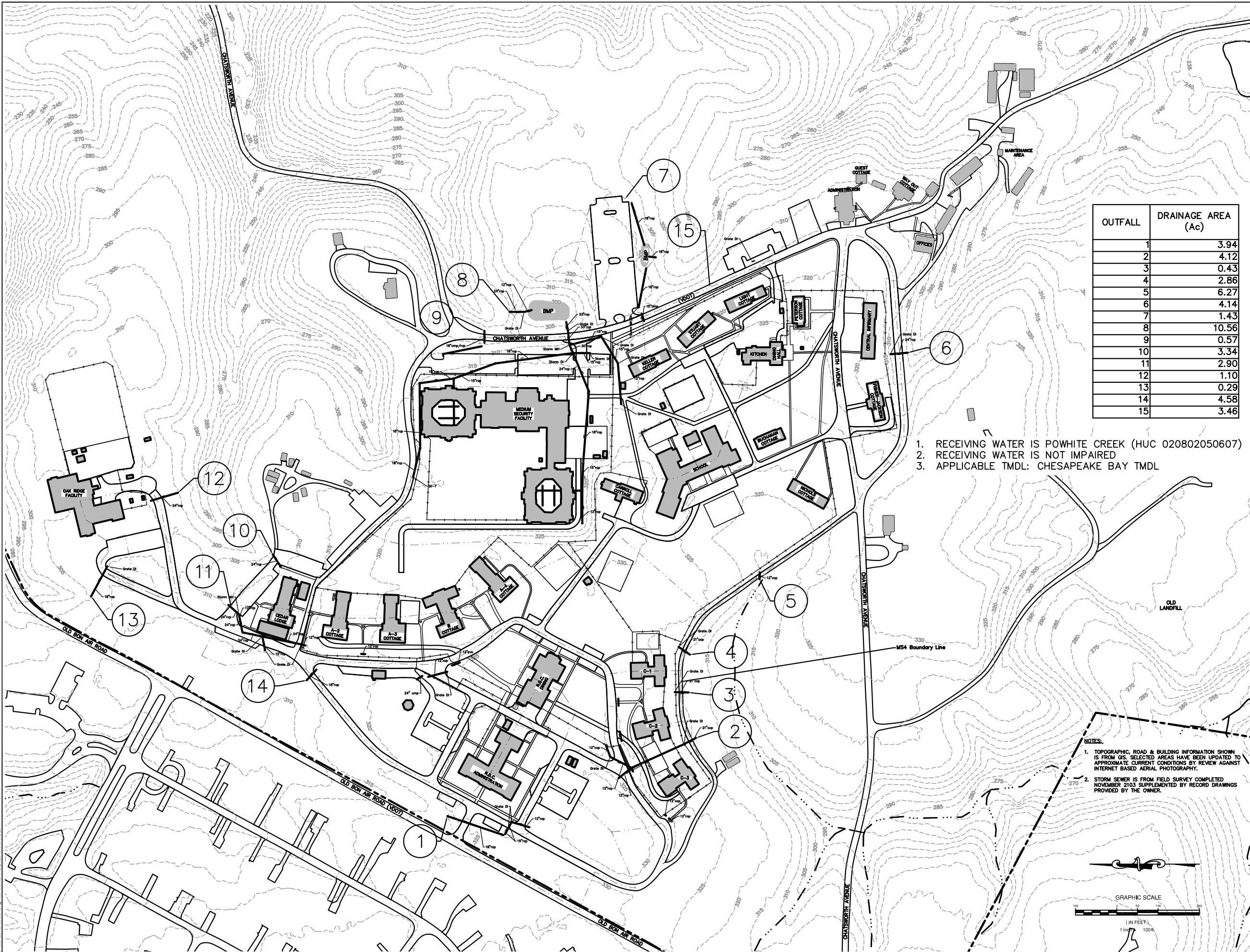
Cut trees and shrubs at grade
 Fill eroded areas and re-seed

Remove sediment with shovel, larger amounts may require equipment
 Inspect contributing drainage area and correct any sources of sediment

Remove debris and obstructions to allow water to drain freely
 Remove debris

Remove trash

APPENDIX F
Existing Storm Sewer Plan



OUTFALL	DRAINAGE AREA (Ac)
1	3.94
2	4.12
3	0.43
4	2.86
5	6.27
6	4.14
7	1.43
8	10.56
9	0.57
10	3.34
11	2.90
12	1.10
13	0.29
14	4.58
15	3.46

1. RECEIVING WATER IS POWHITE CREEK (HUC 020802050607)
2. RECEIVING WATER IS NOT IMPAIRED
3. APPLICABLE TMDL: CHESAPEAKE BAY TMDL

NOTES:

1. TOPOGRAPHIC, ROAD & BUILDING INFORMATION SHOWN IS FROM GIS. SELECTED AREAS HAVE BEEN UPDATED TO APPROXIMATE CURRENT CONDITIONS BY REVIEW AGAINST INTERNET BASED AERIAL PHOTOGRAPHY.
2. STORM SEWER IS FROM FIELD SURVEY COMPLETED NOVEMBER 2103 SUPPLEMENTED BY RECORD DRAWINGS PROVIDED BY THE OWNER.

