

MS4 Stormwater General Permit
VAR040056

Annual Report
July 1, 2018 – June 30, 2019



October 1, 2019



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1.0 Annual Reporting Requirements [9VAC25-890-40, Part I. D. 2.]

- a. Permittee, system name, permit number of the program submitting the annual report;

Stafford County, VA

Multiple Separate Storm Sewer Systems [Phase 2]

Permit # VAR040056

- b. The annual report permit year;

This serves as the Annual Report for Year 1 of the 2018-2023 Virginia MS4 General Permit (Permit). This Annual Report covers a time period from July 1, 2018 – June 30, 2019

- c. 9VAC25-890-40, Part III K. 4;

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.

Thomas C. Foley

Thomas C. Foley,
County Administrator

9/30/19

Date

- d. Each annual reporting item as specified in a Minimum Control Measure (MCM) in Part I E;

Included in the body of the following submittal.

- e. Evaluation of the MS4 program implementation, including a review of each MCM, to determine the MS4 program's effectiveness and whether or not changes to the MS4 program plan are necessary.

At the conclusion of each MCM will be a section labeled 9VAC25-890-40. Part I. D. 2. e. - 'Effectiveness Evaluation and Changes'



2.0 Minimum Control Measures – [9VAC25-890-40. Part I. E.]

‘the annual report shall contain the following information:’

2.1. Public Education and Outreach [9VAC25-890-40. Part I. E. 1. g.]

- (1) A list of the high-priority stormwater issues the permittee addressed in the public education and outreach program

The three high-priority issues addressed were a) bacteria, b) nutrients, and c) illicit discharge/chemical contaminants directing education and outreach to pet owners, residential lawn care, and home mechanics / Do-It-Yourselfers.

- (2) A list of the strategies used to communicate each high-priority stormwater issue.

- a) *Bacteria- Strategies include using traditional written materials, media, and paper materials targeting pet owners and supporting ‘scoop the poop’ initiatives.*
- b) *Nutrients- Strategies include using traditional written materials, media, and paper materials targeting residential property / lawn owners to include explaining proper fertilizer use and nutrient.*
- c) *Illicit discharge/chemical contaminants- Strategies include using traditional written materials, media, and paper materials targeting home mechanics / do-it-yourselfers.*

‘Effectiveness Evaluation and Changes’ [9VAC25-890. Part I D. 2. e.] - evaluate program effectiveness through review of MCM, determine effectiveness and whether changes are necessary.

The program strategies appear to be effective as relied upon through relationships with the Northern Virginia Regional Commission, Friends of the Rappahannock, sharing literature to public libraries, and similar relationships detailed in the Program Plan / Public Education and Outreach Program Plan

It may be appropriate to refine the Program Plan to qualify the ‘high-priority stormwater issues’ to align with the multiple resources used to convey messages to achieve a broader distribution.

2.2. Public Involvement and Participation [9VAC25-890-40. Part I. E. 2. f.]

- (1) A summary of any public input on the MS4 program received) including stormwater complaints) and how the permittee responded.

Stafford County routinely receives calls from property owners expressing concern regarding stormwater as it flows across their property. County response generally includes a visit to the property, review of any permit or archived property information, review of weather forecasts



and rainfall data, and an explanation to the property owner relative to regulatory oversight or other (un)related influences.

- (2) A webpage address of the permittees MS4 program and stormwater website.

*<https://staffordcountyva.gov/1248/MS4-Stormwater-Permit-Program>
<https://staffordcountyva.gov/1001/Stormwater-Management>*

- (3) A description of the public involvement activities implemented-

Stafford County partnered with the Friends of the Rappahannock (FOR) to deliver several events to satisfy the MCM- FOR enlisted the communities participation in A) river clean-ups, B) storm drain marking, and C) marketing of stormwater 'stewardship' at the Wild and Scenic Film Festival at the University of Mary Washington. The Rappahannock Regional Landfill conducts routine D) Household Hazardous Waste Collection events.

- (4) A report of the metrics as defined for each activity and an evaluation as to whether or not the activity is beneficial to improving water quality.

The metrics for the referenced A – D events are-

- A) Stafford County partnered with the Friends of the Rappahannock to enlist the aid of 151 volunteers to contribute 377.5 volunteer hours removing a cumulative 3,240 pounds of trash from eight clean-up sites. The event is beneficial to engaging participation of the community encouraging an awareness of pollution / 'debris' transport via stormwater runoff and improving water quality.*
- B) 100 'Only Rain Down the Drain' medallions were placed in Celebrate Virginia North through a cooperative effort between Stafford County, Friends of the Rappahannock, and the residents / Home Owners Association of Celebrate Virginia North. This activity improves water quality and will be replicated in other communities.*
- C) Stafford County continues support of The Wild and Scenic Film Festival that occurs at Mary Washington College. This event attracted 360 participants informing the attendees of local water quality issues / progress and the 'bigger' picture of water quality. This is a meaningful activity benefitting water quality through education and inspiration.*
- D) Stafford County partners with the Rappahannock Regional Landfill collecting household hazardous waste several opportunities throughout the year. The Fall 2019 waste collection resulted in homeowners responsibly disposing of 3,140 bulk gallons of liquids/chemicals, 220 gallons of motor oil and anti-freeze, 23 car batteries, and 8,950 lbs of bulk hazardous house hold waste. This activity is meaningful to provide homeowners responsible methods for disposing of hazardous materials and should be continued reduce situations where similar waste may end up in stormwater conveyance channels.*

- (5) The name of other MS4 permittees with whom the permittee collaborated in the public involvement opportunities.

Stafford County mutually participated with the Mary Washington College MS4 to support the Wild and Scenic Film Festival.

'Effectiveness Evaluation and Changes' [9VAC25-890. Part I D. 2. e.] - evaluate program effectiveness through review of MCM, determine effectiveness and whether changes are necessary.



Stafford County recognizes the current partnerships as vital and effective at promoting involvement and participation.

2.3. Illicit Discharge Detection and Elimination [9VAC25-890-40. Part I. E. 3. e.]

- (1) A confirmation statement that the MS4 map and information table have been updated to reflect and changes to the MS4 occurring on or before June 30 of the reporting year-

The following Certification Statement is intended to satisfy the regulatory directive- Stafford County provided to the VDEQ, on or before July 01, 2019, digital files intended to satisfy 9VAC25-890. Part I. E. 3. a. [3]. – mapping of the storm sewer systems, outfalls, unique identifier, etc. as reflected in the regulation. The material provided therein was current and reflected no changes from the previous reporting year.

- (2) The total number of outfalls screened during the reporting period as part of the dry weather screening program.

Stafford County received a report of Dry Weather Screening results representing 53 outfalls screened.

- (3) A list of illicit discharges to the MS4 including spills reaching the MS4 with information as follows; (a) source of illicit discharge; (b) the dates that discharge was observed, reported, or both; (c) whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe); (d) how the investigation was resolved; (e) a description of any follow-up activities; and (f) the date the investigation was closed.

Stafford County encountered the following illicit discharge-
204 Thompson Lane

- (a) *A floor drain was the source of the discharge.*
(b) *The discharge was observed / reported on October 16, 2018.*
(c) *The discharge was reported by a Stafford County Department of Utilities staff during their routine work.*
(d) *The incident was resolved by conferencing the property owner, tenant, and County to review the circumstance, contributing matters, and agreeing to bolt a lid on the floor drain.*
(e) *Follow-up activities included a confirmation with the property owner to verify the drain was no longer being used.*
(f) *The investigation was closed October 19, 2018.*

707 Sedgwick Ct.

- (a) *A car in the parking lot of the townhomes had a damaged oil pan.*
(b) *The discharge was observed / reported on June 17, 2019.*
(c) *The discharge was reported by an anonymous neighbor.*
(d) *The incident was resolved by conversing with the tenant to review the circumstance, contributing matters, and agreeing to apply kitty litter to the impacted area.*



- (e) *Follow-up activities included a confirmation with the property owner to verify the kitty litter was used and disposed appropriately.*
(f) *The investigation was closed June 24, 2019.*

'Effectiveness Evaluation and Changes' [9VAC25-890. Part I D. 2. e.]- evaluate program effectiveness through review of MCM, determine effectiveness and whether changes are necessary.

Stafford County will continue to field calls from the public, respond to concerns, and improvise appropriate solutions to reported illicit discharges.

2.4. Construction Site Stormwater Runoff Control [9VAC25-890-40. Part I. E. 4. d.]

- (1) If the permittee implements a construction site stormwater runoff program in accordance with Part I. E. 4. a. (3) [state agency, public institution of higher education, etc.] –

- (a) *Not applicable*
(b) *Not applicable*

- (2) Total number of inspections conducted; and

1054 = '100-level' Yard Inspection/First Erosion
1134 = '198-level' Yard Inspection/OP Issuance
1294 = '199-level' Yard Inspection/Final for Securities Release
1808 = '110-level' Project Erosion/Sediment Controls Maintenance Inspection
401 = '111-level' Review of SWPPP
299 = '115-level' SWM/BMP Installation Inspections
533 = '121-level' Pollution Prevention Inspections
30 = '150-level' Erosion SW Quality Inspections

- (3) Total number and type of enforcement actions implemented and the type of enforcement actions [sic]

Stafford County's Public Works Environmental Programs Staff completed 31 enforcement actions in the forms of Notices to Comply provided as Certified Mailings and e-mailings. Staff also prepared one Stop Work Order.

'Effectiveness Evaluation and Changes' [9VAC25-890. Part I D. 2. e.]- evaluate program effectiveness through review of MCM, determine effectiveness and whether changes are necessary.

Stafford County will evaluate permit-entry within the proprietary inspection software to explore areas of improvement relative to end-of-year reporting.



2.5. Post Construction Stormwater Management in New Development and Development on Prior Developed Lands [9VAC25-890-40. Part I. E. 5. i.]

- (1) If the permittee implements a Virginia Stormwater Management Program in accordance with Part I E 5 a (1) and (2) [permittee with an approved Virginia Stormwater Management Program].

- (a) The number of privately owned stormwater management facility inspections conducted; and

438 private facility inspections occurred the past program year.

- (b) The number of enforcement actions initiated by the permittee to ensure long-term maintenance of privately owned stormwater management facilities including the type of enforcement action;

Enforcement actions numbered 12 in the past program year; actions included coordinated visit with County Board of Supervisor representative, issuing Notice(s) to Comply, and educational support.

- (2) Total number of inspections conducted on stormwater management facilities owned or operated by the permittee;

County staff completed 61 inspections of facilities owned / operated by Stafford County.

- (3) A description of the significant maintenance, repair, or retrofit activities performed on the stormwater management facilities owned or operated by the permittee to ensure it continues to perform as designed. This does not include routine activities such as grass mowing or trash collection;

Stafford County completed the retrofit of a stormwater measure ['Liberty Place'] designed to complement the pollutant reduction obligation for MS4 permitting within the Potomac Watershed. The retrofit included extending the flow path to replicate the riffle-pool sequence typical of natural water courses.

The County also directed removal of accumulated sediment and debris to a Filterra system in the parking lot of the Chichester Building.

- (4) A confirmation statement that the permittee submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part I E 5 f or a statement that the permittee did not complete any projects requiring coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities; and



The following Confirmation Statement is intended to satisfy regulatory directive 9VAC25-890-40. Part I. E. i (4)- Stafford County submitted stormwater management facility information through the Virginia Construction Stormwater General Permit database for those land disturbing activities for which the permittee was required to obtain coverage under the General VPDES Permit for Discharges of Stormwater from Construction Activities in accordance with Part I E 5 f during FY19

- (5) A confirmation statement that the permittee electronically reported BMPs using the DEQ BMP Warehouse in accordance with Part I E 5 g and the date on which the information was submitted.

The following Confirmation Statement is intended to satisfy regulatory directive 9VAC25-890-40. Part I. E. i (5)- Stafford County electronically reported stormwater management facilities BMPs implemented in FY19 using the DEQ BMP Warehouse and associated reporting template for any practices not reported in accordance with Part I E 5 f including stormwater management facilities installed to control post-development stormwater runoff from land disturbing activities less than one acre in accordance with the Chesapeake Bay Preservation Act regulations (9VAC25-830) and for which a General VPDES Permit for Discharges of Stormwater from Construction Activities was not required.

'Effectiveness Evaluation and Changes' [9VAC25-890. Part I D. 2. e.]- evaluate program effectiveness through review of MCM, determine effectiveness and whether changes are necessary.

Stafford County will evaluate additional mechanisms to improve Homeowners' Association adoption of stormwater measures to improve maintenance and function. Internal, staffing adjustments will be considered to improve methods of BMP reporting (<1 acre).

2.6. Pollution Prevention/Good Housekeeping for Municipal Operations **[9VAC25-890-40. Part I. E. 6. q.]**

- (1) A summary of any operational procedures developed or modified in accordance with Part I E 6 a during the reporting period;

The Pollution Prevention / Good Housekeeping for Municipal Operations document established for permit cycle 2013 - 18 was adapted for the 2018 - 23 permit cycle.

- (2) A summary of any new SWPPPs developed in accordance with Part I E 6 c during the reporting period;

No new SWPPPS have been developed during the reporting period.

- (3) A summary of any SWPPPs modified in accordance with Part I E 6 f or the rationale of any high priority facilities delisted in accordance with Part I E 6 h during the reporting period;



Part I E 6 f designates modifying SWPPPs in the event of any unauthorized discharge, release, or spill- no known discharges have occurred from SWPPP-facilities. The SWPPPs developed for the preceding permit cycle are recognized to be adequate for the current permit cycle.

- (4) A summary of any new turf and landscape nutrient management plans developed that includes:

- (a) Location and total acreage of each land area; and (b) the date of the approved nutrient management plan

New Nutrient Management Plans have been developed for Embrey Mill Park, 17.25 acres, completed/approved January 04, 2019 and Chichester Park, 8.27 acres, completed/approved January 04, 2019.

- (5) A list of the training events conducted in accordance with Part I E 6 m, including the following information:

- (a) The date of the training event;
(b) The number of employees who attended the training event; and
(c) The objective of the training event.

Part I E 6 m specifies the training occur 'no less than once per 24 months'; no trainings have been offered in the current FY19 permit year. A training will be coordinated in the FY20 permit year- no later than 24 months from the training reported in FY18 MS4 Annual Report.

3.0 Part II. TMDL Special Conditions

9VAC25-890-40. Part II. A. 13. – For each reporting period, the corresponding annual report shall include the following information:

- a. A list of BMPs implemented during the reporting period but not reported to the DEQ BMP Warehouse in accordance with Part I E 5 g and the estimated reduction of pollutants of concern achieved by each and reported in pounds per year;
No additional public BMPs were implemented during the reporting period.
- b. If the permittee acquired credits during the reporting period to meet all or a portion of the required reductions in Part II A 3, A 4, or A 5, a statement that credits were acquired;
No credits were acquired during the reporting period.
- c. The progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for local nitrogen, total phosphorus, and the total suspended solids; and



The progress toward meeting the VDEQ-notified [via DRAFT Chesapeake Bay TMDL Action Plan submitted in past Annual Reports] has been 95% completion of site plans for the Brooks Park Stream Restoration Project (BPSRP). A permit from the Army Corps of Engineers has been obtained for proposed stream impacts in the reporting period. The BPSRP will exceed phosphorus reduction values; nitrogen and sediments will have remaining reduction obligations (to be explored in coming reporting years).

Table 3B – Calculation Sheet for Estimating Existing Source Loads and Reduction Requirements for the Rappahannock River Basin of the draft Chesapeake Bay TMDL Action Plan referenced in past Annual Report(s) proposes the initial pollutant removal obligations of total nitrogen (TN) [-338.33 #]; total phosphorus (TP) [-63.15 #]; and total suspended sediments (TSS) [21.174.4 #]. The 40% reduction goal for the 2018-23 Permit Cycle is represented in the same table as TN- 135.33 #/yr; TP 25.26 #/yr; and TSS 8,469.76 #/yr.

A Pollution Reduction Calculation included in Appendix B- Information for BMPs Planned for Second Permit Cycle of the draft Chesapeake Bay TMDL Action Plan referenced in past Annual Report(s) represents the stream restoration project to result in the following reduction credits- TN - 268.30, TP - 139.95, and TSS – 14,262.18.

- d. A list of BMPs that are planned to be implemented during the next reporting period.
The primary stream restoration BMP will meet the PC reduction for phosphorus; additional reductions in nitrogen and sediments will need to be achieved through separate projects. Stafford County will explore the ability to achieve N and S reductions through sanitary sewer connections of septic systems and outfall stabilization projects to close the gap on the respective pollutants.

9VAC25-890-40. Part II. B. 9. – For each reporting period, each annual report shall include a summary of actions conducted to implement each local TMDL action plan.

Staff have contracted with various consultants [e.g. GKY & Associates, The Wood Group, etc.] for annual Dry Weather Screening, TMDL Action Plan development,,etc. The annual inspection of MS4 areas / outfalls has resulted in consideration of additional measures to address observations [additional pet waste stations, 'Rain in the Drain' medallions, creek clean-ups, etc].