

STAFFORD COUNTY

FY2022 Annual Report

VSMP Phase II (MS4) Program

General Permit No. VAR040056

July 2021 – June 2022





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1.0 Annual Reporting Requirements [9VAC25-890, Part 1. 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 4 of the 2018-2023 Virginia MS4 General Permit (Permit). This Annual Report covers a time period from July 1, 2021 – June 30, 2022

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.

Randal E. Vosburg,
County Administrator

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 "**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, local schools, 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. Strategies also include public presentations from County Staff to Local Schools.

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

The program strategies appear to be effective as relied upon through relationships with the George Washington 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 permittee's MS4 program and stormwater website*

MS4 Program:

https://staffordcountyva.gov/government/departments_p-z/public_works/community_development/environmental/stormwater_management/ms4_stormwater_permit_program.php

Stormwater Program:

https://staffordcountyva.gov/government/departments_p-z/public_works/community_development/environmental/stormwater_management/index.php

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

Stafford County partnered with the Friends of the Rappahannock (FOR), and the Rappahannock Regional Landfill to deliver several events to satisfy the MCM. FOR enlisted the community's 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.

Additionally, Stafford County created two press releases located on the County's main website page targeted at homeowners to address drainage system maintenance:

March 7, 2022 – "Stafford Launches New Neighborhood Stormwater Infrastructure Grant Pilot Program"

https://staffordcountyva.gov/news_detail_T5_R528.php

June 6, 2022 – "Permitting is Required for Land Disturbance in Stafford County"

https://staffordcountyva.gov/news_detail_T5_R570.php

Stafford participated in "Virginia Flood Awareness Week" during March 13-19, 2021 to highlight awareness of flood risks within the community which in turn raises awareness



of general stormwater management and drainage issues. A specific press release was published for this event:

March 17, 2022 – “Virginia Flood Awareness Week is March 13-19”
https://staffordcountyva.gov/news_detail_T5_R532.php

Stafford County Staff conducted an outreach event by E) presenting to four local advanced placement environmental science classes on environmental science and urban stormwater management.

(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.

- A) Stafford County partnered with the Friends of the Rappahannock to enlist the aid of 6 volunteers to contribute 24 volunteer hours removing a cumulative 40 pounds of trash from four clean-up sites. The event is beneficial to engage the participation of the community encouraging awareness of pollution / ‘debris’ transport via stormwater runoff and improving water quality.
- B) Stafford County typically supports the installation of ‘Only Rain Down the Drain’ medallions on storm sewer infrastructure in highly visible and trafficked areas throughout the County such as subdivisions. This program is being reevaluated for effectiveness.
- C) Stafford County supports the “Wild and Scenic Film Festival” hosted by the University of Mary Washington. This event informs the attendees of local water quality issues/progress and the ‘bigger’ picture of water quality. The festival was held on April 2, 2022 and attracted 100 attendees and 15 volunteers.
- D) Stafford County partners with the Rappahannock Regional Landfill to collect household hazardous waste several opportunities throughout the year. The May 7, 2022 waste collection resulted in homeowners responsibly disposing of 4,855 bulk gallons of liquids/chemicals, 3 pallets of propane tanks, and 9,310 pounds of bulk hazardous household waste. This activity is meant to provide homeowners with responsible methods for disposing of hazardous materials and should be continued to mitigate waste in stormwater conveyance channels.
- E) Stafford County presented to approximately 100 local high school students regarding urban stormwater management and environmental policy and planning. The presentation connected local, state, and federal policy to recent development in the community and included an interactive activity where students worked together as stakeholders in a project to come up with environmentally responsible development.



- (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

Stafford County recognizes the current partnerships as vital and effective at promoting involvement and participation. Stafford will continue to identify public outreach opportunities throughout the next permit year.

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 DEQ, 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 was current and reflected no changes from the previous reporting years.

- (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 **54** 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 methods (describe); (d) how the investigation was resolved; (e) a description of any follow-up activities; and (f) the date the investigation was closed.*

1. Co-AR (?) (38.45300, -77.4262) and CO-AR(4)_A (38.4302, -77.43312)

- (a) Source: Upstream Construction Site
- (b) Date Observed: 11/8/2021
- (c) Reporting Method: Dry-Weather Screening
- (d) Resolution: Upstream construction project with inadequate Erosion and sediment controls caused sediment to enter Regional Pond #9. A County Environmental Inspector investigated the site. Manual cleanup of the



discharge was required. A notice to comply for inadequate erosion and sediment controls was issued.

- (e) Follow-Up Activities: Site was inspected by Environmental Inspector on 12/1/2021. The site was found to be compliant.
- (f) Date Closed: 12/1/2021

2. CO-AR(4)4_B located at Mine Rd. (38.4302, -77.43312)

- (a) Source: Unknown
- (b) Date Observed: 11/8/2021
- (c) Reporting Method: Dry-Weather Screening
- (d) Resolution: The source of chlorine and excess turbidity was not located. The drainage area to the outfall includes a parking lot and turf fields.
- (e) Follow-Up Activities: None
- (f) Date Closed: 11/8/2021

3. 24 Coachman Circle

- (a) Source: Landscaper blowing grass clippings from multiple yards into the storm drain.
- (b) Date Observed: 9/1/2021
- (c) Reporting Method: Reported by Public
- (d) Resolution: Stafford County Environmental Inspector confirmed the existence of grass clipping waste in the storm sewer. The inspector observed the landscaper onsite blowing grass clippings into the storm drain and notified the individual of potential illicit discharge.
- (e) Follow-Up Activities: A letter notifying the landscaper of potential illicit discharge was sent on 9/01/2021.
- (f) Date Closed: 9/1/2021

4. 10 Ridgeview Circle

- (a) Source: Garbage trucks leaking hydraulic fluid onto a neighborhood street.
- (b) Date Observed: 9/14/2021
- (c) Reporting Method: Reported by Public
- (d) Resolution: Stafford County Environmental Inspector investigated on-site. Evidence of fluid on street was observed.
- (e) Follow-Up Activities: A letter notifying the garbage collection service of potential illicit discharge was sent on 9/14/2021.
- (f) Date Closed: 9/14/2021

5. Intersection of Town and Country Drive and Sierra Drive

- (a) Source: Garbage trucks leaking hydraulic fluid onto a neighborhood street.
- (b) Date Observed: 9/14/2021
- (c) Reporting Method: Reported by Public
- (d) Resolution: Stafford County Environmental Inspector investigated on-site. Evidence of fluid on street was observed.



- (e) Follow-Up Activities: A letter notifying the garbage collection service of potential illicit discharge was sent on 9/14/2021.
- (f) Date Closed: 9/14/2021

6. 5 Pleasure Court

- (a) Source: Grass clippings dumped into the stream by a resident.
- (b) Date Observed: 9/15/2021
- (c) Reporting Method: Reported by Public
- (d) Resolution: Stafford County Environmental Inspector investigated on-site and grass clippings were found in the stream.
- (e) Follow-Up Activities: A letter notifying the resident of potential illicit discharge was sent on 9/15/2021.
- (f) Date Closed: 9/15/2021

7. 105 Hamlin Drive

- (a) Source: Sanitary Sewer Overflow (SSO) into stormwater facility.
- (b) Date Observed: 10/8/2021
- (c) Reporting Method: Observed during a stormwater facility inspection.
- (d) Resolution: SSO reported to Stafford County Utilities Department. Stafford County Utilities Operations team was deployed to investigate and repair.
- (e) Follow-Up Activities: SSO was reported to DEQ by Stafford County Utilities Department.
- (f) Date Closed: 10/8/2021

8. 32 Hopkins Branch Way

- (a) Source: Glass clippings blown into storm sewer by a resident.
- (b) Date Observed: 10/21/2021
- (c) Reporting Method: Reported by Public
- (d) Resolution: Stafford County Environmental Inspector investigated on-site and grass clippings were found in the storm sewer.
- (e) Follow-Up Activities: A letter notifying the resident of potential illicit discharge was sent on 10/21/2021.
- (f) Date Closed: 10/21/2021

9. 8 Twin Lake Court

- (a) Source: Unknown fluid on street.
- (b) Date Observed: 4/4/2022
- (c) Reporting Method: Reported by Public
- (d) Resolution: Stafford County Environmental Inspector investigated on-site and the fluid appeared to be water from a broken water meter.
- (e) Follow-Up Activities: Reported to Stafford County Utilities Department.
- (f) Date Closed: 4/4/2021



10. 10 Twain Court

- (a) Source: Unknown
- (b) Date Observed: 4/28/2022
- (c) Reporting Method: Reported by Public
- (d) Resolution: Stafford County Environmental Inspector investigated on-site and confirmed the presence of an unknown white powder near the storm drain inlet. Inspector sampled and tested the powder, the substance appeared to be lime.
- (e) Follow-Up Activities: No follow-up activities. The source is unknown.
- (f) Date Closed: 4/28/2022

11. 308 Worth Avenue

- (a) Source: Sanitary Sewer Overflow (SSO) into storm sewer inlet.
- (b) Date Observed: 6/23/2022
- (c) Reporting Method: Reported by Stafford County Utilities Department
- (d) Resolution: Stafford County Utilities Operations team was deployed to investigate and repair.
- (e) Follow-Up Activities: SSO was reported to DEQ by Stafford County Utilities Department.
- (f) Date Closed: 6/23/2022

12. 7 Temple Drive

- (a) Source: Swimming pool water discharged into storm sewer inlet.
- (b) Date Observed: 6/29/2022
- (c) Reporting Method: Reported by Public
- (d) Resolution: Stafford County Environmental Inspector investigated on-site and spoke to the pool owner. The discharge was dechlorinated and therefore is allowable.
- (e) Follow-Up Activities: None
- (f) Date Closed: 6/29/2022

13. Washington Avenue

- (a) Source: Salt stockpile in a parking lot near storm sewer inlet.
- (b) Date Observed: 6/15/2022
- (c) Reporting Method: Reported by Public
- (d) Resolution: Stafford County Environmental Inspector investigated on-site and confirmed the presence of a salt stockpile. Evidence of runoff with high salinity concentration was observed.
- (e) Follow-Up Activities: A letter notifying the property owner of a potential illicit discharge was sent on 6/15/2022. The site was re-investigated after stockpile removal and the inspector confirmed the adequate removal of stockpile.
- (f) Date Closed: 7/29/2022



Effectiveness Evaluation and Changes

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*

- 749 = '100-level' Yard Inspection/First Erosion
- 536 = '198-level' Yard Inspection/OP Issuance
- 133 = '199-level' Yard Inspection/Final for Securities Release
- 1550 = '110-level' Project Erosion/Sediment Controls Maintenance Inspection
- 37 = '111-level' Review of SWPPP
- 31 = '115-level' SWM/BMP Installation Inspections
- 41 = '121-level' Pollution Prevention Inspections
- 21 = '150-level' Erosion SW Quality Inspections

(3) *Total number and type of enforcement actions implemented and the type of enforcement actions*

- 1 = Field Correction Notices
- 32 = Notices to Comply
- 0 = Stop Work Order w/Civil Penalty

Effectiveness Evaluation and Changes

Stafford County will continue to perform various environmental inspections and enforcement activities, but may look to consolidate inspection activities to include both erosion and sediment control and stormwater management-related inspections. Timely and consistent inspections and enforcement actions are the most effective means of protecting water quality during construction activities.



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

1068 private facility inspections and **255** re-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;

Formal enforcement actions numbered **0** in the past program year, however other enforcement actions took place which included coordinated visits with County Board of Supervisor representative, facility re-inspection and maintenance notification, and educational support.

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

County staff completed **66** inspections of County owned/operated facilities.

(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;

No significant maintenance, repairs or retrofit activities were performed on the stormwater management facilities owned or operated by Stafford County.

(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



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 FY2022.

- (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.*

Stafford County electronically reported stormwater management facilities BMPs implemented in FY2022 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

Stafford County will evaluate additional mechanisms to improve Homeowners' Association adoption of stormwater measures to improve maintenance and function. Stafford will continue to ensure its project as-built and bond release process incorporates entry for stormwater management facilities and BMPs into the appropriate tracking systems.

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

- (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

No new Nutrient Management Plans (NMPs) were developed during this permit year. A list of all approved NMPs, approval dates, and acreage amounts is provided below. These NMPs are available electronically upon request.

Location of NMP	Acreage Amount	Approval Date
Autumn Ridge	1.94	January 4, 2019
Berea Fire and Rescue	0.94	January 4, 2019
Carl Lewis Community Park	2.13	January 4, 2019
Chichester Park	8.27	January 4, 2019
Curtis Park	8.82	January 4, 2019
Embrey Mill Park	17.25	January 4, 2019
England Run Library	0.82	January 4, 2019
Grizzle Center	0.64	January 4, 2019
John Lee Pratt Memorial Park	28.02	January 4, 2019
McDuff Green Park & Duff Farm	17.25	January 4, 2019
Patawomeck Park	18.77	January 4, 2019
Rowser Building	2.17	January 4, 2019
Smith Lake Park	7.59	January 4, 2019
Stafford County Fire and Rescue Co. 2	2.11	January 4, 2019
St. Clair Brook Park & River Road Park	17.84	January 4, 2019
Vista Woods Park	1.59	January 4, 2019
Willowmere Park	21.00	January 4, 2019
YMCA (Future) Property	11.32	January 4, 2019
TOTAL	168.47	



(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;*
05/05/2022 – 06/20/2022

(b) *The number of employees who attended the training event; and*
The training was completed by 135 employees.

(c) *The objective of the training event.*
The online training created by Stafford County's Environmental Division aimed to educate County Staff from multiple departments on general MS4 and stormwater awareness, illicit discharge detection and reporting, good housekeeping and pollution prevention.

Effectiveness Evaluation and Changes

Stafford County found success in the implementation of an online training course for County Staff. The online course optimized the participation of Staff. The County will continue to utilize the online training platform to ensure all staff who regularly operates near stormwater infrastructure is educated in the following:

- The purpose and function of stormwater infrastructure,
- MS4 regulations,
- Illicit discharge detection, reporting, and elimination,
- And general good housekeeping and pollution prevention,

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; Stafford County's Phase II TMDL Action Plan identified the Brooks Park Stream Restoration Project (BPSRP) as the primary BMP to achieve Phase II TMDL reduction requirements to meet 40% overall reductions in nitrogen, phosphorus, and sediment from regulated lands to the Rappahannock River and greater Chesapeake Bay watersheds. Previous action planning and project implementation have satisfied reduction requirements for the Potomac River watershed.*

Stafford County's *Phase II TMDL Action Plan* is available electronically on its website: <https://staffordcountyva.gov/DocumentCenter/View/15894/2019-Chesapeake-Bay-TMDL-Action-Plan>

Current Chesapeake Bay TMDL progress for total nitrogen (TN), total phosphorous (TP) and total suspended solids/sediment (TSS) is provided below.

Potomac River Watershed			
	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)
Required reductions from Existing Sources to Meet 40% Removal 2 nd Permit Cycle (July 1, 2018 – June 30, 2023)	87.37	7.49	5,603.29
Required reductions from Existing Sources to Meet 100% Removal 3 rd Permit Cycle (July 1, 2023 – June 30, 2028)	218.43	18.73	14,008.23
BMPs Installed to Date & Planned during 2nd Permit Cycle			
Historical BMPs 2006-2009	218.13	33.50	30,621.21
DP337 Pond Retrofit April 2017	95.90	9.85	7,982.07
DP 257 Pond Retrofit August 2018	221.88	19.29	16,088.70
TOTAL	535.91	62.64	54,691.98
% Towards TMDL Progress			
2 nd Permit Cycle (July 1, 2018 – June 30, 2023) 40% Overall Removal	613.38%	836.32%	973.07%
Remainder/(Excess)	(448.54)	(55.15)	(49,088.69)
3 rd Permit Cycle	245.35%	334.44%	390.43%



(July 1, 2023 – June 30, 2028)			
100% Overall Removal			
Remainder/(Excess)	(317.48)	(43.91)	(40,683.75)

Rappahannock River Watershed			
	TN (lbs/year)	TP (lbs/year)	TSS (lbs/year)
Required reductions from Existing Sources to Meet 40% Removal 2 nd Permit Cycle (July 1, 2018 – June 30, 2023)	135.33	25.26	8,469.76
Required reductions from Existing Sources to Meet 100% Removal 3 rd Permit Cycle (July 1, 2023 – June 30, 2028)	338.33	63.15	21,174.40
BMPs Installed to Date & Planned during 2nd Permit Cycle			
Historical BMPs 2006-2009	38.99	9.74	3,300.28
Brooks Park Bioretention April 2017	10.62	1.23	312.79
<i>Brooks Park Stream Restoration – PLANNED to start FY2023</i>	268.30	139.95	14,262.18
TOTAL	317.91	150.92	17,875.25
% Towards TMDL Progress (Includes Planned BMPs)			
2 nd Permit Cycle (July 1, 2018 – June 30, 2023) 40% Overall Removal	234.91%	597.47%	541.63%
Remainder/(Excess)	(182.58)	(125.66)	(9,405.49)
3 rd Permit Cycle (July 1, 2023 – June 30, 2028) 100% Overall Removal	93.96%	238.99%	84.42%
Remainder/(Excess)	20.42	(87.77)	3,299.15

d. A list of BMPs that are planned to be implemented during the next reporting period.

100% design plans for the BPSRP have been completed and approved by Stafford County and the Virginia Department of Environmental Quality. A US Army Corps of Engineers permit for stream impacts has been obtained. The BPSRP was awarded a Stormwater Local Assistance Fund (SLAF) Grant in 2021. It is anticipated that construction will



commence in November of 2022 and will be completed before the end of the current MS4 permit cycle.

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.

2020 Bacteria TMDL Plan

Stafford County updated its Bacteria TMDL Action Plan in the FY2021 reporting period to include the Potomac River watershed in addition to the Rappahannock River watershed. The plan identified Human, pet and wildlife as primary contributors of bacteria to impaired streams and rivers. The plan identifies the following program elements to mitigate bacterial pollutants:

- Public Outreach – Pet Waste Management
 - The County maintains brochures regarding proper pet waste collection and removal in regional libraries.
 - The County maintains signage and pet waste stations at local dog parks regarding pet waste collection and removal.
 - The county utilizes media outlets to communicate with pet owners about proper pet waste removal.
- Ordinances
 - Pet Waste Removal [Section 5-36]
 - Leash Law [Section 5-24]
 - Septic Tank Pump Out Requirements [Chapter 27, Section B-8 (a)(7)]
 - The County notifies property owners of septic pump-out requirements and tracks recorded pump-outs.

Stafford County has continued to support these program elements in accordance with the Updated Bacteria TMDL Action Plan.

2019 Chesapeake Bay TMDL Plan

Stafford County updated the design plans for the BPSRP during this permit cycle to optimize the project design. Updates included enhanced construction considerations, implementation of additional natural design elements, consideration and design modifications for the continued operation of a community disc golf course, and an increase to the total project area to improve the hydraulic tie-in of the improved stream to the natural floodplain. The design modifications are anticipated to increase the overall effectiveness of the proposed project. It is anticipated that the project will exceed the Phase II TMDL nitrogen, phosphorus, and sediment reduction requirements for the Rappahannock River and the greater Chesapeake Bay watershed. The project will be constructed during FY2023.