City of Petersburg, Virginia

MS4 General Permit: VAR040013

2021 Annual Report

Prepared by:

Department of Public Works and Utilities

Introduction

The following annual report is submitted to the Virginia Department of Environmental Quality (DEQ) in compliance with the City of Petersburg's Pollutant Discharge Elimination System (VPDES) permit. This report covers stormwater activities conducted during the third year of the permit term, July 1, 2020 – June 30, 2021.

Background Information:

Permittee:	City of Petersburg, Virginia
Annual Report Permit year:	3
Modifications to operator's roles & responsibilities:	0
Number of new MS4 outfalls:	0
Location of new outfall:	N/A
Acreage of new outfalls:	0
HUC of new outfalls:	N/A

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.

John M. Altman 8/31/22

Responsible Official Signature Date

VAR040013 City of Petersburg, VA

Permit Number MS4 Name

Summary of Existing Program Plan Compliance, Activities, Changes, and Plans for the Next Reporting Period

Minimum Control Measure	BMP	Program Description	Applicable Measurable Goals	Progress toward Achieving Measurable Goals (Permit Year 3)	Assessment of Appropriateness, Changes, and/or Steps to Address Any Deficiencies	Summary of Activities Planned for Next Reporting Cycle (Permit Year 4)
1. Public Education and Outreach on Stormwater Impacts	1.1 Stormwater Public Education and Outreach	Develop a citywide public education program.	IE.1.a. Implement program IE.1.b. Identify High-Priority Issues IE.1.c. High-Priority Program Components IE.1.d. Program Strategies IE.1.e. Program Coordination IE.1.f. MS4 Program Plan IE.1.g. MS4 Annual Report	Planning/Public Works Departments continue to generally use EPA guidance: "Getting in Step" as a source to begin to distribute public education and outreach messages, and utilizes multiple diverse strategies to increase stormwater knowledge and reduce stormwater pollution – including various efforts to educate contractors on methods to reduce stormwater pollution. The City continues to keep the public informed on any progress in the Stormwater Utility (SWU) Program. Please also refer to Appendix A for stormwater brochures passed out during City-wide Clean Ups, Earth Day Activities, Ward Meetings and Public Information (PI) Meetings. Pet waste pick-up signs in front of City Hall and in Central Park increase individual knowledge about reducing stormwater pollution. DPW/U continues to provide many informational items (see Appendix A) and local stormwater items to the City's website to educate the public on the City's SWU Program including: SWU Frequently Asked Questions, SWU PowerPoint Presentation Shown at Ward/Council Meetings and PI Meetings, SWU Ordinance & Rate Resolution, and Fee Credit Manuals. Also refer to Appendix A for a sample webpage on "Fertilizer Tips". The Planning Department and the DPW/U often coordinate with the "Friends of the Lower Appomattox" (FOLAR), Crater District Planning Commission, PlanRVA, and Richard Bland College to sponsor citywide clean up events and partner for a regional anti-litter campaign (see Appendix A). In an effort to address the "Litter", "Bacteria", and "Maintenance" high-priority issues of the plan, the City has attempted to engage the community, Central Park visitors, and SWM Facility owners.	To address the "Litter" high-priority issue of the plan, the City continues to work on a NFWF Grant-funded "Walkable Watershed" project with the James River Association (JRA) to reach the students of Lakemont Elementary School – engaging that school's surrounding community. Even without visiting classes, by engaging the surrounding community we feel we have reached all the 5th grade students at that school (55 students, 17% of the target audience) The City has also partnered with PlanRVA to regionally implement the "Don't Trash Central Virginia" anti-litter campaign and include messaging in both email City Newsletter and social media posts (see Appendix A). While social media is implemented to address the "Bacteria" high priority issue, the City's public signage in place continues to Central Park visitors (approximately 1,200 visitors, 7% of the total target audience in the plan). To address the "Maintenance" high-priority issue, the City continued to annually mail out flyers to BMP owners with details and instructions for inspecting and maintaining SWM facilities with a strategy to gradually increase owner engagement in the future. The COVID-19 Pandemic and the City's on-going financial crisis continues to hinder our efforts in addressing Permit Year 3 requirements. As the City continues to recover from these crises, every effort will be made to meet both current and future requirements going forward.	To address the "Litter" high-priority issue of the plan, the City will continue to attempt to reach at least 200 students, more than 50% of the target audience. To reach out to the target audience for the "Bacteria" high-priority issue, the City will continue to attempt to reach at least 10,000 followers, more than 50% of the target audience in the plan thru signage and social media. To address the "Maintenance" high-priority issue of the plan, the City will continue to attempt to reach at least 40 owners, more than 50% of the target audience and search for alternative means to reach this audience.

Minimum Control Measure	BMP	Program Description	Applicable Measurable Goals	Progress toward Achieving Measurable Goals (Permit Year 3)	Assessment of Appropriateness, Changes, and/or Steps to Address Any Deficiencies	Summary of Activities Planned for Next Reporting Cycle (Permit Year 4)
2. Public Involvement/ Participation	2.1 Stormwater Public Involvement	Promote public involvement in preventing pollution of stormwater runoff.	IE.2.a. Procedures IE.2.b. Webpage Information IE.2.c. Program Activities IE.2.b. Program Coordination IE.2.e. MS4 Program Plan IE.2.f. MS4 Annual Report	The MS4 Program Plan was updated, submitted, and generally approved by DEQ in December 2015, and plans have been made to combine the update and the previous Program Plan. This updated Program Plan and the current MS4 Annual Report are posted to the City's Stormwater Management Webpage for public review and comment. Weblinks for the Program Plan and Annual Report, respectively, are as follows: "http://www.petersburg-va.org/DocumentCenter/View/785" "http://www.petersburg-va.org/DocumentCenter/View/778" The City participated five cleanup events: a JRAC Cleanup in September 2020, a "Help Maintain Our Petersburg Greenspace Day" Cleanup and a Ward 6 Cleanup in January 2021, another Ward 6 Cleanup in April 2021, and a WHOP City Community Cleanup in May 2021. The City continues to coordinate and participate in the household drop-off recycling program, the metals/white goods program, the safe garage program, and any waste tire cleanup through local efforts and our membership in the Central Virginia Waste Management Authority.	The City is also continually securing contracts with external consultants. If requested, documentation of the executed contracts will be submitted to DEQ.	Hopefully as the pandemic subsides and with the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section I.E.2 of the Permit.
	2.2 TMDL Implementation Plan Participation	Status of the Chesapeake Bay and Local TMDL Action Plan Implementation	IIA.13. Chesapeake Bay TMDL Action Plan IIA.13.a. BMP's Implemented Not Reported to BMP Warehouse IIA.13.b. Credits Acquired IIA.13.c. Progress Toward Meeting Reductions IIA.13.d. BMP Planned for Next Reporting Period IIB.9. Local TMDL Action Plan – Summary of Implementation Actions	The City has received DEQ approval for its Chesapeake Bay TMDL Action Plan on January 6, 2016. The City of Petersburg has prepared the Appomattox River Bacteria Total Maximum Daily Load (TMDL) Action Plan to address the Special Conditions for approved local TMDLs in Part II.B of the Permit. (DEQ finalized MS4 guidance for WLA calculations for local TMDL's on November 21, 2016).	The City is also continually securing contracts with external consultants. If requested, documentation of the executed contracts will be submitted to DEQ.	With the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section II of the Permit.
3. Illicit Discharge Detection and Elimination	3.1 Develop Storm Sewer System Map	Develop storm sewer mapping showing the location of all outfalls and the names and location of all waters of the U.S. that receive discharges from those outfalls.	IE.3.a. Updated storm sewer map	See Appendix F for the City's MS4 Outfall Map. DPW/U will also continue to make efforts to update the storm sewer map. DPW/U has determined that there are no physically connected downstream MS4s that require written notification.	The City is also continually securing contracts with external consultants. If requested, documentation of the executed contracts will be submitted to DEQ.	With the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section I.E.3 of the Permit.

Minimum Control Measure	BMP	Program Description	Applicable Measurable Goals	Progress toward Achieving Measurable Goals (Permit Year 3)	Assessment of Appropriateness, Changes, and/or Steps to Address Any Deficiencies	Summary of Activities Planned for Next Reporting Cycle (Permit Year 4)
	3.2 Illicit Discharge Ordinance	Develop an ordinance to prohibit all non-stormwater discharges into the MS4.	IE.3.b. Prohibit non-stormwater discharges through legal mechanism	The ordinance was adopted April 6, 2010 and can be viewed or downloaded from the City's website. The City makes every effort to enforce the ordinance as applicable.	The current BMP is appropriate for addressing the measurable goals outlined in Section I of the General Permit.	The City plans to undertake all applicable tasks and activities outlined under Section I.E.3b of the Permit.
	3.3 Illicit Discharge Detection and Elimination (IDDE) Program	Detect, identify, and address unauthorized discharges to the MS4.	IE.3.c. Written procedures IE.3.d. MS4 Program Plan IE.3.f. MS4 Annual Report	The City uses the "Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments" as guidance along with other resources to develop local procedures to detect and address illicit discharges; and continues to make progress in the creation of maps and other tools necessary for outfall reconnaissance. There have been 50 outfall screenings during Permit Year 3 pending the development of these necessary tools. In Permit Year 3, 7 Illicit discharge reports were filed (all documented by DEQ). Corrective action was documented in the reports – no water quality samples were collected. See Appendix B for summaries of these reports. DPU also continues the Inflow and Infiltration (I&I) program to find and address sanitary sewer connections to the storm sewer. Smoke testing, line video inspection and other methods help locate sanitary connections to the storm sewer system and remedy those cross connections. Flow metering also locates segments of sanitary sewer with I&I problems. However, the CCTV Truck was still not operational during the reporting period and has not yet been repaired due to the City's finances.	The City's on-going financial crisis has hindered our efforts in addressing Permit Year 3 requirements. As the City continues to recover, every effort will be made to meet current and future requirements going forward. The City has secured a contract with an external on-call consultant and the required Outfall Reconnaissance Map for outfall screenings has been developed.	With the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section I.E.3 of the Permit.
4. Construction Site Runoff	4.1 Erosion and Sediment Control Program	Administer an erosion and sediment control program consistent with the Virginia Erosion and Sediment Control Program Regulations.	IE.4.a. Legal Authority (ordinance, permits, contract language, interjurisdictional agreements) IE.4.b. Inspection and Enforcement IE.4.c. MS4 Program Plan Requirements IE.4.d. MS4 Annual Reporting Requirements	In Permit Year 3, DPW/U reviewed E&S plan submittals, land disturbance permits issued, and made continual efforts to ensure that there are no deficiencies in enforcement. During Permit Year 3, there were 325 construction site stormwater inspections, with no enforcement actions in the reporting period. Please refer to Appendix C for a list of projects and associated acreage disturbed for which land disturbance permits were issued during Permit Year 3.	The City is also currently securing a contract with an external consultant. If requested, documentation of the executed contract will be submitted to DEQ.	With the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section I.E.4 of the Permit.

Minimum Control Measure	BMP	Program Description	Applicable Measurable Goals	Progress toward Achieving Measurable Goals (Permit Year 3)	Assessment of Appropriateness, Changes, and/or Steps to Address Any Deficiencies	Summary of Activities Planned for Next Reporting Cycle (Permit Year 4)
5. Post-construction Stormwater Management	5.1 Stormwater Management Program	Address post-construction stormwater runoff of new development and redevelopment on receiving waters.	IE.5.a. Program Implementation IE.5.h. MS4 Program Plan Requirements IE.5.i. MS4 Annual Report Requirements	The City of Petersburg continued efforts to resolve any issues found by DEQ in previous review of Annual Reports.	The City is also currently securing a contract with an external consultant. If requested, documentation of the executed contract will be submitted to DEQ.	With the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section I.E.5 of the Permit.
	5.2 VSMP Construction Permit Administration	Petersburg will develop a program to manage permit authority under VSMP Construction General Permit regulations as adopted by the State Soil and Water Conservation Board.	IE.5.c.Required Program Components	The City hired and retained one full-time permanent SWM/E&S Inspector in November 2015 and should hire another SWM/E&S Inspector in the following Permit Year in an effort to acquire the necessary staffing and resources, and perform all steps required by DEQ as local VSMP authority.	The current BMP is appropriate for addressing the measurable goals outlined in Section I of the General Permit.	The City plans to undertake all applicable tasks and activities outlined under Section I.E.5 of the Permit.
	5.3 Structural BMP Inventory	Provide an inventory of all structural BMPs within the City.	IE.5.d.Database Tracking Requirements IE.5.e.Database Updates IE.5.f.Database Reporting Requirements IE.5.g.BMP Warehouse Reporting Requirements	With the aid of the DEQ “Historical Data Cleanup” grant, the BMP Facilities Database was significantly updated. This update was reflected in the MS4 Program Plan generally approved by DEQ in December 2015. DPW/U submitted its first update to the BMP Warehouse on October 1st, and will incorporate new BMPs into the Warehouse once the newly constructed BMP has been certified by the Professional Engineer and approved as acceptable. The City still reviews the BMP database whenever possible to correct/complete the required fields including geographic location (VAHU6 code) and number of acres treated, and update the database to include additional recently constructed stormwater management facilities. DPW/U uses the BMP database information in evaluating stormwater management programs and to determine a plan and schedule of conducting inspections.	The City is also currently securing a contract with an external consultant. If requested, documentation of the executed contract will be submitted to DEQ.	With the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section I.E.5 of the Permit.
	5.4 BMP Inspection and Maintenance	Develop an inspection and maintenance program to ensure proper function and maintenance of all structural BMPs in the City in an effort to protect receiving waters.	IE.5.b.Inspection, Operation, and Maintenance Verification	DPW/U continued to implement inspection and maintenance schedules and identify maintenance needs. A two-man inspection team from DPW/U Surveys would normally inspect the BMPs utilizing a checklist to evaluate the facility and photographs the facility during the inspection.	The City is also currently securing a contract with an external consultant. If requested, documentation of the executed contract will be submitted to DEQ.	With the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section I.E.5 of the Permit.

Minimum Control Measure	BMP	Program Description	Applicable Measurable Goals	Progress toward Achieving Measurable Goals (Permit Year 3)	Assessment of Appropriateness, Changes, and/or Steps to Address Any Deficiencies	Summary of Activities Planned for Next Reporting Cycle (Permit Year 4)
6. Pollution Prevention/ Good Housekeeping for Municipal Operations	6.1 MS4 Operations	DPW/U has a dedicated field crew that maintains the MS4 to ensure the system is functioning properly.	IE.6.a. Written Procedures for Operations IE.6.b. Procedures Used for Training Purposes IE.6.c. Identify Discharge Potential of High-Priority Facilities IE.6.d. SWPPP Requirements IE.6.e. High-Priority Facility Review for Potential SWPPP Implementation IE.6.f. SWPPP Review for Unauthorized Discharges IE.6.g. SWPPP Usage and Maintenance IE.6.h. Removal of High-Priority Facilities IE.6.i. Turf and Landscape Nutrient Management Plans (NMPs) IE.6.j. NMPs for State Agencies/Entities IE.6.k. Deicing Agent Controls IE.6.l. Control Measures/Procedures (Municipal Contractors) IE.6.p. MS4 Program Plan Requirements IE.6.n. MS4 Annual Report Requirements	DPW/U Operations Division keeps records on storm sewer maintenance work and the street sweeping program. Expenses for sweeping and drain cleaning for the reporting period are included in Appendix D. The City's Dogwood Trace Golf Course is the only City-owned property with a nutrient management plan required for a total of 87.73 acres (the plan has also been implemented for all 87.73 acres).	The City secured a contract with an external on-call consultant, which prepared an inventory of municipal sites requiring a SWPPP (including SWPPP's developed for each site), a draft Nutrient Management Plan and Implementation Schedule, and a municipal training plan and schedule.	With the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section I.E.6 of the Permit.
	6.2 Employee Pollution Prevention Training	DPW/U will provide employee training for staff involved with field activities that may impact the MS4.	IE.6.m.(1) Illicit discharges IE.6.m.(2) Road, street and parking maintenance IE.6.m.(3) Maintenance of public works facilities IE.6.m.(4) Pesticide/herbicide control (contractors) IE.6.m.(5) Employee/contractor E&S certifications (plan review, inspection, program administration, construction site operators) IE.6.m.(6) Stormwater program certifications (employees/contractors) IE.6.m.(7) Spill response (emergency response employees) IE.6.n. Documentation IE.6.o. Regional Training Programs	DPW/U used resources and guides from the internet and other resources to develop program components. The City made plans to implement Good Housekeeping training for applicable employees. We will continue inspecting city operations facilities in conjunction with the inspections of private BMPs. The Facilities Management Division only uses certified staff to handle and apply fertilizers, pesticides, and other chemicals. Following the inspections of public BMPs, a training event was held for employees responsible for BMP maintenance in June 2021.	The City is also currently securing a contract with an external consultant. If requested, documentation of the executed contract will be submitted to DEQ.	With the combined efforts of internal and external resources, the City plans to undertake all applicable tasks and activities outlined under Section I.E.6 of the Permit.

Additional Annual Reporting Requirements

(Pursuant to General Permit No.: VAR04, the General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems)

Annual characterization that estimates the volume of stormwater discharged, in cubic feet, and the quantity of pollutant identified in the WLA [bacteria], in a unit consistent with the WLA [annual fecal coliform load, cfu/yr], discharged by the regulated small MS4 [City of Petersburg]:

Please refer to Appendix E for the WLA Calculations and Results Summary.

Updated Program Plan with any new information regarding the TMDL:

See "Minimum Control Measure 2" reporting (BMP 2.2) for summarized TMDL information.

Additional Requested Background Information:

Additional information request from DEQ dated June 1, 2020 in response to the submission of the 2019 Annual Report was addressed per the following responses in **bold**:

Minimum Control Measure 1- Public Education and Outreach

Part I.E.1.g (2) *Provide a list of strategies used to communicate each high-priority stormwater issue. Select two or more strategies in Table 1 of the MS4 General Permit.*

This requirement has been met, according to the information provided in the 2019 Annual Report. However, DEQ noted that the VSMP brochure and several other parts of the report reference DCR as the permitting authority and contact. DEQ suggests updating this information. ***Could not find a replacement on DEQ's website for this DCR version of a VSMP Brochure; therefore, that brochure (and the language associated with it) has been removed from the report and other methods/opportunities to engage Contractors will be pursued. Beyond the VSMP Brochure, there was one other occurrence found in the 2019 Annual Report of language referring to DCR (see Page 3, BMP 4.1), and that has now been deleted.***

Minimum Control Measure 2 – Public Involvement/Participation

Part I.E.2.f (1) *Provide a summary of any public input on the MS4 Program received (including stormwater complaints) and the permit holder responses.*

This information was not available in the annual report, and the webpage did not include all of the information required to be posted no later than three months after the MS4 General Permit's effective date, including methods for how the public can provide input on the permittee's MS4 program plan in accordance with Part I.E.2.a (2). Please provide a summary of any public input and update the webpage according to all details specified in Part I.E.2.b (1-5). ***No significant public input on the MS4 Program has been noted for Year 3. The City continues to work with external consultant to incorporate many updates on the City's Stormwater Management Webpage – including enhancements for public input – as part of the consolidation of the MS4 Program Plan begun as part of the City's response to the MS4 Audit performed in late 2018.***

Part I.E.2.f (3) *Implement at least four activities per year from two or more of the categories listed in Table 2 of the MS4 General Permit.*

The annual report referenced one activity that took place during the previous reporting period. Please ensure that at least four activities are implemented in the future. ***After doing some additional research, I have found that the City did participate in four activities during the reporting period, and that has been updated and included in the FINAL Updated 2019 Annual Report (see Page 4, BMP 2.1). Only one activity was reported for the 2020 Annual Report primarily due to the COVID-19 Pandemic eliminating the Spring Cleanup opportunities. Five activities were held and reported for the 2021 Annual Report.***

Minimum Control Measure 3 – Illicit Discharge Detection and Elimination

Part I.E.3.e (1) *Provide a confirmation statement that the MS4 map and information table have been updated to reflect any changes to the MS4 occurring on or before June 30 of the reporting year.* ***Updated MS4 map has now been included in the 2019 Annual Report (map is dated June 2019) and subsequent Annual Reports.***

Part I.E.3.e (2) *Provide the total number of outfalls screened during the reporting period as part of the dry weather screening.*

The annual report provided details on the screening of all 466 outfalls during the previous reporting period. DEQ acknowledges that this is a measurable improvement and beyond the required 50 minimum required to be screened annually. However, the annual report did not provide the total number of outfalls screened during the July 1, 2018, through June 30, 2019, reporting

	period. Please provide this information. ***With help of external consultant the City completed 62 outfall screenings during the Year 1 reporting period, 50 screenings for Year 2, and 50 screenings for the Year 3 reporting period – documentation has provided.***
Part I.E.3.e (3)	*Provide a list of illicit discharges to the MS4, to include spills reaching with MS4. Listed on the lines below is information required. The annual report references Appendix B for this information, but Appendix B is blank.* ***(The INTERIM Updated 2019 Annual Report and the 2020 & 2021 Annual Reports now include Appendix B.)***
Part I.E.3.e (3) (a)	*The source of the illicit discharge.* ***The INTERIM Updated 2019 Annual Report and the 2020 & 2021 Annual Reports now include Appendix B.***
Part I.E.3.e (3) (b)	*The date or dates that the discharge was observed, reported, or both.* ***The INTERIM Updated 2019 Annual Report and the 2020 & 2021 Annual Reports now include Appendix B.***
Part I.E.3.e (3) (c)	*Whether the discharge was discovered by the permittee during dry weather screening, reported by the public, or other method (describe).* ***The INTERIM Updated 2019 Annual Report and the 2020 & 2021 Annual Reports now include Appendix B.***
Part I.E.3.e (3) (d)	*How the investigation was resolved.* ***The INTERIM Updated 2019 Annual Report and the 2020 & 2021 Annual Reports now include Appendix B.***
Part I.E.3.e (3) (e)	*A description of any follow-up activities.* ***The INTERIM Updated 2019 Annual Report and the 2020 & 2021 Annual Reports now include Appendix B.***
Part I.E.3.e (3) (f)	*The date the investigation was closed.* ***The INTERIM Updated 2019 Annual Report and the 2020 & 2021 Annual Reports now include Appendix B.***

Minimum Control Measure 4- Construction Site Stormwater Runoff

Part I.E.4.d (1)(a)	*Provide a confirmation statement that land disturbing projects that occurred during the reporting period have been conducted in accordance with the current department approved E&S specifications.* ***To confirm, land disturbing projects were conducted in accordance with the current department approved E&S specifications.***

Minimum Control Measure 5-Post-Construction Stormwater

Part I.E.5.i (1)(a)	*State the number of privately owned SMF inspections conducted.* ***There were 29 and 89 privately owned SMF inspections conducted in Year 1 and Year 2 respectively. No privately owned SMF inspections were conducted in Year 3.***

Part I.E.5.i (1)(b) *State the number of enforcement actions and the type of enforcement action initiated to ensure long-term maintenance of privately owned SMFs.* ***There were 0 enforcement actions initiated during Year 1 thru Year 3.***

Part I.E.5.i (2) *State the number of inspections conducted on publically owned SMFs.* ***The were 8 publically owned SMF inspections conducted during Year 3.***

Part I.E.5.i (3) *Provide a description of the significant maintenance, repair, or retrofit activities performed on the publically owned SMFs. Do not include routine activities (e.g., mowing, litter pick up).* ***No significant maintenance, repair, or retrofit activities performed during Year 1 thru Year 3.***

Part I.E.5.i (4) *Provide a confirmation statement that SMF information was submitted through the Virginia Construction Stormwater General Permit (CGP) database for land disturbing activities for which coverage under the General VDPES Permit for Discharges of Stormwater was obtained in accordance with Part I.E.5.f of the MS4 General Permit). If no projects requiring coverage under the CGP were completed, please indicate such.* ***To confirm, for Permit Year 1 thru Year 3 SMF information was submitted through the CGP database for land disturbing activities for which Permit coverage was obtained.***

Minimum Control Measure 6- Pollution Prevention/Good Housekeeping

Part I.E.6.q (1) *Provide a summary of operational procedures developed or modified per Part I.E.6.a during the reported fiscal year.* ***Operational procedures have previously been developed and were in the process of being modified as the MS4 Program Plan is consolidated in response to the MS4 Audit performed in late 2018.***

Part I.E.6.q (2) *Provide a summary of new SWPPPs developed in the fiscal year per Part I.E.6.c of the MS4 General Permit. Inclusion of SWPPPs developed per I.E.6.e of the MS4 General Permit is recommended. If none were developed, please state so.* ***One new SWPPP was added for 1340 East Washington Street, Petersburg VA 23803 (Petersburg's "Office of Development and Operations"), which is designated as a high-priority facility…a SWPPP inspection was also performed.***

Part I.E.6.q (3) *Provide a summary of any SWPPPs modified per Part I.E.6.f of the MS4 General Permit or the rationale for delisting high-priority facilities per Part I.E.6.h of the MS4 General Permit.* ***All previously existing SWPPPs were updated as a result of the SWPPP inspections performed.***

Part I.E.6.q (5) *Provide a list of training events conducted in accordance with Part I.E.6.m of the MS4 General Permit to include the information listed below.* ***Spring training***

event was scheduled; however, it had to be cancelled due to the COVID-19 Pandemic. However, in Year 3 a training event was held in June 2021.

Part I.E.6.q (5)(a) *The date of the training event.* ***See the following table.***

Part I.E.6.q (5)(b) *The number of employees who attended the training event.* ***See the following table.***

Part I.E.6.q (5)(c) *The objective of the training event.* ***See the following table.***

TRAINING EVENT INFORMATION

Facility/BMP	***Date***	***Employee #(s)/Name(s)****	***Objective/Topic***
Canal Street Bioretention Filter	***6/23/2021***	***1) Michael Harris 2) Carnell Harper II 3) Daniel L. Jones 4) Kevin Peak 5) Earnest Taylor 6) Neil Hawkins 7) Richard Harris III***	***Review BMP Inspection Reports; Discuss BMP Intended Design/Function; Specify Routine Maintenance Activities; Illicit Discharges & How to Detect Them in the Field***
Culpeper Avenue (Hydrodynamic Separator)	***6/23/2021***	***1) Michael Harris 2) Carnell Harper II 3) Daniel L. Jones 4) Kevin Peak 5) Earnest Taylor 6) Neil Hawkins 7) Richard Harris III***	***Review BMP Inspection Reports; Discuss BMP Intended Design/Function; Specify Routine Maintenance Activities; Illicit Discharges & How to Detect Them in the Field***
Vernon Johns MS (Dry Pond in Bus Loop)	***6/23/2021***	***1) Michael Harris 2) Carnell Harper II 3) Daniel L. Jones 4) Kevin Peak 5) Earnest Taylor 6) Neil Hawkins 7) Richard Harris III***	***Review BMP Inspection Reports; Discuss BMP Intended Design/Function; Specify Routine Maintenance Activities; Illicit Discharges & How to Detect Them in the Field***

***** - Attendance taken at the beginning of the training session.***

Chesapeake Bay TMDL Information

Part II.A.13.a *Provide 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 of the MS4 General Permit and the estimated reduction of pollutants of concern achieved by each reported in pounds per year.* ***Street sweeping operations were (and are) still being maintained by the City. No other BMP's were newly implemented during these reporting periods other than those reported to the DEQ BMP Warehouse.***

Part II.A.13.b *If credits were acquired during the reporting period to meet all or of the potion of the required reductions in Part II.A.3, A.4, or A.5 of the MS4 General Permit, provide a statement of that credits were acquired.* ***No nutrient credits were acquired during Permit Year 1 thru Year 3.***

Part II.A.13.c *Provide the progress, using the final design efficiency of the BMPs, toward meeting the required cumulative reductions for total nitrogen, total phosphorus, and total suspended solids.* ***Progress toward meeting reductions is as follows:***

		Pollutant of Concern Removal		
Project Description	**Project Type**	**TN**	**TP**	**TSS**
Street Sweeping (2021 TMDL Action Plan Guidance)	Street Sweeping	6.04	0.38	871.54
Canal Bioretention	Bioretention	1.29	0.16	45.2
Total Reduction (Permit Year 3)		**7.33**	**0.54**	**916.74**
Total Cumulative Reduction (Permit Year 1 thru Year 3)		**21.99**	**1.62**	**2750.22**

Part II.A.13.d *Provide a list of BMPs that are planned for implementation during the next reporting period.* ***There has been preparation for a Stream Restoration Project to help address TMDL goals proposed to be finalized for construction in the Year 4 reporting period. An external consultant has been secured to develop an overall strategy for meeting 2025 TMDL requirements.***

Local TMDL Information

Part II.B.9 *The annual report shall include a summary of actions conducted to implement each local TMDL action plan for the corresponding reporting period.* ***Summary of actions conducted include the five cleanup activities mentioned in "Part I.E.2.f (3)" above, as well as the presence of pet waste signs at City facilities and/or public parks.***

Appendix A. Sample Public Education and Outreach Materials

After the Storm

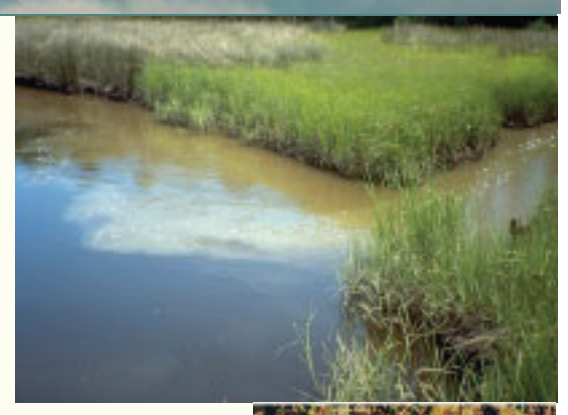
What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution



Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.
- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

For more information contact:

Darryl E. Walker
City of Petersburg - Department of Public Works
City Hall Annex, 103 West Tabb Street
Petersburg, VA 23803
(804) 733-2357
dwalker@petersburg-va.org

or visit
www.epa.gov/npdes/stormwater
www.epa.gov/nps

THE YEAR OF CLEAN WATER

Celebrating 25 Years of Achievement

EPA United States Environmental Protection Agency

EPA 833-B-03-002

January 2003

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A Citizen's Guide to Understanding Stormwater

WHEN IT RAINS IT DRAINS

Stormwater Pollution Solutions

Residential

Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids. Don't pour them onto the ground or into storm drains.

Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.

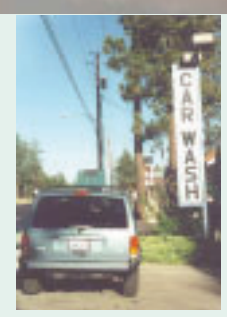
- Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- Cover piles of dirt or mulch being used in landscaping projects.

Septic systems

Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- Don't dispose of household hazardous waste in sinks or toilets.

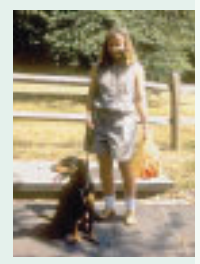
Auto care



Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.

- Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- Repair leaks and dispose of used auto fluids and batteries at designated drop-off or recycling locations.

Pet waste



Pet waste can be a major source of bacteria and excess nutrients in local waters.

- When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.

Residential landscaping

Permeable Pavement—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

Rain Barrels—You can collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas.

Rain Gardens and Grassy Swales—Specially designed areas planted with native plants can provide natural places for rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.

Vegetated Filter Strips—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.

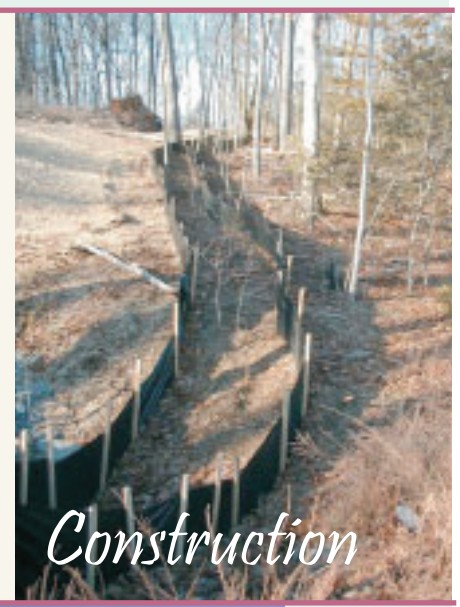
Commercial

Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

- Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- Cover grease storage and dumpsters and keep them clean to avoid leaks.
- Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.

Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

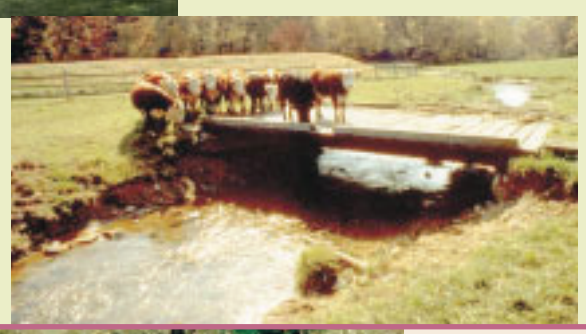
- Divert stormwater away from disturbed or exposed areas of the construction site.
- Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.



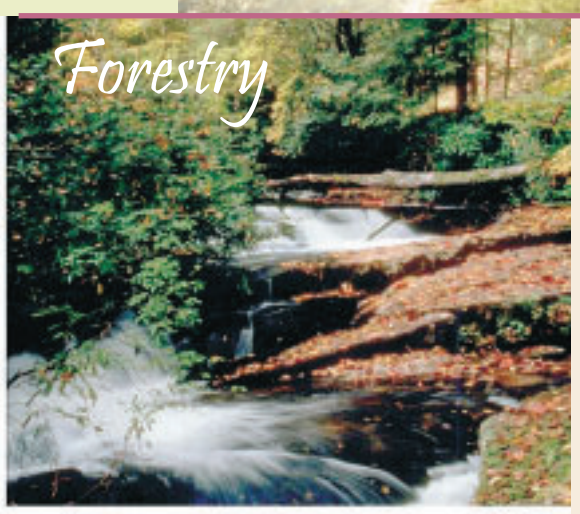
Construction

Agriculture

Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.



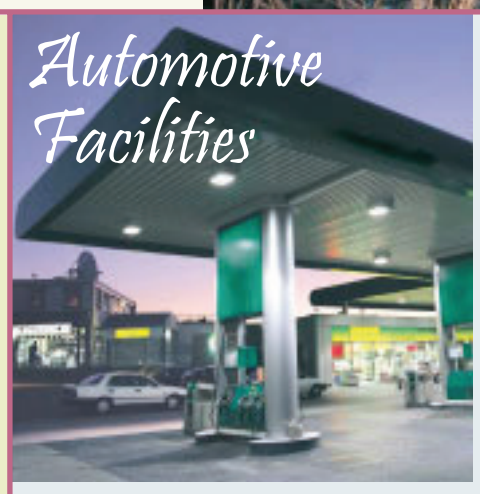
- Keep livestock away from streambanks and provide them a water source away from waterbodies.
- Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- Vegetate riparian areas along waterways.
- Rotate animal grazing to prevent soil erosion in fields.
- Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.



Forestry

Improperly managed logging operations can result in erosion and sedimentation.

- Conduct preharvest planning to prevent erosion and lower costs.
- Use logging methods and equipment that minimize soil disturbance.
- Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- Construct stream crossings so that they minimize erosion and physical changes to streams.
- Expedite revegetation of cleared areas.



Automotive Facilities

Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- Clean up spills immediately and properly dispose of cleanup materials.
- Provide cover over fueling stations and design or retrofit facilities for spill containment.
- Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- Install and maintain oil/water separators.

Pet Care

- When walking your pet, remember to **pick up** the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

Swimming Pool and Spa

- **Drain** your swimming pool only when a test kit does not detect chlorine levels.
- Whenever possible, drain your pool or spa into the **sanitary** sewer system.
- Properly store pool and spa chemicals to **prevent** leaks and spills, preferably in a covered area to avoid exposure to stormwater.

Septic System Use and Maintenance

- Have your septic system **inspected** by a professional at least every 3 years, and have the septic tank **pumped** as necessary (usually every 3 to 5 years).
- Care for the septic system drainfield by **not** driving or parking vehicles on it. Plant only grass over and near the drainfield to avoid damage from roots.
- Flush responsibly. Flushing household chemicals like paint, pesticides, oil, and antifreeze can **destroy** the biological treatment taking place in the system. Other items, such as diapers, paper towels, and cat litter, can **clog** the septic system and potentially damage components.

Storm drains connect to waterbodies!

Remember: Only rain down the drain!

For more information, visit
www.epa.gov/npdes/stormwater
or
www.epa.gov/nps

Contact: Darryl E. Walker, dwalker@petersburg-va.org

City of Petersburg - Department of Public Works

City Hall Annex, 103 West Tabb Street

Petersburg, VA 23803

(804) 733-2357

EPA 833-B-03-003

January 2003

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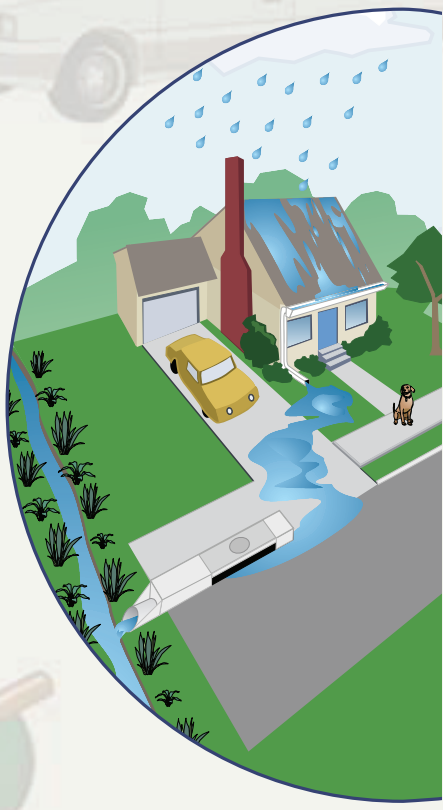
Make your home

The

SOLUTION TO STORMWATER POLLUTION!

A homeowner's guide to healthy habits for clean water



EPA United States Environmental Protection Agency

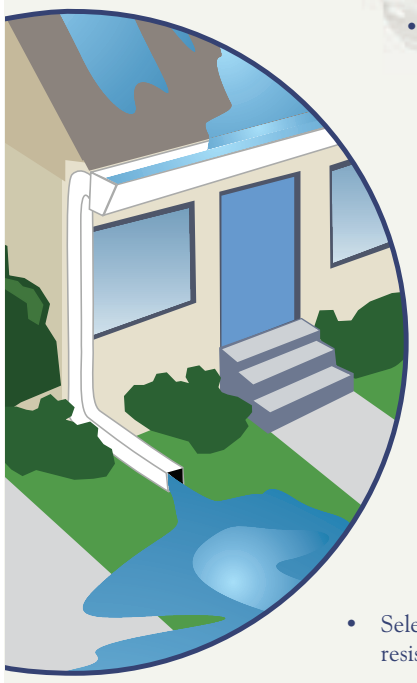
As stormwater flows over driveways, lawns, and sidewalks, it picks up debris, chemicals, dirt, and other pollutants. Stormwater can flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water. Polluted runoff is the nation's greatest threat to clean water.

By practicing healthy household habits, homeowners can keep common pollutants like pesticides, pet waste, grass clippings, and automotive fluids off the ground and out of stormwater. Adopt these healthy household habits and help protect lakes, streams, rivers, wetlands, and coastal waters. Remember to share the habits with your neighbors!

Healthy Household Habits for Clean Water

Vehicle and Garage

- Use a commercial car wash or wash your car on a lawn or other unpaved surface to **minimize** the amount of dirty, soapy water flowing into the storm drain and eventually into your local waterbody.



- Check your car, boat, motorcycle, and other machinery and equipment for leaks and spills. Make repairs as soon as possible. Clean up **spilled fluids** with an absorbent material like kitty litter or sand, and don't rinse the spills into a nearby storm drain. Remember to properly dispose of the absorbent material.

- **Recycle** used oil and other automotive fluids at participating service stations. Don't dump these chemicals down the storm drain or dispose of them in your trash.

Lawn and Garden

- Use pesticides and fertilizers **sparingly**. When use is necessary, use these chemicals in the recommended amounts. Avoid application if the forecast calls for rain; otherwise, chemicals will be washed into your local stream.

- Select **native** plants and grasses that are drought- and pest-resistant. Native plants require less water, fertilizer, and pesticides.

- **Sweep up** yard debris, rather than hosing down areas. Compost or recycle yard waste when possible.

- Don't overwater your lawn. Water during the **cool** times of the day, and don't let water run off into the storm drain.

- Cover piles of dirt and mulch being used in landscaping projects to prevent these pollutants from blowing or washing off your yard and into local waterbodies. **Vegetate** bare spots in your yard to prevent soil erosion.

Home Repair and Improvement

- Before beginning an outdoor project, locate the nearest storm drains and **protect** them from debris and other materials.

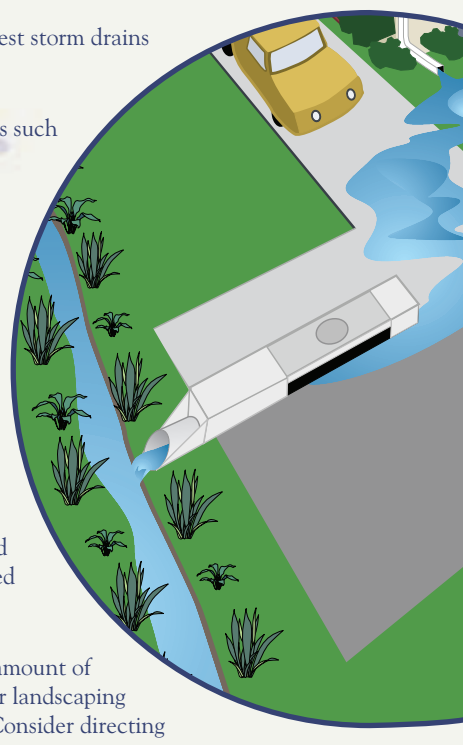
- **Sweep up** and properly dispose of construction debris such as concrete and mortar.

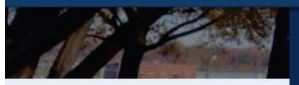
- Use hazardous substances like paints, solvents, and cleaners in the **smallest amounts possible**, and follow the directions on the label. Clean up spills **immediately**, and dispose of the waste safely. Store substances properly to avoid leaks and spills.

- Purchase and use **nontoxic**, **biodegradable**, **recycled**, and **recyclable** products whenever possible.

- **Clean** paint brushes in a sink, not outdoors. Filter and reuse paint thinner when using oil-based paints. Properly dispose of excess paints through a household hazardous waste collection program, or donate unused paint to local organizations.

- **Reduce** the amount of paved area and increase the amount of vegetated area in your yard. Use native plants in your landscaping to reduce the need for watering during dry periods. Consider directing downspouts away from paved surfaces onto lawns and other measures to increase infiltration and reduce polluted runoff.





Stormwater Management

The Stormwater Management Program promotes effective storm water drainage and informs and educates residents on storm water issues.

Responsibilities

The Stormwater Management Program's responsibilities include;

- Daily site inspection of multiple construction projects to ensure compliance with local, state, and federal codes and standards
- Performs site construction, erosion and sediment control (E&S), and Best Management Practice inspections in support of the City's E&S, MS4 and VSMP Permit
- The review of site and development plans

Additional Information

The city operates and maintains drainage facilities that are located within the public right-of-way or public easements.

Stormwater Utility Frequently Asked Questions

Stormwater Advisory Committee Presentation

June 2013 Public Meeting Presentation (Stormwater Utility Fee Program)

Stormwater Utility Ordinance (As Adopted)

Stormwater Utility Rate Resolution (As Adopted)

Residential Fee Credit Manual (With Application)

Non-Residential /Multi-Family Fee Credit Manual (With Application)

MS4 Annual Report

MS4 Program Plan

2015 Chesapeake Bay TMDL Action Plan

Contact Us

Darryl Walker
Stormwater Program Manager
Email

103 W. Tabb St.
Petersburg, VA 23803

Ph: 804-733-2357
Fx: 804-732-2030

Hours
Monday - Friday
8:30 a.m. - 5 p.m.

Staff Directory

Quick Links

- Virginia Department of Environmental Quality

TEN TIPS FOR FERTILIZING YOUR LAWN

1. Get Tested
Have your soil tested for pH levels and the need for additional nutrients. This will help determine which fertilizers and supplements are needed.

2. Buy What You Need
Buy organic or synthetic fertilizer. Don't use a weed and feed product unless you have widespread weed problems in your yard. Instead, use straight fertilizer and spot treat or pull weeds. Ask the Cooperative Extension Service or your local garden center for specific guidance.

3. Slow It Down
Select lawn-grade fertilizers that include Slow Release Nitrogen to prevent lawn burn, reduce runoff and leaching of nutrients into groundwater.

4. Be Well Read
Read and follow all label directions when applying fertilizer. Incorrect application such as spilling onto paved surfaces can result in fertilizer being washed down storm sewers and ending up in our waterways.

5. Chill Out
Grass will not use fertilizer when it is not actively growing. To prevent runoff pollution of lakes and streams, never apply fertilizers to frozen ground or pavement.

6. Spread It Out
Be sure your spreader is working and adjusted properly. Read and follow the spreader setting instructions on the fertilizer label so that your spreader applies the correct amount of fertilizer.

7. Recycle Your Lawn
Leave the height of your grass long when mowing and leave clippings on your lawn to decompose. "Grass-cycling" is a great source of nitrogen and saves water and fertilizer.

8. Recycle Your Yard
Compost leaves, yard debris, and non-meat food scraps. They make great mulch for the garden.

9. Slenderize Your Yard
Keep your yard healthy by controlling how much fertilizer it gets. Follow recommended rates for lawns in your area.

10. Protect The Borders
When applying fertilizers, maintain a buffer strip or fertilizer-free zone around the edges of lakes and streams.

Additional information can be found by following the link below:
http://www.epa.gov/reg3wcmd/pesticideslawn.htm

DON'T trash CENTRAL VIRGINIA

Facebook Twitter Instagram Email Website

Our mailing address is:
City of Petersburg, Virginia
135 N Union Street
Petersburg, VA 23803

Click here for more information on Utility Billing

Hey Central VA -

Let's do our best to prevent PPE litter!

Please properly dispose of PPE trash.

Improper disposal will have negative impacts on the environment.

DON'T trash CENTRAL VIRGINIA

Appendix B. Illicit Discharge Reports Filed/Documented by DEQ

Finalized by VPDES Staff 10/30/08

Unauthorized Discharge & Overflow Report

Piedmont Regional Office
Phone #(804)527-5020 Fax #(804)527-5106

Incident Response No: 12072020

Reported To: 804 527-5127 Patrick Bishop

Date Reported: 12-8-2020 Time: 5:20pm

Reported by: Fred Satterwhite

Receiving Facility Name: Southside Central Wastewater Authority WWTF

Permit No.: VA 0025437

Owner of Conveyance (if different from receiving facility): Petersburg Public Utilities

Address: 424 St. Andrews St.

County/City: Petersburg, VA

Zip: 23803

Contact at Scene: James Lyons

Telephone No.: 804-479-6031

Date of Incident: 08-15-2020

Time of Incident: 8:39pm – 9:15pm

Length of Time Discharge Continued: 36 minutes

Volume of Discharge (gal): 200 gals.

Description of Nature and Location of Discharge

East Walnut Hill Pump Station – due to Pump 1 fail while Pump 2 was out of service for maintenance.

Affected Body of Water (if applicable): Poor Creek

Has the Virginia Department of Health (VDH) Been Notified? X□Yes □No
(Contact VDH if a drinking water supply or shellfish waters may be impacted or if spill volume is greater than 1000 gallons or unknown)

Note to Facility: This FAXED report can also serve as your five day letter if the discharge has been stopped **and** you attach a description of the steps planned or taken to reduce, eliminate, and prevent a recurrence of present or any future discharges not authorized by a permit.

Finalized by VPDES Staff 10/30/08

Unauthorized Discharge & Overflow Report

Piedmont Regional Office
Phone #(804)527-5020 Fax #(804)527-5106

Incident Response No: _____

Reported To: 804 527-5127 Patrick Bishop

Date Reported: 2-5-21 Time: 11:00 AM

Reported by: Carnell Jones

Receiving Facility Name: Southside Central Wastewater Authority WWTF

Permit No.: VA 0025437

Owner of Conveyance (if different from receiving facility): Petersburg Public Utilities

Address: 424 St. Andrews St.

County/City: Petersburg, VA

Zip: 23803

Contact at Scene: Carnell Jones

Telephone No.: (804) 479-7680

Date of Incident: 2-5-21

Time of Incident: 10:20am

Length of Time Discharge Continued: 1½ hour

Volume of Discharge (gal): 150

Description of Nature and Location of Discharge: Behind 2023 E. Washington St Rear of Building Down Hill. Had To Call Colonial Heights To Come And Jett City Main Sewer To Unstopped Currently Running

Affected Body of Water (if applicable): n/A

Has the Virginia Department of Health (VDH) Been Notified? ☐Yes ☐No
(Contact VDH if a drinking water supply or shellfish waters may be impacted or if spill volume is greater than 1000 gallons or unknown)

Note to Facility: This FAXED report can also serve as your five day letter if the discharge has been stopped and you attach a description of the steps planned or taken to reduce, eliminate, and prevent a recurrence of present or any future discharges not authorized by a permit.

PLEASE CONTACT PATRICK BISHOP W/in 24 hrs by phone

Finalized by VPDES Staff 10/30/08

Unauthorized Discharge & Overflow Report

Piedmont Regional Office
Phone #(804)527-5020 Fax #(804)527-5106

Incident Response No: _____ Reported To: 804 527-5127 Patrick Bishop

Date Reported: 2-25-21 Time: 7:50A.M Reported by: LARRY Brown

Receiving Facility Name: Southside Central Wastewater Authority WWTF Permit No.: VA 0025437

Owner of Conveyance (if different from receiving facility): Petersburg Public Utilities

Address: 424 St. Andrews St.

County/City: Petersburg, VA Zip: 23803

Contact at Scene: LARRY Brown Telephone No.: 733-2407

Date of Incident: 2-24-21 Time of Incident: 3:45 P.M.

Length of Time Discharge Continued: 3 hrs.

Volume of Discharge (gal): 100 gal. Plus

Description of Nature and Location of Discharge: A Sewer Back Up AT LIEUTENANT APARTMENTS, THAT CAUSED A manhole TO OVERFLOW INTO THE LIEUTENANT RUN CREEK AT Johnson Rd. The problem has been Correct-Ed

Affected Body of Water (if applicable): _____

Has the Virginia Department of Health (VDH) Been Notified? ☐Yes ☒No
(Contact VDH if a drinking water supply or shellfish waters may be impacted or if spill volume is greater than 1000 gallons or unknown)

Note to Facility: This FAXED report can also serve as your five day letter if the discharge has been stopped and you attach a description of the steps planned or taken to reduce, eliminate, and prevent a recurrence of present or any future discharges not authorized by a permit.

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Finalized by VPDES Staff 10/30/08

Unauthorized Discharge & Overflow Report

Piedmont Regional Office
Phone #(804)527-5020 Fax #(804)527-5106

Incident Response No: 03082021

Reported To: 804 527-5127 Patrick Bishop

Date Reported: 3-8-2021 Time: 11am

Reported by: Fred Satterwhite

Receiving Facility Name: Southside Central Wastewater Authority WWTF

Permit No.: VA 0025437

Owner of Conveyance (if different from receiving facility): Petersburg Public Utilities

Address: 424 St. Andrews St.

County/City: Petersburg, VA

Zip: 23803

Contact at Scene: Will Walton

Telephone No.: 804-988-6666

Date of Incident: 03-08-2021

Time of Incident: 7am – 7:50am

Length of Time Discharge Continued: 50 minutes

Volume of Discharge (gal): 175 gals.

Description of Nature and Location of Discharge

East Bank Street Pump Station – due to power outage from accident

Affected Body of Water (if applicable): Appomattox River

Has the Virginia Department of Health (VDH) Been Notified? X□Yes □No
(Contact VDH if a drinking water supply or shellfish waters may be impacted or if spill volume is greater than 1000 gallons or unknown)

Note to Facility: This FAXED report can also serve as your five day letter if the discharge has been stopped **and** you attach a description of the steps planned or taken to reduce, eliminate, and prevent a recurrence of present or any future discharges not authorized by a permit.

PLEASE CONTACT PATRICK BISHOP W/in 24 hrs by phone

Finalized by VPDES Staff 10/30/08

Unauthorized Discharge & Overflow Report

Piedmont Regional Office
Phone #(804)527-5020 Fax #(804)527-5106

Incident Response No: 03242021 Reported To: 804 527-5127 Patrick Bishop

Date Reported: 3-24-21 Time: 11:30am Reported by: Fred Satterwhite

Receiving Facility Name: Southside Central Wastewater Authority WWTF Permit No.: VA 0025437

Owner of Conveyance (if different from receiving facility): Petersburg Public Utilities

Address: 424 St. Andrews St.

County/City: Petersburg, VA Zip: 23803

Contact at Scene: Fred Satterwhite Telephone No.: 804-400-9518

Date of Incident: 03-24-2021 Time of Incident: 11:30am – 1pm

Length of Time Discharge Continued: 1 ½ hours

Volume of Discharge (gal): 500 gals.

Description of Nature and Location of Discharge

Main Pump Station – due to heavy rain event

Affected Body of Water (if applicable): Appomattox River

Has the Virginia Department of Health (VDH) Been Notified? X□Yes □No
(Contact VDH if a drinking water supply or shellfish waters may be impacted or if spill volume is greater than 1000 gallons or unknown)

Note to Facility: This FAXED report can also serve as your five day letter if the discharge has been stopped **and** you attach a description of the steps planned or taken to reduce, eliminate, and prevent a recurrence of present or any future discharges not authorized by a permit.

PLEASE CONTACT PATRICK BISHOP W/in 24 hrs by phone

Finalized by VPDES Staff 10/30/08

Unauthorized Discharge & Overflow Report

Piedmont Regional Office
Phone #(804)527-5020 Fax #(804)527-5106

Incident Response No: 03252021 Reported To: 804 527-5127 Patrick Bishop

Date Reported: 3-25-21 Time: 6:53am Reported by: Fred Satterwhite

Receiving Facility Name: Southside Central Wastewater Authority WWTF Permit No.: VA 0025437

Owner of Conveyance (if different from receiving facility): Petersburg Public Utilities

Address: 424 St. Andrews St.

County/City: Petersburg, VA Zip: 23803

Contact at Scene: James Lyons Telephone No.: 804-479-6031

Date of Incident: 03-25-2021 Time of Incident: 6:53am – 7:07am

Length of Time Discharge Continued: 14 minutes

Volume of Discharge (gal): 200 gals.

Description of Nature and Location of Discharge

East Walnut Hill Pump Station – abnormal flow due to heavy rain event on 03/24/2021

Affected Body of Water (if applicable): Poor Creek

Has the Virginia Department of Health (VDH) Been Notified? X□Yes □No
(Contact VDH if a drinking water supply or shellfish waters may be impacted or if spill volume is greater than 1000 gallons or unknown)

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Finalized by VPDES Staff 10/30/08

Unauthorized Discharge & Overflow Report

Piedmont Regional Office
Phone #(804)527-5020 Fax #(804)527-5106

Incident Response No:	05272021	**Reported To:**	804 527-5127 Patrick Bishop
Date Reported:	5-27-21 **Time:** 9:03am	**Reported by:**	Fred Satterwhite
Receiving Facility Name	Southside Central Wastewater Authority WWTF	**Permit No.:**	VA 0025437
Owner of Conveyance (if different from receiving facility)	Petersburg Public Utilities		
Address:	424 St. Andrews St.		
County/City:	Petersburg, VA	**Zip:**	23803
Contact at Scene:	James Lyons	**Telephone No.:**	804-479-6031
Date of Incident	05-27-2021	**Time of Incident:**	8:37am – 9:09am

Length of Time Discharge Continued: 33 minutes

Volume of Discharge (gal): 800 gals.

Description of Nature and Location of Discharge

East Bank Street Pump Station – due to SCADA PLC program failure

Affected Body of Water (if applicable): Appomattox River

Has the Virginia Department of Health (VDH) Been Notified? X□Yes □No
(Contact VDH if a drinking water supply or shellfish waters may be impacted or if spill volume is greater than 1000 gallons or unknown)

Note to Facility: This FAXED report can also serve as your five day letter if the discharge has been stopped **and** you attach a description of the steps planned or taken to reduce, eliminate, and prevent a recurrence of present or any future discharges not authorized by a permit.

PLEASE CONTACT PATRICK BISHOP W/in 24 hrs by phone

Appendix C. Record of Land Disturbance Projects

Petersburg Development Projects – FY2021

1. Amsted Rail – R & T Center Shed, 2740 Frontage Road, Tax Parcel 064-03-0002, 0.49 acres, Industrial

2. Amsted Rail – Seals and Forming, 2580 Frontage Road, Tax Parcel 057-06-0001, 1.45 acres, Industrial

3. Berkeley Estates – Section I Phase 2, 500 Old Wagner Road, Tax Parcel 083-02-0001, 7.92 acres, Residential

4. Berkeley Estates – Section 2, 3601 Frontage Road, Tax Parcel 086-03-0009, 9.60 acres, Residential

5. Civica FFF – Early Site Package, 2821 Normandy Drive, Tax Parcel 063-01-0800, 7.72 acres, Industrial

6. Clearfield MMG, 2700 Normandy Drive, Tax Parcel 064-03-0801, 5.20 acres, Industrial

7. Dominion Energy Locks Yard IIA & IIB, 33 Rawlings Lane, Tax Parcel 027-01-0005, 9.16 acres, Industrial

8. Family Dollar – Boydton Plank Road, 1847 Boydton Plank Road, Tax Parcel 057-07-0805, 0.98 acres, Commercial

9. Holland Tract Utility Extension, 550 & 601 Rives Road, Tax Parcels 102-05-0001, 5.00 acres, Linear Utility

10. Market Street Lofts, 201 (formerly 225) Hinton Street & 39 North Market Street, Tax Parcels 010-22-0025 & 011-24-0020, 0.97 & 0.30 acres, Commercial

11. Pecan Acres – Phase I, 1400 Farmer Street, Tax Parcel 046-04-0014, 7.70 acres, Residential

12. Petersburg Public Library – Conference & Event Center, 201 West Washington Street, Tax Parcel 022-01-0001, 0.62 acres, Commercial

13. Phlow FFF – Early Site Package, 2821 Normandy Drive, Tax Parcel 063-01-0800, 10.13 acres, Industrial

14. Phlow – HMF & KILO Site Package, 2820 & 2821 Normandy Drive, Tax Parcels 063-01-0001 & 063-01-0800, 2.55 acres, Industrial

15. Phlow Utah & HMF Early Site Package, 2820 & 2821 Normandy Drive, Tax Parcels 063-01-0001 & 063-01-0800, 6.93 & 13.90 acres, Industrial

16. Phlow Utah Final Site Package, 2820 & 2821 Normandy Drive, Tax Parcels 063-01-0001 & 063-01-0800, 4.47 & 17.65 acres, Industrial

17. P. I. Tower Development, 3245 S. Crater Road, Tax Parcel 081-06-0805, 0.21 acres, Commercial

18. Poplar Springs Hospital – Military Wing & Front Entrance Improvements, 350 Poplar Drive, Tax Parcel 082-02-0005, 0.38 acres, Commercial

19. South Central Wastewater Authority – Warehouse Facility, 900 Magazine Road, Tax Parcel 006-01-0800, 0.42 acres, Industrial

20. Southline @ Perry Place, 110 & 120 S. Perry Street, Tax Parcels 023-32-0001 & 023-36-0004, 1.380 & 1.061 acres, Commercial

Appendix D. DPW/U Record of Operation & Maintenance on Storm Sewers

The Department of Public Works Operations Division keeps records on their storm water sewer maintenance work and their street sweeping program. They have reported the following City expenses for sweeping and drain cleaning for the 2020-2021 Fiscal Year (July 1, 2020 through June 30, 2021).

Street Cleaning (Machine Sweeping)	$29,978.10
Clean & Reshape Ditches by Hand	$9,007.24
Clean & Reshape Ditches by Machine (Grader)	$55,773.23
New Ditch/Drainage	$9,173.70
Erosion/Washout Repair	$3,184.99
Other Drainage Maintenance	$53,387.88
Total	$161,205.68

Appendix E. WLA Calculations & Results Summary

CITY OF PETERSBURG

WLA Calculations and Results Summary

The following calculations were performed in accordance with the Section IIB Special Conditions of General Permit for Discharges from Small Municipal Separate Storm Sewer Systems.

Background Information:

Total area within Petersburg City limits:	14,669 acres
Total drainage area to Appomattox River:	9,820 acres
Total drainage area to other outfalls:	4,849 acres
Percentage of impervious area within Appomattox River watersheds:	40%
Total Rainfall 07-01-2020 to 06-30-2021:	66.15 inches (Attachment)

Calculations:

Estimated Volume of Stormwater Discharged

*Annual Runoff, ft^3 = (% impervious, as a decimal) * (Annual Precipitation, ft) * (MS4 Area, ft^2)*

Estimate of Colony Forming Units of E. Coli

*Annual Fecal Coliform Load (cfu/year) = 103 * (Annual Runoff, in) * (15,000/ml) * (area, ac)*

$$E.\ Coli = 2^{[-0.0172+0.91905*Log_2(\text{annual fecal coliform load, cfu/year})]}$$

Table 1. Estimated Volume of Stormwater and E. coli Discharged by the City of Petersburg to Impaired Water Segment: Appomattox River (2)

MS4 Watershed	Drainage Area		Est. Volume Stormwater	Fecal Coliform	E. Coli
	(sf)	(ac)	(ft^3)	(cfu/yr)	(cfu/yr)
Appomattox Riverfront	11,087,378	255	24,447,668	1.04E+10	1.59E+09
Rohoic Creek	56,008,665	1,286	123,499,106	5.26E+10	7.04E+09
Brickhouse Run	61,756,897	1,418	136,173,958	5.80E+10	7.70E+09
Cross Street	2,889,637	66	6,371,650	2.71E+09	4.62E+08
Fleet Street East	948,610	22	2,091,685	8.90E+08	1.66E+08
Fleet Street West	2,664,290	61	5,874,759	2.50E+09	4.29E+08
Anchor Sheds	4,751,500	109	10,477,058	4.46E+09	7.29E+08
Battersea	5,357,484	123	11,813,252	5.03E+09	8.14E+08
West Street	3,539,115	81	7,803,749	3.32E+09	5.56E+08
Total	**149,003,576**	**3,421**	**328,552,885**	**1.40E+11**	**1.95E+10**

Table 2. Estimated Volume of Stormwater and E. coli Discharged by the City of Petersburg to Impaired Water Segment: Appomattox (3) - Tidal

MS4 Watershed	Drainage Area		Est. Volume Stormwater	Fecal Coliform	E. Coli
	(sf)	(ac)	(ft^3)	(cfu/yr)	(cfu/yr)
Harrison Creek	41,189,178	946	90,822,137	3.87E+10	5.31E+09
River Street	3,190,033	73	7,034,023	2.99E+09	5.06E+08
Old Church Street	2,746,976	63	6,057,082	2.58E+09	4.41E+08
Pocahontas	2,428,607	56	5,355,078	2.28E+09	3.94E+08
Poor Creek (Poe Creek)	74,461,773	1,709	164,188,209	6.99E+10	9.15E+09
Lieutenant Run	154,739,404	3,552	341,200,386	1.45E+11	1.79E+10
Total	**278,755,971**	**6,399**	**614,656,916**	**2.62E+11**	**3.37E+10**

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Current Location: Elev: 19 ft. Lat: 37.2388° N Lon: -77.3925° W
Station: **PETERSBURG, VA US USC00446656**

Record of Climatological Observations

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Generated on 08/25/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	07	01	90	67	67	0.92		0.0		0.0								
2020	07	02	88	67	68	0.02		0.0		0.0								
2020	07	03	94	68	73	0.00		0.0		0.0								
2020	07	04	93	72	72	0.00		0.0		0.0								
2020	07	05	91	71	73	0.00		0.0		0.0								
2020	07	06	92	73	74	0.00		0.0		0.0								
2020	07	07	91	72	73	0.00		0.0		0.0								
2020	07	08	89	73	75	0.00		0.0		0.0								
2020	07	09	89	74	74	0.00		0.0		0.0								
2020	07	10	94	73	74	0.00		0.0		0.0								
2020	07	11	92	67	67	0.00		0.0		0.0								
2020	07	12	93	66	75	0.00		0.0		0.0								
2020	07	13	90	70	70	0.61		0.0		0.0								
2020	07	14	91	70	71	0.00		0.0		0.0								
2020	07	15	92	71	72	0.00		0.0		0.0								
2020	07	16	91	72	74	0.00		0.0		0.0								
2020	07	17				0.23		0.0		0.0								
2020	07	18				0.00		0.0		0.0								
2020	07	19				0.00		0.0		0.0								
2020	07	20				0.00		0.0		0.0								
2020	07	21				0.75		0.0		0.0								
2020	07	22				0.00		0.0		0.0								
2020	07	23				0.15		0.0		0.0								
2020	07	24				0.00		0.0		0.0								
2020	07	25				0.09		0.0		0.0								
2020	07	26				0.00		0.0		0.0								
2020	07	27				0.00		0.0		0.0								
2020	07	28				0.00		0.0		0.0								
2020	07	29	91	74	74	0.00		0.0		0.0								
2020	07	30	96	73	74	0.65		0.0		0.0								
2020	07	31	96	73	76	0.15		0.0		0.0								
Summary			92	71		3.57		0.0										

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Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	08	01	96	73	74	0.25		0.0		0.0								
2020	08	02	96	74	76	0.00		0.0		0.0								
2020	08	03	90	70	71	3.85		0.0		0.0								
2020	08	04	90	70	75	0.55		0.0		0.0								
2020	08	05	91	70	73	0.15		0.0		0.0								
2020	08	06	91	73	73	1.90		0.0		0.0								
2020	08	07	89	70	72	0.00		0.0		0.0								
2020	08	08	91	72	73	0.75		0.0		0.0								
2020	08	09	89	70	72	0.00		0.0		0.0								
2020	08	10	91	70	70	0.00		0.0		0.0								
2020	08	11	88	70	74	0.00		0.0		0.0								
2020	08	12	92	74	74	0.00		0.0		0.0								
2020	08	13	92	73	75	0.00		0.0		0.0								
2020	08	14	85	74	75	0.70		0.0		0.0								
2020	08	15	76	68	69	4.80		0.0		0.0								
2020	08	16	76	65	65	0.05		0.0		0.0								
2020	08	17	85	65	68	1.36		0.0		0.0								
2020	08	18	87	68	69	0.00		0.0		0.0								
2020	08	19	84	67	67	0.00		0.0		0.0								
2020	08	20	84	67	70	0.00		0.0		0.0								
2020	08	21	84	69	71	0.30		0.0		0.0								
2020	08	22	82	71	72	0.06		0.0		0.0								
2020	08	23	88	72	74	0.00		0.0		0.0								
2020	08	24	88	72	74	0.00		0.0		0.0								
2020	08	25	90	74	75	0.00		0.0		0.0								
2020	08	26	87	73	74	0.00		0.0		0.0								
2020	08	27	93	73	75	0.00		0.0		0.0								
2020	08	28	93	74	78	0.00		0.0		0.0								
2020	08	29	87	68	68	0.00		0.0		0.0								
2020	08	30	86	66	69	0.00		0.0		0.0								
2020	08	31	86	66	71	0.14		0.0		0.0								
Summary			88	70		14.86		0.0										

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			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	09	01	86	66	75	1.10		0.0		0.0								
2020	09	02	90	72	74	0.00		0.0		0.0								
2020	09	03	93	72	74	0.00		0.0		0.0								
2020	09	04	93	71	71	0.00		0.0		0.0								
2020	09	05	83	57	57	0.00		0.0		0.0								
2020	09	06	93	57	57	0.00		0.0		0.0								
2020	09	07	83	57	65	0.00		0.0		0.0								
2020	09	08	86	64	74	0.00		0.0		0.0								
2020	09	09	78	74	78	1.15		0.0		0.0								
2020	09	10	88	72	72	0.01		0.0		0.0								
2020	09	11	86	72	73	0.03		0.0		0.0								
2020	09	12	78	63	63	0.00		0.0		0.0								
2020	09	13	85	62	69	0.00		0.0		0.0								
2020	09	14	77	60	60	0.00		0.0		0.0								
2020	09	15	70	54	55	0.00		0.0		0.0								
2020	09	16	75	54	69	0.00		0.0		0.0								
2020	09	17	73	68	73	3.63		0.0		0.0								
2020	09	18	76	54	54	0.01		0.0		0.0								
2020	09	19	76	47	48	0.00		0.0		0.0								
2020	09	20	68	47	49	0.00		0.0		0.0								
2020	09	21	67	45	45	0.00		0.0		0.0								
2020	09	22	70	45	52	0.00		0.0		0.0								
2020	09	23	78	51	58	0.00		0.0		0.0								
2020	09	24	70	58	64	0.00		0.0		0.0								
2020	09	25	69	58	65	0.46		0.0		0.0								
2020	09	26	72	65	68	0.35		0.0		0.0								
2020	09	27	75	66	66	0.00		0.0		0.0								
2020	09	28	83	65	70	0.02		0.0		0.0								
2020	09	29	83	58	59	0.95		0.0		0.0								
2020	09	30	71	55	55	0.00		0.0		0.0								
Summary			79	60		7.71		0.0										

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			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	10	01	79	55	58	0.00		0.0		0.0								
2020	10	02	70	46	50	0.00		0.0		0.0								
2020	10	03	68	45	45	0.00		0.0		0.0								
2020	10	04	69	45	49	0.00		0.0		0.0								
2020	10	05	71	47	47	0.00		0.0		0.0								
2020	10	06	76	47	57	0.00		0.0		0.0								
2020	10	07	82	56	57	0.00		0.0		0.0								
2020	10	08	76	49	49	0.00		0.0		0.0								
2020	10	09	76	49	49	0.00		0.0		0.0								
2020	10	10	72	49	61	0.00		0.0		0.0								
2020	10	11	74	61	74	1.73		0.0		0.0								
2020	10	12	78	58	63	0.05		0.0		0.0								
2020	10	13	78	49	49	0.00		0.0		0.0								
2020	10	14	74	48	53	0.00		0.0		0.0								
2020	10	15	78	52	69	0.09		0.0		0.0								
2020	10	16	69	46	46	1.16		0.0		0.0								
2020	10	17	62	41	41	0.00		0.0		0.0								
2020	10	18	68	41	51	0.00		0.0		0.0								
2020	10	19	75	51	60	0.00		0.0		0.0								
2020	10	20	79	51	65	0.00		0.0		0.0								
2020	10	21	83	58	58	0.00		0.0		0.0								
2020	10	22	80	58	58	0.00		0.0		0.0								
2020	10	23	78	58	61	0.00		0.0		0.0								
2020	10	24	83	57	57	1.19		0.0		0.0								
2020	10	25	57	51	53	0.19		0.0		0.0								
2020	10	26	63	51	57	0.00		0.0		0.0								
2020	10	27	65	51	65	0.00		0.0		0.0								
2020	10	28	76	65	67	0.02		0.0		0.0								
2020	10	29	82	53	53	1.15		0.0		0.0								
2020	10	30	63	43	43	0.00		0.0		0.0								
2020	10	31	56	41	48	0.00		0.0		0.0								
Summary			73	51		5.58		0.0										

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Generated on 08/25/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	11	01	64	36	36	0.62		0.0		0.0								
2020	11	02	53	36	38	0.00		0.0		0.0								
2020	11	03	64	36	36	0.00		0.0		0.0								
2020	11	04	69	36	39	0.00		0.0		0.0								
2020	11	05	72	39	53	0.00		0.0		0.0								
2020	11	06	75	47	48	0.00		0.0		0.0								
2020	11	07	77	47	50	0.00		0.0		0.0								
2020	11	08	78	48	49	0.00		0.0		0.0								
2020	11	09	78	46	52	0.00		0.0		0.0								
2020	11	10	78	48	66	0.00		0.0		0.0								
2020	11	11	78	66	69	0.80		0.0		0.0								
2020	11	12	71	52	52	0.93		0.0		0.0								
2020	11	13	73	48	48	0.00		0.0		0.0								
2020	11	14	66	44	52	0.00		0.0		0.0								
2020	11	15	74	45	45	0.10		0.0		0.0								
2020	11	16	62	38	38	0.00		0.0		0.0								
2020	11	17	62	30	32	0.00		0.0		0.0								
2020	11	18	62	28	29	0.00		0.0		0.0								
2020	11	19	62	28	38	0.00		0.0		0.0								
2020	11	20	69	36	40	0.00		0.0		0.0								
2020	11	21	71	36	46	0.00		0.0		0.0								
2020	11	22	68	45	55	0.00		0.0		0.0								
2020	11	23	61	32	32	0.00		0.0		0.0								
2020	11	24	56	32	39	0.00		0.0		0.0								
2020	11	25	64	32	63	0.10		0.0		0.0								
2020	11	26	71	45	51	0.15		0.0		0.0								
2020	11	27	66	46	46	0.00		0.0		0.0								
2020	11	28	65	36	36	0.00		0.0		0.0								
2020	11	29	62	35	61	0.66		0.0		0.0								
2020	11	30	73	38	39	0.39		0.0		0.0								
		Summary	68	40		3.75		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

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U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Current Location: Elev: 19 ft. Lat: 37.2388° N Lon: -77.3925° W
Station: **PETERSBURG, VA US USC00446656**

Record of Climatological Observations

These data are quality controlled and may not be identical to the original observations.

Generated on 08/25/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	12	01	48	31	32	0.00		0.0		0.0								
2020	12	02	52	24	24	0.00		0.0		0.0								
2020	12	03	58	23	44	0.00		0.0		0.0								
2020	12	04	61	44	47	1.72		0.0		0.0								
2020	12	05	53	30	30	0.00		0.0		0.0								
2020	12	06	50	30	35	0.02		0.0		0.0								
2020	12	07	35	28	28	0.10		T		0.0								
2020	12	08	48	24	29	0.00		0.0		0.0								
2020	12	09	50	28	28	0.00		0.0		0.0								
2020	12	10	57	27	36	0.00		0.0		0.0								
2020	12	11	66	27	49	0.00		0.0		0.0								
2020	12	12	66	39	56	0.02		0.0		0.0								
2020	12	13	71	48	48	0.00		0.0		0.0								
2020	12	14	48	30	33	1.54		0.0		0.0								
2020	12	15	43	28	35	0.00		0.0		0.0								
2020	12	16	37	33	34	0.85		T		0.0								
2020	12	17	45	32	35	0.00		0.0		0.0								
2020	12	18	42	24	25	0.00		0.0		0.0								
2020	12	19	43	24	34	0.00		0.0		0.0								
2020	12	20	44	34	38	0.38		0.0		0.0								
2020	12	21	50	38	41	0.00		0.0		0.0								
2020	12	22	56	36	55	0.00		0.0		0.0								
2020	12	23	67	25	40	1.00		0.0		0.0								
2020	12	24	40	19	19	0.00		0.0		0.0								
2020	12	25	39	18	19	0.00		0.0		0.0								
2020	12	26	39	18	19	0.00		0.0		0.0								
2020	12	27	47	19	34	0.00		0.0		0.0								
2020	12	28	59	33	39	0.00		0.0		0.0								
2020	12	29	48	23	23	0.00		0.0		0.0								
2020	12	30	50	22	45	0.17		0.0		0.0								
2020	12	31	59	41	41	0.02		0.0		0.0								
Summary			51	29		5.82		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

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U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Current Location: Elev: 19 ft. Lat: 37.2388° N Lon: -77.3925° W
Station: **PETERSBURG, VA US USC00446656**

Record of Climatological Observations

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Generated on 08/25/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	01	01	43	37	43	0.55		0.0		0.0								
2021	01	02	62	37	45	1.07		0.0		0.0								
2021	01	03	47	32	37	0.05		0.0		0.0								
2021	01	04	46	35	36	0.00		0.0		0.0								
2021	01	05	50	31	32	0.00		0.0		0.0								
2021	01	06	47	24	24	0.00		0.0		0.0								
2021	01	07	48	24	37	0.00		0.0		0.0								
2021	01	08	42	32	32	0.00		0.0		0.0								
2021	01	09	48	25	26	0.00		0.0		0.0								
2021	01	10	52	23	25	0.00		0.0		0.0								
2021	01	11	47	25	36	0.00		0.0		0.0								
2021	01	12	53	24	24	0.00		0.0		0.0								
2021	01	13	55	24	35	0.00		0.0		0.0								
2021	01	14	56	26	32	0.00		0.0		0.0								
2021	01	15	57	29	40	0.22		0.0		0.0								
2021	01	16	42	31	32	0.00		0.0		0.0								
2021	01	17	51	31	35	0.00		0.0		0.0								
2021	01	18	49	25	26	0.00		0.0		0.0								
2021	01	19	57	25	38	0.00		0.0		0.0								
2021	01	20	51	25	29	0.00		0.0		0.0								
2021	01	21	58	29	39	0.00		0.0		0.0								
2021	01	22	56	22	22	0.00		0.0		0.0								
2021	01	23	42	17	17	0.00		0.0		0.0								
2021	01	24	43	17	36	0.00		0.0		0.0								
2021	01	25	44	36	38	1.36		0.0		0.0								
2021	01	26	45	36	41	0.03		0.0		0.0								
2021	01	27	41	30	30	0.12		0.2		0.0								
2021	01	28	39	20	20	0.00		0.0		0.0								
2021	01	29	36	14	14	0.00		0.0		0.0								
2021	01	30	40	14	29	0.02		0.5		0.0								
2021	01	31	34	29	32	0.82		1.0		1.0								
Summary			48	27		4.24		1.7										

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Current Location: Elev: 19 ft. Lat: 37.2388° N Lon: -77.3925° W
Station: **PETERSBURG, VA US USC00446656**

Record of Climatological Observations

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Generated on 08/25/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	02	01	34	31	34	0.04												
2021	02	02	42	32	32	0.03												
2021	02	03	50	22	23	0.00												
2021	02	04	54	20	40	0.04												
2021	02	05	56	24	36	0.00												
2021	02	06	52	36	38	0.30												
2021	02	07	45	30	31	0.46												
2021	02	08	46	27	37	0.00												
2021	02	09	60	36	39	0.07												
2021	02	10	44	37	37	0.00												
2021	02	11	39	31	31	0.62												
2021	02	12	39	29	31	0.16												
2021	02	13	33	31	31	0.70												
2021	02	14	36	31	35	0.40												
2021	02	15	42	35	41	0.65												
2021	02	16	54	28	28	0.00												
2021	02	17	42	26	32	0.70												
2021	02	18	42	26	32	0.70												
2021	02	19	39	25	25	0.00												
2021	02	20	41	16	16	0.00												
2021	02	21	41	16	32	0.00												
2021	02	22	52	32	34	0.31												
2021	02	23	65	30	30	0.00												
2021	02	24	70	29	41	0.00												
2021	02	25	60	32	38	0.00												
2021	02	26	46	38	41	0.50												
2021	02	27	53	41	51	0.00												
2021	02	28	53	49	53	0.23												
Summary			48	30		5.91		0.0										

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National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	03	01	61	33	33	0.25		0.0		0.0								
2021	03	02	48	29	29	0.00		0.0		0.0								
2021	03	03	61	29	32	0.00		0.0		0.0								
2021	03	04	62	30	30	0.00		0.0		0.0								
2021	03	05	50	25	25	0.00		0.0		0.0								
2021	03	06	54	23	23	0.00		0.0		0.0								
2021	03	07	50	22	22	0.00		0.0		0.0								
2021	03	08	58	22	30	0.00		0.0		0.0								
2021	03	09	72	22	35	0.00		0.0		0.0								
2021	03	10	77	35	50	0.00		0.0		0.0								
2021	03	11	78	49	58	0.00		0.0		0.0								
2021	03	12	59	48	48	0.00		0.0		0.0								
2021	03	13	58	34	35	0.00		0.0		0.0								
2021	03	14	64	33	41	0.00		0.0		0.0								
2021	03	15	50	35	36	0.00		0.0		0.0								
2021	03	16	43	35	43	0.05		0.0		0.0								
2021	03	17	52	43	48	0.05		0.0		0.0								
2021	03	18	60	46	46	1.50		0.0		0.0								
2021	03	19	50	29	30	0.25		0.0		0.0								
2021	03	20	54	29	31	0.02		0.0		0.0								
2021	03	21	63	30	40	0.00		0.0		0.0								
2021	03	22	67	40	48	0.00		0.0		0.0								
2021	03	23	67	48	55	0.12		0.0		0.0								
2021	03	24	62	50	50	2.13		0.0		0.0								
2021	03	25	74	49	68	0.03		0.0		0.0								
2021	03	26	85	48	48	0.00		0.0		0.0								
2021	03	27	76	38	47	0.12		0.0		0.0								
2021	03	28	79	45	45	0.23		0.0		0.0								
2021	03	29	64	42	43	0.00		0.0		0.0								
2021	03	30	72	43	59	0.00		0.0		0.0								
2021	03	31	74	46	46	0.98		0.0		0.0								
Summary			63	36		5.73		0.0										

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Current Location: Elev: 19 ft. Lat: 37.2388° N Lon: -77.3925° W
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National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	04	01	54	32	32	0.07		0.0		0.0								
2021	04	02	48	26	27	0.00		0.0		0.0								
2021	04	03	57	26	36	0.00		0.0		0.0								
2021	04	04	76	35	41	0.00		0.0		0.0								
2021	04	05	76	40	46	0.00		0.0		0.0								
2021	04	06	82	40	48	0.00		0.0		0.0								
2021	04	07	83	46	57	0.00		0.0		0.0								
2021	04	08	74	57	58	0.00		0.0		0.0								
2021	04	09	78	57	57	0.18		0.0		0.0								
2021	04	10	78	57	61	0.25		0.0		0.0								
2021	04	11	79	51	52	0.20		0.0		0.0								
2021	04	12	72	51	53	0.05		0.0		0.0								
2021	04	13	69	49	49	0.00		0.0		0.0								
2021	04	14	74	48	55	0.15		0.0		0.0								
2021	04	15	69	41	41	0.00		0.0		0.0								
2021	04	16	67	40	41	0.00		0.0		0.0								
2021	04	17	68	41	44	0.00		0.0		0.0								
2021	04	18	70	44	48	0.00		0.0		0.0								
2021	04	19	59	42	42	0.23		0.0		0.0								
2021	04	20	75	42	53	0.00		0.0		0.0								
2021	04	21	76	34	34	0.05		0.0		0.0								
2021	04	22	57	33	35	0.00		0.0		0.0								
2021	04	23	63	34	39	0.00		0.0		0.0								
2021	04	24	64	37	52	0.46		0.0		0.0								
2021	04	25	68	44	45	0.00		0.0		0.0								
2021	04	26	73	43	53	0.00		0.0		0.0								
2021	04	27	85	51	63	0.00		0.0		0.0								
2021	04	28	87	51	68	0.00		0.0		0.0								
2021	04	29	87	68	70	0.00		0.0		0.0								
2021	04	30	87	68	70	0.00		0.0		0.0								
Summary			72	44		1.64		0.0										

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Generated on 08/25/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	05	01	78	43	53	0.00		0.0		0.0								
2021	05	02	84	52	67	0.00		0.0		0.0								
2021	05	03	80	66	67	0.06		0.0		0.0								
2021	05	04	90	66	66	0.00		0.0		0.0								
2021	05	05	85	54	54	0.00		0.0		0.0								
2021	05	06	69	44	44	0.00		0.0		0.0								
2021	05	07	69	43	44	0.10		0.0		0.0								
2021	05	08	71	44	56	0.00		0.0		0.0								
2021	05	09	80	56	68	0.00		0.0		0.0								
2021	05	10	69	47	48	0.15		0.0		0.0								
2021	05	11	72	48	55	0.00		0.0		0.0								
2021	05	12	61	40	40	0.00		0.0		0.0								
2021	05	13	73	40	43	0.02		0.0		0.0								
2021	05	14	77	42	44	0.00		0.0		0.0								
2021	05	15	74	44	49	0.00		0.0		0.0								
2021	05	16	76	47	48	0.00		0.0		0.0								
2021	05	17	76	47	48	0.00		0.0		0.0								
2021	05	18	84	48	52	0.00		0.0		0.0								
2021	05	19	90	52	52	0.00		0.0		0.0								
2021	05	20	82	51	52	0.00		0.0		0.0								
2021	05	21	91	51	67	0.00		0.0		0.0								
2021	05	22	92	66	67	0.00		0.0		0.0								
2021	05	23	92	66	67	0.00		0.0		0.0								
2021	05	24	77	63	63	0.00		0.0		0.0								
2021	05	25	83	63	69	0.00		0.0		0.0								
2021	05	26	94	68	68	0.00		0.0		0.0								
2021	05	27	95	68	70	0.59		0.0		0.0								
2021	05	28	73	52	53	0.74		0.0		0.0								
2021	05	29	73	43	50	0.02		0.0		0.0								
2021	05	30	74	50	70	0.00		0.0		0.0								
2021	05	31	75	48	57	0.00		0.0		0.0								
Summary			79	52		1.68		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service

Current Location: Elev: 19 ft. Lat: 37.2388° N Lon: -77.3925° W
Station: **PETERSBURG, VA US USC00446656**

Record of Climatological Observations

These data are quality controlled and may not be identical to the original observations.

Generated on 08/25/2022

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2021	06	01	80	56	59	0.00		0.0		0.0								
2021	06	02	82	59	69	0.18		0.0		0.0								
2021	06	03	80	68	71	0.38		0.0		0.0								
2021	06	04	85	65	65	0.25		0.0		0.0								
2021	06	05	90	65	69	0.00		0.0		0.0								
2021	06	06	93	65	72	0.00		0.0		0.0								
2021	06	07	89	71	73	0.00		0.0		0.0								
2021	06	08	89	73	73	0.00		0.0		0.0								
2021	06	09	89	71	73	0.85		0.0		0.0								
2021	06	10	89	71	73	0.48		0.0		0.0								
2021	06	11	86	69	70	1.80		0.0		0.0								
2021	06	12	71	64	65	0.00		0.0		0.0								
2021	06	13	84	64	65	0.00		0.0		0.0								
2021	06	14	90	65	71	0.00		0.0		0.0								
2021	06	15	90	64	64	0.00		0.0		0.0								
2021	06	16	81	58	58	0.00		0.0		0.0								
2021	06	17	80	53	54	0.00		0.0		0.0								
2021	06	18	88	54	72	0.00		0.0		0.0								
2021	06	19	92	72	75	0.00		0.0		0.0								
2021	06	20	86	73	73	0.00		0.0		0.0								
2021	06	21	94	73	77	0.00		0.0		0.0								
2021	06	22	82	60	62	1.55		0.0		0.0								
2021	06	23	77	56	57	0.00		0.0		0.0								
2021	06	24	78	57	58	0.00		0.0		0.0								
2021	06	25	82	58	71	0.00		0.0		0.0								
2021	06	26	87	70	73	0.00		0.0		0.0								
2021	06	27	90	71	72	0.00		0.0		0.0								
2021	06	28	90	71	73	0.00		0.0		0.0								
2021	06	29	91	72	73	0.00		0.0		0.0								
2021	06	30	95	73	77	0.00		0.0		0.0								
		Summary	86	65		5.49		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

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Appendix F. MS4 Outfalls – Mapping and Reconnaissance Data

Petersburg MS4 Map
June 2019

Legend

- MS4 Regulated Service Area
- MS4 Outfall
- Not Impaired Water
- Imparied Water
- Public SWM Facility

N
W E
S

Unsegmented rivers in J15
Appomattox River
Rohoic Creek
Lieutenant Run
Unsegmented rivers in J13
Second Swamp
Unsegmented Rivers in K31
Blackwater Swamp
Poor Creek
Harrison Creek

0 2,500 5,000 10,000
Feet

Petersburg Outfall Database
June 2019

Outfall_ID	Latitude	Longitude	Regulated Drainage Area (Ac.)	Receiving Water	HUC 12 of Receiving Water	2016 Impairment	Landuse	EPA Approved TMDLS
1	37.2313004	-77.4162979	13.32	UT Appomattox River	020802071001	No	Developed	Chesapeake Bay; Appomattox River
2	37.2294998	-77.4169998	19.35	UT Appomattox River	020802071001	No	M-1	Chesapeake Bay; Appomattox River
3	37.2293015	-77.4212036	3.74	UT Appomattox River	020802071001	No	R-2	Chesapeake Bay; Appomattox River
4	37.2285004	-77.4224014	1.24	UT Appomattox River	020802071001	No	R-2	Chesapeake Bay; Appomattox River
5	37.2330017	-77.4132996	22.17	Appomattox River	020802071001	Yes	MXD2	Chesapeake Bay; Appomattox River
6	37.2324982	-77.4173965	0.08	Appomattox River	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
7	37.2321014	-77.4171982	0.16	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
8	37.2321014	-77.417099	0.84	Unsegmented rivers in J15	020802071001	No	M-2	Chesapeake Bay; Appomattox River
9	37.2327995	-77.4162979	0.97	Appomattox River	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
11	37.2332993	-77.4098969	23.97	Appomattox River	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
12	37.2330017	-77.4108963	4.38	UT Appomattox River	020802071001	No	Developed	Chesapeake Bay; Appomattox River
13	37.2361984	-77.4039993	0.76	Appomattox River	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
14	37.2380981	-77.4023972	1.59	Appomattox River	020802071001	Yes	R-2	Chesapeake Bay; Lower Appomattox River/Ashton Cre*
15	37.2346001	-77.4011002	24.95	Appomattox River	020802071001	Yes	Developed	Chesapeake Bay; Lower Appomattox River/Ashton Cre*
16	37.2346992	-77.4017029	33.46	Appomattox River	020802071001	Yes	Developed	Chesapeake Bay; Lower Appomattox River/Ashton Cre*
17	37.2356987	-77.4024963	0.29	Appomattox River	020802071001	Yes	M-2	Chesapeake Bay; Lower Appomattox River/Ashton Cre*
18	37.2345009	-77.3991013	5.93	Appomattox River	020802071001	Yes	Developed	Chesapeake Bay; Lower Appomattox River/Ashton Cre*
19	37.2350998	-77.3976974	1.82	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
20	37.2243996	-77.4259033	79.93	UT Appomattox River	020802071001	No	Developed	Chesapeake Bay; Appomattox River
21	37.2291985	-77.4240036	17.59	Appomattox River	020802071001	Yes	M-2	Chesapeake Bay; Appomattox River
22	37.2215004	-77.4335022	12.38	UT Appomattox River	020802071001	No	M-1	Chesapeake Bay; Appomattox River
23	37.2212982	-77.4345016	22.96	UT Appomattox River	020802071001	No	M-1	Chesapeake Bay; Appomattox River
24	37.2266998	-77.4299011	1.67	UT Appomattox River	020802071001	No	M-2	Chesapeake Bay; Appomattox River
25	37.2182999	-77.4455032	7.43	UT Rohoic Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
26	37.218399	-77.4455032	3.28	UT Rohoic Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
27	37.2174988	-77.4441986	92.51	Rohoic Creek	020802071001	Yes	M-1	Chesapeake Bay; Appomattox River
28	37.2174988	-77.444397	7.32	Rohoic Creek	020802071001	Yes	B-2	Chesapeake Bay; Appomattox River
29	37.2167015	-77.4433975	0.74	Rohoic Creek	020802071001	Yes	M-1	Chesapeake Bay; Appomattox River
30	37.2131004	-77.4406967	43.39	UT Rohoic Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
32	37.2029991	-77.4442978	1.97	Rohoic Creek	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
33	37.2005997	-77.4438019	16.26	Rohoic Creek	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
34	37.1991997	-77.4427032	0.52	Rohoic Creek	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
35	37.2000999	-77.4433975	1.45	UT Rohoic Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
36	37.2397995	-77.362999	11.63	Harrison Creek	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
37	37.2386017	-77.3612976	7.17	Harrison Creek	020802071001	Yes	M-1	Chesapeake Bay; Appomattox River
38	37.2372017	-77.3612976	2.53	Harrison Creek	020802071001	Yes	R-4	Chesapeake Bay; Appomattox River
39	37.2372017	-77.3612976	0.47	Harrison Creek	020802071001	Yes	R-4	Chesapeake Bay; Appomattox River
40	37.2369003	-77.3616028	6.64	Harrison Creek	020802071001	Yes	R-4	Chesapeake Bay; Appomattox River
41	37.2408981	-77.3658981	0.92	Harrison Creek	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
42	37.2405014	-77.3679962	0.91	UT Harrison Creek	020802071001	No	B-2	Chesapeake Bay; Appomattox River
43	37.239399	-77.3722992	60.62	UT Harrison Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
44	37.239399	-77.3722992	0.45	UT Harrison Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
45	37.2355003	-77.3939972	24.51	UT Blackwater Swamp	030102020102	No	Developed	Chesapeake Bay; Appomattox River
46	37.2314987	-77.3874969	65.40	UT Poor Creek	020802071001	No	B-2	Chesapeake Bay; Appomattox River
47	37.2341995	-77.3873978	0.38	UT Poor Creek	020802071001	No	M-1	Chesapeake Bay; Appomattox River
48	37.235199	-77.3871994	5.35	Poor Creek	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
49	37.2312012	-77.4057007	0.47	Unsegmented rivers in J15	020802071001	No	B-3	Chesapeake Bay; Appomattox River
50	37.2314987	-77.4057999	0.22	Unsegmented rivers in J15	020802071001	No	B-3	Chesapeake Bay; Appomattox River
51	37.2313995	-77.4060974	0.13	Unsegmented rivers in J15	020802071001	No	B-3	Chesapeake Bay; Appomattox River
52	37.2317009	-77.405899	0.86	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
53	37.2316017	-77.4061966	1.36	UT Brickhouse Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
54	37.2317009	-77.4064026	0.82	UT Brickhouse Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
55	37.2318001	-77.405899	0.24	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
56	37.2330017	-77.4063034	0.20	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
57	37.2328987	-77.4061966	3.28	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
58	37.2336998	-77.406601	1.83	UT Brickhouse Run	020802071001	No	M-2	Chesapeake Bay; Appomattox River

59	37.2308998	-77.4057007	0.31	Unsegmented rivers in J15	020802071001	No	B-3	Chesapeake Bay; Appomattox River
60	37.2308006	-77.4057007	41.14	Unsegmented rivers in J15	020802071001	No	B-3	Chesapeake Bay; Appomattox River
61	37.2307014	-77.4072037	3.99	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
62	37.2291985	-77.4095001	2.91	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
63	37.2280006	-77.4112015	3.03	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
64	37.2280006	-77.4113007	1.73	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
65	37.2280006	-77.4113007	0.30	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
66	37.2280006	-77.4113998	1.33	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
67	37.2279015	-77.4113998	0.25	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
68	37.2277985	-77.4115982	1.94	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
69	37.2277985	-77.4116974	1.95	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
70	37.2272987	-77.4122009	5.30	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
71	37.2266006	-77.4126968	1.83	Unsegmented rivers in J15	020802071001	No	R-3	Chesapeake Bay; Appomattox River
72	37.2270012	-77.4144974	12.11	UT Brickhouse Run	020802071001	No	M-1	Chesapeake Bay; Appomattox River
73	37.2261009	-77.4125977	4.59	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
74	37.2256012	-77.4123993	1.57	Unsegmented rivers in J15	020802071001	No	B-2	Chesapeake Bay; Appomattox River
75	37.2256012	-77.4124985	0.45	Unsegmented rivers in J15	020802071001	No	B-2	Chesapeake Bay; Appomattox River
76	37.2251015	-77.4121017	0.56	Unsegmented rivers in J15	020802071001	No	B-2	Chesapeake Bay; Appomattox River
77	37.2248993	-77.4119034	1.21	Unsegmented rivers in J15	020802071001	No	B-2	Chesapeake Bay; Appomattox River
78	37.2246017	-77.4116974	1.22	Unsegmented rivers in J15	020802071001	No	B-2	Chesapeake Bay; Appomattox River
79	37.2246017	-77.4117966	8.90	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
80	37.2244987	-77.4117966	2.32	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
81	37.2243996	-77.4117966	4.59	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
82	37.2244987	-77.4116974	0.51	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
83	37.2233009	-77.4115982	1.97	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
84	37.2233009	-77.4116974	5.37	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
85	37.2232018	-77.4115982	1.87	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
86	37.2232018	-77.4115982	2.47	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
87	37.2224998	-77.4123001	6.03	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
88	37.2210999	-77.4140015	0.63	Unsegmented rivers in J15	020802071001	No	B-2	Chesapeake Bay; Appomattox River
89	37.221199	-77.4138031	0.67	Unsegmented rivers in J15	020802071001	No	B-2	Chesapeake Bay; Appomattox River
90	37.221199	-77.4138031	3.63	Unsegmented rivers in J15	020802071001	No	B-2	Chesapeake Bay; Appomattox River
91	37.2214012	-77.4135971	2.10	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
92	37.2201004	-77.4151993	2.74	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
94	37.2200012	-77.4152985	2.99	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
95	37.2201004	-77.4152985	12.67	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
97	37.219101	-77.4167023	2.66	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
98	37.2192001	-77.4166031	13.23	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
99	37.2192001	-77.4166031	1.45	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
100	37.218399	-77.4178009	0.12	Unsegmented rivers in J15	020802071001	No	R-3	Chesapeake Bay; Appomattox River
101	37.2182999	-77.4179993	0.29	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
102	37.2182999	-77.4179001	0.15	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
103	37.2182007	-77.4180984	4.38	Unsegmented rivers in J15	020802071001	No	R-5	Chesapeake Bay; Appomattox River
104	37.2178993	-77.418602	3.70	Unsegmented rivers in J15	020802071001	No	R-3	Chesapeake Bay; Appomattox River
105	37.2181015	-77.4201965	7.33	Unsegmented rivers in J15	020802071001	No	R-5	Chesapeake Bay; Appomattox River
106	37.2173996	-77.4243011	0.34	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
107	37.2173996	-77.4243011	0.26	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
108	37.2150993	-77.4207993	1.17	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
109	37.2150002	-77.4207001	9.58	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
110	37.2141991	-77.4199982	3.66	Unsegmented rivers in J15	020802071001	No	R-2	Chesapeake Bay; Appomattox River
111	37.2122002	-77.4184036	17.65	Unsegmented rivers in J15	020802071001	No	R-2	Chesapeake Bay; Appomattox River
112	37.2136993	-77.4154968	0.59	UT Brickhouse Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
113	37.2136993	-77.4151993	0.07	UT Brickhouse Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
114	37.2123985	-77.4160995	7.06	UT Brickhouse Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
115	37.2102013	-77.4176025	1.24	UT Brickhouse Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River
116	37.2172012	-77.425499	0.85	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
117	37.2168999	-77.4257965	1.43	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River

118	37.2168007	-77.4260025	0.64	Unsegmented rivers in J15	020802071001	No	M-1	Chesapeake Bay; Appomattox River
119	37.2167015	-77.4262009	0.39	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
120	37.2165985	-77.4263	5.19	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
121	37.2164993	-77.4263992	2.55	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
122	37.216301	-77.4264984	82.44	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
123	37.2118988	-77.4272995	2.72	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
124	37.2148018	-77.4288025	4.95	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
125	37.2150993	-77.4294968	0.93	Unsegmented rivers in J15	020802071001	No	R-2	Chesapeake Bay; Appomattox River
126	37.2137985	-77.4297028	20.92	UT Brickhouse Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
127	37.2144012	-77.4309998	7.17	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
128	37.2142982	-77.4311981	6.05	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
129	37.2140007	-77.4317017	3.64	Unsegmented rivers in J15	020802071001	No	R-2	Chesapeake Bay; Appomattox River
130	37.2140007	-77.4318008	5.81	Unsegmented rivers in J15	020802071001	No	R-2	Chesapeake Bay; Appomattox River
131	37.2146988	-77.4324036	37.61	Unsegmented rivers in J15	020802071001	No	R-2	Chesapeake Bay; Appomattox River
132	37.2144012	-77.4328003	2.45	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
133	37.2142982	-77.4328995	3.34	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
134	37.2137985	-77.4337006	1.90	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
135	37.2128983	-77.4346008	1.22	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
136	37.2128983	-77.4346008	10.47	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
137	37.2128983	-77.4346008	0.08	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
138	37.2126999	-77.4347	1.12	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
139	37.2127991	-77.4347	11.62	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
140	37.2097015	-77.4348984	7.42	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
141	37.2084999	-77.4339981	18.24	Unsegmented rivers in J15	020802071001	No	R-3	Chesapeake Bay; Appomattox River
142	37.2078018	-77.4343033	10.15	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
143	37.2067986	-77.4325027	1.86	UT Brickhouse Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
144	37.2069016	-77.4320984	107.07	UT Brickhouse Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
145	37.2060013	-77.4345016	7.69	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
146	37.2060013	-77.4346008	2.08	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
147	37.2033997	-77.4358978	1.45	UT Brickhouse Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
148	37.2033005	-77.4358978	1.30	UT Brickhouse Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
149	37.2033005	-77.4358978	4.19	UT Brickhouse Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
150	37.2028008	-77.4180984	2.03	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
151	37.2028999	-77.4179993	0.64	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
152	37.2033005	-77.4168015	6.28	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
153	37.2336998	-77.3965988	22.94	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
154	37.233799	-77.3964996	4.59	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
155	37.233799	-77.396698	0.16	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
156	37.2338982	-77.3965988	0.35	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
157	37.2322998	-77.3962021	7.30	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
158	37.2303009	-77.3964996	3.36	Lieutenant Run	020802071001	Yes	B-2	Chesapeake Bay; Appomattox River
159	37.2276001	-77.3967972	2.47	Lieutenant Run	020802071001	Yes	B-2	Chesapeake Bay; Appomattox River
160	37.2276001	-77.3968964	16.16	Lieutenant Run	020802071001	Yes	B-2	Chesapeake Bay; Appomattox River
161	37.2274017	-77.3968964	0.72	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
162	37.2274017	-77.3968964	13.50	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
163	37.2274017	-77.3967972	1.11	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
164	37.2270012	-77.396698	3.53	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
165	37.2238998	-77.3983994	37.87	UT Lieutenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
166	37.2238998	-77.3985977	1.00	UT Lieutenant Run	020802071001	No	R-3	Chesapeake Bay; Appomattox River
167	37.2238007	-77.3988037	0.30	UT Lieutenant Run	020802071001	No	R-3	Chesapeake Bay; Appomattox River
168	37.2238007	-77.3988037	0.21	UT Lieutenant Run	020802071001	No	R-3	Chesapeake Bay; Appomattox River
169	37.2234001	-77.3988037	1.20	UT Lieutenant Run	020802071001	No	R-3	Chesapeake Bay; Appomattox River
170	37.2224998	-77.3989029	0.69	UT Lieutenant Run	020802071001	No	R-3	Chesapeake Bay; Appomattox River
171	37.2223015	-77.3989029	0.27	UT Lieutenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
172	37.2223015	-77.3989029	3.08	UT Lieutenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
173	37.2221985	-77.3990021	0.46	UT Lieutenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
174	37.2145004	-77.4077988	15.16	UT Lieutenant Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River

175	37.2098999	-77.4057999	0.66	UT Lietenant Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River
176	37.2098999	-77.4057007	4.22	UT Lietenant Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River
177	37.2097015	-77.4067993	2.80	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
178	37.2095985	-77.4079971	0.51	UT Lietenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
179	37.2095985	-77.4079971	0.30	UT Lietenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
180	37.2100983	-77.408699	16.46	UT Lieutenant Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River
181	37.2050018	-77.4138031	3.99	Lieutenant Run	020802071001	Yes	R-2	Chesapeake Bay; Appomattox River
182	37.2042999	-77.4145966	3.66	Lieutenant Run	020802071001	Yes	R-2	Chesapeake Bay; Appomattox River
183	37.2038002	-77.4163971	12.44	Lieutenant Run	020802071001	Yes	R-2	Chesapeake Bay; Appomattox River
184	37.2053986	-77.4132004	4.40	Lieutenant Run	020802071001	Yes	R-2	Chesapeake Bay; Appomattox River
185	37.206501	-77.4115982	14.57	Lieutenant Run	020802071001	Yes	R-2	Chesapeake Bay; Appomattox River
186	37.2067986	-77.4111023	6.05	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
187	37.2067986	-77.4110031	3.39	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
188	37.2249985	-77.3951035	2.22	Lieutenant Run	020802071001	Yes	R-3	Chesapeake Bay; Appomattox River
189	37.2243996	-77.3942032	12.02	Lieutenant Run	020802071001	Yes	R-3	Chesapeake Bay; Appomattox River
190	37.2243996	-77.3943024	1.20	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
191	37.2242012	-77.3942032	1.20	Lieutenant Run	020802071001	Yes	R-3	Chesapeake Bay; Appomattox River
192	37.223999	-77.393898	0.38	Lieutenant Run	020802071001	Yes	R-3	Chesapeake Bay; Appomattox River
193	37.2242012	-77.3940964	6.31	Lieutenant Run	020802071001	Yes	R-3	Chesapeake Bay; Appomattox River
194	37.2242012	-77.3942032	0.29	Lieutenant Run	020802071001	Yes	R-3	Chesapeake Bay; Appomattox River
195	37.2178993	-77.392601	0.53	UT Lietenant Run	020802071001	No	R-3	Chesapeake Bay; Appomattox River
196	37.2178993	-77.392601	0.55	Lieutenant Run	020802071001	Yes	R-3	Chesapeake Bay; Appomattox River
197	37.2178001	-77.3923035	14.89	UT Lietenant Run	020802071001	No	R-3	Chesapeake Bay; Appomattox River
198	37.2178993	-77.3933029	0.85	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
199	37.2178993	-77.3934021	4.66	Lieutenant Run	020802071001	Yes	RB	Chesapeake Bay; Appomattox River
200	37.2169991	-77.3943024	2.20	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
201	37.2158012	-77.3965988	1.05	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
202	37.2156982	-77.3965988	2.84	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
203	37.2158012	-77.3965988	7.59	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
204	37.2158012	-77.3965988	12.28	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
205	37.2140999	-77.3976974	2.35	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
206	37.2196999	-77.3848038	8.34	UT Lieutenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
207	37.2195015	-77.3864975	5.37	UT Lieutenant Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River
208	37.2205009	-77.3880997	0.44	UT Lieutenant Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River
209	37.2212982	-77.3869019	0.45	UT Lieutenant Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River
210	37.2228012	-77.388298	12.04	UT Lieutenant Run	020802071001	No	R-4	Chesapeake Bay; Appomattox River
211	37.2219009	-77.3841019	13.72	UT Lieutenant Run	020802071001	No	B-2	Chesapeake Bay; Appomattox River
212	37.2150002	-77.3927994	4.54	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
213	37.2132988	-77.3879013	1.63	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
214	37.2137985	-77.3864975	1.10	UT Lietenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
215	37.2162018	-77.3879013	5.40	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
216	37.2144012	-77.3909988	2.15	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
217	37.2118988	-77.3843994	6.94	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
218	37.2126007	-77.3862991	4.51	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
219	37.2132988	-77.389801	5.47	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
220	37.2117004	-77.3900986	4.26	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
221	37.2100983	-77.3899994	4.92	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
222	37.214901	-77.3940964	4.58	UT Lietenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
223	37.2122993	-77.3929977	7.76	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
224	37.2132988	-77.3961029	11.28	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
225	37.2075996	-77.4024963	5.80	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
226	37.2066994	-77.4014969	2.24	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
227	37.2066994	-77.4013977	5.87	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
228	37.2050018	-77.4007034	4.37	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
229	37.2038002	-77.3996964	4.06	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
230	37.203701	-77.3995972	0.22	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
231	37.203701	-77.3995972	2.71	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River

232	37.2066994	-77.4008026	3.33	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
233	37.206501	-77.4005966	8.49	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
234	37.2098999	-77.4009018	1.31	UT Lietenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
235	37.2100983	-77.4008026	10.15	UT Lietenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
236	37.2109985	-77.3999023	0.61	Lieutenant Run	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
237	37.2112007	-77.3988037	0.69	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
238	37.2095985	-77.3967972	8.83	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
239	37.2095985	-77.3948975	8.33	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
240	37.2094002	-77.3947983	17.38	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
241	37.209301	-77.3964996	4.13	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
242	37.2069016	-77.3958969	7.81	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
243	37.2062988	-77.3930969	1.92	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
244	37.2070007	-77.3936996	7.44	UT Lietenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
245	37.2113991	-77.3989029	2.06	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
246	37.2112999	-77.3988037	2.39	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
247	37.2089996	-77.4030991	3.04	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
248	37.2089996	-77.4030991	3.88	Lieutenant Run	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
249	37.2030983	-77.4060974	1.71	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
250	37.2027016	-77.4052963	5.80	Unsegmented rivers in J15	020802071001	No	R-4	Chesapeake Bay; Appomattox River
251	37.2022018	-77.4055023	0.22	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
252	37.2052994	-77.4045029	8.52	UT Lieutenant Run	020802071001	No	R-4	Chesapeake Bay; Appomattox River
253	37.2053986	-77.4045029	1.96	UT Lietenant Run	020802071001	No	R-4	Chesapeake Bay; Appomattox River
254	37.1945	-77.407402	12.08	UT Lieutenant Run	020802071001	No	R-1A	Chesapeake Bay; Appomattox River
255	37.1945	-77.4073029	19.90	UT Lieutenant Run	020802071001	No	R-1A	Chesapeake Bay; Appomattox River
256	37.1904984	-77.408699	1.88	Unsegmented rivers in J15	020802071001	No	R-1A	Chesapeake Bay; Appomattox River
257	37.1903992	-77.408699	0.61	Unsegmented rivers in J15	020802071001	No	R-1A	Chesapeake Bay; Appomattox River
258	37.1903992	-77.4084015	0.90	Unsegmented rivers in J15	020802071001	No	R-1A	Chesapeake Bay; Appomattox River
259	37.1903992	-77.4084015	0.56	Unsegmented rivers in J15	020802071001	No	R-1A	Chesapeake Bay; Appomattox River
260	37.1945	-77.3945999	4.58	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
261	37.1953011	-77.3945999	9.49	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
262	37.1954002	-77.3945007	2.23	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
263	37.1974983	-77.3939972	64.94	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
264	37.1973	-77.3945999	5.78	UT Lietenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
265	37.1972008	-77.3946991	2.16	UT Lietenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
266	37.1944008	-77.3984985	2.30	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
267	37.1940994	-77.3981018	4.04	UT Lieutenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
268	37.1929016	-77.398201	8.40	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
269	37.1968994	-77.4007034	2.11	UT Lietenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
270	37.2014008	-77.3984985	3.33	UT Lieutenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
271	37.2058983	-77.3923035	17.35	UT Lietenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
272	37.2058983	-77.3911972	52.99	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
273	37.2056007	-77.3916016	2.29	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
274	37.2336998	-77.3840027	1.75	UT Poor Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
275	37.2336998	-77.384201	0.75	UT Poor Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
276	37.2322998	-77.3833008	2.07	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
277	37.2322006	-77.3834991	0.33	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
278	37.2312012	-77.3840027	0.06	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
279	37.2310982	-77.3840027	0.10	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
280	37.2299995	-77.3852997	5.02	UT Poor Creek	020802071001	No	R-3	Chesapeake Bay; Appomattox River
281	37.2290993	-77.3844986	0.13	UT Poor Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
282	37.2293015	-77.3845978	3.68	UT Poor Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
283	37.2304993	-77.3833008	0.16	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
284	37.2318993	-77.3815994	5.68	UT Poor Creek	020802071001	No	M-1	Chesapeake Bay; Appomattox River
285	37.2327995	-77.3884964	7.51	UT Poor Creek	020802071001	No	M-1	Chesapeake Bay; Appomattox River
286	37.2358017	-77.3850021	0.80	Poor Creek	020802071001	Yes	Developed	Chesapeake Bay; Appomattox River
287	37.2358017	-77.3859024	0.71	Poor Creek	020802071001	Yes	M-2	Chesapeake Bay; Appomattox River
288	37.2363014	-77.3843002	18.46	Poor Creek	020802071001	Yes	NODATA	Chesapeake Bay; Appomattox River

289	37.2346001	-77.3777008	4.51	Poor Creek	020802071001	Yes	M-1	Chesapeake Bay; Appomattox River
290	37.2330017	-77.3764038	1.77	Poor Creek	020802071001	Yes	M-1	Chesapeake Bay; Appomattox River
291	37.2330017	-77.3758011	1.77	Poor Creek	020802071001	Yes	R-4	Chesapeake Bay; Appomattox River
292	37.232399	-77.3757019	6.16	Poor Creek	020802071001	Yes	R-4	Chesapeake Bay; Appomattox River
293	37.2113991	-77.3824005	8.25	Poor Creek	020802071001	Yes	R-4	Chesapeake Bay; Appomattox River
294	37.2117996	-77.3806992	12.69	Poor Creek	020802071001	Yes	R-1	Chesapeake Bay; Appomattox River
295	37.2106018	-77.382103	2.19	Poor Creek	020802071001	Yes	R-4	Chesapeake Bay; Appomattox River
296	37.2061005	-77.3812027	9.28	UT Poor Creek	020802071001	No	R-1	Chesapeake Bay; Appomattox River
297	37.2061005	-77.3811035	7.01	UT Poor Creek	020802071001	No	R-1	Chesapeake Bay; Appomattox River
298	37.2074013	-77.3806	4.19	UT Poor Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
299	37.2074013	-77.3809967	1.75	UT Poor Creek	020802071001	No	R-1	Chesapeake Bay; Appomattox River
300	37.2058983	-77.3770981	0.22	UT Poor Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
301	37.2057991	-77.3769989	8.58	UT Poor Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
302	37.2057991	-77.3770981	2.02	UT Poor Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
303	37.2055016	-77.3774033	28.03	UT Poor Creek	020802071001	No	R-1	Chesapeake Bay; Appomattox River
304	37.2069016	-77.376503	2.03	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
305	37.2069016	-77.3766022	2.99	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
306	37.2075996	-77.376297	2.02	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
307	37.2075996	-77.3764038	6.17	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
308	37.2084007	-77.3768997	1.34	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
309	37.2084999	-77.3767014	0.82	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
310	37.209301	-77.376503	5.43	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
311	37.209301	-77.3768005	2.46	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
312	37.2099991	-77.3716965	5.27	UT Poor Creek	020802071001	No	R-1	Chesapeake Bay; Appomattox River
313	37.2102013	-77.3718033	4.03	UT Poor Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
314	37.2154999	-77.3622971	0.62	UT Harrison Creek	020802071001	No	M-1	Chesapeake Bay; Appomattox River
315	37.2153015	-77.3618011	2.10	UT Harrison Creek	020802071001	No	B-2	Chesapeake Bay; Appomattox River
316	37.2181015	-77.3619995	16.92	UT Harrison Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
317	37.2187996	-77.3608017	10.97	UT Harrison Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
318	37.221199	-77.3582993	8.19	Harrison Creek	020802071001	Yes	R-1A	Chesapeake Bay; Appomattox River
319	37.219101	-77.3524017	15.25	UT Harrison Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
320	37.2074013	-77.3438034	0.51	UT Blackwater Swamp	030102020102	No	M-2	Blackwater Swamp, Warwick Swamp, Second Swamp
321	37.2066002	-77.342598	2.04	UT Blackwater Swamp	030102020102	No	B-2	Blackwater Swamp, Warwick Swamp, Second Swamp
322	37.200901	-77.3378983	3.70	UT Blackwater Swamp	030102020102	No	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
323	37.2013016	-77.3395996	3.95	UT Blackwater Swamp	030102020102	No	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
324	37.202301	-77.3405991	3.99	UT Blackwater Swamp	030102020102	No	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
325	37.2022018	-77.3404999	5.34	UT Blackwater Swamp	030102020102	No	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
326	37.1901016	-77.3468018	1.98	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
327	37.1901016	-77.3468018	2.49	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
328	37.1846008	-77.3451004	12.13	UT Blackwater Swamp	030102020102	No	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
329	37.1842995	-77.3460007	2.99	Unsegmented Rivers in K31	030102020102	Yes	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
330	37.1837006	-77.3432007	28.40	Unsegmented Rivers in K31	030102020102	Yes	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
331	37.1755981	-77.3547974	13.34	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
332	37.1749992	-77.3591995	5.58	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
333	37.1725006	-77.3625031	2.65	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
334	37.1725006	-77.3626022	5.17	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
335	37.1724014	-77.3626022	1.90	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
336	37.1724014	-77.3625031	2.41	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
337	37.1727982	-77.3626022	21.26	UT Blackwater Swamp	030102020102	No	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
338	37.1783981	-77.3562012	2.04	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
339	37.1792984	-77.357399	1.08	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
340	37.1792984	-77.357399	3.18	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
341	37.1792984	-77.3688965	0.62	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
342	37.1800995	-77.3695984	0.97	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
343	37.1799011	-77.3697968	5.60	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
344	37.1809006	-77.3703003	7.25	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
345	37.1776009	-77.3712997	0.46	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp

346	37.1777	-77.3712997	0.41	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
347	37.1780014	-77.3712997	0.48	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
348	37.1786003	-77.3713989	0.89	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
349	37.1796989	-77.3713989	0.64	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
350	37.1777992	-77.3728027	0.32	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
351	37.1778984	-77.3728027	1.57	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
352	37.1837997	-77.3712006	3.12	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
353	37.1871986	-77.3693008	20.83	Blackwater Swamp	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
354	37.1873016	-77.3693008	1.34	Blackwater Swamp	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
355	37.1870995	-77.3694992	12.12	Blackwater Swamp	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
356	37.1871986	-77.3695984	3.26	Blackwater Swamp	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
357	37.1879005	-77.3606033	0.71	UT Blackwater Swamp	030102020102	No	NODATA	Blackwater Swamp, Warwick Swamp, Second Swamp
358	37.1878014	-77.3606033	0.94	UT Blackwater Swamp	030102020102	No	NODATA	Blackwater Swamp, Warwick Swamp, Second Swamp
359	37.1874008	-77.3602982	2.02	UT Blackwater Swamp	030102020102	No	NODATA	Blackwater Swamp, Warwick Swamp, Second Swamp
360	37.1874008	-77.3600998	3.21	UT Blackwater Swamp	030102020102	No	NODATA	Blackwater Swamp, Warwick Swamp, Second Swamp
361	37.1866989	-77.3600006	0.13	UT Blackwater Swamp	030102020102	No	NODATA	Blackwater Swamp, Warwick Swamp, Second Swamp
362	37.1866989	-77.3600006	0.15	UT Blackwater Swamp	030102020102	No	NODATA	Blackwater Swamp, Warwick Swamp, Second Swamp
363	37.1892014	-77.3618011	2.12	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
364	37.1893005	-77.3623962	8.07	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
365	37.1892014	-77.361702	1.11	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
366	37.2271004	-77.384697	28.47	UT Lieutenant Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River
367	37.2282982	-77.3812027	20.53	Unsegmented rivers in J15	020802071001	No	R-2	Chesapeake Bay; Appomattox River
368	37.1856003	-77.3776016	2.39	UT Blackwater Swamp	030102020102	No	NODATA	Blackwater Swamp, Warwick Swamp, Second Swamp
369	37.1896019	-77.3824997	0.86	UT Blackwater Swamp	030102020102	No	R-1A	Blackwater Swamp, Warwick Swamp, Second Swamp
370	37.2010002	-77.3646011	9.30	Blackwater Swamp	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
371	37.1991005	-77.3656998	6.91	Blackwater Swamp	030102020102	Yes	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
372	37.1991005	-77.3659973	1.28	Blackwater Swamp	030102020102	Yes	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
373	37.1972008	-77.3684998	1.49	Unsegmented Rivers in K31	030102020102	Yes	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
374	37.1976013	-77.3690033	3.02	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
375	37.1973	-77.3702011	4.76	Unsegmented Rivers in K31	030102020102	Yes	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
376	37.1973	-77.3718033	8.11	Unsegmented Rivers in K31	030102020102	Yes	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
377	37.1973	-77.3722	6.91	Unsegmented Rivers in K31	030102020102	Yes	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
378	37.2011986	-77.367897	2.83	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
379	37.2011986	-77.3679962	16.84	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
380	37.2010994	-77.367897	0.60	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
381	37.2010994	-77.367897	3.46	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
382	37.1986008	-77.375	2.51	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
383	37.1986008	-77.3749008	0.43	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
384	37.1991005	-77.3759995	5.65	UT Blackwater Swamp	030102020102	No	B-2	Blackwater Swamp, Warwick Swamp, Second Swamp
385	37.1999016	-77.3756027	0.64	UT Blackwater Swamp	030102020102	No	RB	Blackwater Swamp, Warwick Swamp, Second Swamp
386	37.2013016	-77.3742981	6.00	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
387	37.2013016	-77.3741989	11.93	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
388	37.2010994	-77.375	3.64	UT Blackwater Swamp	030102020102	No	RB	Blackwater Swamp, Warwick Swamp, Second Swamp
389	37.200901	-77.3755035	2.10	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
390	37.2008018	-77.3756027	5.16	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
391	37.1976013	-77.3766022	2.98	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
392	37.1976013	-77.3768997	9.50	Unsegmented Rivers in K31	030102020102	Yes	B-2	Blackwater Swamp, Warwick Swamp, Second Swamp
393	37.1974983	-77.3768997	2.38	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
394	37.1885986	-77.3863983	0.87	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
395	37.1885986	-77.3863983	14.18	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
396	37.1889992	-77.3863983	0.50	Unsegmented Rivers in K31	030102020102	Yes	R-1A	Blackwater Swamp, Warwick Swamp, Second Swamp
397	37.1889992	-77.3862	0.36	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
398	37.1890984	-77.3877029	16.37	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
399	37.1898994	-77.3851013	3.13	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
401	37.1911011	-77.3848038	20.74	UT Blackwater Swamp	030102020102	No	R-1A	Blackwater Swamp, Warwick Swamp, Second Swamp
402	37.1906013	-77.3836975	0.81	Unsegmented Rivers in K31	030102020102	Yes	R-1A	Blackwater Swamp, Warwick Swamp, Second Swamp
403	37.1906013	-77.3834991	0.97	Unsegmented Rivers in K31	030102020102	Yes	R-1A	Blackwater Swamp, Warwick Swamp, Second Swamp

404	37.1904984	-77.3834991	1.43	Unsegmented Rivers in K31	030102020102	Yes	R-1A	Blackwater Swamp, Warwick Swamp, Second Swamp
405	37.1906013	-77.382103	0.66	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
406	37.1907005	-77.3820038	3.25	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
407	37.1907005	-77.3822021	1.84	Unsegmented Rivers in K31	030102020102	Yes	R-1A	Blackwater Swamp, Warwick Swamp, Second Swamp
408	37.1917	-77.3807983	0.32	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
409	37.1917992	-77.3806	4.09	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
410	37.1917992	-77.3807983	4.57	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
411	37.1922989	-77.3806992	2.14	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
412	37.1931992	-77.3794022	9.25	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
413	37.1932983	-77.3795013	0.43	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
414	37.1934013	-77.3794022	6.41	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
415	37.1953011	-77.3779984	0.49	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
416	37.1940002	-77.3783035	1.35	Unsegmented Rivers in K31	030102020102	Yes	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
417	37.1943016	-77.3781967	1.39	Unsegmented Rivers in K31	030102020102	Yes	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
418	37.1949005	-77.3771973	0.61	Unsegmented Rivers in K31	030102020102	Yes	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
419	37.1966019	-77.3778992	8.75	UT Blackwater Swamp	030102020102	No	B-2	Blackwater Swamp, Warwick Swamp, Second Swamp
420	37.1959991	-77.3796005	1.27	UT Blackwater Swamp	030102020102	No	R-1A	Blackwater Swamp, Warwick Swamp, Second Swamp
421	37.1954994	-77.3805008	0.94	UT Blackwater Swamp	030102020102	No	R-1A	Blackwater Swamp, Warwick Swamp, Second Swamp
422	37.2010994	-77.3828964	27.92	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
423	37.2014008	-77.3865967	1.77	UT Blackwater Swamp	030102020102	No	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
424	37.2015991	-77.3867035	2.72	UT Blackwater Swamp	030102020102	No	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
425	37.2015991	-77.3869019	2.10	UT Blackwater Swamp	030102020102	No	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
426	37.2015991	-77.3869019	0.90	UT Blackwater Swamp	030102020102	No	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
427	37.2016983	-77.3869019	18.56	UT Blackwater Swamp	030102020102	No	R-1	Blackwater Swamp, Warwick Swamp, Second Swamp
428	37.1990013	-77.3830032	29.70	Unsegmented Rivers in K31	030102020102	Yes	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
429	37.1983986	-77.3856964	22.42	Unsegmented Rivers in K31	030102020102	Yes	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
430	37.1987	-77.3859024	5.54	Unsegmented Rivers in K31	030102020102	Yes	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
431	37.1986008	-77.3861008	23.42	Unsegmented Rivers in K31	030102020102	Yes	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
432	37.1992989	-77.3852005	1.76	Unsegmented Rivers in K31	030102020102	Yes	R-4	Blackwater Swamp, Warwick Swamp, Second Swamp
433	37.2069016	-77.3576965	18.17	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
434	37.2081985	-77.3436966	0.29	UT Blackwater Swamp	030102020102	No	B-2	Blackwater Swamp, Warwick Swamp, Second Swamp
435	37.1912994	-77.3528976	4.55	Unsegmented Rivers in K31	030102020102	Yes	M-2	Blackwater Swamp, Warwick Swamp, Second Swamp
436	37.1916008	-77.3538971	1.99	Unsegmented Rivers in K31	030102020102	Yes	M-2	Blackwater Swamp, Warwick Swamp, Second Swamp
437	37.2126007	-77.3856964	1.61	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
438	37.2104988	-77.3872986	2.54	UT Lieutenant Run	020802071001	No	R-1	Chesapeake Bay; Appomattox River
439	37.2097015	-77.3871994	9.83	UT Lieutenant Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
440	37.1945992	-77.4016037	2.02	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
441	37.1960983	-77.3992996	2.94	Unsegmented rivers in J15	020802071001	No	R-1	Chesapeake Bay; Appomattox River
442	37.1977005	-77.3766022	4.05	Unsegmented Rivers in K31	030102020102	Yes	B-2	Blackwater Swamp, Warwick Swamp, Second Swamp
443	37.2100983	-77.3414001	2.56	Unsegmented Rivers in K31	030102020102	Yes	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
444	37.1901016	-77.3468018	7.36	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
450	37.2434998	-77.3707962	2.26	Harrison Creek	020802071001	Yes	M-2	Chesapeake Bay; Appomattox River
451	37.2434998	-77.370903	0.72	Harrison Creek	020802071001	Yes	M-2	Chesapeake Bay; Appomattox River
453	37.2196007	-77.3495026	0.31	UT Harrison Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
454	37.2196007	-77.3495026	2.57	UT Harrison Creek	020802071001	No	Developed	Chesapeake Bay; Appomattox River
455	37.1808014	-77.3742981	12.17	UT Blackwater Swamp	030102020102	No	PUD	Blackwater Swamp, Warwick Swamp, Second Swamp
456	37.1898994	-77.3963013	3.81	Unsegmented rivers in J15	020802071001	No	NODATA	Chesapeake Bay; Appomattox River
457	37.1901016	-77.3961029	4.86	Unsegmented rivers in J15	020802071001	No	NODATA	Chesapeake Bay; Appomattox River
458	37.1908989	-77.3952026	5.16	Unsegmented rivers in J15	020802071001	No	R-1A	Chesapeake Bay; Appomattox River
459	37.1925011	-77.393898	1.25	UT Lietenant Run	020802071001	No	R-1A	Chesapeake Bay; Appomattox River
460	37.1949005	-77.3890991	1.14	UT Blackwater Swamp	030102020102	No	Developed	Blackwater Swamp, Warwick Swamp, Second Swamp
461	37.1882019	-77.3970032	1.95	Unsegmented rivers in J15	020802071001	No	Developed	Chesapeake Bay; Appomattox River
462	37.2215004	-77.4001007	190.73	UT Lieutenant Run	020802071001	No	RB	Chesapeake Bay; Appomattox River
463	37.2141991	-77.3999023	3.99	UT Lieutenant Run	020802071001	No	R-2	Chesapeake Bay; Appomattox River
464	37.2154007	-77.4143982	0.54	UT Brickhouse Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
465	37.2150002	-77.414299	4.51	UT Brickhouse Run	020802071001	No	Developed	Chesapeake Bay; Appomattox River
466	37.1882019	-77.3722	2.81	UT Blackwater Swamp	030102020102	No	NODATA	Blackwater Swamp, Warwick Swamp, Second Swamp

City of Petersburg
MS4 Outfall Screening Summary
2021

Count	Outfall ID	Date	Illicit Discharge Detected?
1	20	5/21/2021	Unlikely
2	22	5/21/2021	Suspected
3	23	5/21/2021	Unlikely
4	26	5/21/2021	Unlikely
5	27	5/21/2021	Unlikely
6	28	5/21/2021	Unlikely
7	32	5/21/2021	Unlikely
8	33	5/21/2021	Unlikely
9	34	5/21/2021	Unlikely
10	35	5/21/2021	Unlikely
11	125	5/21/2021	Unlikely
12	131	5/21/2021	Suspected
13	134	5/21/2021	Unlikely
14	140	5/21/2021	Unlikely
15	141	5/21/2021	Unlikely
16	142	5/21/2021	Unlikely
17	143	5/21/2021	Unlikely
18	144	5/21/2021	Unlikely
19	145	5/21/2021	Unlikely
20	146	5/21/2021	Unlikely
21	147	5/21/2021	Unlikely
22	149	5/21/2021	Unlikely
23	226	5/27/2021	Unlikely
24	229	5/27/2021	Unlikely
25	230	5/27/2021	Unlikely
26	231	5/27/2021	Unlikely
27	235	5/27/2021	Unlikely
28	240	5/27/2021	Unlikely
29	241	5/27/2021	Unlikely
30	245	5/27/2021	Unlikely
31	247	5/27/2021	Unlikely
32	248	5/27/2021	Unlikely
33	249	5/27/2021	Unlikely
34	250	5/27/2021	Unlikely
35	251	5/27/2021	Unlikely
36	256	5/27/2021	Unlikely
37	257	5/27/2021	Unlikely
38	258	5/27/2021	Unlikely
39	259	5/27/2021	Unlikely
40	260	5/27/2021	Unlikely
41	262	5/27/2021	Unlikely
42	266	5/27/2021	Suspected
43	268	5/27/2021	Unlikely
44	269	5/27/2021	Unlikely
45	301	5/28/2021	Unlikely
46	306	5/28/2021	Unlikely
47	308	5/28/2021	Unlikely
48	309	5/28/2021	Unlikely
49	310	5/28/2021	Unlikely
50	311	5/28/2021	Unlikely

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 20	Date and Time: May 21, 2021 2:10 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Moderate
			Approx. Depth of Flow (in):	0.25

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	1
Poor Pool Quality	**YES**	Oil Sheen, Trash	1
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 2:10 PM

Date

NOTES

Not suspected of an illicit discharge because the flow rate is steady, there was no smell, and investigation upstream could not determine a source. The pipe outfalls into a pool which leads to culvert road crossing. It is recommended the trash is removed from the area.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
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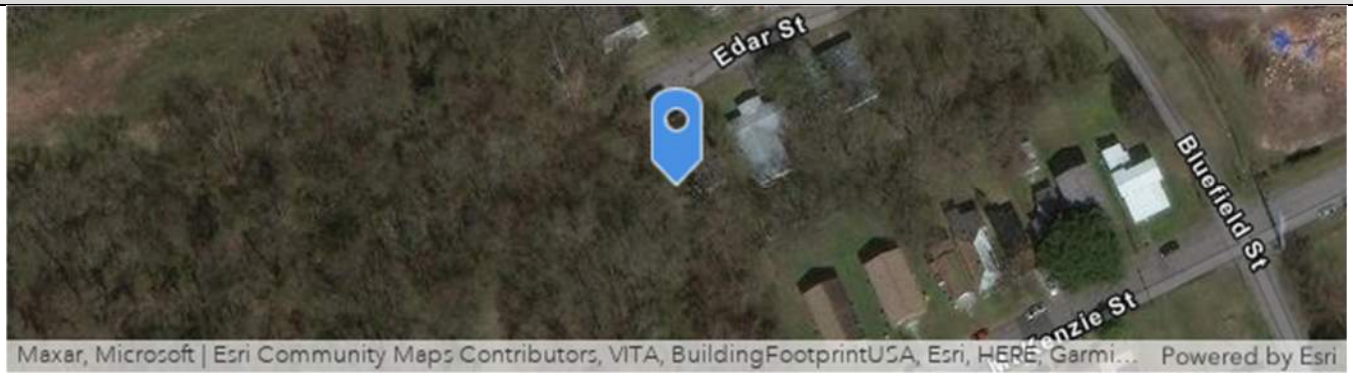
MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 20	Date and Time: May 21, 2021 2:10 PM	Inspector: HMA

VICINITY MAP



-77.42652, 37.2266

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 22	Date and Time: May 21, 2021 9:46 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Trickle
			Approx. Depth of Flow (in):	0.1

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	**YES**	Rancid/Sour	1
Turbidity	**YES**	See Severity Index	1
Floatables	**YES**	Petroleum Sheen	1
Deposits/Stains	**YES**	FlowLine, Iron Deposit	1
Poor Pool Quality	**YES**	Colors, Oil Sheen, Trash	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Suspected

RECOMMENDATION

Further investigation for possible illicit discharge is recommended. Suspected pollutant appears to be potential industrial waste runoff. It is recommended that waste disposal practices at the upstream buildings be investigated that could contribute to the water quality at this outfall. Water quality testing at the outfall is recommended to determine chemical composition of pollutant(s).

NOTES

There is a slight rancid/sour smell in the area. There is a concrete pipe inside the plastic one and a broken piece of concrete pipe at the mouth of the plastic pipe. The flow coming through the pipe was slightly turbid with an oil sheen present. The concrete pipe inside of the plastic pipe is a quarter filled with sediment or iron deposits. These qualities were consistent into the pool. It is noted that the wetted perimeter inside the pipe appears to be fresh and higher than the observed flow. It has been nearly 2 weeks since the previous rainfall event. This could indicate periodic flushing of discharges that are not related to rain events and could be an indicator of an illicit discharge into the storm drain system. It is recommended that this area be investigated further to determine the potential source of illicit discharge.

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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 22	Date and Time: May 21, 2021 9:46 AM	Inspector: HMA

VICINITY MAP

-77.43345, 37.22156

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 23	Date and Time: May 21, 2021 10:00 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Trickle
			Approx. Depth of Flow (in):	0.05

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	Iron Deposits, FlowLine	1
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	**YES**	Green	1

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 10:00 AM

Date

NOTES

Not suspected of an illicit discharge because the flow rate is steady, there was no smell and investigation upstream could not determine a source. No changes to the flow were found upstream within the investigated reach. Algae was present at the mouth of the pipe along with some sediment or iron deposits that is recommended to be removed.

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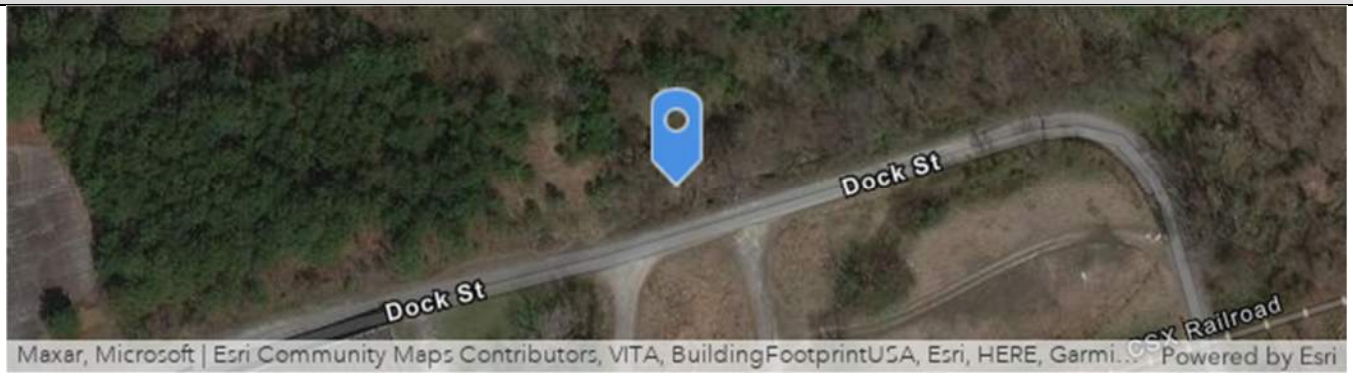
MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 23	Date and Time: May 21, 2021 10:00 AM	Inspector: HMA

VICINITY MAP



-77.43441, 37.22136

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 26	Date and Time: May 21, 2021 9:15 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Trickle
			Approx. Depth of Flow (in):	0.01

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	**YES**	Green	2

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 9:15 AM

Date

NOTES

This is not suspected of illicit discharge because the small steady flow rate had no smell or indicators present other than algae at the mouth of the pipe.

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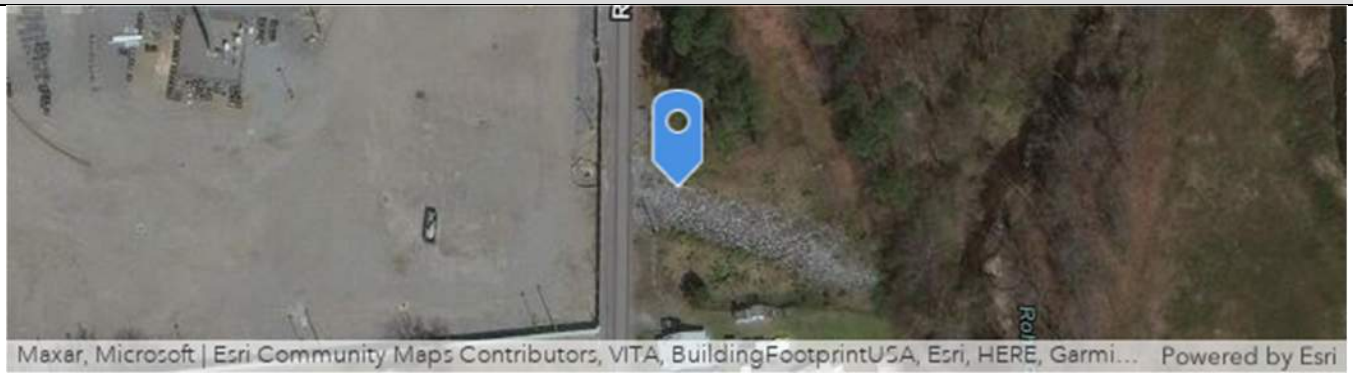
MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 26	Date and Time: May 21, 2021 9:15 AM	Inspector: HMA

VICINITY MAP



-77.44539, 37.21834

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 27	Date and Time: May 21, 2021 8:58 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Moderate
			Approx. Depth of Flow (in):	0.25

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	1
Poor Pool Quality	**YES**	Trash & Leaf Litter, Deep Standing Water	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 8:58 AM

Date

NOTES

The pipe had a small, steady flow that did not look to be illicit. There was a significant amount of trash and leaf litter present in the pool. It is recommended that the trash, leaf litter and vegetation growing on and around the outfall be removed.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
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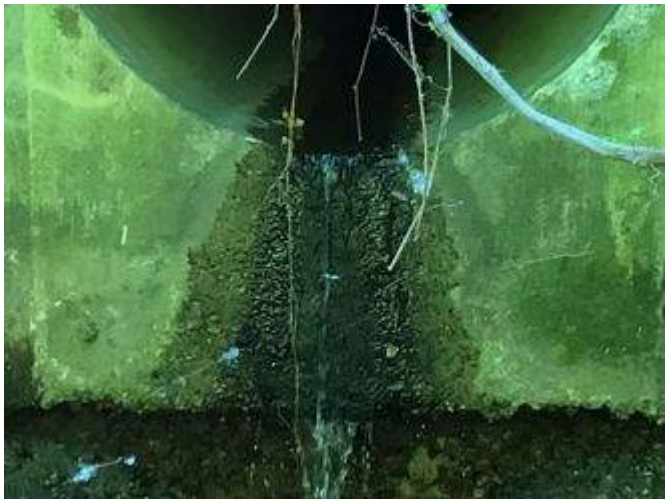
MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 27	Date and Time: May 21, 2021 8:58 AM	Inspector: HMA

VICINITY MAP

-77.44424, 37.21757

PHOTOGRAPHS



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MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 28	Date and Time: May 21, 2021 9:06 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	1
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	**YES**	Green	1

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 9:06 AM

Date

NOTES

No discharge or indicators of illicit discharge present.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION

Outfall ID: 28	Date and Time: May 21, 2021 9:06 AM	Inspector: HMA

VICINITY MAP

-77.44418, 37.21743

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 32	Date and Time: May 21, 2021 12:40 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 12:40 PM

Date

NOTES

The pipe did not have a flow, and no indicators were present therefore no illicit discharge was suspected. There was a significant amount of sediment buildup, and it is recommended this be removed to allow the pipes to flow at full capacity.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 32	Date and Time: May 21, 2021 12:40 PM	Inspector: HMA

VICINITY MAP

-77.4431, 37.20018

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 33	Date and Time: May 21, 2021 12:42 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 12:42 PM

Date

NOTES

The pipe did not have a flow, and no indicators were present therefore no illicit discharge was suspected. There was a significant amount of sediment buildup, and it is recommended this be removed to allow the pipes to flow at full capacity.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 33	Date and Time: May 21, 2021 12:42 PM	Inspector: HMA

VICINITY MAP

-77.4431, 37.20018

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 34	Date and Time: May 21, 2021 12:44 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Moderate
			Approx. Depth of Flow (in):	0.1

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	Yes	See Severity Index	1
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	Yes	Colors	1
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 12:44 PM

Date

NOTES

The pipe had a small, steady flow that did not look to be illicit.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
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MS4 Stormwater Outfall Screening

DESRIPTION

Outfall ID: 34	Date and Time: May 21, 2021 12:44 PM	Inspector: HMA

VICINITY MAP

-77.4431, 37.20018

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 35	Date and Time: May 21, 2021 12:50 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Pool Non-Existent/Eroded	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 12:50 PM

Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators, however there is virtually no pool associated with it. This outfall likely connects to a roadside ditch but there was no channel present. The area below the outfall exhibits significant erosion.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 35	Date and Time: May 21, 2021 12:50 PM	Inspector: HMA

VICINITY MAP

-77.4431, 37.20018

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 125	Date and Time: May 21, 2021 10:49 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Trickle
			Approx. Depth of Flow (in):	0.25

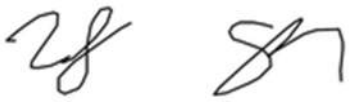
POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	**YES**	Green	1

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."



Signature

May 21, 2021 10:49 AM

Date

NOTES

The pipe had a small, steady flow that did not look to be illicit, with the only indicator being algae present inside the pipe and on the headwall.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 125	Date and Time: May 21, 2021 10:49 AM	Inspector: HMA

VICINITY MAP

-77.4294, 37.21501

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 131	Date and Time: May 21, 2021 10:31 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Trickle
			Approx. Depth of Flow (in):	0.05

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	**YES**	Rancid/Sour, Sewage	3
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	1
Poor Pool Quality	**YES**	Odors, Floatables, Suds, Colors, Oil Sheen	3
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Suspected

RECOMMENDATION

Follow-up investigation is recommended to determine if the outfall is discharging illicit flows. While the discharges observed at the time of inspection from the outfall did not appear to be illicit, indicators are present that suggest periodic illicit discharges from the outfall may be occurring. Recommend testing of the discharges and pool water to determine chemical composition of any potential pollutants present. Suspected potential sewer discharges.

NOTES

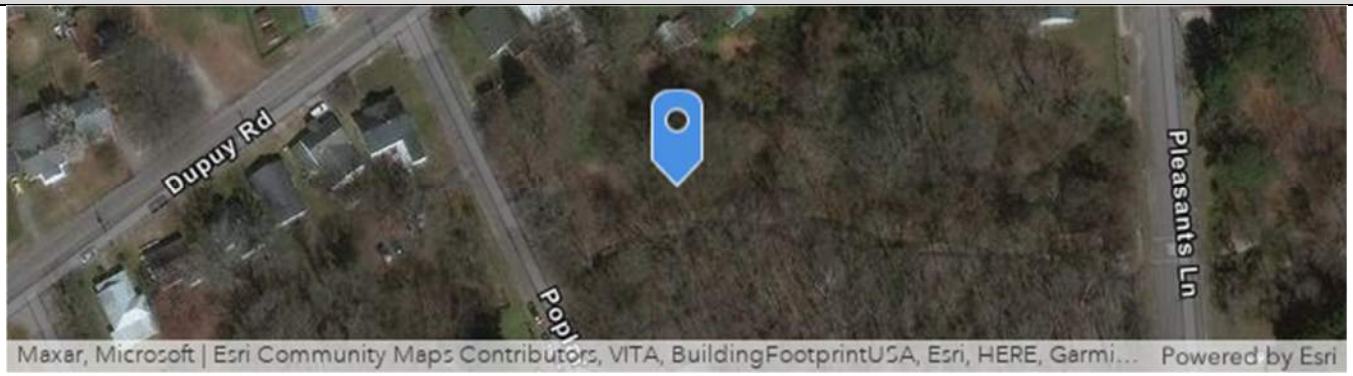
The area had a strong sour/rancid smell, almost like sewage. There flow coming from the outfall itself during inspection appeared to be free of illicit discharge indicators, but the quality of the pool indicates the outfall may have periodic illicit discharges. Since the pool does not appear to connect to a channel and is stagnant it is assumed that the water present arrived there via the outfall or runoff. The pool had excessive amounts of trash and suds present along with a black/gray discoloration to the water with an oil sheen visible in some areas as well.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 131	Date and Time: May 21, 2021 10:31 AM	Inspector: HMA

VICINITY MAP



-77.43247, 37.21454

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 134	Date and Time: May 21, 2021 10:19 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 10:19 AM

Date

NOTES

The pipe did not have a flow, and no indicators were present therefore no illicit discharge was suspected. The outfall was overgrown and it is recommended this be removed to allow the pipes to flow at fully capacity.

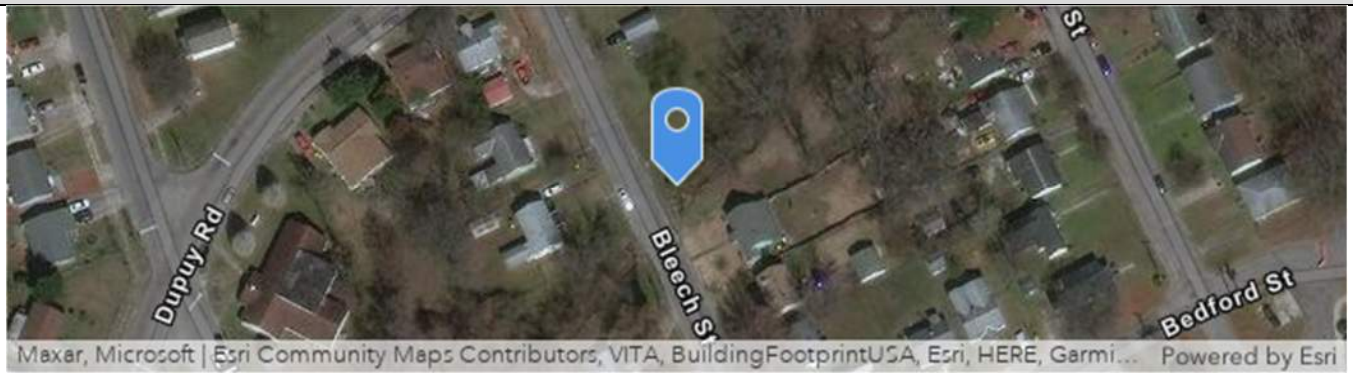
City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION

Outfall ID: 134	Date and Time: May 21, 2021 10:19 AM	Inspector: HMA

VICINITY MAP



-77.43376, 37.21377

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 140	Date and Time: May 21, 2021 11:09 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 11:09 AM

Date

NOTES

The pipe did not have a flow and no indicators were present therefore no illicit discharge was suspected. There was a significant amount of trash in the area and ivy is beginning to grow over the headwall, it is recommended that this is removed.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 140	Date and Time: May 21, 2021 11:09 AM	Inspector: HMA

VICINITY MAP

-77.43487, 37.20969

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 141	Date and Time: May 21, 2021 11:33 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Substantial
			Approx. Depth of Flow (in):	4

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	NA	NA
Floatables	**YES**	Petroleum Sheen	1
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Colors, Oil Sheen	1
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 11:33 AM

Date

NOTES

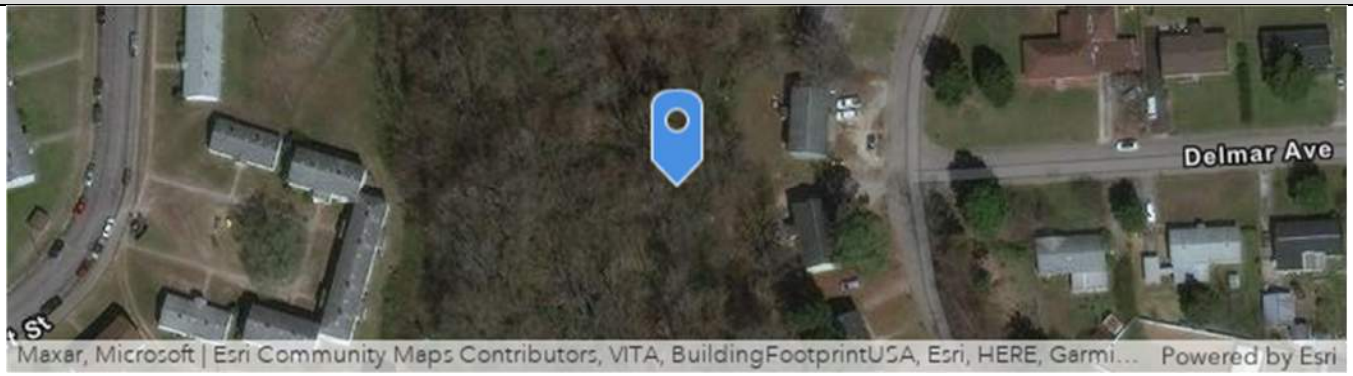
The pipe had a steady flow that did not look to be illicit. The only indicator present was a slight oil sheen.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 141	Date and Time: May 21, 2021 11:33 AM	Inspector: HMA

VICINITY MAP



-77.43417, 37.20849

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 142	Date and Time: May 21, 2021 11:25 AM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Colors, Floatables, Oil Sheen, Trash	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 11:25 AM

Date

NOTES

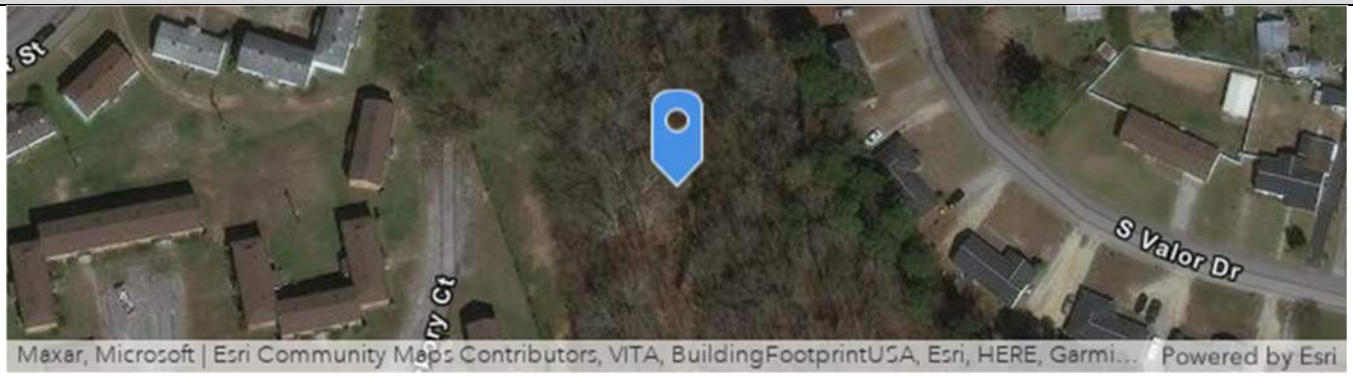
The pipe looked clear of both flow and illicit discharge indicators. Past the concrete channel there is a significant amount of trash and vegetation blocking access to the stream.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 142	Date and Time: May 21, 2021 11:25 AM	Inspector: HMA

VICINITY MAP



-77.43416, 37.2079

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 143	Date and Time: May 21, 2021 1:44 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Trickle
			Approx. Depth of Flow (in):	0.1

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 1:44 PM

Date

NOTES

Not suspected of an illicit discharge because the flow rate is steady, there was no smell, and investigation upstream suggests this is the outfall to the BMP across the street. There is a significant amount of sediment buildup and trash present. It is recommended this be removed to allow the pipes to flow at full capacity.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION

Outfall ID: 143	Date and Time: May 21, 2021 1:44 PM	Inspector: HMA

VICINITY MAP

-77.43237, 37.20643

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 144	Date and Time: May 21, 2021 1:31 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Moderate
			Approx. Depth of Flow (in):	0.25

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	2
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 1:31 PM

Date

NOTES

Not suspected of an illicit discharge because the flow rate is steady and there was no smell. The outfall captures road drainage and is located on the same headwall as road crossing dual culvert (see photo for more context). There was a flowline present but not other indicators.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 144	Date and Time: May 21, 2021 1:31 PM	Inspector: HMA

VICINITY MAP

-77.43187, 37.20665

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 145	Date and Time: May 21, 2021 1:51 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Colors, Floatables, Oil Sheen	3
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 1:51 PM

Date

NOTES

No discharge or indicators of illicit discharge were observed within the pipe. The pool was located between Outfall 145 and Outfall 146 (directly across from another). The pool was observed to smell rancid, have oil sheen, and have discoloration of the water. There was a significant amount of sediment buildup, rocks, debris, and vegetation in the pipe. It is recommended this be removed to allow the pipes to flow at full capacity.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION

Outfall ID: 145	Date and Time: May 21, 2021 1:51 PM	Inspector: HMA

VICINITY MAP

-77.43452, 37.206

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 146	Date and Time: May 21, 2021 1:55 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Odors, Colors, Oil Sheen	3
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 1:55 PM

Date

NOTES

No discharge or illicit discharge indicators were present in the pipe outfall. The pool was located between Outfall 145 and Outfall 146 (directly across from another). The pool was observed to have smell rancid, have oil sheen, and discoloration of the water. Ivy is beginning to grow on the headwall of the outfall and it is recommended it be removed before grows over the opening.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION

Outfall ID: 146	Date and Time: May 21, 2021 1:55 PM	Inspector: HMA

VICINITY MAP

-77.43455, 37.20602

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 147	Date and Time: May 21, 2021 1:12 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 1:12 PM

Date

NOTES

The pipe did not have flow, and no indicators were present therefore no illicit discharge was suspected. It is recommended the outfall be cleared of plants and grass that have started to grow over the outfall.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 147	Date and Time: May 21, 2021 1:12 PM	Inspector: HMA

VICINITY MAP

-77.43585, 37.20338

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 149	Date and Time: May 21, 2021 1:12 PM	Inspector: HMA

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 21, 2021 1:12 PM

Date

NOTES

The pipe did not have a flow, and no indicators were present therefore no illicit discharge was suspected. There was sediment buildup present, and it is recommended this be removed to allow the pipes to flow at full capacity.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 149	Date and Time: May 21, 2021 1:12 PM	Inspector: HMA

VICINITY MAP

-77.43585, 37.20338

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 226	Date and Time: May 27, 2021 2:04 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Substantial
			Approx. Depth of Flow (in):	2

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Colella

Signature

May 27, 2021 2:04 PM

Date

NOTES

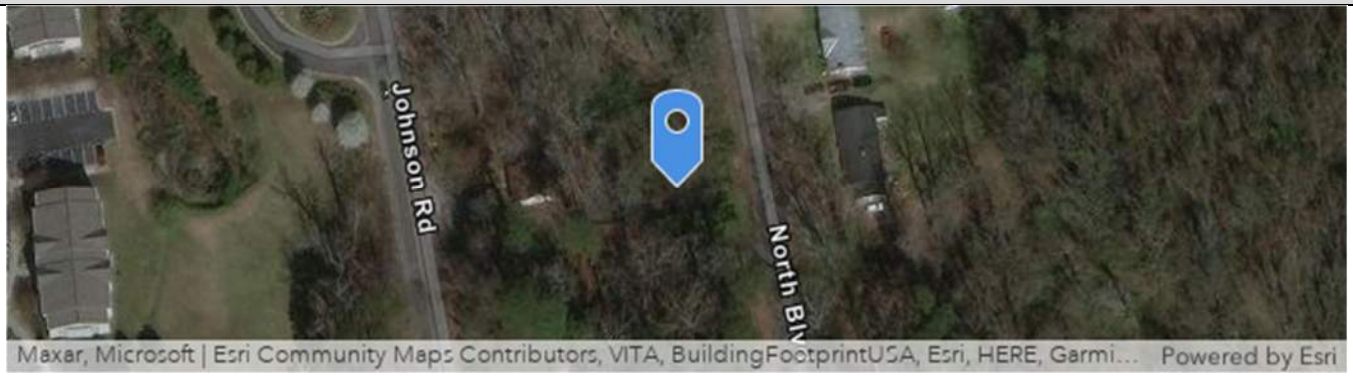
The pipe had a small, steady flow that did not look to be illicit, with no indicators present. Investigation upstream to determine the source of the flow offered no additional findings. It is recommended the outfall be cleared of vegetation that has started to grow over the outfall.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 226	Date and Time: May 27, 2021 2:04 PM	Inspector: LRC

VICINITY MAP



-77.4017, 37.20673

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 229	Date and Time: May 27, 2021 9:51 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

May 27, 2021 9:51 AM

Signature

Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 229	Date and Time: May 27, 2021 9:51 AM	Inspector: LRC

VICINITY MAP

-77.39965, 37.20387

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 230	Date and Time: May 27, 2021 9:24 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Substantial
			Approx. Depth of Flow (in):	0.5

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	1
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 27, 2021 9:24 AM

Date

NOTES

The pipe had a small, steady flow that did not look to be illicit, with no indicators present. Investigation upstream to determine the source of the flow offered no additional findings.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 230	Date and Time: May 27, 2021 9:24 AM	Inspector: LRC

VICINITY MAP

-77.40092, 37.2048

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 231	Date and Time: May 27, 2021 9:45 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	1
Poor Pool Quality	**YES**	Oil Sheen	1
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

May 27, 2021 9:45 AM

Signature

Date

NOTES

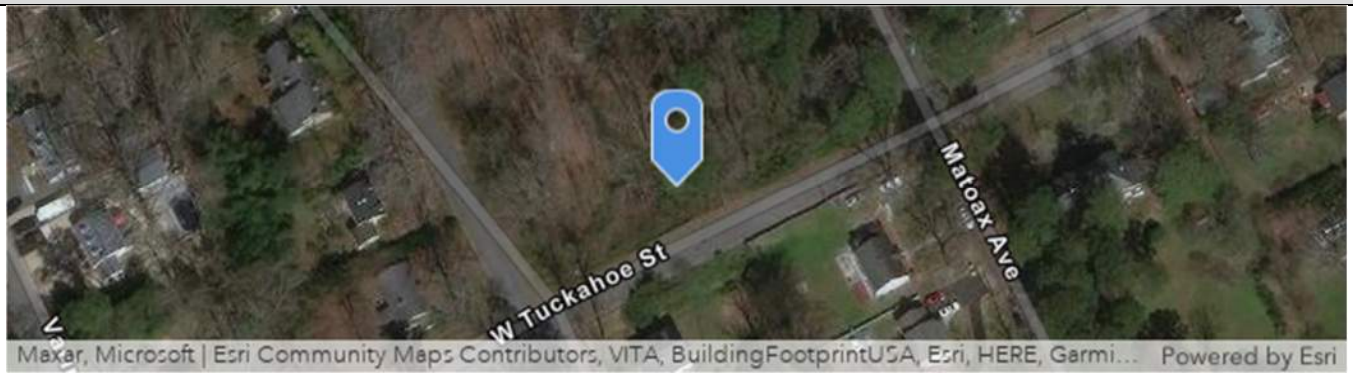
The pipe looked clear of both flow and illicit discharge indicators. The pool directly below this pipe had a slight oil sheen present which was not present in the neighboring pool.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 231	Date and Time: May 27, 2021 9:45 AM	Inspector: LRC

VICINITY MAP



-77.39957, 37.20379

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 235	Date and Time: May 27, 2021 2:33 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Trickle
			Approx. Depth of Flow (in):	0.1

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Colors, Oil Sheen	1
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Colella

Signature

May 27, 2021 2:33 PM

Date

NOTES

Not suspected of an illicit discharge because the flow rate is steady, there was no smell. The pool showed a slight oil sheen and discoloration.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 235	Date and Time: May 27, 2021 2:33 PM	Inspector: LRC

VICINITY MAP

-77.40071, 37.21013

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 240	Date and Time: May 27, 2021 3:23 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	1
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 27, 2021 3:23 PM
Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators. It is recommended that the branches and vegetation be removed from the flow path.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 240	Date and Time: May 27, 2021 3:23 PM	Inspector: LRC

VICINITY MAP

-77.39488, 37.20937

PHOTOGRAPHS

If an illicit discharge is suspected, immediately contact the Stormwater Program Manager at (804)-733-2357.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 241	Date and Time: May 27, 2021 3:42 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Lauren Colella

May 27, 2021 3:42 PM

Signature

Date

NOTES

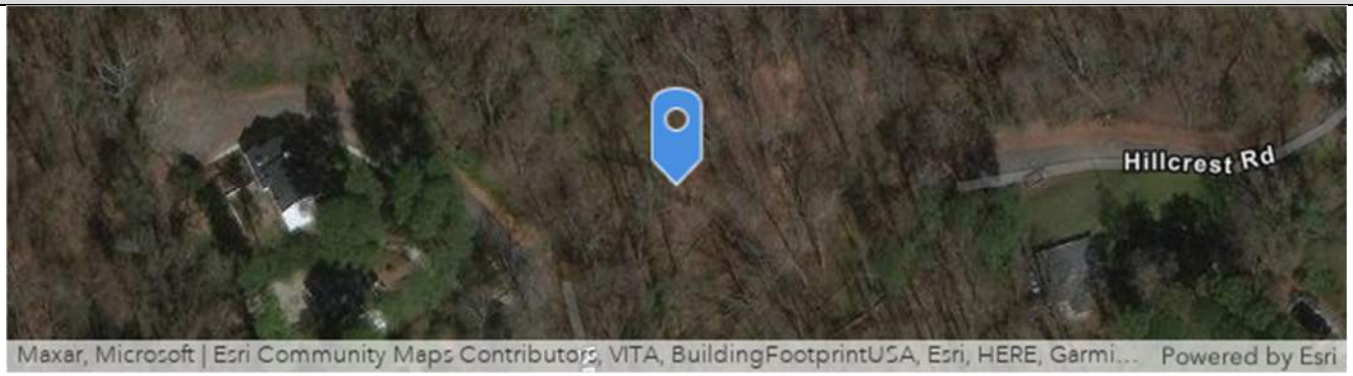
The pipe looked clear of both flow and illicit discharge indicators. It is recommended that the ivy growing over the flume be removed as well as the branches to ensure water can flow freely.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 241	Date and Time: May 27, 2021 3:42 PM	Inspector: LRC

VICINITY MAP



-77.39636, 37.20925

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 245	Date and Time: May 27, 2021 2:22 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 27, 2021 2:22 PM
Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators. It is recommended to remove the leaves from the area to allow water to flow freely.

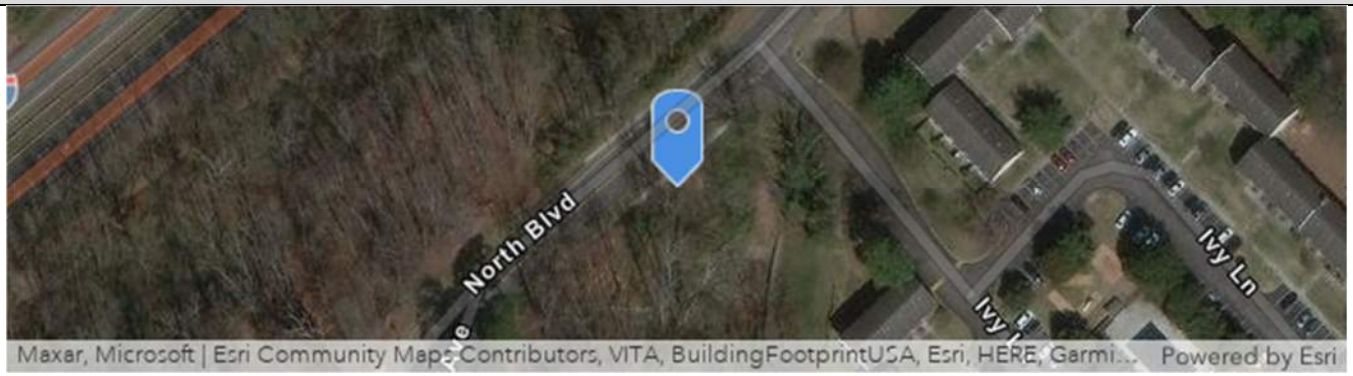
City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION

Outfall ID: 245	Date and Time: May 27, 2021 2:22 PM	Inspector: LRC

VICINITY MAP



-77.399, 37.21137

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 247	Date and Time: May 27, 2021 3:00 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Cobella

May 27, 2021 3:00 PM

Signature

Date

NOTES

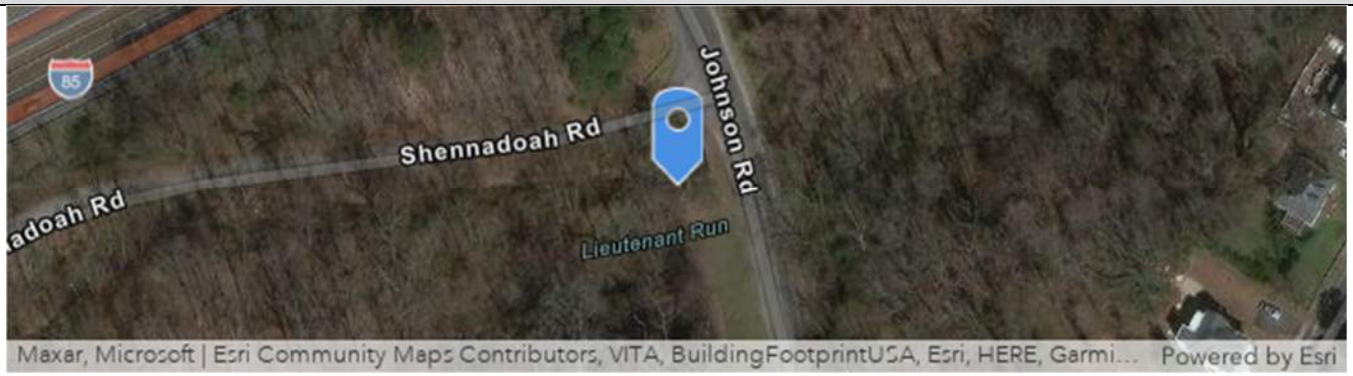
The pipe looked clear of both flow and illicit discharge indicators. It is recommended to remove the vegetation and branches to allow water to flow more freely.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 247	Date and Time: May 27, 2021 3:00 PM	Inspector: LRC

VICINITY MAP



-77.40315, 37.20899

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 248	Date and Time: May 27, 2021 3:03 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Moderate
			Approx. Depth of Flow (in):	0.25

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	**YES**	Rancid/Sour, Sulfide, Petroleum/Gas	2
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Excessive Algae, Colors, Odors	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Colella

May 27, 2021 3:03 PM

_____ Signature

_____ Date

NOTES

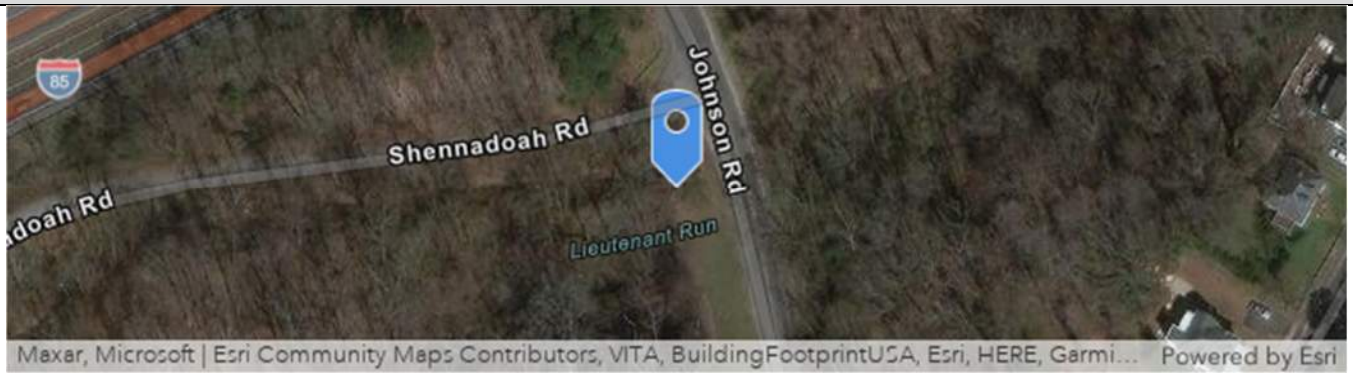
The pipe had a steady flow that did not look to be illicit. There was an odor present in the area and the pool had algae growing on the banks and discoloration on the bed possibly due to iron deposits.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 248	Date and Time: May 27, 2021 3:03 PM	Inspector: LRC

VICINITY MAP



-77.40312, 37.20899

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 249	Date and Time: May 27, 2021 8:39 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Substantial
			Approx. Depth of Flow (in):	2

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	**YES**	See Severity Index	1
Floatables	**YES**	Petroleum Sheen	1
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Colors, Oil Sheen	1
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 27, 2021 8:39 AM

Date

NOTES

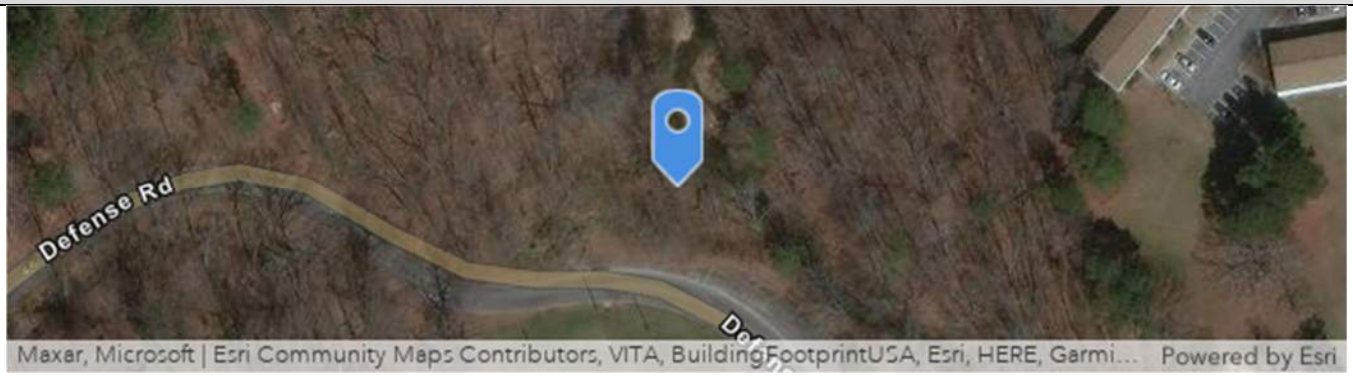
The outfall was partially submerged. There was a piece of concrete pipe separated and in front of the outfall. The flow had a slight oil sheen and cloudiness to it. It is recommended that the sediment in the pipe be removed and attempts to dig out the pool to remove the outfall from it be made.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 249	Date and Time: May 27, 2021 8:39 AM	Inspector: LRC

VICINITY MAP



-77.40611, 37.20307

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 250	Date and Time: May 27, 2021 8:59 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Moderate
			Approx. Depth of Flow (in):	1

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	Iron Deposits, Sediment in Pipe	1
Poor Pool Quality	**YES**	Colors, Sulfide Odor	1
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 27, 2021 8:59 AM

Date

NOTES

Moderate flow was exiting this pipe. Based on upstream investigation, it is unclear where this flow is coming from. Flow was clear and no clear indicators of illicit discharge are present. Orange deposits were observed, likely due to high iron concentrations. The orange discoloration was present upstream and downstream of the outfall and there was a slight sulfide smell when standing in the pool but not at the mouth of the pipe. This pipe is partially crushed and is recommended that it is repaired.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 250	Date and Time: May 27, 2021 8:59 AM	Inspector: LRC

VICINITY MAP

-77.40365, 37.2028

PHOTOGRAPHS

If an illicit discharge is suspected, immediately contact the Stormwater Program Manager at (804)-733-2357.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 251	Date and Time: May 27, 2021 8:22 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Oil Sheen, Odors (Fish)	1
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

May 27, 2021 8:22 AM

Signature

Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators. The area smelt slightly of fish, but it is believed that the smell is coming from the impounded body of water just upstream. It is recommended that sediment in the pipe be removed.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 251	Date and Time: May 27, 2021 8:22 AM	Inspector: LRC

VICINITY MAP

-77.40552, 37.20219

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 256	Date and Time: May 27, 2021 1:14 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	**YES**	Orange, Green	1

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Lobello

May 27, 2021 1:14 PM

Signature

Date

NOTES

The outfall is the end of the concrete channel. This channel collects neighborhood drainage. There is some algae present in the channel that is both green and orange in color. It is recommended to remove the leaf litter and vegetation from the channel. Outfall 257 comes from the opposite direction and outfalls in the same place.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 256	Date and Time: May 27, 2021 1:14 PM	Inspector: LRC

VICINITY MAP

-77.40882, 37.19053

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 257	Date and Time: May 27, 2021 1:19 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	**YES**	Green, Red	1

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 27, 2021 1:19 PM

Date

NOTES

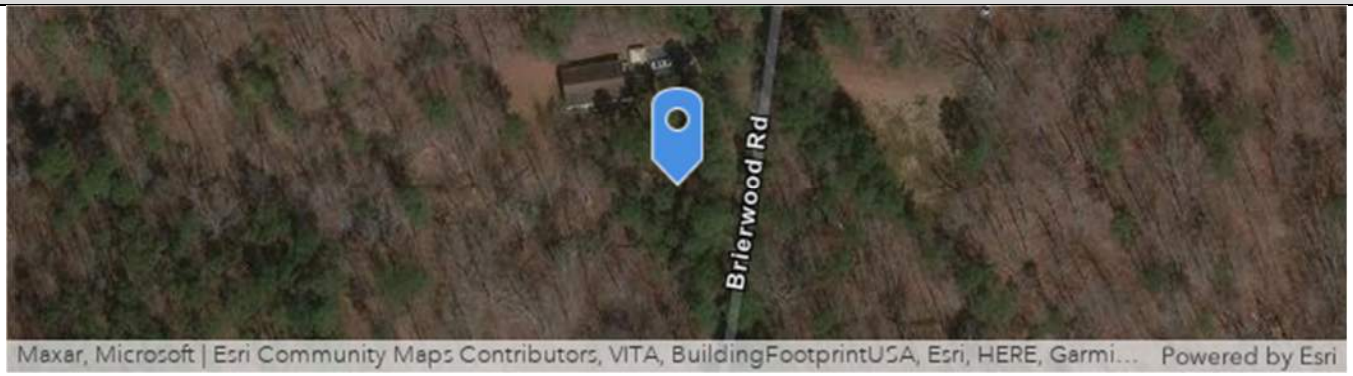
The outfall is the end of the concrete channel. This channel collects neighborhood drainage. There is some algae present in the channel that is both green and orange in color. It is recommended to remove the leaf litter and vegetation from the channel. Outfall 256 comes from the opposite direction and outfalls in the same place.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 257	Date and Time: May 27, 2021 1:19 PM	Inspector: LRC

VICINITY MAP



-77.40876, 37.19046

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 258	Date and Time: May 27, 2021 1:30 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	**YES**	Orange, Green	1

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Colilly

Signature

May 27, 2021 1:30 PM

Date

NOTES

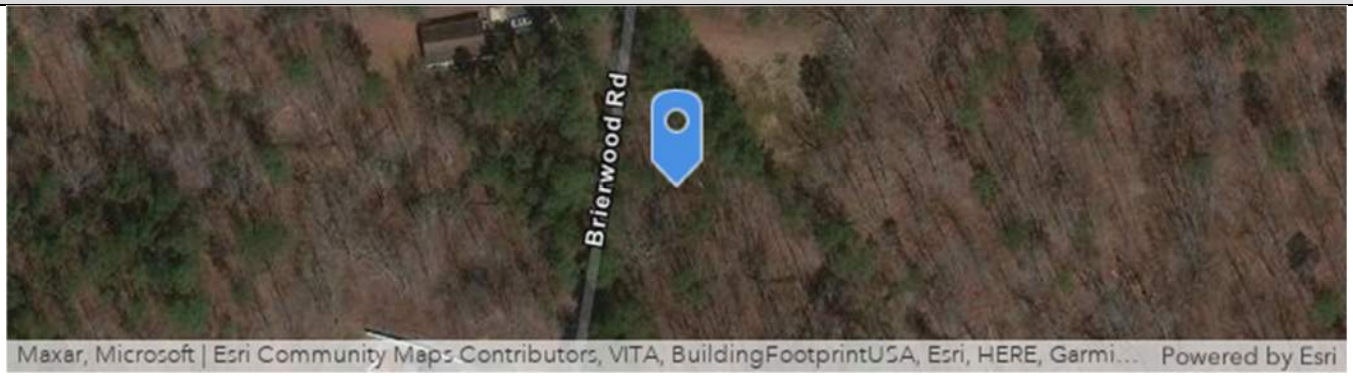
The outfall is the end of the concrete channel. This channel collects neighborhood drainage. There is some algae present in the channel that is both green and orange in color. It is recommended to remove the leaf litter and vegetation from the channel. Outfall 259 comes from the opposite direction and outfalls in the same place.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 258	Date and Time: May 27, 2021 1:30 PM	Inspector: LRC

VICINITY MAP



-77.40838, 37.19037

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 259	Date and Time: May 27, 2021 1:27 PM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	**YES**	Orange, Green	1

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Cobella

Signature

May 27, 2021 1:27 PM

Date

NOTES

The outfall is the end of the concrete channel. This channel collects neighborhood drainage. There is some algae present in the channel that is both green and orange in color. It is recommended to remove the leaf litter and vegetation from the channel. Outfall 258 comes from the opposite direction and outfalls in the same place.

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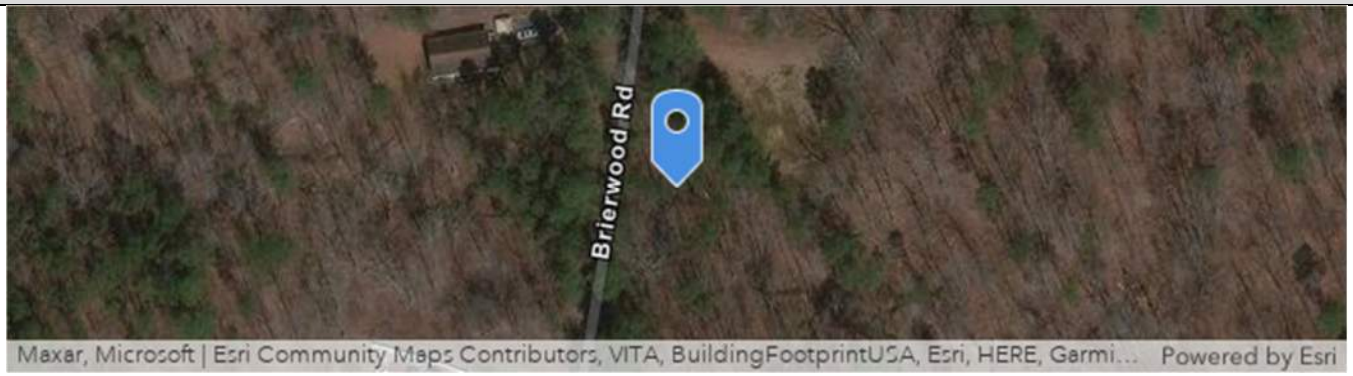
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 259	Date and Time: May 27, 2021 1:27 PM	Inspector: LRC

VICINITY MAP



-77.4084, 37.19039

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 260	Date and Time: May 27, 2021 11:01 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	NA	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Slight Turbidity, Rancid/Sour Odor	1
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Colella

Signature

May 27, 2021 11:01 AM

Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators. The pool had a slight rancid odor and turbidity present, which is not suspected to have come from the outfall. It is recommended to remove the vegetation growing around the outfall to allow water to flow more freely.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 260	Date and Time: May 27, 2021 11:01 AM	Inspector: LRC

VICINITY MAP

-77.3946, 37.19452

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 262	Date and Time: May 27, 2021 10:40 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	NA	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Odors, Colors, Floatables, Oil Sheen	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

May 27, 2021 10:40 AM

Signature

Date

NOTES

Outfall #262 is a pipe discharge from the inlets on the roadway above and presents as a hole in the top of the receiving box culvert system. No flow is observed from the pipe discharge. The receiving waters within the culvert and downstream area had a rancid smell, was turbid and had an oil sheen. There was algae lining the culvert and pool banks. Investigation upstream showed similar characteristics but no clear source. Outfall #262 did not present any indicators that would contribute to this condition.

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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 262	Date and Time: May 27, 2021 10:40 AM	Inspector: LRC

VICINITY MAP

-77.3945, 37.19544

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 266	Date and Time: May 27, 2021 11:14 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Moderate
			Approx. Depth of Flow (in):	0.5

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	**YES**	Sewage, Sulfide, Rancid/Sour	3
Turbidity	No	NA	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Odors, Suds, Colors	3
Pipe Benthic Growth	**YES**	Brown, Green	2

DETERMINATION	
Was an illicit discharge detected?	Suspected

RECOMMENDATION

Additional investigation into a possible illicit discharge is recommended. It is suspected that the sewer structure adjacent to this outfall is leaking or broken and should be evaluated/repaired.

NOTES

The smell at this outfall is strong. Flow was present from the outfall. There was an overwhelming rancid/sour smell almost like sewage at the pool and mouth of the pipe. The water at the outfall and in the pool was cloudy, had suds present and brown, green algae was present along the flowline in the pipes and on the banks of the pool. A sewer structure is located near the pool is suspected to be contributing an illicit discharge.

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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 266	Date and Time: May 27, 2021 11:14 AM	Inspector: LRC

VICINITY MAP

-77.39868, 37.1944

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 268	Date and Time: May 27, 2021 11:48 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	NA	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	1
Poor Pool Quality	**YES**	Suds, Floatables, Oil Sheen, Algae	3
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

May 27, 2021 11:48 AM

Signature Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators. The pool has excessive suds, floatables, algae and oil sheen present. These conditions were consistent with upstream water quality. It is recommended that this area be further investigated to determine the source of the poor pool quality.

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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 268	Date and Time: May 27, 2021 11:48 AM	Inspector: LRC

VICINITY MAP

-77.39831, 37.19288

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 269	Date and Time: May 27, 2021 10:14 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 27, 2021 10:14 AM
Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators. It is recommended that the branches and debris be removed from below the outfall.

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103 W. Tabb Street, Petersburg VA 23803
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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 269	Date and Time: May 27, 2021 10:14 AM	Inspector: LRC

VICINITY MAP

-77.40073, 37.1969

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 301	Date and Time: May 28, 2021 10:00 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	No	NA	NA
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 28, 2021 10:00 AM

Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators.

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 301	Date and Time: May 28, 2021 10:00 AM	Inspector: LRC

VICINITY MAP

-77.37711, 37.2059

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 306	Date and Time: May 28, 2021 8:34 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Trickle
			Approx. Depth of Flow (in):	0.05

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	NA	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Colors, Oil Sheen, Large Amount of Road Debris (Most Likely from Culverts)	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Kendra Colella

May 28, 2021 8:34 AM

Signature

Date

NOTES

The pipe had a small flow that did not look to be illicit. The pool was turbid, had an oil sheen present and large amounts of trash present. It is recommended to remove the trash present and investigate the road culverts.

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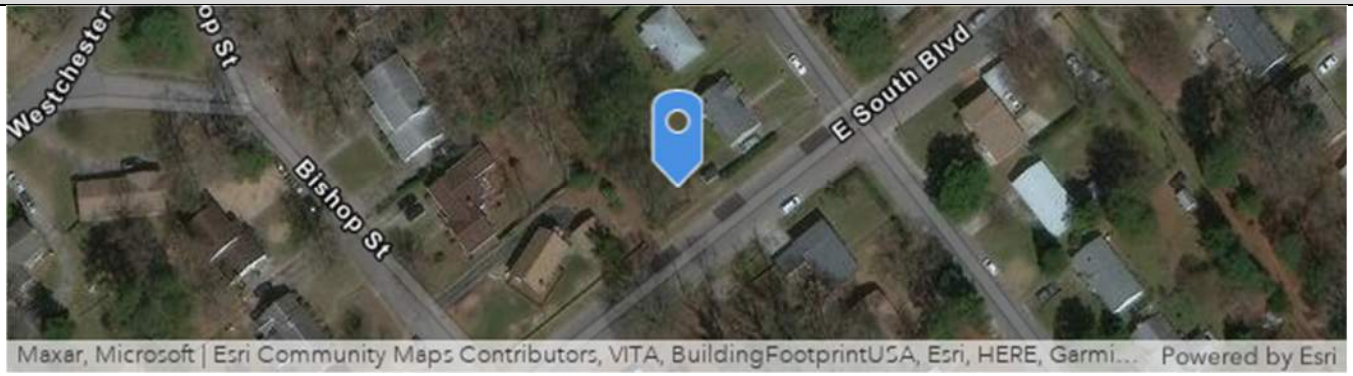
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION

Outfall ID: 306	Date and Time: May 28, 2021 8:34 AM	Inspector: LRC

VICINITY MAP



-77.37634, 37.20763

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 308	Date and Time: May 28, 2021 9:13 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	Yes	If yes:	Approx. Discharge Rate:	Trickle
			Approx. Depth of Flow (in):	2

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	Petroleum Sheen	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Colors, Oil Sheen, Excessive Algae	3
Pipe Benthic Growth	**YES**	Red, Orange	2

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Signature

May 28, 2021 9:13 AM
Date

NOTES

Outfall #308 discharges into the same receiving water and within 200-ft proximity as #306, #309, #310 and #311. The water quality of the receiving waters in the vicinity of these outfalls appeared poor. The pipe had trickle of flow and water appeared to be pooling around and within the outfall. Because of this backwatering it is difficult to discern the quality of the pipe discharges from the pool water quality. The water in the pipe and pool were turbid, had an oil sheen, bubbles, and floating debris present there was also algae present on the banks and pipe walls. This pool quality is influenced by, and consistent in water quality, with upstream conditions. There were no indicators observed that this outfall discharges an illicit discharge.

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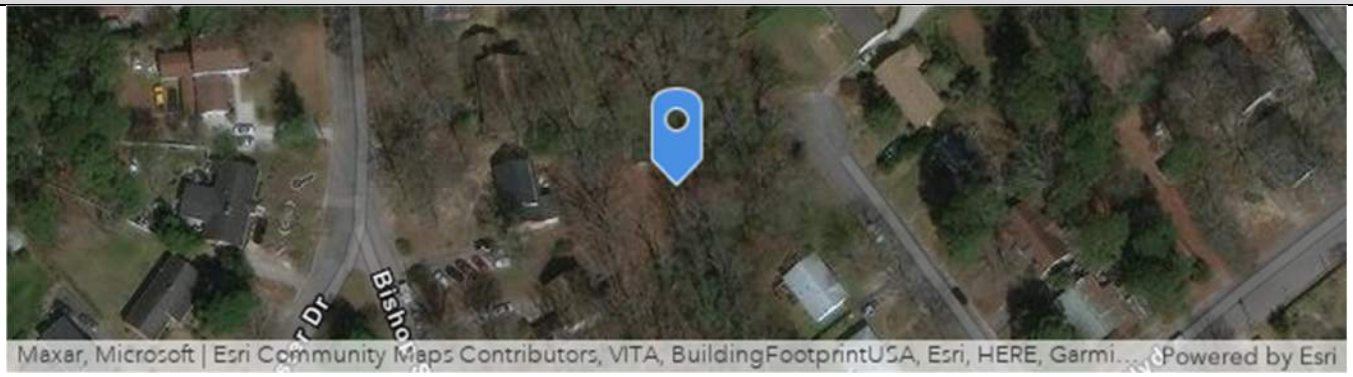
MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 308	Date and Time: May 28, 2021 9:13 AM	Inspector: LRC

VICINITY MAP



-77.37687, 37.20832

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 309	Date and Time: May 28, 2021 9:18 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Excessive Algae, Oil Sheen, Bubbles, Turbidity, Large Amount of Floating Debris	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra LaCelle

May 28, 2021 9:18 AM

Signature

Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators. The end of the pipe is broken and fallen into the channel. It is recommended that the vegetation growing on and around the outfall be removed and the outfall be repaired. The pool was turbid, had an oil sheen, bubbles, and floating debris present there was also algae present on the banks. This pool quality was consistent with upstream conditions, because of this it is not suspected that this outfall is the cause of the pool quality and therefore is not suspected of being illicit. It is recommended that upstream investigation be done to determine the source of the pool quality.

City of Petersburg Department of Public Works
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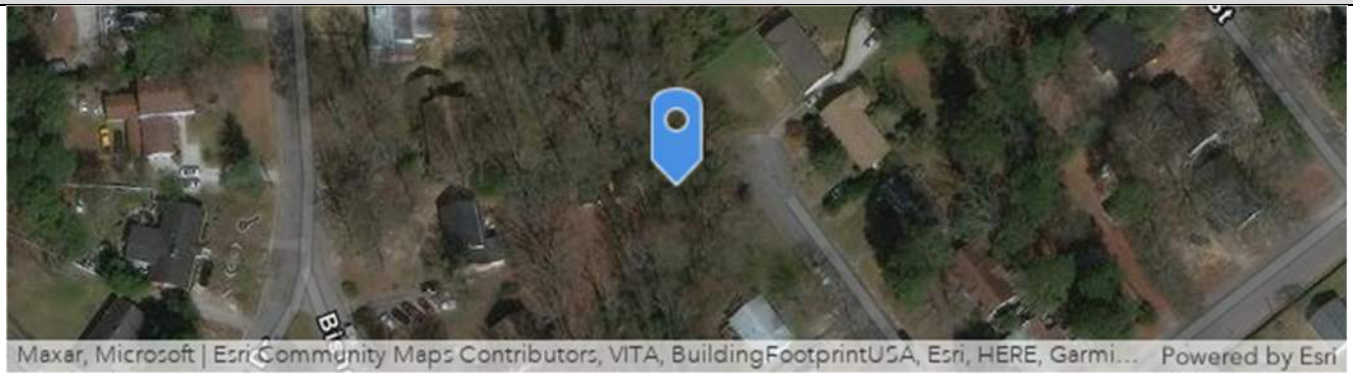
MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 309	Date and Time: May 28, 2021 9:18 AM	Inspector: LRC

VICINITY MAP



-77.37672, 37.20841

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 310	Date and Time: May 28, 2021 9:33 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	NA	NA
Floatables	No	NA	NA
Deposits/Stains	**YES**	FlowLine	1
Poor Pool Quality	**YES**	Excessive Algae, Oil Sheen, Bubbles, Turbidity, Large Amount of Floating Debris	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Colella

May 28, 2021 9:33 AM

Signature

Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators other than a faint flowline. Erosion is present beneath the pipe which could indicate the pipe is disjointed and piping of the discharges is occurring under the pipe and eroding the pipe bed. The pool was turbid, had an oil sheen, bubbles, and floating debris present there was also algae present on the banks. This pool quality was consistent with upstream conditions, because of this it is not suspected that this outfall is the cause of the pool quality and therefore is not suspected of being illicit. It is recommended that upstream investigation be done to determine the source of the pool quality.

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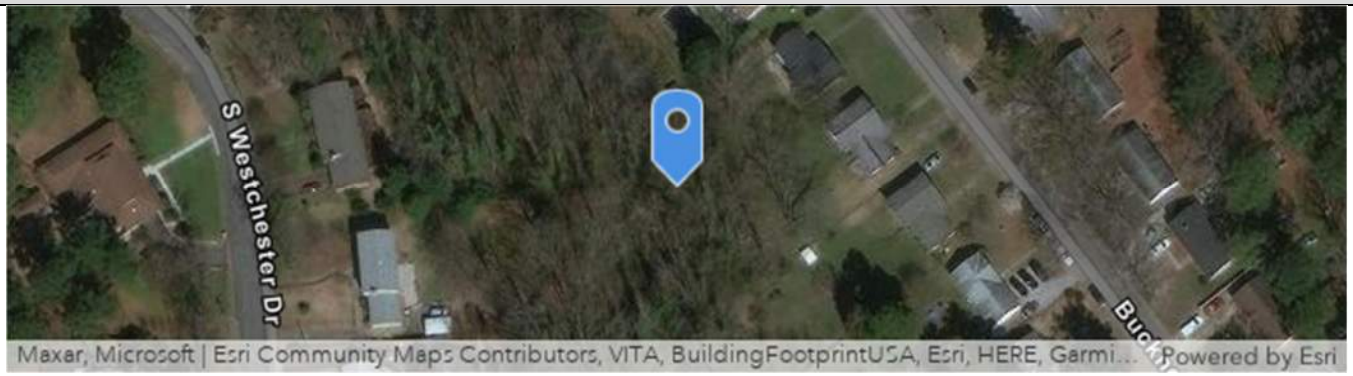
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 310	Date and Time: May 28, 2021 9:33 AM	Inspector: LRC

VICINITY MAP



-77.37667, 37.20926

PHOTOGRAPHS

City of Petersburg Department of Public Works
103 W. Tabb Street, Petersburg VA 23803
Phone: (804) 733-2355 Fax: (804) 733-2030

MS4 Stormwater Outfall Screening

DESCRIPTION		
Outfall ID: 311	Date and Time: May 28, 2021 9:39 AM	Inspector: LRC

LAST RAINFALL		
Depth (in): 0.15	End Date: 5/08/2021	Approx. End Time: 12:00pm
Weather history can be found at: https://www.wunderground.com/weather/us/va/virginia-state-university		

FLOW				
Present?	No	If yes:	Approx. Discharge Rate:	NA
			Approx. Depth of Flow (in):	NA

POTENTIAL POLLUTANT INDICATORS			
Indicator	**Present?**	**Description**	**Relative Severity Index (1-3)**
Odor	No	NA	NA
Turbidity	No	See Severity Index	NA
Floatables	No	NA	NA
Deposits/Stains	No	NA	NA
Poor Pool Quality	**YES**	Excessive Algae, Oil Sheen, Bubbles, Turbidity, Large Amount of Floating Debris	2
Pipe Benthic Growth	No	NA	NA

DETERMINATION	
Was an illicit discharge detected?	Unlikely

CERTIFICATION:

If no suspected illicit discharge is identified, certify the following:

"I certify that the outfall inspection is complete and that no illicit discharge is evident at this time."

Leandra Colella

May 28, 2021 9:39 AM

_____ _____
Signature Date

NOTES

The pipe looked clear of both flow and illicit discharge indicators. There is a significant amount of erosion beneath the pipe which indicates the pipe likely is disjointed and discharges are piping under the pipe and eroding the pipe bed. The pool was turbid, had an oil sheen, bubbles, and floating debris present there was also algae present on the banks. This pool quality was consistent with upstream conditions, because of this it is not suspected that this outfall is the cause of the pool quality and therefore is not suspected of being illicit. It is recommended that upstream investigation be done to determine the source of the pool quality.

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MS4 Stormwater Outfall Screening

DESRIPTION		
Outfall ID: 311	Date and Time: May 28, 2021 9:39 AM	Inspector: LRC

VICINITY MAP

-77.37672, 37.20932

PHOTOGRAPHS