Virginia Department of Transportation

Virginia Stormwater Management Program (VSMP) Permit

General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems

Serving the

Urbanized Areas of Virginia

Registration # VAR040115 - coverage from July 1, 2008 to June 30, 2013

MS4 YEAR FOUR PROGRESS REPORT

July 1, 2011 to June 30, 2012

September 28, 2012

FINAL

Virginia Department of Transportation
Location and Design Division
1401 East Broad Street
Richmond, Virginia 23219

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."

Print Name: Mr. Gregory A. Whirley Title: Commonwealth Transportation Commissioner

Signature: Gregory A. Whirley Date: 10/19/12

VIRGINIA DEPARTMENT OF TRANSPORTATION MS4 PROGRAM

The Virginia Department of Transportation's (VDOT's) Municipal Storm Sewer System Program (MS4) is presented in the form of the six minimum control measures required by the Virginia MS4 General Permit. This program has been developed with a consistent statewide implementation strategy since VDOT maintains regulated MS4s (or components of regulated MS4s) within the public right-of-ways within all thirteen designated urbanized areas of Virginia. While VDOT's MS4 Program is targeted toward those that construct, maintain and utilize its transportation infrastructure and facilities, many of the program's proposed goals have the potential for a broader appeal.

The VDOT MS4 program has and continues to improve environmental compliance, quality and stewardship on VDOT land-disturbing activities through effective management, implementation, and enforcement of sound technical guidelines, criteria, and practices for stormwater management and erosion and sediment control.

This Annual Report identifies the progress towards achieving the measurable goals, as well as any changes and/or additions identified for each BMP. A description of VDOT's proposed Best Management Practices (BMPs) for each minimum control measure, and the Year 04 goals and accomplishments, is summarized on the following pages:

General Notes:

1. There have been no modifications to departmental roles or responsibilities.
2. An assessment has been done on the appropriateness of BMPs, each BMP has been considered appropriate and no modifications are necessary.

Best Management Practices for Public Education and Outreach

1	*Distribute educational materials and perform outreach to inform citizens about the impacts polluted stormwater runoff discharges can have on water quality.*
A	**Public Education**
	Provide information on stormwater quality, regulatory requirements; information on public participation, and links for additional information.
B	**Public Outreach**
	Employ diverse strategies to target audiences specific to the area serviced by the regulated MS4

BMP 1A	**Public Education - Public Affairs Lead Division**
Measurable Goal(s)	*Goal*: Develop and maintain a Stormwater Management webpage on www.VirginiaDOT.org *Measure*: The development of the page, and visitor statistics based on industry-accepted Web metrics tools. *Goal*: Post and promote the availability of the Stormwater Management educational video and public service announcements (PSAs) on the VDOT Stormwater Management webpage and the Commonwealth of Virginia's YouTube Web page. *Measure*: The posting of the video and PSAs on both Webpages and number of requests received for copies. *Goal*: Develop a VDOT Stormwater Management fact sheet. An electronic version of the fact sheet will be posted on the VDOT webpage. Additionally, copies may be printed and distributed to the public and other MS4 operators. *Measure*: The development of the fact sheet and its posting on the VDOTwebpage, and the number of copies distributed. *Goal*: Partner with other MS4 operators to broadcast SWM Public Service Announcements (PSAs) twice in each urbanized area per permit cycle. *Measure*: Number of times PSAs are broadcast.
Milestone Yr 4	Maintain the Stormwater Management Webpage on www.VirginiaDOT.org. Continue posting information regarding VDOT's Stormwater Management Program as available. Partner with other MS4 operators to broadcast the Stormwater Management.
Accomplishments	The VDOT Stormwater Management webpage continues to be maintained. Up-to-date content is posted on the webpage, including the VDOT organizational chart, general permit registration statement and progress reports. The Year 3 Progress Report was posted to the website following submittal to the Department. VDOT's Stormwater Management public service announcements are available on the program webpage and the agency's YouTube channel and have received more than 1,100 views to date.

BMP 1B(1)(a)	**Public Outreach – Maintenance Lead Division**
Measurable Goal(s)	*Goal*: Install message signs and mechanism for distribution of informational brochures at pet waste stations at safety rest stations and welcome centers regarding environmental effects of pet waste and encouraging pet owners to properly dispose of their pet waste. *Measure*: Number of signs installed and number of brochures distributed.
Milestone Yr 4	Install message signs and distribute brochures at pet waste stations on environmental effects and proper disposal of pet waste.
Accomplishments	DOGIPOT pet waste stations have been installed at all rest areas/welcome centers. The pet waste stations are part of VDOT's Monthly Quality Assessment Review/Safety Rest Area Inspection. This inspection reviews the pet stations for functionality and to assure they are being maintained and stocked. The pet waste stations are stocked with disposal bags as part of the normal maintenance operation. The Public Affairs Division worked with the Maintenance Division on the development of proper pet waste disposal posters that have been placed at state rest areas and welcome centers. Safety rest area management worked with Public Affairs to develop new signage for the pet waste stations. The existing signage was old and faded, not eye- catching. Public affairs produced a "Don't Let Your Pet Pollute" copy that lists the four things you can do to reduce pet waste pollution. The signage has been produced, distributed and installed at all safety rest areas statewide. A total of 106 signs were placed at all 42 safety rest areas in May 2012. In addition to the change in signage, some of the plastic waste containers and bag dispensers had deteriorated and were replaced with metal dispensers and waste containers. These containers should now endure the weather longer and maintain their appearance. The pet waste stations are part of VDOT's Monthly Quality Assessment Review/Safety Rest Area Inspection. This inspection reviews the pet stations for functionality and to assure they are being maintained and stocked. The pet waste stations are stocked with disposal bags as part of the normal maintenance operation. As part of the daily good housekeeping procedures for trash and debris removal, any pet waste discovered is removed. A PDF of the new signage is Attachment 6

BMP 1B(1)(b)	**Public Outreach –Maintenance Lead Division**
Measurable Goal(s)	*Goal*: Promote storm drain stenciling and Adopt-a-Highway programs. *Measure*: Number of land use permits issued for storm drain stenciling and highway miles adopted under the Adopt-a-Highway program.
Milestone Yr 4	Promote storm drain stenciling and Adopt-a-Highway programs and track number of permits issued and highway miles adopted.
Accomplishments	No stenciling permits were applied for in FY2012. A total of 22,283.5 miles are currently adopted by citizens for clean up in the Adopt-a-Highway Program.

BMP 1B(2)	Public Outreach – Traffic Engineering Lead Division
Measurable Goal(s)	*Goal*: Participate in watershed sign installation program based on available funding. *Measure*: Total number of signs installed.
Milestone Yr 4	Install additional watershed signs based on available funding.
Accomplishments	Replaced two "Chickahominy River" signs with two "Chickahominy River – Chesapeake Bay Watershed" signs on I 64 in the vicinity of mile 205 eastbound and westbound at a cost of $16,056.00

Best Management Practices for Public Participation and Involvement

2	*Provide opportunities for citizens to participate in program development and implementation, including effectively publicizing public hearings and/or encouraging citizen representatives on a stormwater management panel.*
A	**Public Involvement**
	Provide public access to information pertaining to VDOT's MS4 Program.
B	**Public Participation**
	Participate in watershed organizations and local government technical advisory committees to ensure that provisions for linear development projects are incorporated into local watershed planning.

BMP 2A	Public Involvement - Public Affairs Lead Division
Measurable Goal(s)	*Goal*: Make available for public review VDOT's MS4 Program Plan and subsequent annual reports on the VDOT Stormwater Management webpage. Promote the location of the Stormwater Management webpage in VDOT publications, where applicable. *Measure*: Visitor statistics based on industry-accepted Web metrics tools.
Milestone Yr 4	Post MS4 Program Plan on the VDOT Stormwater Management webpage. Continue to promote the location of the Stormwater Management webpage in VDOT publications, where applicable.
Accomplishments	The MS4 Program Plan is posted on the VDOT Stormwater Management webpage. This webpage had approximately 1,840 visits during the last year, which is an approximate 35% increase from the previous year. The Public Affairs Division worked with the Maintenance Division on the development of a pet waste disposal brochure or poster to be placed at state rest areas and welcome centers. The final product includes the web address for VDOT's Stormwater Management program. There were no public comment regarding the MS4 Program or any modifications; however, VDOT maintains the means for the public to submit comments at any time. There were no comments submitted related to the MS4 Program in Year 4.

BMP 2B(1)	**Public Participation – Location and Design Lead Division for project design related issues**
Measurable Goal(s)	*Goal:* Participate in local activities aimed at increasing public awareness of water quality and stormwater issues. *Measure*: Number of watershed planning meetings attended.
Milestone Yr 4	Participate in watershed planning meetings and maintain a summary of issues considered.
Accomplishments	VDOT employees participated in the following meetings / activities: IDDE informational meetings BMP Education Initiatives Regional Stormwater Technical Committee meeting Chesapeake Bay Foundation's regional watershed meeting RAP meetings Environmental / SWM Conference -(VMI) AASHTO SWM Conference – (Raleigh NC) SWCB meetings (PDC) CBPA WIP II Implementation group meetings General MS4 Awareness Training Numerious meetings with Northern Virginia Regional Commission (NVRC) and various Counties in Northern Virginia about Chesapeake Bay TMDL, Upcoming SWM Regulations etc. Meetings on Accotink TMDL and further direction on implementation of this TMDL. DCR Stormwater Rollout Meeting Guest Speaker at Chesapeake Bay TMDL Symposium by ACEC (American Council of Engineering Companies

BMP 2B(2)	**Public Participation – Environmental Lead Division for water quality related regulatory issues**
Measurable Goal(s)	*Goal*: Participate in local activities aimed at increasing public awareness of water quality and stormwater issues. *Measure*: Number of watershed planning meetings attended.
Milestone Yr 4	Participate in watershed planning meetings and maintain a summary of issues considered.
Accomplishments	62 meetings – Coastal Zone Management Policy Team Meeting, CZM T&E Meeting, ChesBay Ph. II WIP Stakeholders Advisory Group Meeting (2), DCR ChesBay WIP Ph. II Team Meetings (7), ChesBay WIP II Public Meeting at VCU, State Water Control Board Meeting, Communities for Clean Water GW Regional WIP II Workshop, Shenandoah Valley Pure Water Forum in Waynesboro, Va., TMDL Watershed Implementation Plan Phase II Public Meeting held at James Madison Univ., DEQ TMDLs Meetings (2), Bull Run Exceptional State Waters RAP, VDOT Environmental Managers Meeting, Hanover County MS4 Bay TMDL stakeholders meeting, Environment Virginia Symposium, NCHRP Project – TMDL Compliance for Highways, ASHE Technical Session, Richmond Regional PDC Round Table Meeting, James River Bacteria TMDL (2), James River and Elizabeth River PCB TMDL(3), Meadow Creek, Schenks Branch, Moores Creek & Lodge Creek TMDL and IP TACs (7), Potomac River Bacteria TMDL (7), Hoffler Creek TMDL and IP (3), Chickahominy River Bacteria TMDL, Chickahominy River Benthics TMDL, Back Bay and Lower Chesapeake TMDL, Hofler Creek TMDL, Holmes and Tripps Run Benthics TMDL (2), Amherst County Benthics and Bacteria TMDLs (2), Little Otter River and Buffalo Branch Benthics TMDLs(2), and Accotink Creek TMDL (5).

Best Management Practices for Illicit Discharge Detection and Elimination (IDDE)

3	*Develop, implement, and enforce a program to detect and eliminate illicit discharges into VDOT's stormwater system.*
A	**Prevent or minimize to the maximum extent practicable, the discharge of hazardous substances or oil**
	Guidance addresses the issues of illicit discharge. Non-storm water discharges will be prohibited, except for those of uncontaminated water as listed in the permit requirements. Education on illicit discharges will be a key component.
B	**Evaluate guidance to identify and report Illicit Discharges Connections**
	Guidance and procedures to detect and report the source of the illicit discharges into MS4
C	**Continue to develop Inventory of Stormwater Systems**
	An updated GIS-compatible digital database of stormwater infrastructure outfalls.
D	**Track the number of illicit discharges identified and eliminated**
	Guidance for tracking and reporting illicit discharges
E	**Prohibit, through ordnance, or other regulatory mechanism non-stormwater discharges**
	Practices to eliminate and/or minimize illicit discharges
F	**Address Total Maximum Daily Load (TMDL) Waste Load Allocation (WLA) streams within each MS4**
	Update plan within 18 months to include measurable goals, schedules, and strategies to ensure MS4 consistency with any TMDL for which waste loads have been allocated to the MS4

BMP 3A	**Evaluate guidance and training programs to prohibit non-stormwater discharge into MS4 – Maintenance Lead Division**
Measurable Goal(s)	*Goal:* Review training guidance and current practices and update and revise as necessary *Measure:* An annual evaluation of guidance and practices *Goal:* Provide IDDE training programs to appropriate audiences. *Measure:* Number of employees, contractors, and volunteers trained.
Milestone Yr 4	Review and update/revise training guidance and current practices related to IDDE as necessary. Review and update/revise other training materials to incorporate guidance dealing with IDDE as necessary. Provide IDDE training to appropriate audiences.
Accomplishments	VDOT reviewed several guidance documents and other procedures that relate to IDDE and reducing pollutants from VDOT's MS4 discharge. Developed and formalized a written protocol for the IDDE program. The protocol will identify any training requirements for VDOT personnel. The IDDE manual has been successfully deployed to different programs and divisions for testing as a precursor to full implementation. Provided IDDE overview training to 168 district land use and planning staff.

BMP 3B	**Guidance to identify and report Illicit Discharges Connections – Maintenance Lead Division**
Measurable Goal(s)	*Goal:* Develop/revise illicit discharge identification and reporting protocols. *Measure:* Establishment of identification and reporting protocols.

	Goal: Establish a means for the public to report illicit discharges. *Measure:* Development of reporting system and number of reports received of potential illicit discharges.
Milestone Yr 4	Modify illicit discharge identification and reporting protocols as necessary based on software purchased and /or the results of user acceptance testing of software. Continue illicit discharge reporting system utilizing the VDOT SWM Program webpage, Adopt-A-Highway Program or through direct contact with the appropriate VDOT Residency/District Office.
Accomplishments	Developed a written protocol for the IDDE Program. The protocol identifies the means by which the public can report illicit discharges. VDOT will implement the necessary communication provisions as identified in the protocol.

BMP 3C	**Inventory of Stormwater System – Maintenance Lead Division**
Measurable Goal(s)	*Goal:* Develop and maintain an updated inventory of roadway outfalls in the MS4 urbanized areas. *Measure:* Development and implementation of inventory system and protocols. *Measure:* Percentage of centerline miles by roadway functional class by MS4 area inventoried.
Milestone Yr 4	Perform pilot project for the collection of outfalls and critique the software and instructional manual and modify both as needed. Make an in-house or outsource decision for outfall inventory for each of the MS4 urban areas based on the pilot. Continued the inventory of the outfalls based on roadway functional classification and/or watershed as required for satisfying other MS4 BMPs.
Accomplishments	Discussions with other MS4 permits holders led VDOT to the U.S. Army Corps of Engineers (USACE) which had completed an outfall inventory for Stafford County. The USACE can provide similar assistance to VDOT in accordance with Section 22 of the Water Resources Development Act (WRDA) of 1974 (Public Law 93-251), as amended, which authorizes the Secretary of the Army, acting through the Chief of Engineers, to assist the States in the preparation of comprehensive plans for the development, utilization and conservation of water and the related resources of drainage basins, watersheds and ecosystems located within the boundaries of such State. Letters of Agreement has been negotiated with the Baltimore District, Norfolk District and Wilmington NC District of the USACE to complete the following tasks: 1. Collection of existing information and field survey preparation 2. Field survey and assessment of outfalls 3. Development of outfall database and GIS layers 4. Documentation of procedures 5. Final Report The Baltimore District will complete the outfall inventory/assessment for the Washington, Winchester and Harrisonburg census urban areas. The Norfolk District will complete the outfall inventory/assessment for the Charlottesville, Fredericksburg, Richmond and Virginia Beach census urban areas. The Wilmington NC District will complete the outfall inventory/assessment for the Bristol, Kingsport, Blacksburg, Roanoke, Lynchburg and Danville census urban areas. The USACE field survey will be completed at the target locations identified by the VDOT MS4 Target Model.

The function of the MS4 Target Model is to predict the most likely location of VDOT stormwater conveyance discharging into surface waters. The MS4 Target Model utilizes the most up-to-date hydrographic data and VDOT road centerline data to identify locations were roadways maintained by VDOT are within a specified proximity to a stream, water body, or wetland. The MS4 Target Model must be run periodically because of the addition of roads into the VDOT system, road changes due to construction, and updates to the stream, wetlands, or water body GIS layers.

Summary of targets produced by each MS4 Target Model run:

Date	Targets generated
07/22/2009	9,723
11/15/2009	1,412
07/24/2010	1,331
12/11/2011	200
Total	12,666

Management of the outfall survey can be broken down into four parts:

1. Assignment of the targets to the USACE Districts is accordance with the VDOT funds available for the matching funds provided by the USACE. The targets are assigned by HUC6 watershed based on a priority list established based on present and future TMDLs.
2. The USACE completes the field work and logs outfall or no outfall points at each target location.
3. VDOT groups targets that are close together into clusters and checks to see if data has been logged near each cluster. A desktop study is completed on the clusters that have no data to determine if they will be reassigned for outfall determination. Some clusters that do not have a data point logged are eliminated because the target generation no longer exis~~t, such~~ As an example, if a wetland no longer exists because of residential construction, the cluster will be eliminated.
4. Complete a QA/QC audit of reported outfalls.

CUA	Total Targets	Clusters	% Assigned	Outfalls	Clusters Cleared	% Cleared	Note
Blacksburg, VA	82	41	100%	41	40	98%	1
Bristol, TN--Bristol, VA	131	80	100%	139	61	76%	1
Charlottesville, VA	277	162	100%	374	155	96%	1
Danville, VA	92	55	100%	85	54	98%	1
Fredericksburg, VA	566	396	100%	554	263	66%	1
Harrisonburg, VA	160	100	100%	126	87	87%	2
Kingsport, TN--VA	86	51	100%	99	39	76%	1
Lynchburg, VA	227	165	100%	253	107	65%	1
Richmond, VA	2886	1,704	11%	171	441	10%	3
Roanoke, VA	845	489	100%	853	423	87%	1
Virginia Beach, VA	2077	981	27%	0	0	0%	3

	Washington, DC-VA-MD	4909	2,823	100%	3785	1941	69%	2
	Winchester, VA	328	205	100%	328	163	80%	2
	VDOT Total	**12,666**	**7252**		**7,111**	**3504**	**48%**	

Notes:
1. Cluster clearing will be completed and any remaining field work will be completed in the next permit cycle when 2010 census targets are assigned.
2. Cluster clearing will be completed and all remaining field work will be completed in the fifth year of this permit.
3. Remaining field work will be completed in the first 48 months of the next permit along with the 2010 census targets.

BMP 3D	**Track and eliminate illicit discharges – Maintenance Lead Division**
Measurable Goal(s)	*Goal*: Notify in writing any downstream regulated MS4 to which the VDOT small regulated MS4 is physically interconnected. *Measure*: Total number of interconnected MS4 operators notified. *Goal:* Develop and maintain a process for contacting and reporting illicit discharges to appropriate authority. *Measure:* Development of process and number of illicit discharges reported.
Milestone Yr 4	Review/update list of MS4 localities and provide notification of physical interconnection as identified through implementation of outfall inventory. Report verified illicit discharges to the appropriate authorities.
Accomplishments	All MS4 operators have been sent a letter notifying them of potential interconnections of VDOT's and their stormwater systems in previous report cycles. VDOT received reports of five potential illicit discharges reported to the IDDE team outside of the outfall survey process. The reports resulted in five investigations and the discovery of one illicit connection to VDOT's stormwater system. A brief summary of the investigations is as follows: 1. An intermittent white discharge from an outfall at 5216 West Broad in Richmond was reported by DEQ. Field investigation determined two possible sources, with one being from an illicit connection to VDOT's stormwater system. The owner was verbally notified of the need to terminate the illicit connection and the issue was turned over to the Land Use Permits section for written notification. 2. Anonymous complaint was received; it was determined that there was insufficient information to start an investigation. 3. A discharge from a slurry seal operation was reported in Charlottesville. The spill by a contractor working for the water and sewer authority was fully investigated by the Culpeper district and the authority. It was determined that the material solidified after release and had no impact on surface waters. 4. A potential illicit discharge from an old pipeline running through a culvert under I-95 (mile marker 72.3) was reported by field staff in Richmond. The discharge was investigated, and it was determined that the pipelines were inactive and had been blocked off. A follow-up investigation was conducted with DEQ. A PVC pipe inside an old pipeline contained small amounts of residual "bunker fuel". It was determined that none of the material had reached surface waters. 5. A potential illicit discharge of petroleum from an old pipeline running through a culvert installed for the pipeline instillation under I-95 (mile marker 74) was reported by DEQ. DEQ and Colonial Pipeline were met onsite by VDOT staff. The investigation determined that several pipelines running through this culvert were inactive and have been so for some time.

	A small residual amount of petroleum still appears to be in these pipelines from prior use. No visual signs of a discharge were present during the investigation. Received one report of a potential illicit discharge from Chesterfield County due to the failure of the embankment of a private stormwater pond. The failure severed a sewage line embedded in the embankment. All cleanout debris from VDOT culverts located downstream was completed by the private contractor in accordance with the provisions of a VDOT land use permit. VDOT has completed the modifications to the MS4 Outfall Inventory to be able to fully track the IDDE investigations, in addition to the initial outfall survey inventory and evaluation of the site. In addition to incorporating IDDE investigations, a method of tracking QA/QC investigations of outfalls was incorporated. The VDOT Customer Service Center/ maintenance work order software was modified to include a Problem Type of "Polluted Stormwater (IDDE)." The Customer Service Center receives calls for problems related to our roadways such as potholes, dead animals etc. and generate maintenance work order for the appropriate residency. A report can be produced by Problem Type to track all "Polluted Stormwater (IDDE)" calls and related maintenance work orders. When reviewing the IDDE Manual for its application to the residencies for completion of the IDDE maintenance work order, it was determined that a simplified IDDE Field Guide and Quick Reference Card need to be developed for the residency staff. VDOT investigated eleven potential illicit discharges found during the outfall survey process. Follow-up investigation determined that at ten of the eleven sites illicit discharges were not present. The site with a potential illicit discharge, located at the intersection of Patterson Avenue and Gaskins Road in Richmond, was determined to be due to a petroleum spill from a gas station located adjacent to VDOT right-of-way. The site was found to be an active petroleum release site under DEQ oversight. The review of the field investigations reveled the need to give additional definition to the overall outfall characterization from Chapter 11 of the Illicit Discharge Detection and Elimination *A Guidance Manual for Program Development and Technical Assessments.* There is also a need to gather additional information related to erosion at the outfall channel and outfall structure. The Environmental Waste Management training course was modified to include an IDDE module. The Waste Management/IDDE course was attended by 311 employees during this permit year. Illicit discharge detection overview training was given to 168 district land use and planning staff who issue land use permits.

BMP 3E	**Prohibition of non-stormwater discharges – Maintenance Lead Division**
Measurable Goal(s)	*Goal*: Prohibit non-stormwater discharges into storm sewer systems through the Land Use Permitting Program. *Measure*: Number of guidance and training documents reviewed/revised to incorporate IDDE identification procedures. *Measure*: Number of land use permitting employees that participate in trained on IDDE identification.

Milestone Yr 4	Provide training to all new employees involved in the Land Use Permits Program on IDDE identification and conduct refresher courses to others as needed. Track number of employees trained.
Accomplishments	The IDDE Manual has explicit mean and measures to identify ways to prohibit illicit discharges. Provided IDDE overview training to 168 district staff.

BMP 3F	**Update MS4 plan to ensure consistency with TMDLs – Environmental Lead Division**
BMP 3F(1)	**Evaluate/revise/update legal authorities/policies/procedures**
Measurable Goal(s)	*Goal:* Develop a list of existing legal authorities, policies and procedures that are applicable to reducing the pollutant identified in the WLA (waste load allocation). *Measure:* Development of list. *Goal:* Develop and implement a schedule to evaluate existing legal authorities, policies and procedures to determine their effectiveness to address reduction of the pollutant identified in the WLA. *Measure:* Development and subsequent implementation of schedule *Goal:* Develop and implement a schedule to update existing legal authorities, policies and procedures to address weaknesses related to the MS4 Program and to ensure consistency with the TDML. *Measure:* Development and subsequent implementation of schedule.
Milestone Yr 4	Complete year three milestone. Begin process of making revisions or modifications to existing legal authorities, policies and procedures needed to address weaknesses related to the MS4 Program for ensuring consistency with the TDML.
Accomplishments	Continued addressing weaknesses of existing legal authorities, policies and procedures applicable to reducing sediment, bacteria and PCBs based on criticality, scheduling and complexity using low/medium/high scale. o Secondary Street Acceptance Regulation (SSAR) revised. Guidance Manual still under review. o Continued discussion on draft revisions to the Land Use Permit Manual. o Initiated development of draft revisions to Locally Administered Projects Manual. o Waste Management Manual revised.

BMP 3F(2)	**Update MS4 Program to address TMDL impacts**
Measurable Goal(s)	*Goal:* Update the MS4 Program Plan to include information regarding TMDLs to ensure consistency; as a stakeholder participate in the development of any implementation plan to address the TDML and incorporate applicable best management practices identified in the TMDL plan into VDOT's MS4 Program Plan. *Measure:* Number of TMDLs incorporated into VDOT MS4 Program Plan. *Measure:* Number of plans implemented to address identified WLA. *Goal:* Identify and develop an estimate of the area draining from within VDOT right-of-way to identified TMDL waterways.

	Measure: Number of areas identified. *Goal:* Develop a characterization of the annual flow that estimates the stormwater discharged and the quantity of pollutant identified in the waste load allocation discharged by the MS4. *Measure:* Number of sites for which development of characterization of stormwater discharges was completed. *Goal:* Implement procedures, reconnaissance and sampling protocols to identify and address the discharge of the pollutant identified in the waste load allocation to the MS4. *Measure:* Implementation of procedures. *Goal:* Integrate an awareness campaign into the public education and outreach program that promotes methods to eliminate and reduce the discharges of the pollutant identified in the WLA. *Measure:* Number of employees trained regarding the sources and methods to eliminate and minimize the discharge of the pollutant.
Milestone Yr 4	Continue implementation procedures, reconnaissance and sampling protocols to identify and address the discharge of the pollutant identified in the waste load allocation to the MS4. Begin process to develop an awareness campaign for integration into the public education and outreach program that promotes methods to eliminate and reduce the discharges of the pollutant identified in the WLA. Carryover of Yr 1 Milestones: • Begin process of identifying VDOT facilities impacted by TMDL Implementation Plans. *VDOT facilities within Roanoke River and Potomac River watersheds will be catalogued in Permit Year 5.* Carryover of Yr 2 Milestones: • Complete process of identifying VDOT facilities impacted by TMDL Implementation Plans. *VDOT facilities within Roanoke River and Potomac River watersheds will be catalogued and cataloging will be completed for Opequon River and Abrams Creek watersheds in Permit Year 5.* • Begin/complete process of developing an estimate of the area draining from within VDOT right-of-way to identified TMDL waterways. *Drainage area estimates for VDOT Right-of-Way within Roanoke River and Potomac River watersheds will be developed and will be completed for Opequon River and Abrams Creek watersheds in Permit Year 5.* • Begin process of developing a characterization of the annual flow that estimates the stormwater discharged and the quantity of pollutant identified in the waste load allocation discharged by the MS4 including procedures, reconnaissance and sampling protocols to identify and address the discharge of the pollutant identified in the waste load allocation to the MS4. *Annual stormwater discharge and pollutant load estimates for VDOT in the Roanoke River and Potomac River watersheds will be developed and will be completed for Opequon River and Abrams Creek watersheds in Permit Year5.* Carryover of Yr 3 Milestones: • Complete development process and implement procedures, reconnaissance and sampling protocols to identify and address the discharge of the pollutant identified in the waste load allocation to the MS4. *Implementation for all 8 TMDL watersheds will start in Permit Year 5.*
Accomplishments	Draft model for mapping TMDL watersheds in VDOT's GIS under revision in coordination with DEQ, USGS, and DEM to update NHD data. Site reconnaissance and sampling protocols developed. Presented an introductory training module on March 8, 2012 to a statewide audience of design

engineers, hydraulics engineers, construction engineers, environmental specialists and management that covers basic information related to stormwater terminology, the VDOT MS4 Program, and VDOT activities that affect stormwater quality for staff that work in TMDL watersheds.

❖ ***Popes Head Creek Watershed Study***

- *VDOT's WLA for sediment to Popes Head Creek is assigned in two aggregate loads: One WLA is for all MS4s in Fairfax County (2,175.0 tons/year) and the other WLA is for all MS4s in the City of Fairfax (31.3 tons/year).*
- *Total VDOT Right-of-Way and Property Contributing Area draining to impaired segment = 276 acres.*
- *VDOT utilized the Watershed Treatment Model (WTM) model. The WTM estimates an annual volume for 2011 of stormwater discharged at 11,532,725 cubic feet and a sediment load of 30.9 tons based on the TMDL roadway width estimates, or 65,557,269 cubic feet and a sediment load of 14 tons based on VDOT's estimated road widths. Tables 1A and 1B summarize the annual stormwater characterization for 2011 using each approach.*

Table 1A. Annual Characterization of VDOT Properties within Popes Head Creek Watershed (TMDL Approach)

VDOT ROW within Popes Head Creek watershed	VDOT Contributing Area (ac)	Stormwater Discharge(cu ft)	Sediment Load (tons/yr)
2011 VDOT ROW	276	11,532,725	30.9

Note:
1: Contributing areas excludes potential stormwater run-on that may result from adjacent properties.
2: Contributing acreage is based on TMDL-assumed roadway widths (25 feet).

Table 1B. Annual Characterization of VDOT Properties within Popes Head Creek Watershed (Transportation Approach)

VDOT ROW within Popes Head Creek watershed	VDOT Contributing Area (ac)	Stormwater Discharge(cu ft)	Sediment Load (tons/yr)
2011 VDOT ROW	689	65,557,269	146

Note:
1: Contributing areas excludes potential stormwater run-on that may result from adjacent properties.
2: Contributing acreage is based on VDOT-estimated roadway widths(varying between 38-167).

- *VDOT identified 172 regulated outfalls in the Popes Head Creek TMDL watershed, and performed an initial outfall reconnaissance using outfall inventory and IDDE forms previously developed by VDOT.*
- *VDOT owns and operates 15 stormwater facilities (extended detention basins) within the Popes Head Creek TMDL watershed.*

❖ ***Bull Run Watershed Study***

VDOT's WLA for sediment to Bull Run is incorporated into six aggregate loads, assigned by MS4 regional area to the three counties and three cities in the Bull Run watershed.

- *Total VDOT Right-of-Way and Property Contributing Area draining to impaired segment = 1,980 acres.*
- *VDOT utilized the Watershed Treatment Model (WTM) model. The WTM estimates an annual volume for 2011 of stormwater discharged at 149,362,779 cubic feet and a*

sediment load of 250 tons based on the TMDL roadway width estimates, or 520,390,944 cubic feet and a sediment load of 838 tons based on the Transportation Approach. Tables 2A and 2B summarize the annual stormwater characterization for 2011.

Table 2A. Annual Characterization of VDOT Properties within Bull Run Watershed (TMDL Approach)

VDOT ROW within Bull Run watershed	VDOT Contributing Area (ac)	Stormwater Discharge(cu ft)	Sediment Load (tons/yr)
2011 VDOT ROW	1,980	149,362,779	250

Note:
1: Contributing areas excludes potential stormwater run-on that may result from adjacent properties.
2: Contributing acreage is based on TMDL-assumed roadway widths (25 feet).

Table 2B. Annual Characterization of VDOT Properties within Bull Run Watershed (Transportation Approach)

VDOT ROW within Bull Run watershed	VDOT Contributing Area (ac)	Stormwater Discharge(cu ft)	Sediment Load (tons/yr)
2011 VDOT ROW	4,554	520,390,944	838

Note:
1: Contributing areas excludes potential stormwater run-on that may result from adjacent properties.
2: Contributing acreage is based on VDOT-estimated roadway widths (varying between 46 to 100 feet*).*

- *VDOT identified 954 regulated outfalls in the Bull Run TMDL watershed, and performed an initial outfall reconnaissance using outfall inventory and IDDE forms previously developed by VDOT.*
- *VDOT owns and operates 60 stormwater facilities (extended detention basins) within the Bull Run TMDL watershed. Ten of the sixty stormwater facilities were built after the development of the approved TMDL as a retrofit to a prior developed area.*

❖ ***Goose Creek Watershed Study***

VDOT's WLAs for sediment to Goose Creek are assigned in two aggregate loads: One WLA is for all MS4s in Loudoun County (123.6 tons/year) and the other WLA is for all MS4s in the Town of Leesburg (287.4 tons/year).

- *Total VDOT Right-of-Way and Property Contributing Area draining to impaired segment = 420 acres.*
- *VDOT utilized the Watershed Treatment Model (WTM) model. The WTM estimates an annual volume for 2011 of stormwater discharged at 27,605,841 cubic feet and a sediment load of 62.8 tons based on the TMDL roadway width estimates, or 48,829,029 cubic feet and a sediment load of 105.0 tons based on the Transportation Approach. Tables 3A and 3B summarize the annual stormwater characterization for 2011.*

Table 3A. Annual Characterization of VDOT Properties within Goose Creek Watershed (TMDL Approach)

VDOT ROW within Goose Creek watershed	VDOT Contributing Area (ac)	Stormwater Discharge(cu ft)	Sediment Load (tons/yr)
2011 VDOT ROW	420	27,605,841	62.8

Note:

1: Contributing areas excludes potential stormwater run-on that may result from adjacent properties.
2: Contributing acreage is based on VDOT-estimated roadway widths (varying between 27-174 feet).

Table 3B. Annual Characterization of VDOT Properties within Goose Creek Watershed (Transportation Approach)

VDOT ROW within Goose Creek watershed	VDOT Contributing Area (ac)	Stormwater Discharge(cu ft)	Sediment Load (tons/yr)
2011 VDOT ROW	422	48,829,029	105.0

Note:
1: Contributing areas excludes potential stormwater run-on that may result from adjacent properties.
2: Contributing acreage is based on VDOT-estimated roadway widths (varying between 27-174 feet).

- *VDOT identified 112 regulated outfalls in the Goose Creek TMDL watershed, and performed an initial outfall reconnaissance using outfall inventory and IDDE forms previously developed by VDOT.*
- *VDOT owns and operates 4 stormwater facilities (extended detention basins) within the Goose Creek TMDL watershed. One of the four stormwater facilities was built after the development of the approved TMDL as a retrofit to a prior developed area.*

❖ ***Opequon Creek and Abrams Creek Watershed Study***

- *VDOT began the process of identifying facilities, developing drainage area estimates, and calculating the estimated stormwater discharge and pollutant loads for the Opequon Creek and Abrams Creek TMDL watershed. However, this data was not finalized pending quality assurance of outfall location information for these watersheds.*

❖ ***Stroubles Creek Best Management Practices Study and Annual Characterization completed***
(*The characterization utilizes the TMDL Approach in the Watershed Treatment Model, an Excel-based model.).*

- *An aggregated wasteload allocation (WLA) of 211 tons of sediment/year was assigned to three permitted small municipal separate storm sewer systems (MS4s), including VDOT's MS4 Permit # VAR040115.*
- *Total VDOT Right-of-Way Contributing Area (Rt. 460 and Merrimac Road) draining to impaired segment = 59.74 acres. The contributing areas from the 2010 to 2011 did not change as a result of new development or redevelopment. However, the total area used for characterization from the previous year (45.93 acres) has changed as a result of refined mapping to calculate total area.*
- *No VDOT facilities located within the watershed.*
- *The land use classifications used in the WTM did not change from the 2010 to 2011 characterizations. However, the corresponding percent impervious cover data assigned per land use has been revised with the 2011 characterization. We utilized the most recent land use dataset from the 2006 National Land Cover Database (NLCD) to designate land use areas within VDOT right-of-way. Percent impervious for each land use was assigned based on the median impervious range of values provided with the NLCD data set. Land use information for the 2011 characterization is provided in Table 4A.*

Table 4A: TMDL Approach Stroubles Creek Impervious-Pervious Distribution utilizing 2006 NLCD Data

TMDL Land Use Categories	Corresponding WTM Category	Impervious (%)
Residential Developed, Open Space	Category Not In TMDL. Used Transitional.	10%
Residential Developed, Low Intensity	Low Density Residential (LDR)	35%
Residential Developed, Medium Intensity	Medium Density Residential (MDR)	65%
Residential Developed, High Intensity	High Density Residential (HDR)	90%
Forest	Forest	0%
Rural	Category Not In TMDL.	0%

- *Based on the 2011 data inputs described above, the model estimates a total annual volume of stormwater discharged at 4,035,665 cubic feet and a sediment load of 4.19 tons for the 2011 annual characterization. Table 4B summarizes the annual stormwater characterization for 2011.*

Table 4B. Annual Characterization of VDOT Properties within Stroubles Creek Watershed

VDOT ROW within Stroubles Creek watershed	VDOT Contributing Area (ac)	Stormwater Discharge(cu ft)	Sediment Load (tons/yr)
2011 VDOT ROW	59.74	4,035,665	4.19

Note:
1: Contributing areas excludes potential stormwater run-on that may result from adjacent properties

- *There were no existing BMPs within the study area of this project that could be incorporated into the model*
- *There is one regulated outfall located within the VDOT ROW in the TMDL watershed.*
- *VDOT's only property within the TMDL watershed is roadway right of way. Therefore, sampling of a representative outfall is not applicable and is not required by the MS4 Permit.*
- *VDOT staff and consultants presented a general awareness module on MS4 stormwater to 11 Christiansburg Residency management and staff and 17 Salem District Office management and staff on 11/30/11. VDOT staff and consultants also presented a technical awareness module specifically geared towards the Stroubles Creek TMDL to cover specific methods and techniques to identify sources and eliminate and reduce discharges of sediment in the Stroubles Creek watershed to 6 Christiansburg Residency management and staff and 14 Salem District Office management and staff.*
- *VDOT developed a schedule of BMPs through an iterative process, beginning with Public Education and Employee Awareness Campaigns. VDOT also initiated the development of a BMP Implementation Plan.*

❖ ***Crab Creek Best Management Practices Study and Annual Characterization completed.***

- *An aggregated WLA of 28 tons of sediment/year and 3.40 x 10^8 cfu/year was assigned to two permitted small municipal separate storm sewer systems (MS4s), including VDOT's MS4 Permit # VAR040115.*
- *Total VDOT Right-of-Way and Property Contributing Area draining to impaired segment = 162.1 acres.*

- *VDOT utilized the Watershed Treatment Model (WTM) model. The WTM estimates an annual volume for 2011 of stormwater discharged at 5,771,934 cubic feet, a sediment load of 7.21tons, and a bacteria load of 3.29× 10^{13}cfu. Table 5 summarizes the annual stormwater characterization for 2011.*

Table 5. Annual Characterization of VDOT Properties within Crab Creek Watershed

VDOT ROW within Crab Creek watershed	VDOT Contributing Area1 (ac)	Stormwater Discharge (cu ft)	Sediment Load (tons/yr)	Bacteria Load (MPN/yr)
2011 VDOT ROW	162.68	5,771,934	7.21	3.29× 10^{13}

Note:
1: Contributing areas excludes potential stormwater run-on that may result from adjacent properties.

- *VDOT identified 7 regulated outfalls in the Crab Creek TMDL watershed, and performed an initial outfall reconnaissance using outfall inventory and IDDE forms previously developed by VDOT.*
- *VDOT owns and operates one stormwater facility, an extended detention basin, within the Crab Creek TMDL watershed.*
- *VDOT staff and consultants presented a general awareness module on MS4 stormwater to 11 Christiansburg Residency management and staff and 17 Salem District Office management and staff on 11/30/11. VDOT staff and consultants also presented a technical awareness module specifically geared towards the Crab Creek TMDL to cover specific methods and techniques to identify sources and eliminate and reduce discharges of sediment in the Crab Creek watershed to 6 Christiansburg Residency management and staff and 14 Salem District Office management and staff.*
- *VDOT determined that sediment and other erodible materials have been historically handled at the Christiansburg Residency. The Christiansburg Residency property is not drained by a regulated outfall; therefore, sampling is not applicable and not required by the MS4 Permit.*
- *VDOT developed a schedule of BMPS through an iterative process, beginning with Public Education and Employee Awareness Campaigns. VDOT also initiated the development of a BMP Implementation Plan.*

Prioritization plan developed for addressing 2 remaining watersheds (Roanoke River and Potomac River) in Year 5.

Best Management Practices for Construction Site Runoff Control Program

4	*Develop, implement and enforce a program to reduce pollutants in stormwater runoff from construction activities that result in a land disturbance of greater than or equal to one acre (2,500 sq ft in Chesapeake Bay Preservation Are).*
A	**Guidance for Construction Site Runoff Control Program**
	Implement qualifying state erosion and sediment control and stormwater management programs approved by the Virginia Department of Conservation and Recreation (DCR) on all regulated land disturbing activities.
B	**Compliance Procedures for Land Disturbance Activities**
	Review and certify erosion and sediment and stormwater management plans for regulated land disturbance activities, secure required coverage under the Virginia Stormwater Management (VSMP) Construction Permit, and track the activities. Perform final inspections to certify construction of post construction SWM facilities were completed per approved plans and that the facilities are functional.
C	**Erosion and Sediment Control Training**
	Provide training opportunities through the Erosion and Sediment Control Contractor Certification (ESCCC) Program and the In stream Maintenance Training Program. Ensure employees obtain the appropriate certifications required by the Virginia Erosion and Sediment Control (ESC) law.
D	**Inspections and Quality Assurance Reviews**
	Perform inspections in accordance with Virginia ESC Regulations and undertake quality assurance reviews to assess compliance with environmental commitments on all regulated land disturbance activities.
E	**Enforcement Process**
	Review administrative process for enforcement procedures, penalties for violations and procedures for issuing stop-work orders and revise/develop as appropriate.
F	**Procedures for receipt and consideration of information submitted by the public**
	Develop and implement procedures for the receipt and consideration of information submitted by the public concerning VDOT's stormwater program.

BMP 4A	**Evaluate guidance for Construction Site Runoff Control Program – Location and Design Lead Division**
Measurable Goal(s)	*Goal*: Evaluate guidance documents, adjust/revise as appropriate. *Measure*: Number of documents reviewed and adjusted/revised. *Goal*: Secure annual approval of the VDOT ESC and SWM Standards and Specifications from DCR. *Measure*: Material submitted and approved by DCR. *Goal*: Continue to implement project tracking of regulated land disturbing activities in urban areas. *Measure*: Total number of land disturbing activities registered for VSMP Construction Permit coverage.
Milestone Yr 4	Submit Erosion and Sediment Control (ESC) and Stormwater Management (SWM) Standards and Specifications to DCR for annual approval. Developing new Standard Details and Specifications for the following items: • Gravel Bag Check Dam Type III • Super Silt Fence • Level Spreader. • Temporary Wire Backed Silt Barrier • Turbidity Curtain

	Acquire and track VSMP Construction Permit coverage for regulated land disturbing activities undertaken by the Department. Review and update program guidance as appropriate.
Accomplishments	Submitted the 2012 annual ESC & SWM Standards and Specifications to DCR for approval. Acquired and tracked VSMP Construction Permit coverage for 271 land disturbing activities. impacting approximately 5,562 acres. All changes to the ESC & SWM design Standards and Specifications / guidance were included in the annual ESC & SWM Standards and Specifications submittal to DCR. To assist with addressing TMDL requirements, VDOT reviewed several components of the ESC & SWM Standards and Specifications for their strengths and weakness and their ability to reduce pollutants within the MS4 discharges. Currently working with MS4 consultant to implement a specific manual and protocol for VDOT to utilize during routine maintenance activities. Once the product has been tested in the field, VDOT will submit to DCR for approval as part of the annual ESC & SWM Standards and Specifications.

BMP 4B	**Compliance Procedures for Land Disturbance Activities – Location and Design Division**
Measurable Goal(s)	*Goal*: Ensure that the requirements of VDOT's ESC and SWM Programs are followed for each regulated land disturbing activity through the VSMP ESC and SWM Plan Certification process and the Termination Notification process. *Measure*: Number of projects submitted for coverage under the VSMP Construction Permit and number of termination notices processed.
Milestone Yr 4	Require certification of ESC and SWM Plans for regulated land disturbance activities. Require certification of construction and functionality of post construction SWM facilities for regulated land disturbance activities.
Accomplishments	All ESC & SWM plans were reviewed and approved by a DCR certified ESC plan reviewer prior to requesting the VSMP Construction Permit coverage.

BMP 4C(1)	**Erosion Prevention and Sediment Control Training – Location and Design Lead Division**
Measurable Goal(s)	*Goal*: Provide VDOT's Erosion and Sediment Control Contractor Certification (ESCCC) Program training to contractor personnel. *Measure*: Number of contractor personnel trained.
Milestone Yr 4	Update/revise course material as necessary. Provide training to appropriate contractor personnel. Track number of personnel trained.
Accomplishments	All course training material has been up-dated / revised to reflect the current VDOT Road and Bridge Standards and Specifications. 684 Participants received ESCCC certification

BMP 4C(2)	**Erosion Prevention and Sediment Control Training – Environmental Lead Division**
Measurable Goal(s)	*Goal*: Provide VDOT's In Stream Maintenance Training to VDOT maintenance forces. *Measure*: Number of employees trained.
Milestone Yr 4	Update/revise course material as necessary. Provide training to appropriate VDOT personnel. Track number of personnel trained.
Accomplishments	In-Stream Maintenance Materials "Environmental Compliance for Maintenance Activities". 1,162 employees trained on these modules. No updates or revisions to course materials were necessary.

BMP 4C(3)	**Erosion Prevention and Sediment Control Training – Learning Center Lead Division**	
Measurable Goal(s)	*Goal*: Ensure appropriate VDOT employees have necessary DCR Certifications. *Measure*: Number of employees certified through DCR as a RLD, ESC Inspector, Plan Reviewer, etc.	
Milestone Yr 4	Track number of employees with DCR certifications and provide notification to those requiring recertification.	
Accomplishments	ESC Inspector ESC Plan Reviewer ESC Combined Administrator ESC Program Administrator Responsible Land Disturber	341 15 12 4 13

BMP 4D	**Inspections and Quality Assurance Reviews – Construction Lead Division**
Measurable Goal(s)	*Goal*: Perform site inspections in accordance with VDOT's annually approved ESC and SWM Standards and Specifications. *Goal*: Perform project environmental compliance reviews. *Measure*: Total number of reviews performed. *Measure*: Our previous measurable goals were to rank as excellence, complaint, deficient, and non-complaint findings. Changes in CEADER now rank as compliant or non compliant
Milestone Yr 4	Perform site inspections and compliance reviews and track data in CEDAR
Accomplishments	Performed site inspections and compliance reviews and tracked data in CEDAR. Monitored the new Environmental Compliance review process at a program level to ensure that reviews were being done and entered into CEDAR. Fully implemented the transition of the environmental reviews to the construction management staff. Performed 1,076 project compliance reviews with the following results: Compliant 98.6% Non-Compliant 1.4%

BMP 4E	**Enforcement Process – Construction Lead Division**
Measurable Goal(s)	Goal: Review and revise/develop enforcement policies, procedures and penalties. Measure: Number of policies/procedures reviewed/revised/developed.
Milestone Yr 4	Review administrative process for enforcement procedures, penalties for violations and procedures for issuing stop-work orders and revise/develop as appropriate.
Accomplishments	Reviewed administrative process for enforcement procedures, penalties for violations and procedures for issuing stop-work orders and revised as appropriate. Continuously reviewed the Road and Bridge Specifications, Copied Notes, and Special Provisions that were included in our contracts and found that they were effective and no changes were needed. Released a preliminary edition of the Construction Resource Guidebook as a helpful tool in understanding the requirements of the Department's construction projects. It is written around the Road and Bridge Specifications with a focus on the seven rights (7R's) of quality construction: 1. The Right Material, 2. put in the Right Way, 3. at the Right Time, 4. in the Right Location, 5. in the Right Quantity, 6. all verified with the Right Documentation, 7. and then the Right Payment can be made. These 7R's present the definitive requirements for achieving process and product construction quality.

BMP 4F	**Procedures for receipt and consideration of information submitted by the public - Public Affairs Lead Division**
Measurable Goal(s)	*Goal*: Develop and implement procedures for the receipt and consideration of information submitted by the public concerning VDOT's Stormwater Management Program. *Measure*: Establishment of a means for citizens to provide information to the Department concerning the Stormwater Management Program and creation of a process for addressing the information received. *Measure*: Number of comments received and actions taken.
Milestone Yr 4	Maintain public comment page on VDOT Stormwater Management website. Address comments received.
Accomplishments	VDOT currently maintains a MS4 email address on its Stormwater Management website by which the public can submit comments. The language on the website informs the public that VDOT is willing to accept questions, comments, or concerns. There were no public comment periods regarding the MS4 Program or any modifications; however, VDOT maintains the means for the public to submit comments at any time. There were no comments submitted related to the MS4 Program in Year 4.

Best Management Practices for Post Construction Runoff Program

5	*Develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre*
A	**Guidance for post-construction runoff controls**
	Continue to implement a comprehensive stormwater management program relative to the most recent approved version of the VDOT Erosion and Sediment Control Management standards and specifications.
B	**Develop and implement strategies for post-construction runoff controls**
	Develop and implement strategies, which include a combination of structural and non-structural best management practices and secure registration coverage for regulated land disturbing activities under the VSMP General Permit for Discharges of Stormwater from Construction Activities.
C	**Provide Long-term operation and maintenance of controls**
	Evaluate inspection requirement guidance for post-construction runoff control and related maintenance requirements and track VDOT owned and operated stormwater management facilities.

BMP 5A	**Guidance for post-construction runoff controls - Location and Design Lead Division**
Measurable Goal(s)	*Goal*: Evaluate stormwater program guidance and update as appropriate *Measure*: Perform annual evaluation of guidance. *Measure*: Number of documents reviewed/revised.
Milestone Yr 4	Review stormwater program guidance (Instructional & Informational Memoranda, Drainage Manual, standards, specifications) and update as appropriate.
Accomplishments	Reviewed stormwater program guidance documents and updated the following: Rural Rustic Road Program Manual Maintenance Operation Guide for E&S control

BMP 5B	**Develop and implement strategies for post-construction runoff controls – Location and Design Lead Division**
Measurable Goal(s)	*Goal:* Develop and promote the use of appropriate design tools and methodologies to meet the technical requirements for post construction runoff control. *Measure:* Number of design tools and procedures promoted/developed. *Goal*: Secure coverage for all regulated land disturbing activities under the VSMP General Permit for Discharges of Stormwater from Construction Activities. *Measure*: Number of projects registered for coverage. *Goal*: Encourage the use of Low Impact Development (LID) SWM practices where determined appropriate. *Measure*: Number of guidance documents revised to incorporate usage guidelines for LID SWM practices.
Milestone Yr 4	Register all regulated land disturbing activities for VSMP Construction Permit coverage and track activities in a database. Make appropriate SWM design tools and practices information available to District Offices and Central Office Staff Incorporate guidelines for usage of LID SWM practices into guidance documents.

Accomplishments	271 regulated land disturbing activities were registered for VSMP Construction Permit coverage and were tracked in the VDOT Construction Permit database. SWM design tools and guidelines were made available to all the District Offices and Central Office staff.

BMP 5C	**Provide Long-term operation and maintenance of controls – Maintenance Lead Division**
Measurable Goal(s)	*Goal*: Evaluate inspection and maintenance guidance/procedures and revise/update as appropriate. *Measure*: Evaluation and updating/revising of guidance documents. *Goal*: Update/develop/maintain a database of all known VDOT owned and operated structural stormwater management facilities. *Measure*: Update/creation of a database identifying the type of BMP, HUC, impaired water discharged to (if any), and number of acres treated by the facility. *Measure*: Number of SWM facilities entered into database. (Collected information will be provided in subsequent annual reports). *Goal*: Perform yearly inspection and required maintenance on stormwater management facilities. *Measure*: Number of facilities inspected.
Milestone Yr 4	Review inspection and maintenance guidance for structural stormwater management facilities and update/revise as appropriate. Inventory – Location and Design Division will continue to maintain the pre-construction databases related to stormwater structures. Maintenance Division will continue field verification of existing stormwater structures. GIS Database – See BMP 3 C for milestones related to the procurement, modification and implementation of NPDES/MS4 Program software. Perform inspections and required maintenance on stormwater management facilities.
Accomplishments	The inventories for all stormwater facilities constructed by VDOT or constructed by others and maintained by VDOT are entered into the Maintenance Division Best Management Practice Database and also into the Location and Design Stormwater Management Database. The Maintenance Division conducts inspections on the stormwater facilities in accordance with two classifications: o Stormwater facilities that are included in a Turnkey Asset Maintenance Services (TAMS) contract are inspected and maintained in accordance with the TAMS contract. A total of 105 of the 621 MS4 stormwater facilities are managed by TAMS contracts. o Stormwater facilities that are not included in a TAMS contract are inspected in accordance with the inspection forms included in the Maintenance Division Best Management Practice Database. The inspection form varies in by type of facility to be inspected. All districts are using the current inspection form and all but two districts have entered inspections into the database. A verification process has been developed to ensure that all non-TAMS VDOT maintained facilities have a valid electronic or paper inspection record for this year. The Overall Ranking procedure of the facility remained the same as with the previous years. The stormwater facility is given a ranking from: "A" No problems observed; "B" Minor problems are observed; "C" Moderate problems are observed; "D" Major problems are observed; or an "E" Severe problems are observed, and the basin is not functioning as designed with several critical parameters having problem conditions. After inspection, the maintenance recommendations are forwarded to the appropriate personnel for action. When a facility is ranked a "D" or "E" the district is requested to develop a work plan to repair the

facility.

VDOT's MS4 consultant has develop a draft Stormwater Management Facilities Inspection and Maintenance manual that is based on the Virginia Stormwater BMP Clearinghouse and the revised Virginia Stormwater Management Handbook. In the fall of 2012, these draft manuals will be presented to the field personnel for review and then the final manuals will be developed and implemented.

VDOT has expended $1,362,050 during this permit cycle on the inspection and maintenance of the 1,217 non-TAMS maintained stormwater facilities state wide. The cost of maintaining the 151 TAMS maintained stormwater facilities state wide is bundled into the total maintenance cost.
All VDOT maintained stormwater facilities have been mapped using ArcMap.

The inventory of stormwater facilities within Census Urban Areas is:

Census Urban Area	Number of Facilities (TAMS)	Impervious Area Treated (Acres)	Facilities with Impaired Receiving Waters	Impervious Area Treated (Acres)
Blacksburg, VA	14	56.71	1	1.92
Bristol, TN—Bristol, VA	4 (4)	22.18	2	6.34
Charlottesville, VA	16	10.47	1	1.04
Danville, VA	11	32.52	0	0.00
Fredericksburg, VA	32	70.21	3	16.00
Harrisonburg, VA	1	1.40	1	1.40
Kingsport, TN--VA	4	15.34	0	0.00
Lynchburg, VA	18	43.24	2	17.32
Richmond, VA	89 (46)	512.73	12	70.02
Roanoke, VA	8	14.45	1	4.61
Virginia Beach, VA	89 (55)	422.83	8	60.83
Washington, DC - VA - MD	320	2,091.53	29	195.67
Winchester, VA	15	32.96	1	4.67
Total	621 (105)	3,327	61	380

Attachment # 5 for the inventory of stormwater facilities within Census Urban Areas

Best Management Practices for Pollution Prevention and Good Housekeeping

6	*Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations, such as asset management activities, fleet and building maintenance, new construction, and stormwater system maintenance*
A	**Implement program to prevent/reduce pollution runoff**
	Existing procedures for nutrient management application will be reviewed and revised (if applicable) in an effort to minimize the discharge of pollutants. The procedures will also be reviewed to ensure that these activities are performed under, and in accordance with, any appropriate permit conditions.
B	**Implement operation procedures, maintenance schedules, and long-term inspection procedures to reduce pollutant discharges**
	Operation and maintenance programs will continue to be implemented and revised as necessary to ensure that these activities are performed under, and in accordance with, any appropriate permit conditions.
C	**Implement a program to reduce/eliminate discharges of pollutants and promote the proper disposal of waste**
	Existing procedures for waste disposal will be reviewed and revised (if applicable) in an effort to minimize the discharge of pollutants. The procedures will also be reviewed to ensure that these activities are performed under, and in accordance with, any appropriate permit conditions.
D	**Employee pollution prevention education**
	Employee education will be provided to help minimize storm water pollution potential from land disturbance activities, fleet storage areas, building sites, parking areas and maintenance yards.

BMP 6A	**Implement program to prevent/reduce pollution runoff – Maintenance Lead Division**
Measurable Goal(s)	*Goal*: Complete the approval process for a revised nutrient management strategy for land disturbance activities and implement on all maintenance and construction activities *Measure*: Number of acres of land disturbance on which the revised nutrient management strategy is implemented under the VSMP Construction Permit Program.
Milestone Yr 4	Incorporate NMP (nutrient management plan) requirements on all maintenance and construction activities and track acreage through VSMP Construction Permit Program.
Accomplishments	A NMP was developed for all fixed facilities that will apply fertilizers. Forty two NMPs were developed for the rest areas/welcome centers covering an area of 151.4 acres. Five NMPs were developed for residencies/district offices covering an area of 9.055 acres. The NMPs will be valid for three years from the date of approval. Many of the construction and maintenance projects that are now under construction in the bidding process were engineered prior to the NMP. Therefore, it is difficult to use the number of acres of land disturbance under the VSMP Construction Permit Program to determine the number of acres where the NMP was applied. The change in 2007 specification SECTION 603—SEEDING reduced the rate of fertilization to 300 pounds of 15-30-15 fertilizer per acre (approximately 45 pounds of N, 90 pounds of P and 45 pounds of K per acre) and two tons of lime. Under the NMP guidelines, a soil test that has a P value in the range of M- or L+ would require this level of fertilization. W. Lee Daniels from Virginia Tech's Crop and Soil Environmental Sciences Department believes that most of the exposed subsoil on our cut and fill slopes will have test values in the L of L- range. The NMP recommendations fertilization for a P level of L or L- is 45 pounds of N, 170 pounds of P and 90 pounds of K per acre.

BMP 6B	**Implement operation procedures, maintenance schedules, and long-term inspection procedures to reduce pollutant discharges – Maintenance Lead Division**
Measurable Goal(s)	*Goal*: Review and revise as necessary the compliance procedures for maintenance activities. *Measure*: Completion of review and update of procedures (if applicable). *Goal*: Perform maintenance activities such as animal carcass removal and disposal, street cleaning, etc. to minimize/eliminate potential sources of stormwater pollution. *Measure*: Measure and report maintenance activities that contribute to good housekeeping. *Goal*: Continue to implement procedures and training that will encourage employees and contractors to employ pollution and prevention practices in day-to-day operations *Measure*: Number of guidance documents revised and number personnel trained.
Milestone Yr 4	Conduct annual review of Maintenance Best Management Procedures, environmental guidance and equipment/facilities operation procedures to incorporate pollution prevention through good housekeeping. Revise, as necessary, the listing of Maintenance Activity Codes and FMIS cost centers to determine appropriate good housekeeping maintenance activities and produce annual report. Require employees and contractors to employ pollution prevention practices in day-to-day operations and develop a plan to implement any revised guidance and procedures.
Accomplishments	VDOT's MS4 consultant completed the review of the Maintenance Best Practices manual and has made recommendations for updating the manual to fully incorporate the MS4 BMP objectives. The MS4 changes will be incorporated into the manual which is currently undergoing a complete revision. The revision will be completed in the fifth year of this permit. The following maintenance activities that contribute to good housekeeping on the secondary and primary highways were reported through the Work Accomplishment system for FY12. Changes were made in FY12 to the categories for reporting work accomplishments. Some categories such as litter pickup were included in normal operations, such as mowing. This has resulted in reduced reporting quantities although the good housekeeping activities have not been reduced. The totals are statewide totals since no coding is available for MS4 permit areas. These maintenance activities reported do not include the overall maintenance requirement for the TAMS contractors that maintain the interstates; therefore, no individual maintenance activities are available for the interstates. Small and large debris removal. Rock fall cleanup or slide removal. Removal of trees, buildings, mud, sand, slide, as a result of a storm. Debris resulting from any maintenance work that is hauled off site. Unit of measure is cubic yard (CYD) and a total of 1,777 units were reported. Litter patrol and litter pick-up. Unit of measure is acre (ACR) and a total of 1.1 units were reported. The revised mowing standards and changes in reporting procedures have resulted in a large reduction in litter pock-up acres reported. Rebuild and stabilize slopes (alongside the roadway or at bridge sites) or drainage assets (e.g. paved or unpaved ditches, drop inlets, curb and gutter) to restore proper flow of water away from pavement or bridges. This includes repairing slopes. Unit of measure is cubic foot (CFT) and a total of 613 units were reported. Hand cleaning of drainage assets, traffic control devices, shoulders, tunnels, ferries, etc. Cleaning with manual tools (shovels, pickaxes, etc.). Cleaning without the use of machinery. Unit of measure is linear foot (LFT) and a total of 329 units were reported.

	Machine cleaning or sweeping of drainage assets such as pipes, ditches etc.; tunnels; roadside assets such as sidewalks, truck ramps, pedestrian trails, walls etc.; traffic assets such as rumble strips; pavement assets including roads, and paved shoulders etc. Also to be used for cleaning when using pressurized water such as power washing. Unit of measure is linear foot (LFT) and a total of 6,409 units were reported. Graffiti removal by any means, including but not limited to hand or mechanical means. Unit of measure is each (EA) and a total of 3 units were reported. Cleaning and/or flushing of bridge deck, superstructure and substructure elements, pipes box culverts; tunnels and ferries. Unit of measure is each (EA) and a total of 17 units were reported. The cost of deal animal collection and proper disposal is tracked through cost center 116019 and a total of $3,476,666 was charged to this cost center. Adopt-A-Highway reported 5,393 CYD of material was cleaned from the roadsides.

BMP 6C	**Implement a program to reduce/eliminate discharges of pollutants and promote the proper disposal of waste – Maintenance Lead Division**
Measurable Goal(s)	*Goal*: Annually evaluate the Department's waste management program and revise waste disposal processes and procedures as necessary. *Measure*: Annual review of waste management program and number of waste disposal processes or procedures revised. *Goal*: Ensure proper disposal of wastes from construction and maintenance activities in accordance with the DCR approved VDOT Erosion and Sediment Control and Stormwater Management Standards and Specifications and memorandum of agreement with DEQ through environmental compliance reviews. *Measure*: Total number of reviews performed. *Measure*: Percentage of environmental reviews resulting in excellence, compliant, deficient, and non-complaint findings. *Goal*: Develop/revise protocols and tracking procedure for performing environmental compliance assessments of Maintenance Facilities. Perform annual reviews. *Measure*: Development of protocols and tracking system. *Measure*: Total number of reviews performed. *Measure*: Percentage of environmental reviews resulting in excellence, compliant, deficient, and non-compliant findings.
Milestone Yr 4	Evaluate all current waste disposal policies, procedures and processes and revise as necessary. Perform environmental compliance reviews of waste disposal sites for construction and maintenance activities to ensure that disposal is in accordance with the DCR approved VDOT Erosion and Sediment Control and Stormwater Management Standards and Specifications and memorandum of agreement with DEQ. Perform environmental compliance assessments of maintenance facilities.
Accomplishments	As the strategies are developed to meet TMDL requirements, VDOT will review the strategy to determine if the procedure or practice will be implemented statewide or just for the specific TMDL area. No changes were implemented for disposal policies, procedures and processes. The Memorandum of Agreement (MOA) between the Virginia Department of Environmental Quality and Virginia Department of Transportation on Solid Waste that was reported last year has been fully implemented. The MOA, and a VDOT-VDEQ Waste MOA Implementation Guide was

	communicated to the Maintenance staff and a link placed on the Transportation Maintenance and Operations Committee (TMOC) Team Site. The MOA covers non-inert debris; animal carcasses and vegetative waste, and inert debris. The Environmental Division conducts Environmental Compliance Audits of maintenance facilities on a routine schedule to monitor the handling and disposal of waste. A total of 45 Environmental Compliance Audits were completed in this permit year

BMP 6D	**Employee pollution prevention education - Environmental Lead Division**
Measurable Goal(s)	*Goal*: Develop/revise/implement training courses for employees that promote a general awareness of stormwater management and pollution prevention. *Measure*: Number of courses developed/revised and number of employees trained. *Goal*: Provide Waste Management, Advance Hazardous Waste Management, In-Stream Maintenance Activities, USDOT Hazardous Shipping, Spill Prevention Control and Countermeasure (SPCC), and VDACS Pesticide Applicator Certification training. *Measure*: Number of employees trained. *Goal*: Develop/revise/implement training courses for Cleaning Asphalt Equipment and Salt Pond Management. *Measure*: Number of courses developed/revised and number of employees and contractors trained.
Milestone Yr 4	Provide training for employees that promotes a general awareness of stormwater management and pollution prevention. Provide Cleaning Asphalt Equipment and Salt Pond Management training to appropriate employees. Provide Waste Management, Advance Hazardous Waste Management, In-Stream Maintenance Activities, USDOT Hazardous Shipping, SPCC, and VDACS Pesticide Applicator Certification training on an as needed basis.
Accomplishments	Waste Management only – 193 employees trained. Waste Management with MS4 - 311 employees trained In-Stream Maintenance Activities – See Accomplishments listed in 4C(2). Spill Prevention Control and Countermeasures (SPCC) Refresher – 242 employees trained. Asphalt Equipment Cleaning – Environmental Considerations– 30 employees trained.

Attachments

Attachment 1. TMDLs Approved Prior to 7/1/08 with WLA for VDOT MS4

Approved TMDL	Approval Date	Pollutant of Concern	TMDL Size (sq. mi.)**	Urban Area Size (sq. mi.)
Stroubles Creek Watershed	6/17/2004	Sediment	9.5	7.2
Goose Creek and Little River Watersheds	8/31/2004	Sediment	386.5	12.9
Crab Creek Watershed	12/2/2004	E. Coli & General Quality	19.8	7.5
Upper Roanoke River Watershed	9/7/2006	E. Coli & Sediment	571.2	116.0
Opequon and Abrams Creek Watersheds, Aquatic Life	6/28/2005	E. Coli & Sediment	146.6	30.8
Bull Run	6/27/2007	Sediment	193.9	86.7
Popes Head Creek	6/27/2007	Sediment	18.9	13.4
Potomac River Watershed PCB*	4/11/2008	PCBs	1561.25	451.1
Notes:				
** The Potomac River Watershed PCB has not identified a WLA for MS4 permits but includes a statement that MS4s are expected to complete any appropriate study and implement any minimum control measures for the PCB impairment*				
*** The drainage areas calculated for each TMDL have not been verified by DEQ or DCR for consistency with the respective TMDL.*				

Attachment 2. TMDL Watershed Annual Characterizations

TMDL Project	Basin	City/County	VAHU6 Watershed	Urbanized Area	Co-contributors in Waste Load Allocations	Existing Waste Load	VDOT's Waste Load Allocation		Comments
Stroubles Creek Watershed	New River	Montgomery	NE59	Blacksburg	Blacksburg, Virginia Tech	421.77	210.88		
Crab Creek Watershed	New River	Montgomery	NE58	Blacksburg	Christiansburg	55.14	3.40E+08 cfu/yr 27.57		VDOT-Salem District Rte 81 0081-060-119-C501 (Var100229) and VDOT-Christiansburg 4541 (VAR101126) had stormwater construction permits. VDOT had an MS4 permit (VAR04006)
Upper Roanoke River Watershed	Roanoke River	Montgomery, Bedford, Roanoke, Franklin, Salem	RU01-14	Roanoke	N/A	Not identified	27 (tons/year), 4 (tons/year)		VDOT Roanoke Urban Area MS4 Permit VAR040017 & VDOT Montgomery Urban Area MS4 Permit VAR040016
Upper Roanoke River Watershed	Roanoke River	Montgomery, Bedford, Roanoke, Franklin, Salem	RU01-15	Roanoke	N/A	2.34 +11 (Wilson Cr) 8.70E+10 (Ore Br.) 8.94E+11 (Roanoke R.)	1.17E+09 (Wilson Cr) 4.35E+08 (Ore Br.) 1.07E+10 (Roanoke R.)		VDOT Montgomery County Urban Area (VAR 040016) and VDOT City of Roanoke Urban Area (VAR 040017) MS4 Permits
Opequon and Abrams Creek Watersheds, Aquatic Life	Shenandoah River	Frederick, Winchester	PU16-19	Winchester	City of Winchester	527.0 (tns/yr) (Abrams C.) 336.3 (tns/yr) (Opequon C.)	442.7 (Abram)	269.2 (Opequon	VDOT Permit VAR040032 (Winchester Urban Area)
Opequon and Abrams Creek Watersheds, Bacteria	Shenandoah River	Frederick, Winchester	PU16-19	Winchester	City of Winchester	451 +12	19.4 +12		
Bull Run	Potomac River	Fairfax, Prince William	PL42-46	Washington	City of Fairfax, Fairfax County, Fairfax County Public Schools, Loudoun County, Manassas, NOVA Manassas Campus, Manassas Park, Prince William County, Prince William County Public Schools	25,476.5 tons/yr	5,823.4 tons/yr		VDOT Urban Area has MS4Permits (VAR 040062)
Popes Head Creek	Potomac River	Fairfax	PL46	Washington	Fairfax County, Fairfax County Public Schools, City of Fairfax	2,193.2 (tons/year)	1,584.7 (tons/year)		VDOT Urban Areas (VAR040062) Fairfax County and City of Fairfax have MS4 Permits
Potomac River Watershed PCB	Potomac River	Virginia, Maryland, Washington D.C.	CB-01, PL24-74	Washington	MS4 must individually implement BMP	N/A	Best Management Practices (BMPs) rather than as numeric effluent limits		Report mentions VDOT MS4 Permits (VAR040062 & VAR040061)
Goose Creek and Little River Watersheds	Potomac River	Loudoun	PL06-16	Washington	Leesburg, Loudoun County	Not identified	1587.2 tons/yr		VDOT-Northern has a MS4 Permit, Erosion & Sediment Outside MS4 VDOT has two permits (0733-053-P31-C502) and (0015-053-125PE101-C501)

Attachment 3. TMDLs Approved on or/after 07/01/2011 and prior to 06/30/2012

TMDL Project	SWCB approval date	Basin	City/County	6th HUC	Urbanized Area	Pollutant(s)	Co-contributors in WLA	Existing WLA	VDOT's WLA	Comments
Hunting Creek, Cameron Run, and Holmes Run Watersheds	08/04/2011	Potomac River	Alexandria, Arlington, Fairfax, Falls Church	A13R	Washington	E. Coli	Arlington County, City of Alexandria, City of Falls Church, Fairfax County, Fairfax County Public Schools, George Washington Memorial Parkway		3.62E+14	VDOT-North Urban Area has a MS4 Permit (VAR 040062)
Hoffler Creek	06/29/2012	Lower James River	Cities of Portsmouth and Suffolk	G15E	Virginia Beach	Enterococci	City of Portsmouth, City of Suffolk	1.22E+13	5.36E+11	
James River and Tributaries	06/29/2012	Lower James River	Charles City, Chesterfield, Goochland, Hanover, Henrico, Hopewell, Powhatan, Prince George, Richmond City	G01E, G01R, H39R	Richmond	E. Coli	Chesterfield County, City of Richmond, Henrico County		1.58E+14	

Attachment 4. Net Targets and Outfalls recorded in CUA

Please see attached document

MS4 Outfalls by Virginia HUC 6

Census Urban Area	Blacksburg, VA	Total Outfalls	45
VAHUC6	NE58	8	
VAHUC6	NE59	17	
VAHUC6	NE60	6	
VAHUC6	RU06	11	
VAHUC6	RU07	3	

Census Urban Area	Bristol, TN--Bristol, VA	Total Outfalls	139
VAHUC6	TH20	23	
VAHUC6	TH21	87	
VAHUC6	TH22	29	

Census Urban Area	Danville, VA	Total Outfalls	85
VAHUC6	RD33	6	
VAHUC6	RD36	3	
VAHUC6	RD37	25	
VAHUC6	RD38	17	
VAHUC6	RD39	34	

Census Urban Area	Kingsport, TN--VA	Total Outfalls	99
VAHUC6	TH23	2	
VAHUC6	TH43	24	
VAHUC6	TH44	6	
VAHUC6	TH45	67	

Census Urban Area	Lynchburg, VA	Total Outfalls	253
VAHUC6	JM08	17	
VAHUC6	JM09	14	
VAHUC6	JM10	54	
VAHUC6	JM11	52	
VAHUC6	JM14	37	
VAHUC6	JM30	2	
VAHUC6	RU56	62	
VAHUC6	RU58	15	

Census Urban Area	Roanoke, VA	Total Outfalls	853
VAHUC6	RU09	71	
VAHUC6	RU10	11	
VAHUC6	RU11	115	
VAHUC6	RU12	85	
VAHUC6	RU13	209	
VAHUC6	RU14	285	
VAHUC6	RU15	60	
VAHUC6	RU16	14	
VAHUC6	RU39	3	

MS4 Outfalls by Virginia HUC 6

Census Urban Area	Charlottesville, VA	Total Outfalls	374
VAHUC6	JR07	9	
VAHUC6	JR08	132	
VAHUC6	JR11	37	
VAHUC6	JR14	74	
VAHUC6	JR15	90	
VAHUC6	JR17	32	

Census Urban Area	Fredericksburg, VA	Total Outfalls	554
VAHUC6	PL60	17	
VAHUC6	RA45	7	
VAHUC6	RA46	248	
VAHUC6	RA47	222	
VAHUC6	YO38	52	
VAHUC6	YO41	8	

Census Urban Area	Richmond, VA	Total Outfalls	470
VAHUC6	JL01	2	
VAHUC6	JL02	16	
VAHUC6	JL18	27	
VAHUC6	JM83	88	
VAHUC6	JM84	123	
VAHUC6	JM85	42	
VAHUC6	JM86	172	

MS4 Outfalls by Virginia HUC 6

Census Urban Area	Harrisonburg, VA	Total Outfalls	126
VAHUC6	PS20	1	
VAHUC6	PS22	44	
VAHUC6	PS23	36	
VAHUC6	PS25	8	
VAHUC6	PS26	11	
VAHUC6	PS33	13	
VAHUC6	PS56	1	
VAHUC6	PS59	12	

Census Urban Area	Washington, DC--VA	Total Outfalls	3,785
VAHUC6	PL05	14	
VAHUC6	PL14	7	
VAHUC6	PL16	81	
VAHUC6	PL17	4	
VAHUC6	PL18	26	
VAHUC6	PL19	188	
VAHUC6	PL20	53	
VAHUC6	PL21	211	
VAHUC6	PL22	211	
VAHUC6	PL23	87	
VAHUC6	PL24	25	
VAHUC6	PL25	64	
VAHUC6	PL26	177	
VAHUC6	PL27	86	
VAHUC6	PL28	64	
VAHUC6	PL29	247	
VAHUC6	PL30	399	
VAHUC6	PL32	3	
VAHUC6	PL34	94	
VAHUC6	PL41	92	
VAHUC6	PL44	74	
VAHUC6	PL45	467	
VAHUC6	PL46	263	
VAHUC6	PL47	165	
VAHUC6	PL48	53	
VAHUC6	PL49	274	
VAHUC6	PL50	69	

VAHUC6	PL51	82
VAHUC6	PL52	69
VAHUC6	PL53	9
VAHUC6	PL54	19
VAHUC6	PL56	63
VAHUC6	PL57	43
VAHUC6	PL59	2

Census Urban Area	**Winchester, VA**	**Total Outfalls**		**328**
VAHUC6	PS79		54	
VAHUC6	PU12		11	
VAHUC6	PU16		158	
VAHUC6	PU17		85	
VAHUC6	PU18		20	

Attachment 5. Inventory of stormwater facilities within Census Urban Areas

Please see the attached document

Inventory of stormwater facilities located within the MS4 Census Urban Areas

Census Urban Area	Total Stormwater Facilities for CUA:	Total Impervious Area Treated (AC):
Blacksburg, VA	**14**	**56.71**

HUC6 Code: NE58 Crab Creek — Total Stormwater Facilities for HUC6: 1 — Total Impervious Area Treated for HUC6 (AC): 6.65

BMP Type: Extended Detention Basin — No OF BMP's: 1 — Impervious Area Treated for BMP Type (AC): 6.65

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
60-011-11.5	No		6.65

HUC6 Code: NE59 New River-Stroubles Creek — Total Stormwater Facilities for HUC6: 2 — Total Impervious Area Treated for HUC6 (AC): 3.65

BMP Type: Extended Detention Basin — No OF BMP's: 2 — Impervious Area Treated for BMP Type (AC): 3.65

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
60-460-050	No		1.73
60-808-001	Yes	Slate Branch	1.92

HUC6 Code: RU04 Elliott Creek — Total Stormwater Facilities for HUC6: 3 — Total Impervious Area Treated for HUC6 (AC): 23.30

BMP Type: Extended Detention Basin — No OF BMP's: 3 — Impervious Area Treated for BMP Type (AC): 23.30

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
60-011-12.7	No		3.03
60-081-001	No		14.04
60-460-16.2	No		6.23

HUC6 Code: RU07 North Fork Roanoke River-Wilson Creek — Total Stormwater Facilities for HUC6: 8 — Total Impervious Area Treated for HUC6 (AC): 23.11

BMP Type: Dry Detention Basin — No OF BMP's: 1 — Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
60-460-12.9	No		0.00

BMP Type: Extended Detention Basin — No OF BMP's: 7 — Impervious Area Treated for BMP Type (AC): 23.11

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
60-114-07.9	No		1.50
60-114-08.3	No		1.45
60-460-010	No		0.45
60-460-02.0	No		2.09
60-460-11.6	No		12.14
60-460-13.0	No		1.42
60-460-13.1	No		4.06

Census Urban Area	Total Stormwater Facilities for CUA:	Total Impervious Area Treated (AC):
Bristol, TN--Bristol, VA	**4**	**22.18**

HUC6 Code: | Total Stormwater Facilities for HUC6: 3 | Total Impervious Area Treated for HUC6 (AC): 14.27

TH21 Beaver Creek-Little Creek

BMP Type: Extended Detention Basin | No OF BMP's 3 | Impervious Area Treated for BMP Type (AC): 14.27

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
95010	No		7.93
95015	Yes	Beaver Creek	4.03
95020	Yes	Beaver Creek	2.31

HUC6 Code: | Total Stormwater Facilities for HUC6: 1 | Total Impervious Area Treated for HUC6 (AC): 7.91

TH22 Beaver Creek-Steele Creek

BMP Type: Extended Detention Basin | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 7.91

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
95005	No		7.91

Census Urban Area | **Total Stormwater Facilities for CUA:** | **Total Impervious Area Treated (AC):**

Charlottesville, VA | **16** | **10.47**

HUC6 Code: | Total Stormwater Facilities for HUC6: 2 | Total Impervious Area Treated for HUC6 (AC): 0.00

Rivanna River-Meadow Creek

BMP Type: | No OF BMP's 2 | Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
02019	No		0.00
02020	No		0.00

HUC6 Code: | Total Stormwater Facilities for HUC6: 5 | Total Impervious Area Treated for HUC6 (AC): 5.48

H28 Rivanna River-Meadow Creek

BMP Type: Bioretention Filter | No OF BMP's 3 | Impervious Area Treated for BMP Type (AC): 1.56

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
02014	No		0.62
02015	No		0.51
02016	No		0.43

BMP Type: Extended Detention Basin | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 3.20

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
02018	No		3.20

BMP Type: Extended Detention-enhanced Basin | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 0.72

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
02017	No		0.72

HUC6 Code: | Total Stormwater Facilities for HUC6: 1 | Total Impervious Area Treated for HUC6 (AC): 0.30

JR07 Ivy Creek-Little Ivy Creek

BMP Type: Other | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 0.30

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
02004	No		0.30

HUC6 Code:		Total Stormwater Facilities for HUC6:	1	Total Impervious Area Treated for HUC6 (AC):	0.03

JR08 South Fork Rivanna River

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.03
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
02013	No			0.03	

HUC6 Code:		Total Stormwater Facilities for HUC6:	1	Total Impervious Area Treated for HUC6 (AC):	1.28

JR11 North Fork Rivanna River-Jacobs Run

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	1.28
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
02003	No			1.28	

HUC6 Code:		Total Stormwater Facilities for HUC6:	1	Total Impervious Area Treated for HUC6 (AC):	0.29

JR14 Rivanna River-Meadow Creek

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.29
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
02005	No			0.29	

HUC6 Code:		Total Stormwater Facilities for HUC6:	5	Total Impervious Area Treated for HUC6 (AC):	3.09

JR15 Moores Creek

BMP Type:	Extended Detention Basin	No OF BMP's	5	Impervious Area Treated for BMP Type (AC):	3.09
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
02002	Yes	Biscuit Run		1.04	
02006	No			0.20	
02007	No			0.76	
02008	No			0.24	
02009	No			0.85	

Census Urban Area	**Total Stormwater Facilities for CUA:**	**Total Impervious Area Treated (AC):**
Danville, VA	**11**	**32.52**

HUC6 Code:		Total Stormwater Facilities for HUC6:	2	Total Impervious Area Treated for HUC6 (AC):	13.43

RD33 River-Danville

BMP Type:	Extended Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	13.43
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
71015	No			11.45	
71018	No			1.98	

HUC6 Code:		Total Stormwater Facilities for HUC6:	2	Total Impervious Area Treated for HUC6 (AC):	7.38

RD36 Lower Sandy River

BMP Type:	Extended Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	7.38
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
71024	No			4.33	
71025	No			3.05	

HUC6 Code:		Total Stormwater Facilities for HUC6:	3	Total Impervious Area Treated for HUC6 (AC):	4.08

RD37 Dan River-Sandy Creek (West)

BMP Type:	Extended Detention Basin	No OF BMP's	3	Impervious Area Treated for BMP Type (AC):	4.08
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
71034	No			0.90	
71036	No			0.42	
71038	No			2.76	

HUC6 Code:		Total Stormwater Facilities for HUC6:	4	Total Impervious Area Treated for HUC6 (AC):	7.63

RD38 Fall Creek

BMP Type:	Extended Detention Basin	No OF BMP's	4	Impervious Area Treated for BMP Type (AC):	7.63
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
71013	No			3.02	
71033	No			2.62	
71035	No			0.80	
71037	No			1.19	

Census Urban Area	**Total Stormwater Facilities for CUA:**	**Total Impervious Area Treated (AC):**
Fredericksburg, VA	**32**	**70.21**

HUC6 Code:		Total Stormwater Facilities for HUC6:	2	Total Impervious Area Treated for HUC6 (AC):	4.04

RA45 Rappahannock River-Motts Run

BMP Type:	Extended Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	4.04
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
88001	No			1.40	
88003	No			2.64	

HUC6 Code:		Total Stormwater Facilities for HUC6:	21	Total Impervious Area Treated for HUC6 (AC):	57.39

RA46 Rappahannock River-Hazel Run

BMP Type:	Bioretention Filter	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	0.58
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
88036	No			0.23	
88037	No			0.35	
BMP Type:	Dry Detention Basin	No OF BMP's	3	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
88013	No			0.00	
88016	No			0.00	
89027	No			0.00	
BMP Type:	Extended Detention Basin	No OF BMP's	14	Impervious Area Treated for BMP Type (AC):	55.64
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
88006	No			0.36	
88007	No			1.02	
88008	No			1.29	
88012	No			1.57	

88014	No		1.85
88019	No		8.14
89028	No		7.27
89029	No		7.56
89030	No		5.77
89031	No		0.56
89032	No		4.25
89033	Yes	Claiborne Run	5.72
89034	Yes	Claiborne Run	5.96
89035	Yes	Claiborne Run	4.32

BMP Type: Manufactured (hydro-dynamic) BMP — No OF BMP's: 2 — Impervious Area Treated for BMP Type (AC): 1.17

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
88035	No		0.71
88038	No		0.46

HUC6 Code: — Total Stormwater Facilities for HUC6: 4 — Total Impervious Area Treated for HUC6 (AC): 2.84

RA47 Massaponax Creek

BMP Type: Dry Detention Basin — No OF BMP's: 1 — Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
88004	No		0.00

BMP Type: Extended Detention Basin — No OF BMP's: 3 — Impervious Area Treated for BMP Type (AC): 2.84

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
88009	No		0.84
88011	No		1.35
88017	No		0.65

HUC6 Code: — Total Stormwater Facilities for HUC6: 1 — Total Impervious Area Treated for HUC6 (AC): 1.39

YO38 Ni River

BMP Type: Extended Detention Basin — No OF BMP's: 1 — Impervious Area Treated for BMP Type (AC): 1.39

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
88020	No		1.39

HUC6 Code: — Total Stormwater Facilities for HUC6: 4 — Total Impervious Area Treated for HUC6 (AC): 4.55

YO41 Po River-Lake Pochahontas

BMP Type: Extended Detention Basin — No OF BMP's: 4 — Impervious Area Treated for BMP Type (AC): 4.55

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
88023	No		0.81
88024	No		1.96
88025	No		1.02
88026	No		0.76

Census Urban Area	Total Stormwater Facilities for CUA:	Total Impervious Area Treated (AC):
Harrisonburg, VA	**1**	**1.40**

HUC6 Code: — Total Stormwater Facilities for HUC6: 1 — Total Impervious Area Treated for HUC6 (AC): 1.40

PS23 Cooks Creek

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	1.40
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
82008	Yes	Sunset Heights Branch		1.40	

Census Urban Area | **Total Stormwater Facilities for CUA:** | **Total Impervious Area Treated (AC):**

Kingsport, TN--VA | **4** | **15.34**

HUC6 Code: | Total Stormwater Facilities for HUC6: 2 | Total Impervious Area Treated for HUC6 (AC): 12.66

TH43 Big Moccasin Creek-Little Moccasin Creek

BMP Type:	Extended Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	12.66
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
84015	No			0.42	
84020	No			12.24	

HUC6 Code: | Total Stormwater Facilities for HUC6: 2 | Total Impervious Area Treated for HUC6 (AC): 2.68

TH45 North Fork Holston River-Newland Hollow

BMP Type:	Extended Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	2.68
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
84025	No			0.82	
84030	No			1.86	

Census Urban Area | **Total Stormwater Facilities for CUA:** | **Total Impervious Area Treated (AC):**

Lynchburg, VA | **18** | **43.24**

HUC6 Code: | Total Stormwater Facilities for HUC6: 1 | Total Impervious Area Treated for HUC6 (AC): 3.70

H03 Ivy Creek-Cheese Creek

BMP Type:	Retention Basin I	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	3.70
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
960900.1	No			3.70	

HUC6 Code: | Total Stormwater Facilities for HUC6: 4 | Total Impervious Area Treated for HUC6 (AC): 3.89

JM09 Ivy Creek-Cheese Creek

BMP Type:	Extended Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	3.89
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
922135.6	No			1.37	
922136	No			2.52	
BMP Type:	Other	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
undergrnd 2	No			0.00	
undergrnd 3	No			0.00	

HUC6 Code: | Total Stormwater Facilities for HUC6: 8 | Total Impervious Area Treated for HUC6 (AC): 22.81

JM10 Blackwater Creek

BMP Type:	Dry Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
15010	No			0.00	
BMP Type:	Extended Detention Basin	No OF BMP's	6	Impervious Area Treated for BMP Type (AC):	22.81
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
15003	Yes	Burton Creek Unnamed Trib		13.87	
15005	No			1.07	
15006	No			2.18	
15007	No			1.76	
15008	No			2.35	
922134.4	No			1.58	
BMP Type:	Other	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
undergrnd 1	No			0.00	
HUC6 Code:		Total Stormwater Facilities for HUC6:	4	Total Impervious Area Treated for HUC6 (AC):	8.96

JM11 James River-Opossum Creek

BMP Type:	Extended Detention Basin	No OF BMP's	4	Impervious Area Treated for BMP Type (AC):	8.96
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
05001	No			3.30	
05004	Yes	Williams Run		3.45	
05005	No			0.89	
15001	No			1.32	
HUC6 Code:		Total Stormwater Facilities for HUC6:	1	Total Impervious Area Treated for HUC6 (AC):	3.88

JM14 James River-Stonewall Creek

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	3.88
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
05023	No			3.88	

Census Urban Area	Total Stormwater Facilities for CUA:	Total Impervious Area Treated (AC):
Richmond, VA	**89**	**512.73**

HUC6 Code:		Total Stormwater Facilities for HUC6:	1	Total Impervious Area Treated for HUC6 (AC):	0.89

JA40 Appomattox River-Oldtown Creek

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.89
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
26002	No			0.89	
HUC6 Code:		Total Stormwater Facilities for HUC6:	2	Total Impervious Area Treated for HUC6 (AC):	6.37

JA41 Swift Creek-Swift Creek Reservoir

BMP Type:	Extended Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	6.37
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
20044	No			3.28	
20115	No			3.09	

HUC6 Code: | Total Stormwater Facilities for HUC6: 8 | Total Impervious Area Treated for HUC6 (AC): 38.13

JA42 Swift Creek-Third Branch

BMP Type: Extended Detention Basin | No OF BMP's 8 | Impervious Area Treated for BMP Type (AC): 38.13

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
20023	No		2.69
20045	No		13.32
20047	No		1.61
20057	No		4.42
20059	No		6.50
20061	No		1.17
20072	No		2.01
20086	No		6.41

HUC6 Code: | Total Stormwater Facilities for HUC6: 3 | Total Impervious Area Treated for HUC6 (AC): 65.36

JA45 Appomattox River-Ashton Creek

BMP Type: Extended Detention Basin | No OF BMP's 3 | Impervious Area Treated for BMP Type (AC): 65.36

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
20004	No		31.09
20077	Yes	Ashton Creek	27.81
20078	No		6.46

HUC6 Code: | Total Stormwater Facilities for HUC6: 3 | Total Impervious Area Treated for HUC6 (AC): 6.85

JL01 James River-Almond Creek

BMP Type: Extended Detention Basin | No OF BMP's 3 | Impervious Area Treated for BMP Type (AC): 6.85

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
20002	No		4.68
20003	No		0.76
20100	No		1.41

HUC6 Code: | Total Stormwater Facilities for HUC6: 43 | Total Impervious Area Treated for HUC6 (AC): 217.91

JL02 Falling Creek

BMP Type: Bioretention Basin | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
20069	No		0.00

BMP Type: Extended Detention Basin | No OF BMP's 41 | Impervious Area Treated for BMP Type (AC): 216.89

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
20001	No		0.96
20008	No		8.90
20009	Yes	Pocoshock Creek	2.59
20010	No		0.84
20011	No		1.39
20012	No		0.93
20013	No		1.49
20014	No		8.81
20017	No		3.49

20018	No		3.02
20019	No		7.09
20020	No		11.88
20021	No		3.76
20022	No		5.07
20024	No		6.10
20025	No		12.50
20026	No		10.06
20046	No		12.18
20049	No		3.34
20050	No		1.48
20051	No		2.14
20052	No		5.04
20053	No		4.27
20054	No		1.10
20055	Yes	Homers Run	2.49
20056	No		5.57
20058	No		2.19
20060	No		2.92
20063	No		9.54
20064	No		4.27
20065	No		3.08
20066	Yes	Pocoshock Creek	1.10
20067	Yes	Pocoshock Creek	0.54
20068	No		8.36
20070	No		12.71
20071	No		19.70
20084	No		1.97
20085	No		2.78
200879	No		1.01
20102	No		0.86
20103	Yes	Pocoshock Creek	19.37

BMP Type: Grassed Swale — No OF BMP's: 1 — Impervious Area Treated for BMP Type (AC): 1.02

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
20101	No		1.02

HUC6 Code: — Total Stormwater Facilities for HUC6: 5 — Total Impervious Area Treated for HUC6 (AC): 48.93

JL03 James River-Proctors Creek

BMP Type: Extended Detention Basin — No OF BMP's: 5 — Impervious Area Treated for BMP Type (AC): 48.93

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
20005	No		38.43
20006	Yes	Kingsland Creek	4.62
20007	Yes	Kingsland Creek	3.04
20110	No		2.21
43044	Yes	Cornelius Creek	0.63

HUC6 Code: — Total Stormwater Facilities for HUC6: 2 — Total Impervious Area Treated for HUC6 (AC): 27.61

JL04 Fourmile Creek

BMP Type:	Extended Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	27.61
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
430189	No			16.77	
43045	No			10.84	
HUC6 Code:		Total Stormwater Facilities for HUC6:	5	Total Impervious Area Treated for HUC6 (AC):	17.48

JL17 Chickahominy River-Stony Run

BMP Type:	Extended Detention Basin	No OF BMP's	5	Impervious Area Treated for BMP Type (AC):	17.48
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
42001	No			6.09	
42002	No			6.39	
43027	No			3.25	
43038	No			1.40	
43039	No			0.35	
HUC6 Code:		Total Stormwater Facilities for HUC6:	8	Total Impervious Area Treated for HUC6 (AC):	60.02

JM83 James River-Bernards Creek

BMP Type:	Extended Detention Basin	No OF BMP's	7	Impervious Area Treated for BMP Type (AC):	60.02
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
20030	No			37.14	
20031	No			9.31	
20032	No			0.74	
20033	No			0.54	
20034	No			6.21	
20035	No			5.31	
20036	No			0.77	
BMP Type:	Other	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
20105	No			0.00	
20105	No			0.00	
HUC6 Code:		Total Stormwater Facilities for HUC6:	5	Total Impervious Area Treated for HUC6 (AC):	10.99

JM84 Tuckahoe Creek

BMP Type:	Dry Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
43031	No			0.00	
BMP Type:	Extended Detention Basin	No OF BMP's	4	Impervious Area Treated for BMP Type (AC):	10.99
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
37016	Yes	Little Tuckahoe Creek		2.50	
43028	No			3.43	
43029	No			2.45	
43046	Yes	LITTLE TUCKAHOE CREEK		2.61	
HUC6 Code:		Total Stormwater Facilities for HUC6:	1	Total Impervious Area Treated for HUC6 (AC):	4.37

JM85 James River-East Branch Tuckahoe Creek

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	4.37
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
20048	No			4.37	

HUC6 Code: Total Stormwater Facilities for HUC6: 3 Total Impervious Area Treated for HUC6 (AC): 7.82

JM86 James River-Little Westham Creek

BMP Type:	Extended Detention Basin	No OF BMP's	3	Impervious Area Treated for BMP Type (AC):	7.82
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
20015	No			1.16	
20016	No			3.94	
20117	Yes	POWHITE CREEK		2.72	

Census Urban Area **Total Stormwater Facilities for CUA:** **Total Impervious Area Treated (AC):**

Roanoke, VA **8** **14.45**

HUC6 Code: Total Stormwater Facilities for HUC6: 1 Total Impervious Area Treated for HUC6 (AC): 1.70

RU10 Mason Creek

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	1.70
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
8031100.8	No			1.70	

HUC6 Code: Total Stormwater Facilities for HUC6: 4 Total Impervious Area Treated for HUC6 (AC): 4.61

RU11 Tinker Creek-Buffalo Creek

BMP Type:	Dry Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
110811.94	No			0.00	
1122005.1	No			0.00	
BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	4.61
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
80601	Yes	TINKER CREEK		4.61	
BMP Type:	Other	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
110811.95	No			0.00	

HUC6 Code: Total Stormwater Facilities for HUC6: 1 Total Impervious Area Treated for HUC6 (AC): 2.74

RU12 Carvin Creek

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	2.74
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
8062800.7	No			2.74	

HUC6 Code: Total Stormwater Facilities for HUC6: 1 Total Impervious Area Treated for HUC6 (AC): 2.82

RU13 Tinker Creek-Glade Creek

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	2.82

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
11220A001.2	No		2.82

HUC6 Code: Total Stormwater Facilities for HUC6: 1 Total Impervious Area Treated for HUC6 (AC): 2.58

RU14 Roanoke River-Peters Creek

BMP Type: Extended Detention Basin No OF BMP's 1 Impervious Area Treated for BMP Type (AC): 2.58

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
8061303.8	No		2.58

Census Urban Area **Total Stormwater Facilities for CUA:** **Total Impervious Area Treated (AC):**

Virginia Beach, VA **89** **422.83**

HUC6 Code: Total Stormwater Facilities for HUC6: 5 Total Impervious Area Treated for HUC6 (AC): 9.26

CB21 Lower Chesapeake Bay-Poquoson River

BMP Type: Extended Detention Basin No OF BMP's 5 Impervious Area Treated for BMP Type (AC): 9.26

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
99009	No		0.45
99010	No		0.52
99011	No		0.30
99013	No		7.89
99014	No		0.10

HUC6 Code: Total Stormwater Facilities for HUC6: 5 Total Impervious Area Treated for HUC6 (AC): 7.31

CB22 Northwest Branch Back River

BMP Type: Extended Detention Basin No OF BMP's 5 Impervious Area Treated for BMP Type (AC): 7.31

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
12101	No		3.65
12102	No		0.63
12104	No		1.61
12111	No		0.67
12112	No		0.75

HUC6 Code: Total Stormwater Facilities for HUC6: 9 Total Impervious Area Treated for HUC6 (AC): 42.93

CB23 Southwest Branch Back River

BMP Type: Dry Detention Basin No OF BMP's 1 Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
11404	No		0.00

BMP Type: Extended Detention Basin No OF BMP's 8 Impervious Area Treated for BMP Type (AC): 42.93

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
11401	No		1.31
11402	No		1.31
11403	No		11.39
11405	No		0.45
11406	No		3.29
11407	No		12.61

11408	No			10.15	
11409	No			2.42	
HUC6 Code:		Total Stormwater Facilities for HUC6:	3	Total Impervious Area Treated for HUC6 (AC):	2.01
CB25 Lynnhaven River					
BMP Type:	Extended Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	1.66
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
13401	No			1.32	
13402	No			0.34	
BMP Type:	Retention Basin II	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.35
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
13403	No			0.35	
HUC6 Code:		Total Stormwater Facilities for HUC6:	1	Total Impervious Area Treated for HUC6 (AC):	3.15
JL28 Chickahominy River-Yarmouth Creek					
BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	3.15
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
47024	No			3.15	
HUC6 Code:		Total Stormwater Facilities for HUC6:	11	Total Impervious Area Treated for HUC6 (AC):	67.67
JL31 Powhatan Creek					
BMP Type:	Extended Detention Basin	No OF BMP's	11	Impervious Area Treated for BMP Type (AC):	67.67
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
47007	No			4.95	
47008	No			14.70	
47009	No			8.42	
47010	No			3.18	
47011	No			7.77	
47012	No			5.52	
47013	No			1.57	
47019	No			8.24	
47022	Yes	Powhatan Creek		1.05	
47023	Yes	Powhatan Creek		3.36	
47028	No			8.91	
HUC6 Code:		Total Stormwater Facilities for HUC6:	1	Total Impervious Area Treated for HUC6 (AC):	5.50
JL33 James River-Lower Chippokes Creek					
BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	5.50
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
47005	No			5.50	
HUC6 Code:		Total Stormwater Facilities for HUC6:	5	Total Impervious Area Treated for HUC6 (AC):	23.34
JL34 College Creek					
BMP Type:	Extended Detention Basin	No OF BMP's	5	Impervious Area Treated for BMP Type (AC):	23.34
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
47001	No			3.31	

47002	No	3.16
47003	No	1.07
47004	No	12.54
47029	No	3.26

HUC6 Code: | Total Stormwater Facilities for HUC6: 2 | Total Impervious Area Treated for HUC6 (AC): 8.22

JL35 James River-Skiffes Creek

BMP Type: Extended Detention Basin | No OF BMP's 2 | Impervious Area Treated for BMP Type (AC): 8.22

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
99003	No		3.35
99004	No		4.87

HUC6 Code: | Total Stormwater Facilities for HUC6: 6 | Total Impervious Area Treated for HUC6 (AC): 23.28

JL38 Warwick River

BMP Type: Extended Detention Basin | No OF BMP's 6 | Impervious Area Treated for BMP Type (AC): 23.28

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
12105	No		12.24
12106	No		1.29
12107	No		2.10
12108	No		2.41
12109	No		1.29
12110	No		3.95

HUC6 Code: | Total Stormwater Facilities for HUC6: 17 | Total Impervious Area Treated for HUC6 (AC): 105.91

JL54 Eastern Branch Elizabeth River

BMP Type: Dry Detention Basin | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
12204	No		0.00

BMP Type: Extended Detention Basin | No OF BMP's 15 | Impervious Area Treated for BMP Type (AC): 93.22

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
12201	Yes	Eastern Branch, Elizabeth River - Lower	3.28
12202	No		9.61
12203	No		8.44
12205	Yes	Broad Creek, Eastern Branch Elizabeth River	34.36
13101	No		2.44
13102	No		2.50
13104	No		15.55
13105	No		3.49
13106	No		3.65
13404	No		3.59
13405	No		1.59
13406	No		2.70
13407	No		0.84
13408	No		0.40
13409	No		0.78

BMP Type: Retention Basin II | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 12.69

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
13103	No		12.69

HUC6 Code: Total Stormwater Facilities for HUC6: 7 Total Impervious Area Treated for HUC6 (AC): 53.04

JL55 Western Branch Elizabeth River

BMP Type: Dry Detention Basin — No OF BMP's 6 — Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
12404	No		0.00
12405	No		0.00
12406	No		0.00
12407	No		0.00
13107	No		0.00
13109	No		0.00

BMP Type: Extended Detention Basin — No OF BMP's 1 — Impervious Area Treated for BMP Type (AC): 53.04

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
13108	No		53.04

HUC6 Code: Total Stormwater Facilities for HUC6: 6 Total Impervious Area Treated for HUC6 (AC): 41.39

JL56 Elizabeth River

BMP Type: Dry Detention Basin — No OF BMP's 2 — Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
12206	No		0.00
12408	No		0.00

BMP Type: Extended Detention Basin — No OF BMP's 2 — Impervious Area Treated for BMP Type (AC): 9.90

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
12401	Yes	Scott Creek	6.88
12402	No		3.02

BMP Type: Extended Detention-enhanced Basin — No OF BMP's 1 — Impervious Area Treated for BMP Type (AC): 22.02

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
12409	No		22.02

BMP Type: Retention Basin II — No OF BMP's 1 — Impervious Area Treated for BMP Type (AC): 9.47

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
12403	Yes	Scott Creek	9.47

HUC6 Code: Total Stormwater Facilities for HUC6: 1 Total Impervious Area Treated for HUC6 (AC): 0.80

YO65 York River-Skimino Creek

BMP Type: Extended Detention Basin — No OF BMP's 1 — Impervious Area Treated for BMP Type (AC): 0.80

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
99005	No		0.80

HUC6 Code: Total Stormwater Facilities for HUC6: 1 Total Impervious Area Treated for HUC6 (AC): 8.48

YO67 Queen Creek

BMP Type: Extended Detention Basin — No OF BMP's 1 — Impervious Area Treated for BMP Type (AC): 8.48

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
99006	No		8.48

HUC6 Code: | Total Stormwater Facilities for HUC6: 3 | Total Impervious Area Treated for HUC6 (AC): 7.65

YO68 York River-Carter Creek

BMP Type: Extended Detention Basin | No OF BMP's 3 | Impervious Area Treated for BMP Type (AC): 7.65

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
47015	No		1.46
47016	No		1.70
47017	No		4.49

HUC6 Code: | Total Stormwater Facilities for HUC6: 6 | Total Impervious Area Treated for HUC6 (AC): 12.89

YO69 York River-Sarah Creek

BMP Type: Extended Detention Basin | No OF BMP's 3 | Impervious Area Treated for BMP Type (AC): 1.85

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
99007	No		0.21
99008	No		0.99
99015	Yes	Unsegmented estuaries in f27E	0.65

BMP Type: Extended Detention-enhanced Basin | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 5.83

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
36002	No		5.83

BMP Type: Retention Basin I | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 1.78

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
36009	Yes	Unamed Trib. to Sarah Creek (NW Branch)	1.78

BMP Type: Retention Basin II | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 3.43

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
36003	No		3.43

Census Urban Area | **Total Stormwater Facilities for CUA:** | **Total Impervious Area Treated (AC):**

Washington, DC--VA--MD | **320** | **2,091.53**

HUC6 Code: | Total Stormwater Facilities for HUC6: 4 | Total Impervious Area Treated for HUC6 (AC): 34.61

PL16 Goose Creek-Cattail Branch

BMP Type: Extended Detention Basin | No OF BMP's 4 | Impervious Area Treated for BMP Type (AC): 34.61

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
53001	No		6.47
53002	No		13.26
53003	No		5.08
53029	No		9.80

HUC6 Code: | Total Stormwater Facilities for HUC6: 15 | Total Impervious Area Treated for HUC6 (AC): 47.25

PL18 Horsepen Run

BMP Type: Extended Detention Basin | No OF BMP's 15 | Impervious Area Treated for BMP Type (AC): 47.25

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29068	No		3.00
29132	No		0.36
29139	No		1.39

29140	No		0.45
29150	Yes	Broad Run	0.71
29151	Yes	Broad Run	1.28
29152	Yes	Hunting Creek	3.21
29153	Yes	Hunting Creek	4.18
53014	No		1.85
53015	No		3.56
53016	No		2.92
53017	No		9.73
53021	No		4.00
53022	No		5.90
53024	No		4.71

HUC6 Code: Total Stormwater Facilities for HUC6: 13 Total Impervious Area Treated for HUC6 (AC): 48.98

PL19 Broad Run-Beaverdam Run

BMP Type: Extended Detention Basin No OF BMP's 13 Impervious Area Treated for BMP Type (AC): 48.98

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
53004	No		5.26
53005	No		1.59
53006	No		1.79
53007	No		3.53
53008	No		1.68
53009	No		3.40
53010	No		7.84
53011	No		6.81
53012	No		2.95
53013	No		6.89
53018	No		3.58
53019	No		2.00
53020	No		1.66

HUC6 Code: Total Stormwater Facilities for HUC6: 1 Total Impervious Area Treated for HUC6 (AC): 0.00

PL20 Potomac River-Selden Island

BMP Type: Other No OF BMP's 1 Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
53025	No		0.00

HUC6 Code: Total Stormwater Facilities for HUC6: 21 Total Impervious Area Treated for HUC6 (AC): 124.03

PL21 Sugarland Run

BMP Type: Extended Detention Basin No OF BMP's 20 Impervious Area Treated for BMP Type (AC): 124.03

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29036	No		1.63
29037	No		1.80
29038	No		4.12
29039	No		16.13
29040	No		6.38
29041	No		5.60

29043	No	9.73
29044	No	2.78
29045	No	6.41
29046	No	5.83
29047	No	10.34
29048	No	15.67
29049	No	2.58
29050	No	13.36
29052	No	5.76
29053	No	0.72
29054	No	0.60
29071	No	3.30
29081	No	6.25
29144	No	5.04

BMP Type: Other — No OF BMP's: 1 — Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29119	No		0.00

HUC6 Code: — Total Stormwater Facilities for HUC6: 11 — Total Impervious Area Treated for HUC6 (AC): 117.15

PL22 Difficult Run

BMP Type: Dry Detention Basin — No OF BMP's: 2 — Impervious Area Treated for BMP Type (AC): 89.82

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29I002	No		74.88
29I053	No		14.94

BMP Type: Extended Detention Basin — No OF BMP's: 9 — Impervious Area Treated for BMP Type (AC): 27.33

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29051	No		1.54
29121	No		2.91
29133	No		0.82
29134	No		0.43
29135	No		1.14
29I001	No		9.23
29I007	No		5.41
29I047	No		3.23
29I048	No		2.62

HUC6 Code: — Total Stormwater Facilities for HUC6: 1 — Total Impervious Area Treated for HUC6 (AC): 1.56

PL23 Potomac River-Nichols Run-Scott Run

BMP Type: Manufactured (hydro-dynamic) BMP — No OF BMP's: 1 — Impervious Area Treated for BMP Type (AC): 1.56

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29131	No		1.56

HUC6 Code: — Total Stormwater Facilities for HUC6: 4 — Total Impervious Area Treated for HUC6 (AC): 48.98

PL24 Potomac River-Pimmit Run

BMP Type: Dry Detention Basin — No OF BMP's: 3 — Impervious Area Treated for BMP Type (AC): 44.11

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):

00I050	No			0.00	
29I051	No			15.62	
29I052	No			28.49	
BMP Type:	Retention Basin II	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	4.87
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29I059	No			4.87	
HUC6 Code:		Total Stormwater Facilities for HUC6:	2	Total Impervious Area Treated for HUC6 (AC):	99.50

PL25 Potomac River-Fourmile Run

BMP Type:	Dry Detention Basin	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	99.50
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
00I008	Yes	Fourmile Run		63.30	
00I015	No			36.20	
HUC6 Code:		Total Stormwater Facilities for HUC6:	13	Total Impervious Area Treated for HUC6 (AC):	40.34

PL26 Cameron Run

BMP Type:	Extended Detention Basin	No OF BMP's	5	Impervious Area Treated for BMP Type (AC):	9.74
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29023	No			0.94	
29127	No			2.47	
29128	No			1.23	
29I033	Yes	Cameron Run/Hunting Creek		2.44	
29I062	Yes	Cameron Run/Hunting Creek		2.66	
BMP Type:	Manufactured (hydro-dynamic) BMP	No OF BMP's	7	Impervious Area Treated for BMP Type (AC):	27.13
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29114	No			5.10	
29I054	No			3.61	
29I066	No			3.56	
29I069	No			1.42	
29I070	No			1.61	
29I075	No			6.47	
29I076	Yes	Little Tuckahoe Creek		5.36	
BMP Type:	Other	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	3.47
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29149	No			3.47	
HUC6 Code:		Total Stormwater Facilities for HUC6:	1	Total Impervious Area Treated for HUC6 (AC):	0.89

PL27 Dogue Creek

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.89
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29141	No			0.89	
HUC6 Code:		Total Stormwater Facilities for HUC6:	2	Total Impervious Area Treated for HUC6 (AC):	1.68

PL28 Potomac River-Little Hunting Creek

BMP Type:	Manufactured (hydro-dynamic) BMP	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	1.68

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29161	No		0.50
29162	No		1.18

HUC6 Code: | Total Stormwater Facilities for HUC6: 17 | Total Impervious Area Treated for HUC6 (AC): 67.46

PL29 Pohick Creek

BMP Type: Extended Detention Basin | No OF BMP's 16 | Impervious Area Treated for BMP Type (AC): 67.46

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29057	No		8.03
29058	No		1.63
29060	No		4.74
29061	No		5.28
29062	No		3.19
29084	No		1.02
29085	No		0.66
29092	No		2.77
29093	No		2.49
29096	No		4.15
29098	Yes	Pohick Creek	5.02
29099	Yes	Pohick Creek	7.70
29101	No		15.81
29102	No		3.16
29136	No		0.98
29137	No		0.83

BMP Type: Other | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29086	No		0.00

HUC6 Code: | Total Stormwater Facilities for HUC6: 34 | Total Impervious Area Treated for HUC6 (AC): 127.26

PL30 Accotink Creek

BMP Type: Extended Detention Basin | No OF BMP's 22 | Impervious Area Treated for BMP Type (AC): 103.45

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29027	Yes	Chopawamsic Creek	3.39
29027	No		2.81
29029	No		0.70
29030	No		1.52
29034	No		1.35
29070	No		2.45
29082	Yes	Accotink Creek	2.21
29083	Yes	Accotink Creek	1.92
29087	Yes	Long Branch	8.53
29088	Yes	Long Branch	4.32
29090	No		13.49
29100	No		2.61
29107	No		2.77
29111	No		4.20
29115	No		2.50

29116	No			7.44	
29142	No			1.32	
29143	No			2.52	
29154	Yes	Accotink Creek		7.40	
29155	No			7.10	
29156	No			5.50	
29158	No			8.00	
29159	Yes	Accotink Creek (via Prop. Storm Sewer)		9.40	
BMP Type:	Manufactured (hydro-dynamic) BMP	No OF BMP's	9	Impervious Area Treated for BMP Type (AC):	18.98
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29113	No			2.50	
29118	No			1.70	
29I065	No			1.93	
29I067	No			2.31	
29I068	No			1.54	
29I071	No			2.85	
29I072	No			2.10	
29I073	No			2.36	
29I074	No			1.69	
BMP Type:	Other	No OF BMP's	2	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29028	No			0.00	
29089	No			0.00	
BMP Type:	Retention Basin II	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	4.83
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29I021	No			4.83	
HUC6 Code:		Total Stormwater Facilities for HUC6:	13	Total Impervious Area Treated for HUC6 (AC):	142.32

PL34 Broad Run-Rocky Branch

BMP Type:	Extended Detention Basin	No OF BMP's	10	Impervious Area Treated for BMP Type (AC):	106.82
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
76008	No			9.58	
76053	No			25.01	
76054	No			49.73	
76092	No			2.43	
76093	No			1.09	
76094	No			2.56	
76095	No			1.05	
76096	Yes	Unnamed Tributary to Broad Run		7.47	
76097	No			6.19	
76122	Yes	Horsepen Run		1.71	
BMP Type:	Extended Detention-enhanced Basin	No OF BMP's	3	Impervious Area Treated for BMP Type (AC):	35.50
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
76081	No			11.49	
76083	No			20.45	
76123	Yes	Broad Run/Cabin Branch		3.56	

HUC6 Code:		Total Stormwater Facilities for HUC6:	27	Total Impervious Area Treated for HUC6 (AC):	155.85

PL41 Occoquan River-Occoquan Reservoir-Lake Jackso

BMP Type:	Extended Detention Basin	No OF BMP's	20	Impervious Area Treated for BMP Type (AC):	143.99
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
76002	No			3.03	
76003	No			0.48	
76004	No			9.53	
76007	No			7.25	
76016	No			17.68	
76017	No			3.52	
76018	No			4.67	
76019	No			3.07	
76024	No			6.44	
76025	No			3.31	
76026	No			1.85	
76027	No			1.97	
76028	No			2.65	
76029	No			2.62	
76030	No			2.39	
76050	No			21.67	
76051	No			2.37	
76055	No			17.45	
76056	No			28.06	
76118	No			3.98	
BMP Type:	Manufactured (hydro-dynamic) BMP	No OF BMP's	7	Impervious Area Treated for BMP Type (AC):	11.86
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
76110	No			1.71	
76111	No			2.13	
76112	No			1.16	
76113	Yes	Purcell Branch		1.78	
76114	No			1.32	
76115	No			1.65	
76116	Yes	Occoquan River		2.11	

HUC6 Code:		Total Stormwater Facilities for HUC6:	6	Total Impervious Area Treated for HUC6 (AC):	118.00

PL44 Middle Bull Run

BMP Type:	Extended Detention Basin	No OF BMP's	6	Impervious Area Treated for BMP Type (AC):	118.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
76044	No			3.71	
76090	No			76.76	
76I004	No			1.69	
76I009	No			10.57	
76I010	No			21.83	
76I037	No			3.44	

HUC6 Code:		Total Stormwater Facilities for HUC6:	29	Total Impervious Area Treated for HUC6 (AC):	305.70

PL45 Cub Run

BMP Type:	Extended Detention Basin	No OF BMP's	27	Impervious Area Treated for BMP Type (AC):	296.87
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29003	No			39.74	
29004	No			1.61	
29005	No			5.27	
29006	No			0.98	
29072	No			5.08	
29073	No			5.30	
29074	No			4.60	
29075	No			7.70	
29078	No			9.99	
29079	No			2.76	
29080	No			1.89	
29091	No			7.88	
29105	No			2.49	
29109	No			4.34	
29110	No			0.45	
29120	No			2.07	
29122	No			1.68	
29124	No			4.03	
29146	No			6.90	
29147	No			4.55	
29I003	No			32.52	
29I011	Yes	Cub Run		10.33	
29I012	No			70.74	
29I036	No			6.02	
29I040	No			53.34	
29I044	No			0.37	
29I045	No			4.24	
BMP Type:	Extended Detention-enhanced Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	8.83
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29148	No			8.83	
BMP Type:	Other	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	0.00
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29001	No			0.00	

HUC6 Code: Total Stormwater Facilities for HUC6: 27 Total Impervious Area Treated for HUC6 (AC): 128.62

PL46 Lower Bull Run

BMP Type:	Extended Detention Basin	No OF BMP's	26	Impervious Area Treated for BMP Type (AC):	128.27
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29007	No			3.33	
29008	No			1.95	
29009	No			1.67	
29010	No			5.75	
29011	No			3.06	

29012	No	3.94
29015	No	2.48
29016	No	13.00
29017	No	5.10
29018	No	7.51
29019	No	5.93
29020	No	1.02
29021	No	17.26
29022	No	7.88
29069	No	3.01
29077	No	2.81
29103	No	9.76
29104	No	1.43
29106	No	1.42
29108	No	0.91
29125	No	2.03
29126	No	1.27
29160	No	5.48
29I013	No	16.70
29I043	No	1.23
29I063	No	2.34

BMP Type: Grassed Swale — No OF BMP's: 1 — Impervious Area Treated for BMP Type (AC): 0.35

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29I046	No		0.35

HUC6 Code: — Total Stormwater Facilities for HUC6: 13 — Total Impervious Area Treated for HUC6 (AC): 38.59

PL47 Occoquan River/Occoquan Reservoir

BMP Type: Extended Detention Basin — No OF BMP's: 11 — Impervious Area Treated for BMP Type (AC): 38.59

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29024	No		2.65
29025	No		8.67
29031	No		2.80
29055	No		3.40
29056	No		5.00
29063	No		1.62
29065	No		2.72
29066	No		3.48
29067	No		3.18
29145	No		0.95
76119	No		4.12

BMP Type: Other — No OF BMP's: 2 — Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
29129	No		0.00
29130	No		0.00

HUC6 Code: — Total Stormwater Facilities for HUC6: 6 — Total Impervious Area Treated for HUC6 (AC): 32.64

PL48 Occoquan River-Belmont Bay

BMP Type:	Extended Detention Basin	No OF BMP's	6	Impervious Area Treated for BMP Type (AC):	32.64
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
29026	No			11.36	
29097	No			9.33	
76032	Yes	Occoquan River Estuarine		0.27	
76I018	Yes	Unnamed Tributary to Occoquan Bay		5.02	
76I024	Yes	Unnamed Tributary to Occoquan Bay		5.51	
76I031	No			1.15	

HUC6 Code:	Total Stormwater Facilities for HUC6:	20	Total Impervious Area Treated for HUC6 (AC):	117.25

PL49 Neabsco Creek

BMP Type:	Extended Detention Basin	No OF BMP's	20	Impervious Area Treated for BMP Type (AC):	117.25
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
76021	No			1.25	
76022	No			8.42	
76023	No			5.24	
76033	Yes	Neabsco Creek		10.59	
76034	No			12.63	
76036	No			8.18	
76038	No			3.24	
76039	No			2.10	
76098	No			8.90	
76101	No			11.19	
76102	No			7.25	
76121	Yes	Neabsco Creek		5.21	
76I022	No			9.46	
76I023	No			3.17	
76I027	No			5.41	
76I028	No			1.50	
76I029	No			6.03	
76I042	No			1.51	
76I060	No			2.92	
76I061	No			3.05	

HUC6 Code:	Total Stormwater Facilities for HUC6:	6	Total Impervious Area Treated for HUC6 (AC):	118.10

PL50 Potomac River-Occoquan Bay

BMP Type:	Extended Detention Basin	No OF BMP's	4	Impervious Area Treated for BMP Type (AC):	51.77
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
76057	No			23.98	
76077	No			15.06	
76103	No			1.03	
76I020	No			11.70	
BMP Type:	Extended Detention-enhanced Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	3.05
BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:		Impervious Area Treated for BMP (AC):	
76120	No			3.05	
BMP Type:	Retention Basin I	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	63.28

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
76104	No		63.28

HUC6 Code: Total Stormwater Facilities for HUC6: 12 Total Impervious Area Treated for HUC6 (AC): 123.18

PL51 Powells Creek

BMP Type: Extended Detention Basin No OF BMP's 11 Impervious Area Treated for BMP Type (AC): 122.93

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
76020	No		4.88
76035	No		29.77
76037	No		22.03
76041	No		7.28
76061	No		1.32
76064	No		2.77
76066	No		2.28
76075	No		15.40
76076	No		9.52
76099	No		8.36
76100	No		19.32

BMP Type: Grassed Swale No OF BMP's 1 Impervious Area Treated for BMP Type (AC): 0.25

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
76117	No		0.25

HUC6 Code: Total Stormwater Facilities for HUC6: 13 Total Impervious Area Treated for HUC6 (AC): 36.66

PL52 Quantico Creek

BMP Type: Extended Detention Basin No OF BMP's 13 Impervious Area Treated for BMP Type (AC): 36.66

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
76042	No		2.53
76058	No		1.28
76059	No		0.74
76060	No		0.70
76062	No		0.98
76063	No		1.34
76065	No		2.13
76070	No		0.48
76131	Yes	Broad Run/Cabin Branch	9.08
76I019	No		6.25
76I025	No		0.61
76I026	No		2.15
76I041	No		8.39

HUC6 Code: Total Stormwater Facilities for HUC6: 4 Total Impervious Area Treated for HUC6 (AC): 5.22

PL56 Upper Aquia Creek

BMP Type: Extended Detention Basin No OF BMP's 4 Impervious Area Treated for BMP Type (AC): 5.22

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
89003	No		0.44
89004	No		0.43

89005	No		1.68
89006	No		2.67

HUC6 Code: | Total Stormwater Facilities for HUC6: 5 | Total Impervious Area Treated for HUC6 (AC): 9.71

PL57 Lower Aquia Creek

BMP Type: Extended Detention Basin | No OF BMP's 4 | Impervious Area Treated for BMP Type (AC): 6.68

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
89002	No		1.18
89012	No		0.56
89013	No		0.81
89036	No		4.13

BMP Type: Infiltration Basin (1xWQV) | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 3.03

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
89037	No		3.03

Census Urban Area | **Total Stormwater Facilities for CUA:** | **Total Impervious Area Treated (AC):**

Winchester, VA | **15** | **32.96**

HUC6 Code: | Total Stormwater Facilities for HUC6: 11 | Total Impervious Area Treated for HUC6 (AC): 14.25

PU16 Opequon Creek-Sulphur Spring Run

BMP Type: Dry Detention Basin | No OF BMP's 1 | Impervious Area Treated for BMP Type (AC): 0.00

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
34036	No		0.00

BMP Type: Extended Detention Basin | No OF BMP's 10 | Impervious Area Treated for BMP Type (AC): 14.25

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
34007	No		2.18
34010	No		1.60
34011	No		0.86
34013	No		1.26
34014	No		2.59
34026	No		4.36
34029	No		0.41
34030	No		0.24
34031	No		0.47
34032	No		0.28

HUC6 Code: | Total Stormwater Facilities for HUC6: 3 | Total Impervious Area Treated for HUC6 (AC): 17.53

PU17 Abrams Creek

BMP Type: Extended Detention Basin | No OF BMP's 3 | Impervious Area Treated for BMP Type (AC): 17.53

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
34012	No		1.84
34034	Yes	Abrams Creek	4.67
34035	No		11.02

HUC6 Code: | Total Stormwater Facilities for HUC6: 1 | Total Impervious Area Treated for HUC6 (AC): 1.18

PU18 Opequon Creek-Redbud Run

BMP Type:	Extended Detention Basin	No OF BMP's	1	Impervious Area Treated for BMP Type (AC):	1.18

BMP ID:	Discharge to Impaired Waters:	Receiving Waters if Impaired:	Impervious Area Treated for BMP (AC):
34033	No		1.18

Total No. of BMP's : 621 Total Impervious Area Treated: 3,326.57

Attachment 6. "Don't Let Your Pet Pollute" Signage for Rest Areas

Please see the attached document

Don't Let Your Pet Pollute

When your pet goes on the lawn, remember... it doesn't just go on the lawn, it ends up in our waterways and streams.

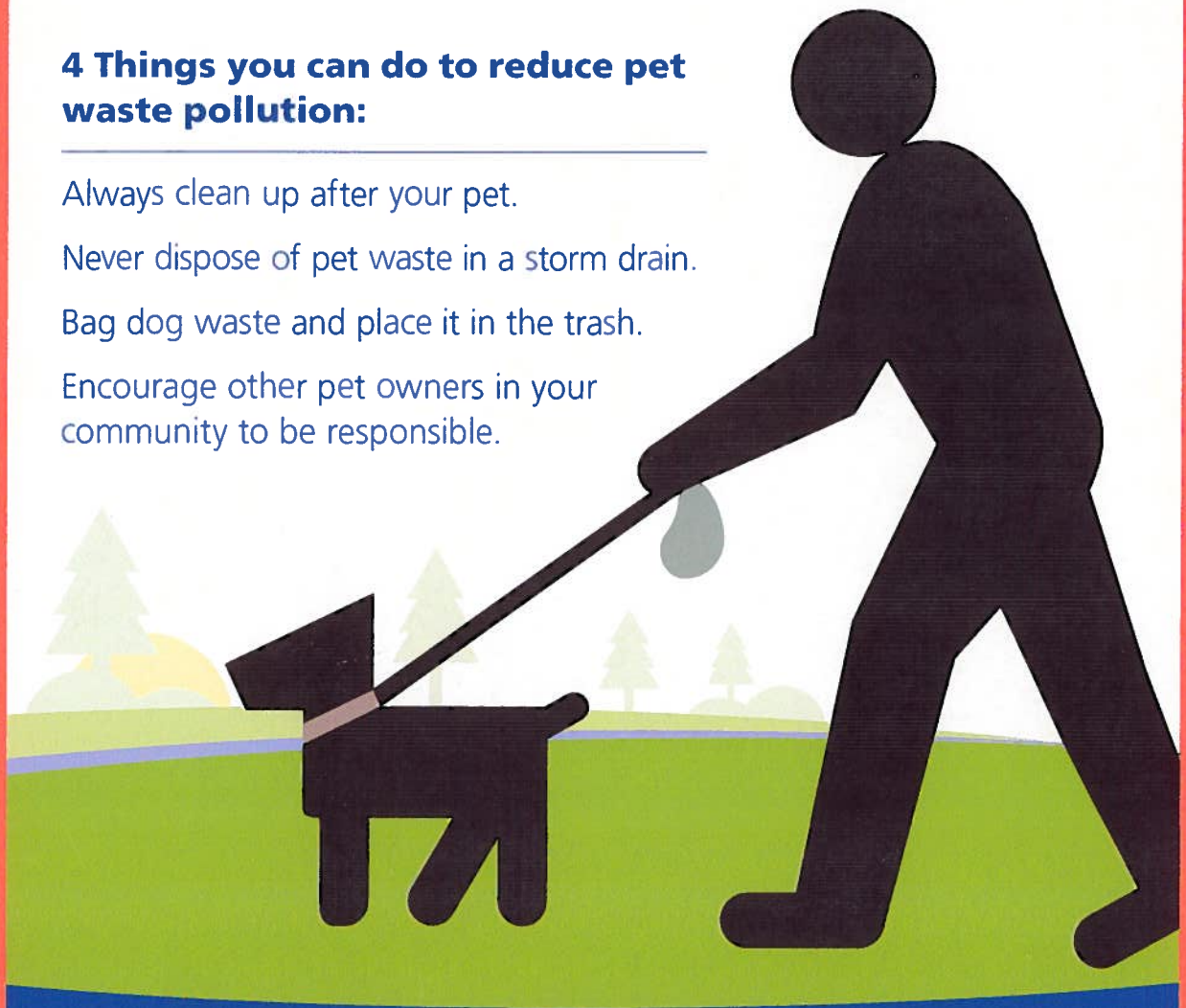
4 Things you can do to reduce pet waste pollution:

Always clean up after your pet.

Never dispose of pet waste in a storm drain.

Bag dog waste and place it in the trash.

Encourage other pet owners in your community to be responsible.



VDOT
Virginia Department of Transportation

Pet waste stations are provided at all Virginia Safety Rest Areas for your convenience.