



**Staunton District**  
Stormwater Management Program  
(Pollutant Discharge Elimination System)

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

**Year 2 - Annual Report**  
July 31, 2005

Serving the

**Harrisonburg Urban Area**

Virginia Department of Transportation  
Staunton District  
Rte 11 ByPass/Commerce Road.  
Staunton, VA 24401  
(540) 332-9075

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## **Executive Summary**

The Small Municipal Separate Storm Sewer Systems (MS4s) within the Harrisonburg Urban Area operated by the Virginia Department of Transportation Staunton District were approved for coverage under the Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharges of Stormwater from Small MS4s on June 16, 2003 (General Permit No.: VAR 040031). Coverage under the General Permit obligates the Virginia Department of Transportation (VDOT) to develop and implement a Stormwater Management Program designed to reduce the discharge of pollutants from the MS4s to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act and the State Water Control Law. This Annual Report provides an update on status of the implementation of VDOT's Stormwater Management Program during the second reporting cycle of the Permit – April 2004 through July 2005. In addition, this Report serves to communicate any proposed changes to the Management Program and summarizes activities planned for the upcoming reporting cycle.

VDOT's SWM Program is presented here in the form of the six minimum control measures required by the Virginia General Permit. This program has been developed with a consistent statewide implementation strategy since VDOT operates regulated MS4s (or components of regulated MS4s) within the public right-of-ways in each of the nine VDOT Districts.

### **Regulated Small MS4 Operator (Permitee):**

The Virginia Department of Transportation Staunton District  
Garrett W. Moore, District Administrator  
Rte 11 ByPass/Commerce Road.  
Staunton, VA 24401  
(540) 332-9075

### **Area of Coverage – Regulated Small MS4:**

All those MS4s within the Harrisonburg Urban Area under the operational control of the Virginia Department of Transportation Staunton District.

In general, the VDOT Staunton District exercises operational control of MS4s within subdivision-street, primary and secondary road, limited access, and interstate public right-of-ways; excluding those public right-of-ways within certain incorporated cities, towns, and other specifically designated jurisdictions that operate and maintain their own MS4s. A more detailed identification and description of the MS4s under the VDOT Staunton District's operational control is being developed as part of the mapping efforts outlined in Minimum Control Measure 3: Illicit Discharge Detection and Elimination.

### **Anniversary of Coverage:**

VDOT received approval for coverage within each of the 13 Urbanized Areas of Virginia, with the approval dates ranging from April through July of 2003. For ease of reporting and program management, the reporting cycle for each of the 13 permits has

been defined as April through March, with an anticipated reporting date of April for the first, second, and fourth anniversaries of the permit coverage.

**Responsible VDOT Personnel:**

The Virginia Department of Transportation, under the leadership of the Commonwealth Transportation Commissioner, is organized into several divisions, each serving under a designated program Chief. Several areas of the Department were reorganized during the first year of the Permit in an effort to better manage the delivery of transportation services to the Commonwealth. The most significant change places the nine VDOT Districts under the direct authority of the Commonwealth Transportation Commissioner. In general, this and other changes reflect a decentralized implementation strategy: overall program policy and guidance is provided by the appropriate Program Chiefs, while the day to day operation and implementation of VDOT's road construction and maintenance program fall under the authority of the District Administrators.

The implementation of VDOT's Stormwater Management Program starts with the development of specific policies and operational guidance associated with each of the six minimum control measures. Central Office continues to support the Districts with program guidance, coordination, and assessment as necessary. However, each VDOT District Administrator serves as the Permittee overseeing the implementation of the day-to-day operational activities related to permit compliance within each of the designated Urban Area(s).

This Annual Report provides the status of each minimum control measure and identifies the responsible parties for continuing development and/or implementation.

### **VDOT Stormwater Management Program**

The VDOT Stormwater management program has been developed in the context of the six minimum control measures outlined in the Virginia General Permit.

The six minimum control measures are:

- (1) Public Education and Outreach On Stormwater Impacts;
- (2) Public Involvement/Participation;
- (3) Illicit Discharge Detection and Elimination;
- (4) Construction Site Stormwater Runoff Control;
- (5) Post Construction Stormwater Management In New and Redevelopment; and
- (6) Pollution Prevention/Good Housekeeping for Municipal Operations.

A description and justification of Best Management Practices (BMPs) for each minimum control measure, as well as a schedule of measurable goals for implementation, was provided in the General Permit Registration Statement, dated March 8, 2003. This Annual Report identifies the progress towards achieving the measurable goals, as well as any changes and/or additions identified for each BMP.

**BMP 1.1 – Watershed Signs**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/08	Install watershed signs in partnership with the Department of Conservation and Recreation (DCR) and Local governments. Track and report sign placement for each District.	Traffic Engineering, (TE)	This BMP has been completed this reporting cycle and it is anticipated to continue in the future. DCR has developed a priority list of watershed signs. VDOT has made available \$25,000 in FY05, and will provide funding annually that could be used for these signs. Virginia Logos is working with DCR on cost estimates and will be fabricating/installing signs when specific funds have been allocated by DCR. DCR is looking into additional funding sources. VDOT has developed signing specifications that include watershed and scenic river designations. VDOT will track the signs as they are installed.

**Partnership w/ or Reliance on Others:** The placement of watershed signs is a partnership between DCR, local governments, and VDOT. A critical element of this partnership is adequate funding through DCR and/or the local governments.

**BMP 1.2 – Educational Video**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/08	Develop educational video on stormwater impacts and stormwater BMPs in partnership with DCR.	CO/Dist, Public Affairs	Please see “Changes To BMP” below.
<ul style="list-style-type: none"> <li>➤ 4/03</li> <li>➤ 10/03</li> <li>➤ 1/04</li> </ul>	<ul style="list-style-type: none"> <li>Establish Video Workgroup and develop work plan</li> <li>Final Frame-Board script.</li> <li>Begin/contract video production.</li> </ul>		
3/05 – 2/08	Distribute Educational Video to local governments and Citizens Groups statewide for further distribution. Track number of videos distributed.	CO/Dist Public Affairs	Please see “Changes To BMP” below.

**Changes to BMP:** VDOT’s Office of Public Affairs serves to lead this effort and is developing a Public Education and Outreach Plan for this BMP that will include a revised BMP Activity implementation schedule. Upon completion, this information will be submitted to DCR for approval.

**Partnership w/ or Reliance on Others:** Grant funding from DCR is no longer available for this activity.

**BMP 1.3 – Public Service Announcements**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/08	Develop 4-year work plan in collaboration with the other Urban Area MS4 operators for a series of mass media PSAs.	CO/Dist. Public Affairs	Please see “Changes To BMP” below.
➤ 6/03	Establish VDOT Public Service Announcement (PSA) Work Group to include local government representatives.		
➤ 9/03	Document formal commitments from all parties re: roles and responsibilities related to work plan.		
➤ 2/02	Final 4-year work plan to guide the development of PSAs.		
3/04 – 2/08	Develop and Distribute PSAs in accordance with work plan. Track number of PSAs developed, aired and approximate exposure	CO/Dist Public Affairs	Please see “Changes To BMP” below.

**Changes to BMP:** VDOT’s Office of Public Affairs serves to lead this effort and is developing a Public Education and Outreach Plan for this BMP that will include a revised BMP Activity implementation schedule. Upon completion, this information will be submitted to DCR for approval.

**Partnership w/ or Reliance on Others:** VDOT’s office of Public Affairs communicates with local government and media outlet officials on a regular basis. However, no formal partnerships or agreements relative to this BMP activity have been developed.



**BMP 2.1: VDOT Public Involvement and Participation Program**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/08	Advertise and conduct project specific Citizen Information Meetings, Location Public Hearings, Design Public Hearings, Combined Location & Design Public Hearings for all qualified VDOT projects.	CO/Dist Location &Design (L&D)	VDOT’s Location and Design Division’s Public Involvement Program has recorded approximately 51 Public Meetings statewide during this reporting cycle: 14 Citizen Information Meetings, 30 Design Public Hearings, 3 Location Public Hearings, and 4 Combined Location & Design Public Hearings. The Staunton District, serving the Winchester and Harrisonburg Urban Areas, conducted 4 Citizen Information Meetings and 2 Design Public Hearings.

**Proposed Activities:** VDOT’s Central Office Location and Design Division’s Public Involvement Program will begin recording the number of attendees at each meeting for future Annual reports.

**BMP 2.2: VDOT Participation in Local Government Watershed Planning**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/08  ➤ 6/03  ➤ 10/03	Participate in locally adopted (DCR approved) regional (watershed-wide) stormwater planning and implementation.  Establish formal contact with local governments within Urban Area.  Identify all local DCR approved SWM Programs, distribute local program requirements to District.	CO/Dist L&D, Environmental (Env)	Central office and District VDOT staff participated in a workshop titled “Stormwater Management Erosion & Sediment Control Seminar” sponsored by the American Society of Engineers held on 6/16/2005. This workshop, while held in the Virginia Beach Urban Area, was open to the public and was attended by many local government representatives from the Hampton Roads area.  Staunton District L&D staff routinely coordinate project specific SWM design issues with local government officials.
3/03 – 2/08  ➤ 6/03  ➤ 10/03	Participate in local government Technical Advisory groups and/or workshops to develop local watershed plans.  Establish formal contact with local governments within Urban Area to promote VDOT interest in participation.  Identify all local DCR approved Regional Programs, distribute Regional Program requirements to District.	CO/Dist L&D, Env	District L&D staff participate on the Upper Shenandoah Tributary Team, and the Upper Shenandoah Tributary Urban Workgroup, both led by DCR.  According to DCR, there are no existing regional SWM plans approved by DCR in this Urban Area.

**BMP 2.3: VDOT Participation in Watershed Organizations**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/08  ➤ 6/03	Participation in watershed organizations and local government technical advisory committees  Establish formal contact with local watershed organizations within Urban Area to promote VDOT’s willingness to participate in watershed planning and outreach. Document participation.	CO/Dist L&D, Env	District L&D staff participate on the Upper Shenandoah Tributary Team, and the Upper Shenandoah Tributary Urban Workgroup, both led by DCR.  Staunton District L&D staff routinely coordinate project specific SWM design issues with local government officials.  Central Office and District Environmental staff participate on the statewide Coastal Zone Management Committee, Nonpoint Source Advisory Committee, Chesapeake Bay 2000 Committee, Riparian Buffer Committee, Stream Assessment Technical Advisory Committee, and Virginia Water Protection Permit Technical Advisory Committee.

**BMP 2.4: VDOT Adopt-a-Highway Program**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/08	Continue to implement the Adopt-A-Highway Program and seek opportunities to partner with other pollution prevention programs.	CO/Dist L&D, Asset Management (AM), Public Affairs	<p>This BMP has been completed this reporting cycle and it is anticipated to continue in the future. The Adopt-a-Highway Program (AAH) continues to be delivered and led by the partnership of VDOT Office of Public Affairs and Asset Management Division. The program enlists numerous VDOT volunteers and private citizen groups throughout the state. Please see the VDOT Adopt-a-Highway home page at the following link for more information:  <a href="http://www.virginiadot.org/infoservice/prog-aah-default.asp">http://www.virginiadot.org/infoservice/prog-aah-default.asp</a></p> <p>These initiatives will be implemented statewide and not limited to Urban Areas. VDOT will continue to track and report on these activities annually.</p> <p>This reporting cycle includes VDOT’s leadership and participation in the statewide Litter Awareness Campaign (April 9-June 30, 2005). This campaign has been led by a multi-agency partnership including the following agencies:          Virginia Department of Conservation and Recreation          Virginia Department of Education          Virginia Department of Environmental Quality          Virginia Department of Game and Inland Fisheries          Virginia Department of Transportation          Virginia State Police</p> <p>The results of the campaign to include an updated website, VDOT Adopt-A-Highway newsletters, and many other related pollution prevention efforts and public participation opportunities are posted on VDOT’s external website noted above.</p>

**BMP 2.4: VDOT Adopt-a-Highway Program**  
**(Continued)**

			<p>VDOT has taken in a new program developed in southwest Virginia called the “Assign-A-Highway Program” which utilizes court directed probationer’s to pick-up litter on primary routes every two weeks. This program is now available to all localities within Virginia.</p> <p>Approximately 6,000 groups or individuals are currently active in the Adopt-a-Highway Program. Each group has committed to pick up litter on a 2-mile section of highway 4 times each year. A total of approximately 12,000 miles is currently adopted with 4 litter pick ups each year.</p>
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**BMP 2.5: Storm Drain Stenciling**

Target Date	BMP Activity	Resp. VDOT Division	Status
7/05	Enable communities, groups, individuals, businesses, or local governments to place pollution prevention markers/stenciling on storm drains accessible by VDOT pedestrian walkways.	CO/Dist, AM	Please see “Changes To BMP” below.
3/04 – 2/08	Track all storm drain stenciling within Asset Management data system.	CO/Dist, AM	Please see “Changes To BMP” below.

**Changes to BMP:** VDOT will authorize any individual, group, local government, etc. to place storm drain pollution prevention markers/stenciling on VDOT storm drain inlet structures accessible by pedestrian walkways upon completion of a Land Use Permit application (<http://www.virginiadot.org/business/bu-landUsePermits.asp>) when in receipt of corresponding approval and permit issuance by a VDOT Resident Engineer/Administrator or designee. If an individual, group, etc. anticipates a wide distribution of marker placement, the permit application must include an attached list of streets; or through coordination with the Residency, a local government can apply for a county-wide permit to enable this type of activity on behalf of clubs, citizen groups, etc. The permit application must include, at a minimum, the proposed locations of marker placement and a graphic sample(s) of the marker. VDOT will waive all fees for permits issued for storm drain marker placement/stenciling.

**Proposed Activities:** Currently, an enhancement is being made to Asset Management Division’s Land Use Permit System to accommodate for coding (SD – Storm drain stenciling) of permitted storm drain stenciling activities in order to annually report on and track the number of permits issued for this program. This data system enhancement will be complete by July 30, 2005. An updated report reflecting this enhancement and corresponding number of permits issues for this BMP will be provided in the next reporting cycle.

**Current Status:**

- 1) VDOT is currently actively participating in the Rivanna Regional Storm Water Education Partnership, a regional effort in the Charlottesville area consisting of the MS4 Permit holders in the Charlottesville Urban Area.
- 2) Number of storm drain stencil land-use permits issued to date: 0

**BMP 3.1: Storm Sewer System Map**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/06	<p>Compile all existing mapping resources within the Urban Area, to include data tracked by local jurisdictions. Correlate all data within VDOT's AM systems and identify any gaps in existing mapping.</p> <p>Final recommendations for mapping of VDOT MS4 systems and outfalls.</p>	CO/Dist, AM	<p>A workgroup consisting of representatives from VDOT's Asset Management Division's Roadside Management Section and Systems Development Section, and Location and Design Division's Hydraulic Section evaluated the mapping resources and identified the Asset Management System (AMS) as the most appropriate mapping and inventory system for this BMP activity.</p> <p>The workgroup identified the proposed Work Accomplishments and Inventory Module (WAM) of the AMS to meet the specific requirements of this BMP. The WAM is a comprehensive system that will record maintenance activities, such as illicit discharge detection inspections, BMP inspections and associated maintenance documentation, and inventory data, such as the location and condition of regulated outfalls.</p> <p>WAM is currently operational and being delivered to VDOT lead coordinators through an introductory training program FY 2005.</p> <p>VDOT will evaluate other successful DOT programs to include guidance documents recommended by EPA at <a href="http://www.cwp.org/IDDE/IDDE.htm">http://www.cwp.org/IDDE/IDDE.htm</a> to assist with this BMP.</p>
7/05 – 1/06	Develop inventory/condition assessment protocol with which to locate and map all remaining components (outfalls and storm sewer system) of the regulated MS4 (as defined by appropriate asset groups) not captured previously. Develop a corresponding training program.	CO/Dist, AM	Pending.

**BMP 3.1: Storm Sewer System Map**  
**(Continued)**

1/06 – 4/08	Complete inventory within each Urban Area in accordance with mapping and data collection protocol. Document progress in terms of % of total required mapping.	CO/Dist, AM	<p>Collection of data and mapping will include all VPDES MS-4 permit regulated VDOT outfalls within the urbanized areas and related inspection documentation by April 2008. Annual progress estimates will be available during next year’s annual report once the pilot program has been completed. A progress schedule will be developed for additional minor enhancements to the AMS, corresponding training, and inventory/assessment activities, documentation and mapping of all regulated outfalls and systems within urbanized areas. This schedule will be completed during state fiscal year 2006 (by June 2006) to ensure that all related mapping and data collection requirements of Minimum Control Measure 3 of the MS-4 permit are satisfied by April 2008.</p> <p>Annual progress estimates will be available during the next reporting cycle.</p> <p>Regulated MS-4 Outfalls inventoried and mapped to date: 0</p>
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**BMP 3.2: Illicit Discharge Detection Program**

Target Date	BMP Activity	Resp. VDOT Division	Status
12/05-12/06	Develop Asset Management Illicit Discharge Inspection protocol, to include prioritization (based on pipe or conveyance size, land use served, likelihood of illicit discharges, record of any previous illicit discharges, etc.), frequency of inspections, record keeping, reporting of discharges, and enforcement.	CO/Dist, AM and Env.	An illicit discharge visual inspection protocol is being developed as an element of all routine, emergency, and requested maintenance activities on drainage related assets.
12/05 – 12/06	Develop and implement training for Illicit Discharge Inspection and Detection procedures to correlate with Hazardous Materials Spill Response protocol.	CO/Dist, AM, Env, VDOT Learning Center	Training on the inspection protocol described above will be included as part of the rollout from September 2004 through March 2005. This training will be coordinated with the VDOT Asset Management Best Practices Manual Chapter 8, Hazardous Materials (under revision). This Chapter provides the requirements and resources for VDOT maintenance personnel to respond to incidents of hazardous materials spills. This manual is complete and provided under separate cover.
12/06 – 4/08	Implement Illicit Discharge Inspection protocol to document inspections, detect and address non-stormwater discharges, including illegal dumping, of 100% of the regulated outfalls within the MS-4.	Dist AM	<p>Illicit Discharge inspections that identify potentially hazardous conditions may be linked to VDOT’s Emergency Operations Center.</p> <p>The Center manages a real-time incident response system that includes any hazardous material spills on VDOT right-of-way that has the potential to impact the motoring public. Please see the following link for more information on the current incident notification system:</p> <p><a href="http://www.virginiadot.org/comtravel/eoc/eoc-main.asp">http://www.virginiadot.org/comtravel/eoc/eoc-main.asp</a></p> <p>This system, the AMS, the Department of Emergency Management, and other local/state government systems will be evaluated for the most appropriate BMP to adequately address illicit discharges identified within the regulated MS-4 by April 2008.</p>

**BMP 3.3: Illicit Discharge Prohibition**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/04	Develop and coordinate protocols for illicit discharge notification and documentation. Coordinate with existing Hazardous Material Spill Response protocol.	CO/Dist. AM and Env	<a href="#">See BMP 3.2</a>
3/03 – 2/04	Amend Land Use Permit Special Conditions (MP-63) to explicitly prohibit all illicit discharges as defined by the Department of Environmental Quality (DEQ).	CO AM	<p>The Land Use Permit Manual (LUPM 24 VAC 30-150), available for download or viewing at <a href="http://leg1.state.va.us/000/reg/TOC24030.HTM#C0150">http://leg1.state.va.us/000/reg/TOC24030.HTM#C0150</a>, sets forth the policies and procedures that VDOT uses to issue permits on behalf of the Commonwealth Transportation Board (CTB) to perform work on state-owned property under its jurisdiction along the system of state highways. Typically, this work includes activities such as installation of utilities, cable television services, fiber optic lines, or installation of driveway pipe. It is intended to protect the safety of VDOT and non-VDOT workers, motorists, and pedestrians, minimize the likelihood of property damage, as well as to preserve the integrity of the state highway system.</p> <p>These regulations are currently being updated in accordance with the Virginia Administrative Process Act via 24 VAC 30-151 to include the prohibition of illicit discharges and updates will be provided when available as dictated by Virginia’s regulatory process.</p>
3/04 – 2/08	Develop and implement training for Illicit Discharge Inspection and Detection procedures.	CO/Dist., AM, Env, VDOT Learning Center	<a href="#">See BMP 3.2</a>
3/04 – 2/08	Implement protocols for illicit discharge notification and documentation, and Hazardous Material Spill Response. Track number of spills reported	Dist. AM and Env.	Environmental staff developed a Hazardous Material response protocol for responding to incidents occurring within VDOT right of way. Worked with DEQ and DEM to incorporate roles and responsibilities into DEQ’s Pollution response Program Manual.

**BMP 4.1: Implementation of VDOT’s Erosion and Sediment Control Annual Program**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/08	Implement VDOT’s Comprehensive Erosion and Sediment Control and Stormwater Management Program Specifications as approved annually (Qualifying state program approved by VA Dept. of Conservation and Recreation) on all regulated land disturbing activities.	CO/Dist. L&D, Env, Construction (Con), AM	In a letter to VDOT, dated February 17, 2005, DCR granted an extension of approval for VDOT’s 2004 ESC & SWM program specifications for the 2005 calendar year. The full text of the 2004 ESC & SWM Program Specifications is on line at:  <a href="http://www.virginiadot.org/business/locdes/resources/VDOT2004ESC&amp;SWManual3-04.pdf">http://www.virginiadot.org/business/locdes/resources/VDOT2004ESC&amp;SWManual3-04.pdf</a>
3/03 – 2/08	Track total number of land disturbing activities and total disturbed acreage.	CO/Dist. L&D, Con,	Based on a consolidation of data provided by DEQ Central Office and VDOT’s Project Tracking System, as of <b>January 2005</b> , VDOT had approximately <b>232 active individual maintenance and construction activities</b> , with approximately <b>16,511 disturbed acres</b> .

**Approval Status of Qualifying State Program:** DCR reviews VDOT’s ESC & SWM Program Specifications and Standards annually. Please see the Appendix for copies of all correspondence and documentation of approval.

**Proposed Activities:** The number of projects and disturbed acres represents a snapshot of activity as of January 2005. As part of VDOT’s VSMP Construction Permit Program, VDOT is developing a Project Tracking and Notification System consistent with existing Permit requirements and proposed requirements per House Bill 1177 (March 2004 General Assembly). The Project Tracking and Notification System will provide up to date tabulation of active projects and total disturbed acres.

**BMP 4.2: Program Evaluation, Assessment, and Reporting Procedures**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/04	Develop and refine a consistent process to evaluate and report on compliance with approved project specific ESC plan, permit conditions, and VDOT Annual Program.	CO Env.	VDOT Central Office has developed an Environmental Compliance Reporting (ECR) System. On-going refinement of the system is on schedule to allow for full reporting of VDOT’s internal evaluation and assessment of the ESC and SWM Programs on regulated VDOT projects for the next reporting cycle.
3/04 – 2/08	Implement the ECR system on all regulated VDOT Projects. Track overall program and project compliance and develop annual report.	CO/Dist. Env, L&D, Con. AM	Implementing the Environmental Compliance Reporting System to assess to the Department's performance in compliance with environmental commitments made to secure regulatory clearances.  The ECR results are reported on-line at: <a href="http://dashboard.virginiadot.org/">http://dashboard.virginiadot.org/</a> for statewide and district wide compliance percentages on a rolling 12 month basis.

**BMP 4.3: New Product Evaluation Protocol**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 6/05	Develop New Product Evaluation Protocol	CO/Dist L&D, AM, Env, Mats	<p>New product evaluation protocols for erosion and sediment control products are currently evaluated through coordinated leadership between Location and Design, Asset Management, and Materials Divisions. The new products application form is located at: <a href="http://www.virginiadot.org/business/bu-materials-New-Products-App.asp">http://www.virginiadot.org/business/bu-materials-New-Products-App.asp</a></p> <p>The list of approved erosion and sediment control materials is provided within the following document: <a href="http://www.virginiadot.org/business/resources/bu-mat-ALwlab033004.pdf">http://www.virginiadot.org/business/resources/bu-mat-ALwlab033004.pdf</a> (See erosion and sediment control items 52 through 60.)</p> <p>Please see “Changes To BMP” below.</p>
6/04 – 2/08	Continue to implement ESC product approval in partnership with the Texas Department of Transportation (TXDOT) and Texas Transportation Institute (TTI)	CO/Dist L&D, AM, Env, Mats	See additional information below.

**Changes to BMP:** VDOT’s Asset Management Division has secured an annual contract relationship through the FHWA Pooled Fund Program TPF-5(015) to partner with the Texas Department of Transportation (TXDOT) and Texas Transportation Institute (TTI) which manages an approved products field and laboratory testing facility for erosion control blankets and turf reinforcement matting (TTI Hydraulics, Sedimentation, and Erosion Control Laboratory). TXDOT/TTI also review and develop new testing protocols/procedures for a variety of stormwater related best management practices, which VDOT will have full access to during this fiscal year. VDOT is currently deferring to TXDOT/TTI’s approved products list for the erosion control blankets and turf reinforcement matting products, where potential vendors providing such materials to VDOT operations, must first submit proof of passing the testing protocols of TXDOT/TTI prior to VDOT authorizing such products usage on construction or maintenance operations. VDOT will continue this relationship and report on any new products during the next reporting cycle.

FHWA Pooled Fund Program information is located at: <http://www.pooledfund.org/projectdetails.asp?id=7&status=6>

TXDOT/TTI Program information is located at: [http://tti.tamu.edu/enviro\\_mgmt/facilities/hec/](http://tti.tamu.edu/enviro_mgmt/facilities/hec/)

**BMP 4.4: VDOT ESCCC Program**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 10/03	Develop VDOT’s Erosion and Sediment Control Contractor Certification Program.	CO AM, VDOT Learning Center	<p>The development VDOT’s Erosion and Sediment Control Certification (ESCCC) Program was completed in the fall of 2003. A partnership between VDOT and the Virginia Transportation Construction Alliance (VTCA – formerly VRTBA) was formed to successfully deliver this program to contractors, maintenance forces, and land-use permittees who disturb and stabilize land owned or operated by VDOT. Program and course information can be found on VDOT’s website at: <a href="http://www.virginiadot.org/business/pr-essce-main.asp">http://www.virginiadot.org/business/pr-essce-main.asp</a></p> <p>and on VTCA’s website at: <a href="http://www.vtca.org/">http://www.vtca.org/</a></p> <p>Certification through VDOT’s ESCCC Program is required of individuals conducting land-disturbing/stabilization activity on VDOT owned or operated property (Please see VDOT’s link above and Appendix E – VDOT ESC&amp;SWM Programs Specifications Manual within the VDOT ESC/SWM Program Manual at <a href="http://www.virginiadot.org/business/locdes/resources/VDOT2004ESC&amp;SWManual3-04.pdf">http://www.virginiadot.org/business/locdes/resources/VDOT2004ESC&amp;SWManual3-04.pdf</a> .</p> <p>An agenda of the course is provided in the Appendix.</p>
3/03 – 2/08	Continue to implement VDOT’s ESCCC Program. Report numbers of contractors, maintenance forces, and land-use permittees trained for each reporting cycle.	CO AM, VDOT Learning Center	<p>VDOT’s ESCCC Course is being delivered via a partnership with the Virginia Transportation Construction Alliance (VTCA). The first course was held on October 8, 2003. The total number of courses administered to date is 29. Course locations have included Abingdon, Appomatox, Danville, Wytheville, Roanoke, Lynchburg, Newport News, Staunton, Richmond, Charlottesville, Chesapeake, Fredericksburg, Front Royal, Leesburg, and Winchester. As of June 2005, 1514 individuals (470 of whom are VDOT maintenance personnel) have successfully completed these courses.</p> <p>Approximately 18 classes are anticipated per year.</p>

**BMP 5.1: Implementation of VDOT’s SWM Annual Program**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/08	Implement VDOT’s Comprehensive Stormwater Management Annual Program (Qualifying state program approved by VA Dept. of Conservation and Recreation) on all regulated land disturbing activities. Compile and report BMP data as required by 9VAC25-750-50, Part II.B.5. (Appendix)	CO/Dist. L&D, Env, Con, AM	<p>In a letter to VDOT, dated February 17, 2005, DCR granted an extension of approval for VDOT’s 2004 ESC &amp; SWM program specifications for the 2005 calendar year. The full text of the 2004 ESC &amp; SWM Program Specifications is on line at:</p> <p><a href="http://www.virginiadot.org/business/locdes/resources/VDOT2004ESC&amp;SWMManual3-04.pdf">http://www.virginiadot.org/business/locdes/resources/VDOT2004ESC&amp;SWMManual3-04.pdf</a></p> <p>A list of BMPs scheduled for construction during this reporting cycle is provided in the Appendix.</p> <p>Please see the Appendix for copies of all correspondence and documentation of approval.</p>

**Approval Status of Qualifying State Program:** DCR reviews VDOT’s ESC & SWM Program Specifications and Standards annually. Please see the Appendix for copies of all correspondence and documentation of approval.

**Proposed Activities:** VDOT has been collecting permanent BMP Data for many years. However, a new data collection system was needed in order to capture the specific reporting requirements of this permit. A new system was developed and was recently implemented. Future annual reports will include the specific BMP data as required.

**BMP 5.2: Update VDOT SWM Manual and Guidance**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 12/05	Evaluate, update and publish VDOT’s SWM Design Manual in collaboration with the Virginia Transportation Research Council (VTRC).	CO L&D, AM, VTRC	<p>Complete. The VTRC issued a final report in December 2004 entitled <i>VDOT Manual of Practice For Stormwater Management</i>. The document is available for download at:  <a href="http://www.virginiadot.org/vtrc/main/online_reports/pdf/05-cr5.pdf">http://www.virginiadot.org/vtrc/main/online_reports/pdf/05-cr5.pdf</a>.</p> <p>This document along with appropriate instructions will be distributed to all Districts by December 2005.</p>
1/05 – 12/05	Evaluate and update VDOT Location and Design Informational and Instructional Memorandum for Stormwater Management (IIM-195).	CO L&D, AM, VTRC	<p>Pending. An evaluation of VDOT’s SWM Informational and Instructional Memorandum 195 will be conducted. Proposed revisions and updates to IIM-195 will be submitted to DCR for review and approval within VDOT’s ESC &amp; SWM Program 2006 submittal.</p>



**BMP 5.3: Stormwater BMP Maintenance and Inspection Program**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/04	Refine Stormwater Basin Assessment data collection form, inventory, and condition assessment protocols.	CO/Dist. AM	See additional information below.
7/05 – 12/05	Develop Comprehensive VDOT SWB Management Program Manual to serve as basis for assessment/inventory, routine maintenance, minor repair, major repair/retrofit actions on VDOT stormwater basins and related facilities and develop a corresponding training program.	CO/Dist. AM	See additional information below.
9/05 - 12/05	Complete inventory and condition assessment of VDOT owned/operated SWM basins through Asset Management System	CO/Dist. AM	See additional information below.
1/05 – 1/06	Initiate and implement in-house and/or contract mechanisms and activities to ensure/return all SWM basins to a low/routine maintenance protocol.	CO/Dist. AM	See additional information below.
1/06 – 1/07	Implement comprehensive inspection and maintenance program and tracking system. Report BMP maintenance by activity and volume of material moved in accordance with Protocol.	CO/Dist. AM	Report on number of SWM basins owned and operated, current condition, and make all assessment/inspection data available upon request.  See additional information below.

**Proposed Activities:** All VDOT Districts are currently developing multi-disciplinary teams to evaluate in-house and contract approaches to inventorying and assessing all basins owned or operated by VDOT to include mechanisms for routine maintenance, minor repair, major repair, and/or retrofit to ensure basins are functioning to provide the water quality and/or water quantity benefits as originally designed or greater.

The AMS will be populated with initial data sets during the next reporting cycle to enable an automated report of accomplishments for the next reporting cycle.

**BMP 5.3: Stormwater BMP Maintenance and Inspection Program**  
**(Continued)**

A progress schedule and timeline will be developed for additional minor enhancements to the AMS, corresponding training, and inventory/assessment activities, documentation and mapping of all other BMPs (statewide) and regulated outfalls within urbanized areas will be completed during state fiscal year 2006 (by June 2006) to ensure that all related mapping and data collection requirements of Minimum Control Measure 3 of the MS-4 permit are satisfied by April 2008.

**Current Status:**

- 1) The AMS Inventory Module and Work Accomplishment Modules are now fully functional.
- 2) All Districts have been initially equipped with GIS units (PDAs and/or Tablet PCs) in order capture asset data sets and evaluate as prioritized. Minor enhancements to the AMS have been recently made to incorporate an improved comprehensive business approach to the assessment and evaluation of stormwater basins (many of which may contain regulated outfalls within urbanized areas) in order to evaluate life-cycle performance, management options, and corresponding budget planning.
- 3) Initial training program is under development to begin equipping District lead personnel at inventorying/assessing assets

**BMP 5.4: Program Evaluation and Assessment**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/04	Develop and refine a consistent process to evaluate and report on compliance with approved project specific SWM plan, permit conditions, and VDOT Annual Program.	CO/Dist Con, AM, Env	See “Changes To BMP” below.
3/04 – 2/08	Implement the ECR system on all regulated VDOT Projects.	CO/Dist Env, L&D, Con, AM	See “Changes To BMP” below.

**Changes To BMP:** BMP 5.1 enables program evaluation and assessment for the design and construction of post-construction runoff control to minimize water quality impacts. BMP 5.3 will enable evaluation and assessment of post-construction runoff control long-term operation, maintenance, and tracking of structural and non-structural BMPs; therefore BMP 5.4 is no longer appropriate and will be deleted from the next reporting cycle.

**BMP 5.5: New Product Evaluation Protocol**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 6/04  ➤ 6/03 ➤ 6/04	Develop New Product Evaluation Protocol  Establish New Product Technical Committee, including Materials Division and the Transportation Research Council. Final recommendations for New Product Evaluation Protocol	CO/Dist L&D, AM, Env, Matls, VTRC.	Please see “Changes To BMP” below.
6/04 – 2/08	Implement New Product Evaluation Protocol. Generate new product list for distribution to VDOT Districts, Residencies, VDOT contractors, and DCR.	CO/Dist L&D, AM, Env, Matls, VTRC.	Pending.

**Changes to BMP:** VDOT’s Location and Design and Asset Management Divisions have evaluated this BMP Activity after researching other states’ new product protocols. The results of this evaluation led to the conclusion that the most appropriate process for accepting new products and technologies is to contract with research or academic institutions, such as VTRC, UVA, or Virginia Tech, for support in the evaluation process. The highly technical process required to objectively evaluate the effectiveness of new products, materials, and processes that are reaching the market place easily justifies such an arrangement. The objectivity and accuracy of the evaluation process must be beyond reproach since the acceptance of a product by VDOT provides an economic benefit to the companies that manufacture and sell these products.

**Proposed Activities:** Location and Design and Asset Management Divisions will continue to coordinate a New Product Evaluation Protocol and contract process. A proposed schedule for implementation will be developed and upon completion will be submitted to DCR for approval.

**Partnership w/ or Reliance on Others:** VDOT will coordinate this effort with DCR and other local MS-4 permittees in order to share technologies and information. VDOT will also seek to gain opportunities with other state DOT’s through the partnership with TXDOT/TTI identified in BMP 4.3.

**BMP 6.1: Existing VDOT Training Programs**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/04	Establish catalogue of training programs currently available and consolidate training services through the VDOT Learning Center. Identify any gaps in the existing training program in addressing storm water related Department activities.	CO L&D, VDOT Learning Center	<p>VDOT training and certification programs have been brought under one administrative umbrella led by the VDOT Learning Center (LC). In May 2005, VDOT’s LC deployed VDOT Virtual University, the Meridian KSI Learning Management System (LMS), to support its statewide training and development efforts.</p> <p>The VDOT Virtual University, provides immediate access to both individuals and program managers to on-line catalogued training programs and resources, as well as provides the ability to track all personnel by group, course types, etc. The target date for full deployment of the VDOT Virtual University to be populated with all existing VDOT training program data related to water quality-related asset management activity is November 2005.</p> <p>In partnership with divisions involved with the Stormwater Program, the LC is also evaluating existing and new courses to incorporate into VDOT Virtual University. After the program data is fully entered, annual updates can provide a detailed tracking report of numbers of personnel and corresponding courses/certifications completed that benefit the comprehensive Stormwater Program. A brief description of those courses/certifications will be provided in the next annual report.</p>

**BMP 6.2: Develop New VDOT Training Programs**

Target Date	BMP Activity	Resp. VDOT Division	Status
3/03 – 2/05	Develop new training and education programs as needed specifically targeted towards the maintenance and upkeep of VDOT's stormwater related infrastructure, incorporating the water quality goals of this program, including (but not limited to): Automobile and Equipment Maintenance, Haz Mat Storage and Handling, Turf Management, Spill Response and Prevention, Storm Drain System Cleaning, etc.	CO L&D, AM, VDOT Learning Center	<p>The VDOT Learning Center (LC) has purchased software to support statewide development of online courses that can be loaded into the VDOT Virtual University, Meridian KSI Learning Management System (LMS). This software will enable VDOT personnel and program managers to develop new on-line training programs related specifically to the MS-4 Permit Program requirements.</p> <p>See BMP 6.4</p> <p>The Environmental staff has developed and implemented an in stream maintenance awareness training for our maintenance field forces covering 9 topics: Initiating environmental reviews and clearances, Permits for maintenance activities, Countersinking of pipe and culverts, Alternative stream stabilization measures, Erosion and Sediment Control plans, Ditch maintenance, Maintenance Disposal Areas, and Emergency Situations.</p> <p>The Environmental staff has developed and implemented a Residency Environmental Specialist Water Quality guidance Manual to provide a reference when working on water quality related issues and under environmental clearances.</p>
3/04 – 2/08	Track attendance of all VDOT personnel attending training courses	CO L&D, AM, VDOT Learning Center	Pending.

**BMP 6.3: Update VDOT Best Practices Manual for Maintenance Activities**

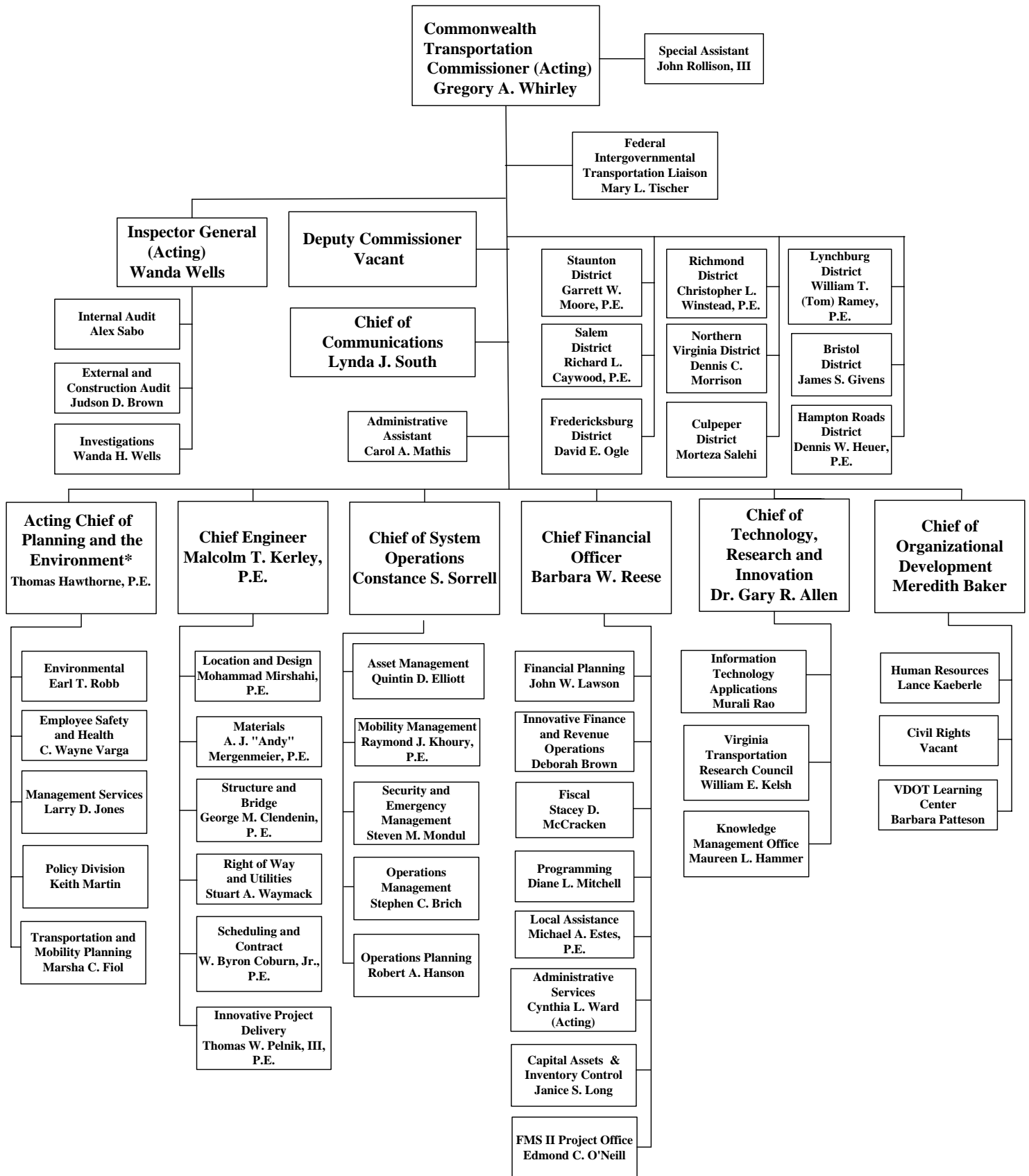
Target Date	BMP Activity	Resp. VDOT Division	Status
5/05 – 3/07	Continue to update the VDOT Best Practices Manual for Maintenance Activities as new technologies, efficiencies, and improved performance life cycle of stormwater related assets can be improved.	CO/Dist AM	Principal chapters of the VDOT Asset Management Best Practices Manual related to BMP 6.3 and VDOT’s MS-4 permit requirements include Roadside Management (Chapter 11), Drainage & Stormwater Management (Chapter 5), Hazardous Materials (Chapter 8), Snow and Ice Control (Chapter 14), and Training (Chapter 19). The manual will be finalized by January 1, 2005 for statewide usage.
3/04 – 2/06	Develop training courses on new Asset Management Best Practices Manual and implement through the VDOT Learning Center as identified in BMP 6.1. and 6.2.	CO/Dist AM, VDOT Learning Center	Pending.

**BMP 6.4: VDOT Turf Management Program**

Target Date	BMP Activity	Resp. VDOT Division	Status
10/04 – 6/06	Develop detailed and updated reference manuals for Turf Management and Nutrient Management and corresponding training materials to support the VDOT Best Practices Manual for Maintenance Activities and current Road & Bridge Specifications, Standards and corresponding construction activities.	CO/Dist AM	<p>VDOT’s Turf and Nutrient Management Program best practices are contained within Chapter 11, Roadside, of the VDOT Best Practices Manual (see BMP 6.3).</p> <p>VDOT will be finalizing the development of the pilot Turf Management Short Course and corresponding reference manual and deliver a minimum of 2 courses by June 2006.</p> <p>VDOT will also be developing a new Nutrient Management Program and corresponding training/course materials in partnership with Virginia Tech and DCR by June 2006. Corresponding training courses will be delivered during FY 2007.</p>
6/06 – 2/08	Continue to update training courses and implement through the VDOT Learning Center as identified in BMP 6.2.	CO/Dist AM, VDOT Learning Center	<p>The VDOT Learning Center (LC) has purchased software to support statewide development of online courses that can be loaded into the VDOT Virtual University, Meridian KSI Learning Management System (LMS). This software will enable VDOT personnel and program managers to develop new on-line training programs related specifically to the MS-4 Permit Program requirements.</p> <p>See BMP 6.2</p>



**Virginia Department of Transportation**  
**Organizational Structure with Manager Names**  
 07/08/05



*\*Though listed under a different working title, this position meets the statutory requirement in Section 33.1-8 of the Code of Virginia for the Commonwealth Transportation Commissioner to hire an assistant commissioner for the environment, transportation planning, and regulatory affairs*

# Appendix

- Department of Conservation and Recreation Approval Letter
- Erosion and Sediment Control Contractor Certification (ESCCC) Course Agenda
- Listing of BMP's Scheduled for Construction

W. Tayloe Murphy, Jr.  
Secretary of Natural  
Resources



Joseph H. Maroon  
Director

NOV 14 2003

**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

203 Governor Street, Suite 206

Richmond, Virginia 23219-2094

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November 14, 2003

Mr. Mohammad Mirshahi, P.E.  
Location and Design Division  
Virginia Department of Transportation (VDOT)  
1401 East Broad Street  
Richmond, Virginia 23219-2000

RE: 2004 VDOT Annual Specifications and Standards for Erosion and Sediment Control (ESC)  
and Stormwater Management (SWM) Programs

Dear Mr. Mirshahi:

The Department of Conservation and Recreation (DCR) received the draft 2004 VDOT Erosion and Sediment Control (ESC) and Stormwater Management (SWM) Specifications and Standards on September 15, 2003. In accordance with § 10.1-564 of the Virginia ESC Law and § 10.1-603.5 of the Virginia SWM Law, DCR has completed the initial review and conditionally approves the 2004 VDOT ESC and SWM Specifications and Standards contingent upon resolution of the comments listed below:

1. Submit the 2004 Outlet Protection Schedule of Milestones for developing additional guidelines, specifications, and design procedures.
2. Submit a schedule for preparing a specification that includes a permanent pollution prevention message for use on appropriate stormwater drainage structures.
3. Correct the DCR Certified Contractors figure shown in Section I, B.1 on page 2, and paragraph 2 of page 3. Also, please note that DCR is not requiring class-room training for VDOT contractors as a part of the 2004 VDOT ESC and SWM Specifications and Standards.
4. Submit draft procedures for approving deviations from the 2004 VDOT ESC and SWM Specifications and Standards and include these procedures as part of the Fulfillment Flowchart contained in Appendix F.

Mr. Mohammad Mirshahi, P.E.  
Page 2 of 2  
November 14, 2003

5. Submit fertilizer specifications and rates for review in accordance with VDOT Special Provision S244A.

Please resubmit the draft 2004 VDOT ESC and SWM Specifications and Standards with a response to the above comments by January 30, 2004. In addition, you should be aware that no variances or exceptions are being considered as a part of this draft submittal.

Thank you for your draft submission and continued efforts to conserve and protect Virginia's precious natural resources.

Sincerely,

*Original Signiture on File*

 Jack E. Frye  
Soil and Water Conservation Division Director

cc: Roy Mills, VDOT  
Emmett R. Heltzel, P.E. VDOT  
Joe Battiata, P.E. VDOT  
Jake Porter, VDOT  
Stuart Wilson, DCR  
Lee Hill, DCR  
Larry Gavan, DCR

TABLE 1

## 2004 VDOT Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications

VDOT Annual Plan Appendix	VDOT Document	VDOT Document Sections	Current Date	DCR Approved	DCR Conditionally Approved	Notes	Pending internal VDOT Approval
Appendix F	ESC & SWM Plan Development/Implementation Process	ESC/SWM/VPDES Fulfillment Flowchart	Feb. 11, 2004	<input checked="" type="checkbox"/>		New item based on 11/14/03 comments	
Appendix F	ESC & SWM I&IM	IIM-LD-11.24 ESC - Revised	Jan 29, 2004	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Appendix F	ESC & SWM I&IM	IIM-LD-73.3 Riprap	Jan 24, 1991	<input checked="" type="checkbox"/>			
Appendix F	ESC & SWM I&IM	IIM-LD-110.16 General Notes	Nov. 21, 2003	<input checked="" type="checkbox"/>			
Appendix F	ESC & SWM I&IM	IIM-LD-121.14 Pipe Criteria and Drainage Instructions	April 5, 2001	<input checked="" type="checkbox"/>			
Appendix F	ESC & SWM I&IM	IIM-LD-122.11 Roadside Development - Revised	Jan 29, 2004	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Appendix F	ESC & SWM I&IM	IIM-LD-166.3 Soil Stabilization Mat	Mar 22, 1996	<input checked="" type="checkbox"/>			
Appendix F	ESC & SWM I&IM	IIM-LD-173 Construction Access	July 10, 1987	<input checked="" type="checkbox"/>			
Appendix F	ESC & SWM I&IM	IIM-LD-195.5 Management of Stormwater	Mar 27, 2002	<input checked="" type="checkbox"/>			
Appendix F	ESC & SWM I&IM	IIM-LD-221 Storm Sewer Design	July 7, 1998	<input checked="" type="checkbox"/>			
Appendix F	ESC & SWM I&IM	IIM-LD-228 Sinkholes	Aug 15, 2002	<input checked="" type="checkbox"/>			
Appendix G	VDOT Road Design Manual	Appendix A, pages A105-A140	unknown	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	EC-1	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	EC-2	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	EC-3	2004	<input checked="" type="checkbox"/>		Std. 114.03	<input checked="" type="checkbox"/>
Appendix H	Road & Bridge Standards	EC-4	2002	<input checked="" type="checkbox"/>			

TABLE 1							
2004 VDOT Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications							
VDOT Annual Plan Appendix	VDOT Document	VDOT Document Sections	Current Date	DCR Approved	DCR Conditionally Approved	Notes	Pending internal VDOT Approval
Appendix H	Road & Bridge Standards	EC-5	2003	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	EC-6	2003	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	EC-7	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	EC-8	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	EC-9	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	Roadside Development Sheet - a4	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	EC Summary - a5	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	Temp. Sediment Trap Detail - a6	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	Temp. Diversion Channel & Acceptable Linings	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	ESC-INS Sheet 1	2004	<input checked="" type="checkbox"/>		Std. 115.01	<input checked="" type="checkbox"/>
Appendix H	Road & Bridge Standards	ESC-INS Sheet 2	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	ESC-INS Sheet 3	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	PG-3 - Standard Rip Rap Ditch & Slope Protection	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	SWM-1 (Cast-In-Place)	2002	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	SWM-1 (Precast)	2003	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	SWM-DR - Sheet 1	2003	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	SWM-DR - Sheet 2	2003	<input checked="" type="checkbox"/>			

TABLE 1							
2004 VDOT Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications							
VDOT Annual Plan Appendix	VDOT Document	VDOT Document Sections	Current Date	DCR Approved	DCR Conditionally Approved	Notes	Pending internal VDOT Approval
Appendix H	Road & Bridge Standards	SWM-DR - Sheet 3	2003	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	SWM-DR - Sheet 4	2003	<input checked="" type="checkbox"/>			
Appendix H	Road & Bridge Standards	SWM-DR - Sheet 5	2003	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division I	Sec. 101 - Definitions	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division I	Sec. 103 - Award and Execution	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division I	Sec. 104 - Scope of Work	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division I	Sec. 105 - Control of Work	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division I	Sec. 106 - Control of Material	2003	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division I	Sec. 107 - Legal Relations & Public Responsibility	2003	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division I	Sec. 108 - Prosecution & Progress of Work	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division II	Sec. 203 - Coarse Aggregate	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division II	Sec. 204 - Stone for Masonry, Riprap, Porous Backfill, and Gabions	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division II	Sec. 240 - Lime	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division II	Sec. 244 - Roadside Development Materials	2003	<input checked="" type="checkbox"/>			

TABLE 1							
2004 VDOT Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications							
VDOT Annual Plan Appendix	VDOT Document	VDOT Document Sections	Current Date	DCR Approved	DCR Conditionally Approved	Notes	Pending internal VDOT Approval
Appendix I	Road & Bridge Specifications - Division II	Sec. 245 - Geosynthetics	2003	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division III	Sec. 301 - Clearing & Grubbing	2003	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division III	Sec. 302 - Drainage Structures	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division III	Sec. 303 - Earthwork	2003	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division IV	Sec. 401 - Structure Excavation	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division IV	Sec. 402 - Sheet Piles	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division IV	Sec. 403 - Dismantling & Removing Structures	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division IV	Sec. 414 - RipRap	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division IV	Sec. 415 - Concrete Slope Protection	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division IV	Sec. 418 - Timber Structure	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division V	Sec. 501 - Underdrains	2003	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division V	Sec. 506 - Retaining Walls	2002	<input checked="" type="checkbox"/>			



TABLE 1							
2004 VDOT Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications							
VDOT Annual Plan Appendix	VDOT Document	VDOT Document Sections	Current Date	DCR Approved	DCR Conditionally Approved	Notes	Pending internal VDOT Approval
Appendix I	Road & Bridge Specifications - Division V	Sec. 511 - Allaying Dust	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division V	Sec. 512	2003	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division V	Sec. 520 - Water & Sanitary Sewer Facilities	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division VI	Sec. 602 - Topsoil	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division VI	Sec. 603 - Seeding	2002		<input checked="" type="checkbox"/>	Pending revisions per DCR/VDOT	
Appendix I	Road & Bridge Specifications - Division VI	Sec. 604 - Sodding	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division VI	Sec. 605 - Planting	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division VI	Sec. 606 - Soil Retention Coverings	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division VI	Sec. 607 - Herbicide Spraying	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division VI	Sec. 608 - Mowing	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division VI	Sec. 609 - Tree Wells & Tree Walls	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications - Division VI	Sec. 610 - Gabions	2002	<input checked="" type="checkbox"/>			
Appendix I	Road & Bridge Specifications Special Provisions & Copied Notes - May 2003 Advertisement	c101a, c303c, S107F, S107G, S303E	May 2003	<input checked="" type="checkbox"/>		New Items	

TABLE 1							
2004 VDOT Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications							
VDOT Annual Plan Appendix	VDOT Document	VDOT Document Sections	Current Date	DCR Approved	DCR Conditionally Approved	Notes	Pending internal VDOT Approval
Appendix I	Road & Bridge Specifications Special Provisions & Copied Notes - May 2003 Advertisement	c100b, c105c, c301a, c512c, S106A, S107D, S244A, S245A, S303A, S303C, S303E, S501B	Nov 2003	<input checked="" type="checkbox"/>		New Items	
Appendix J	Erosion and Sediment Control Inspection Forms, Related Construction Forms & Memoranda	C-107a&b, C-10, C-12, C-18a, C-26, C-36i, C36, C-45, C-5, C- 54, C-83, C-84, CD-2002-9	varies	<input checked="" type="checkbox"/>		New Items	
Appendix K	VDOT Stormwater Management Maintenance Program	SWM Facilities Maintenance Program	2002	<input checked="" type="checkbox"/>		Previously Conditionally Approved	

TABLE 1							
2004 VDOT Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications							
VDOT Annual Plan Appendix	VDOT Document	VDOT Document Sections	Current Date	DCR Approved	DCR Conditionally Approved	Notes	Pending internal VDOT Approval
Appendix K	VDOT Stormwater Management Maintenance Program	SWM Basin Maintenance Inspection Checklist	2002	<input checked="" type="checkbox"/>		Previously Conditionally Approved	
Appendix L	Environmental Compliance Report Form	ECR Page 1-2	2002	<input checked="" type="checkbox"/>			
Appendix N	Pending Special Provisions	S107F - Stormwater Pollution Prevention Plan	unknown	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Separate Cover	VDOT Drainage Manual	Chapter 6	2002	<input checked="" type="checkbox"/>			
Separate Cover	VDOT Drainage Manual	Chapter 7	2002	<input checked="" type="checkbox"/>			
Separate Cover	VDOT Drainage Manual	Chapter 8	2002		<input checked="" type="checkbox"/>	Sections re: Outlet Protection	
Separate Cover	VDOT Drainage Manual	Chapter 10	2002	<input checked="" type="checkbox"/>			
Separate Cover	VDOT Drainage Manual	Chapter 11	2003	<input checked="" type="checkbox"/>			

<b>TABLE 2</b>				
<b>2003 VDOT Annual ESC and SWM Standards and Specifications</b>				
<b>Conditionally Approved Items and Final Approval Dates from DCR</b>				
<b>VDOT ESC and SWM Program Manual</b>	<b>VDOT Document</b>	<b>Document Sections</b>	<b>Document Sections Revised</b>	<b>DCR Approval Date</b>
Appendix K	VDOT Stormwater Management Maintenance Program	SWM Facilities Maintenance Program	Complete Document - Development of VDOT Stormwater Maintenance Program	11/14/2003
Appendix K	VDOT Stormwater Management Maintenance Program	SWM Basin Maintenance Inspection Checklist	Complete Document - Development of VDOT Stormwater Maintenance Program. In the interim, the VA SWM Handbook to be utilized for inspection and maintenance.	11/14/2003
Separate Cover	VDOT Drainage Manual	Chapter 6	Hydraulic Design Advisory - Table 6-1 to reflect 10-year recurrence interval for the design of culverts on Minor Arterial, Collector, and Local Roads	11/14/2003
Separate Cover	VDOT Drainage Manual	Chapter 8	1) Outlet Protection - 6-month study to compare the differences between VDOT and DCR standards; 2) Hydraulic Design Advisory Section 8.3.2.1 to reflect 10-year recurrence interval for the design of culverts on Minor Arterial, Collector, and Local Roads	11/14/2003

**TABLE 3**  
**2004 VDOT Annual ESC and SWM Standards and Specifications**  
**Conditionally Approved Items and Anticipated Submittal Dates to DCR**

<b>VDOT ESC and SWM Program Manual</b>	<b>VDOT Document</b>	<b>Document Sections</b>	<b>Document Sections to be Revised</b>	<b>Anticipated Submittal Date to DCR</b>	<b>DCR Approval Date</b>
Appendix F, Appendix H	VDOT Drainage Manual, VDOT R&B Standards	Chapter 8, EC-1, Std. 114.01	Criteria for the design of riprap outlet protection and energy dissipators	Final Draft due September 15, 2004	
Appendix H	VDOT R&B Standards	Select Curb inlet, Drop Inlet and Yard Drain Standards	Develop Standard Details and/or specifications for the inclusion of an anti-pollution message for select inlet structures.	Final Draft due September 15, 2004	
Appendix I	VDOT R&B Specifications	Section 603 Seeding	Revise R&B Specification 603 to correspond to DCR Technical Bulletin	Submittal date to be coordinated with DCR as per collaborative research initiative.	



W. Tayloe Murphy, Jr.  
Secretary of Natural  
Resources

Joseph H. Maroon  
Director

**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

203 Governor Street, Suite 206

Richmond, Virginia 23219

Phone: (804) 786-2064 Fax: (804) 786-1798

February 17, 2005

Mr. Mohammad Mirshahi, P.E.  
State Location and Design Engineer  
Virginia Department of Transportation  
1401 East Broad Street  
Richmond, Virginia 23219

RE: 2005 VDOT Annual Standards and Specifications for Erosion and Sediment  
Control and Stormwater Management Programs

Dear Mr. Mirshahi:


This letter is in response to your January 4, 2005 letter requesting that the approved 2004 Virginia Department of Transportation's (VDOT) Standards and Specifications for Erosion and Sediment Control and Stormwater Management Programs be extended for calendar year 2005. The Department of Conservation and Recreation (DCR) will grant the extension for the 2004 standards and specifications for calendar year 2005 until the re-organized VDOT teams can successfully resolve the three outstanding issues from the 2004 standards and specifications. The three outstanding issues are: Outlet Protection Policy; Pollution Prevention Messages on Stormwater Structures; and Nutrient Management Policy. This approval will not extend beyond December 31, 2005.

DCR staff wants to meet with the appropriate VDOT team to discuss the three outstanding issues and the June 29, 2004 Memorandum from Malcolm T. Kerley, P.E. regarding erosion and sediment control certification in accordance with Section 107.14(a) of the 2004 Road and Bridge Specifications. DCR believes that the memorandum does not adequately address the training and certification requirements of the Erosion and Sediment Control Law and we believe revisions are necessary to Section 107.14 and the memorandum to adequately address VDOT's training needs. I have designated Lee Hill

as the DCR contact to coordinate the meeting. Please contact Lee at (804) 786-3998 or by email at [lcc.hill@dcr.virginia.gov](mailto:lcc.hill@dcr.virginia.gov) to establish a date for the meeting.

We look forward to working with the VDOT teams on the outstanding issues and any other issues related to the standards and specifications.

Sincerely,



Jack E. Frye, Division Director  
Soil and Water Conservation

cc: Malcolm T. Kerley, P.E.  
Constance Sorrell  
Jeffrey Southard  
W. Byron Coburn, P.E.  
Quintin Elliott  
Brian Waymack  
Earl Robb  
Emmett R. Heltzel, P.E.  
Roy Mills  
Joseph G. Battiata, P.E.  
Lee Hill  
Eric Capps  
Larry Gavan



# **VTCA/VDOT Erosion and Sediment Control Contractor Certification (ESCCC)**

## **Course Agenda**

- 8:00 - 8:20 Session 1: ESCCC Program Introduction & Overview (:20)
- 8:20 - 9:00 Session 2: Principles of Highway Construction Erosion and Sediment Control (:40)
- 9:00 - 9:10 BREAK
- 9:10 - 10:10 Session 3: ESC & SWM Regulations & VSMP Construction Permit (1:00)
- 10:10 - 10:20 BREAK
- 10:20 - 11:30 Session 4: Road & Bridge Specifications & Special Provisions (1:10)
- 11:30 - 12:30 LUNCH
- 12:30 - 2:00 Session 5: Road & Bridge Standards (1:30)
- 2:00 - 2:15 BREAK
- 2:15 - 3:15 Session 6: Special Provision 107 (S-107, C-45 & C-107) (1:00)
- 3:15 - 3:45 Break, Exam Handout, Examination Instructions, Photo ID Check
- 3:45 - 4:45 Session 7: Examination

Please note, the VDOT ESCCC course, materials, and presentations do not constitute local, state, federal, or VDOT permit, plan, or contract authorization or approval. Please refer to project or operation specific policies, documents, permits, plans and contracts in order to ensure full compliance with laws, regulations, and contract requirements while working on VDOT property or under VDOT authority.

ESCCC Course Agenda, v.5.





Report 05-Jul-05

PROJECT NUMBER:

0028-029-115, C501

PPMS: RTE:

64966 28

COUNTY

DISTRICT

NOVA

**Remarks:**

PPTA Project

**FACILITIES**

LOC/STA:	TYPE FACILITY:	STORAGE VOLUME:	WATERSHED NAME:
Ramp F Sta. 14+25 Rt. <b>REMARKS/MONITOR</b>	Dry Pond	2.59 AC.	Flatlick Branch
Ramp H Sta. 17+50 Rt. <b>REMARKS/MONITOR</b>	Dry Pond	3.78 AC.	Flatlick Branch
Rte. 28 Sta. 141+75 Rt. <b>REMARKS/MONITOR</b>	Dry Pond	3.1 AC.	Flatlick Branch

Report 05-Jul-05

PROJECT NUMBER:

0066-076-113, C507

PPMS: RTE:

16000 66

COUNTY

DISTRICT

NOVA

Remarks:

### FACILITIES

LOC/STA:	TYPE FACILITY:	STORAGE VOLUME:	WATERSHED NAME:
EB I66 / 54+20 RT. REMARKS/MONITOR	Dry Pond	3.65 AC.	YONNG'S BRANCH
EB I66 / 67+60 RT. REMARKS/MONITOR	Dry Pond	1.9 AC.	YOUNG'S BRANCH
WB I66 / 44+80 LT. REMARKS/MONITOR	Dry Pond	2.64 AC.	YOUNG'S BRANCH

Report 05-Jul-05

PROJECT NUMBER:

6234-076-111, C502

PPMS: RTE:

3790 234

COUNTY

DISTRICT

NOVA

Remarks:

### FACILITIES

LOC/STA:	TYPE FACILITY:	STORAGE VOLUME:	WATERSHED NAME:
600+50 LT. <b>REMARKS/MONITOR</b>	Dry Pond	16135 CU.	QUANTICO CREEK
666+80 LT. <b>REMARKS/MONITOR</b>	Dry Pond	9792 CU.	QUANTICO CREEK
704+50 RT. <b>REMARKS/MONITOR</b>	Dry Pond	6691 CU.	QUANTICO CREEK
709+00 RT. <b>REMARKS/MONITOR</b>	Dry Pond	13099 CU.	QUANTICO CREEK
741+00 LT. <b>REMARKS/MONITOR</b>	Dry Pond	22947 CU.	QUANTICO CREEK
746+50 LT. <b>REMARKS/MONITOR</b>	Dry Pond	5832 CU.	QUANTICO CREEK
771+50 RT. <b>REMARKS/MONITOR</b>	Dry Pond	46012 CU.	QUANTICO CREEK

Total Project CU.

Total Project

Page 3 of 3

**Hydrologic Unit: L54**

**Catagory: E**

<b>Type:</b>	<b>Drainage AreaTreated (Acres)</b>	<b>Impervious Area Treated (Acres)</b>	<b>Disturbed Area (Acres)</b>	<b>Stream Name:</b>
Manufactured (Filtering) BMP	20	1.54	0	Jones Creek
<b>Catagory Totals:</b>	<b>20</b>	<b>1.54</b>	<b>0</b>	
<b>Hydrologic Unit Totals:</b>	<b>20</b>	<b>1.54</b>	<b>0</b>	

### Chesapeake Bay Watershe

	<b>Total Acres Treated:</b>	<b>Total Impervious acres treated</b>
<b>BMP Category A</b>	188.67	8.9
<b>BMP Category B</b>	569.66	130
<b>BMP Category C</b>	65.58	16.79
<b>BMP Category E</b>	16.7	6.85
<b>Watershed Totals</b>	<b>840.61</b>	<b>162.54</b>

### Southern Rivers Albemarle & Currituck Watershe

	<b>Total Acres Treated:</b>	<b>Total Impervious acres treated</b>
<b>BMP Category E</b>	20	1.54
<b>Watershed Totals</b>	<b>20</b>	<b>1.54</b>

### Virginia Statewide

<b>Total Acres Treated:</b>	<b>Total Impervious</b>
<b>860.61</b>	<b>164.08</b>