Virginia Department of Transportation

Pollutant Discharge Elimination System

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

Serving the

Urbanized Areas of Virginia

March 8, 2003

Virginia Department of Transportation
Location and Design Division
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TABLE OF CONTENTS

Executive Summary 1
Regulated Small MS4: 1
Regulated Small MS4 Operator (Permitee): 1
Receiving Waters: 1
Responsible VDOT Personnel: 2
Certification 3
Area of Coverage 4
Evaluation, Assessment, and Annual Reporting 4
VDOT Stormwater Management Program 5
Minimum Control Measure 1: Public Education and Outreach on Stormwater Impacts 5
Minimum Control Measure 2: Public Involvement/Participation 8
Minimum Control Measure 3: Illicit Discharge Detection and Elimination 10
Minimum Control Measure 4: Construction Site Stormwater Runoff Control 13
Minimum Control Measure 5: Post Construction Stormwater Management in New Development and Redevelopment 15
Minimum Control Measure 6: Pollution Prevention/Good Housekeeping for Municipal Operations 18

Appendix 1: Urban Area Maps.

Appendix 2: VDOT Organization.

Appendix 3: VDOT ESC and SWM Qualifying State Program Approval Letter.
VDOT SWM Program and Manual Update Proposal from the VTRC.

Appendix 4: 9 VAC 25 750-10 et seq.: General Virginia Pollutant Discharge Elimination System Permit Regulation.

Executive Summary

The General Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) requires the Virginia Department of Transportation (VDOT) to develop and implement a comprehensive stormwater management (SWM) program consistent with the Virginia General Permit (9 VAC 25-10 et seq.). This program is designed to reduce the discharge of pollutants to the maximum extent practicable, from storm sewer systems owned and/or operated by VDOT, within the Urban Areas of Virginia (as defined by Urban Area Maps, Appendix 1).

VDOT's SWM Program is presented here in the form of six minimum control measures as required by the Virginia General Permit. This program has been developed with a statewide implementation strategy since VDOT operates MS4s (or components of MS4s) within the public right-of-ways statewide. VDOT currently satisfies some of the minimum control measure requirements through the implementation of existing qualifying state programs and existing VDOT policies and procedures on a statewide basis. This registration statement includes the development of a process for documenting existing efforts, developing new programs, policies, and procedures as needed, and establishing an evaluation and assessment process.

Regulated Small MS4:

All those MS4s within the Urbanized Areas of Virginia under the operational control of the Virginia Department of Transportation.

Regulated Small MS4 Operator (Permitee):

The Virginia Department of Transportation District Headquarters
District Administrator *(Refer to Page 3 for listing of each District, District Administrator, and corresponding Urban Area.)*

Receiving Waters: The receiving waters for the VDOT MS4s are as follows:

Bristol Urban Area: Holston River;
Kingsport Urban Area: Holston River;
Blacksburg Urban Area: New River, and Roanoke River;
Roanoke Urban Area: Roanoke River;
Danville Urban Area: Roanoke River;
Lynchburg Urban Area: James River, and Roanoke River;
Harrisonburg Urban Area: Shenandoah/Potomac River;
Winchester Urban Area: Potomac River;
Charlottesville Urban Area: James River;
Northern Virginia Urban Area: Potomac River
Fredericksburg Urban Area: Potomac River and Rappahannock River,
Richmond Urban Area: York River, James River, and Chowan River; and

Hampton Roads Urban Area: James River, York River, Chesapeake Bay, and Albemarle Sound; and named and un-named tributaries to these waters.

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. The nine VDOT Districts operate under the supervision of the Chief Engineer of Operations, Mr. C. Frank Gee, P.E. Each VDOT District will serve as the Permitee for the designated Urban Area(s) within their respective area of coverage. Central Office will serve to provide the initial program development and guidance, as well as the long-term program assessment and annual reporting. However, the Districts will be responsible for the implementation of many of the day-to-day operational activities related to permit compliance with ongoing programmatic support from VDOT Central Office. (The Central Office Organizational Chart is provided in Appendix 2)

While the Central Office organization covers all administrative and, in many cases, operational areas of the statewide road building and maintenance program, each District, in general, houses the same *operational* Division personnel: Public Affairs, Location & Design, Asset Management, Construction, and Environmental Division staff. Additional Central Office Divisions identified in this program include: the VDOT Learning Center, the Virginia Transportation Research Council, and VDOT's Information Technology Division.

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: **C. Frank Gee, P.E.** Title: **Chief Engineer of Operations**

Signature: **Signature on file with DEQ** Date: **March 6, 2003**

Signed for the following District Administrators:

Daniel H. Marston
District Administrator, Bristol District
Kingsport Urban Area
Bristol Urban Area

Donald R. Askew, P.E.
District Administrator, Culpeper District
Charlottesville Urban Area

Dennis C. Morrison
District Administrator, Staunton District
Harrisonburg Urban Area
Winchester Urban Area

Fred C. Altizer, Jr, P.E.
District Administrator, Salem District
Blacksburg Urban Area
Roanoke Urban Area

Thomas F. Farley
District Administrator, Northern Virginia District
Washington, D.C./Northern Virginia Urban Area

Thomas A. Hawthorne, P.E.
District Administrator, Richmond District
Richmond Urban Area

William T. Ramey, P.E.
District Administrator, Lynchburg District
Lynchburg Urban Area
Danville Urban Area

Jane S. Wimbush
District Administrator, Hampton Roads District
Virginia Beach Urban Area

David E. Ogle
District Administrator, Fredericksburg District
Fredericksburg Urban Area

Area of Coverage

This registration statement covers MS4s owned and/or operated by VDOT located within the Urban Areas of Virginia. In general, the VDOT District Headquarters exercise 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. The specific area of coverage is shown on the Urban Area Maps provided in **Appendix 1**.

There are some exceptions to the areas of coverage as shown on the Urban Area Maps. **The Fredericksburg District will be responsible for implementation of this program within the Urban Area of Stafford County and Gloucester County.** *(The Urban Area Maps show the northern portion of Stafford County as part of the Northern Virginia Urban Area, and the Urban Area of Gloucester County as part of the Hampton Roads Urban Area.)* **Similarly, the Salem District will be responsible for implementation of this program within the Urban Area of Bedford County**. *(The Urban Area Maps show the northeast portion of Bedford County as part of the Lynchburg Urban Area.)* A more detailed identification and description of the MS4s under each VDOT District's operational control will be developed as part of the mapping efforts outlined in Minimum Control Measure 3: Illicit Discharge Detection and Elimination.

Evaluation, Assessment, and Annual Reporting

Several existing reporting systems related to active construction and other land disturbing activities are in place and will support, in part, the requirements of this program. However, additional reporting and tracking systems are necessary to compile a comprehensive annual report. Such a report will provide VDOT with the necessary data to continually assess manpower and resource needs associated with full compliance of all the minimum control measures. A comprehensive reporting system will be developed to track appropriate asset management efforts related to illicit discharge inspection, drainage system inspection and maintenance, including ditches, culverts, pipe systems, and SWM basins, and roadside turf management. A tracking mechanism will be created for VDOT's Public Affairs activities related to the interaction and education of the general public. Similarly, existing and proposed mandatory and voluntary VDOT training programs that support the *good housekeeping* initiatives of the permit will be linked to the reporting system through the VDOT Learning Center and the VDOT Academy for Maintenance Training. Finally, the existing reporting and tracking systems for ESC and SWM compliance on active construction projects, and SWM BMP construction, inspection, and maintenance, will be evaluated and modified as needed to provide the specific information required by the permit.

Several of these activities are already in the planning phase in an effort to not only document compliance, but also to correlate project level compliance with expenditures during and after construction. While one of the goals a comprehensive reporting system is to document permit compliance, the primary goal of developing such a system will be to support a continual economic assessment of VDOT's design, construction, and asset management activities to ensure the long-term success of VDOT's SWM program.

VDOT Stormwater Management Program

The VDOT Stormwater management program is provided 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 of the Best Management Practices (BMPs) that VDOT proposes to implement for each of these minimum control measures is provided below. Each BMP description includes a schedule of development and implementation in the form of measurable goals. The VDOT Division or Section responsible for each BMP activity is provided in the accompanying tables.

The VDOT divisions identified as responsible for portions of this permit program include the Office of Public Affairs, Location and Design Division (L&D), Construction Division (Con), Environmental Division (Env), and Asset Management Division (AM). These Divisions exist in both the Central Office and within each District. VDOT Central Office staff will serve to develop program-wide policies and procedures, including implementation, reporting, and assessment tools, in collaboration with District personnel. Each District will generally be responsible for program implementation within the specific Urban Areas. VDOT Central Office staff will provide ongoing support to the Districts as well as develop the required annual reports. Many of these BMP activities are already being accomplished, or are under development.

Minimum Control Measure 1: Public Education and Outreach on Stormwater Impacts

Requirement: Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater runoff on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff. Appendix 2 provides additional information on the capabilities and resources available through the VDOT Office of Public Affairs.

BMP 1.1 – Watershed Signage

Justification: VDOT's primary interaction with the general public occurs within the traveling right-of-way, offering the unique opportunity of reaching out to citizens that may not live within the urban areas targeted by this program, yet who travel in or around these areas on a daily basis. VDOT will develop a watershed sign program in coordination with local governments and the Virginia Department of Conservation and Recreation's Adopt-A-Stream Program. The Adopt-a-Stream program is very similar in function to VDOT's

Adopt-a-Highway program. Further, the Adopt-a-Highway program has recognized the Fall River Renaissance as a partnering activity.

DCR's Adopt-a-Stream program currently provides cost-share funding to install educational signs along select roadways at stream, creek, or tributary crossings. These signs identify the water body by name as an aquatic resource. The installation of these signs has been a joint effort between VDOT, DCR, and local governments. In order to continue this partnership, as well as streamline the sign contract and installation process, VDOT will develop standards and specifications for sign design and placement within VDOT's Land Use Permit requirements. Developing these standards will allow each District to work directly with the partnering local governments as well as other interested organizations on the installation of appropriate watershed signs.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/04	Develop Land-Use Permit guidance for the placement of watershed signs through partnership with DCR Adopt-a-Stream Program (location within R/W, printed message, size, contract and permit provisions, etc.).	CO/Dist AM
➢ 5/03 ➢ 6/03 ➢ 10/03	Establish Land-Use Permit Advisory Committee. Convene committee and meet monthly. Make final recommendations to Dept. management for adoption.	
6/03 – 10/03	Develop watershed sign tracking system within the Adopt-a-Highway tracking system.	CO/Dist AM, Public Affairs
3/04 – 2/08	Install watershed signs in partnership with DCR and Local governments. Track and report sign placement for each District.	CO/Dist AM

BMP 1.2 – Educational Video

Justification: VDOT takes locally designed and built subdivision streets and drainage systems into the state system. However, VDOT does not take into the system any accompanying stormwater basins designed to treat the runoff from the roads and adjacent residential and/or commercial development. As this permit spreads stormwater management requirements into areas of the state previously unregulated, more basins will be built. These basins are routinely turned over to the property owner(s) once construction is complete. Property owners are often unfamiliar with their responsibilities for maintenance. As routine maintenance is neglected, these facilities fall into disrepair no longer serve to treat stormwater runoff. VDOT is currently working with DCR in partnership with several Phase II jurisdictions to produce a video on stormwater BMP maintenance, targeted at both residential and commercial owners of stormwater BMPs.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/05 ➢ 4/03 ➢ 10/03 ➢ 1/04	Develop educational video on stormwater impacts and stormwater BMPs in partnership with DCR. Establish Video Workgroup and develop work plan Final Frame-Board script. Begin/contract video production.	CO/Dist, L&D, Public Affairs
3/05 – 2/08	Distribute Educational Video to local governments and Citizens Groups statewide for further distribution. Track number of videos distributed.	CO/Dist L&D

BMP 1.3 – Public Service Announcements

Justification: VDOT proposes to partner with local governments in the education of the citizens within their respective jurisdictions. A primary goal in any public education or mass media outreach effort is to minimize the potential for conflicting messages. Likewise, since the urban areas are centered around population centers with single mass media outlets, the public education and outreach efforts should be a coordinated and/or shared responsibility among all local governments and political jurisdictions within each urban area. VDOT serves as a common denominator among the Phase II jurisdictions statewide. This approach will allow VDOT to provide services or support in partnership with regional outreach efforts to provide a consistent message.

VDOT will utilize market research conducted in conjunction with the Adopt-a-Highway Program, as well as outreach strategies conducted in other states to guide the development of PSAs.

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

Minimum Control Measure 2: Public Involvement/Participation

Requirement: Comply with State public notice requirements when developing a stormwater management plan.

BMP 2.1: VDOT Public Involvement and Participation Program

Justification: VDOT conducts several types of public meetings to involve the public in the location and design process of roadway projects. These meetings include Citizen Information Meetings, Location Public Hearings, Design Public Hearings, and Combined Location and Design Hearing. In cases where the need for a public hearing is not well established, a Notice of Willingness is published to determine the level of public interest and/or questions regarding the project. Approximately 130 meetings/hearings are conducted annually, with an average audience of 100 people at each meeting. VDOT projects often involve a wide range of environmental programs. Participation in these public meetings will likely be a shared responsibility between District and Central Office Environmental and Location & Design staff.

Target Date	BMP Activity	Responsible VDOT Dept.
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 L&D, Env

BMP 2.2: VDOT Participation in Local Government Watershed Planning

Justification: VDOT's stormwater management plan is developed through an interactive process with the Department of Conservation and Recreation. This plan includes criteria for the selection and placement of stormwater BMPs on qualifying VDOT projects. In many cases VDOT is asked by local governments to participate in the locally adopted stormwater management program and/or regional (watershed-wide) plan. This will facilitate cooperation on a watershed scale in developing project specific stormwater management plans that are consistent with local watershed initiatives.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/08	Participate in locally adopted (DCR approved) regional (watershed-wide) stormwater planning and implementation.	CO/Dist L&D, Env
➢ 6/03	Establish formal contact with local governments within Urban Area.	
➢ 10/03	Identify all local DCR approved SWM Programs, distribute local program requirements to District.	

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

BMP 2.3: VDOT Participation in Watershed Organizations

Justification: Participation in watershed organizations and local government technical advisory committees will provide an opportunity to for VDOT to ensure that provisions for linear development are incorporated into local watershed planning. This will facilitate the development of economical and effective project specific stormwater management strategies.

Target Date	BMP Activity	Responsible VDOT Dept.
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

BMP 2.4: VDOT Adopt-a-Highway Program

Justification: VDOT's Adopt-a-Highway program has registered 6,444 groups and individuals maintaining 14,368 miles of roadway statewide. This public participation program has also been extremely successful at educating the traveling public as documented by a reduced number of bags of trash per mile along the same roadway.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/08	Enhance the connection between the Adopt-a-Highway and Adopt-a-Stream programs.	CO/Dist L&D, AM, Public Affairs
3/03 – 2/08	Implement the VDOT Adopt-a-Highway program. Identify those activities occurring within the Urban Areas.	CO/Dist AM,

BMP 2.5: Storm Drain Stenciling

Justification: Many watershed groups, including DCR's Adopt-a-Stream program identified earlier, promote the education and participation of the citizens through a popular program that stencils an environmental message onto storm drain inlets. These messages are simple and to the point – *"Don't Dump – Drains to the ____ River"*. VDOT will develop formal guidance, and standards and specifications to insure that stenciling of VDOT structures is conducted in a safe manner, with environmentally appropriate paint materials, and an appropriate message.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/04	Develop formal guidance and specifications for storm drain stenciling of storm drain inlets and catch basins within VDOT right-of-ways. ➢ 5/03 Establish AM Workgroup consisting of CO and Dist AM staff. ➢ 6/03 Convene workgroup, meet monthly. ➢ 10/03 Make final recommendations to Dept. management for adoption.	CO/Dist, AM
3/04 – 2/08	Track all storm drain stenciling within Asset Management data system.	CO/Dist, AM

Minimum Control Measure 3: Illicit Discharge Detection and Elimination

Requirement: Develop, implement, and enforce a program to detect and eliminate illicit discharges into VDOT's storm sewer system.

BMP 3.1: Storm sewer system map.

Justification: The first step in implementing a program to detect illicit discharges into storm sewer systems is to locate the system outfall and, if possible, identify the contributing system. VDOT will develop a storm drain system map, specifically locating major outfalls and the connected drainage systems within the Urban area. Coordination with local zoning maps will identify those outfalls accepting discharge from industrial zoned land. This mapping system will be derived from existing VDOT data and mapping efforts.

Major Outfalls are defined as:

- Inside diameter of 36 inches or greater; or
- Discharge from a single conveyance other than circular pipe having a contributing drainage area of 50 acres or greater; or
- Inside diameter of 12 inches or greater from lands zoned for industrial activity; or
- Discharge from a single conveyance other than circular pipe having a contributing drainage area of 2 acres or greater from lands zoned for industrial activity.

- Major outfalls **do not include:**
- Open conveyances connecting 2 MS4s; and
- Pipes, tunnels, or other conveyances that connect segments of the same stream or other surface waters and are used to convey surface waters, i.e.; culverts.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/04	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.	CO/Dist, AM
➢ 5/03	Establish Workgroup consisting of CO and Dist AM staff.	
➢ 6/03	Evaluate VDOT mapping resources; Contact/survey local government mapping resources.	
➢ 10/03	Compile mapping data; Identify and document gaps in mapping.	
➢ 2/04	Final recommendations for mapping of VDOT MS4 systems and outfalls.	
3/03 – 2/04	Develop mapping protocol with which to locate and map all remaining components of the regulated MS4 (as defined by appropriate asset groups) not captured previously.	CO/Dist, AM
➢ 5/03	Establish Workgroup consisting of CO and Dist AM staff.	
➢ 2/04	Final recommendations for mapping and data collection protocol.	
3/04 – 2/05	Implement supplemental mapping within each Urban Area in accordance with mapping and data collection protocol. Document progress in terms of % of total required mapping.	CO/Dist, AM
➢ 2/05	Provide each District with complete map and data management systems to locate components of the regulated MS4.	

BMP 3.2: Illicit Discharge Detection Program

Justification: VDOT currently maintains drainage systems within the VDOT Right of way in accordance with the 1994 Maintenance Policy Manual. This maintenance program will be evaluated and updated to provide comprehensive statewide guidance on all inspection and maintenance activities related to any drainage/stormwater infrastructure (Asset Groups 1 and 2). The VDOT Maintenance Policy will be expanded to include an illicit discharge inspection, documentation, and tracking protocol.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/04	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. ➢ 5/03 Establish Workgroup consisting of CO and Dist AM, L&D, and Env staff. ➢ 6/03 Convene Workgroup, meet monthly. ➢ 2/04 Final recommendations for AM Illicit Discharge Inspection Protocol.	CO/Dist, AM and Env.
3/04 – 2/05	Develop and implement training for Illicit Discharge Inspection and Detection procedures.	CO/Dist, AM, Env, VDOT Learning Center
3/04 – 2/08	Implement Illicit Discharge Inspection protocol to document inspections of 25% (minimum) of the major outfalls per year.	Dist AM

BMP 3.3: Illicit Discharge Prohibition

Justification: VDOT's responsibilities for the enforcement of illicit discharges are limited to those discharges that originate within the right-of-way. VDOT currently implements a hazardous material spill protocol for spills and/or accidents within the public right-of-way that includes a combination of public safety (routing of traffic) and the notification of the appropriate Public Safety officials and DEQ, in accordance with permit conditions. For those illicit discharges that originate outside of the right-of-way, VDOT will develop and implement a protocol for identifying the location at which the discharge enters the right-of-way, and contacting the appropriate local government and DEQ officials, in accordance with permit requirements. Further, all Land Use Permits (required for all drainage connections into the VDOT right-of-way) will explicitly prohibit illicit discharges.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/04	Develop and coordinate protocols for illicit discharge notification and documentation. Coordinate with existing Hazardous Material Spill Response protocol. ➢ 5/03 Establish Workgroup consisting of CO and Dist AM, L&D, and Env staff. ➢ 6/03 Convene Workgroup, meet monthly. ➢ 2/04 Final recommendations for Illicit Discharge Notification and Response Protocol.	CO/Dist. AM and Env
3/03 – 2/04	Amend Land Use Permit Special Conditions (MP-63) to explicitly prohibit all illicit discharges as defined by DEQ.	CO AM
3/04 – 2/08	Develop and implement training for Illicit Discharge Inspection and Detection procedures.	CO/Dist., AM, Env, VDOT Learning Center
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.

Minimum Control Measure 4: Construction Site Stormwater Runoff Control

Requirement: Develop, implement and enforce a program to reduce pollutants in storm water runoff from construction activities that result in land disturbance of greater than or equal to one acre. Construction activities of less than one acre must be included if in the program if that construction activity is part of a larger common plan of development.

BMP 4.1: Implementation of VDOT's Erosion and Sediment Control Annual Plan

Justification: The VDOT Erosion and Sediment Control (ESC) Annual Plan, approved by the Department of Conservation and Recreation, in general, satisfies this minimum control measure as a qualifying State Program by requiring Construction Site Stormwater Pollution Prevention Plans on all construction and maintenance activities disturbing more than 10,000 sq.ft. (2,500 sq.ft. in Tidewater, VA). Appendix 3 provides the Conditional Approval Letter from DCR, dated 12/16/02, and the schedule for achieving full approval. Attachment 1 provides the full text of the VDOT ESC & SWM Annual Plan. Provisions for control of construction site waste and the treatment of off-site borrow and fill areas currently exist within the approved Annual Plan. The annual plan ensures that all regulated projects will be in compliance with the State ESC and SWM Laws and

Regulations, as well as the conditions of the VPDES Construction Activity Permit and this Permit.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/08 ➢ 6/03	Implement VDOT's Comprehensive Erosion and Sediment Control Annual Plan (Qualifying state program approved by VA Dept. of Conservation and Recreation) on all regulated land disturbing activities. Submit conditionally approved sections of Annual Plan to DCR for final approval as outlined in Appendix 3.	CO/Dist. L&D, Env, Con, AM
3/03 – 2/08	Track total number of land disturbing activities and total disturbed acreage.	CO/Dist. L&D, Con,

BMP 4.2: Program Evaluation, Assessment, and reporting Procedures

Justification: An Environmental Compliance Review System was recently developed in anticipation of VPDES Permit requirements as well as other program evaluation needs. This system allows VDOT Environmental monitors and Residency Specialists to report project compliance review data to a central database. This database provides a real time assessment of the compliance on any project being inspected, and will provide the basis for annual assessment reports.

Target Date	BMP Activity	Responsible VDOT Dept.
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 Plan.	CO ENV.
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, Const. AM

BMP 4.3: New Product Evaluation Protocol

Justification: New ESC products are being developed faster than VDOT or ESC trade organizations can evaluate them. At the same time there is increasing pressure to increase efficiency and decrease costs while maintaining compliance on VDOT projects. VDOT will establish a New Product Evaluation Protocol in collaboration with the International Erosion Control Association (IECA) with which to evaluate new products on a consistent basis. This protocol will include the sharing of information with other state DOTs.

Target Date	BMP Activity	Responsible VDOT Dept.
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, Materials Div, VTRC.
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, Materials Div, VTRC.

BMP 4.4: VDOT ESCCC Program

Justification: Continue the development of VDOT's Erosion and Sediment Control Contractor Certification (ESCCC) Program to improve compliance on VDOT projects.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/04	Develop VDOT's Erosion and Sediment Control Contractor Certification Program.	CO ENV., VDOT Learning Center
3/03 – 2/08	Implement VDOT's ESCCC Program. Report numbers of contractors trained	VDOT Learning Center

Minimum Control Measure 5: Post Construction Stormwater Management in New Development and Redevelopment

Requirement: 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, including projects that are less than one acre that are part of a larger common plan of development or sale.

BMP 5.1: Implementation of VDOT's SWM Annual Plan

Justification: The VDOT SWM Annual Plan approved by the Department of Conservation and Recreation, in general, satisfies this minimum control measure as a qualifying State Program. **Appendix 3** provides the Conditional Approval Letter from DCR, dated 12/16/02, and the schedule for achieving full approval. **Attachment 1** provides the full text of the VDOT ESC & SWM Annual Plan. The annual plan ensures that all regulated

projects will be in compliance with the State ESC and SWM Laws and Regulations, as well as the conditions of the VPDES Construction Activity Permit and this Permit.

Updates to the Annual Plan are necessary to reflect innovative structural and non-structural stormwater management practices (BMPS), guidance on compensatory treatment strategies, and provisions for evaluating these and other innovative options for compliance with the Virginia Stormwater Management Law and Regulations, and the VDOT Annual Plan. Appendix 3 also includes the work plan for the Virginia Transportation Research Council to provide the technical support for updating the SWM Annual Plan

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/08 ➢ 6/03	Implement VDOT's Comprehensive Stormwater Management Annual Plan (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 4) Submit conditionally approved sections of Annual Plan to DCR for final approval as outlined in Appendix 3.	CO/Dist. L&D, Env., Const., AM

BMP 5.2: Update VDOT SWM Manual and Guidance

Justification: VDOT's SWM Program (Annual Plan) was recently updated to comply with the latest changes in the VA SWM Law and Regulations (1998). New technologies, emphasis on water quality, and increasing pressure on road construction in densely populated areas have created the need for additional changes in a very short period of time. The technology of urban stormwater management is continuing to change on an increasing rate. VDOT, therefore, proposes to update its SWM Manual and Informational and Instructional Memorandum to reflect these new and innovative approaches. Appendix 3 provides a general outline of the VTRC proposal to update the VDOT Program.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/05	Evaluate and update VDOT's SWM Manual and Informational and Instructional Memorandum, in collaboration with the Virginia Transportation research Council. (See Appendix 3 for the VTRC Proposal)	CO L&D, AM, VTRC

BMP 5.3: Stormwater BMP Maintenance and Inspection Program

Justification: VDOT will develop a comprehensive SWM facility inspection and maintenance policy and tracking system in conjunction with Asset Management BMP Maintenance Program. This will replace the existing maintenance policy and become part of the VDOT SWM Annual Plan and will be reviewed and approved by DCR upon completion.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/04	Develop and implement a comprehensive inspection and maintenance program and tracking system in coordination with Asset Management Division.	CO/Dist. L&D, AM, VTRC, Env
➢ 3/03	Establish Workgroup consisting of CO and Dist AM, L&D, and Env staff; meet twice per month.	
➢ 10/03	Final recommendations for BMP Maintenance and Maintenance Tracking Program Protocol.	
3/04 – 2/08	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

BMP 5.4: Program Evaluation and Assessment

Justification: An Environmental Compliance Review (ECR) System was recently developed in anticipation of VPDES Permit requirements as well as other program evaluation needs. This system allows VDOT Environmental monitors and Residency Specialists to report project compliance review data to a central database. This database provides a real time assessment of the compliance on any project being inspected, and will provide the basis for annual assessment reports.

Target Date	BMP Activity	Responsible VDOT Dept.
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 Plan.	CO/Dist Con, AM, Env
3/04 – 2/08	Implement the ECR system on all regulated VDOT Projects.	CO/Dist. ENV, L&D, Const. AM

BMP 5.5: New Product Evaluation Protocol

Justification: New SWM products are being developed faster than VDOT or SWM trade organizations can evaluate them. At the same time there is increasing pressure to increase efficiency and decrease costs while maintaining compliance on VDOT projects. VDOT will establish a New Product Evaluation Protocol with which to evaluate new products on a consistent basis. This protocol will include the sharing of information with other state DOTs.

Target Date	BMP Activity	Responsible VDOT Dept.
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, Materials Div, VTRC.
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, Materials Div, VTRC.

Minimum Control Measure 6: Pollution Prevention/Good Housekeeping for Municipal Operations

Requirement: 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.

BMP 6.1: Existing VDOT Training Programs

Justification: This BMP calls for the cataloguing of existing VDOT training courses related to municipal operations. The existing VDOT training program is housed within the newly developed VDOT Learning Center. This center serves as a clearing house of all VDOT training efforts, as well as to track each employee's participation. Once all of the existing training courses have been identified, VDOT will determine what types of courses will be added to meet the needs of the VPDES Permit program, such as Illicit Discharge Inspection training for Asset Management staff. In addition, existing training efforts will be updated to meet any new policies and procedures established by this program, such as policies for hazardous material handling and storage, spill response, fleet management, and other practices.

Target Date	BMP Activity	Responsible VDOT Dept.
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 water quality related asset management activities.	CO L&D, VDOT Learning Center

BMP 6.2: Develop New VDOT Training Programs

Justification: This BMP continues the efforts described in BMP 6.1 above. New training will be developed, and existing training enhanced to include the water quality goals of this program.

Target Date	BMP Activity	Responsible VDOT Dept.
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
3/04 – 2/08	Track attendance of all VDOT personnel attending training courses	

BMP 6.3: Update VDOT Best Practices Manual for Maintenance Activities

Justification: The reorganization of the Asset Management Division will provide new focus on all assets related to the maintenance of the stormwater/drainage infrastructure (Asset Groups 1 and 2). This includes pipes, culverts, catch basins, stormwater management basins, and roadside turf management. Specific guidance on the proper care of these assets with the goal of improved water quality will be developed and implemented, as well as the related training (noted above) to assist in the implementation.

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/05	Update the VDOT Best Practices Manual for Maintenance Activities.	CO/Dist AM
➢ 5/03	Establish VDOT Task Force representing the District maintenance forces and CO staff; meet twice monthly. Evaluate and recommend revisions and improvements to the existing Maintenance Policy.	
➢ 9/04	Final recommendations.	
➢ 2/05	Transition new maintenance procedures to District AM staff.	
3/04 – 2/05	Develop training courses on new Maintenance Policy and implement through the VDOT Learning Center as identified in BMP 6.2.	CO/Dist AM, VDOT Learning Center

BMP 6.4: VDOT Turf Management Program

Justification: VDOT maintains the one of the largest total acreages of turf grass in Virginia. Maintenance of roadside vegetation is typically a reaction to failing vegetation or excessive vegetation. (In some cases, fixing one problem can lead directly to another – excessive fertilizer use on bare or eroding areas can soon create the need for mowing. This BMP proposes to examine the current VDOT policies on turf management and update as needed to economize expenditures and, most importantly, reduce the runoff of excess nutrients into the drainage system (and ultimately, the receiving aquatic resource).

Target Date	BMP Activity	Responsible VDOT Dept.
3/03 – 2/04	Update the VDOT Best Practices Manual for Maintenance Activities to include Turf Management Practices.	CO/Dist AM
➢ 5/03	Establish VDOT Task Force representing the District maintenance forces and CO staff; meet twice monthly. Evaluate and recommend revisions and improvements to the existing turf management Maintenance Policy.	
➢ 12/03	Final recommendations.	
➢ 2/04	Transition new maintenance procedures to District AM staff.	
3/04 – 2/08	Develop training courses on new Maintenance Policy and implement through the VDOT Learning Center as identified in BMP 6.2.	CO/Dist AM, VDOT Learning Center

Appendix 1

URBAN AREA MAPS

Please see http://coweb/LocDes/Drainage-Hydraulics/vpdes.htm

Appendix 2

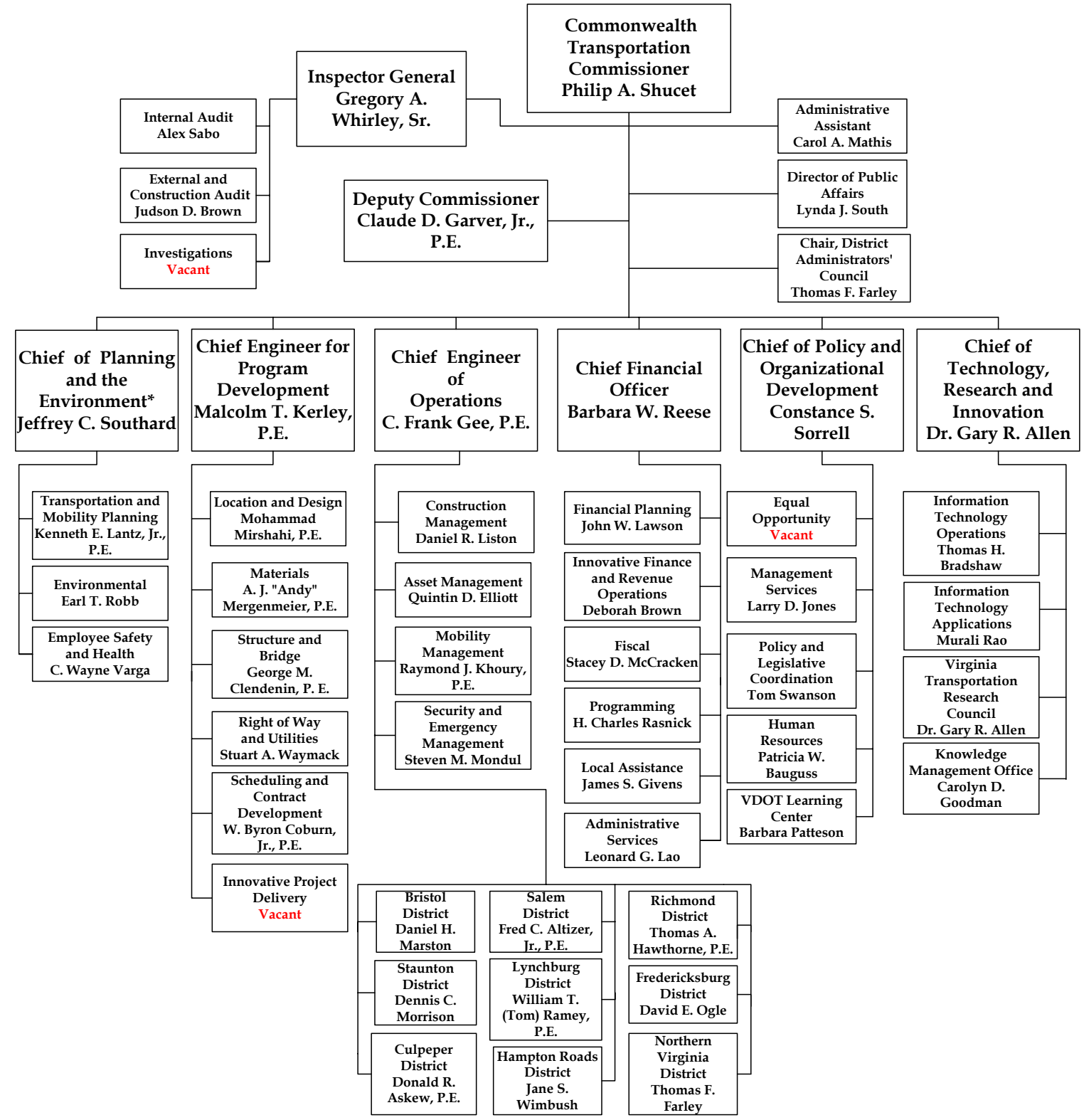
VDOT Organization

- VDOT Organizational Chart
- VDOT Public Involvement Policy
- VDOT Office of Public Affairs

Virginia Department of Transportation

Organizational Structure with Manager Names

2/7/03



**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*

VDOT Public Involvement Policy

It is the policy of the Virginia Department of Transportation (VDOT) to consider a wide range of factors, including possible adverse economic, social, and environmental effects, in the development of a project.

It is VDOT's desire that final decisions on any project be in the best overall public interest, taking into consideration the need for safe and efficient transportation, public services, and the costs of eliminating or minimizing adverse effects.

This policy is in accordance with Policy Memorandum DPM 1-11 and shall apply to all proposed highway projects of VDOT, regardless of the system or funding involved. The Federal Highway Administration (FHWA) has endorsed this policy for use on all Federal-aid highway projects.

Mission

Our mission is to ensure that highway locations and designs are consistent with federal and state laws and local goals and objectives. The policies and procedures of our section are intended to give full opportunity for coordination and participation by the public before the final approval of highway locations and designs. We support and encourage the free and open discussion of controversial issues and concerns before development of the final design has reached a point that it is impractical to make extensive modifications.

Section Profile

The section assists the District and Central Office Design Staffs in supporting the Departments policy of considering a wide range of factors, including possible adverse economic, social, and environmental effects, in the development of a project.

Final decisions on any project must be in the best overall public interest, taking into consideration the need for safe and efficient transportation, public services, and the costs of eliminating or minimizing adverse effects.

This policy is in accordance with Federal Regulation 23 CFR 771.111(h) and 23 USC 128, Section 33.1-18 of the Highway Laws of Virginia, Virginia Department of Transportation Policy Memorandum DPM 1-11 and shall apply to all proposed highway projects of VDOT, regardless of the system or funding involved. The Federal Highway Administration (FHWA) has endorsed this policy for use on all Federal-aid highway projects.

Projects administered or developed by others that will be funded by federal and/or state funds must meet the Departments guidelines for public participation.

Citizen Information Meeting

A Citizen Information meeting is an opportunity for the public to review, in an informal setting, the ongoing development of a project.

Public Hearing

A public hearing is a well-publicized opportunity for VDOT to present its studies and policies while receiving and documenting comments from the public on each proposal concerning engineering, social, economic, and environmental factors and effects resulting from each possible VDOT course of action.

Location Public Hearing

A Location Public Hearing is held before VDOT is committed to a specific route on new location for projects that are determined to have different solutions for their general location, type of facility necessary, or transportation mode. The final determination of need for a Location Public Hearing is made by the State Location and Design Engineer upon careful evaluation of public interest and the concurrence of FHWA on Federal-aid projects. This type of hearing is held when preliminary engineering studies are of sufficient detail to indicate relative cost differences between the alternatives and the feasibility of their construction based on environmental studies and general engineering practices.

Design Public Hearing

A Design Public Hearing is held after a route location is approved by the Commonwealth Transportation Board but before VDOT is committed to a specific design. This type of hearing is held after a project field inspection is held and plans are completed to a stage that all right of way limits/lines (including easements), construction limits, and major design features are shown on the plans and identified clearly. Existing property lines, property owners, buildings, and other topographical data allow easy identification of impacts to properties. Alternate proposals on major design features are presented.

Combined Location and Design Hearing

A Combined Location and Design Public Hearing is held for a project that is determined not to have feasible alternative solutions for the general location, type of facility necessary, transportation mode, and where there is no major concern about the need for the project. Project plans are normally at the same stage of completion as for a Design Public Hearing. Alternative design features may be presented at this type of hearing.

Notice of Willingness

Requirements for a public hearing may be satisfied by a well-publicized Notice of a Willingness to hold a public hearing. The status of the project is in accordance with the opportunity being given (location, design, or combined location and design). An opportunity to review the project plans and other information is given in this procedure. A public hearing is held if a written request is made and contact by VDOT cannot resolve the questions and concerns.

VDOT Office of Public Affairs

Central & District Offices

The Office of Public Affairs in Richmond's Central Office, along with public affairs offices in the nine VDOT districts, provides a vital communications link to Virginia citizens on the broad range of transportation issues.

Central Office Public Affairs is made up of six sections including the primary office for statewide media and public relations. The graphics, video, visual and Web sections support statewide public affairs as well as internal projects.

Each district office has public affairs staff members who handle local media relations and community outreach efforts.

Appendix 3

VDOT Qualifying State Program

- VDOT ESC and SWM Annual Plan Approval
- Proposed SWM Program Manual Update – Virginia Transportation Research Council

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 23219-2094
Phone (804) 786-2064 FAX: (804) 786-1798 TDD (804) 786-2121

December 16, 2002

Mr. C.F. Gee, Chief of Operations
Mr. Malcolm T. Kerley, Chief Engineer for Program Development
Virginia Department of Transportation (VDOT)
1401 East Broad Street
Richmond, Virginia 23219-2000

RE: 2003 VDOT Annual Specifications and Standards for Erosion and Sediment Control (ESC) and Stormwater Management (SWM) Programs

Dear Mr. Gee and Mr. Kerley:

On behalf of the Virginia Soil and Water Conservation Board, the Department of Conservation and Recreation (DCR) has completed its review of the 2003 VDOT Erosion and Sediment Control (ESC) and Stormwater Management (SWM) Specifications and Standards. In accordance with § 10.1-564 of the Virginia ESC Law and § 10.1-603.5 of the Virginia SWM Law, DCR has determined that the revised 2003 VDOT ESC and SWM Specifications and Standards received on November 25, 2002, are conditionally approved, effective the date of this letter.

The attached Table 1 denotes the appropriate VDOT documents that comprise the 2003 VDOT ESC and SWM Specifications and Standards. The table summarizes the approved documents and conditionally approved documents as of December 12, 2002. The conditionally approved items are approved contingent upon the items being revised and reviewed by the specified dates (Table 2).

All regulated land disturbing activities undertaken by VDOT between January 1, 2003 – December 31, 2003, must be conducted in accordance with the approved 2003 VDOT ESC and SWM Specifications and Standards.

In accordance with §4VAC50-30-30 B of the Virginia ESC Regulations and the requirements set forth in this conditional approval, project specific ESC plans must be prepared and adhered to ensure proper on site implementation of ESC measures. Likewise, in accordance with § 4VAC3-20-220 of the Virginia SWM Regulations, individual stormwater management plans must be prepared for each state project as required.

Please be advised that DCR is currently reviewing Technical Bulletin #2, Hydrologic Modeling and Design in Karst, further discussion and potential modifications will involve collaboration between VDOT and DCR.

Please note that Chapters 6 and 8 of the VDOT Drainage Manual are conditionally approved provided a Hydraulic Design Advisory is posted by January 31, 2003 and the revisions to Chapter 6 and 8 of the VDOT Drainage Manual are posted on the VDOT website by March 31, 2003.

Please provide 10 CDs of the 2003 VDOT ESC and SWM Specification and Standards (including the attached DCR approval table) to be distributed to DCR Watershed Offices.

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

Sincerely,

Jack E. Frye

Jack E. Frye
Soil and Water Conservation Division Director

Enclosure (s):

cc: Mr. Roy Mills, VDOT
Mr. Jim Barrett, VDOT
Mr. Jake Porter, VDOT
Mr. Stuart Wilson, DCR
Mr. Larry Gavan, DCR
Ms. Kelly Ramsey, DCR

TABLE 1 2003 VDOT Annual Erosion an Sediment Control and Stormwater Management Standards and Specifications					
VDOT Annual Plan Appendix	**VDOT Document**	**VDOT Document Sections**	**Current Date**	**DCR Approved**	**DCR Conditionally Approved**
Appendix F	ESC & SWM I&IM	IIM-LD-11.22 ESC	May 11, 1995		☑
Appendix F	ESC & SWM I&IM	IIM-LD-73.3 Riprap	Jan 24, 1991	☑	
Appendix F	ESC & SWM I&IM	IIM-LD-110.14 General Notes	Aug 20, 2002	☑	
Appendix F	ESC & SWM I&IM	IIM-LD-121.14 Pipe Criteria and Drainage Instructions	April 5, 2001	☑	
Appendix F	ESC & SWM I&IM	IIM-LD-122.10 Roadside Development	Mar 4, 2002	☑	
Appendix F	ESC & SWM I&IM	IIM-LD-166.3 Soil Stabilization Mat	Mar 22, 1996	☑	
Appendix F	ESC & SWM I&IM	IIM-LD-173 Construction Access	July 10, 1987	☑	
Appendix F	ESC & SWM I&IM	IIM-LD-195.5 Management of Stormwater	Mar 27, 2002		☑
Appendix F	ESC & SWM I&IM	IIM-LD-221 Storm Sewer Design	July 7, 1998	☑	
Appendix F	ESC & SWM I&IM	IIM-LD-228 Sinkholes	Aug 15, 2002	☑	
Appendix G	VDOT Road Design Manual	Appendix A, pages A105-A140	unknown	☑	
Appendix H	Road & Bridge Standards	EC-1	2002	☑	
Appendix H	Road & Bridge Standards	EC-2	2002	☑	
Appendix H	Road & Bridge Standards	EC-3	2002	☑	
Appendix H	Road & Bridge Standards	EC-4	2002	☑	
Appendix H	Road & Bridge Standards	EC-5	2002		☑
Appendix H	Road & Bridge Standards	EC-6	2002		☑

TABLE 1 2003 VDOT Annual Erosion an Sediment Control and Stormwater Management Standards and Specifications					
VDOT Annual Plan Appendix	**VDOT Document**	**VDOT Document Sections**	**Current Date**	**DCR Approved**	**DCR Conditionally Approved**
Appendix H	Road & Bridge Standards	EC-7	2002	☑	
Appendix H	Road & Bridge Standards	EC-8	2002	☑	
Appendix H	Road & Bridge Standards	EC-9	2002	☑	
Appendix H	Road & Bridge Standards	Roadside Development Sheet - a4	2002	☑	
Appendix H	Road & Bridge Standards	EC Summary - a5	2002	☑	
Appendix H	Road & Bridge Standards	Temp. Sediment Trap Detail - a6	2002	☑	
Appendix H	Road & Bridge Standards	Temp. Diversion Channel & Acceptable Linings	2002	☑	
Appendix H	Road & Bridge Standards	ESC-INS Sheet 1	2002		☑
Appendix H	Road & Bridge Standards	ESC-INS Sheet 2	2002	☑	
Appendix H	Road & Bridge Standards	ESC-INS Sheet 3	2002	☑	
Appendix H	Road & Bridge Standards	SWM-1	2002		☑
Appendix H	Road & Bridge Standards	SWM-DR	2002		☑

TABLE 1 2003 VDOT Annual Erosion an Sediment Control and Stormwater Management Standards and Specifications					
VDOT Annual Plan Appendix	**VDOT Document**	**VDOT Document Sections**	**Current Date**	**DCR Approved**	**DCR Conditionally Approved**
Appendix I	Road & Bridge Specifications - Division I	Sec. 101 - Definitions	2002	☑	
Appendix I	Road & Bridge Specifications - Division I	Sec. 103 - Award and Execution	2002	☑	
Appendix I	Road & Bridge Specifications - Division I	Sec. 104 - Scope of Work	2002	☑	
Appendix I	Road & Bridge Specifications - Division I	Sec. 105 - Control of Work	2002	☑	
Appendix I	Road & Bridge Specifications - Division I	Sec. 106 - Control of Material	2002		☑
Appendix I	Road & Bridge Specifications - Division I	Sec. 107 - Legal Relations & Public Responsibility	2002		☑
Appendix I	Road & Bridge Specifications - Division I	Sec. 108 - Prosecution & Progress of Work	2002	☑	
Appendix I	Road & Bridge Specifications - Division II	Sec. 203 - Coarse Aggregate	2002	☑	
Appendix I	Road & Bridge Specifications - Division II	Sec. 204 - Stone for Masonry, Riprap, Porous Backfill, and Gabions	2002	☑	
Appendix I	Road & Bridge Specifications - Division II	Sec. 240 - Lime	2002	☑	
Appendix I	Road & Bridge Specifications - Division II	Sec. 244 - Roadside Development Materials	2002		☑
Appendix I	Road & Bridge Specifications - Division II	Sec. 245 - Geosynthetics	2002		☑
Appendix I	Road & Bridge Specifications - Division III	Sec. 301 - Clearing & Grubbing	2002		☑
Appendix I	Road & Bridge Specifications - Division III	Sec. 302 - Drainage Structures	2002	☑	

TABLE 1 2003 VDOT Annual Erosion an Sediment Control and Stormwater Management Standards and Specifications					
VDOT Annual Plan Appendix	**VDOT Document**	**VDOT Document Sections**	**Current Date**	**DCR Approved**	**DCR Conditionally Approved**
Appendix I	Road & Bridge Specifications - Division III	Sec. 303 - Earthwork	2002		☑
Appendix I	Road & Bridge Specifications - Division IV	Sec. 401 - Structure Excavation	2002	☑	
Appendix I	Road & Bridge Specifications - Division IV	Sec. 402 - Sheet Piles	2002	☑	
Appendix I	Road & Bridge Specifications - Division IV	Sec. 403 - Dismantling & Removing Structures	2002	☑	
Appendix I	Road & Bridge Specifications - Division IV	Sec. 414 - RipRap	2002	☑	
Appendix I	Road & Bridge Specifications - Division IV	Sec. 415 - Concrete Slope Protection	2002	☑	
Appendix I	Road & Bridge Specifications - Division IV	Sec. 418 - Timber Structure	2002	☑	
Appendix I	Road & Bridge Specifications - Division V	Sec. 501 - Underdrains	2002		☑
Appendix I	Road & Bridge Specifications - Division V	Sec. 506 - Retaining Walls	2002	☑	
Appendix I	Road & Bridge Specifications - Division V	Sec. 511 - Allaying Dust	2002	☑	
Appendix I	Road & Bridge Specifications - Division V	Sec. 512	2002		☑
Appendix I	Road & Bridge Specifications - Division V	Sec. 520 - Water & Sanitary Sewer Facilities	2002	☑	
Appendix I	Road & Bridge Specifications - Division VI	Sec. 602 - Topsoil	2002	☑	
Appendix I	Road & Bridge Specifications - Division VI	Sec. 603 - Seeding	2002	☑	
Appendix I	Road & Bridge Specifications - Division VI	Sec. 604 - Sodding	2002	☑	

TABLE 1 2003 VDOT Annual Erosion an Sediment Control and Stormwater Management Standards and Specifications					
VDOT Annual Plan Appendix	**VDOT Document**	**VDOT Document Sections**	**Current Date**	**DCR Approved**	**DCR Conditionally Approved**
Appendix I	Road & Bridge Specifications - Division VI	Sec. 605 - Planting	2002	☑	
Appendix I	Road & Bridge Specifications - Division VI	Sec. 606 - Soil Retention Coverings	2002	☑	
Appendix I	Road & Bridge Specifications - Division VI	Sec. 607 - Herbicide Spraying	2002	☑	
Appendix I	Road & Bridge Specifications - Division VI	Sec. 608 - Mowing	2002	☑	
Appendix I	Road & Bridge Specifications - Division VI	Sec. 609 - Tree Wells & Tree Walls	2002	☑	
Appendix I	Road & Bridge Specifications - Division VI	Sec. 610 - Gabions	2002	☑	
Appendix K	VDOT Stormwater Management Maintenance Program	SWM Facilities Maintenance Program	2002		☑
Appendix K	VDOT Stormwater Management Maintenance Program	SWM Basin Maintenance Inspection Checklist	2002		☑
Appendix L	Environmental Compliance Report Form	ECR Page 1-2	2002	☑	
Appendix N	Pending Special Provisions	104.06 - Cleanup	unknown	☑	
Appendix N	Pending Special Provisions	106.01 -Source of Supply and	unknown	☑	
Appendix N	Pending Special Provisions	107.13 - Responsibility of Damages	unknown	☑	
Appendix N	Pending Special Provisions	107.14 (b) 1 Water - Dewatering	unknown	☑	
Appendix N	Pending Special Provisions	107.14 - Environmental Stipulation	unknown	☑	

TABLE 1 2003 VDOT Annual Erosion an Sediment Control and Stormwater Management Standards and Specifications					
VDOT Annual Plan Appendix	**VDOT Document**	**VDOT Document Sections**	**Current Date**	**DCR Approved**	**DCR Conditionally Approved**
Appendix N	Pending Special Provisions	245.03 (d) Testing and Documentation	unknown	☑	
Appendix N	Pending Special Provisions	303.03 Erosion & Siltation Control	unknown	☑	
Separate Cover	VDOT Drainage Manual	Chapter 6	2002		☑
Separate Cover	VDOT Drainage Manual	Chapter 7	2002	☑	
Separate Cover	VDOT Drainage Manual	Chapter 8	2002		☑
Separate Cover	VDOT Drainage Manual	Chapter 10	2002	☑	
Separate Cover	VDOT Drainage Manual	Chapter 11	2002		☑

TABLE 2

2003 VDOT Annual ESC and SWM Standards and Specifications

Conditionally Approved Items and Anticipated Submittal Dates to DCR

VDOT ESC and SWM Program Manual	VDOT Document	Document Sections	Document Sections to be Revised	Anticipated Submittal Date to DCR
Appendix F	ESC & SWM I&IM	IIM-LD-11.22 ESC	Complete Document	January 31, 2003
Appendix F	ESC & SWM I&IM	IIM-LD-195.X Management of Stormwater	Complete Document	January 31, 2003
Appendix H	Road & Bridge Standards	EC-5	Complete Document	January 31, 2003
Appendix H	Road & Bridge Standards	EC-6	Complete Document	January 31, 2003
Appendix H	Road & Bridge Standards	ESC-INS Sheet 1	Complete Document	January 31, 2003
Appendix H	Road & Bridge Standards	SWM-1	Riser Structure Detail - 6-month study to compare different in-fill alternatives relative to mosquito breeding area concerns	June 30, 2003
Appendix H	Road & Bridge Standards	SWM-DR	Riser Structure Detail - 6-month study to compare different in-fill alternatives relative to mosquito breeding area concerns	June 30, 2003
Appendix I	Road & Bridge Specifications - Division I	Sec. 106 - Control of Material	106.03, 106.04, 106.08	January 31, 2003
Appendix I	Road & Bridge Specifications - Division I	Sec. 107 - Legal Relations & Public Responsibility	107.13, 107.14	January 31, 2003
Appendix I	Road & Bridge Specifications - Division II	Sec. 244 - Roadside Development Materials	244.02	January 31, 2003
Appendix I	Road & Bridge Specifications - Division II	Sec. 245 - Geosynthetics	245.01, 245.02, 245.03	January 31, 2003
Appendix I	Road & Bridge Specifications - Division III	Sec. 301 - Clearing & Grubbing	301.01, 301.02	January 31, 2003
Appendix I	Road & Bridge Specifications - Division III	Sec. 303 - Earthwork	303.03, 303.04, 303.06, 305.03	January 31, 2003
Appendix I	Road & Bridge Specifications - Division V	Sec. 501 - Underdrains	501.01, 501.02, 501.03, 501.04	January 31, 2003
Appendix I	Road & Bridge Specifications - Division V	Sec. 512	512.03	January 31, 2003
Appendix K	VDOT Stormwater Management Maintenance Program	SWM Facilities Maintenance Program	Complete Document - Development of VDOT Stormwater Maintenance Program	March 31, 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.	March 31, 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	January 31, 2003 - HAD; March 31, 2003 - Revised Drainage Manual on VDOT's website
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	1) June 30, 2003; 2) January 31, 2003 - HAD; March 312003 - Revised Drainage Manual on VDOT's website

RESEARCH PROPOSAL

A New Stormwater Management Manual for VDOT

Shaw L. Yu
Faculty Joint Appointee
Professor of Civil Engineering
University of Virginia

ABSTRACT

The current manual of practice for VDOT's planning of stormwater management was developed and published through a VTRC sponsored project in 1992. Over the past ten years there have been many changes in the federal stormwater regulations under the Clean Water Act, the Virginia Stormwater regulations, the Virginia Erosion and Sediment Control regulations. There have also been significant advances in stormwater technologies, including those associated with 'Low-impact Development (LID)', an innovative concept, as well as other best management practices (BMPs) for stormwater management. The objective of the proposed project is to revise and expand the VDOT Manual of Practice for Stormwater Management. The project will result in an updated manual that will include the most recent federal and state regulations; the latest proven erosion and sediment control techniques for during construction use; and practices for post-construction stormwater management; up to date storm water models; and most effective best management practices for highway applications. Other issues such as wetland mitigation and banking and innovative practices in other states will also be examined and information derived from these examinations will be included in the new manual where appropriate.

PROBLEM STATEMENT

VDOT is required to comply with the federal, state, and local stormwater management regulations. The federal National Pollutant Discharge Elimination System (NPDES) stormwater regulations mandate VDOT to obtain stormwater discharge permits for construction sites five acres or larger, and for its maintenance and storage facilities. The Environmental Protection Agency (EPA) has designated permitting authority to the Department of Environmental Quality (DEQ) in Virginia, which, in turn, issued a general stormwater discharge permit to VDOT pursuant to the Department's adaptation of the various stormwater best management practices (BMPs) that are described in the Stormwater Manual. The permit applies to all VDOT construction projects as well as its maintenance and storage facilities.

Since 1992, there have been many changes made to the various stormwater regulations and the associated control requirements. For example, the EPA NPDES

stormwater regulations have been expanded into a second phase. The Phase II NPDES regulations, to be mandated in 2003, reduced the size of construction sites regulated from five acres or more to one acre or more. There are also new quantitative requirements on pollutant load reductions, exemplified by the forty percent (40%) phosphorus load reduction goal proposed by the Chesapeake Bay Consortium for the protection of the Bay water quality. Such quantitative requirements impact VDOT in terms of how it should plan and design its stormwater management practices.

Over the past decade, there have also been a number of changes made to the Virginia Stormwater as well as Erosion and Sediment (E&S) Control Regulations, which are enforced by the Virginia Department of Conservation and Recreation (DCR). For example, DCR has in its stormwater management guidebook provided a list of "approved" BMP's, together with design guidelines and performance goals. Many of these BMP's were not included in the 1992 VDOT Stormwater Management Manual. Even at the local level, many changes in stormwater management practice have occurred. For example, Prince William County has called for a review of the exclusive use of detention ponds as a "standard" stormwater management BMP due to concerns of their impact on the landscape and vector control problems. Other localities are also interested in the application of new BMP technology such as bioretention and other "green" practices.

On the R & D side, significant progress has been made in the area of innovative BMP development. Many new control practices, mostly proprietary, have been invented and marketed during the past five years and more are still being developed. These practices include underground vault structures that can be installed as part of an urban drainage system. Others include buffer strips, grass swales and "rain gardens". Most recently, Prince Georges County in Maryland has been promoting the use of low impact development technology (LID) in urban stormwater management. More research will lead to the development of more sophisticated analytical tools and new BMP technology to allow for estimating their synergetic effect at the watershed scale.

In summary, given the many advancements and changes that have occurred in the stormwater management regulatory requirements and control technology over the last ten years, it is imperative that VDOT's Manual of Stormwater Management Practice be updated and expanded.

OBJECTIVES AND SCOPE

The objective of the proposed study is to update and expand the current VDOT Manual of Planning Stormwater Management, which was first published in 1992. The Revision will address the following:

- New federal, state, and local regulations
- Recent advances in erosion and sediment control during construction
- New post-construction stormwater management techniques

- Review of the latest storm water models and modeling
- Review of best management practices
- Review of innovative practices in other states
- Other issues (wetland mitigation, banking, etc.)

Examination of these topics will not only result in the development of updated technical information related to the design and implementation of specific technologies, but also an overview of the administrative and managerial actions that VDOT is taking to comply with procedural requirements of new statutes and regulations. The proposed study will not only include information gathering and synthesis, but also some analysis and research, especially in the areas of model/decision tool development, BMP pollutant removal mechanisms and long-term performance evaluation, etc.

METHODOLOGY

An Advisory Committee will be formed to provide guidance and recommendations with respect to the progress of the study, which will include the following major tasks or work elements:

1. **Review of the most recent federal, state and local stormwater regulations.**

There have been numerous changes to both federal and State stormwater regulations since the 1992 edition of the VDOT Manual of Practice. For example, the federal stormwater regulations have been modified and the Phase II NPDES stormwater permit program will take effect in 2003. There have also been several changes made to the Coastal Zone Management Act that impact the Department. Virginia issued updated Erosion and Sediment Control Manual in 1992, and a Stormwater Management Handbook in 1999. Some counties, such as Fairfax County, have specific stormwater control ordinances. The revised manual will discuss these, and other important changes and how they affect VDOT projects.

2. Evaluation of VDOT erosion and sediment control practices during construction.

The 2001 Report on the Chesapeake Bay Agreement indicates that by 2004, the jurisdictions of Virginia will evaluate local implementation of stormwater, erosion control and other locally-implemented water quality protection programs that affect the Bay system to ensure that these programs are being coordinated and applied effectively in order to minimize the impacts of development. The 2001 Chesapeake Bay Agreement Implementation Report indicates that VDOT, the only state agency with a DCR-certified, internally implemented E&S Control Program, will also be more aggressive in the review of its program's consistency and effectiveness. The revised Manual of Practice will provide a review of the State's efforts to implement the Chesapeake Bay Agreement with respect to measures taken during construction.

In addition to providing a review of the above administrative measures, the revised Manual will provide information on updated and innovative measures for controlling erosion and sediment during construction. Unlike the current Manual, the revised version will not provide detailed design information in the body of the manual that is available elsewhere[1]. It will, however, present overviews of technologies and summary charts that will let VDOT project managers review potentially useful technologies and determine in which instances they will be most effective. In addition, this portion of the revised Manual will include the latest measures for erosion and sediment control planning.

3. **Examination of post-construction stormwater management techniques.**

This task will complement the task regarding erosion and sediment control during construction. Information on updated and innovative measures for controlling erosion and sediment after construction gathered and evaluated. Again, unlike the current Manual, the revised Manual will not include all of detailed information regarding post-construction stormwater management that is available elsewhere. It will, however, present overviews of technologies and summary charts that will let VDOT project managers review potentially useful technologies and determine in which instances they will be most effective.

This portion of the revised Manual will emphasize post-construction stormwater management planning, including the development of stormwater pollution prevention plans (SWPPPs), which are typically needed at maintenance and storage facilities..

4. **Updating stormwater models and modeling techniques.**

The 1992 Manual reviewed three basic stormwater models: 1) SWMM, 2) STORM, and 3) HSPF. Both SWMM and HSPF are still used, but they have been upgraded significantly. STORM is rarely used, but its concepts and coding have provided the basis for subsequent models such as VAST.

The updated Manual will provide an update of various hydrologic, hydraulic and sediment transport models that the VDOT project manager may use or come in contact with through their consultants. We will provide information for both proprietary (e.g., Boss International, Haested Methods, and Computational Hydraulics, Inc.) and non-proprietary models (e.g., Army Corps of Engineers, USEPA). The revised Manual will be careful to note that no endorsement of commercial products is included, but will be mentioned so that VDOT project managers are made aware of the wide range of generally used software products.

To assist VDOT stormwater managers in the selection and placement of BMP facilities, results from an ongoing project entitled "*Development of A BMP Placement Strategy for VDOT*", to be completed in 2003, will be incorporated into the revised Manual of Practice.

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[1] BMP "Fact Sheets" may be developed and included as an Appendix to the Manual of Practice.

5. Review of advances in best management practices.

VDOT is among the various state agencies that promote the implementation of ecologically based designs and practices to reduce the water quality impacts of impervious cover in highly developed watersheds and limit impervious cover in undeveloped or moderately developed watersheds. The study will review these VDOT activities and include them in the revised Manual so that it can be used as a 'sourcebook' for such information. As such, the Manual will provide VDOT project managers with information regarding the use and effectiveness of BMP's, including the National BMP Database developed by EPA and the American Society of Civil Engineers (ASCE).

The revised Manual will provide a state-of-the-art review of the current BMP technology, and will also include an in-depth review of literature regarding potential ways to enhance the effectiveness of these BMPs. In addition, the revised Manual will provide discussions of 'alternate' BMPs, such as plate settlers and shallow detention devices that may be applicable to VDOT transportation projects under certain circumstances.

In most cases, BMPs are thought of as measures to be taken during the construction of transportation projects, or measures that are related to linear transportation projects. While such measures are warranted for linear projects, low-impact development (LID) measures at fixed facilities, such as maintenance yards and materials storage facilities could also be considered as cost-effective stormwater control measures. The Manual will identify BMPs, such as LID measures that could potentially be installed during the construction of new facilities, or as retrofit measures for existing facilities.

6. Review of other issues.

This task will address 'Other Issues' as identified by VDOT. It will, at a minimum, review the changing procedures regarding wetlands issues. Specifically, it will review: 1) the effect of various court decisions on jurisdictional wetlands determinations (e.g., Wilson, SWANCC) and how they affect VDOT activities; 2) various alternatives for wetland mitigation (e.g., banking, 'fee-in-lieu', mitigation), and 3) use of mitigation wetlands for stormwater quality control.

This work element may be documented as a 'stand alone' section, or the topics may be integrated into other chapters of the revised Manual.

7. **Review of stormwater management practices in other states.**

The task will consist of a review of practices in other states. Where appropriate, these practices will be included in the Manual for consideration by VDOT engineers.

8. Preparation of final report.

A final report, which will be an updated Manual on Stormwater Management, will be delivered at the conclusion of the study in June 2004. The Manual will include updated information regarding federal, state and local stormwater regulations; stormwater management practices including recent innovations; analytical tools such as stormwater management models and decision support systems such as planning and design guides, and a review of stormwater management practices in other states.

EXPECTED BENEFITS TO VDOT

It is anticipated that the development of the Manual will bring about the following benefits to the VDOT. It will:

- Provide a document that can be used as part of the evidence that VDOT is striving to satisfy federal, state and local stormwater management regulations.
- Assist VDOT stormwater managers in the planning and design of stormwater management facilities, which include conventional and recently developed innovative control technologies.
- Document various national and other significant databases for stormwater best management practices so that VDOT staff time can be saved in searching for such information.
- Maintain the VDOT's reputation as one of the leading transportation agencies nationwide in stormwater management programs.

SCHEDULE

A 19-month effort is proposed. The study will begin on December 1 2002 and a final report, which will be the revised Stormwater Management manual, will be submitted by June 30 2004. A Ghent Chart is presented below to show the project schedule.

	2002	2003												2004					
TASKS	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
Task I																			
Task II																			
Task III																			
Task IV																			
Task V																			
Task VI																			
Task VII																			
Task VIII																			

Appendix 4

General Virginia Pollutant Discharge Elimination System Permit Regulation

9 VAC 25 750-10 et seq.

9 VAC 25-750-10 et seq. - GENERAL VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) PERMIT REGULATION FOR DISCHARGES OF STORM WATER FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

9 VAC 25-750-10. Definitions.

The words and terms used in this regulation shall have the meanings defined in the State Water Control Law and 9 VAC 25-31-10 et seq. (VPDES Permit Regulation) unless the context clearly indicates otherwise, except that for the purposes of this regulation:

"Best management practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except: discharges pursuant to a VPDES permit (other than the VPDES permit for discharges from the municipal separate storm sewer), discharges resulting from fire fighting activities, and discharges identified by and in compliance with 9 VAC 25-750-30 C 2.

"Infiltration" means water other than wastewater that enters a sewer system (including sewer service connections and foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.

"Inflow" means water other than wastewater that enters a sewer system (including sewer service connections) from sources such as, but not limited to, roof leaders, cellar drains, yard drains, area drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.

"Large municipal separate storm sewer system" means all municipal separate storm sewers that are either:

1. Located in an incorporated place with a population of 250,000 or more as determined by the latest Decennial Census by the Bureau of Census (40 CFR Part 122 Appendix F (2001)); or
2. Located in the counties listed in 40 CFR Part 122 Appendix H (2001), except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or
3. Owned or operated by a municipality other than those described in subdivision 1 or 2 of this definition and that are designated by the Board as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under subdivision 1 or 2 of this definition. In making this determination the Board may consider the following factors:
   a. Physical interconnections between the municipal separate storm sewers;
   b. The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in subdivision 1 of this definition;
   c. The quantity and nature of pollutants discharged to surface waters;
   d. The nature of the receiving waters; and
   e. Other relevant factors; or
4. The Board may, upon petition, designate as a large municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in subdivision 1, 2, or 3 of this definition.

"Major municipal separate storm sewer outfall (or major outfall)" means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), with an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

"Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

1. Located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the latest Decennial Census by the Bureau of Census (40 CFR Part 122 Appendix G (2001)); or
2. Located in the counties listed in 40 CFR Part 122 Appendix I (2001), except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or
3. Owned or operated by a municipality other than those described in subdivision 1 or 2 of this definition and that are designated by the Board as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under subdivision 1 or 2 of this definition. In making this determination the Board may consider the following factors:
    a. Physical interconnections between the municipal separate storm sewers;
    b. The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in subdivision 1 of this subsection;
    c. The quantity and nature of pollutants discharged to surface waters;
    d. The nature of the receiving waters; or
    e. Other relevant factors; or
4. The Board may, upon petition, designate as a medium municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in subdivisions 1, 2, or 3 of this definition.

"Municipal separate storm sewer" means a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains:

1. Owned or operated by a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to surface waters;
2. Designed or used for collecting or conveying storm water;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW).

"Municipal separate storm sewer system or MS4" means all separate storm sewers that are defined as "large" or "medium" or "small" municipal separate storm sewer systems, or designated under 9 VAC 25-31-120 A 1.

"Municipality" means a city, town, county, district, association, or other public body created by or under state law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of CWA.

"Outfall" means, when used in reference to municipal separate storm sewers, a point source at the point where a municipal separate storm sewer discharges to surface waters and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other surface waters and are used to convey surface waters.

"Owner" means the Commonwealth or any of its political subdivisions, including, but not limited to, sanitation district commissions and authorities, and any public or private institution, corporation, association, firm or company organized or existing under the laws of this or any other state or country, or any officer or agency of the United States, or any person or group of persons acting individually or as a group that owns, operates, charters, rents, or otherwise exercises control over or is responsible for any actual or potential discharge of sewage, industrial wastes, or other wastes to state waters, or any facility or operation that has the capability to alter the physical, chemical, or biological properties of state waters in contravention of Section 62.1-44.5 of the Law.

"Small municipal separate storm sewer system or Small MS4" means all separate storm sewers that are: (i) Owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under subsection 208 of the CWA that discharges to surface waters; and (ii) Not defined as "large" or "medium" municipal separate storm sewer systems, or designated under 9 VAC 25-31-120 A 1. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

"Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

9 VAC 25-750-20. Purpose; Delegation of Authority; Effective Date of the Permit.

A. This general permit regulation governs storm water discharges from regulated small municipal separate storm sewer systems (regulated small MS4's) to surface waters of the Commonwealth of Virginia.

1. Unless the MS4 qualifies for a waiver under subdivision 3 of this subsection, owners are regulated if they operate a small MS4, including but not limited to systems operated by federal, state, tribal, and local governments, including the Virginia Department of Transportation; and:

a. The small MS4 is located in an urbanized area as determined by the latest Decennial Census by the Bureau of the Census. If the small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated; or

b. The small MS4 is designated by the Board, including where the designation is pursuant to 40 CFR Part 123.35 (b)(3) or (b)(4) (2001), or is based upon a petition under 9 VAC 25-31-120 E.

2. An MS4 may be the subject of a petition to the Board to require a VPDES permit for their discharge of storm water. If the Board determines that an MS4 needs a permit and the owner applies for coverage under this general permit, the owner is required to comply with the requirements of 9 VAC 25-750-50.

3. The Board may waive the requirements otherwise applicable to a small MS4 if it meets the criteria of subdivision 4 or 5 of this subsection. If a waiver is received under this subsection, the owner may subsequently be required to seek coverage under a VPDES permit in accordance with 9 VAC 25-31-121 C 1 if circumstances change. (See also 40 CFR Part 123.35 (b) (2001))

4. The Board may waive permit coverage if the MS4 serves a population of less than 1,000 within the urbanized area and meets the following criteria:

a. The system is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the VPDES storm water program; and

b. If pollutants are discharged that have been identified as a cause of impairment of any water body to which the MS4 discharges, storm water controls are not needed based on wasteload allocations that are part of a [~~DEQ~~ Board] established and EPA approved "total maximum daily load" (TMDL) that addresses the pollutants of concern.

5. The Board may waive permit coverage if the MS4 serves a population under 10,000 and meets the following criteria:

a. The Board has evaluated all surface waters, including small streams, tributaries, lakes, and ponds, that receive a discharge from the MS4;

b. For all such waters, the Board has determined that storm water controls are not needed based on wasteload allocations that are part of a [~~DEQ~~ Board] established and EPA approved TMDL that addresses the pollutants of concern or, if a TMDL has not been developed and approved, an equivalent analysis that determines sources and allocations for the pollutants of concern;

c. For the purpose of this subdivision, the pollutants of concern include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the MS4; and

d. The Board has determined that future discharges from the MS4 do not have the potential to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

B. The Director, or an authorized representative, may perform any act of the Board provided under this regulation, except as limited by Section 62.1-44.14 of the Code of Virginia.

C. This general permit will become effective on December 9, 2002, and will expire five years from the effective date.

9 VAC 25-750-30. Authorization to discharge.

A. Any owner governed by this general permit is hereby authorized to discharge storm water from the regulated small MS4 to surface waters of the Commonwealth of Virginia provided that the owner files and receives acceptance by the Director of the Registration Statement of 9 VAC 25-750-40, files the permit fee required by 9 VAC 25-20-10 et seq., [~~complies with the requirements of 9 VAC 25-750-50,~~] and provided that the owner shall not have been required to obtain an individual permit according to 9 VAC 25-31-170 B.

B. The owner shall not be authorized by this general permit to discharge to state waters specifically named in other Board regulations or policies which prohibit such discharges.

C. Non-storm water discharges or flows into the MS4 are authorized by this permit and do not need to be addressed in the Storm Water Management Program required under 9 VAC 25-750-50, Part II B 3, if:

1. The non-storm water discharges or flows are covered by a separate individual or general VPDES permit for non-storm water discharges; or
2. [~~The following categories of n~~ N]on-storm water discharges or flows [~~must be addressed only if they are~~ in the following categories have not been] identified by the permittee or by the Board as significant contributors of pollutants to the small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash water, and discharges or flows from fire fighting activities.

D. Receipt of this general permit does not relieve any owner of the responsibility to comply with any other applicable federal, state or local statute, ordinance or regulation.

9 VAC 25-750-40. Registration Statement.

A. Deadline for Submitting a Registration Statement

1. Owners of regulated small MS4's designated under 9 VAC 25-750-20 A 1 a , that are applying for coverage under this VPDES general permit must submit a complete Registration Statement to the Department by March 10, 2003, unless the MS4 serves a jurisdiction with a population under 10,000 and the Board has established a schedule for phasing in permit coverage with a final deadline of March 8, 2007.
2. Owners of regulated small MS4's designated under 9 VAC 25-750-20 A 1 b , that are applying for coverage under this VPDES general permit must submit a complete Registration Statement to the Department within 180 days of notice of designation, unless the Board grants a later date.

B. Registration Statement.

The Registration Statement shall include[~~s~~] the following information:

1. The name and location (county or city name) of the regulated small MS4 for which the Registration Statement is submitted;
2. The name, address, and telephone number of the owner of the regulated small MS4;

3. The name(s) of the receiving water(s);
4. The best management practices (BMPs) that the owner or another entity proposes to implement for each of the storm water minimum control measures at 9 VAC 25-750-50, Part II B;
5. The measurable goals for each of the BMPs including, as appropriate, the [~~months and~~] years in which the required actions will be undertaken, including interim milestones and the frequency of the action; and
6. The person or persons responsible for implementing or coordinating the storm water management program.
7. The following 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."

C. The Registration Statement shall be signed in accordance with 9 VAC 25-31-110.

D. An owner may file his own registration statement, or the owner and other municipalities or governmental entities may jointly submit a registration statement. If responsibilities for meeting the minimum measures will be shared with other municipalities or governmental entities, the registration statement must describe which minimum measures the owner will implement and identify the entities that will implement the other minimum measures within the area served by the MS4.

E. Where to Submit

The Registration Statement shall be submitted to the DEQ Regional Office that serves the area where the small MS4 is located.

9 VAC 25-750-50. General permit.

Any owner whose registration statement is accepted by the Director will receive the following permit and shall comply with the requirements therein and be subject to all applicable requirements of the VPDES Permit Regulation, 9 VAC 25-31-10 et seq.

General Permit No.: [~~VAR06~~ VAR040]
Effective Date: December 9, 2002
Expiration Date: December 9, 2007

GENERAL PERMIT FOR STORM WATER DISCHARGES OF STORM WATER FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM AND THE VIRGINIA STATE WATER CONTROL LAW

9 VAC 25-750-10 et seq. - GENERAL VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM (VPDES) PERMIT REGULATION FOR DISCHARGES OF STORM WATER FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

In compliance with the provisions of the Clean Water Act, as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, this permit authorizes operators of small municipal separate storm sewer systems to discharge to surface waters within the boundaries of the Commonwealth of Virginia, except those waters specifically named in [State Water Control Board] [(]Board[)] regulation or policies which prohibit such discharges.

The authorized discharge shall be in accordance with this cover page, Part I - Discharge Authorization and Special Conditions, Part II - Storm Water Management Program and Part III - Conditions Applicable To All VPDES Permits, as set forth herein.

PART I
DISCHARGE AUTHORIZATION AND SPECIAL CONDITIONS

A. Coverage Under This Permit.

During the period beginning with the date of coverage under this general permit and lasting until the permit's expiration date, the permittee is authorized to discharge storm water from the small municipal separate storm sewer system identified in the Registration Statement.

B. Special Conditions.

1. Total Maximum Daily Load (TMDL) Allocations

If a TMDL is approved for any waterbody into which the small MS4 discharges, the Board will review the TMDL to determine whether the TMDL includes requirements for control of storm water discharges. If discharges from the MS4 are not meeting the TMDL allocations, the Board will notify the permittee of that finding and may require that the Storm Water Management Program required in Part II be modified to implement the TMDL within a timeframe consistent with the TMDL. Any such new requirement will constitute a case decision by the Board.

2. Releases of Hazardous Substances or Oil in Excess of Reportable Quantities.

The discharge of hazardous substances or oil in the storm water discharge(s) from the small MS4 shall be prevented or minimized [to the maximum extent practicable] in accordance with the applicable Storm Water Management Program required in Part II. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR [Part] 110 (2001), 40 CFR [Part] 117 (2001) or 40 CFR [Part] 302 (2001) occurs during a 24 hour period, the permittee is required to notify the Department in accordance with the requirements of Part III G as soon as he or she has knowledge of the discharge. In addition, the Storm Water Management Program required under Part II of this permit must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the program must be modified where appropriate. This permit does not relieve the permittee of the reporting requirements of 40 CFR [Part] 110 (2001), 40 CFR [Part] 117 (2001) and 40 CFR [Part] 302 (2001) or Section 62.1-44.34:19 of the Code of Virginia.

PART II
STORM WATER MANAGEMENT PROGRAM

A. The permittee must develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from the MS4 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. The storm water management program must include the

minimum control measures described in paragraph B of this Part. For purposes of this Part, narrative effluent limitations requiring implementation of best management practices (BMPs) are generally the most appropriate form of effluent limitations when designed to satisfy technology requirements (including reductions of pollutants to the maximum extent practicable) and to protect water quality. Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this Part constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable." The storm water management program must be developed and implemented within 5 years of the date of coverage under this permit.

B. Minimum control measures

1. Public education and outreach on storm water impacts.

Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

2. Public involvement/participation.

At a minimum, comply with [applicable] state, tribal, and local public notice requirements when implementing [~~a public involvement/participation~~ the storm water management] program.

3. Illicit discharge detection and elimination.

a. Develop, implement and enforce a program to detect and eliminate illicit discharges, as defined at 9 VAC 25-750-10, into the small MS4.

b. (1) Develop, if not already completed, a storm sewer system map, showing the location of all major outfalls and the names and location of all surface waters that receive discharges from those outfalls;

(2) To the extent allowable under state, tribal or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the storm sewer system and implement appropriate enforcement procedures and actions;

(3) Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system; and

(4) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

c. The following categories of non-storm water discharges or flows (i.e., illicit discharges) must be addressed only if they are identified by the permittee or by the Board as significant contributors of pollutants to the small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash water, and discharges or flows from fire fighting activities.

4. Construction site storm water runoff control.

a. Develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the Board waives requirements for storm water discharges associated with small construction activity in accordance with the definition in 9 VAC 25-31-10, the permittee is

not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.

b. The program must include the development and implementation of, at a minimum:

(1) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under state, tribal, or local law;

(2) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(3) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality; or

Procedures to ensure that construction site operators have secured [or will secure] a VPDES construction permit;

(4) Procedures for site plan review which incorporate consideration of potential water quality impacts;

(5) Procedures for receipt and consideration of information submitted by the public, and

(6) Procedures for site inspection and enforcement of control measures.

[c. Track regulated land disturbing activities and submit the following information for the reporting period with the annual report required in Part II E 2:

(1) Total number of regulated land disturbing activities; and

(2) Total disturbed acreage.]

5. Post-construction storm water management in new development and redevelopment.

a. Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts.

b. (1) Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for your community;

(2) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under state, tribal or local law; and

(3) Ensure adequate long-term operation and maintenance by the owner of BMPs.

[(4) If the MS4 discharges to the Chesapeake Bay watershed, track all permanent BMP's installed in the MS4 (structural and non-structural), and submit the following information with the annual report required in Part II E 2:

(a) type of BMP installed;

(b) geographic location (Hydrologic Unit Code);

(c) waterbody the BMP is discharging into;

(d) number of acres treated;

(e) whether or not the BMP is inspected or maintained; and

(f) how often the BMP is maintained (quarterly, annually, etc.).]

6. Pollution prevention/good housekeeping for municipal operations.

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. Using training materials that are available from EPA, state, tribe, or other organizations, the program must include employee training to prevent and reduce storm water

pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

C. Qualifying State, Tribal or Local Program

If an existing qualifying local program requires the implementation of one or more of the minimum control measures of Part II B, the permittee may follow that qualifying program's requirements rather than the requirements of Part II B. A qualifying local program is a local, State or tribal municipal storm water management program that imposes, at a minimum, the relevant requirements of Part II B.

The permittee's storm water management program must identify and fully describe any qualifying local program that will be used to satisfy one or more of the minimum control measures of Part II B.

If the qualifying local program the permittee is using requires the approval of a third party, the program must be fully approved by the third party, or the permittee must be working towards getting full approval. Documentation of the qualifying local program's approval status, or the progress towards achieving full approval, must be included in the annual report required by Part II E 2.

D. Sharing Responsibility

The permittee may rely on another entity to satisfy the VPDES permit obligations to implement a minimum control measure if: (1) the other entity, in fact, implements the control measure; (2) the particular control measure, or component thereof, is at least as stringent as the corresponding VPDES permit requirement; and (3) the other entity agrees to implement the control measure on behalf of the permittee. The agreement between the parties must be documented in writing and retained by the permittee with the Storm Water Management Program for the duration of this permit.

In the annual reports that must be submitted under Part II E 2, the permittee must specify that another entity is being relied on to satisfy some of the permit obligations.

If the permittee is relying on another governmental entity regulated under 9 VAC 25-31-120 to satisfy all of the permit obligations, including the obligation to file periodic reports required by Part II E 2, the permittee must note that fact in the Registration Statement, but is not required to file the periodic reports.

The permittee remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure (or component thereof).

E. Evaluation and Assessment

1. Evaluation

The permittee must evaluate program compliance, the appropriateness of the identified best management practices, and progress towards achieving the identified measurable goals.

2. Annual Reports

The permittee must submit an annual report to the Director by the first, second and fourth anniversaries of the date of coverage under this permit. The reports must include:

a. The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices and progress towards achieving the identified measurable goals for each of the minimum control measures;

b. Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

c. A summary of the storm water activities the permittee plans to undertake during the next reporting cycle;

d. A change in any identified best management practices or measurable goals for any of the minimum control measures;

e. Notice that the permittee is relying on another government entity to satisfy some of the permit obligations (if applicable), and

f. The approval status of any qualifying local programs (if appropriate), or the progress towards achieving full approval of these programs.

F. Program Modifications

The Department may require modifications to the Storm Water Management Program as needed to address adverse impacts on receiving water quality caused, or contributed to, by discharges from the MS4. Modifications requested by the Department shall be made in writing and set forth the time schedule to develop and implement the modification. The permittee may propose alternative program modifications and time schedules to meet the objective of the requested modification. [The Department retains the authority to require any modifications it determines are necessary.]

PART III
CONDITIONS APPLICABLE TO ALL VPDES PERMITS

NOTE: Monitoring is not required for this permit. If you choose to monitor your storm water discharges or BMP's in support of your Storm Water Management Program, [~~or as required by a TMDL,~~] you must comply with the requirements of subsections A, B, and C, as appropriate.

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.

2. Monitoring shall be conducted according to procedures approved under 40 CFR Part 136 (2001) or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.

3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.

B. Records.

1. Records of monitoring information shall include:
   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) and time(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the registration statement for this permit, for a period of at least 3 years from the date of the sample, measurement, report or request for coverage. This period of retention shall be

extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to the Department's regional office.
2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department.
3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under 40 CFR Part 136 (2001) or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.
4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information.

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges.

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges.

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part III F; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters

in violation of Part III F, shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges.

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part III I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of Noncompliance.

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
   a. Any unanticipated bypass; and
   b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
   c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part III I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts III I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part III I 2.

NOTE: The immediate (within 24 hours) reports required in Parts III G, H and I may be made to the Department's Regional Office. Reports may be made by telephone or by fax. For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes.

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

(1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or

(2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or

c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements.

1. Registration Statement. All registration statements shall be signed as follows:

a. For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities , provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a public agency includes:

(1) The chief executive officer of the agency, or

(2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part III K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part III K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

c. The written authorization is submitted to the Department.

3. Changes to authorization. If an authorization under Part III K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part III K 2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Parts III K 1 or 2 shall make the following 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."

L. Duty to Comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall submit a new registration statement at least 90 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for registration statements to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit.

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law.

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part III U), and "upset" (Part III V) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges.

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III U 2 and U 3.

2. Notice

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part III I.

3. Prohibition of bypass.

a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part III U 2.

b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part III U 3 a.

V. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part III V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required in Part III I; and

d. The permittee complied with any remedial measures required under Part III S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry.

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this subsection, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions.

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part III Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part III Y 1, this permit may be automatically transferred to a new permittee if:
   a. The current permittee notifies the Department at least 2 days in advance of the proposed transfer of the title to the facility or property;
   b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
   c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part III Y 2 b.

Z. Severability.

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

FORMS

Virginia Pollutant Discharge Elimination System (VPDES) General Permit Registration Statement for Storm Water Discharges From Small Municipal Separate Storm Sewer Systems (VAR[~~06~~ 040]), SWGP-MS4-001-RS (eff. 12/02)

Attachment 1

VDOT ESC and SWM Annual Plan

Please see http://coweb/LocDes/Drainage-Hydraulics/vpdes.htm