

EROSION AND SEDIMENT CONTROL PROGRAM

5.1 OVERVIEW

All land disturbing activities in Henrico County must comply with the provisions of the County's Erosion and Sediment Control (ESC) Program (Chapter 10, Article II of the County Code.) This locally implemented program is required by the Erosion and Sediment Control Law (Title 10.1, Chapter 5, Article 4 of the Code of Virginia) and must comply with requirements and minimum standards of the Erosion and Sediment Control Regulations (VR 625-02-00).

In general, a land disturbing activity is defined as "any clearing, grading, excavating, transporting or filling of land." Clearing is also defined and means "any activity which removes vegetation, including removal of trees, root mat or topsoil." As specified by state law, some activities are exempt from the ESC program and include activities such as home gardens, individual home landscaping, and bona fide agricultural and forestry operations. The Henricopolis Soil and Water District office and/or the Department of Forestry will be consulted on activities claiming exemption as agricultural or forestry operations.

5.2 PLAN SUBMITTAL

All projects in which 2,500 square feet or more of land disturbance is proposed must be conducted in accordance with an approved erosion and sediment control (ESC) plan. Therefore, prior to starting a land disturbing activity, an erosion and sediment control plan must be submitted to the County and approved by the County's Department of Public Works.

ESC plans for land disturbance resulting from a Plan of Development (POD) or a proposed subdivision are included as a component of the overall plan and these plans must be submitted according to the Department of Planning's latest plan submission guidelines.

ESC plans for land disturbance not resulting from a POD or a proposed subdivision (ie. fill placement on individual lots, private drive/road construction, etc.) must be submitted to the Design Division of the Department of Public Works. The submittal must include seven (7) sets of plans for routing to various review staff and Departments.

5.3 REQUIREMENTS

The following is a list of common comments concerning erosion and sediment control issues and concerns that, when applicable, must be addressed in an approved ESC plan. A brief explanation of each comment is also provided. Examples of the current review checklists can be found in the Appendix of this Manual. Where details and standards are

necessary to address these issues and concerns, refer to the 1992 Edition of the Virginia ESC Handbook.

- ***The current version of the standard ESA and Erosion and Sediment Control Sheet must be completed and submitted. A complete plan review can not be accomplished until this information has been provided. Once this information has been received, additional comments may follow.***

The standard Environmental Site Assessment (ESA) / ESC sheet includes notes and details that are applicable to most ESC plans. This sheet is required to be part of all approved plans and is available in both paper and digital form from the Design Division of Public Works.

- ***The preliminary limits of disturbance necessary for installation of the initial ESC measures must be clearly indicated on the plans. This area of disturbance must be the minimum necessary to allow installation of the initial ESC measures.***

Prior to complete clearing of the site, all needed perimeter ESC controls must be installed and functional. The preliminary limits of disturbance should define the work area necessary to install these ESC measures. These limits should also include any needed areas for borrow and stockpiles for excavation and construction of sediment basins and traps.

- ***The ESC narrative must clearly indicate that land disturbance outside the preliminary limits of disturbance may not occur until the installation of the initial ESC measures has been approved by the Environmental Inspector.***

Restricting land disturbance to the preliminary limits of disturbance ensures that all necessary perimeter ESC measures are in place and functioning prior to wholesale site disturbance. Once the perimeter ESC measures have been constructed/installed to the satisfaction of the Environmental Inspector, he/she will release the contractor to begin clearing/grading the remainder of the site.

- ***The limits of disturbance must be clearly indicated on the plans.***

This information is necessary to ensure adequate ESC measures are provided for the entire disturbed area.

- ***Silt fence is required and must be shown on the plans.***

This request will be made if silt fence must be added to the plans to accommodate the proposed area of land disturbance.

- ***Temporary sediment trap(s) is (are) required and must be shown on the plans.***

This request will be made if sediment traps must be added to the plans to accommodate the proposed area of land disturbance. Please note that it is County policy to provide a sediment trap or sediment basin (depending on drainage area) at the outfall of all storm sewers or outfall channels. Inlet protection is not acceptable in lieu of a trap or basin.

- ***Temporary sediment basin(s) is (are) required and must be shown on the plans.***

This request will be made if sediment basins must be added to the plans to accommodate the proposed area of land disturbance. Please note that it is County policy to provide a sediment trap or sediment basin (depending on drainage area) at the outfall of all storm sewers or outfall channels. Inlet protection is not acceptable in lieu of a trap or basin.

- ***The sediment basin/trap design details information table on the ESA sheet must be completed.***

This chart provides a summary of the basic design and construction details needed to ensure that the basins and traps are sized appropriately.

- ***Stockpiles and appropriate ESC measures must be shown on the plans or the narrative must state that no stockpiles will be located on the site.***

This comment is a result of previous stockpile location and removal complaints and problems. If stockpiles are not shown on the approved plan, approval must be obtained prior to creating a stockpile on the site. Since stockpiles can result in a significant quantity of soil and this soil is included in the ESC bond amount, approval of a stockpile may result in a revised bond amount.

- ***An ESC narrative must be included on the plans and must appropriately sequence the installation and maintenance of ESC measures throughout construction.***

The narrative is intended to be a step-by-step approach to conducting the proposed land disturbing activity – from preliminary clearing to rough grading to final grading to final stabilization. As such, all significant phases of the process

must be considered to ensure adequate ESC measures are provided and functioning to accommodate the land disturbance associated with each phase of construction.

- ***The ESC narrative must include a statement that no erosion and sediment control measures can be removed without approval of the Environmental Inspector for the project.***

ESC measures must remain in place and functional until contributing drainage areas are stabilized. Therefore, ESC measures cannot be removed until the Environmental Inspector determines that certain areas are stabilized.

- ***The ESC plan and narrative must clearly show how runoff will be diverted into sediment basin(s) or trap(s) during all phases of construction (storm sewer, diversions, channels, etc.).***

This comment will be made if the plan fails to provide adequate ESC measures and treatment for all stages of construction. For example, runoff that is adequately diverted to a sediment basin during preliminary clearing and rough grading may bypass the basin once the storm sewer is installed. Therefore, a temporary diversion pipe may be needed or installation of certain sections of storm sewer may need to be delayed. Conversely, diversion dikes or ditches may be necessary during the preliminary clearing and grading prior to installation of the storm sewer system although a basin is provided at the outfall of the storm sewer. Please note that it is County policy to provide a sediment trap or sediment basin (depending on drainage area) at the outfall of all storm sewers or outfall channels.

- ***Lots adjacent to or containing a sediment basin or trap that will not be converted to a BMP must be identified on the plan sheet and with notes stating that building permits will not be issued for these lots until the basins or traps are removed.***

This requirement is an effort to reduce complaints from homeowners associated with the temporary basins and traps. In the past, these complaints often resulted in removal of the sediment basins and/or traps prematurely. This requirement can be waived if the proposed dwelling is under contract and an acceptable letter from the contract purchaser is submitted to the Department of Public Works. A copy of the letter should also be attached to the building permit application. An example of such a letter with acceptable content and format can be found in the Appendix of this Manual.

- ***ESC measures must be shown for all lots adjacent to or containing wetlands and/or RPA. Add a note to the plans stating that these measures will be installed prior to dwelling construction.***

These measures will be required to provide additional protection to the wetlands and RPA downslope of the disturbance associated with the construction of the dwelling.

- ***The ESC narrative must include details on how the sediment basin will be converted into the BMP.***

Often, the construction details of the sediment basin/trap differ from those of the BMP. For example, the side slopes of the sediment basin may be steeper than those allowed for the BMP. Another common difference is the elevation of the bottom of the basin. In addition to grading aspects, the riser structures are often different as well. In the past, some of these differences have not been clearly explained in the plans and are discovered during inspections for release of the ESC bond, long after the construction is completed. By including these conversion details in the narrative, the contractors are made aware of these issues and can address them as construction is completed.

- ***The ESC narrative must include topsoil application for all BMP areas that will be stabilized with vegetation.***

One of the most common problems associated with final acceptance of BMP construction is the lack of vegetation. Often, this denuded state is a result of the lack of topsoil in the areas where vegetation is required. In an effort to provide a sufficient stand of vegetation, the application of topsoil is required.

- ***The ESC narrative must appropriately sequence “rough grading” and “final conformance” BMP inspections.***

In the past, major inconsistencies between approved construction plans and the as-built BMPs were commonly identified during inspections for release of the ESC bond, long after the construction is completed. These problems then became very difficult to correct. In an effort to identify construction problems earlier in the construction phase, these BMP inspections are conducted during various phases of completion.

- ***A vehicle wash rack(s) is required to be installed where construction traffic will leave the site.***

On large sites where significant construction traffic is expected (extensive timbering, soil removal, etc.) and sites in areas prone to mud tracking complaints, wash racks will be required in locations where the construction traffic leaves the site.

5.4 PLAN APPROVAL

Prior to approving the ESC plan, the County will require an ESC Agreement and a bond be posted to ensure the area of land disturbance is stabilized. County approved forms for both the Agreement and bonds can be found in the Appendix of this Manual.

Once a plan has been developed that addresses all the County's concerns, the County Environmental Inspector for that area will conduct a pre-construction meeting to discuss the approved plan and ESC control measures with the contractor and any other parties responsible for the site. Only after the pre-construction meeting is held and the Environmental Inspector signs the plans, are the plans approved and land disturbance authorized. The inspector areas and phone numbers are depicted on Map 5.1.

5.5 PROJECT COMPLIANCE

The Environmental Inspector will conduct periodic reviews of the site during the land disturbing activity and notify the responsible parties of concerns and deficiencies. In accordance with State law, various levels of enforcement actions are available to the County for noncompliance with the ESC plan, including a Notice To Comply and Stop Work Order. Once the proposed work is complete and the site stabilized, a request for final inspection and release of the ESC bond must be submitted in writing. A final inspection will then be made to determine whether or not the bond can be released and a release letter or list of deficiencies will be provided.

5.6 RESPONSIBLE LAND DISTURBER CERTIFICATION PROGRAM

All proposed development projects must identify the name of an individual holding a certificate of competence, who will be in charge of and responsible for carrying out the land disturbing activity. Plan cover sheets will now contain a signature block, which will be signed by the responsible individual, at or prior to our pre-construction meeting. Failure to provide a certified individual, who will be responsible for carrying out land disturbing activities, will prevent plans from being approved.

This requirement is a result of revisions to ESC Law that became effective July 1, 2001. These revisions required all ESC program plan approving authorities (i.e. Henrico County) to ensure, as a prerequisite to approval of an ESC plan, that an individual holding a certificate of compliance issued by the Virginia Department of Conservation and Recreation

(DCR) be identified who will be in charge of and responsible for carrying out the land disturbing activity.

All of the information necessary to take the Responsible Land Disturber Certification Exam and the Exam itself is provided over the internet. All individuals currently certified by the Department of Conservation and Recreation as an Inspector, Plan Reviewer, Program Administrator or Combined Administrator, individuals who have received a DCR Contractors Certificate or individuals licensed in Virginia as a Professional Engineer, Land Surveyor, Landscape Architect, or Architect shall automatically be considered a "Certified Responsible Land Disturber" without further training, certification or fees until such time that their certification or license expires. Details about the Responsible Land Disturber Certification program can be found in the Appendix of this Manual as well as at the DCR website at www.dcr.state.va.us/sw/.

5.7 OTHER CONTACTS

Henricopolis Soil and Water Conservation District

8600 Dixon Powers Drive
Post Office Box 27032
Richmond, Virginia 23273
(804) 501-5175

Virginia Department of Conservation and Recreation

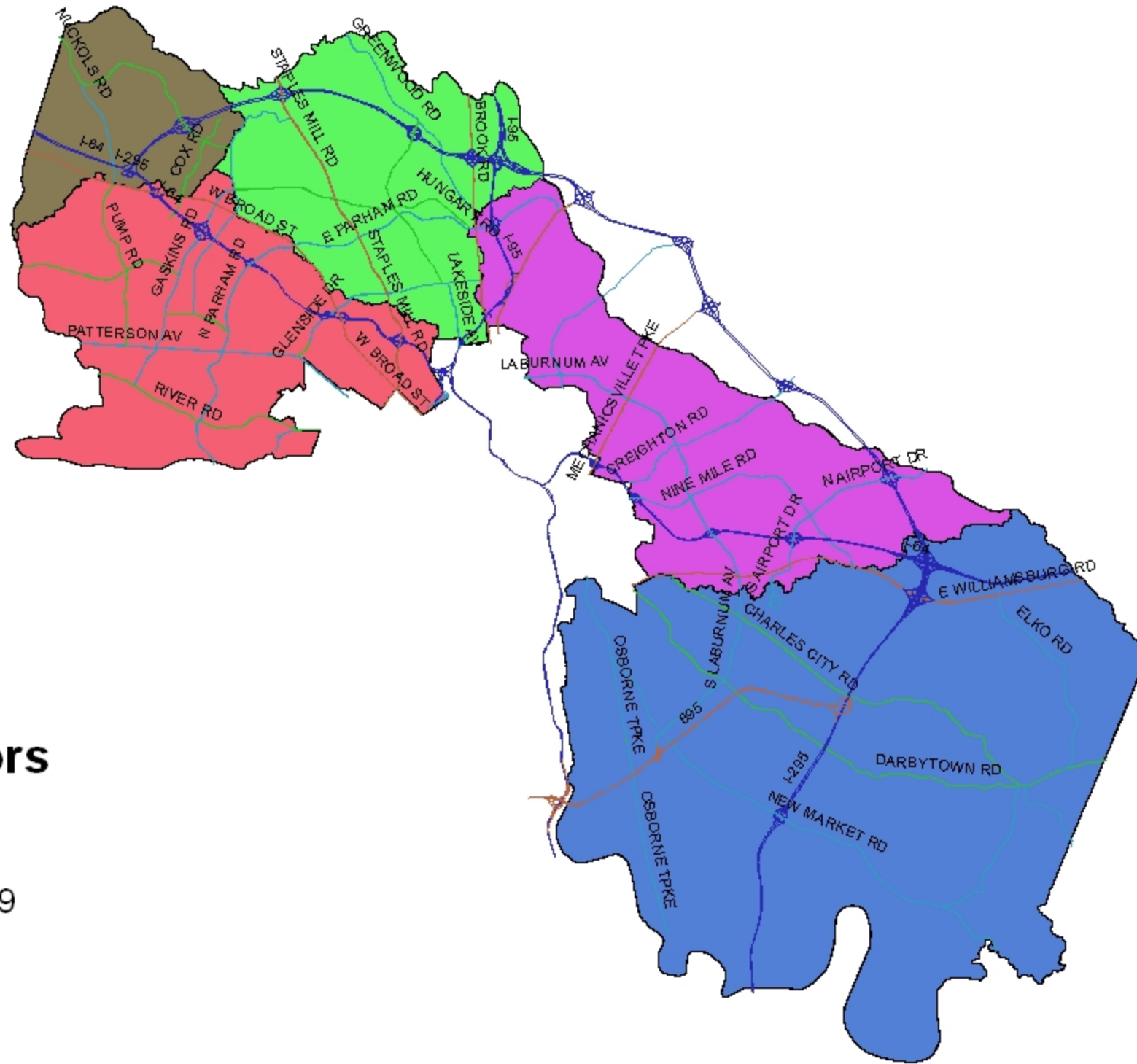
Main Office
203 Governor Street, Suite 206
Richmond, Virginia 23219-2094
(804) 786-2064

James Watershed Office
3800 Stillman Parkway, Suite 102
Richmond, VA 23233
(804) 527-4484 fax: (804) 527-4483

Virginia Department of Forestry

Home Office
Fontaine Research Park
900 Natural Resources Drive, Suite 800
Charlottesville, VA, 22903-0758
Phone: 804/977-6555

Henrico County – Richmond Office
VA Department of Forestry
P. O. Box 635
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Phone: 804/328-3031



Environmental Inspectors

- Olivia Hall 727-8322
- J.D. Thompson 652-3879
- New Inspector
- Terry Ruhlen 727-8324
- Elizabeth Goff 727-8326



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