

AUGUSTA COUNTY PLAN REVIEW CHECKLIST

FOR EROSION AND SEDIMENT CONTROL PLANS

Revised: 9/08

The Erosion and Sediment Control (ESC) Plan consists of the Narrative (including any supporting calculations) and the Plan Sheets, as noted below.

GENERAL

_____ Complete set of plans- Include all sheets pertaining to the site grading, stormwater and any activities impacting erosion and sediment control and drainage:

- Existing conditions
- Demolition
- Site grading
- Erosion and sediment control
- Storm sewer systems
- Stormwater management facilities
- Utility layout
- Landscaping
- On-site and off-site borrow and disposal areas that do not have separate approved ESC Plans

_____ Variances - Variances requested at the time of plan submission are governed by Section 4VAC50-30- 50 of the *Virginia Erosion and Sediment Control Regulations*.

_____ Certified Responsible Land Disturber (RLD) - A certified RLD is required during all stages of construction, from the initial land disturbance through final site stabilization. The name of the project RLD must be provided to this office before any land disturbance may begin. Notify this office in a timely manner if the RLD changes during the course of the project.

NARRATIVE

_____ Project description - Briefly describe the nature and purpose of the land-disturbing activity. Provide the area (acres) to be disturbed. Identify the Owner of the development.

_____ Existing site conditions - A description of the existing topography

(% slopes), ground cover, and drainage (on-site and receiving channels).

Adjacent areas - A description of all neighboring areas such as residential developments, agricultural areas, streams, lakes, roads, etc., that might be affected by the land disturbance.

Off-site areas - Describe any off-site land-disturbing activities that may occur (borrow sites, disposal areas, easements, etc.). Identify the Owner of the off-site area. Include a statement that any off-site land-disturbing activity associated with the project must have an approved ESC Plan. Submit documentation of the approved ESC Plan for each of these sites.

Soils - Provide a description of the soils on the site, giving such information as soil name, mapping unit, erodibility, permeability, surface runoff, and a *brief* description of depth, texture and soil structure. Show the site location on the Soil Survey, if it is available. Include a plan showing the boundaries of each soil type on the development site.

Critical areas - A description of areas on the site that have potentially serious erosion problems or that are sensitive to sediment impacts (e.g., steep slopes, watercourses, wet weather underground springs, etc.).

Erosion and sediment control measures - A description of the structural and vegetative methods that will be used to control erosion and sedimentation on the site. Controls should satisfy applicable minimum standards and specifications in Chapter 3 of the 1992 *Virginia Erosion and Sediment Control Handbook* (VESCH). Please provide the definition and applicable purpose from the VESCH for each method used.

Management strategies / Sequence of construction - Address management strategies, the sequence of construction, and any phasing of installation of ESC measures.

Permanent stabilization - A brief description, including specifications, of how the site will be stabilized after construction is completed.

Mulching – All areas either temporary or permanently seeded need to be mulched. Please include Table 3.35-A found in chapter 3 page 353 of the

VESCH. Please note how straw mulch will be anchored.

Maintenance of ESC measures - A schedule of regular inspections, maintenance, and repair of erosion and sediment control structures should be set forth.

Calculations for temporary erosion and sediment control measures - For each temporary ESC measure, provide the calculations required by the standards and specification.

Stormwater management considerations - Will the development of the site cause an increase in peak runoff rates? Will the increase in runoff cause flooding or channel degradation downstream? Describe the strategy to control stormwater runoff:

- Provide exhibits showing the drainage divides, the direction of flow, and the size (acreage) of each of the site drainage areas that discharge runoff off-site, both existing and proposed.
- Provide calculations for pre- and post-development runoff from these drainage areas.
- Ensure that Minimum Standard 19 is satisfied for each off-site receiving channel, including those that receive runoff from stormwater management facilities.
- Provide calculations for the design of each permanent stormwater management facility.
- Ensure that increased volumes of sheet flows are diverted to a stable outlet, to an adequate channel, pipe or pipe system, or to a stormwater management facility.
- Provide adequacy calculations (capacity and erosion resistance) for all on-site stormwater conveyances in accordance with the next checklist item.

Calculations for permanent stormwater conveyances - For each permanent stormwater conveyance or structure, provide the following design calculations, as applicable:

- Drainage area map with time of concentration (T_c) path shown
- T_c calculation/nomograph
- Locality IDF curve
- Composite runoff coefficient or RCN calculation
- Peak runoff calculations
- Stormwater conveyance channel design calculations

- Storm drain and storm sewer system design calculations
- Hydraulic Grade Line if any pipe in the system is more than 90% full for a 10-year storm
- Culvert design calculations
- Drop inlet backwater calculations
- Curb inlet length calculations

_____ Maintenance of SWM Facilities — Provide the following for each permanent stormwater management facility:

- A description of the requirements for maintenance of the facility and a recommended schedule of inspection and maintenance.
- The identification of the person or persons who will be responsible for maintenance.

_____ Specifications for erosion and sediment control measures - For each erosion and sediment control measure employed in the plan, include in the Narrative at a minimum the following sections from the standard and specification in the VESCH: Construction Specifications, Installation, and Maintenance. Include any approved variances or revisions to the standards and specifications.

_____ Specifications for stormwater and stormwater management structures - Provide specifications for stormwater and stormwater management structures, i.e., pipe materials, pipe bedding, stormwater structures.

_____ Page numbers — Number the pages of the Narrative and the Calculations.

SITE PLAN

_____ Vicinity map - A small map locating the site in relation to the surrounding area. Include any landmarks that might assist in locating the site.

_____ Indicate north - The direction of north in relation to the site.

_____ Off-site areas - Include any off-site land-disturbing activities (e.g., borrow sites, disposal areas, etc.) not covered by a separate approved ESC Plan.

_____ Legend - Provide a complete listing of all ESC measures used, including the VESCH uniform code symbol and the standard and specification number. Include any other items necessary to identify pertinent features in the plan.

- _____ Existing vegetation - The existing tree lines, grassed areas, or unique vegetation.
- _____ Limits of clearing and grading — Delineate all areas that are to be cleared and graded.
- _____ Protection of areas not being cleared - Fencing or other measures to protect areas that are not to be disturbed on the site.
- _____ Critical areas — Note all critical areas on the plan.
- _____ Existing contours - The existing contours of the site.
- _____ Final contours - Changes to the existing contours, including final drainage patterns.
- _____ Site development - All improvements such as buildings, parking lots, access roads, utility construction, etc. Show all physical items that could affect or be affected by erosion, sediment, and drainage.
- _____ Adequate Conveyances — Ensure that stormwater conveyances with adequate capacity and adequate erosion resistance have been provided for all on-site concentrated stormwater runoff. Off-site channels that receive runoff from the site, including those receiving runoff from stormwater management facilities, must be adequate.
- _____ Location of practices - The locations of erosion and sediment control and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of the VESCH.
- _____ Direction of Flow for Conveyances - Indicate the direction of flow for all stormwater conveyances (storm drains, stormwater conveyance channels).
- _____ Maintenance - A schedule of regular inspections, maintenance, and repair of temporary erosion and sediment control structures and permanent stormwater management facilities should be set forth.
- _____ Storm Drain Profiles - Provide profiles of all storm drains except roof drains. If the type of pipe (RCP, CMP, HDPE, etc.) is not called out on the profiles, then the most conservative pipe material that may be specified for the project must be used in the adequacy calculations.
- _____ Detail drawings - Any structural practices used that are not found in the VESCH or approved annual agency specifications should be described and illustrated with detail drawings.