

CULPEPER SWCD EROSION & SEDIMENT CONTROL CHECKLIST

Revised January 2014

Below is a checklist of all necessary components required to complete all Erosion and Sediment Control Plans submitted to the Culpeper Soil and Water Conservation District (CSWCD) as in accordance with the Virginia Erosion and Sediment Control Law, Title 62.1, Chapter 3.1, Article 2.4 of the Code of Virginia; 62.1-44.15:51 and Virginia's Erosion and Sediment Control Regulations (9VAC25-840 et. al.). The Plan preparer must sign, date, and attach the checklist to any Erosion and Sediment Control Plan to be reviewed by CSWCD.

The 1992 Virginia Erosion and Sediment Control Handbook, 3rd Edition may be obtained online at

<http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/Publications/ESCHandbook.aspx>

I. Minimum Standards:

- ___ **Narrative** provides all 19 Minimum Standards (9VAC25-840-40)
- ___ If a Minimum Standard is not addressed with a specific practice in the plan, the intent to satisfy must be documented in writing with a **VARIANCE REQUEST**.
- ___ **MS 1:** Temporary and Permanent stabilization.
 - ___ Practices and limits of clearing shown on plan; Details and Seeding Specifications included
 - ___ Specified in Construction Sequence and Management Strategies Narrative
- ___ **MS 2:** Soil stockpiles and borrow areas stabilized and protected
 - ___ Specified in Management Strategies Narrative
 - ___ Temporary protection and Permanent Stabilization identified
- ___ **MS 3:** Requirements for establishment of permanent vegetation specified
 - ___ Specified in Management Strategies and Maintenance Narrative
- ___ **MS 4:** Perimeter control, sediment trapping measures specified as first step.
 - ___ Practices shown on plan; Details and Specifications included
 - ___ Specified in Construction Sequence and Management Strategies Narrative
- ___ **MS 5:** Earthen structures stabilized immediately after installation
 - ___ Specified in Construction Sequence and Management Strategies Narrative
- ___ **MS 6:** Sediment traps and basins properly sized.
 - ___ Detailed and Specifications provided; design calculations included
- ___ **MS 7:** Design of cut and fill slopes minimize erosion.
 - ___ Practices shown on plan; Details and specifications included
 - ___ Specified in Management Strategies Narrative
- ___ **MS 8:** Concentrated runoff on cut and fill slopes contained in conveyance
 - ___ Practices shown on plan; Details and Specifications included;
 - ___ Specified in Management Strategies Narrative
- ___ **MS 9:** Potential water seeps from slope faces
 - ___ Specified in Construction Sequence and Management Strategies Narrative
- ___ **MS 10:** Inlets, Culverts, and Filtering BMPs protected during construction
 - ___ Practices shown on plan; Details and Specifications included
- ___ **MS 11:** Channel linings and outlet protection specified
 - ___ Practices shown on plan; Details and Specifications included
- ___ **MS 12:** In-stream construction practices shown and details provided
- ___ **MS 13:** Temporary stream crossings provide non-erodible materials
 - ___ Practices shown on plan; Details and Specifications included

- ___ **MS 14:** Evidence of local, state and federal permits for in-stream and wetland
___ Judicial determination; wetland permit; water withdrawal permit provided
- ___ **MS 15:** Stabilization of bed and banks of a live water course
___ Practices shown on plan; Details and Specifications included
___ Specified in Construction Sequence and Management Strategies Narrative
- ___ **MS 16:** Underground utility lines addressed
___ Practices shown on plan; Details and Specifications included
___ Specified in Construction Sequence and Management Strategies Narrative
- ___ **MS 17:** Transport of sediment onto public roadways controlled
___ Practices shown on plan; Details and Specifications included
___ Specified in Construction Sequence and Management Strategies Narrative
- ___ **MS 18:** Timely removal of temporary erosion and sediment control measures
___ Specified in Construction Sequence and Management Strategies Narrative
- ___ **MS 19:**
 - ___ a. Downstream Analysis at Outfall of Open Channel and/or Pipe System
 - ___ b. Adequacy of all channels and pipes shall be verified accordingly:
 - ___ 1. Total drainage area to point of analysis is 100 times greater than the contributing drainage area or;
 - ___ 2a. 2-year velocity and depth maintained within banks of natural channel or;
 - ___ 2b. 2-year velocity and 10-year depth maintained within banks of manmade channel or;
 - ___ 2c. Pipe systems must pass the 10-year storm and have adequate discharge channel.
 - ___ c. Channel inadequate:
 - ___ 1. Improve the channel to meet design storms
 - ___ 2. Improve pipe system to meet design storms
 - ___ 3. Site design that provides detention that meets design storm requirements
 - ___ 4. Combination of measures that are acceptable to the VESCP authority
 - ___ d. Evidence of permission to make improvements (Drainage/Construction Easements and Agency Permits)
 - ___ e. Hydrologic analyses based on existing watershed and ultimate development
 - ___ f. Plan sets forth maintenance requirements and responsible party
 - ___ g. Detention outfall shall discharge to a channel and provide energy dissipaters
 - ___ h. All on-site conveyances adequate (culverts, storm sewers, ditches)
 - ___ i. Increase flows that may cause erosion diverted to adequate outfall or channel
 - ___ j. Stormwater runoff criteria applied to whole development
 - ___ k. All practices implemented to minimize impacts on the physical, chemical and biological integrity of rivers and streams of the state.
 - ___ l. Prior to July 1, 2014, 48 hr drawdown of WQV; 1-yr 24-hr extended detention; and reduction in 1, 2, and 10 year peak flows to forested condition
 - ___ m. After July 1, 2014, water quantity controls shall satisfy the stormwater law and attendant regulations, unless such activities are Grandfathered in accordance with 9VAC25-870-48. Satisfy the following regulations (9VAC25-870):
 - ___ Channel Protection (9VAC25-870-66B)
 - ___ Flood Protection (9VAC25-870-66C)
 - ___ n. Satisfying 9VAC25-870-66 satisfies minimum standard 19

II. Plan Narrative:

(Contractors should be able to refer to all activities and specifications in the Plan Narrative).

- ___ 1. Describe the nature and PURPOSE of the land disturbing activity, the amount of grading involved, and number of disturbed acres
- ___ 2. Describe the EXISTING CONDITION; topography, vegetation, and drainage.
- ___ 3. Describe NEIGHBORING AREAS such as rivers, streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance and post development drainage patterns.
- ___ 4. Describe the SOILS on site including soil name, mapping unit, erodibility, permeability, depth, texture, structure, and hydrologic group of each soil.
- ___ 5. Describe the CRITICAL AREAS on site that have potential to cause erosion or water quality problems due to the proposed land disturbing activity.
- ___ 6. Describe any local, state or federal PERMITS obtained or applied. This includes any permits for wetland and stream impacts or dam safety.
- ___ 7. Describe the CONTROL MEASURES which will be used to control erosion, sedimentation, and excessive runoff from the site.
- ___ 8. Describe how site will be STABILIZED during and after construction with permanent and/or temporary control measures.
- ___ 9. Describe how the site will be balanced between cut and fill areas, off-site areas, borrow area, and SOIL STOCKPILES.
- ___ 10. Describe schedule of regular MAINTENANCE inspections and repair of erosion and sediment control structures.
- ___ 11. Increases in STORMWATER RUNOFF volume, velocity and peak flow rate shall discharge to an adequate stormwater conveyance system or natural channel. (9VAC25-840-40 19.)
___ Complete Culpeper SWCD STORMWATER MANAGEMENT CHECKLIST

III. SITE PLAN

- ___ 1. Provide engineer (s) / surveyor(s) / landscape architect (s) / names, address, telephone number, and registration seal.
- ___ 2. Provide the owner (s) and/or developer (s) name, address, and telephone number.
- ___ 3. Provide copy of APPLICABLE PERMITS including VSMP with authorization signatures on COVER PAGE.
- ___ 4. Provide a SMALL SCALE MAP locating the site (and access) in relation to the surrounding area. Include any landmarks which might assist in locating the site.
- ___ 5. Provide ORIGINAL PLAN DATES and all REVISION DATES with a brief description of the items revised.
- ___ 6. Provide TITLES and numbering for all sheets.
- ___ 7. Provide plan SCALE sufficient to clearly convey the characteristics of the site and control measures.
- ___ 8. Show the location, width, and recordation information for all existing DRAINAGE EASEMENTS.
- ___ 9. Provide EXISTING CONTOURS at intervals no greater than five (5) feet.
- ___ 10. Provide FINAL CONTOURS at intervals no greater than two (2) feet.
- ___ 11. Show EXISTING VEGETATION (tree lines, and unique vegetation).
- ___ 12. Show boundary of different SOIL TYPES.
- ___ 13. Provide a NORTH ARROW on all sheets.
- ___ 14. Clearly show CRITICAL AREAS which have potential to present serious erosion or water quality problems.
- ___ 15. Provide a DRAINAGE MAP showing EXISTING and FINAL DRAINAGE DIVIDES (include: number of acres, direction of flow, "C" / CN numbers, rainfall, and discharges).

- _____ 16. Provide a CONSTRUCTION SEQUENCE narrative specifying implementation of perimeter controls, sediment trapping structures, stabilization, and removal. Including how transitions from Phase I to Phase II will occur.
- _____ 17. Show the Location and Description of all existing and proposed drainage structures, pipes, roof drains, swales, ditches, curbs and channels and the direction of flow in each.
- _____ 18. Provide CALCULATIONS SUMMARY TABLE for pre and post runoff rates, and drainage structure design parameters.
 _____ Complete Culpeper SWCD STORMWATER MANAGEMENT CHECKLIST
- _____ 19. Show locations of erosion and sediment CONTROL PRACTICES using symbols in the 1992 Virginia Erosion and Sediment Control Handbook.
- _____ 20. Show LIMITS OF LAND DISTURBANCE.
- _____ 21. Show locations of STOCKPILES AND BORROW AREAS with adequate protection measures included. If these locations are off-site, an addendum to the plan must be submitted to show the areas.
- _____ 22. Illustrate DETAIL DRAWINGS AND SPECIFICATIONS in accordance with the VESCH containing all dimensions and specifications of any structural practices used.

CERTIFICATION OF PLAN PREPARER:

I certify that the above checklist items are fulfilled in the attached erosion and sediment control plan, unless I have attached a written variance request for the omitted components.

 (signature of plan preparer)

 (date)

 (print name)

 (phone number)