

***EROSION AND SEDIMENT CONTROL PLAN
& PERMIT APPLICATION PACKAGE***



**SHENANDOAH COUNTY,
VIRGINIA**

Department of Planning & Zoning
600 North Main Street, Suite 107
Woodstock, VA 22664
(540) 459-6190

Shenandoah County Erosion and Sediment Control Process

- STEP 1 Submit a completed application package to the Planning & Zoning Office.
A complete application package consists of:
- THREE copies of the E&S Plan (Meeting all requirements of the State and local E&S Ordinance and the attached checklist)
 - E & S Permit Application
 - Appropriate Fee (per fee schedule shown below)
 - Maintenance agreement on stormwater facilities
- STEP 2 Racey Engineering will review plans and provide comments to the Planning and Zoning Office.
- Plans will be approved, approved with conditions or denied by the E & S Administrator.
 - If plans require major revisions; a resubmittal fee is required and revised plans will be resubmitted to Racey Engineering for further review.
 - If plans require only minor changes; Planning & Zoning Staff will review revised plans.
- STEP 3 Once the E&S Plan is approved (including all revisions), the Registered Land Disturber (RLD) and Bonding Agreement shall be submitted. Bonding is determined as 110% of the total established cost of the project. A bond estimate may be submitted with the plan by the E&S plan designer. (*Referenced in the Shenandoah County E&S Ordinance §87-5.; Permits and Bonding*).
- STEP 4 A preconstruction meeting will be scheduled by the Planning and Zoning Office. The meeting will be located at the land disturbance site with the engineer, contractor/developer and the Erosion & Sediment Control Inspector present.
- STEP 5 A Land Disturbance Permit will be issued.
- STEP 6 Inspections of the project site will take place bi-weekly or more frequently as deemed necessary.
- STEP 7 Upon completion of the land disturbance activity a final inspection of the project site will take place.
- STEP 8 Release of Bond, provided that:
- Infrastructure is complete and stabilized as shown on the approved E&S Plan.
 - A certified as-built plan (if required) is submitted and approved by the county, (*Shenandoah County E&S Ordinance §87-5 (1)(2), Permits and Bonding*).

The fee schedule for Erosion & Sediment Control in Shenandoah County is as follows:

Commercial/Industrial Developments	\$600 plus \$100 per acre*
Subdivision Developments	\$800 plus \$100 per acre*
Other (Individual Prop Owner Disturbances)	\$200 plus \$100 per acre*
Agreement in Lieu of Plan	\$30
Re-Submittal of Rejected Plan	\$25 (<i>if the revisions needed are minor and can be reviewed by staff</i>)
	\$75/hr. (<i>for County Engineers review</i>)

* (or any part thereof)

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EROSION & SEDIMENT CONTROL PERMIT APPLICATION

Project: _____

Location: _____

Tax Map Number: _____

Total Acreage: _____ Disturbed Acreage: _____

Type of Development: *(check all that apply)*

- Subdivision _____ *(no. of lots)* Commercial Building
 Soil Stockpile
 Road(s) _____ *(area)* Other *(specify)* _____

1. Owner or Developer: _____ Telephone: () _____

Mailing Address: _____ Email: _____

2. Excavating Contractor: _____ Telephone: () _____

Mailing Address: _____ Email: _____

3. Job Superintendent: _____ Telephone: () _____

Mailing Address: _____ Email: _____

4. Engineer: _____ Telephone: () _____

Mailing Address: _____ Email: _____

5. Responsible Land Disturber: _____ Telephone: () _____

Mailing Address: _____ Email: _____

I certify the above information is true and correct, that all erosion and sediment controls shall be installed before any land disturbance, and that we will conform to applicable laws.

Signature *(property owner)* _____ Date _____

Authorized Applicant _____ Date _____

OFFICE USE ONLY

Tax Map Designation _____ Permit No. _____

Date Plan Approved _____ Date Issued _____

Date Pre-Construction Conference _____ Fee _____

Bond Amount _____ Receipt No. _____

Approved _____ (E & S Administrator)

SHENANDOAH COUNTY CHECKLIST

Erosion & Sediment Control Plans

Project: _____ **County:** _____

Narrative:

_____ **Project Description: Describes the nature and purpose of the land disturbing activity.**

- Time of year the project will start and conclude.
- Estimated time for completion of this project.
- Total impervious area created by development.
- Ultimate developed conditions for this site are discussed.

_____ **Existing Site Conditions: Describes existing topography, vegetation and drainage.**

- Indicates the percentages of slope(s) on the site.
- Vegetation that can be used for erosion control, or areas to be left undisturbed.
- Discusses the marking of all areas to be preserved.
- Describes the drainage areas in pre and post development giving acreage.
- Discusses existing drainage and erosion problems and how they will be addressed.
- Describes the orientation of all slopes existing and proposed (i.e. north or south facing).
- Discusses how existing conditions can be utilized to reduce erosion and how E&S controls will be designed to facilitate this site.
- Includes photographs of site.

_____ **Adjacent Areas: Describes all neighboring areas such as streams, lakes, residential areas, roads, etc., that may be effected by this development.**

- Potential for off-site damage is discussed.
- All environmentally sensitive areas are discussed.
- Private and public lands adjacent to site are discussed addressing all possible problems to consider for traffic, dust, increased run-off, etc.
- Discusses all perimeter controls.

_____ **Off-site Areas : Describes all off-site areas such as borrow sites, waste or surplus sites.**

- All off-site areas have an approved plan to supplement the overall plan.
- Proof of permitting provided for all off-site areas under a separate permit.
- Specifies location of all off-site areas.

_____ **Soils: Briefly describes the soils on the site providing soil name, mapping unit, erodibility factor, permeability, depth, texture and soil structure.**

- Indicates references for soils information.
- Copy of Soils Map provided.
- Indicates the site plan page where soils are delineated.

Critical Areas: Describes all areas on site that have serious erosion problems (i.e. steep slopes, channels, wet weather/ underground springs etc.).

- Discusses all areas of the project, which may become critical during the project. For example, some areas of the site may have long or steep slopes during a certain phase of the grading.
- Indicates areas to be left alone until they can be graded and stabilized in favorable conditions.
- Discusses precautions to communicate limits of these areas to contractors and equipment operators.

Erosion and Sediment Control Measures: Describes the methods that will be used to control erosion and sedimentation on the site.

- Provides specification numbers for all control measures and indicates their locations.
- Discusses why these particular practices were selected.
- Discusses the sequence of installation; including maintenance and removal of each control.
- Indicates the type of seed for temporary seeding.

Permanent Stabilization: Describes how the site will be stabilized after construction.

- Provides adequate measures for final stabilization.
- Provides correct seeding times , consistent with the construction sequence.
- Includes any soil testing requirements.
- Includes seeding, fertilizer and liming specifications.
- Proposes an appropriate permanent vegetative cover.
- Discusses all areas that require stabilization by other means (non -vegetative stabilization ,gravel, paving, etc.)

Stormwater Runoff Considerations: Discusses whether the development will cause an increase in peak runoff rates. Describes any possible increase in runoff which may cause flooding or channel degradation downstream. Includes strategies to control stormwater runoff.

- Discusses protection of downstream properties and waterways.
- Discusses how increased runoff will be managed during construction.
- Discusses permanent structures and provides site plan page references for these items.

Calculations: Provides detailed calculations for the design of temporary sediment basins, permanent detention basins, diversions, channels, ,etc. Includes calculations for pre and post development runoff.

- Provides calculation worksheets showing pre-development and post-development runoff.
- Clearly presents and organizes calculation methods.
- Calculations support the design in regard to adequate protection of downstream properties and waterways.

Maintenance: Provides a schedule for maintenance of permanent control measures.

- Indicates responsible party for maintenance during construction and after construction
- Provides a schedule for inspections.
- Lists maintenance items to check and perform as well as precautions for large storms.

Erosion Control Site Plan:

_____ **Vicinity Map: Locates the site in relation to the surrounding area, indicating roads and local landmarks which identify the site.**

- Provides a vicinity location map such as a reproduction from a topo map, road map etc.

_____ **Indicates north:**

- Provides directional north indicator arrow on each sheet.

_____ **Limits of Clearing: Areas that are to be cleared and graded.**

- Areas to be disturbed (limits of clearing and grading) are clearly marked on site plan.
- Notation made as to how the site will be marked in the field (i.e, staking and flagging).
- All areas **not** to be disturbed are clearly marked . Notation made how these areas will be identified in the field.

_____ **Existing Contours: Existing contours of the site before development.**

- Existing contours shown as broken (dashed) lines at intervals not exceeding 5 feet unless otherwise approved.
- All pre-development drainage areas are clearly defined on plan.
- All potentially critical areas such as slopes are indicated.
- All cut and fill areas are clearly indicated

_____ **Final Contours: All changes to the existing contours, including final drainage patterns**

- All final grades and drainage areas are clearly indicated
- Any pre-development drainage areas which has increased is clearly indicated on plan
- Shows any final grades which create critical areas for stabilization.
- Provides specifications for vegetative cover for all slopes at final grade.

_____ **Existing Vegetation: Existing tree lines, grassed areas or unique vegetation.**

- Shows all tree lines and existing vegetation.

_____ **Soils: Boundaries for all different soil groups**

- Shows the mapping unit boundaries for all soil types.
- Provides soil classification information, shows borings if any.

_____ **Existing Drainage Patterns: The dividing lines and the direction of flow for all existing drainage areas.**

- All existing drainage areas must be indicated by acreage and show the direction of flow.
- Plans shows all basins, traps and/or other structures necessary to erosion control
- Designs for all proposed structures are consistent with the requirements in the Virginia Erosion and Sediment Control Handbook.
- Site plan indicates diversions for offsite drainage.

_____ **Critical Erosion Areas: Highlights areas that have a serious erosion problem or the potential for a serious problem.**

- All critical, environmentally sensitive or prohibited areas are indicated on the plan .Notations state the reason for concerns.
- Special consideration given to stream crossings, other permitting requirements, soil stock piles, trash and debris removal, fuel storage etc.

Site Development: Shows all improvements such as buildings, parking lots, access roads, and utility construction.

- Site plan shows all improvements intended such as buildings, roads, temporary access roads, right-of-ways and temporary and permanent easements.
- All utility improvements proposed on-site and off-site are shown.

Location of Practices: The locations for all erosion and sediment controls and stormwater management practices proposed for site

- All practices including vegetation are clearly labeled on site plans.
- Site plan contains a legend denoting symbols, line uses and other special characters.

Off-site Areas: Identifies all off-site land-disturbing activities such as borrow areas and waste sites. All necessary control devices must be depicted on plan or on a separate plan.

- Provides a separate plan for proposed off-site borrow or disposal areas.
- Provides for adequate measure to stabilize of-site areas.
- The plan identifies the responsible party for off-site activities.

Detailed Drawings: all proposed structural practices shall be referenced from the Virginia Erosion and Sediment Control Handbook or additional details provided for all structures that are referenced in the handbook.

- Details properly designed and clearly dimensioned to reflect the ability to be built in the field.
- Proposed structures of alternative design have adequate details for constructing.
- All drawings, elevations and cross section details indicate design scale.
- An outlet protection schedule is provided on the plans.
- The sizes for all proposed pipe, flume and slope drains provided on the plans.
- The plan details include VESCH specification numbers.
- Details of all practices being used provided on the plans.

Maintenance, A schedule of regular inspections and repair of erosion and sediment structures should be set forth.

- The plan indicates who is responsible for maintenance and repair of al E & S measures on the project.
- The plan indicates who the preliminary contact for notification of problems and/ or emergencies will be.
- The plan provides a maintenance schedule and specifications for the proper clean out and maintenance of all major structures such as basins, traps, silt fence etc.
- The plan requires monitoring reports to be submitted from the RLD.

Date Received: _____

Comments

Reviewer _____ **Date** _____