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## **WORCESTER SOIL CONSERVATION DISTRICT**

*304 COMMERCE STREET • SNOW HILL, MD 21863 • PHONE 410-632-5439 (EXTENSION 3)*

### **SEDIMENT AND EROSION CONTROL PLANS**

All SEC Plans should be delivered to the Worcester SCD office with the appropriate review fee enclosed with the plan before it will be reviewed.

The SCD District has 30 days to review and comment on the plan, usually it does not need the full amount of time.

All plans should be clearly marked with who needs to be contacted for approval or who needs to be contacted to pick up the final stamped plans.

The policies stated above have always been in effect, some people may not be aware or familiar with them due to the fact we have always tried to accommodate and speed up the approval process.

The following pages explain the process in detail, these guidelines are approved by MDE for the review of SEC plans.



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### A-2 DESIGN AND REVIEW PROCESS

Acceptable erosion and sediment control plans must be designed to mitigate soil erosion, prevent increases in stormwater runoff, and minimize the discharge of pollutants. The Act requires the establishment of a comprehensive process for the review and approval of erosion and sediment control and stormwater management plans. Planning for erosion and sediment control needs to start early and be integrated with stormwater management practices. A coordinated, comprehensive review process includes the submission and review of erosion and sediment control and stormwater management plans for each of the following three phases of plan development:

1. CONCEPT PLAN
2. SITE DEVELOPMENT PLAN
3. FINAL PLAN

This process is described in more detail in Chapter 4, Supplement #1, 2000 Maryland Stormwater Design Manual and outlines in Figure A.1 below.

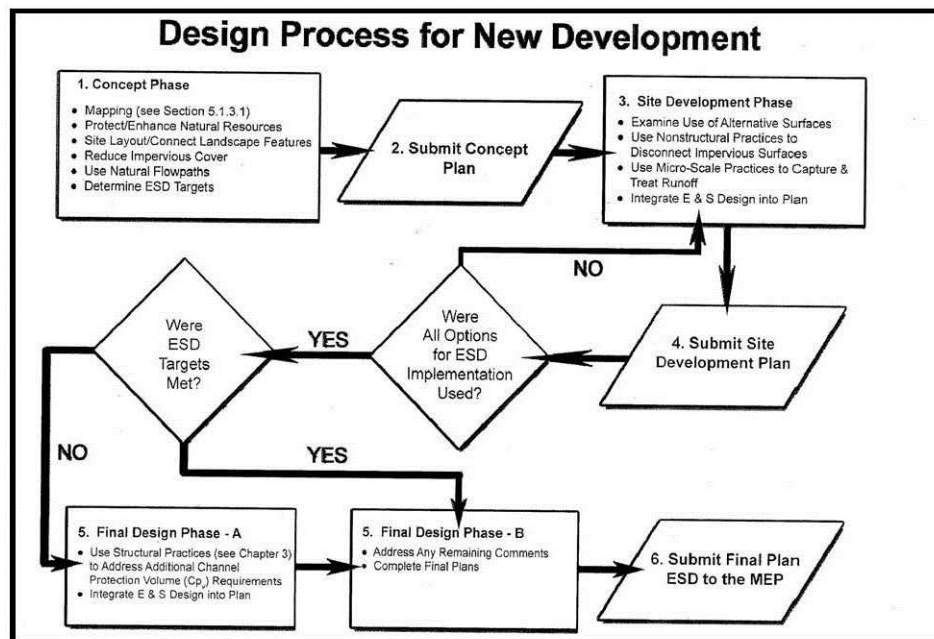


Figure A.1: Design Process for New Development

(Source: Chapter 5, Supplement #1, 2000 Maryland Stormwater Design Manual)



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### Concept Plan

Developing a plan begins with gathering, mapping, and analyzing information about the physical characteristics of the site. The proposed development site should be visited in order to clearly understand its topographic, vegetative, drainage, and soil characteristics. Relying exclusively on topographic maps, soils maps, and other materials found in the office without field verification is not an acceptable planning technique.

The topography of the site, mapped at suitable contour intervals, will allow the delineation of drainage areas, flow patterns, slopes, and natural resources such as wetlands, seeps, streams, forests, critical areas, and buffers. Downstream wetlands, lakes, streams, structures, Tier II waters, or other areas particularly sensitive to damage from erosion and sedimentation should also be investigated, mapped, and incorporated into the site design to afford these areas additional consideration. Investigating the site soil characteristics enables the designer to identify areas that should remain undisturbed.

The concept plan requires mapping of natural resources, vegetative buffer strips, highly erodible soils, and slopes 15 percent and steeper. These mapped areas are to be protected from erosion using additional measures or, wherever possible, designated to remain undisturbed. This data will serve as the foundation for developing the site development plan for both erosion and sediment control and stormwater management.

### Site Development Plan

The site development plan establishes the footprint of the proposed project and identifies the impacts of the proposed impervious surfaces on the existing natural conditions. This will better protect natural resources and buffers and allow for using ESD practices throughout the site. Included in this step is a narrative describing how erosion and sediment control will be integrated into the stormwater management strategy using ESD in accordance with The 2000 Maryland Stormwater Design Manual, Chapter 5, Supplement 1. Also included is the preparation of detailed designs, computations, and grading plans for a comprehensive review and approval. An overlay plan showing stormwater and erosion and sediment control practices is required as part of the site development submittal. After approval from the approval authority, the applicant will then proceed with final plan preparation.

### Final Plan

Final erosion and sediment control plans must include the limit of disturbance (LOD), the location of each sediment control practice, contours for sediment traps and sediment basins, associated construction notes, details, and representative cross-sections, as appropriate. Depiction of standard symbols on the plan needs to consider the footprint required for the device. Existing and proposed contours need to be shown at an appropriate interval. Drainage areas must be delineated for sediment control practices whose sizing is based on the drainage area, and, when necessary, design computations must be provided. When phasing is necessary, the sediment control plan must include initial, interim, and final phase sediment control practices, as appropriate. A sequence of construction must be provided with enough detail to guide the construction, maintenance, and removal of the erosion and sediment controls.



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### **REQUIREMENTS FOR FINAL EROSION AND SEDIMENT CONTROL PLAN**

Applicants are responsible for submitting an erosion and sediment control plan that meets the requirements established by the 2011 Standards. The plan must include sufficient information to evaluate the site conditions, environmental characteristics of the affected areas, potential impacts of the proposed grading on water resources, and effectiveness and acceptability of measures proposed to prevent soil erosion and off-site sedimentation.

#### **I. Content of the Erosion and Sediment Control Plan**

Applicants shall submit the following information, at a minimum:

- A. Application;
- B. Name, address, and telephone number of:
  - 1. The owner of the property where the grading is proposed;
  - 2. The developer; and
  - 3. The applicant;
- C. A vicinity map indicating north arrow, scale, site location, and other information necessary to easily locate the property;
- D. Project data for the property where the proposed grading is taking place including:
  - 1. Tax map(s);
  - 2. Parcel(s);
  - 3. Street address;
  - 4. Town/City;
  - 5. Zip Code;
- E. Drainage area map(s) at a 1" = 200' minimum scale showing existing, interim, and proposed topography, proposed improvements, standard symbols for proposed sediment control features, and pertinent drainage information including provisions to protect downstream areas from erosion for a minimum of 200 feet downstream or to the next conveyance system;
- F. The location of all natural resources including wetlands, 100 year floodplains, Chesapeake and Atlantic Coastal Bays Critical Areas, Tier II waters, highly erodible soils, slopes 15 percent and steeper, streams, forests, any and all buffers, and any other sensitive environmental areas required on a concept plan;
- G. Worcester County Forest Conservation Law statement;
- H. A soil layer on the plan and a general description of the predominant soil types on the site, as described by the appropriate soil survey information available through the local soil conservation district or the USDA Natural Resources Conservation Service;
- I. Proposed stormwater management practices;

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- J. Erosion and sediment control plans (site development and final) including:
1. The existing topography and improvements as well as proposed topography and improvements at a scale between 1" = 10' and 1" = 50' with 1 foot contours. For projects with flat contours or with more than minor grading, interim contours may also be required;
  2. Scale, project and sheet title, and north arrow on each plan sheet;
  3. The limit of disturbance (LOD) including:
    - a. Limit of grading (grading units, if applicable), and
    - b. Initial, interim, and final phases;
  4. The proposed grading and earth disturbance including:
    - a. Total disturbed area,
    - b. Volume of cut and fill quantities, and
    - c. Volume of borrow and spoil quantities;
  5. Storm drainage features, including:
    - a. Existing and proposed bridges, storm drains, culverts, outfalls, etc.,
    - b. Velocities (V2 and V10) and flow rates (Q2 and Q10) at outfalls, and
    - c. Site conditions around points of all surface water discharge from the site;
  6. Standard symbols and standard details for all proposed practices per 2011 Standard;
  7. Erosion and sediment control practices to minimize on-site erosion and prevent off-site sedimentation including:
    - a. The salvage and reuse of topsoil,
    - b. Phased construction and implementation of grading unit(s) to minimize disturbances, both in extent and duration,
    - c. Location and type of all proposed sediment control practices,
    - d. Design details and data for all erosion and sediment control practices, and
    - e. Specifications for temporary and permanent stabilization measures including at a minimum:
      - i. The following "Standard Stabilization Note" on the plan;

Standard Stabilization Note
Following initial soil disturbance or re-disturbance, permanent or temporary stabilization must be completed within: <ol style="list-style-type: none"><li>a.) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, Perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and</li><li>b.) Seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading.</li></ol>



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- i. Details for areas requiring accelerated stabilization;
  - ii. Maintenance requirements as defined in the Standards;
  - iii. Identification of interior areas of surface mines exempted from stabilization requirements to prevent contamination of the recoverable resource by the stabilization material;
  - iv. Vegetative stabilization requirements if applicable per Standard including but not limited to:
    - a. Soil Preparation, Topsoiling, and Soil Amendments as per Section B-4-2 of Standard;
    - b. Temporary Seeding Summary;
    - c. Permanent Seeding Summary;
    - d. Mulching as per Section B-4-3;
    - e. Maintenance Fertilization for Permanent Seeding;
8. A sequence of construction describing the relationship between the implementation and maintenance of controls, including permanent and temporary stabilization, and the various stages or phases of earth disturbance and construction. The sequence of construction, at a minimum, must include the following:
  - a. Request for a pre-construction meeting with the appropriate enforcement authority:
    - i. For properties located within the incorporated city limits of Berlin, Ocean City, Pocomoke City, and Snow Hill, contact the Maryland Department of the Environment at 410-901-4020 to schedule a pre-construction meeting at least 48 hours prior to commencing any site work. Failure to do so may result in an immediate stopwork order.
    - ii. For all other properties located within Worcester County, contact the Worcester County Department of Environmental Programs @ 410-632-1200 to schedule a pre-construction meeting at least 48 hours prior to commencing any site work. Failure to do so may result in an immediate stopwork order.
  - b. Clearing and grubbing as necessary for the installation of perimeter controls;
  - c. Construction and stabilization of perimeter controls (list proposed controls);
  - d. Remaining clearing and grubbing within installed perimeter controls;
  - e. Construction of additional sediment controls;
  - f. Road grading;
  - g. Grading for the remainder of the site;
  - h. Utility installation and connections to existing structures;
  - i. Construction of buildings, roads, and other construction;
  - j. Final grading, landscaping, and stabilization;
  - k. Installation of stormwater management measures;
  - l. Approval of the appropriate enforcement authority prior to removal of sediment controls; and,
  - m. Removal of controls and stabilization of areas that are disturbed by removal of sediment controls.

Note: Any changes or revisions to the sequence of construction must be reviewed and approved by the plan approval authority prior to proceeding with construction.

9. A statement requiring the owner/developer or representative to contact the appropriate enforcement authority or its agent at the following stages of the project or:
  - a. Prior to the start of earth disturbance;
  - b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading,

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- c. Prior to the start of another phase of construction or opening of another grading unit,
- d. Prior to the removal of sediment control practices;

10. Signature block as follows:

Certification by the owner or developer that any clearing, grading, construction, or development will be done pursuant to the approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control of erosion and sediment prior to beginning the project. Additionally, the owner or developer shall certify right of entry for periodic on-site evaluation by the appropriate enforcement authority and/or MDE;

- 11. A statement that maintenance shall be performed as necessary to ensure that stabilized areas continuously meet the appropriate requirements of “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control”.
- 12. A statement that approved plans remain valid for 3 years from the date of approval, with the except of surface mine and landfill plans which remain valid for 5 years from the date of approval unless specifically extended or renewed by the approval authority.
- 13. A statement that a Maryland Department of the Environment Notice of Intent (NOI) General Permit for Construction Activity is required for all construction activity in Maryland with a planned total disturbance of 1 acre or more.
- 14. A statement that as mandated by the Notice of Intent (NOI) general permit issued by the Maryland Department of the Environment, an inspection must be performed onsite of all sediment controls on a weekly basis and after every rainfall event. All self inspections must be maintained along with all applicable governing agency inspection reports in a log book, to be kept onsite at all times.
- 15. Certification by a professional engineer, land surveyor, landscape architect, architect, or forester (for forest harvest operations only) registered in the State that the plans have been designed in accordance with erosion and sediment control laws, regulations, and standards. The only exception to this requirement may be if a stormwater waiver is approved, and it will be at the discretion of the approval authority.
- 16. Any additional information or data deemed appropriate by the approval authority.

## II. Approvals

Approved plans are required prior to commencing with earth disturbance.

- A. Approval Requirements. An erosion and sediment control plan may be approved by the appropriate approval authority once all requirements of these Standards have been met.
- B. Approval Conditions. In granting the plan approval, the approval authority may impose additional conditions and criteria as deemed necessary to ensure compliance with the provisions of these Standards and the preservation of the State’s natural assets, resources, public health, and safety. Generally, additional controls will be required in environmentally sensitive areas, areas with highly erodible soils, or other facilities that require protection.

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- C. Suspension or Revocation. Any erosion and sediment control approval issued may be suspended or revoked after written notice is given for any of the following reasons or as determined by the appropriate approval authority:
1. Terms or conditions of the approved erosion and sediment control plans were violated;
  2. Violation notice(s) or stop work order(s) were ignored;
  3. Site characteristics upon which plan approval was based were changed; or
  4. Construction standards as required by the approved plan were disregarded;
- D. Modification of Approved Erosion and Sediment Control Plans. Modifications to an approved plan may be requested by the owner/developer or required by the appropriate approval or enforcement authority. Modification of an approved erosion and sediment control plan must be made in accordance with the erosion and sediment control criteria contained in these Standards and/or as directed by the enforcement authority. A written statement explaining the change(s), all revised plan sheets, and any necessary revisions to the report must be provided.



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### SCHEDULE OF FEES EFFECTIVE August 1, 2013

ITEM FOR REVIEW	FEE PER REVIEW
SEDIMENT/EROSION CONTROL:	
Plan review: 1-25,000 sq ft	<b>Base Fee \$75.00</b>
Plan review: 25,000 sq ft or more	Base Fee \$75.00 + \$2.50/1000 sq ft beyond 25,000 sq ft
Maximum total fees per review not to exceed	\$5,000.00
Plan Renewal/Plan Revision	\$75.00
Borrow Pits	Base Fee \$75.00 + \$1.50/1000 sq ft beyond 25,000 sq ft
FOREST HARVEST PLANS:	
Standard Plan	\$75.00
Standard Plan + Buffer Management	\$75.00