

## **SOIL EROSION AND SEDIMENT REQUIREMENTS FOR SINGLE-FAMILY RESIDENCES, INDIVIDUAL LOT CONSTRUCTION AND MINOR CONSTRUCTION PROJECT ACTIVITIES**

All earth disturbance activities in Pennsylvania are regulated by the requirements of 25 Pa. Code Chapter 102. Depending on the size and scope of a project, the requirements range from implementing and maintaining Best Management Practices (BMPs) to having a written Erosion and Sediment (E&S) Control Plan to requiring a National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges associated with construction activities.

### **How are the Size and Scope of the Project Determined?**

One of the key factors in determining what is required is the size of the area of disturbance, which is defined as the area affected by construction or other human activity that disturbs the surface of the land, including, but not limited to: land clearing and grubbing, grading, excavations, embankments, land development, and the moving, depositing, stockpiling, or storing of soil, rock, or other earth materials.

### **When is an E&S Control Plan Required?**

All earth disturbance activities, including those that disturb less than 5,000 square feet, must implement and maintain E&S control practices.

A written E&S Control Plan is required if one or both of the following apply: the total area of disturbance is 5,000 square feet or greater or if the activity has the potential to discharge to a water classified as a High Quality (HQ) or Exceptional Value (EV) water published at 25 Pa. Code Chapter 93 (relating to water quality standards). Since many municipalities have local ordinances that require a written and approved E&S Control Plan for disturbances less than 5,000 square feet, contact the local county conservation district office to determine whether a written plan is required under a local ordinance.

### **When is an NPDES Permit required?**

An NPDES Permit is required if one or more acres of earth is disturbed. Additionally, an NPDES permit would be required for an earth disturbance of less than one acre if it is part of a larger, common plan of development. A common plan of development is an area where several distinct construction activities are occurring under one overall plan (e.g., the construction of a house on a half-acre lot in a residential development where other homes are being constructed). Most single-family residence individual lot construction sites can avoid an NPDES permit if they are not part of a larger common plan of development. Contact the local county conservation district office to determine whether a permit is required.

### **What other Approvals May be Necessary?**

This fact sheet focuses only on state and federal E&S requirements. It is the responsibility of the landowner and contractor to ensure compliance with all local requirements as well. Additional state or federal permits may be needed when operating across, along or near surface waters. Surface waters are any and all rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, ponds, springs, wetlands, and all other bodies or channels of conveyance of surface water, or parts thereof, whether natural or artificial.

## What are E&S Control Practices or Best Management Practices (BMPs)?

E&S BMPs are activities or structures that effectively control stormwater during construction to prevent and minimize soil loss and surface water pollution. The implementation and maintenance of BMPs are required on all earth disturbance activities regardless of size. The following are common BMPs for a single-family residence individual lot construction site:

A filter fabric fence, commonly referred to as silt fence, can be purchased at most builders' supply stores or landscape centers. Silt fences must be a minimum of 18 inches in height. Filter fabric fences and straw bale barriers perform the same function and are referred to as perimeter controls. Either of these practices would be installed down-slope of the construction where the disturbed area meets vegetation in the undisturbed area. Proper installation and maintenance of the filter fabric fence and/or the straw bale barrier is crucial to the BMP's correct function.

A rock construction entrance is installed along the roadway for the purpose of cleaning mud from the tires of construction vehicles before they leave the worksite.

Site stabilization is one of the most effective tools available to control erosion. Site stabilization is used as both a temporary and permanent measure to control erosion on construction sites. When areas of a construction site are completed, they should be stabilized as soon as possible. Stabilization practices can use straw mulch, seed, manufactured erosion control products, or a combination of all of the above.

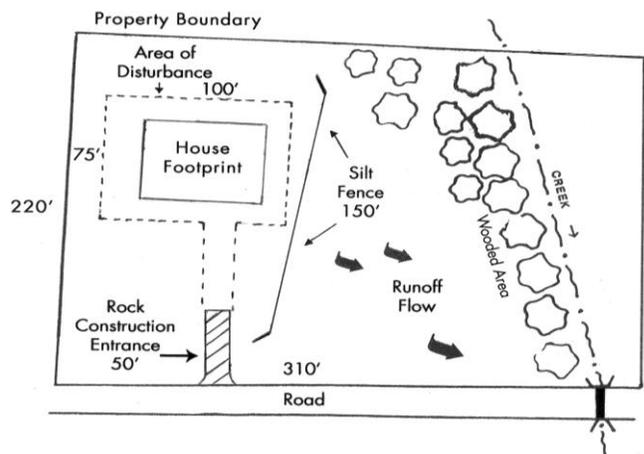
Details and specifications for the BMPs listed above may be obtained at the local county conservation district office.

## Erosion & Sediment Control Plan

### What is Included in a Written E&S Control Plan?

A site sketch should include the dimensions of the lot, identification and dimensions of the area to be disturbed, location of any prominent drainage, wetland or surface waters, location of any major trees, the lot's general slope characteristics, and the BMPs that need to be implemented. (Figure 1)

For the purposes of a single-family residence, a site sketch made by the landowner and/or operator should be adequate.



## NPDES Permit Assistance

If a single-family residence construction site is believed to need an NPDES Permit, the first step would be to discuss concerns with the contractor, consultant, municipality, or county conservation district. They will be able to assist in making the determination if an NPDES Permit is required.

The process of developing an NPDES Permit application is best completed by a licensed professional (engineer, geologist, surveyor, or landscape architect).

For more information, visit [www.dep.state.pa.us](http://www.dep.state.pa.us), keyword: NPDES Construction and Erosion Control.