



Fact Sheet

Commonwealth of Pennsylvania • Department of Environmental Protection

MINIMIZING ACCELERATED SOIL EROSION AND PREVENTING SEDIMENT POLLUTION

WHAT IS SOIL EROSION

Erosion is a natural process by which the surface of the land is worn away by water, wind or chemical action.

Accelerated erosion is the removal of the surface of the land through the combined action of human activities and natural processes at a rate greater than would occur from natural processes alone.

IS SEDIMENT REALLY A POLLUTANT?

A certain amount of erosion and sediment occurs naturally. Because it is a natural process, nature is able to assimilate naturally occurring sediments without permanent adverse effects. Adverse effects most often result from accelerated erosion due to earth disturbance activities such as surface mining, agricultural plowing and tilling, construction, and timber harvesting operations.

Why is sediment pollution harmful?

- Fish have gills which extract oxygen from the water. These gills can become clogged when the water transports excessive amounts of sediment.
- Sediment can cover fish eggs and the gravel nests they rest in.
- Sediment can destroy the food supply for many species of fish by covering aquatic insect habitat on the stream bottom.
- Sediment clouds the water and deprives plants of light needed for photosynthesis. This is thought to be the primary cause of the widespread die-off of aquatic vegetation in the Chesapeake Bay.
- Sediment may carry other pollutants such as heavy metals, pesticides and excess nutrients that are spread by water action and cause problems not only at the source, but also downstream.
- Sediment loads in our waterways often result in eroded and unstable streambanks.
- Sediment increases public drinking water treatment costs or may render unfiltered drinking water supplies harmful for consumption.

- Excess sediment deposits in streams and rivers may necessitate the dredging of a reservoir or other body of water.

HOW IS EROSION AND SEDIMENT CONTROL REGULATED?

Because of the soil erosion problems associated with earth disturbance activities, the Pennsylvania Environmental Quality Board (EQB) approved statewide regulations for Erosion and Sediment Control, 25 Pa. Code Chapter 102 in September of 1972 and amended them on January 1, 2000. These regulations are authorized by the Pennsylvania Clean Streams Law, 35 P.S. §§691.1 *et seq.*, and prohibit the discharge of any pollutant to waters of the Commonwealth. Under the Chapter 102 regulations, anyone conducting earth disturbance activities must use Best Management Practices (BMPs) to minimize the amount of sediment leaving the earth disturbance activity.

DEP is responsible for the administration and enforcement of Chapter 102 regulations and the Clean Streams Law. County Conservation Districts with trained staff are delegated the responsibility to review Erosion and Sediment Control Plans, conduct training, perform site inspections, and in some cases, conduct compliance and enforcement actions. Every county in Pennsylvania has a County Conservation District office except Philadelphia County.

WHAT IS REQUIRED?

An Erosion and Sediment Control Plan (Plan), which meets the requirements of Chapter 102, must be properly designed, implemented, and available on site for all earth disturbance activities. The Plan must show how land and water resources are to be protected against accelerated erosion through the use of Best Management Practices. Examples of BMPs include: silt fence, mulch, diversion ditches, sediment traps, sediment basins, and the establishment of grasses or other BMPs for permanent stabilization. The Plan must show the site, location of BMPs, and the timing and sequence of their installation for maximum effectiveness. County Conservation Districts are able to provide guidance for Plan development. Once completed, the Plan is often submitted to the Conservation District for review. Guidance for preparing a Plan, as

well as various BMP's that meet Chapter 102 requirements, can be found in the Department's "Erosion and Sediment Pollution Control Program Manual" dated 3/13/2000 (Document #363-2134-008).

Projects which disturb five or more acres of land (except for agricultural plowing or tilling, timber harvesting, and road maintenance activities) must obtain a National Pollutant Discharge Elimination System (NPDES) Permit for Stormwater Discharges Associated with Construction Activities before beginning any earth disturbance activity. For more information on this NPDES permit please refer to DEP Fact Sheet "Stormwater Permit for Construction Activities - NPDES" or contact one of the offices listed at the end of this Fact Sheet. Timber harvesting activities that disturb 25 acres or more of land for haul roads, skid trails, and landing areas, and road maintenance activities disturbing 25 acres or more of land, must obtain an Erosion and Sediment Control Permit. Agricultural plowing or tilling activities are exempt from permit requirements, but still require the development of a Plan or Conservation Plan, which specifies the implementation and maintenance of BMPs. For more information on Plans for Agricultural plowing or tilling, please refer to DEP Fact Sheet "Sediment and Erosion Control Requirements for Farming Operations" (3630-FS-DEP2416 12/99) or contact one of the offices listed at the end of this Fact Sheet.

Conservation Districts and DEP staff conduct periodic site inspections to ensure that the Plan is properly implemented and maintained. In addition, permittees, or anyone who conducts earth disturbance activities, must conduct routine site inspections and maintenance to ensure that BMPs are operational and effective and to minimize the potential for sediment pollution or other off-site impacts.

WHAT CAN YOU DO?

If you are planning to conduct an earth disturbance activity, make sure that you are doing your part. Proper planning and use of BMPs is the key to a successful project and the protection of the Commonwealth's water resources. Before you begin your project, become familiar with the Erosion and Sediment Control requirements. Inform your contractor or equipment operator of the need for Erosion and Sediment Control Plans as part of the project. If you need assistance or more information, contact your local county conservation district or a DEP regional office.

If sediment pollution is occurring, or if there is evidence that sediment pollution has occurred due to an on-going earth disturbance activity, contact the Conservation District for the county where the project is located. You will need to provide the location, type of activity, name of the project (if known), and whether sediment pollution is occurring.

FOR MORE INFORMATION, PLEASE CONTACT:

Your local county conservation district office:

or

One of DEP's Regional Offices:

Southcentral Region
909 Elmerton Avenue
Harrisburg, PA 17110
717-705-4707

Northcentral Region
208 West Third Street
Williamsport, PA 17701
717-327-3574

Southeast Region
Suite 6010, Lee Park, 555 North Lane
Conshohocken, PA 19428
610-832-6130

Northeast Region
2 Public Square
Wilkes-Barre, PA 18711
717-826-5485

Southwest Region
400 Waterfront Drive
Pittsburgh, PA 15222
412-442-4000

Northwest Region
230 Chestnut Street
Meadville, PA 16335
814-332-6942

or

Department of Environmental Protection
Bureau of Watershed Management
P.O. Box 8775
Harrisburg, PA 17105-8775
717-787-6827

This fact sheet and related environmental information are available electronically via Internet. For more information, visit us through PA PowerPort at <http://www.state.pa.us> or visit DEP directly at <http://www.dep.state.pa.us> (choose directLINK "Erosion Control Publications").



www.GreenWorks.tv - A web space dedicated to helping you learn how to protect and improve the environment. The site features the largest collection of environmental videos available on the Internet and is produced by the nonprofit Environmental Fund for Pennsylvania, with financial support from the Pennsylvania Department of Environmental Protection, 877-PA-GREEN.