Using an Erosion and Sediment Control Plan for Small Project Construction

BRADFORD COUNTY CONSERVATION DISTRICT

Here are some quick, helpful tips when developing an Erosion and Sediment Pollution Control (E&S) Plan for the construction of your small project under 5,000 square feet. Sediment is the #1 pollutant in North Central Pennsylvania's waterways and implementing Best Management Practices (BMPs) during earth disturbing construction is the best way to protect and maintain our waterways. By implementing E&S controls for even the smallest projects we can help reduce pollution and improve our counties water quality.

What is soil erosion and is it really a pollutant?

Soil erosion is a natural process by which topsoil is worn away under water, wind, or chemical action. Accelerated erosion is the removal of soil at a greater rate than would naturally occur on its own, often by human activity. This accelerated erosion deposits nutrient rich soils at a rate that cannot be property handled by our waters. The increased nutrient loads and sediment can lead to harmful adverse effects.

Why is Sediment Pollution Harmful?

- Fish have gills which extract oxygen from the water. These gills can become clogged when 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 waterways.
- 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 and cause problems not only at the source, but also downstream.
- Sediment will accumulate in our waterways, increasing flooding, reducing capacity, and may necessitate the dredging of our waterbodies. *Information provided by York CCD

Tips for Developing & Implementing an Effective E&S Control Plan

✓ Schedule your earth disturbance activities during the growing season.

Attempt to time your project during the growing season. Permanent grass seedlings will become better established and in a shorter period of time during the spring and early fall when temperatures and rainfall are optimal for grass growth.

✓ Locate BMPS along the downslope perimeter of all areas to be disturbed.

This allows for all runoff flowing over or through disturbed and/or exposed earth areas to pass through the BMP prior to discharging into our waterways.

✓ Properly install the E&S BMPs you plan to use prior to disturbing any earth.

Make sure all the BMPs you use are properly installed according to the manufacturer's instructions. Things such as trenching the bottom of silt fences and staking through silt socks, not behind them, can drastically change the efficiency of the BMP and decrease sediment leaving the site.

✓ Inspect and maintain BMPs.

Silt fences will fill with sediment and get knocked down by equipment, rivulets turn into gullies from concentrated water flows, and grass seed and straw can wash away after heavy rain events. BMPs should be inspected and maintained at least weekly to ensure they are all still properly working.

✓ Permanently stabilize or temporarily stabilize all disturbed areas.

Established vegetation is the most practical and effective form of erosion control. After final grading, immediately spread topsoil, seed, straw-mulch, lime, and fertilize all disturbed areas.

✓ Remove BMPs and properly recycle or dispose of construction material.

Once all disturbed areas have achieved a minimum uniform 70% vegetative cover, or have been stoned or paved, the BMPs can then be removed from the site. All construction waste, such as used silt fences etc., should be recycled or properly disposed of.

Remember it is illegal to grade or place fill in a suspected wetland area or within the DEP regulated 50ft floodway of a stream without prior authorization!

Projects over 5,000 square feet and less than 1 acre require a written erosion and sedimentation plan under the Clean Streams Law but does not need to be submitted to the BCCD for approval. Projects over one acre or more require the submission of a NPDES permit application to the BCCD and approval.

Please contact our office at 570-485-3144 or come see us at 200 Lake Rd Towanda, PA 18848 if you have further questions or want assistance developing an E&S Plan!