Stormwater and the Construction Industry

Protect Natural Features
- Minimize clearing.
- Minimize the amount of exposed soil.
- Identify and protect areas where existing vegetation, such as trees, will not be disturbed by construction activity.
- Protect streams, stream buffers, wild woodlands, wetlands, or other sensitive areas from any disturbance or construction activity by fencing or otherwise clearly marking these areas.
- Minimize clearing.
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Construction Phasing
- Sequence construction activities so that the soil is not exposed for long periods of time.
- Schedule or limit grading to small areas.
- Install key sediment control practices before site grading begins.
- Schedule site stabilization activities, such as landscaping, to be completed immediately after the land has been graded to its final contour.

Vegetative Buffers
- Protect and install vegetative buffers along waterbodies to slow and filter stormwater runoff.
- Maintain buffers by mowing or replanting periodically to ensure their effectiveness.

Maintain your BMPs!

Silt Fencing
- Inspect and maintain silt fences after each rainstorm.
- Make sure the bottom of the silt fence is buried in the ground.
- Securely attach the material to the stakes.
- Don’t place silt fences in the middle of a waterway or use them as a check dam.
- Make sure stormwater is not flowing around the silt fence.

Site Stabilization
- Vegetate, mulch, or otherwise stabilize all exposed areas as soon as land alterations have been completed.

Construction Entrances
- Remove mud and dirt from the tires of construction vehicles before they enter a paved roadway.
- Properly size entrance BMPs for all anticipated vehicles.
- Make sure that the construction entrance does not become buried in soil.

Slopes
- Rough grade or terrace slopes.
- Break up long slopes with sediment barriers, or under drain, or divert stormwater away from slopes.

Dirt Stockpiles
- Cover or seed all dirt stockpiles.

Storm Drain Inlet Protection
- Use rock or other appropriate material to cover the storm drain inlet to filter out trash and debris.
- Make sure the rock size is appropriate (usually 1 to 2 inches in diameter).
- If you use inlet filters, maintain them regularly.

www.epa.gov/npdes/”
The Stormwater and the Construction Industry

Planning, Developing and Implementing Sediment and Erosion Control Practices

Developing and Implementing a Plan

You must have a Plan that includes erosion and sediment control and pollution prevention BMPs. These Plans require:

- Advance planning and training in sediment and erosion control procedures.
- Erosion and sediment control BMPs to control all visible runoff.
- Pollution prevention BMPs to control the construction site's "clean" activity.
- Emergency procedures for preventing pollution in the event of a release.
- Delineation and documentation of stability and maintenance BMPs.

Fortunately, the practices and measures that must be included in your Plan are already part of the standard operating procedures at many construction sites.

There's a wealth of information on erosion and sediment control and pollution prevention plans. Please contact your permitting authority for help in finding additional guidance materials, or visit this website for EPA-instrumented information.

A sample construction site plan is available at: www.epa.gov/epaoswer/stormwater/937c11a4.pdf

1. Site Evaluation and Design Development

- Collect site information
- Develop site plan design
- Prepare pollution prevention site map

The first step in preparing your Plan is to identify the characteristics of the site and the type of construction that will occur. This involves collecting site data on such a variety of factors that it usually requires several trips to the site.

There may be more than one property at the site where these definitions and maps apply for permit coverage. (States have different definitions of the term “property.”)

So what's being done about polluted runoff?

The Clean Water Act includes the National Pollutant Discharge Elimination System (NPDES) permitting program. As of January 2003, 44 states and territories are authorized to issue NPDES permits. If your state isn't authorized, you may post a notice that tells where the Plan is kept so it can be accessed by the permitting authority.

Under the NPDES program, construction activities that disturb 1 or more acres are required to obtain stormwater and sediment control permits from their state's NPDES permitting authority. In general, construction permits require construction operators to:

- Identify the construction project.
- Describe the construction activity.
- Describe the construction site.

If construction activities change at any time, or if more appropriate BMPs are determined, the Plan must be modified. Any Plan that is constructed to minimize the amount of exposed soil at a property is an effective means to protect the site from erosion and sediment pollution.

Soil erosion control steps:

- For residential construction only, temporary stabilization of a site with gravel, rock, sod, or mulch
- Trimming and scalping of vegetation, and any structural measures necessary to control pollutant discharges

The Plan must include:

- A list of the pollution prevention practices you have or will implement to control sediment and water pollution resulting from your construction activities
- A description of the procedures you will use to prevent reoccurrence of the release
- Dates when construction activities permanently cease on the site or a portion of the site
- Dates when construction activities temporarily cease on the site or a portion of the site
- Measures taken to perform final stabilization

5. Implementing and Maintaining a Plan

- Implement controls
- Inspect and maintain controls
- Update plans

6. The Project: Final Stabilization and Termination of the Permit

- Final stabilization
- Notice of Termination

Records required:

- Dates when construction activities permanently cease
- Dates when construction activities temporarily cease
- Measures taken to perform final stabilization
- Dates when construction activities permanently cease on the site
- Dates when construction activities temporarily cease on the site
- Measures taken to perform final stabilization
- Site map with:
  - Stormwater discharge locations
  - Approximate slopes after major grading
  - Stormwater control measures
  - Velocity dissipation devices

- Structural practices for all drainage/discharge locations
- Erosion control BMPs in place until the area is permanently stabilized
- Erosion and sediment control BMPs in place until the area is permanently stabilized

It's also important to keep records of BMP implementation, application, maintenance, and training. Keep a record of all pollution prevention measures that are installed.

Any Plan that is constructed to minimize the amount of exposed soil at a property is an effective means to protect the site from erosion and sediment pollution.

A Plan describes the prevention and maintenance requirements you have to follow to prevent pollution from your construction activities.

At some point, you'll need to implement and maintain your Plan.

You must have a Plan that includes erosion and sediment control and pollution prevention BMPs. These Plans require:

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- Emergency procedures for preventing pollution in the event of a release.
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The Plan must include:

- A list of the pollution prevention practices you have or will implement to control sediment and water pollution resulting from your construction activities
- A description of the procedures you will use to prevent reoccurrence of the release
- Dates when construction activities permanently cease on the site or a portion of the site
- Dates when construction activities temporarily cease on the site or a portion of the site
- Measures taken to perform final stabilization

The Plan must include:

- A list of the pollution prevention practices you have or will implement to control sediment and water pollution resulting from your construction activities
- A description of the procedures you will use to prevent reoccurrence of the release
- Dates when construction activities permanently cease on the site or a portion of the site
- Dates when construction activities temporarily cease on the site or a portion of the site
- Measures taken to perform final stabilization

Any Plan that is constructed to minimize the amount of exposed soil at a property is an effective means to protect the site from erosion and sediment pollution.

A Plan describes the prevention and maintenance requirements you have to follow to prevent pollution from your construction activities.

An ounce of prevention is worth a pound of cure. Our Plan is effective and cost-efficient to prevent problems from occurring. This Plan can be used to help solve problems that occur later. Installing and maintaining BMPs and pollution prevention techniques can reduce the risk of stormwater pollution and can also save you money!