PRE-CONSTRUCTION



Initiate Staging Area

- 1. Post required Rule 5 information at the site entrance:
 - a. A copy of the Notice of Intent
 - b. Project owner and complete contact information
 - c. Local contact information (Site Manager)
 - d. A set of construction plans or their location
- 2. Establish staging area for construction operations.
- 3. Establish fueling area. Tanks should be double walled or have secondary containment.
- 4. Establish concrete washout area and post signage. Use 10 mil liner in pit with no seams. Secure liner in place.
- 5. Install port-a-let away from storm inlets or channels. Secure to the ground to prevent tipping over.
- 6. Provide storage containers for chemicals, oils, and/or fluids on the job site.
- Establish solid waste container.

Note- Additional items may be required. This list is not meant to be conclusive.

SITE INSPECTIONS



Purpose

To meet the requirements of Rule 5 and ensure the practices installed are performing well.

State Requirements

- 1. Complete a site inspection report a minimum of once per week.
- 2. Complete a site inspection within 24 hours after a 0.5" or more rainfall has ended.
- 3. Follow up with needed maintenance or make changes in the plan to address failures.

Recommendations

- 1. Do some inspection in the rain to fully understand drainage occurring on your site.
- 2. Assign a knowledgeable person to complete the site inspections and file the reports.
- 3. Place a rain gage onsite and record rainfall events.
- 4. Prepare a method that will take your knowledge of what needs to be maintained onsite to the person or subcontractor who will do it.
- 5. Problems, changes, and maintenance are expected on a construction site. Site reports that never include a deficiency are very suspicious.
- 6. Document that deficiencies have been remedied through maintenance or by changing the plan.

JOB COMPLETION



Purpose

Stabilize disturbed soil and complete regulatory requirements

Requirements

Don't forget the paperwork. There may be local, state, and federal requirements. Indiana Department of Environmental Management regulates Rule 5 and requires a Notice of Termination (NOT) to be completed in order to officially close out the site.

The following requirements must be met:

- 1. All land disturbing activities, including construction on all building lots, have been completed and the entire site has been stabilized;
- 2. All temporary erosion and sediment control measures have been removed; and
- 3. No future land disturbing activities will occur at the project site.

Check the local MS4 for their requirements.

Note: The US EPA has required paperwork reviews that include NOIs, NOTs, and weekly inspections. These papers should be kept after the job is finished for project documentation.

For more information, see the Indiana Stormwater Quality Manual, Chapter 6

CONSTRUCTION PRACTICES



Dewatering

Purpose

Dewatering practices prevent coffee colored water from being discharged offsite. They remove the larger soil particles through filtration and settlement.

Installation

- 1. Pumping bags are frequently used. Large stilling basins can also be used to remove sediment.
- 2. Pumping bags should be installed on a level surface. The area around the bag should be stable (grass or stone).
- 3. Size the pumping bag or settlement basin for the size of the pump.
- 4. Dewatering operations that are removing clean groundwater do not need a sediment removing practice.
- 5. Protect the discharge point for the pump outlet to prevent point source erosion.

Maintenance

- 1. Maintain sealed pipe connections.
- 2. Inspect discharge point for erosion and make any necessary improvements.
- 3. Replace pumping bags when full. The sediment can stay onsite, but the geotextile bag will need to be disposed of in a landfill. Some bags made with natural materials can be buried.

PERMANENT STABILIZATION PRACTICES



Permanent Seeding and Sodding

Purpose

Stabilize disturbed soil.

Installation

- 1. Complete final grading and prepare seed bed. Apply recommend amounts of fertilizer and lime prior to seeding. Soil tests are recommended for accurate application.
- 2. Time the seeding to take advantage of good seeding weather.
- 3. Review the SWPPP to determine the type of grass and the method required to plant it.
- 4. Mulch in the form of hydro mulch, straw or erosion control blanket is normally required for good grass growth.
- 5. The addition of 4"-6" of topsoil will promote rapid grass growth, reduce fertility needs and reduce irrigation.

Maintenance

- 1. Inspect after each storm and repair damage.
- 2. Seed bare areas where grass has not sprouted.
- 3. Add fertilizer (150#/acre or 12-12-12) six weeks after seeding to promote good growth.
- 4. Add erosion control blankets or other practices to stop erosion.
- 5. Mow as needed to maintain height and weeds.

PERMANENT STABILIZATION PRACTICES



Erosion Control Blankets

Purpose

Provide immediate stabilization of the soil and retain moisture for grass germination. EC blankets are especially useful where runoff water will displace other forms of mulch and cause rill or gully erosion.

Installation

- 1. Select a blanket type that meets the site requirements. Longevity and how well it resists water flow are key specifications.
- 2. Grade and prepare a seed bed. Add soil conditioners as required for vegetative growth. Install the blanket according to manufacture or SWPPP instructions.
- 3. Make sure the blanket lays flat and contacting the soil surface.
- The blanket needs to be secured and/or entrenched where runoff water flows onto the blanket.
- 5. Blankets should overlap like shingles on a roof. The lower one goes under the upper one.

Maintenance

- 1. Inspect after rain events and repair damage.
- 2. Remove significant sediment deposited after runoff events.

PRE-CONSTRUCTION PRACTICES



Check Dams

Purpose

Drainage ditches need temporary silt check dams to capture sediment and slow flow velocities, thereby reducing erosion. Check dams can be made of rock or stone-filled bags. They are only effective with smaller drainage areas, typically less than 5 acres.

Installation

- 1. Seed ditches and install silt checks before excavating, filling, or grading uphill areas.
- 2. Tie sides of silt check to upper banks of ditch. The middle section should be lower.
- 3. Check dam spacing is dependent on the slope of the ditch. For a ditch with a 30% grade, spacing is 10 feet. For a ditch with 0.5% grade, spacing is 600 feet.
- 4. If using stone-filled bags, the tied end of the bag should be facing downstream.
- 5. Do not place silt checks in creeks or streams. Sediment must be intercepted before it reaches streams, lakes, rivers, or wetlands.
- 6. Placing filter fabric under the check dam will make removal much easier.

Maintenance

- 1. Inspect, repair, and clean out sediment from upstream side of silt checks after each rainfall exceeding ½ inch, and when silt accumulations have reached ½ the height of the check dam.
- 2. Remove temporary silt checks after the site is stabilized and vegetation is established.

PRE-CONSTRUCTION PRACTICES



Stone Construction Entrance

Purpose

A Construction Entrance provides a temporary point of access to a construction site, to prevent the tracking of soil onto private or public streets. <u>Initiate additional practices if stone entrance is inadequate.</u>

Installation

- 1. Install prior to any construction activity
- 2. Install geotextile under the stone if the subsoil is soft or wet.
- 3. Minimum length is 50 feet.
- 4. Minimum width is 20 feet.
- 5. Minimum depth of stone is 8 inches.
- 6. #2 stone is recommended
- 7. Enlarge the entrance for cut/fill sites to have extra capacity for dump trucks.

Maintenance

- 1. Add stone if entrance is filled with sediment.
- 2. Sweep or scrape all soil that has been tracked onto street and dispose of properly.
- 3. Install tire wash facility if stone construction entrance is not adequate.

PRE-CONSTRUCTION PRACTICES



Silt Fence

Purpose

Drainage ditches need temporary silt check dams to Silt fencing is commonly used to pond, settle, and filter sediment from sheet runoff.

Installation

- 1. Install silt fence prior to land disturbing activities.
- 2. Silt fence should be installed 6 inches deep, at a minimum. Make sure wooden stakes are on the downstream side of the flow.
- 3. On slopes, set back from slope toe to allow for maintenance. Make sure fencing is trenched in properly.
- 4. Install multiple sections of silt fence for long slopes and steep slopes. Place every 60 to 110 feet
- 5. Make sure the downstream end of the silt fence is installed along the contour to increase the ponding area (i.e. place fence along the same elevation).

Maintenance

- 1. Inspect frequently to detect and address bypasses, undercutting, and overtopping.
- 2. Clean accumulated silt from behind fence once sediment has reached 1/3 the height of the fence.
- 3. Inspect all silt fences prior to an anticipated storm event to avoid failure.
- 4. Because silt fence has a 6-9 month lifespan, make sure routine replacements occur.

Purpose of the Pocket Guide

The purpose of this Pocket Field Guide is to provide a quick reference tool which can be utilized on the job site. It contains the most common BMPs used on construction sites in Central Indiana. For more information on any of the BMPs listed, including specifications and details, consult the Indiana Storm Water Quality Manual at: http://www.in.gov/idem/stormwater/

Summary of Rule 5: Erosion & Sediment Control

Purpose:

- Keep the waters of Indiana clear and free from soil and sediment.
- Prevent contamination of soil and water resources with the discharge of harmful pollutants.
- Have contingency plans if a spill occurs.
- Prevent degrading of adjoining properties from wind-blown soil, construction packaging, or debris.

Compliance:

- Have an approved Storm Water Pollution Prevention Plan (SWPPP) and use it.
- Follow Indiana Department of Environmental Management (IDEM) rules.
- Comply with rules and requirements from local regulators.
- Do the paperwork.
- Properly install and maintain the practices shown on the SWPPP.
- Self-inspections may reveal deficiencies with the plan. Make corrections, note them on the SWPPP, and confirm with the site inspector.
- Make changes as required by the inspecting authority.
- Restore disturbed area as quickly as possible to protected cover.



Contact Information

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Floyd County:

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Town of Georgetown:

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City of Jeffersonville:

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City of New Albany:

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Town of Sellersburg:

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Floyd Co. Soil & Water Conservation District:

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For more information, please visit

www.siswac.org

Erosion Prevention Sediment Control SHIRT POCKET FIELD GUIDE

