

STORMWATER FACT SHEET: CONSTRUCTION SITE BMP TIPS



Quick facts on...

Sequencing and Maintaining BMPs



Current IDEM Construction Stormwater General Permit (CSGP) and Local Ordinance Requirement: A SWPPP must include, a construction sequence describing the relationship between implementation of stormwater quality measures and stages of construction activities. In accordance with the Indiana Storm Water Quality Manual (and local Technical Standards Manual), a typical Construction Sequence includes the items noted below. All activities on a site should be conducted in a logical sequence so that the smallest practical area of land will be exposed for the shortest practical period of time during development.

1. PRECONSTRUCTION ACTIVITIES



- Preconstruction Meeting with local MS4 staff
- Protect adjacent wetlands, streams, lakes, sensitive areas
- Protect trees and area around root zones

5. INITIAL LAND CLEARING & MASS GRADING



- Clear and grub vegetation
- Strip & stockpile topsoil
- Locate stockpiles per SWPPP
- Stabilize topsoil stockpiles

2. CONSTRUCTION SITE ACCESS



- Install Construction Entrance
- Install gravel equipment parking area
- **Must be installed before proceeding with land disturbing activity**

6. INSTALL NEW STORMWATER CONVEYANCE SYSTEMS



- Install storm sewer system and inlets
- Protect storm drain inlets
- Construct swales
- Install sediment traps
- Stabilize swales with vegetation

3. PERIMETER CONTROLS



- Install sediment barriers (silt fence, etc.)
- Install stormwater outlets/outfalls and protection devices
- **Must be installed before proceeding with land disturbing activity**

7. TEMPORARY STABILIZATION



- Initiate stabilization on unvegetated areas that are to be left inactive for 7 days or more
- Revegetate areas with a density of less than 70% uniform vegetation

4. SITE STORMWATER RUNOFF CONTROL



- Divert upland stormwater runoff around the site (diversion channels)
- Construct on-site sediment traps and basins
- Divert runoff into sediment-trapping BMPs

8. FINAL GRADING & PERMANENT STABILIZATION

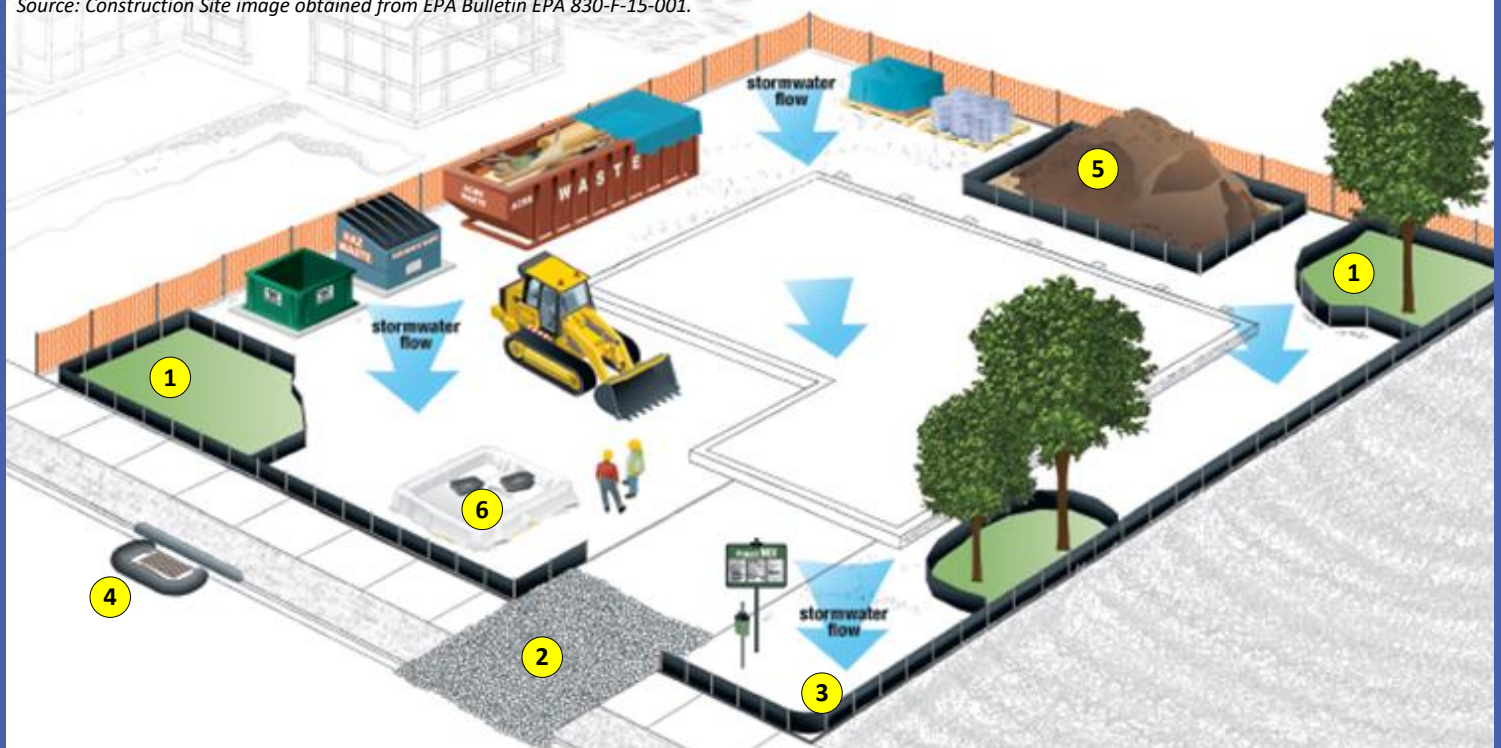


- Complete final shaping and grading
- Apply topsoil and soil amendments
- Plant trees and shrubs
- Apply permanent seeding and mulching

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Current IDEM CSGP and Local Ordinance Requirement: "During the period of construction activities, all stormwater management measures necessary to meet the requirements of this permit must be maintained." In addition to meeting your permit compliance obligations, proper BMP maintenance can save a Contractor time and reduce costs. Routine BMP maintenance can be less cost than reactive BMP repairs and BMP replacements.

Source: Construction Site image obtained from EPA Bulletin EPA 830-F-15-001.



1. PRESERVE/PROTECT EXISTING TREES & VEGETATION

Maintain physical barriers around trees and other vegetated areas that are to be preserved. Minimizing the land disturbance on a construction site is an effective method of preventing erosion and can save the Contractor time and money.

4. INLET PROTECTION

Functioning inlet protection BMPs can be your last line of defense to keep sediment out of downstream waterways and avoid citations, violations or fines. Without routine maintenance, BMPs can clog and cause a safety hazard (localized flooding).

2. CONSTRUCTION SITE ACCESS

Sediment on roadways from a construction site is a common complaint from citizens. One can minimize/avoid these types of complaints by maintaining the entrance. Redressing of the stone may be required to provide voids capable of trapping sediment.

5. TOPSOIL STOCKPILES

Stockpiling topsoil for later reuse can save time and money, however, the stockpile must be stabilized. Unvegetated areas left idle for 7 days or more must be stabilized (CSGP). Stockpile perimeter control keep sediment away from the larger work area.

3. PERIMETER CONTROLS

Excessive build up of sediment can bulge/damage silt fence. Removal of accumulated sediment is necessary for perimeter controls to work properly and can extend the life of your BMP. Follow your SWPPP notes regarding sediment removal.

6. CONCRETE WASHOUT

Concrete washout water can contain elevated pH levels and must be contained within a leakproof BMP. Having inadequate, poorly maintained or over capacity concrete washout systems can be problematic and result in concrete delivery delays.

PROACTIVE BMP MAINTENANCE PLANNING: MONITORING WEATHER FORECASTS

Preparing in advance for rain events can mitigate potential erosion and sediment control issues and minimize the cost of sediment cleanup after heavy rains. The Indiana Storm Water Quality Manual contains the following language: "Project representatives should monitor the weather forecast on a regular basis. When rainfall is predicted they should have the ability to adjust the construction sequence to allow for the implementation of soil stabilization and appropriate sediment control measures prior to the onset of any rain."