Construction Affecting Stormwater

Municipalities have many factors that contribute to stormwater pollution. Construction sites that are not managed properly are one of the biggest contaminators; particularly in the case of sediment. As large amounts of land are cleared for new development, the amount of impervious land is decreased. This causes more water to be shed from the site. The water leaving the site carries significant amounts of sediment, which damages storm sewers and waterways.

The Problem with Stormwater

Stormwater is water from any rain or snow event that enters local waterways instead of infiltrating the ground. The stormwater may flow over buildings, yards, streets, fields, and ditches before reaching the storm sewer or river. During this time the water can become greatly contaminated; trash, pet waste, chemicals and sediment are all common pollutants. All of this water goes into local lakes and rivers that we use for drinking, irrigation, and recreation. Pollutants cause health problems to those that come in contact with the water, and they are detrimental to local waterways.

The effects of stormwater continually increase. As more land is developed the area of ground that water can infiltrate decreases. This causes a greater amount of stormwater to travel over land, and eventually into the storm sewer. Through the adoption of various strategies and best management practices (BMPs) we can lower pollutants entering waterways, and decrease the amount of water entering storm sewer systems.

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Construction Site Stormwater Management

Protect Natural Features

- Minimize clearing and exposed soil.
- Identify and protect areas where existing vegetation, such as trees, will not be disturbed by construction activity.

- Protect streams, wild woodlands, wetlands, or any other sensitive areas from any disturbance by clearly marking these areas.

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.

Concrete Washout

- Washout should be done on site, in a stabile area away from public right-of-ways and slopes.
- A washout pit/ container should be used if possible.

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.

Site Stabilization/Dirt Stockpiles

- Vegetate, mulch, or otherwise stabilize all exposed areas as soon as land alterations are completed.
- Cover or seed all dirt stockpiles.

Slopes

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

Construction Entrances

- Remove mud and dirt from the tires of construction vehicles before they enter a paved roadway.
- Size entrance BMPs for all anticipated vehicles.

- Make sure that the construction entrance does not become buried in soil.

Storm Drain Inlet Protection

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

Vegetative Buffers

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