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Spoil Piles

Description

Spoil piles are excavated materials consisting of topsoil or subsoils that have been removed and temporarily stored during the construction activity. This BMP addresses spoils which will be stored during most of the construction phases, as well as spoils which will be spread to blend into the natural topography. Specifications for dredged spoils are also included.

Other Terms Used to Describe

Soil Piles
Stock Piles
Storage Piles

Pollutants Controlled and Impacts

Properly placed and stabilized spoil piles will reduce soil erosion.

Application

Land Use
Construction sites and anywhere dredging is done.

Soil/Topography/Climate
All stockpiled soils need to be stabilized because of their highly erodible nature. Even soils subject to quick freezing need to be protected since they will eventually thaw.

When to Apply
Stripping and stockpiling topsoil should be done early in the excavation stage of the project to save all the fertile soil on-site. Subsoils should not be mixed with topsoil and should be stockpiled in stages to minimize the exposure time.

Where to Apply
Apply in all areas where spoil piles are created during grading operations. Also apply in all areas which are dredged.

Relationship With Other BMPs

Spoil piles are usually created during Land Clearing operations. Filter fencing is usually put in at the base of the storage pile to prevent soil from leaving the site. Spoil piles should be stabilized following specifications in the Seeding BMP.

Specifications

For Spoil From Dredging Operations:

1. Spoil collected during dredging should be placed in a manner which will not endanger the stability of any ditch bank. Locate piles a minimum of eight feet from the top of the bank and slope landward to prevent direct drainage from the spoil pile back into the waterway.

2. To prevent both wind and water erosion, piles should not exceed three feet in height above the natural ground surface, except as otherwise approved. Make the piles no steeper than 4:1 (h:v) on the land side, and 3:1 on the channel side if a berm is established. If the spoil is spread to the edge of the channel, side slopes of the spoil should be no steeper than 4:1 and shaped to join the side slope of the ditch bank so loose spoil will not roll or wash into the channel or ditch.

3. Spoil piles should be seeded daily as an area is dredged. Follow the specifications for temporary seeding in the Seeding BMP.

4. Where runoff from the pile may occur, place filter fence at the base of the spoil pile (between the pile and the ditch bank) to help retain soil until vegetation is established. This is especially important on subsoils where vegetation may not grow readily. See the Filters BMP.

For Spoil From Construction Sites:

1. Spoil piles may be located around the perimeter of the project away from the construction activity, or located in the immediate vicinity of the construction. Do not locate spoil piles in or immediately adjacent to wetlands and watercourses, or such that any runoff from the spoil pile will end up in wetlands and watercourses. Include the location of the spoil piles(s) on the soil erosion/sedimentation control plan.

2. Where it is not possible to move the spoil pile upland, place the spoil pile behind a bench or berm to prevent erosion. This is especially important on steep slopes.

3. If runoff can occur, place filter fencing at the base of the spoil pile to help retain soil until vegetation is stabilized. See the Filters BMP.

4. Seed all spoil piles (temporary and permanent) following specifications in the Seeding BMP.

5. Consider placing Construction Barriers around the spoil pile to prevent access by people and equipment.

Excess Stockpiled Soil:
Excess stockpiled soil which is not used as fill or in the preparation of seedbeds or sodbeds should be disposed of in a manner which will not result in the soil running off and impacting surface waters or wetlands. The manner in which this excess soil is disposed of should be included on the soil erosion control plan.

Maintenance

When vegetative stabilization is promptly and effectively applied, very little maintenance is required. The guidelines below should be followed on all sites:

1. Periodic inspections should be done to ensure excessive erosion hasn't occurred. If runoff or wind erosion has occurred, reduce the side slopes of the spoil pile, or stabilize the spoil pile with pieces of sod laid perpendicular to the slope, and staked.

2. When filter fencing is used around a spoil pile, periodic checks should be made to ensure that piping has not occurred under the fencing, and to ensure the fence has not collapsed due to soil slippage or access by construction equipment. Repair any damaged fencing immediately.

3. Berms at the base of the spoil pile which become damaged should be replaced.