

Sediment Control BMPs

Uncontrolled runoff from construction sites is a water quality concern because of the devastating effects that sedimentation has on local water bodies, particularly small streams. Numerous studies show that the amount of sediment transported by storm water runoff from construction sites with no controls is significantly greater than from sites with controls. In addition to sediment, construction activities yield pollutants such as pesticides, petroleum products, construction chemicals, solvents, asphalts, and acids that contaminate storm water runoff. During storm events, construction sites are a source of sediment-laden runoff, which can overwhelm a small stream channel's capacity, resulting in streambed scour, streambank erosion, and destruction of near stream vegetative cover. Where left uncontrolled, sediment-laden runoff causes the loss of in-stream habitats for fish and other aquatic species, an increased difficulty in filtering drinking water, the loss of drinking water reservoir storage capacity, and negative impacts on the navigational capacity of waterways.

Polluted storm water runoff from construction sites often flows to Municipal Separate Storm Sewers (MS4s) and ultimately is discharged into local rivers and streams. Sediment is one of the main pollutant of concern. Sediment runoff rates from construction sites are typically 10 to 20 times greater than those of agricultural lands, and 1,000 to 2,000 times greater than those of forest lands. During a short period of time, construction sites have the potential to contribute more sediment to streams than is deposited naturally during several decades. The resulting siltation, and the contribution of other pollutants from construction sites, causes physical, chemical, and biological harm to our nation's waters. For example, excess sediment can quickly fill rivers and lakes, requiring dredging and destroying aquatic habitats.

There are numerous methods available to assist in the control of sediment. The following sediment control BMPs are discussed in this handbook:

- Temporary Sediment Basin
- Temporary Sediment Trap
- Silt Fence
- Rock Check Dams
- Sediment Tubes
- Stabilized Construction Entrances
- Storm Drain Inlet Protection
- Rock Sediment Dikes