

Chapter 3

Best Management Practices

The 40 best management practices (BMPs) presented in this chapter are organized into the two broad categories: Runoff Pollution Prevention and Stormwater Treatment. The names and page numbers of individual BMPs are listed immediately before each category, on pages 3-3 and 3-139.

Runoff Pollution Prevention

By far the most effective control of nonpoint source pollution is to prevent its release. This section of the manual discusses five families of runoff pollution prevention:

- Impervious Surface Reductions: Reducing the amount of hard surface.
- Housekeeping Techniques: Basic clean-up and management practices.
- Construction Practices: Ways to reduce opportunities for sediment release in stormwater.
- Soil Erosion Control: Techniques to prevent exposed soils from eroding.
- Sediment Control: Methods to catch sediment already suspended in stormwater.

Stormwater management begins with thoughtful design. Site planning that integrates comprehensive stormwater management from the outset is the most effective way to reduce and prevent pollution and flooding. Good site planning can also reduce the size and cost of structural solutions; when BMP stormwater structures are proposed only at the final stages of design and construction, the result is often unnecessarily large and costly facilities. Planning ahead can prevent the need for large structures.

Stormwater Treatment BMPs

A variety of BMPs are effective in filtering stormwater, reducing the speed at which it leaves a site, and reducing the volume of runoff. These three actions are critical to reducing nonpoint-source water pollution and protecting downstream water bodies.

This section of the manual presents six families of BMP practices:

- Infiltration Systems. Encourage stormwater to soak into the ground while filtering.
- Filtration Systems. Capture heavy metals, grease and oil, nutrients and sediment.
- Constructed Wetlands. Filter stormwater and reduce runoff rate while providing wildlife habitat.
- Retention Systems. Primarily designed to retain pollutants.
- Detention Systems. Primarily designed to reduce runoff rate.
- Alternative Outlet Designs. Primarily designed to regulate stormwater flow.