



## **Section 3**

# **Temporary Construction Site Runoff Management Practices (TCPs)**

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## Section 3 – Temporary Construction Site Runoff Management Practices (TCPs)

### 3.1 Introduction

Erosion and sedimentation of soil are natural processes that occur daily. Erosion can occur due to wind, the impact of a raindrop, or the force of water flowing across the soil surface. Clearing and grubbing or other land disturbance activities during construction can increase the rate and amount of sediment loss from a site due to erosion. Thus, erosion and sedimentation are one of the most significant sources of pollution occurring in stormwater run-off from a typical construction site. Therefore, proper Erosion Prevention and Sediment Control (EP&SC) Best Management Practices (BMPs) are essential for effective water quality protection and also to ensure compliance with the State of Tennessee’s General NPDES Permit for Stormwater Discharges Associated with Construction Activities (<http://www.tn.gov/environment/permits/conststrm.shtml>).

There are two types of EP&SC BMPs. The first type, erosion prevention practices, includes ground covers that prevent different types of erosion from occurring. These ground covers include vegetation, mulch, and blankets that absorb the energy of a raindrop’s impact and reduce the possibility for sheet erosion to occur. Diversions, check dams, slope drains, and storm drain protection, while they may also trap sediment, are primarily used to prevent rill and gully erosion from starting. The second type, sediment control practices, attempts to prevent soil particles that are already being carried in stormwater from leaving the site and entering waterways. Silt fence, sediment traps, sediment basins, check dams, and even vegetative cover are common types of sediment control practices.

The BMPs presented in this section are intended to serve as Temporary Construction Site Runoff Management Practices (TCPs), lasting only as long as the construction activities themselves. Details regarding Post Construction Erosion Prevention and Sediment Control (PESC) and Permanent Storm Water Treatment Controls (PTPs), which are intended to function on a long-term basis, are provided in Section 4 and Section 5, respectively.

### 3.2 Management Practice Fact Sheets

TDEC’s Erosion and Sediment Control (E&SC) Handbook has been designed to provide standardized and comprehensive erosion prevention and sediment control BMPs for use throughout Tennessee. The handbook is designed to provide information to planners, developers, engineers and contractors on the proper selection, installation and maintenance of the BMPs. The handbook should be used during the design and construction phases of projects and is available for download through the Tennessee Erosion and Prevention Control (TNEPSC) website (<http://www.tnepsc.org/handbook.asp>).

The Hamilton County Water Quality Program has adopted the criteria listed within TDEC’s E&SC Handbook for the selection, design, implementation and maintenance of TCPs. These management practices should be selected and utilized as a comprehensive set of controls rather than individual, standalone practices. The management practices approved for use by the Program as presented within TDEC’s E&SC Handbook are listed in Table 3-1 below.



**Table 3-1**  
**TDEC E&SC Handbook**  
**Temporary Construction Site Runoff Management Practices**

<b>Site Preparation</b>
Identifying sensitive areas or critical areas
Construction sequencing
Topsoiling
Tree preservation
Surface roughening and tracking
<b>Stabilization Practices</b>
Stabilization with straw mulch
Stabilization with other mulch materials
Temporary vegetation
Permanent vegetation
Sod
Rolled erosion control products
Hydro applications
Soil binders
Emergency stabilization with plastic
Soil enhancement
<b>Pollution Prevention</b>
Concrete washout
Vehicle maintenance
Chemical storage
Trash and debris management
<b>Runoff Control and Management</b>
Check dam
Dewatering treatment practice
Diversion
Outlet protection
Slope drain
Tubes and wattles
Level spreader
Channels (stable channel design)
<b>Sediment Control Practices</b>
Construction exit
Tire washing facility
Filter ring
Sediment basin
Sediment trap
Baffles



Table 3-1 TDEC E&SC Handbook Temporary Construction Site Runoff Management Practices
Silt fence
Inlet protection
Construction road stabilization
<b>Sediment Control Practices (cont'd)</b>
Tubes and wattles
Filter berm
Turbidity curtain
Flocculants
<b>Stream Protection Practices</b>
Stream buffers
Stream diversion
Temporary stream crossing
Bioengineered stream bank stabilization

Each fact sheet contains information regarding specific pollutants of concern, a description of the control measure, suitable applications, implementation procedures, and maintenance requirements. Each fact sheet also contains an “Inspection Checklist” to ensure that each EP&SC measure is managed properly. The inspection checklist provides a list of critical items for each of the BMPs. It is not intended to limit the inspection process, but is intended to guide and strengthen the inspection process and maintenance procedures. There may be additional inspection points made by Program inspectors.