Chapter 7 – Overview of Structural Stormwater Best Management Practices

Introduction

Structural stormwater Best Management Practices (BMPs) – also commonly called Stormwater Treatment Practices, Stormwater Treatment Systems, Stormwater Control Measures, etc. – are constructed stormwater management systems used to reduce the discharge of pollutants and the volume of runoff from developed sites to maintain pre-development hydrology, pollutant loads, and groundwater recharge. Structural stormwater BMPs can be designed to collect, store, treat, infiltrate, and evapotranspire stormwater runoff. BMPs that primarily rely on vegetation and soils to mimic natural processes and manage rainwater close to where it falls are also commonly referred to as "Green Infrastructure (GI)."

> **What's New in this Chapter?**
>
> ❖ Recategorized structural stormwater BMPs based on function, replacing previous "Primary and Secondary Treatment Practices" terminology and framework
> ❖ Increased flexibility for selection and design of structural stormwater BMPs to meet stormwater management standards and performance criteria
> ❖ General guidance on BMP design considerations to reduce or facilitate maintenance

As described in Chapter 3 - Preventing and Mitigating Stormwater Impacts of this Manual, structural stormwater BMPs are one element of a comprehensive stormwater management approach and should be selected and designed only after consideration of Low Impact Development (LID) site planning and design strategies (see Chapter 5 - Low Impact Development Site Planning and Design Strategies) and in combination with operational source control practices and pollution prevention (see Chapter 6 - Source Control Practices and Pollution Prevention). Such an approach can reduce the need for or the size and cost of structural stormwater BMPs and related structural drainage system components, as well as reduce maintenance needs. This Manual does not provide the details regarding every BMP type but rather the functional classes, general design guidance for each class and a few examples. It is anticipated that using these guiding principles will open the door for a multitude of BMP options and provide maximum flexibility for the best site design.