Like many California municipal agencies, the San Francisco Public Utilities Commission (SFPUC) and the Port of San Francisco (Port) administer stormwater management programs developed in accordance with the federal Clean Water Act (CWA) and a State of California National Pollutant Discharge Elimination System (NPDES) permit.

NPDES permits for stormwater specify a suite of activities that municipalities must undertake to reduce pollution in stormwater runoff. One of these activities is the development, implementation, and enforcement of a program to reduce pollutants in stormwater runoff from new development and redevelopment projects. This effort is commonly referred to as a post-construction stormwater control program.

In 2007, SFPUC and Port staff initiated a community planning effort to develop a regulatory guidance document that fulfilled state and federal requirements for post-construction stormwater runoff control. The 2010 San Francisco Stormwater Design Guidelines (Guidelines) and the San Francisco Stormwater Management Ordinance were the culmination of that effort.
The San Francisco Stormwater Management Requirements and Design Guidelines

The 2010 Stormwater Design Guidelines has evolved to become the 2016 Stormwater Management Requirements and Design Guidelines. The new title better reflects its dual function as a document detailing mandatory requirements and design tool providing suggestions to inspire creative Low Impact Design.

Low Impact Design and Green Infrastructure

Low Impact Design is a planning and design approach that seeks to manage stormwater as close to its source as possible. LID employs principles such as minimizing and disconnecting impervious area, and uses landscape-based technologies to create site drainage that treats stormwater as a resource rather than a waste product.

The term “green infrastructure” refers collectively to the actual technologies that are used to infiltrate, evapotranspire, treat, and/or reuse stormwater. Individual GI facilities, such as cisterns, rain gardens, permeable pavement, and vegetated roofs, are also referred to as “best management practices” (BMPs) or “stormwater controls” throughout this document.

After five years of implementing the 2010 Guidelines, this 2016 update incorporates new guidance for the Stormwater Control Plan (SCP) submittal and review process as well as new requirements based on the 2013 modification of the NPDES Phase II Municipal Separate Storm Sewer System Permit (MS4 Permit) that the SFPUC and Port must comply with. A complete outline of changes from the 2010 Guidelines to the 2016 Stormwater Management Requirements and Design Guidelines (SMR) is included with the Table of Contents and other introductory materials.

The SMR describes the regulatory context for a post-construction stormwater control program and leads developers, engineers, and architects through the process of incorporating performance-based GI into site design. The SMR also presents the stormwater performance requirements and documentation that must be submitted for project approval. It describes the required components of a SCP, a document that allows City staff to assess compliance with the requirements, and explains how SCP approval is incorporated into San Francisco’s building permit review process. It also includes Best Management Practice (BMP) selection hierarchies applicable to the combined and separate sewer areas, BMP fact sheets that provide siting and design information, as well as typical GI details and specifications to aid design.

Applicability

The performance requirements outlined in this document vary depending on the type of sewer system servicing a project (combined or separate), the agency with jurisdiction over the project (SFPUC or Port), and the size of the project.

Effective May 27, 2016, the revised SMR applies to all new and redevelopment projects in the separate and combined sewer areas that create and/or replace 5,000 square feet or more of impervious surface. As required by the 2013 MS4 Permit, the SMR will also apply to projects in the separate sewer areas that create and/or replace between 2,500 and 5,000 square feet of impervious surface, with less stringent performance requirements. More information on the new performance requirements can be found in Chapter 5: Combined Sewer Area Performance Requirements and Chapter 6: Separate Sewer Area Performance Requirements.

The 2010 Guidelines applies to projects for which a Preliminary SCP was submitted before May 27, 2016. The 2016 SMR applies to projects with Preliminary SCPs submitted on or after May 27, 2016.
Low Impact Design & Green Infrastructure

The 2013 MS4 Permit requires the use of Low Impact Design (LID) and Green Infrastructure (GI) to comply with stormwater management requirements. This requirement is in keeping with San Francisco’s policy goals for promoting sustainable development. A LID approach applies decentralized, on-site strategies, such as GI, to manage the quantity and quality of stormwater runoff. The approach integrates stormwater into the urban environment to achieve multiple goals. It reduces stormwater pollution and restores natural hydrologic function to San Francisco’s watersheds. It can also provide wildlife habitat and contribute to the gradual creation of a greener city. GI can be integrated into all development types, from public open spaces and recreational areas to high-density housing and industrial areas.

Stormwater Benefits of Implementing the SMR

The SMR was originally adopted by the City and County of San Francisco on January 12, 2010. In the first five years since its adoption, SCPs have been submitted for approximately 193 acres of single parcel projects in the combined sewer area. By the time all proposed projects are constructed, they are anticipated to manage approximately 60 million gallons of stormwater per year (MG/year), of which 19 MG/year will be completely removed from the sewer system. In SFPUC separate sewer areas, SCPs have been submitted for approximately 101 acres of single parcel projects since 2010. Once these projects are constructed, they are anticipated to manage approximately 27 MG/year, treating it before discharging to receiving waters. These single project parcels are anticipated to be complete within the next five years.

SFPUC and Port staff are also working with developers and planners for the City’s redevelopment areas to ensure that large multi-parcel areas will meet stormwater management requirements as they are built out over the next 20 to 30 years. Projections suggest that approximately 129 acres in combined sewer areas and 1,544 acres in separate sewer areas will be managed once proposed redevelopment projects are fully constructed.