

# San Francisco's Stormwater Management Requirements and Design Guidelines



**The San Francisco Stormwater Management Requirements and Design Guidelines (SMR) describe the requirements for stormwater management for development and redevelopment projects subject to the San Francisco Stormwater Management Ordinance and give project proponents the tools to achieve compliance.**

## **THE GOAL OF THE SMR IS TO PROTECT AND ENHANCE THE FUNCTION OF THE CITY AND COUNTY OF SAN FRANCISCO'S SEWER SYSTEM AND THE QUALITY OF RECEIVING WATERS BY:**

- managing stormwater runoff from development that would otherwise mobilize pollutants and degrade local water quality;
- reducing stormwater run-off rates, volume, and nonpoint source pollution whenever possible, through stormwater management controls, and ensuring that these management controls are safe and properly maintained.

## **DOES MY PROJECT NEED TO COMPLY?**

**Large Projects** creating and/or replacing 5,000 square feet or more of impervious surface must comply with the SMR.

**Small Projects** creating and/or replacing between 2,500 and 5,000 square feet of impervious surface in areas served by separate sewers must meet less stringent requirements (see reverse).

## **IN ORDER TO PROVE COMPLIANCE WITH THE SMR, LARGE PROJECTS MUST:**

1. Determine if located in an area served by the combined sewer or separate storm sewer.
2. Meet applicable Performance Requirements (see reverse).
3. Submit a Preliminary Stormwater Control Plan (SCP) in accordance with the SCP Instructions (available on our website) to the SFPUC for review and approval prior to receiving a Site or Building Permit.
4. Submit a Final SCP to the SFPUC for review and approval to the SFPUC prior to receiving the Certificate of Final Completion.
5. Sign and record a Maintenance Agreement and Certification of Acceptable Construction.

## **SMALL PROJECTS IN SEPARATE SEWER AREAS MUST:**

1. Implement at least one Site Design Measure (see reverse).
2. Submit estimated runoff reduction volume using the State Water Board SMARTS Calculator.

## **Stormwater Management Requirements and Design Guidelines Resources**

**STORMWATER CONTROL PLAN APPLICATION** Each Large project subject to the SMR is required to submit a Stormwater Control Plan (SCP) to the SFPUC for review and approval to ensure project compliance. The SFPUC has developed [SCP Instructions](#), [SCP Preparation Checklists](#), [an Example Stormwater Management Plan with Calculations](#), [a Project Information Form](#), and [SCP Technical Report Templates](#) to assist with the development of the SCP.

**STORMWATER BMP FACT SHEETS** The [BMP Fact Sheets](#) provide design guidance for stormwater Best Management Practices (BMPs) that can be used to comply with the SMR. [Appendix C: Criteria for Infiltration-based BMPs](#) and [Appendix D: Vegetation Palette](#) can inform BMP design and plant selection.

**GREEN INFRASTRUCTURE TYPICAL DETAILS AND SPECIFICATIONS** The [Green Infrastructure Typical Details and Specifications](#) serve as templates to guide appropriate BMP design and construction. Modify as needed to suit your project.

**BMP SIZING CALCULATORS** The SFPUC has developed two BMP Sizing Calculators (one for [combined sewer areas](#) and one for [separate sewer areas](#)) to help project applicants estimate appropriate BMP sizing to achieve compliance. Small projects should use [SMARTS Calculator](#).

**MAINTENANCE AGREEMENT** The SMR requires a Maintenance Agreement and [Certification of Acceptable Construction](#) for all projects to ensure that BMPs are appropriately built and continue to provide effective stormwater management over time. The SFPUC has developed a [Maintenance Agreement Template](#) and [Recordation Instructions](#).

To access these resources and find more information, please visit [www.sfpuc.org/smr](http://www.sfpuc.org/smr) or email us at [stormwaterreview@sfpuc.org](mailto:stormwaterreview@sfpuc.org)

The City of San Francisco is encouraging the development of green infrastructure throughout its urban landscape via the Stormwater Management Requirements and Design Guidelines, including green roofs, bio-retention basins and permeable pavement.



## LARGE PROJECT PERFORMANCE REQUIREMENTS

To comply with the SMR, Large Projects (creating and/or replacing more than 5,000 square feet of impervious surface) must meet the applicable performance requirements, depending on the type of sewer system serving the project and jurisdiction:

### Combined Sewer Areas

- For sites with existing imperviousness of less than or equal to 50%, stormwater runoff peak flow rate and volume shall not exceed pre-development conditions for the 1- and 2-year 24-hour design storm.
- For sites with existing imperviousness of greater than 50%, stormwater runoff peak flow rate and volume shall be decreased by 25% from the pre-development conditions for the 2-year 24-hour design storm.

### Separate Sewer Areas:

- In SFPUC jurisdiction areas, capture and treat the rainfall from the 90<sup>th</sup> percentile, 24-hour design storm.
- In Port jurisdiction areas, capture and treat the rainfall from the 85<sup>th</sup> percentile, 24-hour design storm.

## SMALL PROJECT REQUIREMENTS

To comply with the SMR, Small Projects (creating and/or replacing 2,500 to 5,000 square feet of impervious surface) in separate sewer areas must implement one or more **Site Design Measure** and submit the project's estimated runoff reduction volume to the SFPUC using the State Water Board [SMARTS Calculator](#).

### Site Design Measures

Soil Quality Improvement	<i>Improvement of soil through soil amendments and the creation of a microbial community.</i>
Tree Planting and Preservation	<i>Planting new trees and/or preserving healthy established trees.</i>
Disconnection of Rooftop and Impervious Area	<i>Rerouting roof drainage pipes to cisterns or permeable areas (not to sewer).</i>
Permeable Pavement	<i>Pavement that allows runoff to pass through it to the soil below, thereby reducing runoff from a site.</i>
Green Roof	<i>A vegetative layer grown on a roof (rooftop garden).</i>
Vegetated Swale	<i>A vegetated open channel designed to treat and attenuate runoff.</i>
Rainwater Harvesting	<i>A system that collects and stores runoff from roofs or other impervious surfaces for non-potable reuse.</i>
Stream Setback or Buffer	<i>A vegetated area with trees, shrubs, and herbaceous vegetation that exists or is established to protect a stream system, lake, reservoir, or coastal estuarine area.</i>



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The SMR describe an engineering, planning, and regulatory framework for developing new infrastructure in a manner that reduces pollution in stormwater runoff as well as stormwater flow rate and volume. The SMR include in-depth information on design, plan approval, and ongoing maintenance requirements.

Please visit [www.sfpuc.org/smr](http://www.sfpuc.org/smr) to download a copy of the Stormwater Management Requirements and Design Guidelines and associated materials.