



# Stormwater Quality Control Requirements

Information for Developers, Builders and Project Applicants

Revised July 2007

## Why Control Stormwater Quality?

Stormwater runoff from urbanized areas is the largest source of pollution to the nation's waters. When land is developed, new pollutants are introduced and natural processes that remove pollutants by filtration, infiltration and soil adsorption are disrupted.

## Federal and State Law

The State Regional Water Quality Control Board (Water Board) has adopted municipal stormwater National Pollutant Discharge Elimination System (NPDES) permits that require municipalities in urbanized portions of the San Francisco Bay area to control stormwater pollution. These federal permits require permanent stormwater controls for development projects. The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP), of the San Mateo City/County Council of Governments, helps municipalities comply with the countywide NPDES permit.



Rooftop runoff drains to landscaped area, Belmont.

## Summary of Requirements

During the development review process, municipalities apply stormwater requirements to projects, as described below:

### ⇒ **Apply to all projects, as appropriate:**

- Site design measures to maximize pervious areas.
- Source controls to help keep pollutants out of stormwater.
- Construction best management practices (BMPs).
- Post-construction treatment measures, to the maximum extent practicable.

### ⇒ **Apply based on project size and/or location:**

- Post-construction treatment measures are required for projects that create and/or replace 10,000 sq. ft. or more of impervious area.
- Starting June 12, 2007, stormwater detention controls are required in many areas for projects that create and/or replace 1 acre or more of impervious area.
- Projects requiring treatment and/or detention need maintenance agreements.



Contact the municipality (see back of page) where your project is located for specific applicable requirements.

## Site Design for Water Quality

Some of the ways to reduce water quality impacts through site design include:

- Reduce impervious surfaces.
- Drain rooftop downspouts to pervious areas.

- Use landscaping as a storm drainage and treatment feature.



Roadway drains to vegetated swale, Pacifica

## Source Controls

Source controls prevent potential pollutant sources from contacting rainfall and stormwater. Examples include:

- Roofed trash enclosures.
- Pest-resistant landscaping.
- Sanitary sewer drains for vehicle wash areas (with approval by local sanitary sewer treatment authority).

See SMCWPPP's Source Control Model List at [www.flowstobay.org](http://www.flowstobay.org) (click on "Business Pollution Prevention," then "Best Management Practices").

## Construction Site Controls

Project sites are required to use construction BMPs, such as:

- Prepare and use sediment and erosion control plans.
- Minimize exposed soil by stabilizing slopes.
- Maintain filter materials at storm drain inlets.

Projects disturbing one acre or more must comply with the Statewide Construction NPDES



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General Permit, and submit a Notice of Intent to the State Water Resources Control Board. For more information, see <http://www.waterboards.ca.gov/stormwtr/construction.html>.

### Stormwater Treatment Measures

Stormwater treatment measures are engineered systems that remove pollutants before stormwater reaches the storm drain system, and ultimately the ocean or San Francisco Bay. The countywide NPDES permit specifies hydraulic sizing criteria for treatment measures. Examples of treatment measures include:

- Bioretention areas (also called rain gardens).
- Flow-through planters.
- Vegetated swales.
- Detention basins.



Ungrouted modular pavers promote infiltration, Redwood City

### Is Stormwater Treatment Required for My Project?

Treatment measures must be incorporated in projects that create and/or replace **10,000 square feet or more of impervious surface**, including the project's roof area, streets, sidewalks, parking lots, etc. Municipalities have the authority to require treatment measures for projects with less than 10,000 square feet, to protect water quality to the maximum extent practicable.

### Controlling Stormwater Quantity (Detention)

Covering open land with buildings and pavement results in hydromodification – runoff flowing into creeks at higher rates and volumes, leading to creek channel erosion, flooding and habitat loss. In the past, eroded channels were lined with concrete, causing excessive sedimentation and other problems. Many projects now require hydromodification management (HM) measures to retain, detain or infiltrate runoff to match pre-project flows and durations.

### Which Projects Need HM Measures?

If your project's permit application is deemed complete on or after June 12, 2007, it may require HM measures. These requirements will apply if the project creates and/or replaces 1 acre or more of impervious surface, AND it is located in a susceptible area. Visit [www.flowstobay.org](http://www.flowstobay.org) (click on Additional Information) to see the Hydromodification Management Plan map of susceptible areas and a flyer on stormwater detention.

### Maintaining Treatment and HM Measures

Post-construction treatment and HM measures need ongoing maintenance to keep working properly. During project review, applicants must prepare a maintenance plan and enter into an operation and maintenance agreement with the municipality to identify and record the party responsible for long-term maintenance of treatment and HM measures.

### Contacts for More Information:

- SMCWPPP: 650/363-4305, [www.flowstobay.org](http://www.flowstobay.org) (Click on "Municipal Contacts" for phone numbers of local stormwater programs.)
- Water Board staff: 510/622-2300.

### Resources on the Web

The following documents on post-construction stormwater controls are on SMCWPPP's website [www.flowstobay.org](http://www.flowstobay.org).

#### ⇒ C.3 Stormwater Technical Guidance.

SMCWPPP's guidance for implementing stormwater controls. (Click on "Additional Resources.")

#### ⇒ Developments Protecting Water Quality Guidebook.

Post-construction BMPs used in local projects. (Click on "Business Pollution Prevention," then "Best Management Practices.")

For the following documents by the Bay Area Stormwater Management Agencies Association (BASMAA), go to [www.basmaa.org](http://www.basmaa.org). (Click on "Request and Download," then "List of All Documents.")

#### ⇒ Start at the Source.

Residential site planning and design guidance.

#### ⇒ List of Qualified

Consultants. Consultants with qualifications to design treatment measures.

For the **Stormwater BMP Handbook – New Development**, by the California Stormwater Quality Association, go to [www.cabmphandbooks.org/Development.asp](http://www.cabmphandbooks.org/Development.asp)