



Stormwater Quality Control Requirements

Information for Developers, Builders and Project Applicants

December 2012

Why Are Stormwater Requirements Needed?

Stormwater runoff from urbanized areas remains the largest source of pollution to San Francisco Bay. Local agencies in urbanized portions of the Bay Area are responsible for controlling stormwater pollution by complying with the new Municipal Regional Stormwater Permit, issued by the State Regional Water Quality Control Board (Water Board) in October 2009.



Rainwater is captured and used to flush toilets in Oakland.

Overview of Stormwater Requirements

During development review, local agencies require projects to include stormwater controls, including site design measures, source controls, treatment measures, low impact development, hydro-modification management, and construction BMPs, as described below. Many of these requirements have existed for years and are unchanged. New requirements are described in the sidebar at right.

Site Design for Water Quality

Site design measures to reduce water quality impacts include:

- Reduce impervious surfaces.
- Direct runoff from impervious surfaces to vegetated areas.

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 sewer district approval).

Contact the city where your project is located for its Local Source Control Measures list (see Contact Info on page 2).

Stormwater Treatment

Stormwater treatment measures are engineered systems that remove pollutants before stormwater reaches the storm drain system, and ultimately San Francisco Bay. Examples of treatment measures include:

- Bioretention areas / rain gardens,
- Flow-through planters,
- Vegetated swales.

Since 2006, projects that create and/or replace 10,000 square feet or more of impervious surface have required hydraulically-sized, post-construction, stormwater treatment measures. Now, the size threshold for requiring stormwater treatment has decreased for certain projects – see sidebar.

Summary of Newest Requirements

- Stormwater treatment requirements will have to be met using evapotranspiration, infiltration, and/or rainwater harvesting and reuse. Where this is infeasible, landscape-based treatment measures with underdrains may be used. (More information under “Low Impact Development,” below.)
- The threshold for requiring stormwater treatment decreased from 10,000 to 5,000 square feet, or more, of impervious surface for the following project categories: uncovered parking areas (stand-alone or part of another use), restaurants, auto service facilities¹, and retail gasoline outlets.
- One or more site design measures are now required for all development projects which create or replace 2,500 square feet up to 10,000 square feet of impervious surface. See Clean Water Program flyers on Landscape Designs for Stormwater Management, Pervious Pavement, Rain Gardens, and Rain Barrels and Cisterns for more information and guidance on meeting these small project requirements to protect local stormwater quality.

Low Impact Development

The goal of low impact development (LID) is to reduce stormwater runoff and mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring (evaporating stormwater into the air directly or through plant transpiration), and/or biotreating stormwater runoff close to its source, or onsite.

LID reduces water quality impacts by preserving and re-creating natural landscape features, minimizing imperviousness, and using stormwater as a resource.

This may be accomplished by installing rain barrels or cisterns, green roofs, permeable pavement, or stormwater treatment measures designed to infiltrate or detain stormwater runoff, so that 100 percent of the amount of rainwater runoff specified in Provision C.3.d of the Municipal Regional Stormwater Permit soaks into the ground, is stored for reuse, evaporates, or is taken up by plants. If this is infeasible, landscape-based treatment ("biotreatment," such as bioretention areas, vegetated swales, and planter boxes with underdrain systems that flow to the storm drain system) is allowed.

Criteria and procedures to determine feasibility are available on the Program's webpage. The use of vault-based systems is restricted to projects that meet the Special Projects criteria described on the Program's website in

Appendix K of the C.3 Technical Guidance Manual.



A bioretention area in Fremont detains and infiltrates stormwater runoff.

Maintaining Treatment Measures

Stormwater treatment measures need ongoing maintenance to keep working properly. Applicants must prepare a maintenance plan and sign, with the applicable local agency, a maintenance agreement that runs with the land.

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.

Projects disturbing one acre or more must comply with the Statewide Construction NPDES General Permit. For more information, visit www.swrcb.ca.gov/water_issues/programs/stormwater/construction.shtml.

What is Required for My Project?

Check with the city where your project is located for specific application requirements, including whether the new requirements will apply.¹

Contact Information

- CWP: 510/670-5543, www.cleanwaterprogram.org/businesses/development
- Water Board staff: 510/622-2300 (request Alameda County stormwater program manager)
- For the City of Alameda's new development representative, call the City's Public Works Department at (510) 747-7930.

¹Automotive service facilities with any of the following Standard Industrial Classification (SIC) Codes are subject to these requirements: 5013, 5014, 5541, 7532, 7533, 7534, 7536, 7537, 7538, 7539. See the flyer, "Notice to Applicants" for more information on these requirements (including the SIC Codes for auto service facilities and LID) at CWP's Development webpage (see Contact Information above).



Flow-through planters collect and filter roof runoff in Emeryville.