Changes to Stormwater Quality Control Requirements

Information for Developers, Builders and Project Applicants

Santa Clara Valley *Urban Runoff* Pollution Prevention Program

November 2011

Why Are New 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 Regional Water Quality Control Board (Water Board) in October 2009.

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 measures, hydro-modification management measures, and construction site practices, as appropriate for the project. Many of these requirements have existed for years and are unchanged. New requirements are described in the bar at right.

Site Design for Water Quality

Site design measures to reduce water quality impacts include:

- Preserve existing vegetation;
- 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.
- Covered outdoor materials handling and storage areas.
- Sanitary sewer drains for vehicle wash areas (with sewer agency approval).

Contact your local agency for appropriate source Control measures (see contact information on page 2).

Summary of New Requirements

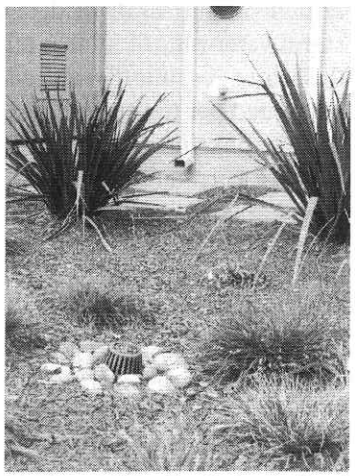
The following requirements begin December 1, 2011:

- *Stormwater treatment requirements will have to be met using infiltration, evapotranspiration, and/or rainwater harvesting and reuse techniques. Where this is infeasible, landscape-based "biotreatment" measures with underdrains may be used.*
- *The threshold for requiring stormwater treatment will drop 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 project), restaurants, auto service facilities, and retail gasoline outlets.*

Stormwater Treatment

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

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



Roof runoff is directed onto land-scaping for infiltration in San Jose

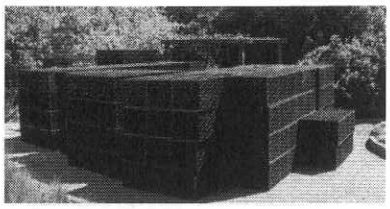
Since 2006, projects that create and/or replace 10,000 square feet or more of impervious surface have been required to have properly-sized, permanent stormwater treatment measures. Starting December 1, 2011, new stormwater treatment requirements, described in the center bar, will go into effect.

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, 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, rather than a waste product. 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 all of the rainwater runoff required to be treated per the stormwater permit soaks into the ground, is stored for irrigation or in-building use, evaporates, or is taken up by plants. If this is infeasible, landscape-based "biotreatment," such as a bioretention area or vegetated swale with an underdrain system that flows to the storm drain, is allowed.



This modular rainwater cistern was placed underground to collect runoff from impervious surfaces for reuse as landscaping irrigation at a private residence in Palo Alto.

More information on new, additional requirements for stormwater treatment is provided on the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) New Development webpage (see contact information).

Criteria to determine feasibility of infiltration and rainwater harvesting and use are available from the webpage or your local agency. The use of vault-based treatment systems will be restricted, but may be allowed in certain types of high density or transit-oriented projects.

Hydromodification Management (HM)

When undeveloped land is covered with buildings and pavement, runoff enters creeks at higher rates and volumes, resulting in channel erosion, flooding and habitat loss. These changes in runoff characteristics are known as hydromodification. Hydro-modification management (HM) measures are detention and/or infiltration facilities that are constructed with special discharge structures to match pre-project runoff patterns. HM requirements are different from flood control requirements.

If a project creates and/or replaces one acre or more of impervious surface, increases impervious surface area over the pre-project condition, AND is located in a susceptible area, HM requirements apply. You can view a map of susceptible areas and a fact sheet on HM requirements on the SCVURPPP New Development webpage.

Maintaining Treatment and HM Measures

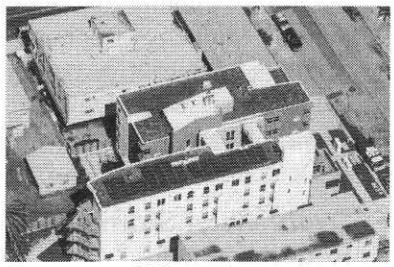
Stormwater treatment measures and HM measures need ongoing maintenance to keep working properly. Applicants must prepare a maintenance plan and sign, with the applicable local agency, a maintenance agreement that designates responsibility to the property owner.

Construction Site Controls

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

- Implement sediment and erosion control plans.
- Minimize exposed soil by stabilizing slopes.

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



A green roof filters stormwater and provides endangered species habitat in San Jose

What is Required for My Project?

Check with the city or county where your project is located for specific application requirements, and more information on whether the new requirements will apply.

Contact Information

- SCVURPPP: (408) 720-8811, www.scvurppp.org
- See SCVURPPP's New Development webpage for municipal contacts.
- For SCVURPPP's New Development webpage, go to www.scvurppp.org, click on Program Components, then New Development and Redevelopment.
- San Francisco Bay Regional Water Quality Control Board: (510) 622-2300

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