

Requirements for Development Projects

In a Nutshell: Permanent Stormwater Controls

December 2008

- Treat stormwater runoff before discharge from the site.
- Ensure runoff does not exceed pre-project peak flows.
- Cover or control sources of stormwater pollutants.
- Maintain treatment and flow-control facilities in perpetuity.

Stormwater Control Plan Required

Applicants for some development approvals must submit a Stormwater Control Plan showing how runoff will be captured and treated before being discharged from the site.

The treatment requirement applies to outdoor parking lots with more than 25 spaces, subdivisions with more than 10 homes, large commercial developments, repair shops, gas stations, and restaurants. Requirements will apply to other project types, including single-family hillside residences, at the discretion of local municipal staff.

The Stormwater Control Plan must also identify potential sources of stormwater pollutants and corresponding features for controlling each potential source.

The requirements are necessary to comply with a statewide NPDES permit governing discharges from municipal storm drains. The State Water Resources Control Board adopted the permit in 2003, and the requirements are being phased in through 2008.

Design standards in the permit apply to projects in Novato, San Rafael, and unincorporated areas; other municipalities may require the design standards as part of their required program to implement pollution-prevention for new developments.

Project site designs must minimize the area of new roofs and impervious paving. Runoff from impervious areas must be captured and treated. Project designs must also ensure that runoff does

not exceed pre-project peak flows.

In addition, applicants must prepare operation and maintenance plans and execute agreements to ensure the stormwater treatment and control facilities are maintained in perpetuity.

This quick summary will help you get started on stormwater compliance. A detailed *Guidance for Applicants* manual is available at www.mcstoppp.org.



How to avoid common errors and project delays

Start early. Learn about the requirements and develop your compliance strategy before you draw a conceptual site design or sketch a layout of subdivision lots.

Follow the instructions in this fact sheet and in the *Guidance for Applicants: Stormwater Quality Manual for Develop-*

ment Projects in Marin County, available at www.mcstoppp.org. Make sure you have covered each of the items in the checklist on page 4.

Plan on allocating areas equal to 4-5% of impervious area for stormwater treatment and flow-control facilities. Don't assume underground or pro-

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Start early. Follow step-by-step instructions. Avoid delays.

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proprietary systems will be adequate for compliance.

Consider who will own and who will maintain the stormwater treatment and flow-control facilities in perpetuity and how your municipality intends to verify the facility is operated and maintained.

Have a qualified professional prepare the Stormwater Control Plan. The Plan must be certified by a qualified Architect, Landscape Architect, or Civil Engineer.

Coordinate your project team so that stormwater treatment facilities are coordinated with and shown on site plans, landscaping plans, and grading and drainage plans.

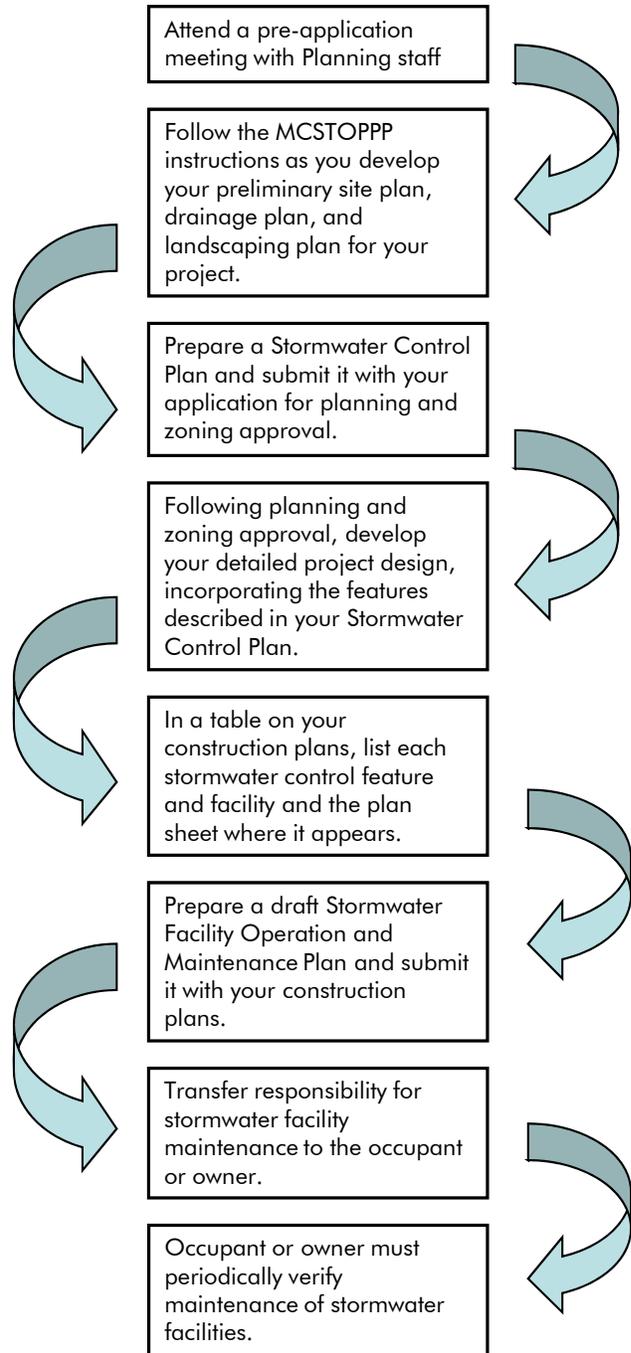
Use Low Impact Development designs appropriate to your site. On flat, heavily landscaped sites, it may be possible to disperse runoff from roofs and pavement to lawns and landscaped areas. On flat, densely developed sites, distribute bioretention facilities throughout the site.

On steep slopes it often works best to collect runoff and convey it to treatment facilities on the lower portion of the site. It may be necessary to grade areas to accommodate bioretention facilities.

Follow through. Following planning and zoning approval, ensure each item in your Stormwater Control Plan is incorporated in the project construction plans.

“Consider stormwater requirements at the very beginning of your site design and landscape design process.”

The Path to Stormwater Compliance



Note: Other environmental compliance requirements may apply, potentially including construction-phase erosion and sedimentation control and pollution prevention, and permitting for any work that could directly affect creeks, waterways, or shorelines.

Design Standards At a Glance

Type of Project	Structural Source Controls Applicable to Specific Types of Development	Requirements Applicable to All Types of Development Listed
Auto Repair Shops Retail Gasoline Outlets (Gas Stations)	Fueling areas are covered, paved with Portland cement concrete, and separated from adjacent areas by a grade break.	<ul style="list-style-type: none"> ■ Route runoff to on-site stormwater treatment facilities. ■ Control peak flows to pre-development rates. ■ Conserve natural areas of the site as much as possible consistent with local General Plan policies. ■ Comply with stream setback ordinances/requirements. ■ Protect slopes and channels against erosion. ■ Mark storm drains with a "no dumping" message. ■ Design material storage and refuse areas to minimize run-on and runoff. ■ Minimize potential for pollutants to enter stormwater. ■ Provide for ongoing maintenance of stormwater treatment facilities.
Commercial (100,000 square feet and larger)	Maintenance bays, loading docks, and wash areas, if any, must be covered and drain to a sanitary sewer.	
Restaurants	Covered area for washing mats and equipment drains	
Residential Subdivisions with 10 or more lots	No structural source controls. Use of pesticides must be minimized.	
Parking lots with 5,000 square feet or 25 or more spaces		
Single-family hillside residences subject to discretionary review (applicable requirements are determined case-by-case by municipal officials)		

Summary only. Requirements for any particular project are determined by municipality.

Frequently Asked Questions

Q: Are requirements consistent throughout the Bay Area?

A: Similar, but more stringent, requirements apply to municipalities in more urbanized Bay Area counties. Each municipality may have exceptions or additional requirements in addition to those stated here. Check with local planning staff.

Q: My project site was previously paved. There will be

less runoff after the project than before. Do I still need to meet these requirements?

A: Yes, the runoff treatment requirements apply to redeveloped sites as well as newly developed sites. In addition, measures to control pollutant sources will be required.

Q: What is the design storm for sizing treatment facilities?

A: The NPDES permit specifies how treatment facilities

are to be sized. The criteria are based on continuous rainfall data over a long period and are designed to capture 80% of the total rainfall volume.

MCSTOPPP applied these criteria to create sizing factors for bioretention facilities. Also called "rain gardens," bioretention facilities detain runoff and filter it through soil before the runoff is allowed to infiltrate or seep to storm drains.

"Applicants are encouraged to engage a qualified professional to prepare the Stormwater Control Plan. The Plan must be certified by a qualified Architect, Landscape Architect, or Civil Engineer."

Marin County
Stormwater Pollution
Prevention Program
www.mcstoppp.org

- City of Belvedere
- Town of Corte Madera
- County of Marin
- Town of Fairfax
- City of Larkspur
- City of Mill Valley
- City of Novato
- Town of Ross
- Town of San Anselmo
- City of San Rafael
- City of Sausalito
- Town of Tiburon

Stormwater Control Plan Checklist

See "Guidance for Applicants: Stormwater Quality Manual for Development Applications" at www.mcstoppp.org for complete requirements and instructions.

Contents of Exhibit

- Existing natural hydrologic features (depressions, watercourses, relatively undisturbed areas) and significant natural resources.
- Soil types and depth to groundwater.
- Existing and proposed site drainage network and connections to drainage off-site.
- Proposed design features and surface treatments used to minimize imperviousness.
- Entire site divided into separate drainage areas, with each area identified as self-retaining (zero-discharge), self-treating, or draining to a bioretention facility.
- For each drainage area, types of impervious area proposed (roof, plaza/sidewalk, and streets/parking) and area of each.
- Proposed locations and sizes of infiltration, treatment, and flow-control facilities.
- Potential pollutant source areas, including loading docks, food service areas, refuse areas, outdoor processes and storage, vehicle cleaning, repair or maintenance, fuel dispensing, equipment washing, etc.

Contents of Report

- Narrative analysis or description of site features and conditions that constrain, or provide opportunities for, stormwater control.
- Narrative description of site design characteristics that protect natural resources.
- Narrative description and/or tabulation of site design characteristics, building features, and pavement selections that reduce imperviousness of the site.
- Tabulation of proposed pervious and impervious area, showing self-treating areas, self-retaining areas, areas draining to self-retaining areas, and areas tributary to each bioretention facility.
- Preliminary designs, including calculations, for each bioretention facility. Elevations should show sufficient hydraulic head for each.
- Identified pollutant sources and for each source, the source control measure(s) used to reduce pollutants to the maximum extent practicable.
- General maintenance requirements for bioretention facilities.
- Means by which facilities will be maintained in perpetuity.
- Statement accepting responsibility for interim operation & maintenance of facilities.
- Stormwater Construction Checklist.
- Certification by a civil engineer, architect, and landscape architect.

For more information:
www.mcstoppp.org