



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



MCSTOPPP

Marin County Stormwater Pollution Prevention Program

2006-2007 Annual Report

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In memory of Carole d'Alessio (1947-2007), with gratitude for her many contributions to the preservation and enhancement of Marin County's creeks and wetlands.

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CHAPTER 1: Let's Preserve and Enhance Marin's Watersheds

2006-2007 was a year of transition and accomplishments

Major transitions—together with significant accomplishments—marked MCSTOPPP's 2006/2007 fiscal year.

The Program is in the midst of two transitions. First, the County Public Works Agency has established a [Watershed Management Program](#) to integrate flood control, stormwater management, and habitat restoration in Marin watersheds. Creek Naturalist Liz Lewis

now manages the new Watershed Management Program after ten years at MCSTOPPP's helm. Terri Fashing, formerly a stormwater technician, has now been promoted to manage MCSTOPPP. She and her staff will continue to implement MCSTOPPP's creek-focused stormwater program and will also collaborate with the Watershed Management Program.

(Continued on page 2)



Showing students how to install fascines

Overview of the 2006-2007 Annual Report

MCSTOPPP's Annual Reports serve at least three purposes:

1. To demonstrate the municipalities' compliance with the state's regulatory mandates.
2. To inform Marin residents about our activities.
3. To evaluate progress over the year so we can adapt and improve.

This report covers activities by the countywide program—which is funded and supported by the County, cities, and towns—and local activities.

Administration, organization, staffing and financing of the countywide program are covered in [Chapter 2](#), *Local Government Leads the Way*.

[Chapter 3](#), *Caring for Our Creeks*, describes the heart of MCSTOPPP—keeping streets and storm drains clean, stopping illegal dumping, stabilizing creek banks, and setting a good pollution-prevention example in all municipal operations.

Marin municipalities review development proposals to ensure they minimize impervious area, control sources of pollutants, and—where required—incorporate stormwater treatment facilities. In addition, local building officials and public works staff inspect construction sites to ensure erosion is controlled and sediment and other pollutants are contained. It's all covered in [Chapter 4](#), *Building and Renewing*.

[Chapter 5](#), *Educating Ourselves at Work*, documents our outreach to businesses to ensure they operate in a way that keeps pollutants away from creeks and storm drains.

MCSTOPPP's extensive work to engage, involve, and educate Marin residents in protecting local creeks is detailed in [Chapter 6](#), *Educating Ourselves at Home and School*.

Local pollution-prevention accomplishments—outside of routine activities—are documented in supplements, one for each of Marin's 12 municipalities.

New Report Format

The [Regional Water Quality Control Board](#) requires Marin municipalities to report annually about their stormwater pollution prevention activities.

We've changed the format to make this year's report more useful to Marin residents. This report is online at www.mcstoppp.org. Hyperlinks in the report and at that website lead to detailed information summarized in these pages.

[Comment on the report:](#)
mcstoppp@co.marin.ca.us

About the Marin County Stormwater Pollution Prevention Program

MCSTOPPP is a joint project of the [County of Marin](#) and its 11 cities and towns.

In a 1991 update to its [Basin Plan](#), the Regional Water Board mandated Marin's municipalities pursue a "baseline" program to prevent any increase in urban runoff pollutants. In 2003, the State Water Resources Control Board required small municipal storm drain systems, including those

in Marin, to be regulated under a statewide Phase II stormwater [NPDES permit](#).

MCSTOPPP's [Action Plan 2010](#) describes MCSTOPPP's ongoing plan to implement the Basin Plan and Phase II permit requirements.

MCSTOPPP comprises local stormwater pollution prevention efforts by each municipality and a countywide

program funded jointly by the municipalities and operated by the County Public Works Department.

MCSTOPPP has developed a creek-focused approach to stormwater pollution prevention by integrating habitat restoration, school-based education, volunteer projects, and public education with public works maintenance and code enforcement.

A year of accomplishments and transitions

(Continued from page 1)

Read more about staffing in [Chapter 2](#).

Second, MCSTOPPP is implementing the new Phase II NPDES permit.

As required by [Clean Water Act regulations](#), Marin municipalities filed for coverage under the statewide permit in March 2003. Staff determined current activities already met the overlapping Phase II NPDES requirements—with the exception of requirements for permanent stormwater controls in new developments.

MCSTOPPP is developing guidance to be used by applicants for development approvals throughout the County. Read more about this in [Chapter 4](#).

Countywide Accomplishments

MCSTOPPP's major countywide accomplishments this year include:

- ◆ Supported design review and environmental permitting for the Phase VIII bank stabilization and flood control project on Novato Creek, Phase II of the bank repairs to the Salt Works Canal in unincorporated Mill Valley, and two fish passage projects in Woodacre (see [Chapter 3](#)).
- ◆ Hosted monthly [project coordination meetings](#) to assist Marin agencies and property owners to comply with habitat-protection regulations when working in or near creeks and wetlands.
- ◆ Engaged 660 kids, 90 parents, and 20 teachers in restoration projects at six locations under the Students and Teachers Restoring a Watershed (STRAW) program "(see [Chapter 3](#)).
- ◆ Contracted with [Sustainable Land Stewardship Institute](#) to process six years of benthic macroinvertebrate data collected in east Marin creeks.
- ◆ Distributed 8,000 tidebooks, and 15,000 calendars. ([Chapter 6](#))
- ◆ Sponsored eight workshops for the general public and three for municipal staff and professionals.



Restoring the banks of the Salt Works Canal in Strawberry Circle
Photo by Bené DaSilva

CHAPTER 2: Local Government Leads the Way

Joint Funding and Oversight Are Key to Countywide Program Effectiveness

Marin County and Marin's 11 cities and towns fund MCSTOPPP's countywide activities under a 2005 [Joint Exercise of Power Agreement](#). Administrative oversight is by the Flood Control District within the Marin County Department of Public Works. Fiscal oversight is by the County Board of Supervisors.

MCSTOPPP's countywide staff includes a Program

Manager, an outreach coordinator, and an engineering technician. In addition to implementing countywide activities, the staff assists local stormwater coordinators with technical and outreach resources and reporting.

At every-other-month Agency Staff Committee (ASC)

(Continued on page 2)



View from Remillard Park

MCSTOPPP Continues Participation in Regional and Statewide Activities

In addition to local and countywide activities, MCSTOPPP participates in and helps fund regional efforts to protect water quality.

[Bay Area Stormwater Management Agencies Association \(BASMAA\)](#).

BASMAA, which comprises Bay Area municipal stormwater NPDES permittees, supports an Executive Director and includes regional committees on stormwater monitoring and new development requirements. A Public Information/Participation committee directs regional advertising aimed at increasing public awareness of stormwater pollution prevention.

[Regional Monitoring Program for Trace Substances \(RMP\)](#).

The Regional Water Board mandated the RMP in 1992 under Water Code Section 13267. The RMP funds the [San Francisco Estuary Institute \(SFEI\)](#) to monitor pollutant concentrations in water, sediments, fish and shellfish.

[North Bay Watershed Association \(NBWA\)](#).

NBWA's purpose is to facilitate partnerships across political boundaries that promote stewardship of North San Pablo Bay watershed resources. NBWA includes Marin and Sonoma municipalities and water and wastewater special districts. In 2007 NBWA hired SFEI to draft a [report](#) which summarizes North Bay regional monitoring efforts, costs, and objectives and makes recommendations.

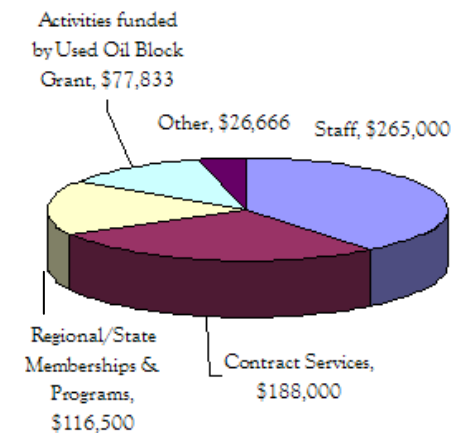
[Clean Estuary Partnership \(CEP\)](#).

In 2001, BASMAA and the [Bay Area Clean Water Agencies \(BACWA\)](#) agreed to create the CEP to fund technical studies supporting the Regional Water Board's Total Maximum Daily Load (TMDL) allocations for pollutant discharges to San Francisco Bay. The CEP was largely disbanded in early 2006, but study requirements—and Regional Water Board calls for financial support from stormwater dischargers—are likely to soon take a new form.

[California Stormwater Quality Association \(CASQA\)](#).

MCSTOPPP pays membership dues to CASQA, a statewide group of municipal, industrial, and construction stormwater NPDES permittees.

2007-2008 budget



Keys to Countywide Program Effectiveness

(Continued from page 1)

meetings, countywide staff and local staff report on their activities, discuss challenges and solutions, and strategize and prioritize their ongoing work. [Caltrans](#) and the [Regional Water Board](#) are also frequently represented at these meetings. The ASC makes recommendations to the Marin Public

Works Association (MPWA), which comprises the public works directors from each Marin municipality.

MCSTOPPP's 7-member [Citizens' Advisory Committee](#) (CAC) was created in 1997 and meets approximately quarterly. Members represent interest areas of development and construction, small business, local government, community, and environment. The

CAC reviews annual work plans and budgets, acts as a community liaison and a sounding board for new ideas. During 2006-2007, the CAC was instrumental in guiding policies for stormwater controls for new developments. A CAC subcommittee helped plan a [July 2007 Low Impact Development workshop](#).

“The Citizens Advisory Committee is instrumental in guiding MCSTOPPP’s policies for stormwater controls for new developments.”

Marin municipalities match mandated Performance Standards

Performance Standards are verifiable stormwater pollution prevention goals. They incorporate specific Best Management Practices (BMPs) municipalities implement.

For example, the Performance Standard for Maintenance of Storm Drainage Facilities includes the following:

- ◆ Inspect and clean facilities as needed.
- ◆ Remove the maximum amount of material at the nearest access point.
- ◆ Properly dispose of material removed from storm drains.
- ◆ Keep records and target facilities requiring more frequent cleaning.

- ◆ Establish an after-hours spill-response procedure.
- ◆ Coordinate spill response follow-up between maintenance staff and the stormwater coordinator.

Staff from each municipality reviews implementation of Performance Standards at the end of each fiscal year. A designated official completes a matrix noting whether each standard was implemented and if not, a plan and schedule for full implementation.

[Certification statements](#), available on the MCSTOPPP website, swear to the accuracy of the completed matrices and state where they can be accessed for public review.

Performance Standards

Street Sweeping

Storm Drainage Facilities

Road Repair & Maintenance

Operation & Maintenance of Pump Stations

Corporation Yards

Illicit Discharge Control

New Development and Construction Site Controls

Industrial and Commercial Discharge Controls

Public Information and Participation

CHAPTER 3: Caring for Our Creeks and Waterways

A Creek-Centered Approach to Water-Quality Protection

Marin County and Marin's 11 cities and towns protect our creeks and waterways in two ways:

- ◆ By stabilizing creek banks and restoring creek habitats, and
- ◆ By preventing pollutants from entering storm drains and being washed into creeks.

During 2006-2007, MCSTOPPP staff worked with

local governments, volunteer organizations, schools, and others to continue ongoing restoration projects. See the table below. MCSTOPPP's Clean Water Stewardship Grant Program contributed \$5,000 to support 12 projects selected by the [Marin County Fish and Wildlife Advisory Committee](#). Some of the projects are listed in the table on page 3-2.

(Continued on page 2)



Creek restoration in progress

Creek Restoration Projects Update

Project	Description	Status
Novato Creek Phase VIII (Final Phase)	0.8 miles biotechnical bank stabilization from Grant Ave. to Diablo Ave.	Complete.
Novato Creek Bank Stabilization Guidelines	Conceptual designs suitable for CEQA review and grant writing	Contractor selected, planning underway
Vineyard Creek	Bank stabilization and flood protection	Preliminary planning and design underway
Woodacre Creek	Retrofitted the Park Street crossing with arch culverts	Project complete
Sleepy Hollow Creek	SFD High School SEA-DISC students revegetated 700 linear feet	MCSTOPPP provided \$1,700 assistance
Miller Creek Pilot Watershed Planning	Support stewardship group, compile data, set watershed goals	Underway
Novato Creek	Students from Rancho School revegetated Phase VIII area.	<i>Students and Teachers Restoring A Watershed (STRAW)</i> project.
Arroyo Corte Madera del Presidio Watershed	Revegetation with native plants, bank repair with fascines	STRAW days at Old Mill Park and Boyle Park
Corte Madera Creek	Bank revegetation by students from Manor and Laurel Dell School	STRAW project with Marin Art and Garden Center
Miller Creek Watershed	Revegetation by students from Dixie and Miller Creek Middle Schools	STRAW project
Saltworks Canal Bank Stabilization	Final phase of runoff management program in Strawberry Circle	Completed by Marin Cons. Corps & Flood Zone 4



Marin creeks come in all shapes and sizes—rural and urban, perennial and ephemeral, natural and channelized.

“MCSTOPPP hosts monthly meetings, led by Regional Water Board staff, to assist landowners with initial project review and advice on permitting.”

A Creek-Centered Approach to Water Quality Protection

(Continued from page 1)

MCSTOPPP staff continued to provide technical and permitting advice to [creek-focused community organizations](#), individual creekside property owners, and city and town engineers.

MCSTOPPP hosts monthly meetings to assist landowners with initial technical review and permitting for projects

affecting creeks and wetlands. The meetings are led by [Regional Water Board](#) staff. Staff from [NOAA fisheries](#) and the [California Department of Fish and Game](#) frequently attend these meetings.

Marin County Wildlife and Fisheries Advisory Committee

Examples of [2006-2007 grants](#) :

Marin Audubon	Clapper Rail survey on lower Corte Madera Ck.
Tomales Bay Association	Erosion control materials for use on Olema Creek
Friends of Corte Madera Creek	Water quality testing equipment
Wilderness Way	Supplies for K-8 watershed/salmon studies

Trash and Debris Removal in 2006-2007

Municipality	Activity
Belvedere	Coastal Cleanup Day trash removal along the San Rafael Ave. seawall.
Corte Madera	Picked up over 950 cubic yards of debris from streets and catch basins.
Fairfax	Annual cleanup by Fairfax Volunteers and participation in Ross Valley creek cleanup using Marin Conservation Corps
Larkspur	City conducted cleanups along Bon Air bikepath to the 101/Sir Frances Drake interchange, along Remillard Park pond levee, and Corte Madera
Marin	Contracted to Marin Conservation Corps and Forester and Kroeger for trash removal and abatement of flooding hazards.
Mill Valley	City sponsored an Earth Day cleanup with Scouts, Streamkeepers, Rotary, Little League, and others. Marin Conservation Corps removed debris and overgrown vegetation. City contractor removed blackberry and other non-natives on Warner Creek at Mill Valley Golf Course.
Novato	Retained Marin Conservation Corps crews 8 days, and San Quentin crews for 10 days to clean up City creeks.
San Rafael	City crews cleaned culvert inlets before rainy season. City uses court workers year round.
Sausalito	Removed litter from watercourse downstream from Corporation Yard.
Tiburon	Participated in Coastal Cleanup Day at Blackie’s Pasture.

Mapping Update

MCSTOPPP is assisting [MarinMap](#), a consortium of municipalities and special districts, to bring storm drain and creek information to an internet-accessible geographic information system (GIS). Initial location of storm drains and outfalls is complete for most Marin municipalities.

MCSTOPPP partnered with the [Tomales Bay Watershed Council](#) on a [Proposition 50](#) grant. Maps of storm drains in coastal watersheds were created and used to characterize watersheds and to plan water-quality monitoring. Results are presented in appendices to the [Tomales Bay Integrated Coastal Watershed Plan](#). See page E-1 for additional information.

Street Sweeping, Storm Drain Inlet Cleaning, and Visual Outfall Monitoring

Current typical minimum frequencies of street sweeping, storm drain cleaning, and visual monitoring are summarized in the table below.

Downtown areas, such as in San Rafael, may be swept more frequently, and sweeping of all streets may be doubled during leaf season. Many municipi-

palities monitor catch basin accumulations more frequently during rains.

Visual monitoring of culverts and outfalls that discharge to creeks allow municipal staff to detect and stop dry-weather non-stormwater discharges, identify maintenance needs, and detect erosion problems and visual pollutants.

During 2006-2007, Marin municipalities swept more than 14,700 curb-miles and removed more than 7,900 cubic yards from gutters and storm drains.

Detailed records of these activities are available for review through each municipality's stormwater coordinator.

“Despite intensive outreach and education, municipal inspectors occasionally find dumped materials in creeks or storm drains.”

	Street Sweeping			Storm Drain Cleaning			Visual Outfall Monitoring	
	Residential	Commercial	Industrial	Residential	Commercial	Industrial	Sites	Frequency
Belvedere	Weekly	Weekly		Annually			3	
Corte Madera	Weekly	Weekly	Weekly	Annually	Annually	Annually	33	Monthly
Fairfax	Monthly	2x weekly		As needed	As needed		2	Twice Annually
Larkspur	Monthly	Monthly	Weekly	Annually	Annually	Annually	53	Annually
County	Annually	2x/year		Annually	Annually		56	Annually
Mill Valley	Monthly	4x/month		Annually	Annually	Annually	10	Monthly
Novato	Ea. 6 weeks	Weekly	Monthly	Annually	Annually	Annually	18	Annually
Ross	Weekly	Weekly		As needed	As needed		10	Monthly
San Anselmo	Weekly	Weekly		Annually	Annually		5	Monthly
San Rafael	Ea. 6 weeks	Weekly	Weekly	Annually	Annually	Annually	5	Monthly
Sausalito	Monthly	3x/week	Monthly	Annually	Annually	Annually	36	Annually
Tiburon	Weekly	Weekly	Weekly	2x/year	2x/year	2x/year	635	Annually



Marin municipalities engage volunteers and paid laborers to remove trash from creeks annually.

Illicit Discharge Incidents and Response

Despite intensive outreach and education, municipal inspectors occasionally identify dumped materials in creeks or storm drains. Sometimes residents see dumped materials or witness illicit discharges in progress and report it to local police or public works departments.

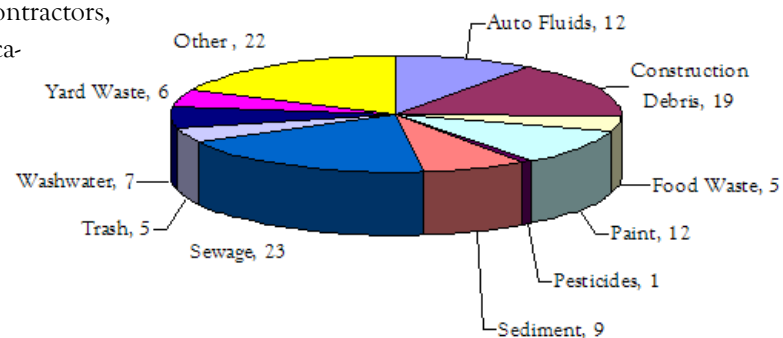
Types of materials found this year, and the number of times each was found, are shown in the pie chart at right.

When it is impossible to identify the responsible party, municipal staff may distribute door hangers or other materials to businesses and residents in the area.

When the responsible party can be identified, municipal staff respond with verbal or written warnings, [notices to abate](#), or “cease and desist” notices.

In 2 reported cases during 2006-2007, a formal violation was issued.

Seven formal citations were issued to construction contractors, and on two occasions construction sites were shut down until the problem was corrected.



Students and Teachers Restoring Marin Watersheds

2006-2007 marked the 5th year of MCSTOPPP support for the [Bay Institute's Students and Teachers Restoring A Watershed](#) (STRAW) program.

At Old Mill Park, in the Arroyo Corte Madera del Presidio watershed, MCSTOPPP staff led students as they installed fascines of dogwood cuttings to help repair eroded creekbank gullies. The fascines are growing and trapping sediment and debris. At Boyle Park, students removed invasive plants along the banks of Warner Creek and planted six different species of natives. The City of Mill Valley assisted with disposal of the removed material.

In the Corte Madera Creek watershed,

MCSTOPPP staff worked with [Marin Art and Garden Center's](#) Charlotte Torgovitsky and Alan Good to plan a restoration event by students from Manor School and Laurel Dell School.

In Miller Creek, STRAW restored two sites, one adjacent to Dixie School and the other at Marinwood Park adjacent to Miller Creek Middle School. This is

Watershed Management in the Ross Valley

In response to the 2005-2006 floods, Marin County, Ross Valley municipalities, and landowners along Corte Madera Creek are collaborating to reduce future flood damages and restore riparian habitat.

The [Ross Valley Watershed Program](#)

is the 5th consecutive year for these projects.

In Novato Creek, staff from Point Reyes Bird Observatory, Marin County Flood Control District, MCSTOPPP and STRAW teamed with students and teachers from Rancho School to learn about bird monitoring in riparian areas and participate in revegetation of part of the Novato Creek Phase VIII project.



Steelhead. Photo courtesy of Thomas L. Taylor

has accelerated creek maintenance, mailed a hazard mitigation grant application to 1200 homeowners who may wish to elevate their homes, obtained a \$100,000 Coastal Conservancy Grant for hydrologic modeling, and is investigating more ways to finance restoration.

CHAPTER 4: Building and Renewing

MCSTOPPP drafts countywide *Guidance for Applicants*

Since the early 1990s, Marin municipalities have required new developments be designed to minimize pollutants in runoff over the life of the project.

The Phase II NPDES permit, issued in 2003, contains specific requirements and design standards for these controls. The controls include require-

ments that runoff be treated prior to discharge from the site and that runoff peak flows not exceed pre-project conditions.

As allowed under the permit, MCSTOPPP intends to craft a “Functionally Equivalent Program” that integrates watershed management, flood control,

(Continued on page 2)

Marin municipalities enforce construction site controls

Before issuing a grading or building permit, Marin municipalities require projects that disturb an acre or more to demonstrate they are complying with a statewide [General Stormwater Permit for Construction Activities](#).

The table to the right shows projects currently in progress. Most are in Novato.

These projects are required to prepare a [Storm Water Pollution Prevention Plan](#) (SWPPP) detailing site-specific construction-phase controls.

For smaller projects, municipalities attach erosion control information—on either an [8½" x 11" sheet](#) or a full-sized plan sheet—and enforce the

erosion and sediment control provisions of their grading ordinances. Local building officials also monitor construction sites to ensure construction materials are stored under cover or tarped and that excess concrete, paint, and other wastes aren’t washed into gutters or storm drains.

Much of Marin’s planning and construction activity is for single-family residences, including major renovations or “tear downs,” and many of these sites are on steep, erodible hillsides.

Municipalities generally prohibit grading during the rainy season, with some exceptions, and conduct timely

seasonal outreach to contractors to help ensure compliance. This includes distributing information in handouts and newsletters (Tiburon) or in-person meetings with contractors (Novato).

If necessary, inspectors issue stop-work orders which remain in effect until the problem is corrected, as occurred this year at construction sites in Belvedere, Tiburon, Ross, and unincorporated County.

MCSTOPPP staff is coordinating a [Construction Site Management Workshop](#)—now scheduled for January 29, 2008—with staff from the [San Francisco Estuary Project](#).



Pervious concrete installation (CSWST2)

Major Construction Projects

2006-2007 Project	Acres
Corte Madera	
San Clemente Family Housing	2.8
County unincorporated	
275 Nicasio Valley Road	2.0
Paul Land Division	3.6
Nave Subdivision	41.5
Novato	
Cherry Hill Subdivision	1.4
New Beginnings	6.7
Novato Gateway Office	3.7
Olive Court	44.6
Olive Ridge	20.0
Rudnick Estates	44.7
Somerston Park	10.5
Whole Foods	2.8
Hamilton Marketplace	2.9
Hamilton Field Levee Imprvmnt	2.7



Infiltration feature in Dominican Sisters House of Formation, San Rafael (CSWST2)

“Marin municipalities are already implementing Low Impact Development in some projects.”

Guidance for Applicants to be completed in 2007-2008

(Continued from page 1)

and stream restoration concepts, focuses on anticipated modes and types of future development, and is integrated with municipalities’ existing development review procedures.

During 2006-2007, MCSTOPPP created an Agency Staff New Devel-

opment Work Group to guide implementation of these requirements. After reviewing experience elsewhere in the Bay Area and California, and analyzing conditions specific to Marin, the Work Group began work on *Guidance for Applicants*. The Work Group aims for general countywide consistency; however, individual municipalities may make excep-

tions or additions.

At two workshops hosted by Novato and San Rafael, MCSTOPPP’s consultant, municipal staff, and land development professionals presented and discussed ways to meet Phase II permit requirements using Low Impact Development (LID) site designs and facilities (see article below).

New developments feature Low Impact Development drainage design

Low Impact Development is coming to California. Marin County municipalities are among the first to emphasize the technique.

Low Impact Development, or LID, has been defined as “a stormwater management and land development strategy that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic functions.”

In practical terms, that can mean anything from directing roof downspouts to landscaping—where that is practical—to engineered bioretention areas, or “rain gardens,” that filter runoff

through biologically active soil and provide storage and infiltration through an underground gravel layer. In clay soils, an underdrain carries treated water to off-site disposal.

Through experience, municipalities around the U.S. have found “rain gardens” to be highly effective, low maintenance, and attractive.

Marin municipalities are already implementing LID in some developments (see [table of 2006-2007 projects](#)). MCSTOPPP’s forthcoming *Guidance* will include instructions on site design and criteria for LID facilities.



Low Impact Development features in Novato’s Meadow Park subdivision (photo by CSWST2)

CHAPTER 5: Educating Ourselves at Work

Multipurpose Inspections Are Key to Controlling Pollutants

Marin County, and its cities and towns, continue to incorporate stormwater inspections into fire, building, and pretreatment inspection programs.

The [County Office of Waste Management](#) (COWM) is the Certified Unified Programs Agency (CUPA) agency for all Marin County jurisdictions. The

COWM inspects all sites where regulated quantities of hazardous materials are stored.

Marin County's [Environmental Health Department](#) inspects food-handling facilities in all the County's municipalities. Local Fire Departments or Districts also inspect businesses in many Marin municipalities.

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About Marin's Stormwater Outreach to Businesses

Marin's urban corridor along Highway 101 is largely residential. The largest local, private employers are computer software, insurance, and entertainment firms. There are few manufacturing or warehousing facilities. San Rafael hosts [Golden Gate Transit's](#) corporation yard and a solid-waste transfer station.

Throughout Marin, small local service businesses—such as auto repair shops, restaurants, and nurseries—are the most significant potential sources of stormwater pollutants.

In rural and semi-rural areas, horse stables and corrals can, if not properly managed, contribute sediment, pathogens, and nutrients to nearby creeks.

The use of pesticides presents a poten-

tial source of toxicity anywhere in the watershed.

In preparation for implementing the Phase II NPDES permit, Marin municipalities updated their Business Inspection Plans to focus on the most significant potential local sources. The Business Inspection Plans were originally created in 1998 and describe how inspecting agencies—such as fire departments—add a stormwater component to their inspection procedures and inform local stormwater coordinators when problems are found.

Municipal [stormwater ordinances](#) empower assigned local staff to prohibit discharges into storm drains and to require businesses to implement best

management practices (BMPs).

Each municipality has policies and procedures for enforcement, which may include citations and fines.

To remind businesses of the need to implement BMPs, some municipalities distribute a notice and/or a [self-inspection form](#) with annual business license renewal notices. In 2006-2007, Larkspur distributed notices to 1200 businesses, and Tiburon distributed self-inspection forms to 550 businesses.



Why we need BMPs

Self-Inspection Questions

- Are storage containers free from cracks and leaks, have lids or covers that are kept closed, and are not exposed to rain water?
- Are storage areas enclosed or covered from rain?
- Are parking areas and access roads free of excessive oil, motor fluids, leaks, stains, litter, and sediments?
- Are vehicle repair and maintenance areas covered and out of the rain?
- Are any vehicles and heavy equipment which are stored outside free of leaks and grime?
- Are spills in fueling and maintenance areas prevented from reaching storm drains?
- Are "dry" cleanup methods used to clean work areas?
- Is all washwater and process water discharged to the sanitary sewer or recycled?



Paint and concrete slurry are among the most common illegal discharges.

“Enforcement may include citations and fines.”

Municipalities coordinate inspections countywide

(Continued from page 1)

In most municipalities, the inspecting agency refers problems—conditions which are causing, or could potentially cause, discharge of pollutants to storm

drains—to the local stormwater coordinator for follow-up. In San Rafael, the Central Marin Sanitation Agency has authority to enforce that City’s stormwater ordinance.



San Rafael’s Canal Area hosts a concentration of dealerships, repair shops, and other auto-related businesses.

Outreach to Businesses and Local Government

2006-2007 Workshops

Creek Bank Stabilization and Restoration	Sept. 12-13
Rat and Mice Management	Nov. 29
Gopher and Weed Management	Mar. 21
Fish Friendly Road Maintenance	June 9
Low Impact Development	July 26, ‘07

Outreach Materials Available

<i>Title</i>	<i>Publisher</i>
What Apartment Managers Need to Know About Sewers & Storm Drains	MCSTOPPP
Bay-Friendly Landscape Guidelines	STOPWaste
Food Handling Facilities Guidebook	MCSTOPPP
Here’s What to Do with the Water (Pool Maintenance Guide)	MCSTOPPP
Preventing Pollution for Gas Stations and Related Businesses	MCSTOPPP
Horse Owner’s Guide to Water Quality Protection	Bay Area RCDs
Pollution from Surface Cleaning	BASMAA
Fresh Concrete and Mortar Application	MCSTOPPP

All materials are available at www.mcstoppp.org. See Chapter 6 for more on MCSTOPPP’s pollution-prevention outreach activities.

Enforcement Actions

After over a decade of MCSTOPPP outreach to businesses, violations are relatively rare.

In 2006-2007, San Anselmo warned one restaurant owner regarding the discharge of washwater involving food waste. San Rafael issued pre-citation notices to two auto-service businesses—fined a downtown business for pressure washing sidewalks into the storm drain, and also fined a pool service business for backwashing pool filters into a storm drain.

More common business-related discharges include paint and concrete slurry from contractors and sewage spills caused by backups in laterals or sewage collection systems.

CHAPTER 6: Educating Ourselves at Home and at School

MCSTOPPP contributes to regional public education efforts

MCSTOPPP continued to lead efforts to educate the Bay Area public about stormwater pollution prevention during 2006-2007.

MCSTOPPP administered the *Alternatives to a Toxic Tomorrow* (ATT) program throughout northern California during 2003-2006 under a Proposition 13 state grant. ATT extended *Our Water Our World* (OWOW)

outreach to 17 additional municipalities and 123 stores, expanded and updated some existing outreach and educational materials, developed a school curriculum and established the [OWOW website](#). OWOW helps local agencies recruit retailers to provide point-of-purchase information about less-toxic alternatives to conventional pesticides.

(Continued on page 2)

About Marin's Stormwater Pollution Prevention Public Education Efforts

From its inception in the early 1990s, MCSTOPPP has emphasized public education and involvement.

Using a variety of funding sources—including annual Used Oil Block Grants from the California Integrated Waste Management Board, a state Proposition 13 non-point source grant, and MCSTOPPP funds—Public Education Coordinator Gina Purin oversees a broad variety of activities.

MCSTOPPP leverages its resources by co-sponsoring environmental education efforts throughout the County. In 2006-2007, MCSTOPPP supported “Turning the Tide”, part of [Next Generation's](#) Green Schools program, and a workshop series organized by [Marin Art](#)

[and Garden Center](#). MCSTOPPP also partners with the College of Marin to offer classes for the general public.

MCSTOPPP provided materials to a variety of local groups, including:

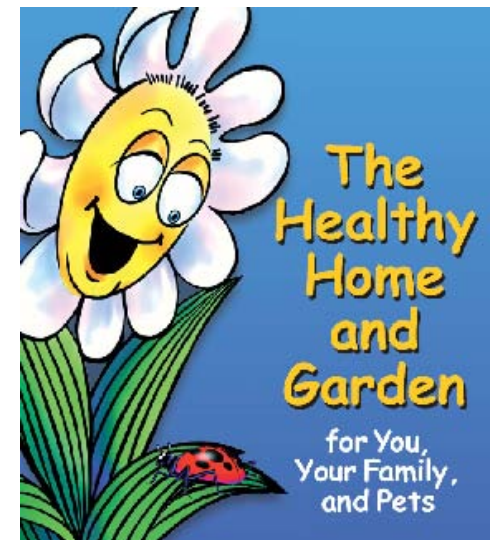
- ◆ Mrs. T's Mill Valley Beautification Day
- ◆ Pier 39 Earth Day Celebration
- ◆ Drake High School Earth Day Event
- ◆ Marin Art and Garden Center's 61st Annual Garden Day.
- ◆ Grassroot Leadership Network's “Search for the Cause” event in Marin City.
- ◆ Master Gardeners for distribution

at Farmers Markets in San Rafael and Novato.

MCSTOPPP also provided storm-drain stencils to Mill Valley, Larkspur, and Tiburon.

MCSTOPPP's diorama, which illustrates watershed sources of stormwater pollutants, was displayed by the Bay Institute, San Ramon Elementary School, City of Novato, Hamilton Science Night, Discovery Day on the Bay, and Old Mill School.

MCSTOPPP sponsored a [“Pest or Pal” training workshop](#) for teachers on Oct. 26. The training included distribution of a curriculum guide, activity booklets, and a “Healthy Home and Garden” guide for each student's family.



Our Water, Our World Booklet

Classes & Tabling '06-'07

Classes	Registrants
Dirt on Soil	21
Go Native!	31
Design for Color and Climate	25
Plant Parenthood	25
Growing Gardens from Garbage	23
Beauty from the Beast	25

Tabling (MCSTOPPP & Local Staff)

Amazing Bay Day at McNear's Beach
Discovery Day at Romberg Center
Canal Health and Safety Day
Fairfax Eco-Fest
Tam Valley CSD Education Fair
Kaiser Permanente Earth Day Event



MCSTOPPP provided a grant to students at Manor School in Fairfax to create this wildlife crossing sign.

“MCSTOPPP produced a calendar and distributed 15,045 copies through businesses and organizations—and directly to residents.”

MCSTOPPP helps lead regional outreach

(Continued from page 1)

During 2006-2007, MCSTOPPP maintained the website with BASMAA funding. MCSTOPPP also provided fact sheets and shelf talkers to Marin stores.

MCSTOPPP also participates in the Regional Media Relations Campaign, the Urban Pesticide Pollution Prevention Project, and BASMAA’s Regional Advertising Campaign.



MCSTOPPP’s support for Next Generation’s Green Schools Program helped junior high students learn about sustainability.

MCSTOPPP Publications for 2006-2007

Title	Notes
<u>Groundwork Handbook for Small-Scale Erosion Control in California</u>	County of Marin contracted with Prunuske Chatham, Inc. to revise and update this useful book, which was originally prepared by the Marin Resource Conservation District
How You Can Improve Your Coho Salmon and Steelhead Habitat	In partnership with Marin Municipal Water District. Extensive changes.
<u>Go Native!</u>	Extensive changes
<u>Creek Care.</u>	Minor changes
Tidebooks (funded through Used Oil Block Grant)	Designed new cover and distributed 8,000 copies through 55 businesses.
Calendars (funded through Used Oil Block Grant)	Distributed 15,045 calendars for 2007 through 72 businesses/organizations, 33 newspapers, 25 newsletters, 133 landscapers/gardeners, 17 libraries, 611 teachers and 360 residents
<u>Growing Gardens from Garbage: A Guide to Composting, Mulching, and Grass Cycling</u>	New MCSTOPPP Publication
Pests Bugging You? (pocket guide)	Revised. 21 municipalities throughout California have purchased another 43,000 copies.
<u>Our Water Our World website</u>	Regional effort administered by MCSTOPPP

Articles in the Press

Media coverage and advertising:

- ◆ *Marin Independent Journal* (August 12, 2006, December 16, 2006 and March 3, 2007)
- ◆ *The Ark* on March 28th, 2007.
- ◆ *Frankly Speaking*, the Civic Center newsletter, and *FYI*, the County Employee newsletter.
- ◆ Orchard Supply Hardware Sunday advertising supplements (promoted the OWOW website).
- ◆ *Sunset Magazine’s* August and September editions and *Bay Nature’s* magazine from April–December 2006 (BASMAA placed an ad promoting OWOW).

Stormwater Pollution Prevention in the City of Belvedere

Belvedere emphasizes sanitary sewer overflow prevention

Sellers of homes in Belvedere must arrange for a licensed plumber to inspect the sanitary sewer lateral via video camera. Any clogs, breaks, or leaks must be repaired before the sale is completed.

This requirement further reduces the potential for sewage to enter storm drains and Richardson Bay through overflows or groundwater seepage.

The City's sanitary sewer system was annexed to

Sanitary District #5 of Marin County in 2005. The Sanitary District is studying needed upgrades and repairs to the City's sanitary mains and pump stations.

The Regional Water Board has listed Richardson Bay—which surrounds Belvedere on three sides—as impaired by bacteria. The list indicates the affected area is not in the vicinity of Belvedere.

About Belvedere's Stormwater Pollution Prevention Program

The City of Belvedere, population 2200, occupies about one square mile on the Tiburon peninsula. The community comprises three areas: Belvedere Island, a portion of Corinthian Island, and the Lagoon, which is situated between the two islands.

The City was incorporated in 1896, and grew up as an exclusive residential community near the railroad and ferry terminus in adjacent Tiburon. Following World War II, portions of the Lagoon were filled for tract homes and a golf course, which was subsequently developed for additional residences.

Some businesses operate offices in Belvedere, but the City includes no retail or commercial facilities.

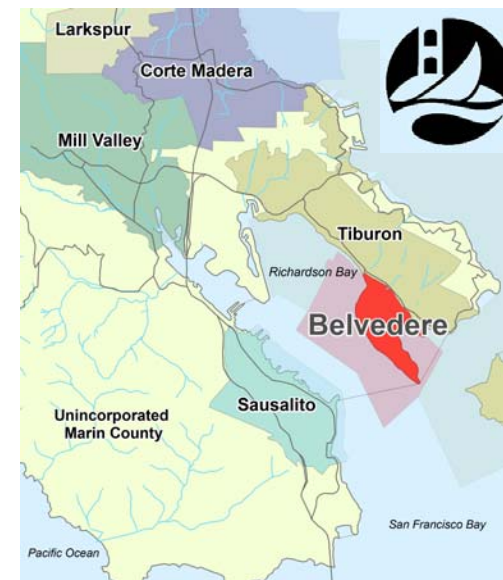
Hilly and lush, Belvedere Island has narrow roads with no curbs and gutters. Streets and private lots drain through pipes and culverts to Richardson Bay or to the privately owned Lagoon.

Streets in the Lagoon area have curbs and gutters. The Lagoon typically functions as a detention basin; water flowing into the Lagoon is discharged after settling and during a low tide.

The local stormwater pollution prevention program is funded by the City's General Fund. Scott Derdenger, Superintendent of Public Works, coordinates the City's program and is a regular participant in MCSTOPPP's bimonthly Agency Staff Committee meetings.

Belvedere's public outreach efforts are focused on educating homeowners through City newsletters.

Belvedere saw a 7.5% upswing in building permit applications during 2006-2007, almost entirely for upgrades and additions to existing residences. Approximately 16 planning applications were processed for hillside development and between 20 and 32 were



Belvedere occupies about one square mile on the Tiburon peninsula.

Belvedere's Stormwater Staff

Stormwater Coordinator, Illicit Discharge Detection and Elimination, Municipal Maintenance, Outfall Monitoring, Public Information and Participation	Scott Derdenger, Superintendent of Public Works, 415-435-3838 sderdenger@cityofbelvedere.org
Capital Improvement Projects and Drainage	Bob Branz, City Engineer
Planning Department contact; Development Approvals	Pierce Macdonald, Planning Manager
New Development and Construction Controls	Lee Braun, Building Official, and Genaro Munez, Building Inspector

About Belvedere's Stormwater Program

(Continued from page 1)

under construction.

The El Niño storms of 1983 overtopped the seawall on San Rafael Avenue. A [design study](#), completed in April 2007, identifies alternatives for parks and landscaping improvements as well as measures to help guard against rising sea levels.

A 2005 ordinance restricts the use of

pesticides by City staff. In 2006-2007, no pesticides were used. Weeds and other invasives are removed by hand or mechanical methods.

Belvedere links for on-line viewers:

- ◆ [City of Belvedere website](#)
- ◆ [San Francisco Yacht Club](#)
- ◆ [Email Belvedere's Stormwater Coordinator](#)



Sailing on the Lagoon

More Accomplishments by Belvedere in 2006-2007 and Priorities for 2007-2008

In addition to advancing control of sanitary sewage overflows, City of Belvedere staff:

- ◆ Inspects and cleans all storm drains annually.
 - ◆ Sweeps streets with a Tymco mechanical sweeper weekly.
 - ◆ Hand-cleans the surface of storm inlets before, during and after storm events.
 - ◆ Requires a pre-construction meeting for every hillside residential building project/ Meetings include discussion of construction site pollution and erosion and sedimentation controls.
 - ◆ Collects debris from the shoreline
- ◆ Provides dog excrement bags in public parks.
 - ◆ Completed storm drain mapping to GIS. City staff is currently verifying the accuracy of the maps.
 - ◆ Includes stormwater pollution prevention information as a regular feature of the City Manager's weekly email newsletter to residents. For example, recent newsletters included general information about MCSTOPPP and instructions for discharging water from pools and spas.
 - ◆ Added a standard Condition of

fronting the Bay each week and following storms.

Approval for NPDES Phase II requirements.

Priorities for 2007-2008

Belvedere will aim to:

- ◆ Inspect the City's four businesses for stormwater pollution prevention controls and practices.
- ◆ Using the recently completed GIS storm drain map, identify additional stormwater monitoring points.

For information about Belvedere's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

"Belvedere requires a pre-construction meeting for every hillside residential project. Meetings include discussion of construction site pollution and erosion and sedimentation controls."



Corinthian, the "little island" as seen from Beach Road

Stormwater Pollution Prevention in **Town of Corte Madera**

Town continues innovation in reducing pesticide use

Corte Madera's public works crews have steadily reduced pesticide use over the past five years.

Plants for Town landscaping are selected for pest resistance, drought tolerance, proclivity to spread laterally, and color. In especially sensitive areas, plants are chosen primarily for their extensive root systems and for compatibility with the ecosystem in which they are placed. Town crews prune plants so that

unplanted areas remain shaded, and newly planted areas, with the exception of turf, are converted to drip irrigation rather than spray irrigation. These measures greatly reduce the need for herbicides.

Rodent populations continue to decline. Town crews and residents report sightings, and the Town's abatement service responds promptly, always using least-toxic methods.

About Corte Madera's Stormwater Pollution Prevention Program

Corte Madera, in central Marin County, has 9,400 population. The town is bisected by the Highway 101 corridor, with the Bay as the eastern boundary and hilly terrain to the east, where it borders the Cities of Larkspur and Mill Valley.

Corte Madera was part of the Corte Madera del Presidio land grant given to John Reed in 1836. Reed established a mill in neighboring Mill Valley and produced lumber used to build San Francisco's Presidio. The local economy shifted to farming and cattle ranching after most redwoods were harvested. The area became a summer retreat for San Franciscans, and many summer homes became permanent after the 1906 quake. The Town was incorporated in 1916.

The Corte Madera Ecological Reserve, managed by the California Department of Fish and Game, was created following battles over expanding commercial

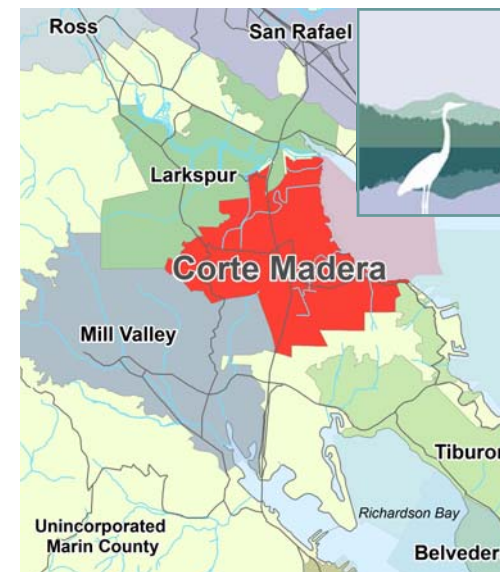
development.

Stormwater Coordinator David Montero directs the Town's stormwater pollution prevention activities. He and the Town's Public Works Field Supervisor frequently address interested citizen groups, school groups, and staff from other municipalities. The Field Supervisor also is responsible for the distribution of the MCSTOPPP calendars to area businesses.

Public Works staff is trained to monitor for and respond appropriately to illicit discharges. Corte Madera emphasizes a proactive approach. For example, if staff observes a concrete truck beginning a pour, they are expected to caution the driver and workers about how to prevent an illicit discharge.

The Stormwater Program is funded by the town. All outfalls in town are mapped.

Corte Madera implemented an IPM policy 4 years



Corte Madera is centrally located and is bisected by the Highway 101 corridor

Corte Madera's Stormwater Staff

Stormwater Coordinator, Municipal Maintenance, Commercial and Industrial Inspections and Outreach, Illicit Discharge Detection, and Public Information and Participation	David Montero, Superintendent of Public Works 415-927-5057 dmontero@ci.cortemadera.ca.us
Capital Improvement Projects and Drainage, Construction Inspection	Barry Hogue, Director of Public Works
Development Approvals and Planning Department contact	Robert Pendoley, Director of Planning

About Corte Madera's Stormwater Program

(Continued from page 1)

ago. David Montero provides leadership to other local governments by employing and promoting new and innovative techniques for safe pest elimination.

Corte Madera has been working on an update to its General Plan. Water quality policies in the draft include:

- ◆ Continue participation in

MCSTOPPP.

- ◆ Support alternatives to impervious surfaces.
- ◆ Require site designs work with natural drainage and topography.
- ◆ Continue to improve storm drainage performance by constructing new system improvements to eliminate direct discharge of storm waters into natural systems.

Corte Madera links for on-line viewers:

- ◆ [Town of Corte Madera website](#)
- ◆ [Corte Madera's IPM Ordinance](#)
- ◆ [NOAA Community Profile \(pdf\)](#)
- ◆ [Corte Madera Chamber of Commerce](#)
- ◆ [Email Corte Madera's Stormwater Coordinator](#)



Corte Madera Town Center

More Accomplishments by Corte Madera in 2006-2007 and Priorities for 2007-2008

In addition to innovations in reducing pesticide and herbicide use, Town of Corte Madera staff:

- ◆ Converted paper stormwater maps to the Town's GIS system and began training maintenance staff in use of the GIS system.
- ◆ Loaned Marin Municipal Water District the Town's Waipuna Weed Elimination machine, and responded to inquiries from many other agencies.
- ◆ Continued with the sewer lateral replacement program.
- ◆ Reached a 20-year agreement with Mill Valley Refuse for street sweeping, giving the Town the option of

employing two street sweepers simultaneously.

- ◆ Purchased a new PM10 compliant street sweeper.
- ◆ Incorporated stormwater pollution prevention policies into the draft General Plan.
- ◆ Provided an update to Town Council on the "State of the IPM Program."
- ◆ Completed Phase I of the update to the Town's Master Storm Drainage Plan.

Priorities for 2007-2008

- ◆ Continue to upgrade the storm drain mapping program.

- ◆ Complete the Town's Master Storm Drainage Plan
- ◆ Request annual blanket permits from utilities to cover town capital improvement projects regarding stormwater requirements for submittal to the Regional Water Board.
- ◆ Follow up on incorporation of stormwater pollution prevention policies into the General Plan.

For information about Corte Madera's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

"Corte Madera provides a leadership role to other local governments by employing new and innovative techniques for safe pest reduction."



Wetlands border the Town

Stormwater Pollution Prevention in the **Town of Fairfax**

Despite adversity, Fairfax funds creek restoration

Throughout fiscal year 2006-2007, Fairfax Public Works staff has operated from a temporary trailer adjacent to Peri Park. Fairfax Town Hall, damaged in the December 31, 2005 flood, may be ready to re-occupy in August 2007.

The Town is continuing to implement capital improvements to its drainage system using money authorized by Measure K in 1995. Many of the projects

are to replace failing metal pipe culverts.

The Town also added \$150,000 from its General Fund to restore a creek reach along Olema Road near a senior housing facility, and used a \$30,000 fine resulting from a sanitary sewer discharge to revegetate a restabilized a bank on the affected creek.

In addition, the Town has pursued FEMA funding for emergency bank repairs related to the flood.

About Fairfax's Stormwater Pollution Prevention Program

Fairfax has approximately 7,275 population and encompasses approximately 1,400 acres. It is named for Lord Charles Snowden Fairfax, tenth Baron of Cameron, Scotland. The British Crown granted Lord Fairfax land which is now Virginia. Fairfax came to California by gold fever and was elected a Marin County Supervisor in 1865.

Fairfax tracts were subdivided in the 1900s through the 1920s, in reach of a commute to San Francisco via electric train and ferry. Construction of Alpine Dam in 1917 brought an influx of Italian immigrants. The Town was a location for silent films. It was incorporated in 1931.

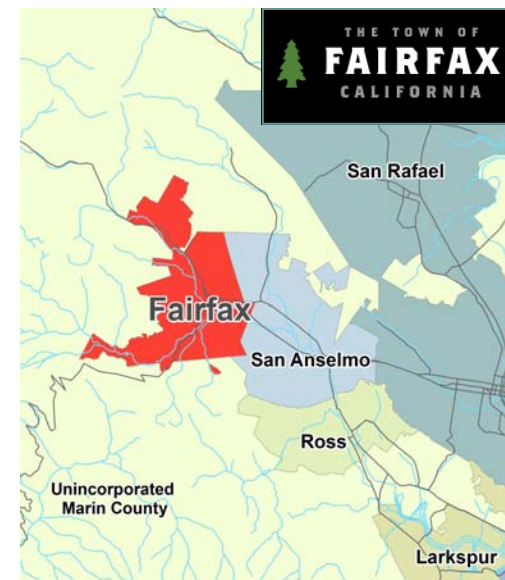
Fairfax occupies the uppermost reach of the Ross Valley, and its residential neighborhoods extend into the surrounding hills. Fairfax Creek and other tributaries to San Anselmo creek flow through the town.

Most drainage is in natural creek channels and culverts.

Most building permits are for residential remodels. There are occasional small infill projects subject to discretionary review. One small subdivision (above the 7-11 along Sir Frances Drake Boulevard) is in development and required erosion and sedimentation control enforcement during 2006-2007.

Stormwater Program Organization

The Stormwater Pollution Prevention Program is coordinated by Public Works Director Debra Sue Johnson. During 2006-2007, Public Works staffing was further reduced, with the loss of a half-time administrative assistant. All public works engineering, including FEMA-funded work, is done under contract.



Fairfax is at the upper end of the Ross Valley

Fairfax's Stormwater Staff

Stormwater Coordinator, Municipal Maintenance, Capital Improvement Projects, Illicit Discharge Detection, Public Information and Participation	Debra Sue Johnson, Public Works Director 415-453-0291 publicworks@townoffairfax.org
Development Approvals	Ray Wrisinski, Consulting Engineer
Construction Inspection and Planning Department Contact	Mark Lockaby, Building Inspector/ Code Enforcement
Commercial Inspections,	Roger Meagor, Chief, Ross Valley Fire

About Fairfax's Stormwater Program

(Continued from page 1)

Building Inspector Mark Lockaby enforces erosion and sedimentation controls and pollution prevention controls on construction sites.

Notably, the Fairfax Police Department is very engaged and responsive to reports of illegal dumping.

Fairfax links for on-line viewers:

- ◆ [Town of Fairfax website](#)
- ◆ [Fairfax history](#)
- ◆ [Marin Town & Country Club](#)
- ◆ [Fairfax Chamber of Commerce](#)
- ◆ [Sustainable Fairfax](#)
- ◆ [Email Fairfax's Stormwater Coordinator](#)



Downtown Fairfax

More Accomplishments by Fairfax in 2006-2007 and Priorities for 2007-2008

In addition to continuing creek and habitat improvements while dealing with flood recovery, Fairfax:

- ◆ Participated in the Ross Valley Watershed Program's cleanup of creek debris by Marin Conservation Corps crews.
- ◆ Supported Fairfax Volunteers' annual creek cleanup.
- ◆ Continued to distribute MCSTOPPP's erosion and sedimentation control information with building permits.
- ◆ With help from MCSTOPPP, assisted 15 local property owners with design and execution of stream bank repair projects.

Priorities for 2007-2008

- ◆ Complete disaster recovery from the New Years' flood, including five FEMA-funded projects.

For information about Fairfax's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

“With help from MCSTOPPP, the Town of Fairfax is assisting 15 local property owners with design and execution of bank repair projects.”



Cascade Falls

Stormwater Pollution Prevention in the City of Larkspur

Larkspur plans bridges, flood protection improvements

Larkspur's Engineering Division is working on design specifications for replacing three bridges over Corte Madera Creek: Alexander Avenue, Doherty Drive near Piper Park, and the Bon Air bridge.

The City has a federal bridge repair grant to pay for 88.5 percent of the estimated \$15.5 million project. Replacement of the crossings was recommended in 2000 by the City's *Larkspur 2050* citizens' committee

and gained additional urgency following the December 31, 2005 flood.

The City is also planning sediment removal at Tub Lake and at Larkspur Marina, removal of invasive parrot feather from some lagoon areas, and removal of tules in Remillard Park.

The projects offer opportunities to preserve and possibly enhance creek and wetland habitat at these sites.

About Larkspur's Stormwater Pollution Prevention Program

Incorporated in 1908, Larkspur has approximately 12,000 population and covers 3.3 square miles near the confluence of Corte Madera Creek with San Pablo Bay. There are some hilly neighborhoods, but much of the City is low-lying.

The City is bisected by US 101. To the east, the Larkspur Landing area includes a ferry terminal with service to San Francisco and a shopping center. The City's downtown and Madrone Canyon residential area are west of the highway.

Larkspur was laid out as a bedroom community in 1887 by developer O.W. Wright, who mistook the lupine growing on local hillsides for larkspur. The City's downtown includes classic commercial architecture from the 1890s to the 1930s and is listed on the National Register of Historic Places.

Active developments include Drake's Cove, 23 lots

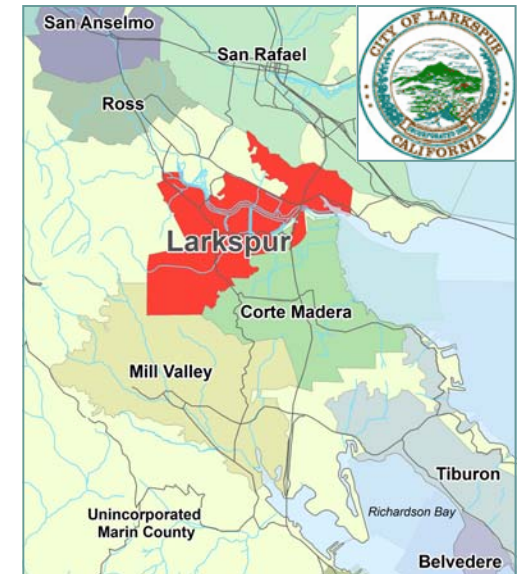
off Sir Frances Drake Boulevard east of US 101, and the Campus Properties mixed-use development at Larkspur Landing Circle.

The City is planning a new police station and reconfiguring the Corporation Yard at Piper Park. Initial planning calls for extensive use of "green" materials and construction techniques.

Stormwater Program Organization

Larkspur's Stormwater Pollution Prevention Program is coordinated by Mike Myers, Superintendent of Public Works, who also manages and performs maintenance of city infrastructure and facilities.

Street sweeping is contracted for once per month in summer and twice per month in winter. The same contractor performs storm drain cleaning. The City may also need to incorporate storm drain inspections



Larkspur lies at the mouth of Corte Madera Creek.

Larkspur's Stormwater Staff

Stormwater Coordinator, Municipal Maintenance, Commercial Inspections	Mike Myers, Superintendent of Public Works mmyers@larkspurcityhall.org
Municipal Maintenance, Illicit Discharge Elimination, Outfall Monitoring	Mike Myers and Steve Pappas, Field Supervisor
Planning Department Contact	Neal Toft, Assistant Planner
New Development and Construction Controls	Phiroze Wadia, City Engineer
Capital Improvement Projects and Drainage	Phiroze Wadia and Hamid Shamsapour, Director of Public Works
Public Information and Participation	Mike Myers and Nathalie Bamatter, Permit Tech.

About Larkspur's Stormwater Program

(Continued from page 1)

to document due care in ensuring drainage is working.

Building Official Jim Moscoso responds to problems with erosion and sedimentation control or construction-related pollution incidents.

Nathalie Balmatter hands out construction-phase BMP materials with building permits.

Larkspur links for on-line viewers:

- ◆ [City of Larkspur website](#)
- ◆ [Email Larkspur's Stormwater Coordinator](#)



Larkspur-San Francisco Ferry

More Accomplishments by Larkspur in 2006-2007 and Priorities for 2007-2008

City of Larkspur stormwater staff:

- ◆ Mailed stormwater pollution prevention self-inspection questionnaires to 1200 Larkspur businesses.
- ◆ Conducted a cleanup of Larkspur Creek from the Corporation Yard at Doherty Drive to the end of the Madrone Avenue.
- ◆ Conducted additional litter and debris removal along Bon Air bike path, the north side of Corte Madera Creek shoreline, and in Remillard Park.
- ◆ Routinely inspected outfalls for evidence of pollutant discharges while checking flapgates.

Priorities for 2007-2008

- ◆ Follow up with planning for removal of invasive parrot feather from lagoons and tules at Remillard Park.
- ◆ Follow up on recording visual monitoring of outfalls when flapgates are inspected.
- ◆ Evaluate use of metallic decals to mark storm drains in place of thermoplastic decals.
- ◆ Work with MCSTOPPP's outreach coordinator on content for City newsletters and mailings.
- ◆ Coordinate with the MCSTOPPP-sponsored monthly coordination meetings to determine if these

could facilitate design and permitting for upcoming bridge crossing projects.

For information about Larkspur's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

"Larkspur mailed stormwater pollution prevention self-inspection forms to 1,200 local businesses."



Larkspur City Hall

Stormwater Pollution Prevention in the County of Marin

County staff maps storm drains, tackles ASBS requirements

The County of Marin stormwater program participated in developing the [Tomales Bay Integrated Coastal Water Management Plan](#) (ICWMP).

Under a [Proposition 50](#) grant awarded to the [Tomales Bay Watershed Council](#) (TBWC), staff mapped drainage in the Bolinas Mesa, Pt. Reyes Station, Woodacre, and Tomales communities. The GIS-based maps include culverts, storm drains, and water directions.

TBWC partners used the maps to target sites for stormwater quality monitoring conducted during 2006/2007. Results will be in a Municipal Stormwa-

ter Assessment and Recommendations report.

The ICWMP included assessments of watersheds draining to Areas of Special Biological Significance (ASBS). The [California Ocean Plan](#) prohibits stormwater discharges to these areas. The County is working to obtain an exception to the discharge prohibition for a culvert that discharges Bolinas Mesa stormwater into the [Duxbury Reef Reserve and Extension](#) ASBS. County of Marin staff collected watershed field data and water samples at the discharge location. Staff also contracted with UC-Santa Cruz to compare biological communities at the discharge location and a reference location.

About the County of Marin Stormwater Pollution Prevention Program

Covering about 430 square miles, unincorporated Marin County includes suburban communities such as Kentfield, Greenbrae, Marin City, and Strawberry; rural towns such as Woodacre, Bolinas, and Pt. Reyes Station, agricultural lands, state parks, and national seashore. The 2000 population was 68,735—about a quarter of Marin’s total population.

Marin’s aquatic ecosystems include salt, brackish, and freshwater wetlands and creeks from headwaters to estuarine. Protected species include steelhead and coho salmon, red-legged frog, California freshwater shrimp, clapper rail, and salt marsh harvest mouse.

Marin was made a county at California statehood in 1850. The Spanish ranchos gave way to smaller ranches, many of which are still in existence today and characterize much of Marin’s rural landscape.

Marin County planning staff have been working on an update of the [Countywide Plan](#) since 2000. The Plan’s [Guiding Principles](#) focus on sustainability.

Stormwater Program Organization

Terri Fashing is stormwater coordinator for the unincorporated County. Engineering Tech Howard Bunce, who joined County staff in 2007, will team with Terri to coordinate local program activities and



Unincorporated County includes urban areas and over 400 square miles of rural lands

County Stormwater Staff

Watershed Program Mgr.	Liz Lewis
Stormwater Coordinator	Terri Fashing
Municipal Maintenance	Larry Lewis, Pete Maendle
Creeks Coordinator	Bene Da Silva
Fish Passage Program	Kallie Kull
Grants/Env. Compliance	Ruth Pratt
CIP and Drainage	Reuel Brady
Illicit Discharge Detection and Outfall Monitoring	Howard Bunce and Terri Fashing
Construction Inspection	Eric Steger
Permit Review (Planning)	Tim Haddad, Tom Lai
Permits (Public Works)	Eric Steger, H. Bunce
Commercial/Industrial Inspections and Outreach	Scott Alber, Fire Dept. Phil Smith, Env. Health Michael Frost, Waste Mgt.
Public Information and Participation	Gina Purin, Howard Bunce and Terri Fashing

About the County of Marin Stormwater Program

(Continued from page 1)

implement Performance Standards.

As an integral part of the [Marin County Flood Control District](#), the unincorporated County stormwater program focuses on protection of creeks within the County's flood zones. Stormwater staff also review proposed development projects to assure consistency with the County's urban runoff ordinance and drainage setback ordi-

nance, and assist the Community Development Agency to implement [Stream Conservation Area policies](#).

CUPA, Public Health, and Fire inspectors examine commercial and industrial facilities, including restaurants, for stormwater violations (see [Chapter 5](#)). Stormwater program staff responds to referrals in 24-48 hours and maintains a database of illicit discharges and unpermitted creek alterations.

Links for on-line viewers:

- ◆ [County of Marin website](#)
- ◆ [County General Plan Update](#)
- ◆ [West Marin Chamber of Commerce](#)
- ◆ [Point Reyes National Seashore](#)
- ◆ [Tomales Bay Pathogen TMDL](#)
- ◆ [Email the County of Marin Stormwater Coordinator](#)



Church in the rural community of Nicasio

More Accomplishments by Marin County in 2006-2007 and Priorities for 2007-2008

County staff:

- ◆ Contracted to [Marin Conservation Corps](#) and Forester and Kroeger for creek maintenance. Woody debris is removed only if it presents a flooding hazard. Vegetation is cut to maintain flow capacity, but a canopy is left for shade. County staff provided maps with detailed information on each creek reach.
- ◆ Created a [Powerpoint presentation](#) for crew training including creek maintenance guidelines, safety and environmental education.
- ◆ Contracted to Kier Associates for a photo database now available on the [KRIS website](#). The photos support monitoring of creek mainte-

- nance activities under BASMAA's regional general permit process.
- ◆ Replaced two culverts on Woodacre Creek at Park Street with arched crossings to restore sediment transport and fish passage.
- ◆ Conducted in-class presentations and creek restoration field work with students from Miller Creek Middle School and Dixie School.
- ◆ Required hillside developments to incorporate energy dissipaters or dispersion trenches and avoid direct discharge to creeks.
- ◆ Organized and facilitated a workshop for property owners in West Marin on maintaining roads to

control excessive erosion.

- ◆ Sent letters to remind 76 homeowners with active construction projects to implement erosion controls ahead of the rainy season.

Priorities for 2007-2008

- ◆ Assist Marin Conservation Corps' Education Department to develop a basic curriculum on water quality and restoration site monitoring.
- ◆ Send stormwater self-inspection letters to unincorporated Marin County businesses (see [Chapter 5](#)).

For information about routine stormwater pollution prevention activities in unincorporated County, see the MCSTOPPP Annual Report.

“County staff created a slide presentation for training creek maintenance crews, including maintenance guidelines, safety, and environmental education.”



Arched culvert being installed to facilitate fish passage on Woodacre Creek at Park Street in Woodacre.

Stormwater Pollution Prevention in the City of Mill Valley

Mill Valley takes a watershed approach to flood control

In the aftermath of the December 31, 2005 flooding, the City commissioned Stetson Engineering to perform a flood study of Arroyo Corte Madera. This study takes a watershed approach weighing flood control and habitat issues equally.

In the fall of 2006, the City of Mill Valley mailed “Creek Care Guides” to all property owners on Arroyo Corte Madera del Presidio. The guides include

Best Management Practices for any work in the creek.

In April the City co-sponsored Earth Day clean-up with volunteers removing litter, invasive plant species and planting native plants at Goodman Marsh, Park Terrace, Boyle Park and Terwilliger Marsh. Girl Scouts, Streamkeepers, Rotary, Little League, and others pulled bikes, balls, tires and over 300 pounds of glass bottles from Goodman Marsh.

About Mill Valley’s Stormwater Pollution Prevention Program

Mill Valley has approximately 13,000 population and encompasses approximately 5 square miles. The City is bordered by Interstate 101 on the east, by Larkspur and Corte Madera to the north, and has frontage on Richardson Bay.

Topography ranges from mountainous, to hilly, to some flat areas near the freeway and Bay. Single-family residential neighborhoods are located in the valleys and on the hillsides, with commercial and more intensive residential uses clustered on the flat low lands.

Mill Valley is crossed by Old Mill Creek, Reed Creek, Arroyo Corte Madera Del Presidio Creek, Warner Creek, and Sutton Manor Creek. A few older businesses downtown and older homes in the lower reaches of Warner Creek and Arroyo Corte Madera del Presidio were built over the creek. Small numbers

of Steelhead trout inhabit the Arroyo Corte Madera del Presidio and Old Mill Creek.

Stormwater Program Organization

The Stormwater Pollution Prevention Program is directed by the Department of Public Works which provides an Agency Staff Coordinator, performs design review for water quality issues, develops Geographic Information System maps, conducts construction inspections, performs outfall monitoring, provides outreach to businesses, schools and residents, manages the street sweeping program and capital improvement projects.

The Planning & Building Department provides California Environmental Quality Act review and oversees the design review for new and re-development projects.



Mill Valley extends from Richardson Bay to Mt. Tamalpais

Mill Valley’s Stormwater Staff

Stormwater Coordinator	Jill Barnes, Senior Civil Engineer 415-388-4033 jbarnes@cityofmillvalley.org
Municipal Maintenance, Illicit Discharge Elimination, Outfall Monitoring	James Powell, Public Works Superintendent
Capital Improvement Projects and Drainage	Cesar Jaime Senior Civil Engineer
Planning Department Contact	Rory Walsh, Planning Director
Development Approvals	Richard Dudack, Associate Engineer
New Development and Construction Controls	Mike Barnett, Building Inspector
Commercial Inspections, Public Participation	Kimberly Wilson, Engineering Technician

About Mill Valley's Stormwater Program

(Continued from page 1)

The Police and Fire Departments provide business inspection and after-hours response to reports of illicit discharge. When a business is found responsible for non-stormwater discharges to a storm drain or creek, City staff assists the business to prepare a plan of compliance and follows up with additional inspections.

A pre-construction meeting is held for every project subject to design review. Pollution-prevention and erosion and sedimentation control BMPs specific to the project are discussed at this meeting.

The Parks and Recreation Department implements an Integrated Pest Management Program.

An annual parcel fee funds the Stormwater Pollution Prevention Program.

Mill Valley links for on-line viewers:

- ◆ [City of Mill Valley website](#)
- ◆ [Mill Valley School District](#)
- ◆ [Mill Valley Chamber of Commerce](#)
- ◆ [Mill Valley Historical Society](#)
- ◆ [Mill Valley Film Festival](#)
- ◆ [Email Mill Valley's Stormwater Coordinator](#)



Mill Valley City Hall

More Accomplishments by Mill Valley in 2006-2007 and Priorities for 2007-2008

In addition to a creek maintenance program that balances habitat protection and flood control, City of Mill Valley stormwater staff:

- ◆ Used administrative citation authority to enforce the prohibition on non-stormwater discharges.
- ◆ Coordinated consistent and effective Police and Fire Department responses to after-hours illicit discharge incidents
- ◆ Prohibited grading during the rainy season, thereby reducing the potential for construction-site erosion and creek sedimentation.
- ◆ Pursued a thorough environmental review and documentation process

for new developments.

- ◆ Obtained a 30-foot creek setback and runoff treatment swales in a new mixed use development.
- ◆ Continued to implement the City's [Hillside Development Guidelines](#) regarding water quality.
- ◆ Posted an "Only Rain Down the Drain" banner over East Blithedale Avenue for one week.
- ◆ Hosted five 3rd-grade classrooms at City Hall to discuss stormwater pollution prevention, illicit discharges, and the water-quality benefits of organic gardening.
- ◆ Sponsored a juggling show at Strawberry Point School to educate

children about the water cycle and pollution prevention.

- ◆ Held a "Wetlands Day" at the City's Sewage Treatment Plant, in which 160 3rd-graders participated.

Priorities for 2007-2008

- ◆ Train staff on MCSTOPPP's forthcoming *Guidance for Applicants* for stormwater controls for new developments and redevelopments.
- ◆ Send self-inspection checklists with the next business license renewal mailing.

For information about Mill Valley's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

"Mill Valley staff hosted five 3rd-grade classrooms at City Hall to discuss stormwater pollution prevention and the water-quality benefits of organic gardening."



Depot for the Mill Valley and Mount Tamalpais Scenic Railway
c. 1898

Stormwater Pollution Prevention in the City of Novato

City Advances Stormwater Requirements for New Developments

Novato planners and engineers, along with staff from other municipalities and private-sector engineers, gathered April 11 to discuss implementation of a Low Impact Development approach to meeting new development requirements in the stormwater Phase II NPDES permit.

Novato currently requires source controls and treatment controls for applicable new developments, and

encourages landscape-type controls. City staff plans to increase this emphasis for projects currently under review while MCSTOPPP completes detailed guidance for applicants (due early 2008).

Novato also participated with the County Flood Control District in developing the Novato Creek Bank Stabilization Study. The study will help guide property owners' stabilization projects.

About Novato's Stormwater Pollution Prevention Program

Novato covers 28 square miles and has nearly 50,000 population. Elevations vary from Mt. Burdell at 1,558 feet to 18 feet in the City's downtown. Rainfall averages approximately 27.5 inches per year. Novato has a rural atmosphere largely because of its low population density and the high amount of open space and parks. Commercial areas host a mix of corporate headquarters, state-of-the art technology companies, and retail centers.

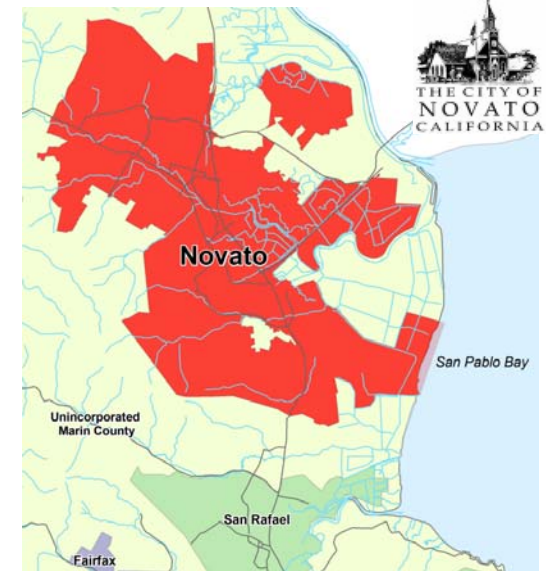
Novato's creeks include Novato Creek, Rush Creek and Pacheco Creek. Novato Creek flows from west to east and encompasses a drainage basin of approximately 44 square miles. Numerous streams flow into Novato Creek, including Warner, Arroyo Avichi and Arroyo San Jose creeks. Rush Creek flows eastward from Highway 101 to the Petaluma River north of the City Limits.

Stafford Lake, a reservoir and headwater for Novato Creek, is approximately 11 miles upstream from San Pablo Bay. The reservoir, which was established in 1951, stores water for domestic use and reduces flooding along Novato Creek. San Pablo Bay borders the eastern edge of Novato and the shoreline extends for approximately seven miles. The Petaluma River and its marshlands borders the north-east boundaries of Novato, where the river empties into San Pablo Bay.

The City has adopted an Integrated Pest Management Ordinance and has completed mapping all the existing outfalls.

Stormwater Program Organization

The City's stormwater program, including all MCSTOPPP activities, are funded by property tax revenues. Review and approval of private develop-



Novato is Marin County's northernmost city.

Novato's Stormwater Staff

Stormwater Coordinator, Development Approvals, Public Information and Participation, Commercial	Dave Harlan, Principal Civil Engineer 415-899-8948 DHarlan@ci.novato.ca.us
Municipal Maintenance	Gloria Morgan, Public Works Admin Clerk, and Dave Meyers, Maintenance Superintendent
Capital Improvements and Construction Inspection	Jerry Novak, Civil Engineer
Planning Department Contact	Alan Lazure, Principal Planner, and Paul Bickner, Planner II
Illicit Discharge Elimination/Outfall Monitoring	Frank Wright, Engineer II and Dave Hutchins, Street Supervisor

About Novato's Stormwater Program

(Continued from page 1)

ment projects for stormwater compliance is funded through the permit fees paid by each individual project applicant. Review of these projects involves a coordinated effort between Planning and Engineering staff, leading to approval of a site design that is compliance with and incorporates best management practices for stormwater con-

trols. This coordinated review is especially important given the recent trend toward development of smaller and more challenging infill sites. Further design-specific review of private development projects is conducted by Engineering staff during plan checking and prior to permit issuance. Review of City Capital Improvement Projects is conducted in a similar manner, to ensure compliance with the NPDES permit.

Novato links for on-line viewers:

- ◆ [City of Novato website](#)
- ◆ [Novato Area History](#)
- ◆ [Novato Sanitary District](#)
- ◆ [Downtown Novato Business Association](#)
- ◆ [Novato Chamber of Commerce](#)
- ◆ [Email Novato's Stormwater Coordinator](#)



Novato wetlands

More Accomplishments by Novato in 2006-2007 and Priorities for 2007-2008

In addition advancing implementation of Phase II new development requirements, City of Novato staff:

- ◆ Participated in the development of the Novato Creek Bank Stabilization Guideline Study, to be made available to creekside property owners when approved.
- ◆ Successfully encouraged private development projects (e.g. Virginia Grove Subdivision, Sutter Health Medical Offices) to voluntarily design and install vegetative stormwater treatment control measures into the project design.
- ◆ Effectively reviewed the design of private development projects to maximize the incorporation of

source and treatment controls into the approved design.

- ◆ Increased street sweeping along Grant Avenue to replace the ineffective catch basin inserts.
- ◆ Public Works Maintenance purchased a vehicle dedicated to storm drain video inspections.
- ◆ Street sweeper hotline provides residents with the weekly sweeper schedule to improve street cleaning operations.
- ◆ Public Works inspectors hand-delivered pre-rainy season reminders to construction sites.

Priorities for 2007-2008

- ◆ Apply consistent and uniform procedures for applicable new development and redevelopment projects.
- ◆ Initiate development of a database to track treatment control facilities.
- ◆ Educate creekside property owners on acceptable erosion control methods and the regulatory review process.

For information about Novato's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

"The Novato Creek Bank Stabilization Guidelines Study will be made available to creekside property owners."



Novato City Hall

Stormwater Pollution Prevention in the **Town of Ross**

New General Plan Enhances Water Quality Protections

The Town of Ross's new [General Plan](#), adopted in June 2007, includes policies to:

- ◆ Support efforts to use chemical-free and toxic-free building materials, reduce waste and recycle building waste and residential garbage.
- ◆ Encourage landscape designs that minimize need for pesticides and herbicides.
- ◆ Implement floodplain regulations and support flood control improvements.
- ◆ Work with other Ross Valley watershed jurisdictions to develop a comprehensive approach to flood protection and resource preservation.
- ◆ Maintain natural runoff paths, retain or detain stormwater where possible and encourage use of permeable surfaces.
- ◆ Maintain creek setbacks and protect riparian vegetation.



Ross occupies 1.6 square miles in the heart of Marin's city-centered corridor.

About Ross's Stormwater Pollution Prevention Program

The Town of Ross is the second-smallest Marin communities, with 1.6 square miles and slightly more than 800 residential parcels. Land use is primarily residential with a small commercial area, public grade school and private high school, and open space. At last census count (2000), we had 2,310 residents. New development in the town is primarily residential remodels and there is little new development and few vacant, developable, parcels.

The Town has mainly open watercourses draining to Corte Madera and Ross Creek, particularly in the upper reaches of the watershed. Some reaches are channelized and in culverts. The endangered

Central California Coast steelhead inhabits Ross Creek. Any work within 25 feet of a watercourse requires design review by the Town Council. The Town intends to adopt an ordinance requiring design review for major landscaping projects.

Ross's stormwater program is funded through the general fund. Special drainage projects are funded by a drainage fee of 1% of the project valuation on building permits.

The Town does not use pesticides. Robert Maccario, Public Works Superintendent, has over 30 years experience as a licensed landscape contractor, maintains a pesticide applicator certificate, is a member International Society of Arboriculture and

Town of Ross Stormwater Staff

Stormwater Coordinator, Municipal Maintenance, Commercial Inspections, Illicit Discharge Detection, Public Information and Participation	Robert Maccario, Superintendent of Public Works 415-453-1453 rmaccario@townofross.org
Construction Inspection	Bob Hagggett, Contract Building Inspector
Capital Improvement Projects and Drainage	Mel Jarhoura, Building Official, and Gary Broad, Town Manager/Planning Director
New Development and Construction Controls	Elise Semonian, Senior Planner

About Ross's Stormwater Program

(Continued from page 1)

is a Sonoma Marin Qualified Water Efficient Landscaper and certified water auditor. The Town General plan calls for adoption of an integrated pest management ordinance.

The Town has mapped its storm drains and outfalls on GIS. The public works superintendent and his as-

sistant know the location of all outfalls, connecting drainage and where they originate. They inspect and clean ditches and catch basins during all rain events.

Ross links for on-line viewers:

- ◆ [Town of Ross website](#)
- ◆ [Marin Art and Garden Center](#)
- ◆ [The Branson School](#)
- ◆ [Jose Moya del Pino Library and Ross Historical Society](#)
- ◆ [Ross School District](#)
- ◆ [Email Ross's Stormwater Coordinator](#)



Lagunitas Bridge over Corte Madera Creek in Ross

More Accomplishments by Ross in 2006-2007 and Priorities for 2007-2008

In addition to developing new General Plan policies, Town of Ross staff accomplished the following:

- ◆ Coordinated creek clean up with other Ross Valley Communities.
 - ◆ Completed sediment removal from Corte Madera Creek near Lagunitas Creek, before the fish ladder.
 - ◆ Improved communication between planning, building and public works departments regarding development that may impact stormwater quality such as tree removal and replacement, landscaping, development near creeks and drainage.
 - ◆ Planning staff regularly attended Marin Project Coordination meetings.
 - ◆ Directed property owners to disperse runoff on site.
 - ◆ Frequently visited sites to ensure BMPs were implemented.
 - ◆ Held a public hearing on fish ladder and Lagunitas Bridge replacement where County of Marin made presentation,
 - ◆ Regular, personal staff site visits and outreach to homeowners and contractors.
- Priorities for 2007-2008**
- ◆ Complete marking of all catch

basins with permanent metal or vinyl disks with a "no dumping" message.

- ◆ Provide self inspection letter and checklist at building department counter where business licenses are obtained.
- ◆ Obtain GIS camera and do creek walk/baseline survey of one creek area per year.

For information about the Town of Ross's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

"All work within 25 feet of a watercourse requires design review by the Town Council."



Ross Fire Department equipment

Stormwater Pollution Prevention in the **Town of San Anselmo**

San Anselmo gears up for flood-control improvements

San Anselmo could benefit from flood-control improvements financed in part by a user fee approved by Ross Valley voters in June 2007. The fee would provide matching funds for possible state and federal grants to address frequent flood damages and enhance stream habitat. The mail-in ballot election results were close and face a court challenge.

Meanwhile, San Anselmo's Creekside Park was the

site of bank stabilization and revegetation project in cooperation with MCSTOPPP and Friends of Corte Madera Creek. Native willows and dogwood are taking hold. The Town and MCSTOPPP hope the project, which in a very visible location in downtown San Anselmo, will help inspire and educate creekside homeowners to use biotechnical methods to stabilize creek banks on their own properties.

About San Anselmo's Stormwater Pollution Prevention Program

San Anselmo has slightly over 12,000 population and encompasses approximately 2.7 square miles. Its name came from the Punta de Quintin land grant, which marked this valley as the Canada del Anselmo, or Valley of Anselm, referring to an Indian who was buried in the area.

San Anselmo was incorporated in 1907, around the same time Marin's electric train system extended to the area. It was a silent film capital in the early 1900s. Commuters could take the train to Sausalito and then the ferry to San Francisco in a about an hour. The system was closed following construction of the Golden Gate Bridge.

Drainages to the east, west, and north converge in and around the Town's low-lying downtown area. Most creek reaches are privately owned. Steelhead salmon can sometimes be seen in urbanized San Anselmo Creek. San Anselmo experienced serious

flood damages in 1925, 1940, 1963, 1982, and most recently on New Year's Eve 2005. In addition to downtown, San Anselmo includes the Red Hill Shopping Center and various small businesses along Sir Frances Drake Boulevard.

There is little developable area in the Town; however, development of subdivisions remaining hillside areas pose concerns about erosion control and contribution to flooding. A number of houses are being demolished after being flooded, and some are to be rebuilt.

Stormwater Program Organization

San Anselmo Town Hall was severely damaged during the New Years' Eve flood. In addition, the Town has been fiscally hard-pressed in recent years. The Parks Director recently retired and four other positions were eliminated, reducing staff responsible for main-



San Anselmo is centered on the confluence of several creeks.

San Anselmo's Stormwater Staff

Stormwater Coordinator, Municipal Maintenance, Illicit Discharge Elimination, Outfall Monitoring, Public Information & Participation	Jim Lafond, Superintendent of Public Works 415-258-4601 sadpw@comcast.net
Capital Improvement Projects and Drainage	Rabi Elias, Director of Public Works
Planning Department Contact	Keith Angerman, Building Official
Development Approvals	Richard Dudack, Associate Engineer
Construction Controls	Eric Robbe, Building Inspector
Commercial Inspections and Outreach	Michael Denning, Battalion Chief, Ross Valley Fire

About San Anselmo's Stormwater Program

(Continued from page 1)

taining City facilities by nearly half. The Town's building permit review functions were reorganized under Planning Director Lisa Wight. The Town is exploring combining its police department with the adjacent Town of Fairfax. The Town's former volunteer outreach coordinator moved, reducing the Town's capacity for stormwater

pollution prevention outreach.

Street sweeping and storm drain cleaning is conducted by a contractor.

The Town has no stormwater fee. Pollution-prevention activities are supported by the General Fund.

The Town adopted a resolution confirming its Integrated Pest Management policy in 2003.

San Anselmo links for on-line viewers:

- ◆ [Town of San Anselmo website](#)
- ◆ [San Francisco Theological Seminary](#)
- ◆ [San Anselmo Chamber of Commerce](#)
- ◆ [San Anselmo Historical Museum](#)
- ◆ [Email San Anselmo's Stormwater Coordinator](#)



San Anselmo Public Library

More Accomplishments by San Anselmo in 2006-2007 and Priorities for 2007-2008

In addition to participating in the beginning stages of implementing the Ross Valley Watershed Plan and the restoration/revegetation project in Creekside Park, Town staff:

- ◆ Hired the Marin Conservation Corps to conduct an 11-day creek cleanup on Sleepy Hollow Creek and San Anselmo Creek.
- ◆ Participated in a citizen/town staff committee to establish a photographic record and database of creek conditions.
- ◆ Continued to advise property owners to have an engineering firm design and build any repairs to creek banks, taking care to avoid impacts on structures and to stabi-

lize the typically steep and high banks. The Town's policy is to require a 15-foot setback of structures from top of bank.

Priorities for 2007-2008

- ◆ Conduct additional outreach to creekside residents to reduce yard waste illicitly disposed of in creeks.
- ◆ Continue working with the Ross Valley Watershed Program to reach out to property owners to address constrictions to flood flows.
- ◆ Send self-inspection checklists with the next business license renewal mailing.
- ◆ Continue to stencil storm drains.

- ◆ Install new drainage for Allen Avenue.

For information about San Anselmo's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

“San Anselmo hired Marin Conservation Corps crews to conduct an 11-day creek cleanup on Sleepy Hollow Creek and San Anselmo Creek.”



Downtown San Anselmo, December 2005

Stormwater Pollution Prevention in the City of San Rafael

City Adopts Integrated Pest Management Policy

On April 2, 2007, the San Rafael City Council adopted a resolution establishing an integrated pest management (IPM) policy.

The policy was developed over several years in cooperation with a group of local residents organized as Safe and Healthy San Rafael.

The policy governs Department of Public Works employees, landscape contractors hired by the

Department, and other persons acting under the authority of or on behalf of the Department in the care and maintenance of City parks and landscaped areas.

The policy focuses on herbicides, since the use of other types of pesticides is extremely infrequent. In

(Continued on page 2)

About San Rafael's Stormwater Pollution Prevention Program

With 56,900 residents, the City of San Rafael is Marin County's most populous municipality and its commercial center. The City was built around the Mission San Rafael Arcángel, which was founded in 1817 and named after the Angel of Healing.

San Rafael occupies 17 square miles of land and 5 square miles of water and remaining wetlands. Much of the former wetlands have been filled and developed, but remaining portions are home to the endangered salt marsh harvest mouse. There are riparian areas along San Rafael, Mahon, Gallinas, and Miller Creeks. China Camp State Park and McNear's Beach State Park are adjacent to the City.

Major industrial and transportation facilities include Marin Sanitary Service's transfer station, the Golden Gate Transit bus yard and maintenance facility, and a United Parcel Service yard. These,

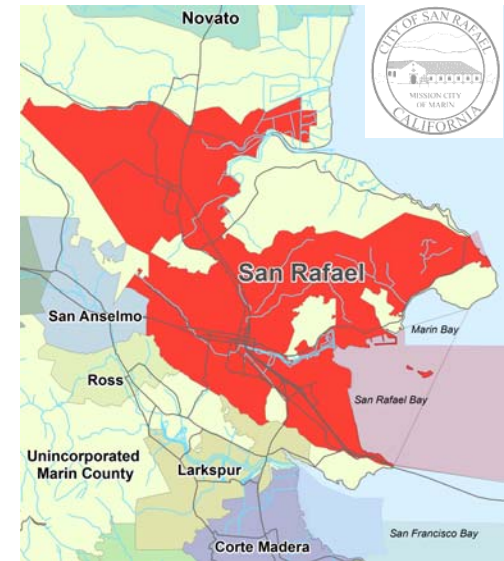
along with many auto repair facilities and other commercial developments, are located in and around the City's Canal District.

Stormwater Program Organization

Steve Zeiger has coordinated the City's Stormwater Program since its inception. A user fee, collected through property tax bills, funds the Program.

The City has taken the lead on developing many stormwater policies, including:

- ◆ Use of administrative fines (tickets) for stormwater violations, and
- ◆ A "Facilities Maintenance Agreement" between applicants for development approvals and the City, which provides for maintenance of stormwater treatment facilities in perpetuity.



The City of San Rafael is Marin County's most populous municipality.

San Rafael's Stormwater Staff

Stormwater Coordinator, Public Outreach, Illicit Discharges, Outfall Monitoring, Construction Inspection, Development Review	Steven Zeiger 415-485-4535 steve.zeiger@ci-san-rafael.ca.us
Municipal Maintenance, Illicit Discharge Elimination, Outfall Monitoring	Glenn Nunley, Superintendent of Street Maintenance
Capital Improvement Projects and Drainage	Andrew Preston, Director of Public Works
Community Development Department Contact	Raffi Boyolan, Principal Planner
Commercial and Industrial Inspections and Outreach	Central Marin Sanitation Agency, Fire Dept., and Stormwater Coordinator

San Rafael's Integrated Pest Management Policy

(Continued from page 1)

future, the policy may be extended to all pesticide uses, including indoor uses.

The policy designates the City's Parks Superintendent as the IPM Coordinator, who is responsible for ensuring proper training for City staff and contractors.

The City is exploring the feasibility of using alternative "exempt" herbicides, such as those approved for organic food production. No herbicides are used on turf areas.

Otherwise, the least toxic alternative is selected from an approved list.

Additional details of the policy, and a copy of the policy, can be obtained from the Stormwater Coordinator.

San Rafael links for on-line viewers:

- ◆ [City of San Rafael website](#)
- ◆ [San Rafael Chamber of Commerce](#)
- ◆ [Dominican University of California](#)
- ◆ [Email San Rafael's Stormwater Coordinator](#)



Salt Marsh Harvest Mouse

More Accomplishments by San Rafael in 2006-2007 and Priorities for 2007-2008

In addition to adopting an Integrated Pest Management Policy, San Rafael:

- ◆ Participated in the Students and Teachers Restoring a Watershed (STRAW) Program.
- ◆ Participated with MCSTOPPP staff at the Canal Health and Safety Day and the Environmental Fair and the Tiburon Marine Institute.
- ◆ Sent a memo advising homeowners next to Mahon Creek to conduct clean ups and met with a group of homeowners.
- ◆ Installed metal plaques on storm drain inlets.

Priorities for 2007-2008

- ◆ Assess impacts on Mahon Creek and develop a strategy for improving creek functions.
- ◆ Develop a system to track maintenance agreements and maintenance inspections.

For information about San Rafael's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

"The least toxic alternative is selected from an approved list."



Mission San Rafael Arcángel

Stormwater Pollution Prevention in the City of Sausalito

Staff Changes Lead to Pollution-Prevention Progress

Recent staff changes at the City of Sausalito promise to bolster the effectiveness of the stormwater pollution-prevention program there.

As in many of Marin’s small municipalities, each Sausalito employee must provide a variety of municipal services to the public. The City has seen significant staff turnover in recent years. The previous City Manager’s term ended on April 30,2007.

Formerly, the Sausalito Fire Department assisted with business inspections. In 2006-2007 the City contracted with [Southern Marin Fire Protection District](#) to provide fire protection and emergency response services. The City’s stormwater pollution prevention program is reorganizing to pollution prevention activities to accommodate these changes and improve effectiveness.

About Sausalito’s Stormwater Pollution Prevention Program

The North Pacific Coast Railroad created a terminus at Sausalito (“little willow grove”) in 1871. The City was incorporated in 1893. Located across the Golden Gate Bridge from San Francisco, the City hosts tourists throughout the year.

Sausalito’s population of 7,825 is sometimes characterized as consisting of a marina-oriented community and a hill community. Total area is 2.2 square miles, of which 15% is under water. Most businesses are marine-oriented or tourist-oriented.

Sausalito has no perennial streams. Protecting the sensitive waters of Richardson Bay is the prime objective of the City’s Stormwater Pollution Prevention Program.

The City has about 4,300 housing units and about 800 active building permits, representing a very

high intensity of building activity, despite being “built out.”

Stormwater Program Organization

Working within the City’s Community Development Department, City Engineer Todd Teachout coordinates Sausalito’s stormwater pollution prevention program. As City Engineer, he also coordinates input into the development review process.

Pat Guasco was recently named Sewers Coordinator, marking the beginning of a transition which will be completed in the coming year.

The local stormwater pollution prevention program is funded through a fee collected on property tax bills.

The Town has adopted an Integrated Pest Manage-



Sausalito is Marin’s most southerly municipality.

Sausalito’s Stormwater Staff

Stormwater Coordinator, Public Information & Participation, Capital Improvement Projects, New Development and Construction Controls	Todd Teachout, City Engineer 415-289-4111 tteachout@ci.sausalito.ca.us
Illicit Discharge Elimination, Outfall Monitoring, Commercial and Industrial Inspections and Outreach	Pat Guasco, Sewers Coordinator
Planning Department Contact	Sierra Russell, Associate Planner
Municipal Maintenance	Tom Birse, Director of Public Works and Dan Zeponi, Public Works Supervisor

About Sausalito's Stormwater Program

(Continued from page 1)

ment policy (Municipal Code 11.16), which requires municipal staff to identify and use the least toxic alternative to control pests.

The City's storm drains are mapped on a GIS system.

In 2007, the City's Solid Waste Committee was renamed to the Sustain-

ability Committee to better integrate solid waste, air pollution, and water pollution prevention activities.

The City has identified 33 storm drain outfalls and 3 creek outfalls to San Francisco Bay for monitoring.

The outfall monitoring will resume after the City obtains a boat.

Sausalito links for on-line viewers:

- ◆ [City of Sausalito website](#)
- ◆ [Guide to Sausalito Art Galleries](#)
- ◆ [History of Sausalito](#)
- ◆ [Sausalito Chamber of Commerce](#)
- ◆ [Email Sausalito's Stormwater Coordinator](#)



Sausalito waterfront on Richardson Bay

More Accomplishments by Sausalito in 2006-2007 and Priorities for 2007-2008

City of Sausalito staff accomplished the following:

- ◆ Began restructuring the Sewer Coordinator's responsibilities to incorporate business outreach and inspections for both sewers and storm drains.
- ◆ All maintenance staff who work on landscaping are trained in Integrated Pest Management. One employee attended training on rat control this year.
- ◆ Ensured implementation of construction BMPs at 525 Bridgeway, which is near a City outfall discharging into a herring fishery.

Priorities for 2007-2008

- ◆ Continue to work with the Fire Department to develop the business inspection program with a focus on smaller food service, marine, and auto-oriented businesses. The better-capitalized marine businesses are leaders with regard to pollution controls.
- ◆ Participate in MCSTOPPP efforts to coordinate implementation of NPDES Phase II requirements.
- ◆ Improve implementation of construction and new development controls, including updates to conditions of approval, in coordination with MCSTOPPP.
- ◆ Track and participate in development of the Richardson Bay Pathogens TMDL. Consider implementation options, including possible focus areas of trash, pet waste, and live-aboard boats.
- ◆ Work with local marinas to improve stormwater pollution prevention.
- ◆ Update stormwater information on the City's website.

For information about Sausalito's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

"Sausalito's better-capitalized marine businesses are leaders with regard to pollution controls."



Sausalito marine business

Stormwater Pollution Prevention in the Town of Tiburon

Town and Fire District to Repair Eroding Fire Roads

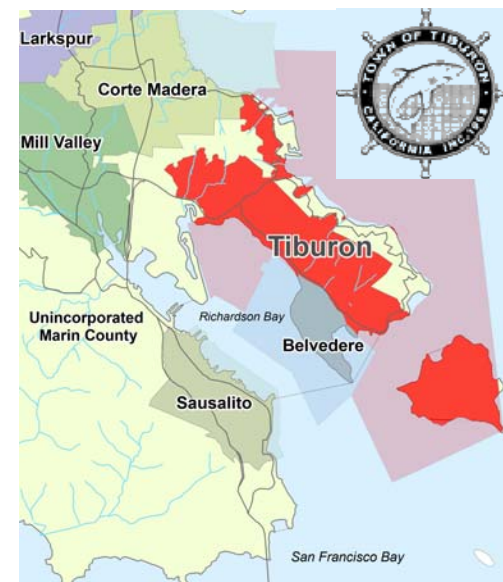
As part of the management of its open space, Tiburon’s Town Council approved plans for repair of eroded fire roads in summer 2007.

The project serves two purposes: to ensure access for fighting wildland fires and to reduce erosion and sedimentation. The Town required that the fire roads be graded in such a manner as to prevent future erosion and that check dams be installed where appropriate

along the roads.

In addition, as part of the fire road rehabilitation, a substantial amount of French broom and pampas grass will be removed from one 700-foot segment of the Middle Ridge Slope Fire Road.

The work will be done by the Town of Tiburon and the [Marin County Fire Department](#) in cooperation with the [Tiburon Fire Protection District](#).



Tiburon occupies most of the Tiburon peninsula,

About Tiburon’s Stormwater Pollution Prevention Program

The Town of Tiburon, population 8,800, occupies 16 square miles approximately five of which are dry land. The remainder are under San Francisco Bay.

Once a railroad terminus, Tiburon’s downtown features many shops and restaurants. The remainder of the town is largely single-family residential, including some neighborhoods on steep hillsides.

Tiburon is home to many endangered species of plants and animals, some of which are found only on the Tiburon peninsula. Bay and wetland environments in and around Tiburon include the Romberg Tiburon Center for Environmental Studies and the Richardson Bay Audubon Center. There are no year-round creeks within Town limits.

Most development applications are for new or expanded residences. A Design Review Board considers all new buildings, additions, and exterior renovations.

Development of tracts outside Town limits, but within the Town’s sphere of influence, have been a source of controversy over past decades.

Stormwater Program Organization

Administrative Aide Lynn Skillings coordinates the Town’s stormwater pollution prevention program. Responsibilities assigned to departments as required (see table at right).

The program is funded through the Town’s General Fund and through a stormwater impact fee of \$1 per square foot of new impervious surface created by construction and development.

All the town’s outfalls have been mapped to GIS. The town inspects all outfalls and catch basins before and after the rainy season.

The Town requires new developments to include on-

Tiburon’s Stormwater Staff

Stormwater Coordinator, Public Information & Participation	Lynn Skillings, Public Works Admin. Aide 415-435-7354 lskillings@ci.tiburon.ca.us
Municipal Maintenance, Illicit Discharge Elimination, Outfall Monitoring	Public Works Superintendent (formerly Tony Iacopi)
Capital Improvement Projects and Drainage	Nicholas Nguyen, Town Engineer
Planning Department Contact	Dan Watrous, Planning Manager
New Development and Construction Controls	Dean Bloomquist, Building Official
Commercial and Industrial Inspections and Outreach	Public Works Superintendent, Dean Bloomquist and Lynn Skillings

About Tiburon's Stormwater Program

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site detention of stormwater to ensure peak flows from frequent storms, as well as rare large storms, are not increased. New developments must include open space buffers of at least 50 feet on each side of the top of stream bank (100 feet from wetlands or if the parcel is greater than 5 acres).

The Town requires grading be minimized and strongly discourages development on slopes exceeding 40%.

Tiburon links for on-line viewers:

- ◆ [Town of Tiburon website](#)
- ◆ [Richardson Bay Audubon Center](#)
- ◆ [Romberg Tiburon Center](#)
- ◆ [Tiburon Peninsula Chamber of Commerce](#)
- ◆ [Email Tiburon's Stormwater Coordinator](#)



Tiburon shoreline and Point Tiburon

More Accomplishments by Tiburon in 2006-2007 and Priorities for 2007-2008

In addition to addressing eroding roads in Town open spaces, Town of Tiburon staff:

- ◆ Completed televising of catch basins and began preparation of a storm drainage master plan.
- ◆ Issued an RFP for a consultant to develop a Storm Water Pollution Prevention Plan for the Town Corporation Yard, Police Department, and Town Hall.
- ◆ Issued three stop-work orders to contractors (for improper disposal of cement slurry, poor site management, and poor winterization), and resolved the matters without fines.
- ◆ Maintained an active solid waste

recycling program.

The Town's Parks and Open Space Committee co-captained the Coastal Clean-up Day at Blackie's Pasture.

Priorities for 2007-2008

- ◆ Complete the Storm Water Pollution Prevention Plan for the Corporation Yard, Police Department, and Town Hall.
- ◆ Review and formalize the Business Inspection Process.
- ◆ Make measurable progress toward repairing eroded Open Space fire roads.
- ◆ Complete the Storm Drain Master Plan.

- ◆ Prepare a maintenance program for Railroad Marsh.
- ◆ Complete the replacement of the fire flow pipe along the shoreline multi-use path.
- ◆ Enhance placement of stormwater pollution-prevention messages on the Town's web site and in the newsletter.
- ◆ Distribute BMP posters to restaurants.

For information about Tiburon's routine stormwater pollution prevention activities, see the MCSTOPPP Annual Report at www.mcstoppp.org.

"The Town's Streams and Riparian Corridor Policy requires new developments maintain open space buffers of at least 50 feet on each side of the top of bank."



Tiburon Town Hall