



EXECUTIVE OFFICERS REPORT
North Coast Regional Water Quality Control Board
October 2009

Statewide Construction Stormwater Permit Adopted

The State Water Board approved a renewed NPDES construction storm water permit on September 2, 2009. The adoption concludes a two year process to reissue the ten year old permit. The controversial permit was adopted after a lengthy stakeholder process that included the release of three separate permit drafts. For the first time in California, and one of the few times nationally, the permit includes numeric effluent limits for storm water runoff from construction projects.



The permit applies to construction projects of one acre or more (excluding agriculture) and implements a risk-based approach to regulation. Low risk sites, including those in dry climates and projects constructed in the dry season, have minimal requirements while those in rainy climates and in sediment

impaired watersheds have progressively more stringent criteria. Discharger monitoring and numeric effluent limits for turbidity and pH apply to high risk projects only. Violations of the numeric effluent criteria will be subject to mandatory minimum penalty provisions of the California Water Code.

Also included in the permit are requirements for post-construction storm water runoff control. Recognizing that changes to runoff patterns from new impervious surfaces can affect water quality and quantity, the permit features requirements to conserve water and prevent pollution after construction. The permit supports low impact development techniques including the protection of natural soils and vegetation, redirecting roof downspouts to planter areas and the installation of rain barrels, green roofs and porous pavement. The post-construction controls are not applicable



for projects located within permitted municipal MS4s, where Regional Water Board permit programs implement more specific post-construction criteria.

Strong concerns regarding the permit were raised by the building industry, contractor associations and municipalities. Most of the concerns were related to implementation costs, validity of permit limits and potential enforcement related to permit violations. State Board members were sympathetic to these issues and made some permit modifications at the hearing. Regarding the implementation costs, Board member Bagget explained that, as Board members, it was their responsibility to balance the permit costs against the potential impacts to fish and other beneficial uses. Member Spivy-Weber expressed her hopes that the permit would help drive innovation. The Board adopted the permit on a 3-1 vote.



“Rover” and “Spike” show off their LID house with it’s grass roof.

First Annual Water Board performance report

The first Annual Performance Report arrives as the California Water Boards (Water Boards) reach an important milestone – the fortieth anniversary of the enactment of landmark legislation to protect the State's waters: the Porter Cologne Water Quality Control Act. The Porter-Cologne Act was a cutting edge water quality law. Portions of it became the model for the 1972 amendments that invigorated the Federal Water Pollution Control Act. This was a different time with different challenges for the State, but the fundamental elements of our work remain. This report offers an overview of the Water Boards’ efforts to protect and allocate the State's waters, and is part of the Water Boards’ efforts toward developing as a performance based organization principally on data that is available through the primary databases used by the Water Boards. As with any first year effort, data availability limits the type of information reported. Over time, the report will improve and better illustrate the effectiveness of the Water Boards and the state of our water quality.

The report has three chapters concerning the Regional Boards: Plan and Assess, Regulate, and Enforce. Attached is the chapter entitled Plan and Assess. In the interest of conserving paper please refer to the website for the full report.

http://www.waterboards.ca.gov/about_us/performance_report/

The California Water Boards' Annual Performance Report - Fiscal Year 2008-09

What We Do and How We are Doing

THE WATER BOARDS

PLAN AND ASSESS

The State and Regional Water Boards adopt **plans** and policies to carry out federal and State water quality protection laws. The plans and policies contain water quality standards and regulations, which form the basis of the Water Boards' regulatory actions for protecting the quality of the State's waters. The Water Boards monitor and **assess** the condition of the waters to determine if they are supporting their uses, detect long-term trends, and focus and evaluate regulatory efforts.

Fiscal Year 2008-09 Statewide Overview of Monitoring, Assessment, and Restoration Activities

California Water

Rivers and streams: 211,000 miles

Lakes: Over 1.6 million acres

Bays and estuaries: Over 1.3 million acres

Coastline: 1,100 miles

Plans to Restore Impaired Waters

TMDL projects adopted: 12

TMDL listings addressed: 55

TMDL projects underway: 9

Data Reported

Plans to Restore Impaired Water

[Total Maximum Daily Load Projects and Listings](#)

Coastal Beach Monitoring and Availability

[Beaches Description](#)
[Beaches Monitoring Events](#)
[Beach Availability](#) (postings and closures)

Environmental Indicators

[Ecosystems Health](#)

Set Water Quality Standards - What are safe levels of pollutants in waters?

The State's water quality standards consist of:

- Antidegradation Policy
- Beneficial uses of water
- Water quality objectives

Surface Water Monitoring

[Sampling Events and Analysis Conducted](#)

Sewage Spills

[Sanitary Sewer Overflows](#) (Collection Systems)



Antidegradation Policy

The Antidegradation Policy, adopted by the State Water Board in 1968, states that high quality waters shall be maintained unless a change in water quality (1) is consistent with maximum benefit to the people of the State, (2) will not unreasonably affect present and anticipated beneficial uses of the water, and (3) will not result in water quality less than that prescribed in policies.

Beneficial Uses

The waters of the State are beneficially used in many ways. Some of the most common uses of water are drinking, bathing, swimming, boating, fishing, irrigation, farming, industrial processes, power generation, and environmental uses such as fish and wildlife habitat. The beneficial uses of the surface waters and groundwaters of the State are designated in the water quality control plans adopted by the Regional Water Boards.

Water Quality Objectives

Water quality objectives are established to protect the beneficial uses of the State's waters. The objectives describe or set the limits or levels of pollutants or other characteristics of the water that will reasonably protect its uses or prevent nuisance.

The Water Boards establish the State's water quality standards (comprised of the three elements above), along with a program of implementation for meeting the standards, in water quality control plans and policies. Each Regional Water Board has a water quality control plan, called a Basin Plan, that contains the designated beneficial uses, water

quality objectives, and implementation plan for achieving the objectives and protecting the uses of the waters in their regions. The State Water Board has adopted water quality control plans and policies that address issues of statewide concern (such as the Thermal Plan) or affect multiple regions (such as the Ocean Plan).

Monitor and Assess Waters - What is the quality of our waters?

Monitoring and assessment of the State's surface and groundwaters provides the data and information that is essential to determining their condition, establishing water quality standards, guiding the Water Boards and their partners in taking actions that protect the waters, and evaluating the effectiveness of our pollution control efforts.

To obtain needed data and information, the Water Boards rely on their Groundwater Ambient Monitoring and Assessment (GAMA) Program and Surface Water Ambient Monitoring Program (SWAMP), including a citizen monitoring component of SWAMP, in conjunction with the monitoring efforts of numerous local, State, and federal agencies. Monitoring consists of going out to a site, making observations, and taking measurements and samples for analysis. Samples may be taken for chemical, toxicological, or biological analysis in the field or laboratory. The data and information gathered from sampling events are recorded for subsequent assessment to determine the health of the water and aquatic organisms.



Effective monitoring programs are designed to answer specific assessment questions to assist in managing the resource. These assessment questions pertain to the following:

Status: What is the overall quality of California's surface waters?

Trends: What is the pace and direction of change in water quality over time?

Problem Identification: Which water bodies have water quality problems and which areas are at risk?

Diagnostic: What are the causes of water quality problems and where are the sources of those stressors?

Evaluation: How effective are clean water projects and programs?

To use a medical analogy, the doctor may take your temperature, pulse, and blood pressure to assess your health *status*. Current measurements can be compared to your chart to determine *trends*, whether a condition is getting better or worse. Tests might be recommended to characterize a medical *problem*. Additional tests might be required to *diagnose the cause*. Finally, if treatment is prescribed, then follow up visits are necessary to *evaluate* the success of the program. These same questions must be answered on a routine basis through monitoring and assessment to maintain the health of the State's water resources.

Periodically, the Water Boards update their water quality assessment report on the condition of California's waters, as required by the federal Clean Water Act section 305(b). This "California 305(b) Report on Water Quality", which is posted on the State Water Board's web

site, presents summaries of water quality data and information, including information on impaired water bodies. The State also maintains a list of impaired surface waters on the State Water Boards' web site.

Impaired Waters

For a water body to support its beneficial uses, the water must be of sufficient quantity and meet its water quality standards. When monitoring and assessment indicate that one or more water quality objectives are not being met in a water body, the water is presumed not to support its beneficial uses and is considered impaired. In addition, the Water Boards may use numerical water quality limits from the literature for over 850 chemical constituents and water quality parameters, collectively called water quality goals, to determine whether beneficial uses of groundwater and surface water are likely to be impaired or threatened.

For surface water bodies that do not meet water quality standards, the Water Boards take steps to bring them into compliance so that the uses of the water are protected. The primary tool to restore a surface water is called a Total Maximum Daily Load, or TMDL.

Types of Pollutant Sources

1. Point sources (pollutants are discharged from a single discrete source, such as a pipe or culvert)
2. Nonpoint sources (pollutants are discharged over a diffuse and wide area, such as a agricultural runoff)



Five Steps to a TMDL

1. Involve stakeholders
2. Assess waterbody
3. Set pollutant allocations
4. Develop implementation plan
5. Amend Basin Plan

Basically, a TMDL does three things: (1) specifies the amount of a pollutant that a water body can receive and still meet water quality standards; (2) specifies the amount of the pollutant that each source of the pollutant may contribute; and (3) identifies actions to return the impaired water to compliance with standards.

Implementing a TMDL can have far-reaching affects on a watershed and the involved stakeholders – those who have an interest or stake in the outcome, which includes the regulatory agencies, the regulated community, and the public. A TMDL considers all sources and causes of impairment, and allocates responsibility for taking corrective measures.

With the adoption of TMDLs and their implementation plans in the Regional Water Board Basin Plans, the work of taking actions to remedy the impairments begins. Further monitoring and assessment helps us to determine the effectiveness of those actions.

PLAN AND ASSESS:

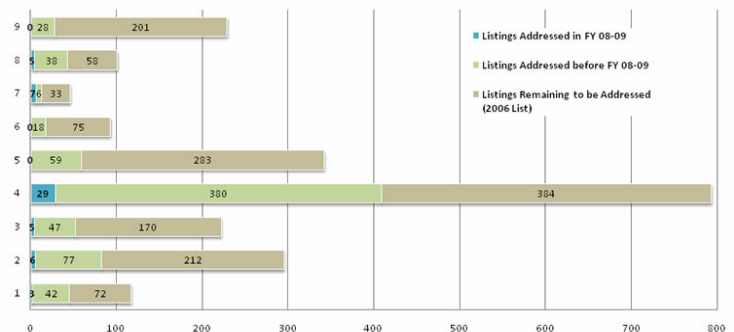
TOTAL MAXIMUM DAILY LOAD

GROUP: TOTAL MAXIMUM DAILY LOADS

MESSAGE: *Fifty-seven percent of the TMDL projects underway in FY 2008-09 were adopted by Regional Water Boards.*

MEASUREMENTS

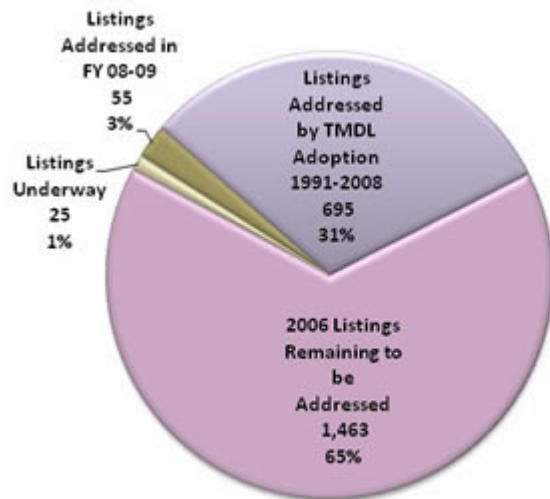
Region	TMDL Projects Adopted in FY 08-09	Other TMDL Projects Being Addressed in FY 08-09	Listings Addressed by Adoptions in FY 08-09	Other Listings Being Addressed in FY 08-09
1	1	0	3	0
2	2	1	6	0
3	5	0	5	0
4	2	4	29	20
5	0	1	0	3
6	0	0	0	0
7	1	1	7	1
8	1	0	5	0
9	0	2	0	1
TOTAL	12	9	55	25



WHAT THE MEASURE IS SHOWING

In Fiscal Year (FY) 2008-09, the regional boards adopted 12 TMDL projects that addressed 55 waterbody-pollutant combinations, or listings, to help restore impaired water bodies in

the State. Another nine TMDL projects, which address 25 more listings, were underway. Since the early 1990s, the regional boards have adopted numerous TMDL projects, addressing nearly 750 listings, or 33 percent of the 2,238 listings on the Water Boards' latest impaired waters list (adopted in 2006). Two percent of those listings were addressed in FY 2008-09. It is clear from the regional breakdown of listings addressed that most impaired water bodies and TMDL activities occur in the regions with relatively higher population densities.



WHY THIS MEASURE IS IMPORTANT

When it is determined that a waterbody is too polluted to meet its water quality standards, the waterbody is considered degraded and put on the Water Boards' list of impaired waters. A total maximum daily load (TMDL) is required for impaired waters to restore them to conditions that support their beneficial uses. The TMDL specifies the pollutant loading that a waterbody can receive and still meet standards, and allocates the pollutant loading that may be attributed to each source of the

pollutant. TMDLs, along with their implementation plans, are adopted by the regional boards and the state board. US EPA approves each TMDL project. This lengthy process involves dischargers and many other stakeholders. Subsequently, those responsible for the pollutant sources that cause or contribute to the impairments take corrective actions to protect the water bodies.

TECHNICAL CONSIDERATIONS

Data Source: TMDL

Planner/Tracker database. Period: July 1, 2008 to June 30, 2009.

Extracted on July 31, 2009.

Unit of Measure: Number of TMDL projects adopted and TMDL listings addressed in FY 2008-09.

Data Definitions: TMDL

project: A TMDL project is a planned strategy to reduce pollution in an impaired water body so that its water quality standards are met. A TMDL project addresses one or more pollutants for a given waterbody or segment of waterbody (known as TMDL listings). TMDL listing: A TMDL listing refers to a pairing of a waterbody and a pollutant that is responsible for the impairment (i.e., each water body-pollutant combination is called a listing). A given waterbody is impaired due to the presence of one or more pollutants (each called a listing) and a TMDL project may address more than one listing. The current TMDL projects and listings are documented in the Water Boards' 2006 Clean Water Act Section 303(d) list

(<http://www.waterboards.ca.gov/wate>)



[r_issues/programs/tmdl/docs/303dlist_s2006/epa/state_usepa_combined.pdf](http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/303dlist_s2006/epa/state_usepa_combined.pdf)).

References: More information on the Water Boards' TMDL activities is available at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/

GLOSSARY

Impaired Water

An impaired waterbody is one that does not meet the water quality objectives established to protect the beneficial uses of the water due to the presence of one or more pollutants. Such waters are identified on the Water Boards' Clean Water Act Section 303(d) list.

Pollutant

A pollutant is a waste or substance that, at certain levels, can cause waterbody impairment. The monitoring programs of the Water Boards and others provide information on the levels of pollutants in the State's waters.

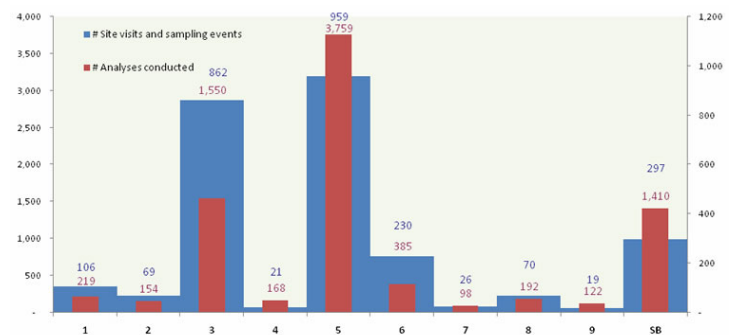
PLAN AND ASSESS:
SURFACE WATER MONITORING (SWAMP)

GROUP: SURFACE WATER MONITORING

MESSAGE: *Variations in surface water monitoring efforts throughout the State are influenced by differences in regional needs, strategies, and resources.*

MEASUREMENTS

Region	# Site visits and sampling events	# Analyses conducted
1	106	219
2	69	154
3	862	1,550
4	21	168
5	959	3,759
6	230	385
7	26	98
8	70	192
9	19	122
State Board and other agencies	297	1,410
TOTAL	2,659	8,057



WHAT THE MEASURE IS SHOWING

In Fiscal Year (FY) 2008-09, the State and Regional Water Boards conducted 2,659 site visits to take samples and measurements that resulted in 8,057 analyses. Monitoring needs, strategies, and resources vary among the Regional Water Boards, so the number of samples collected and analyses conducted also varies among the regions.

WHY THIS MEASURE IS IMPORTANT

Monitoring and assessment of the State's waters provides data and information to determine the status and trends of their condition, establishing water quality standards, determining

compliance with requirements, guiding actions to protect the waters, and evaluating the effectiveness of pollution control efforts. The Water Boards' Surface Water Ambient Monitoring Program (SWAMP) monitors and assesses the State's surface waters, directly and through collaborative partnerships, to support water resource management. Data from SWAMP is used for many purposes, including the State's water quality assessment report, "California 305(b) Report on Water Quality", and the impaired waterbodies list.

TECHNICAL CONSIDERATIONS

Data Source: SWAMP. Period: July 1, 2008 to June 30, 2009. Extracted in July 2009.

Unit of Measure: Number of site visits and sampling events, and analyses conducted in FY 2008-09.

Data Definitions: *Site visit:* A monitoring station visit on a given day for making observations and taking measurements. *Sampling event:* A monitoring station visit on a given day where one or more samples are collected for analysis. *Analyses:* Samples taken during a site visit may undergo chemical, physical, toxicological, or biological analysis in the field or laboratory. While analyses address a wide range of parameters, from \$3 pH measurements to \$6000 toxicity identification evaluations, each analysis reported is counted the same, regardless of cost or complexity.

References: More information on the Water Boards' SWAMP

program is available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/; Regional Water Board fact sheets on regional monitoring strategies is available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/factsheets.shtml; the Water Boards' latest water quality assessment report, *2002 California 305(b) Report on Water Quality*, is available at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/305b.shtml; the Water Boards' latest list of impaired waters is available at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml. The next update of the water quality assessment and impaired waters list will be prepared as an integrated report.

GLOSSARY

Ambient Monitoring

Ambient monitoring refers to the collection of information about the status of the physical, chemical, toxicological, and biological characteristics of the environment.

Parameter

A parameter is a measurable or quantifiable characteristic or feature of water quality, such as temperature, pH, dissolved oxygen, sediment, bacteria, metals, nutrients, pesticides, and toxicity.



