

STATE WATER BOARDS

2011 accomplishments REPORT

Published April 2012



CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS



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State of California

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California Environmental Protection Agency

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www.waterboards.ca.gov

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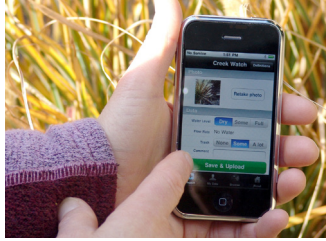
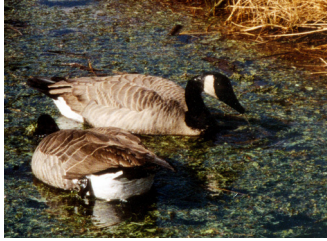


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California's Water Environment

Surface Waters

- Rivers and streams 211,000 miles
- Lakes 9,000 totaling over 1.6 million acres
- Bays and estuaries Over 1.3 million acres
- Perennial estuarine wetlands Almost 44,500 acres
- Coastline 1,100 miles
- Beaches 433 totaling 630 miles

Groundwaters

- Groundwater basins underlie about 40 percent (over 40 million acres) of the State's surface area
- Groundwater meets about 35 percent of agricultural, urban, and managed wetlands water uses statewide in a typical year (about 15 million acre-feet per year)

California Water Boards' Water Quality Regulation*

Major Categories of Facilities and Operations Regulated	Over 56,000
Treated municipal and industrial wastewater discharge	Over 1,900
Stormwater and urban runoff	Over 18,000
Waste discharges to land	Over 5,500
Land disposal	Over 800
Agricultural and farming operations	Over 30,000

Clean-Up Sites Regulated

Sites requiring clean-up	Almost 9,700
Sites in active clean-up	About 2,400

California State Water Board Water Rights Regulation*

Active water right holders regulated.....	Almost 37,000
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California State Water Board Financial Assistance**

Loan funds disbursed	\$333,849,362
Grant funds disbursed	\$67,042,610

* Fiscal year 2010-2011

** Calendar year 2011

For more information on the Water Boards regulatory environment for fiscal year 2010/2011, including those featured in this report, see the California Water Boards' Annual Performance Report Web site at http://www.waterboards.ca.gov/about_us/performance_report_1011/.



Introduction

The State Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Boards (Regional Water Boards) protect California's surface waters and groundwaters. Together, the State and Regional Water Boards control pollution by setting water quality standards, adopting and amending water quality control plans and policies, monitoring surface and groundwaters, regulating pollution sources, and enforcing compliance with regulatory requirements. Financial assistance is available in the form of grants and loans for projects that clean up and protect water quality. The State Water Board also administers an almost century-old system that allocates rights to divert and use surface waters.

Protecting and restoring water quality to support the needs of industry, agriculture, municipalities, and the environment is an ongoing challenge for the Water Boards. Water Board staff include scientists, engineers, analysts, and other personnel who work with local, State, and federal agencies, communities, dischargers, and water rights holders to ensure that a wide range of water issues and concerns are addressed. The complexity of California's statewide and regional water issues is reflected in the large number of Water Board programs and activities throughout the State.

This report summarizes some of the important accomplishments of the Water Boards during 2011. While many of these accomplishments will have broad impact across California in the years to come, many more are focused on the specific challenges faced in particular watersheds around the State. Following is a summary of workload information for fiscal year (July 1, 2010 - June 30, 2011) 2010/2011 in areas that the Water Boards have responsibility.

For more information about the activities and programs of the Water Boards, including those featured in this report, see our Web site at www.waterboards.ca.gov.

California Water Boards' Key Workload Accomplished in Fiscal Year 2010/2011

Planning and Monitoring

- Water Quality Restoration Strategies Adopted..... 13
- Basin Plan Amendments Adopted..... 14
- Monitoring Site Visits..... Over 3,000
- Water Quality Analyses Conducted..... Over 10,000

Regulation

Discharge Type	Number of Facilities Regulated	Permits Issued or Renewed	Inspections Conducted
Municipal and Industrial Wastewater	1,940	110	606
Storm Water and Urban Runoff	18,080	3,409*	4,140
Waste Discharges to Land	5,510	94	692
Land Disposal	827	36	550

* Construction and industrial facilities enrolled in a general permit.

Cleanup

- Leaking Underground Storage Tank Cases Closed..... 453
- Other Contaminated Groundwater Site Cases Closed..... 259
- Human Health Exposure Controlled in Contaminated Groundwater..... Over 2,400 Cases
- Groundwater Contaminant Migration Controlled..... Over 2,200 Cases

Enforcement

Discharge Type	Informal Enforcement Actions	Formal Enforcement Actions*	Penalty Actions**	Penalties Assessed
Municipal and Industrial Wastewater	602	26	196	\$18,752,813
Storm Water and Urban Runoff	2,898	1	20	\$1,834,344
Waste Discharges to Land	811	8	25	\$5,746,310
Land Disposal	60	3	0*	0**

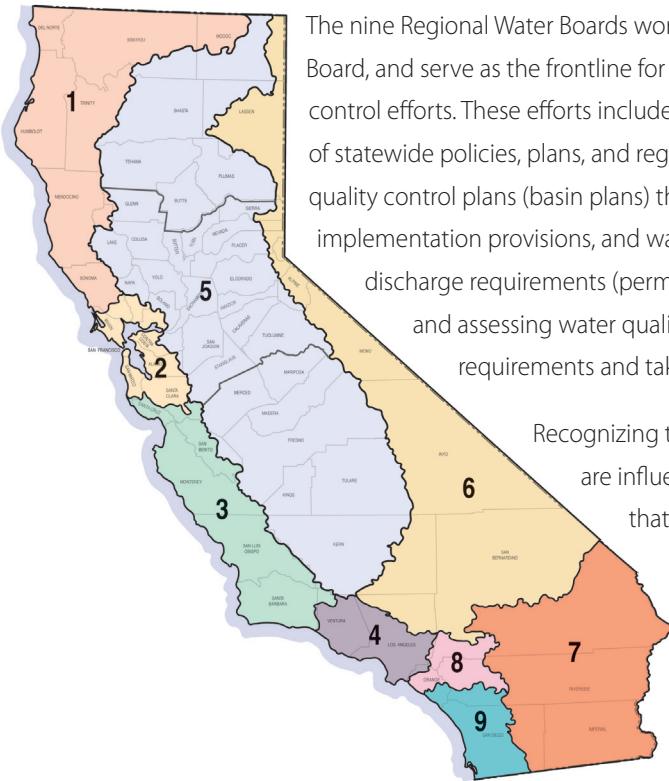
* Excludes imposed monetary assessments, such as Administrative Civil Liability (ACL) actions.

** Includes ACL actions.

Water Right Allocation

- Water Right Permits Issued..... 18
- Water Right Licenses Issued..... 25
- Water Right Petitions Issued..... 31
- Inspections Conducted..... 83
- Diversion and Use Reports Processed..... 7,636

For more information on what we do and how we're doing, please see the Water Boards' Annual Performance Report available at: http://www.waterboards.ca.gov/about_us/performance_report_1011/

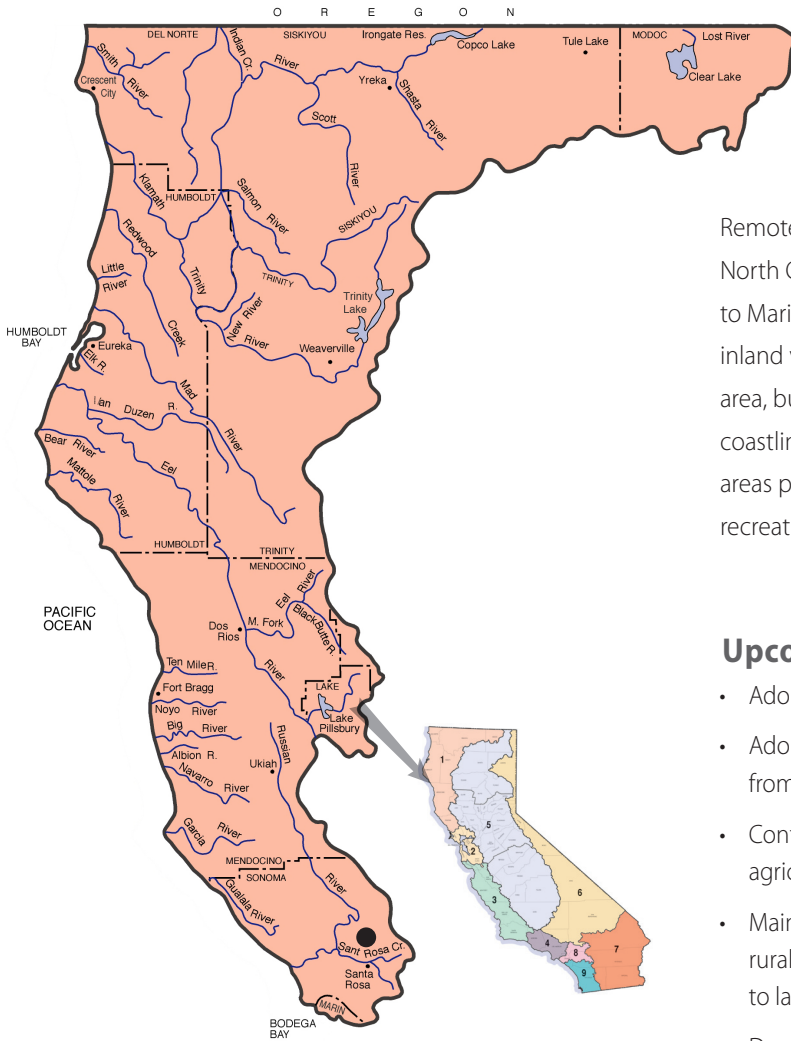


The nine Regional Water Boards work in coordination with the State Water Board, and serve as the frontline for State and federal water pollution control efforts. These efforts include: providing local implementation of statewide policies, plans, and regulations; developing regional water quality control plans (basin plans) that establish water quality standards, implementation provisions, and water restoration strategies; issuing waste discharge requirements (permits) for sources of pollution; monitoring and assessing water quality; and evaluating compliance with requirements and taking enforcement actions against violators.

Recognizing that California's water pollution problems are influenced by environmental and social factors that vary regionally, the boundaries of the nine Regional Water Boards are based on watersheds, or hydrologic areas. This organizational structure allows for water quality decisions and actions to recognize local differences in climate; topography; geology; hydrology; population; municipal, recreational, agricultural, and industrial development; and other factors.

Region 1

NORTH COAST REGIONAL WATER BOARD



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Santa Rosa, California 95403

Phone: (707) 576-2220

Remote wilderness and towering redwoods characterize the North Coast Region, which stretches from the Oregon border to Marin County. A land of wet coastal mountains and drier inland valleys, it accounts for 12 percent of the State's land area, but 35 percent of its freshwater runoff. Its 340-mile-long coastline includes estuaries and environmentally sensitive areas protected by State law. Timber harvesting, agriculture, recreation, and tourism are mainstays of the local economy.

Upcoming Priorities for 2012

- Adopt and implement a regional dairy program.
- Adopt and implement a program to control discharges from county roads.
- Continue development of a program of irrigated agriculture.
- Maintain investment in wastewater infrastructure and assist rural communities to upgrade their wastewater discharges to land.
- Develop a groundwater quality protection plan for discharges to land in the region.
- Continue accelerated closure of underground tank sites.

● Regional Board Office
Number of Employees = 72

✓ = Addresses a 2010 Priority

Accomplishments

- ✓ Klamath River Basin Restoration Efforts Underway
 - Humboldt Redwood Company Permitted for Timber Activities
 - Marijuana Cultivation Operations Targeted for Water Quality Degradation

ACCOMPLISHMENTS



HIGHLIGHT

Klamath River Basin Restoration Efforts Underway

What Was Accomplished?

During 2011, the North Coast Regional Water Board continued efforts to restore water quality in the Klamath River Basin in California. The Regional Water Board is collaborating with other agencies and organizations to create innovative watershed stewardship opportunities for implementing water quality restoration strategies, known as Total Maximum Daily Loads (TMDLs), in the Klamath River Basin. To accomplish this, the Regional Water Board is leading efforts to integrate monitoring, restoration, a pollutant offset program, adaptive management, and reporting. The Regional Water Board has a key role in the Klamath Basin Monitoring Program (KBMP), a multi-agency organization that coordinates and implements water quality monitoring and research throughout the Klamath Basin. The KBMP provides a comprehensive monitoring framework and an online portal to water quality monitoring data. The Regional Water Board is integral in the development of the Klamath Basin Water Quality Improvement Tracking and Accounting Program (Klamath TAP), a program intended to increase the pace and reduce the cost of improving water quality to support all water-related uses in the Klamath Basin, including the recovery of native fish. The Klamath TAP, which will be implemented in both California and Oregon, will create a framework that directly relates benefits from specific restoration actions to progress toward meeting basin-wide water quality goals as defined in the TMDLs. The Regional Water Board works closely with other entities to continue to develop the KBMP and Klamath TAP, and also proposed that these two program elements be integrated through a basin-wide Watershed Stewardship Framework. In August 2011, the Regional Water Board presented the Watershed Stewardship Framework proposal to more than forty Klamath Basin entities and received positive feedback.

Why Is It Important to the State?

The Klamath Basin is large, geographically complex, socially and culturally diverse, and biologically significant. In recent years, limited returns of threatened, endangered, or simply less abundant salmon runs in the Klamath Basin have affected salmon fisheries up and down the Pacific Coast of the United States. In



*Bear Creek stream restoration field tour (Humboldt County).
Photos by: Joelle Geppert, North Coast Regional Water Board, September 2010.*

addition, the geographic complexity, multiple jurisdictions, and social and cultural diversity of the Basin have created deep divides within the community regarding protection of water quality and natural resources, and the role of government in the community. Improving water quality and restoring beneficial uses in this watershed has statewide significance.

*For more information: www.kbmp.net and http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/klamath_river/ **and** http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/scott_river/ **and** http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/shasta_river/*

Humboldt Redwood Company Permitted for Timber Activities

In November 2011, the North Coast Regional Water Board approved a permit, in the form of Waste Discharge Requirements (WDR), and associated environmental impact document (Mitigated Negative Declaration) for Humboldt Redwood Company's (HRC) timber harvesting and related management activities in the Bear Creek watershed in Humboldt County. HRC's land consists of approximately 327 square miles of coast redwood and Douglas fir forestland, with about 305 miles of fish-bearing streams and nearly 1,100 miles of streams supporting non-fish aquatic life. The permit requires HRC to prevent or minimize sediment discharges and elevated water temperature in Bear Creek stemming from timber harvesting and management activities by limiting the intensity of harvesting, implementing landslide prevention measures and road management practices, promoting in-stream and riparian zone restoration projects, and requiring monitoring and reporting. This is the third watershed-scale permit developed in the North Coast region and serves as a model for comprehensive, multi-land use regulation. The permit requirements are expected to address existing cumulative pollutant impacts and promote recovery of impaired uses in the Bear Creek watershed.



*Marijuana grow site.
Photo by: Unknown.*

Marijuana Cultivation Operations Targeted for Water Quality Degradation

During 2011, the North Coast Regional Water Board remained active in multi-agency enforcement efforts and permitting associated with marijuana cultivation activities in the region, with a focus on legal medical marijuana cultivation. Efforts included inspections and enforcement actions at individual marijuana grow sites; issuance of Cleanup and Abatement Orders; working closely with growers to correct water quality problems associated with growing activities; engaging in discussion with county staff involved in efforts to regulate medical marijuana grows; joining the California Environmental Enforcement Roundtable Forum; outreach to local law enforcement agencies; and the development of an informative brochure describing marijuana grow-related water quality impacts and permit requirements. These efforts represent a significant change from past activities, which focused on complaint response and were hampered by the illegal nature of the cultivation activities, including the associated danger to staff seeking to inspect and respond to complaints.

Region 2

SAN FRANCISCO BAY REGIONAL WATER BOARD

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1515 Clay Street, Suite 1400

Oakland, CA 94612

Phone: (510) 622-2300

San Francisco Bay lies at the heart of this area, home to more than 7 million people. Industries range from high-tech computer manufacturers in the Silicon Valley to oil refineries in Contra Costa County. The northern part of the region supports agriculture, such as the wine industry and dairies. Despite the region's heavy urbanization, the Bay and its watersheds are home to diverse populations of fish and migratory birds.

Upcoming Priorities for 2012

- Develop TMDLs for additional impaired waters, including supporting the statewide mercury TMDL for lakes and reservoirs, while continuing to implement TMDLs for pathogens, sediments, nutrients, pesticides, mercury, and PCBs by using waivers for grazing activities and vineyards, implementing the regional urban stormwater permit, and directing grants toward TMDL and associated restoration actions.
- Pursue aggressive enforcement with emphasis on trash, plastics, and other polluted stormwater discharges, and sewage spills.
- Close low-risk contaminated groundwater sites upon completion of investigation and cleanup actions, with emphasis on sites needing cleanup before their restoration or redevelopment.



● Regional Board Office
Number of Employees = 101

✓ = Addresses a 2010 Priority

Accomplishments

- ✓ Successful Cleanup and Control of Pre-Production Plastics (Nurdles)
- ✓ Grazing Impacts to North Bay Watersheds Minimized
- ✓ Enforcement Steps Taken to Reduce Sewage Discharges at Two Bay Area Cities
- Improvements to Bayland Sites Throughout the San Francisco Bay Region Continue

ACCOMPLISHMENTS



HIGHLIGHT

Successful Cleanup and Control of Pre-Production Plastics (Nurdles)

What Was Accomplished?

In June 2011, the San Francisco Bay Regional Water Board issued a Cleanup and Abatement Order (Order) to four plastics manufacturing facilities in San Leandro. The Order required that the four facilities control their pre-production plastic pellet discharges and clean up those plastics that had been discharged via storm drains and wind to a nearby salt marsh. Pre-production plastic pellets, referred to as nurdles, are a key contributor to the plastic debris fouling many of California's waters. The cleanup of the impacted salt marsh, where nurdles were lodged in marsh vegetation, started in fall 2011. The salt marsh is habitat to the endangered California Clapper Rail and Salt Marsh Harvest Mouse. To protect these sensitive species, the cleanup process took place during extreme high tides when the animals left the area for upland cover and would not be impacted by the cleanup activities. Also, during extreme high tides, the nurdles would float to the water surface where they were skimmed off. The cleanup process also resulted in the collection of other significant plastics and trash debris. In response to the Order, all four responsible parties installed facility upgrades during 2011, thus preventing further nurdle discharges from their facilities.

Why Is It Important to the State?

Pre-production plastic pellets, or nurdles, are causing serious water quality impacts to the State's waters and beaches. Because of their size and shape, nurdles look like food to wildlife and can sicken or kill the animals that eat them. The enforcement approach used in San Leandro will be applied throughout the San Francisco Bay Region and can be applied elsewhere around the State. The successful cleanup of nurdles that had reached sensitive wildlife habitats establishes a model that can be applied nationwide. Finally, the comprehensive enforcement action sends a message industry-wide that it is vastly more effective and efficient for the industry to control nurdles onsite than to clean up waters impacted by nurdle discharges.

For more information: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Industrial/Nurdle.shtml



*Pre-production plastic pellets in the pickleweed at the Oyster Bay Regional Shoreline.
Photo by: Danny Pham, San Francisco Regional Water Board, 2010.*

*Point of transfer from railroad car to building is significant source of pre-production plastic pellet loss.
Photo by: Christine Boschen, San Francisco Regional Water Board, 2009.*

Grazing Impacts to North Bay Watersheds Minimized

In September 2011, the San Francisco Bay Regional Water Board took an important step to reduce the loading of pathogens, nutrients, and sediment to the Napa River and Sonoma Creek watersheds by adopting a conditional waiver of waste discharge requirements (Waiver) for grazing operations in both watersheds. The Waiver implements water quality restoration strategies, known as Total Maximum Daily Loads (TMDLs). The TMDLs implemented include the Napa River Sediment and Pathogen TMDLs, and the Sonoma Creek Sediment and Pathogen TMDLs. The Waiver targets grazing operations and sets requirements for implementing ranch-wide grazing management practices (such as installing adequate fencing, managing grazing intensity, and maintaining ranch roads) for approximately 37,000 acres of grazing lands in these watersheds. In this way, ranchers can implement ranch-wide grazing management practices at one time, rather than be forced to implement discrete management practices over time that address pollutant-specific requirements. If improperly managed, grazing operations can pose a threat to both surface and ground water quality, irrespective of herd size. Animal waste discharges, including contaminated storm water, may contribute pathogens, ammonia, salts, and excess sediment to nearby streams. Implementation of grazing management practices will reduce the discharge of pollutants into these watersheds, improving water quality.

For more information: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/agriculture/index.shtml and http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/grazing/index.shtml

Enforcement Steps Taken to Reduce Sewage Discharges At Two Bay Area Cities

In 2011, the San Francisco Bay Regional Water Board issued Cease and Desist Orders for two poorly performing sanitary sewer collection system agencies (the cities of Pacifica and San Bruno) for sewer overflows (spills) and, with the United States (U.S.) Environmental Protection Agency, entered into a court-approved stipulated order against seven other poorly performing sanitary sewer collection system agencies. Additionally, the Regional Water Board settled five penalty actions for past sewage spills for a total of nearly \$3.1 million. In total, the enforcement actions completed in 2011 address about 15 percent of the region's sanitary sewer collection system miles. These enforcement orders require actions by these agencies that

will reduce future sewage spills. Sanitary sewer overflows result in discharges of untreated sewage into the environment. Untreated sewage contaminates the State's waters and can cause property damage and threaten public health. Causes of sewer overflows include the rupture or blockage of sewer lines, the malfunction or failure of aging infrastructure, and excessive storm water flow into sewer lines during heavy rain events. These Cease and Desist Orders, together with penalties imposed for past spills, serve to motivate all sanitary sewer collection system agencies to properly manage operations and maintain systems to reduce sewage spill rates and volumes.

For more information: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/SSO_Reduction.shtml and http://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2011/September/6C_SSR.pdf

Improvements to Bayland Sites Throughout the San Francisco Bay Region Continue

During 2011, numerous bayland sites throughout the San Francisco Bay Region were cleaned up under San Francisco Bay Regional Water Board oversight. In early 2011, the U.S. Navy transferred Skaggs Island, a 3,310-acre tidal marsh, to the U.S. Fish and Wildlife Service for inclusion in the San Pablo Bay National Wildlife Refuge. Prior to this transfer, the Regional Water Board and the California Department of Toxic Substances Control had overseen cleanup activities on the island. The island had once been a thriving tidal marsh, and eventually will be restored back to wetlands. Efforts to restore Cooley Landing Salt Pond, a former 130-acre salt pond, to tidal marsh began in the late-1990s under Regional Water Board oversight. In 2000, the pond's levees were breached, reconnecting the pond to tidal flow, which by 2011 led to the re-establishment of tidal marsh vegetation. Cooley Landing is being cleaned up and converted into a bay side park. In February 2011, the site's cleanup plan was approved and cleanup is expected to be completed to allow the park to open by summer 2012. Additional park improvements will be phased in over the next few years. Cargill Salt Pond SF-2, a 237-acre former salt pond, has been fully restored and incorporated into the Don Edwards National Wildlife Refuge. Former gun club activities had contaminated the pond and site soils with lead shot and clay pigeon debris. Cleanup and restoration was completed during 2011 under Regional Water Board oversight. The restored site will function as upland and marsh transitional habitat for a variety of plant and animal species. The cleanup and restoration of these bayland sites and others create high-value habitat that supports a variety of plant and animal species in both the northern and southern parts of the San Francisco Bay National Wildlife Refuge and complements the South Bay Salt Pond Restoration Project.



San Francisco Coast.
Photo by: Dale Oliver, State Water Board.

For more information: <http://cooleylanding.org/>

Region 3

CENTRAL COAST REGIONAL WATER BOARD

www.waterboards.ca.gov/centralcoast

895 Aerovista Place, Suite 101

San Luis Obispo, CA 93401

Phone: (805) 549-3147

The Central Coast Region extends from Santa Clara County south to northern Ventura County. The region has 378 miles of coastline, including Santa Cruz and the Monterey Peninsula, the agricultural Salinas and Santa Maria valleys, and the Santa Barbara coastal plain. Tourism, power and oil production, agriculture, and related food processing activities are the major industries.



Upcoming Priorities for 2012

- Prevent and correct threats to human health by developing a program to inform domestic well owners of nitrate threats, offer help with well sampling, and information on treatment alternatives; developing requirements for replacement water where appropriate; and adopting a Basin Plan amendment to protect groundwater.
- Prevent and correct degradation of aquatic habitat by adopting a Basin Plan amendment to protect aquatic habitat and buffers; incorporating requirements in permits/orders to protect aquatic habitat; prioritizing enforcement actions to address illegal filling/degradation of aquatic habitat; prioritizing 401 Certification projects based on protecting aquatic habitat.
- Prevent degradation of hydrologic processes by developing and implementing hydromodification control criteria for municipalities region-wide, and prioritizing 401 Certification projects based on controlling hydromodification.
- Prevent/reverse seawater intrusion where local efforts are failing, and recommend that the State Water Board implement actions to control pumping that causes salt water intrusion.
- Prevent further degradation of groundwater basins from salts by continuing to work with local agencies to develop effective salt management plans.

● Regional Board Office
Number of Employees = 64

✓ = Addresses a 2010 Priority

Accomplishments

- ✓ Rural Homeowners Assisted With Domestic Well Threats Posed by Groundwater Pollution
- ✓ Upgraded Online Enrollment System for Agricultural Dischargers Aids Water Quality Protection Efforts

ACCOMPLISHMENTS



HIGHLIGHT

Rural Homeowners Assisted With Domestic Well Threats Posed by Groundwater Pollution

What Was Accomplished?

During 2011, the Central Coast Regional Water Board took actions to address threats to domestic water supply wells in the Central Coast region. The Central Coast region has tens of thousands of domestic water supply wells in rural areas that are largely unprotected by any agency and, as such, rural families are subject to greater health risks (due to groundwater pollution) than those in other areas. The greatest risk occurs in irrigated agricultural areas, where nitrate in groundwater can be up to 15 times the drinking water standard. The vast majority of homeowners in these agricultural areas are unaware of this groundwater pollution problem, and the health risks they and their families face. During 2011, the Regional Water Board took several actions to address these issues:

- In coordination with the State Water Board, notified an additional 200 high risk rural residents of free well water sampling as part of the State Water Board's Domestic Well Project for Monterey County. The Domestic Well Project samples domestic water wells for commonly detected chemicals, at no cost to well owners who volunteer to participate.
- Investigated nitrate pollution cases in groundwater to determine if the Water Boards should require replacement water.
- Coordinated with all county health departments in the region and the State Department of Public Health to leverage Water Board efforts. The Monterey County Health Department issued a health warning on nitrate in March 2011.
- Developed a scope of work and request for qualifications to contract for the implementation of a Central Coast Region domestic well outreach and sampling program. This program is pending implementation in 2012.
- Participated in and peer reviewed the legislatively-mandated report on nitrate in Tulare Basin and Salinas Valley groundwater. The Regional Water Board helped to focus the draft report on risks to domestic water wells and specific recommendations to the Legislature to address this problem.



Flood irrigation of agricultural crop.
Photo by: Unknown.

Why Is It Important to the State?

Groundwater is the sole source of drinking water for many rural communities in the State. Hundreds of thousands of people in California are unknowingly exposed to pollutants in their groundwater. In irrigated agricultural areas, many more well users are exposed to nitrate pollution. Nitrate is reduced to nitrite and nitrosamines in the stomach, colon, and bladder; nitrosamines are known carcinogens. Ingestion of nitrate-polluted water by infants can cause low levels of oxygen in the blood (a condition known as methemoglobinemia, or blue baby syndrome), a potentially fatal condition. On the Central Coast, tens of thousands of rural residents use domestic wells and data indicate that thousands of these residents use groundwater that exceeds nitrate drinking water standards. So that water resource managers and private users can better protect water supplies, it is imperative to know where and what type of risks to groundwater exists.

For more information: http://www.waterboards.ca.gov/water_issues/programs/gama/wq_privatewells.shtml **and** http://www.waterboards.ca.gov/centralcoast/NO3_letter_to_PHOs.pdf



Wheel line irrigation of agricultural crops.
Photo by: Dale Oliver, State Water Board.

Upgraded Online Enrollment System for Agricultural Dischargers Aids Water Quality Protection Efforts

In August 2011, the Central Coast Regional Water Board designed and initiated a major update to an online enrollment system for agricultural dischargers in the Central Coast region. The Regional Water Board launched the online enrollment system in 2010 to better manage the more than 3,000 agricultural dischargers in the region. The update to the online system was based on user feedback and was completed in November 2011. Discharges from agricultural lands can affect water quality by transporting pollutants, including pesticides, sediment, nutrients, and salts, from cultivated fields into waters of the State. The updated online system now functions in real time, which is critical because agricultural operations are constantly changing. With the database changes, the Regional Water Board required growers to update their enrollment information. The Regional Water Board worked extensively with the growers and together achieved a success rate of over 87 percent enrollment. The online enrollment system now represents more than 3,600 ranches or farms, and 377,000 irrigated acres. The Regional Water Board also performed a comprehensive quality assurance audit of the entire database in 2011, and issued 800 Notice of Violation letters to growers who were not in compliance. Seventy-two percent of those growers came into compliance during 2011. With the enrollment system upgrades, the Regional Water Board can better access information needed to effectively manage high priority cases to reduce pollutant loading and improve water quality.

For more information: http://www.swrcb.ca.gov/rwqcb3/water_issues/programs/ag_waivers/noi_submittal.shtml

Region 4

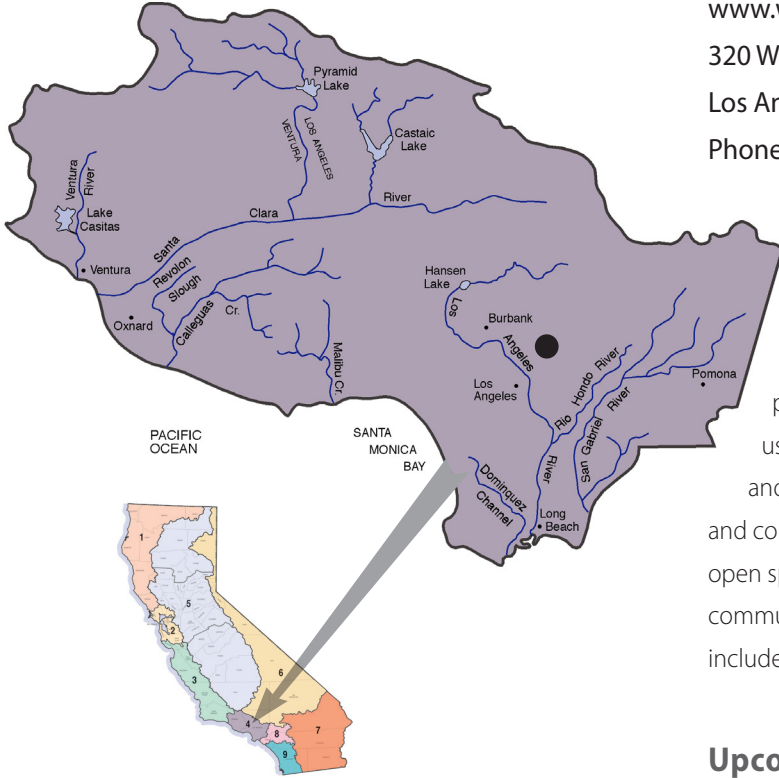
LOS ANGELES REGIONAL WATER BOARD

www.waterboards.ca.gov/losangeles

320 West Fourth Street, Suite 200

Los Angeles, CA 90013

Phone: (213) 576-6600



- Regional Board Office
Number of Employees = 130
- ✓ = Addresses a 2010 Priority

With over 10 million residents, the Los Angeles area is the most densely populated region in the State. It encompasses all the coastal watersheds of Los Angeles and Ventura counties, along with portions of Kern and Santa Barbara counties. Land use varies considerably. In Ventura County, agriculture and open space exist alongside urban, residential, and commercial areas. In northern Los Angeles County, open space is steadily being transformed into residential communities. In southern Los Angeles County, land uses include urban, residential, commercial, and industrial.

Upcoming Priorities for 2012

- Update and reissue the Municipal Separate Storm Sewer System (MS4) Permit for 84 municipalities with Los Angeles County, the Flood Control District, and the unincorporated portions of Los Angeles County. This permit will regulate urban runoff and stormwater discharges to surface waters.
- Continue to develop and implement TMDLs to address the highest priority water quality impairments in the region. Commitments under the federal consent decree between USEPA and local environmental groups will be concluded in fiscal year 2012/2013.
- Assist local agencies in their development of salt and nutrient management plans encouraged under the State Water Board's Recycled Water Policy.
- Increase the level of local groundwater protection through focused permitting, monitoring, inspection, clean-up, and enforcement to ensure that public health and the environment is protected, and that groundwater resources remain available for use during droughts and for future generations.

Accomplishments

- Water Quality Restoration Strategy Begins for Nation's Busiest Port
- Agreement Reached to Implement Wastewater Disposal Systems Prohibition in the Malibu Civic Center Area
- ✓ Multi-Agency Agreements Approve Clean-Up of San Fernando Valley Groundwater Basin

ACCOMPLISHMENTS



HIGHLIGHT

Water Quality Restoration Strategy Begins for Nation's Busiest Port

What Was Accomplished?

In May 2011, the Los Angeles Regional Water Board adopted a water quality restoration strategy, known as a Total Maximum Daily Load (TMDL), for several toxic pollutants in the Dominguez Channel, and the waters of the Port of Los Angeles and the Port of Long Beach. These waters are impaired by heavy metals and organic pollutants. The TMDL addresses more than 70 water quality impairments resulting from high concentrations of pollutants in water, sediment, and fish in the Dominguez Channel and the ports, the largest number of impairments addressed by a single TMDL in California. The most significant impairments addressed by the TMDL are related to pollutant loads associated with sediment, which directly impact aquatic life and indirectly impact human health through consumption of contaminated fish. The TMDL will be used by municipalities, agencies, and the ports to plan the necessary work to reduce pollutants to the Dominguez Channel and waters of the ports, and to address contaminated sediments over the course of a 20-year implementation timeframe.

Why Is It Important to the State?

Within the watersheds of the Dominguez Channel and the Los Angeles and Long Beach harbors are important industrial, commercial, and residential areas with unique and significant historical and environmental resources. The area includes 18 municipalities, including Los Angeles County, and roughly one million residents. The Los Angeles-Long Beach Port complex is also the busiest container harbor in the United States and the sixth busiest internationally. Coastal waters provide feeding and nursery grounds for many marine and estuarine species. Implementation of the TMDL will result in sediments that support healthy benthic communities and fish species that are safe for consumption.

For more information: http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/tmdl_list.shtml



Los Angeles Harbor.
Photo by: Los Angeles Regional Water Board staff.

Agreement Reached to Implement Wastewater Disposal Systems Prohibition in the Malibu Civic Center Area

In July 2011, the Los Angeles Regional Water Board signed a memorandum of understanding with the City of Malibu and the State Water Resources Control Board (Malibu MOU) to implement the on-site wastewater disposal systems prohibition in the Malibu Civic Center area (Malibu Prohibition). The Malibu Prohibition, adopted in November 2009, applies to all dischargers in the Civic Center area, including commercial and industrial facilities, public facilities, and residences. It prohibits all new onsite wastewater disposal systems; requires that existing commercial, industrial, and public facilities dischargers cease septic discharges by November 2015; and requires that residences cease discharges by November 2019. Water near the coastal zone of the City of Malibu and in Malibu Creek has elevated nitrogen concentrations and bacteria. One of the possible causes is the use of onsite wastewater disposal systems in the Malibu Civic Center area where the groundwater is shallow and directly discharges to Malibu Creek, Malibu Lagoon or Santa Monica Bay. The Malibu MOU will assure compliance with the prohibition through the construction of one or more centralized publicly-owned wastewater treatment facilities for properties within the prohibition boundary. The Malibu MOU represents a significant step by the City of Malibu to eliminate potential sources of nitrogen and bacteria that have long contributed to environmental and public health hazards.

For more information: http://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/

Multi-Agency Agreements Approve Clean-Up of San Fernando Valley Groundwater Basin

In 2011, the Los Angeles Regional Water Board reached cooperative agreements with the U.S. Environmental Protection Agency, the City of Los Angeles Department of Water and Power, and some dischargers to address groundwater pollution in the North Hollywood Operable Unit of the San Fernando Valley Groundwater Basin. The basin is a groundwater aquifer that provides drinking water to over 800,000 residents of the Cities of Los Angeles, Burbank, and Glendale. The San Fernando Valley is a heavily industrialized area and was declared a Superfund site in 1986 due to contamination of the basin's soil and groundwater by chlorinated organic compounds and other chemicals of concern, including hexavalent chromium and perchlorate compounds. Today, the basin is a critical source of municipal supply water, and its remediation and clean-up will alleviate the expensive import of water from other regions. The agreements include identifying additional responsible parties that generated, transported, or disposed of hazardous wastes that contributed to the groundwater pollution, as well as the assessment and clean-up of soil and groundwater contamination in the basin.

For more information: <http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/webdisplay/oid-ec677763ed184f098825660b007ee66b?OpenDocument>

Region 5

CENTRAL VALLEY REGIONAL WATER BOARD



www.waterboards.ca.gov/centralvalley

Sacramento Office

11020 Sun Center Drive, Suite 200

Rancho Cordova, CA 95670

Phone: (916) 464-3291

The Central Valley Region is the State's largest, encompassing 60,000 square miles, or about 40 percent of the State's total area. Thirty-eight of California's 58 counties are either completely or partially within the region's boundaries, formed by the crests of the Sierra Nevada on the east, the Coast Ranges and Klamath Mountains on the west, the Oregon border on the north, and the Tehachapi Mountains on the south. The Sacramento and San Joaquin rivers, and their tributaries, drain the major part of this large area through an inland Delta into San Francisco Bay. The Delta is the focal point of the State's two largest water conveyance projects, the State Water Project and the federal Central Valley Project. Together, the Sacramento and San Joaquin rivers and the Delta furnish over half of the State's water supply.

Upcoming Priorities for 2012

- Develop a comprehensive Salt and Nitrate Management Plan.
- Strengthen agricultural waste regulatory programs.
- Strengthen and implement regulatory programs for the preservation and protection of Delta waters.
- Development of a statewide Aquifer Storage and Recovery General Order.
- Strengthen ground water regulatory and control programs consistent with the Ground Water Quality Protection Strategy.

Accomplishments

- ✓ Environmental Impact Report Approved for Program to Regulate Irrigated Agriculture
 - Dairy Digesters Permits Promote Green Energy and Create Renewable Energy Source
 - Diazinon Reduced in the Sacramento and Feather Rivers – Removed from Impaired Waters List
 - Whiskeytown Lake No Longer Impaired For Bacteria – Removed from Impaired Waters List

ACCOMPLISHMENTS



HIGHLIGHT

Environmental Impact Report Approved for Program to Regulate Irrigated Agriculture

What Was Accomplished?

In April 2011, the Central Valley Regional Water Board certified the Program Environmental Impact Report (PEIR) for its Irrigated Lands Regulatory Program (ILRP). Under a general permit, in the form of a conditional waiver of waste discharge requirements (WDRs), this program currently regulates discharges from irrigated agricultural lands to surface water. To address discharges to both surface water and groundwater, the Regional Water Board prepared a PEIR. The PEIR provided a programmatic analysis of impacts resulting from the implementation of six program alternatives for regulating waste discharges from irrigated agricultural lands. Rather than select a single program alternative, the Regional Water Board directed staff to prepare eight to twelve permits, or WDRs, for the different geographic areas in the Central Valley. These geographically-based WDRs will be tailored to the significant issues related to irrigated agricultural discharges in that specific area, and coalition groups will serve as the leads in working with growers in those specific areas. A general WDR for individual growers not enrolled in a coalition group will also be issued. The PEIR allows the Regional Water Board to issue those separate WDRs without the time and resource costs associated with developing project EIRs for each permit.

Why Is It Important to the State?

The agricultural sector is the most significant user of California's water resources, and can also be a significant source of contaminants to both groundwater and surface water. The completion of the PEIR should allow for more expedited development and issuance of permits, resulting in a shorter time frame for reductions in discharges from irrigated agriculture. The likely methods used by the agricultural community to comply with permit requirements will include improving irrigation efficiency, which will free up scarce water supplies for other beneficial uses. A reduction in pollutant discharges will result in water quality improvements in groundwater and surface waters.

For more information: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/long_term_program_development/index.shtml



Flood irrigated orchard in California.
Photo by: Dale Oliver, State Water Board.

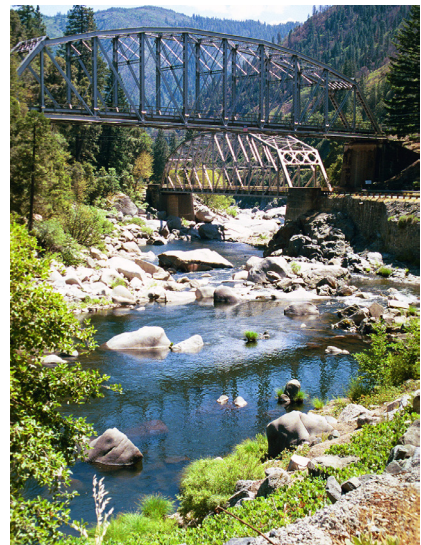
Dairy Digesters Permits Promote Green Energy and Create Renewable Energy Source

In June 2011, the Central Valley Regional Water Board adopted a general permit, in the form of waste discharge requirements (WDR), for centralized dairy manure digesters. The general WDR was based on an Environmental Impact Report that the Regional Water Board certified in December 2010 when it adopted a general WDR for on-site dairy digesters. Centralized digesters collect manure from multiple dairies, other digestible material from sources such as food processing residuals, green waste, and fats, oils, and grease. Dairy digesters capture the methane gas, generated from these waste materials, which would otherwise go into the atmosphere. Methane is a greenhouse gas with a global warming potential 21 times more powerful than carbon dioxide. With a digester, the captured methane gas is used to generate electricity or used as a natural gas substitute. By adopting these general WDRs, the Regional Water Board has created a streamlined permitting process for an emerging class of sustainable green energy projects.

For more information: http://www.waterboards.ca.gov/centralvalley/water_issues/dairies/dairy_program_regs_requirements/index.shtml

Diazinon Reduced in the Sacramento and Feather Rivers – Removed from Impaired Waters List

In 2011, the U.S. Environmental Protection Agency finalized the State's list of impaired waters (Clean Water Act Section 303(d) list), and because of reductions in the insecticide, diazinon, approved the removal of approximately 79 river miles of the Sacramento and Feather rivers, which had been listed as impaired for diazinon. In 2003 and 2007, the Central Valley Regional Water Board amended its Water Quality Control Plan (Basin Plan) to establish a control program for diazinon, which is implemented through the Regional Water Board's Irrigated Lands Regulatory Program. The Regional Water Board, along with the California Department of Pesticide Regulation, continues to work with a diverse group of stakeholders to implement a variety of strategies that have resulted in reduced



Feather River near Tobin.
Photo by: Dale Oliver, State Water Board.



National Park Service Sampling at Whiskeytown Lake.
Photo by: Guy Chetalat, Central Valley Regional Water Board, Redding Office.

concentrations of diazinon in the Sacramento and Feather rivers. Since these two rivers are principal tributaries to the Sacramento-San Joaquin Delta, reducing pesticide concentrations in them will benefit the Delta. It is expected that the remaining 118 miles of diazinon-impaired water bodies in the Sacramento and Feather river watersheds will be addressed in the near future, as well as diazinon-impaired water bodies throughout the rest of the region. Additionally, the regulatory approaches, working relationships, and on-the-ground practices established to control diazinon will help to control pollution from other pesticides of concern in the Central Valley.

For more information: http://www.epa.gov/owow/NPS/success/state/ca_sac.htm

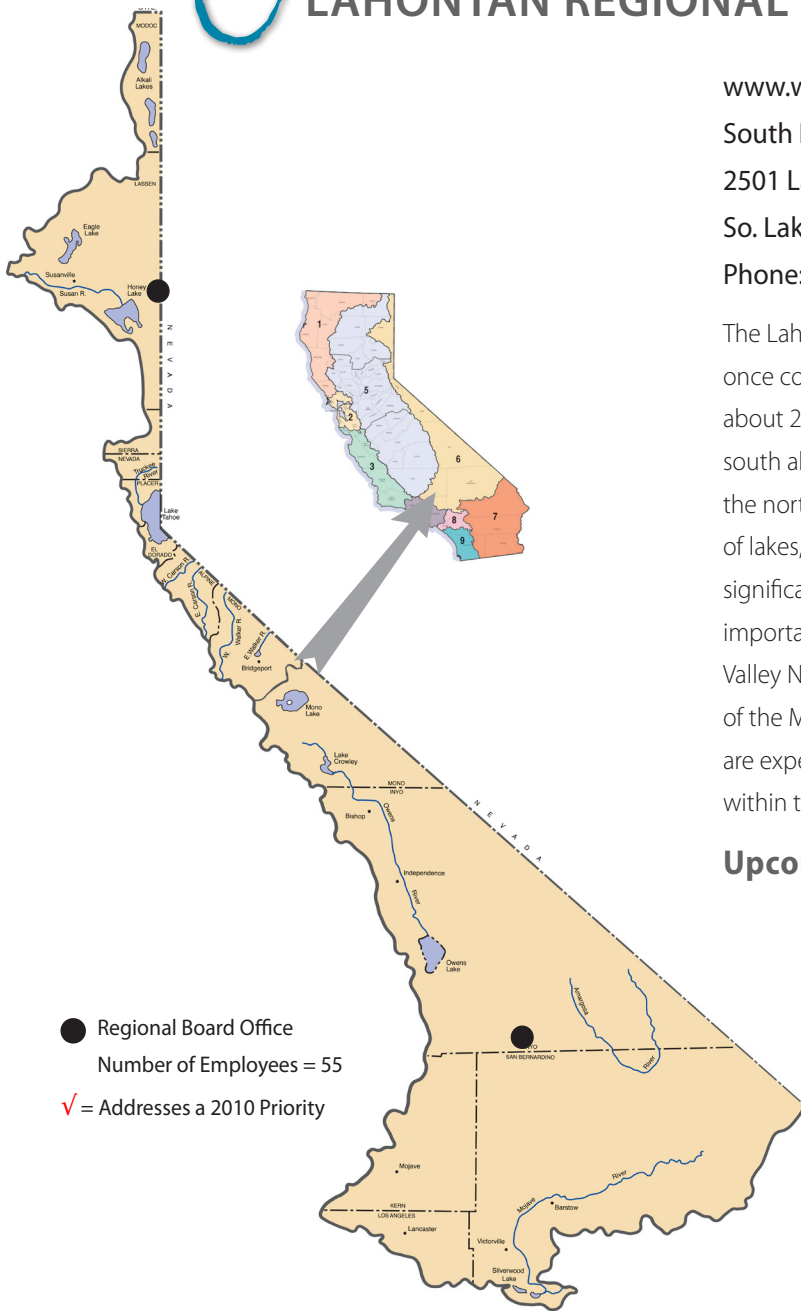
Whiskeytown Lake No Longer Impaired For Bacteria – Removed from Impaired Waters List

In 2011, the U.S. Environmental Protection Agency finalized the State's list of impaired waters (Clean Water Act Section 303(d) list), and because of decreased bacteria levels, approved the removal of Whiskeytown Lake as impaired for fecal coliform, which is bacteria indicative of health risks from fecal contamination. Whiskeytown Lake is a popular swimming spot located approximately 15 miles west of Redding. Water sampling in the late-1980s showed fecal coliform contamination above water quality standards at some of the more popular beaches, placing the lake on the State's list of impaired waters. In 2011, both the Central Valley Regional Water Board and the National Park Service (Service) conducted water sampling to further assess the problem and document water quality improvements from management practices. The Service implemented measures to address the sources of fecal coliform contamination including improving sanitation facilities, banning dogs from main swimming beaches, installing wildlife proof garbage cans, and distributing informative fliers for the public. Clean-up on the beach was improved and, as a result, the water quality in Whiskeytown Lake improved to the point where it now meets water quality standards.

For more information: http://water.epa.gov/polwaste/nps/success319/ca_whiskey.cfm

Region 6

LAHONTAN REGIONAL WATER BOARD



● Regional Board Office
Number of Employees = 55
✓ = Addresses a 2010 Priority

www.waterboards.ca.gov/lahontan

South Lake Tahoe Office

2501 Lake Tahoe Boulevard

So. Lake Tahoe, CA 96150

Phone: (530) 542-5400

The Lahontan Region is named for a prehistoric lake that once covered much of the Great Basin. The region includes about 20 percent of California from the Oregon border south along the eastern crest of the Sierra Nevada through the northern Mojave Desert. Within this area are hundreds of lakes, streams, and wetlands, including the nationally significant Lake Tahoe and Mono Lake. Tourism is the most important industry in the region, which also includes Death Valley National Park, the Mammoth Lakes area, and portions of the Mojave National Preserve. The region's southern cities are experiencing rapid population increases, ranking them within the top ten nationally.

Upcoming Priorities for 2012

- Continue regulatory efforts to restore Lake Tahoe clarity and address deteriorating near-shore conditions.
- Protect and restore groundwater quality threatened or polluted by nitrate and total dissolved solids from municipal and dairy wastes.
- Ensure timely and efficient remediation of groundwater at sites affected by petroleum and other contaminants (emphasis on PG&E Hinkley hexavalent chromium clean-up, and Barstow perchlorate investigation and clean-up).

Accomplishments

- ✓ Water Board Orders PG&E to Provide Replacement Water in Hinkley, California
- ✓ Enforcement Taken on Dairies to Reduce Groundwater Contamination
- ✓ Innovative Lake Tahoe Clarity Restoration Efforts Begin
- Emergency Water Treatment at Leviathan Mine Prevents Toxic Discharge

ACCOMPLISHMENTS



Lahontan Regional Water Board

HIGHLIGHT

Water Board Orders PG&E to Provide Replacement Water in Hinkley, California

What Was Accomplished?

In October 2011, the Lahontan Regional Water Board issued a Cleanup and Abatement Order to Pacific Gas and Electric (PG&E) to provide both interim and whole-house replacement water to residents in Hinkley, California, whose domestic water supply wells have been impacted by hexavalent chromium pollution. Between 1952 and 1966, PG&E used hexavalent chromium to fight cooling tower water corrosion. The wastewater from the cooling towers was discharged to unlined ponds causing a plume of hexavalent chromium groundwater contamination that is approximately four miles long and nearly two miles wide. A number of private domestic wells have been adversely affected by hexavalent chromium over many years as PG&E failed to control contaminated plume migration in groundwater. By providing whole-house replacement water, the residents of Hinkley receive a domestic water supply that is comparable to what they would have received absent the hexavalent chromium contamination. This requirement was imposed because the eventual remediation, or clean-up, of the contaminated groundwater will not be complete for many years and residents should not have to rely on a long-term bottled water supply.

Why Is It Important to the State?

Because hexavalent chromium is a known carcinogen, and its clean-up from the groundwater that the residents of Hinkley rely upon will take many years, it is imperative that PG&E provide a long-term replacement water solution to the impacted community. The Order requires PG&E to provide permanent, uninterrupted whole-house replacement water to affected residents rather than rely on a bottled water replacement program as a long-term solution. An independent consultant, selected by PG&E and approved by the Regional Water Board, will work with the impacted community and provide opportunities for them to engage with the Regional Water Board on upcoming decisions that may impact them.

For more information: http://www.waterboards.ca.gov/lahontan/water_issues/projects/pge/docs/r6v_2100_0005a1.pdf



PG&E Compressor Station, Hinkley California.
Photo by: Unknown.

Innovative Lake Tahoe Clarity Restoration Efforts Begin

In 2011, the Lahontan Regional Water Board adopted an updated Lake Tahoe Municipal National Pollutant Discharge Elimination System (NPDES) Storm Water Permit to implement a water quality restoration strategy, known as a Total Maximum Daily Load (TMDL), for Lake Tahoe, which aims to restore the lake's historic clarity by reducing fine sediment particles entering Lake Tahoe. The TMDL specifies pollutant load reductions from atmospheric, stream channel, forested upland, and urban upland sources. The NPDES permit implements the urban upland fine sediment pollution reductions into Lake Tahoe. The TMDL focuses on urban upland fine sediment particle load reductions because runoff from urban areas contributes 72 percent of the pollutants entering Lake Tahoe. This five-year NPDES permit requires municipalities on the California side of the Lake Tahoe basin to reduce urban fine sediment particle loads into Lake Tahoe by 10 percent by the end of the permit term. The permit also requires use of the Lake Clarity Crediting Program, which establishes the framework that connects on-the-ground actions to the goal of restoring Lake Tahoe clarity. The crediting program defines a comprehensive accounting system administered by the Regional Water Board and the Nevada Division of Environmental Protection to track pollutant load reductions from urban storm water. This program is the first of its kind in the nation because it links actions implemented with quantifiable load reductions, drives accountability, and motivates effective action to improve Lake Tahoe clarity.



Emerald Bay at Lake Tahoe.
Photo by: Dale Oliver, State Water Board.

For more information: http://www.waterboards.ca.gov/lahontan/water_issues/programs/tmdl/lake_tahoe/index.shtml

Enforcement Taken on Dairies to Reduce Groundwater Contamination

During 2011, the Lahontan Regional Water Board issued enforcement orders to require dairies to take actions to reduce nitrogen discharges to groundwater and to supply replacement drinking water to residents impacted by groundwater contamination. The Regional Water Board issued a Cleanup and Abatement Order requiring one dairy to remove and dispose of excess manure to eliminate nuisance odor and fly problems at neighboring residences. Four Cleanup and Abatement Orders were issued to



Neglected dairy corrals with excess manure piles and uneven ground.
Photo by: Ghasem Pour-Ghasemi, Lahontan Regional Water Board.

Nicely engineered drainage ditch to handle storm water run-off from dairy corral areas into a storm water retention basin.
Photo by: Ghasem Pour-Ghasemi, Lahontan Regional Water Board.

four separate dairies requiring them to supply replacement drinking water to nearby residents who have domestic water supply wells affected by nitrate-nitrogen above the drinking water standard. Waste discharges from these dairies had contaminated the groundwater, in turn impacting residential water supply wells. The Regional Water Board also issued Investigative and Reporting Orders to all dairies in the Lahontan region requiring completion and implementation of comprehensive nutrient and salt management plans for reducing salt and nutrient pollutant discharges to groundwater to prevent further contamination.

Emergency Water Treatment at Leviathan Mine Prevents Toxic Discharge

In April 2011, during heavy snowfall, the Lahontan Regional Water Board implemented emergency treatment to prevent untreated discharges at the Leviathan Mine Superfund Site's storage ponds. Heavy snowfall during the winter of 2010/2011 and the spring of 2011, threatened to cause ponds storing toxic levels of heavy metals and arsenic to overflow at the Leviathan Mine Superfund Site. The Regional Water Board was successful in preventing any untreated discharges. During the spring and summer of 2011, a total of 18 million gallons of acid mine drainage were treated, a volume exceeded only once since treatment at the site began in 1999. The State acquired Leviathan Mine, an inactive sulfur mine, to clean up and abate water quality problems caused by historical mining. The Regional Water Board manages the remote Leviathan Mine Superfund Site located at an elevation of 7,000 feet near Markleeville, California. Acid mine drainage containing toxic levels of heavy metals and arsenic are stored in ponds at the site for treatment during the summer. Discharge of untreated acid mine drainage from the ponds would have released heavy metals and arsenic to Leviathan Creek, and would have adversely affected fish and other aquatic life for many miles downstream.



For more information: http://www.waterboards.ca.gov/lahontan/water_issues/projects/leviathan_project/index.shtml

Emergency lime treatment of acidic mine drainage at Leviathan mine.
Photo by: Chuck Curtis, Lahontan Regional Water Board.

Region 7

COLORADO RIVER BASIN REGIONAL WATER BOARD

www.waterboards.ca.gov/coloradoriver

73-720 Fred Waring Drive, Suite 100

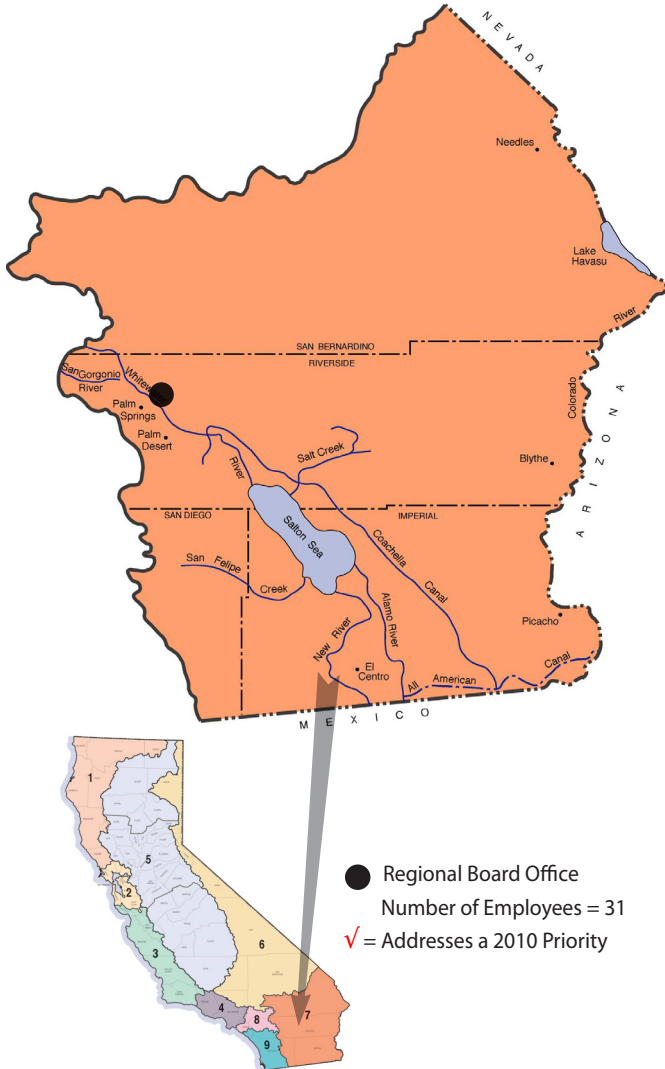
Palm Desert, CA 92260

Phone: (760) 346-7491

The Colorado River Basin Region covers California's most arid area. Despite its dry climate, the region contains two water bodies of State and national significance: the Colorado River and the Salton Sea. Water from the Colorado River irrigates more than 700,000 acres of productive farmland in the Imperial, Coachella, Bard, and Palo Verde valleys. The river also provides drinking water to several million people in California's southern coastal cities.

Upcoming Priorities for 2012

- New River Improvement Project (AB 1079): Implement key surveillance and strategic regulatory programs to address New River pollution from Mexico and the Imperial Valley, respectively, to ensure the river meets the State water quality standards and track clean-up progress and emerging threats.
- Septic Systems: (1) Eliminate discharges of wastes from septic tanks in high density areas overlying sources of drinking water, and promote the construction of centralized wastewater treatment plants and sewer lines, and the recycling of treated wastewater; and (2) Continue to work with and outreach to key stakeholders, including non-governmental organizations, in the Coachella Valley to ensure that: (a) overloaded/outdated septic systems are brought up to standards, and actual and potential nuisance and water quality threats are addressed, and (b) stakeholders can fully participate in the regulatory-decision-making process.
- Irrigated Agriculture: Continue to address the actual and potential impacts that agricultural runoff has on water quality as provided by the State's policy for Implementation and Enforcement of the Non-Point Source Program: (1) Imperial Valley, (2) Coachella Valley, (3) Palo Verde Valley and Palo Verde Mesa, and (4) Bard Valley.



Accomplishments

- ✓ Septic System Discharges Now Prohibited in Yucca Valley

ACCOMPLISHMENTS



Colorado River Basin Regional Water Board

HIGHLIGHT

Septic System Discharges Now Prohibited in Yucca Valley

What Was Accomplished?

In May 2011, the Colorado River Regional Water Board amended its Water Quality Control Plan (Basin Plan) to prohibit the discharge of wastes associated with septic systems in the town of Yucca Valley to mitigate and eliminate the threat of nitrate contamination to groundwater. This Basin Plan amendment was necessary to address nitrate impacts to area water supply wells stemming from septic tank discharges at levels that sometimes exceed the drinking water standard. The town of Yucca Valley is a desert area where the residents rely solely on groundwater for their drinking water supply. Vital groundwater resources in the area have been degraded due to septic system failures or high population densities, causing well closures and the need for a treatment system to reduce nitrate level, and restore a lost groundwater resource. High nitrate concentrations in domestic water supplies may cause methemoglobinemia (blue baby syndrome) in infants six months or younger, causing them to become seriously ill or possibly die. Since 1973, the Regional Water Board had been urging the town of Yucca Valley to eliminate septic systems without success.

Why Is It Important to the State?

Improving and protecting groundwater quality in high use basins is critical given tightening water supplies, competing demands, and increased pressure on the government to ensure the best quality possible for the State's waters. This is particularly the case in desert areas where high quality municipal water supplies are naturally very limited, or not even available. This Basin Plan amendment is important because it will eliminate septic system discharges in the town of Yucca Valley; thereby protecting, restoring, and ensuring the long-term viability of area groundwater aquifers so vitally important to Yucca Valley residents.



Tank Removal. Photo by: Unknown.

For more information: http://www.waterboards.ca.gov/coloradoriver/water_issues/programs/basin_planning/index.shtml

Region 8

SANTA ANA REGIONAL WATER BOARD

www.waterboards.ca.gov/santaana

3737 Main Street, Suite 500

Riverside, CA 92501

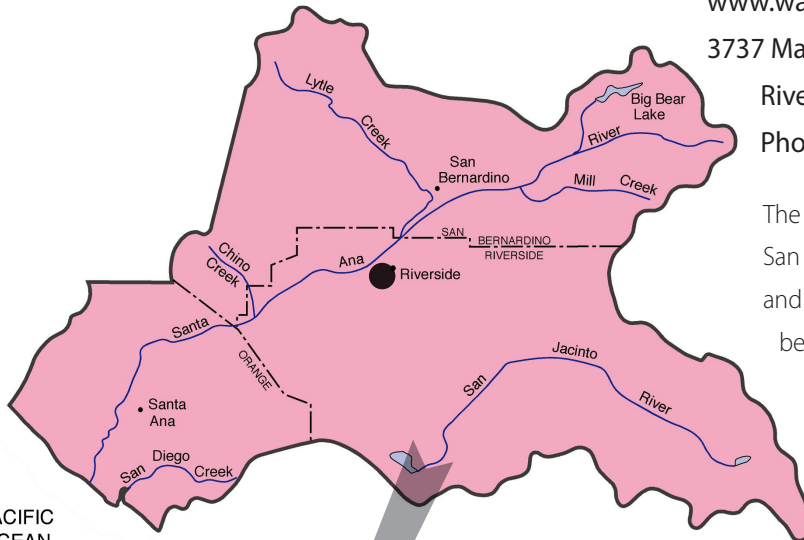
Phone: (951) 782-4130

The Santa Ana Region, which extends from the San Bernardino and San Gabriel mountains in the north and east to Newport Bay along the coast, continues to be one of the most rapidly growing areas of the State.

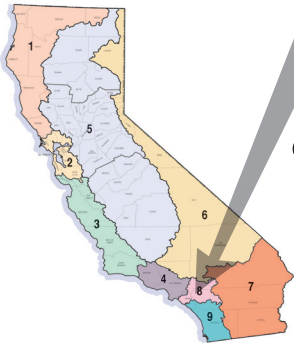
While the region is geographically the smallest, at 2,800 square miles, it boasts one of the largest populations with almost 5 million people. This semi-arid region is known for its temperate climate and relatively low rainfall – about 15 inches per year.

Upcoming Priorities for 2012

- Renew the General Dairy Permit for concentrated animal feeding operations to incorporate the latest USEPA regulations.
- Revise recreational water quality standards to reflect USEPA's national criteria, suspend standards during high-water flows, and modify the definition for water contact recreation.
- Develop and adopt a program of conditional waivers of waste discharge requirements for agricultural dischargers to manage nonpoint source pollution from irrigated and dry-farmed operations.
- Revise and/or update the nitrogen/total dissolved solids wasteload allocations for discharges from POTWs within the region.



PACIFIC OCEAN



- Regional Board Office
Number of Employees = 62
- ✓ = Addresses a 2010 Priority

Accomplishments

- Newport Beach Rhine Channel Contaminated Sediment Cleanup Project Completed
- ✓ More than 500 Abandoned and Stalled Construction Sites Inspected and Addressed
- Water Quality Improves in the Newport Bay and San Diego Creek Watershed
- Kirkhill Elastomers to Pay More than \$1.7 Million for Water Quality Violations

ACCOMPLISHMENTS



HIGHLIGHT

Newport Beach Rhine Channel Contaminated Sediment Cleanup Project Completed

What Was Accomplished?

In November 2011, the Rhine Channel contaminated sediment removal project was completed. The Santa Ana Regional Water Board and the City of Newport Beach developed a Sampling and Analysis Plan and a Quality Assurance Plan that addressed the monitoring requirements for removal of contaminated sediment in the Channel. The Rhine Channel is a narrow, 2,300-foot long, dead-end channel located within the City of Newport Beach (City). Though the Rhine Channel is currently a popular mixed residential and commercial area, for 90 years, the Channel received discharges from many different industries, including canneries, shipyards, and a metal plating facility. Over these decades, the sediments in the Channel accumulated elevated concentrations of metals, pesticides, polycyclic aromatic hydrocarbons, and polychlorinated biphenyls that pose significant ecological health risks. Because of this contamination, the Rhine Channel was placed on the State's list of impaired waters (Clean Water Act Section 303(d) list) and, in June 2002, the U.S. Environmental Protection Agency (USEPA) promulgated water quality restoration strategies, known as Total Maximum Daily Loads (TMDLs), for the Rhine Channel. During 2011, dredging equipment was used to remove contaminated sediment from the Channel, which was then transported to the Port of Long Beach for beneficial reuse as part of a redevelopment project. More than 100,000 cubic yards of contaminated sediment was placed into the Port of Long Beach for reuse. The clean-up activities were fully funded by the City in the amount of \$4 million. Throughout the clean-up process, the Regional Water Board sought to ensure the project would support the eventual removal of the Rhine Channel from the 303(d) list and comply with the goals of the TMDLs. Coordination among staff of the Regional Water Board, California Coastal Commission, State Lands Commission, U.S. Army Corps of Engineers, USEPA, and other agencies occurred throughout the sediment removal project and ensured its successful completion one month ahead of schedule.

Why Is It Important to the State?

The very high pollutant levels in the Rhine Channel caused persistent sediment toxicity, which was a significant source of contaminants entering the food web in Lower Newport Bay. The presence of the



Rhine Channel Remediation Project; crane using clamshell bucket.
Photo by: Chris Miller, City of Newport Beach.

contaminated sediment hampered redevelopment of the area and delayed maintenance dredging of the channel for navigation. The successful removal of the contaminated sediments is an important step to improving the aquatic habitat of Newport Bay, and restoring beneficial uses in the Rhine Channel and Lower Newport Bay.

For more information: http://www.swrcb.ca.gov/rwqcb8/water_issues/programs/401_certification/index.shtml **and** Orange County Coastkeeper Rhine Channel video: http://www.coastkeeper.org/rhine_channel/ **and** City of Newport Beach Rhine Channel Program: <http://www.newportbeachca.gov/index.aspx?page=1607> **and** Rhine Channel Newspaper Article: <http://www.dailypilot.com/news/tn-dpt-1115-dredging-20111114,0,1072561.story>

Water Quality Improves in the Newport Bay and San Diego Creek Watershed

In 2011, water quality monitoring data assessed by the Santa Ana Regional Water Board indicated water quality had improved in the Newport Bay and San Diego Creek watershed, which has been plagued by algae and other nutrient-related problems. In 1999, the Regional Water Board established water quality restoration strategies, known as Total Maximum Daily Loads (TMDLs), to address nitrogen and phosphorus pollution. Review of the water quality monitoring data showed a continued decline in the seasonal loading of these nutrients, and that current nutrient levels are continuing to meet the goals of the TMDLs. During 2011, stakeholders continued participation in TMDL implementation activities to achieve the nutrient load reductions into the Newport Bay and the San Diego Creek watershed. These implementation activities include the continued review of best management practices, evaluations of habitat restoration goals in Newport Bay, and studies to reduce nutrients and selenium using new technologies. During 2011, the Regional Water Board focused on facilitation and coordination with stakeholders, which successfully produced water quality improvements in the San Diego Creek/Newport Bay watershed.

For more information: http://www.swrcb.ca.gov/rwqcb8/board_decisions/adopted_orders/orders/1998/98_100_amend98_9.pdf

More than 500 Abandoned and Stalled Construction Sites Inspected and Addressed

During 2011, the Santa Ana Regional Water Board inspected over 500 construction sites that had not reapplied for coverage under the new Construction General Permit (CGP), or had not filed a Notice of Termination. The Regional Water Board uses the CGP to regulate storm water runoff from construction sites. The reissuance of the CGP in September 2009 coincided with a significant downturn in the construction



Abandoned construction site in Riverside County.
Photo by: Keith Elliott, Santa Ana Regional Water Board.



Mashburn Wetlands, Newport Beach.
Photo by: Doug Shibberu, Santa Ana Regional Water Board.

industry. For example, Riverside and San Bernardino counties had some of the highest numbers of abandoned and stalled construction sites in the State when permit coverage under the old CGP was scheduled to be terminated. These construction sites were inspected to determine their threat to water quality and their phase of construction. In many cases, the abandoned sites posed a significant water quality threat because pollution control measures were either not maintained or not installed properly. Construction activities can cause degradation of water quality in streams, wetlands, and groundwater near the construction site if prevention measures are not in place. Where construction site conditions posed a threat to water quality, site owners were identified through investigation. Enforcement actions were taken to ensure that all sites had adequate long-term stabilization and a mechanism for maintaining that stabilization, and were properly regulated under the new CGP.

Kirkhill Elastomers to Pay More than \$1.7 Million for Water Quality Violations

In December 2011, a settlement was finalized which fined Kirkhill Elastomers (Kirkhill), located in the City of Brea, Orange County, more than \$1.7 million for California Water Code violations. Kirkhill manufactures plastic and rubber products for the aerospace and defense markets, and is alleged to have intermittently discharged industrial wastewater containing pollutants to Fullerton Creek and Craig Lake from 1990 to 2008. The pollutants discharged included hydrocarbons, oil and petroleum residual products, grease, lead, copper, and zinc. These discharges caused significant adverse environmental impacts in these two water bodies. There were a number of episodes of bluegill fish kills in Craig Lake, which subsequently caused the lake to be closed to the public during these periods. Despite several investigations by the Santa Ana Regional Water Board, the source of these pollutant discharges was not identified until 2008. The settlement includes a provision allowing the County of Orange to request a portion of the fine (up to \$700,000) for restoration of environmental damages to Fullerton Creek.

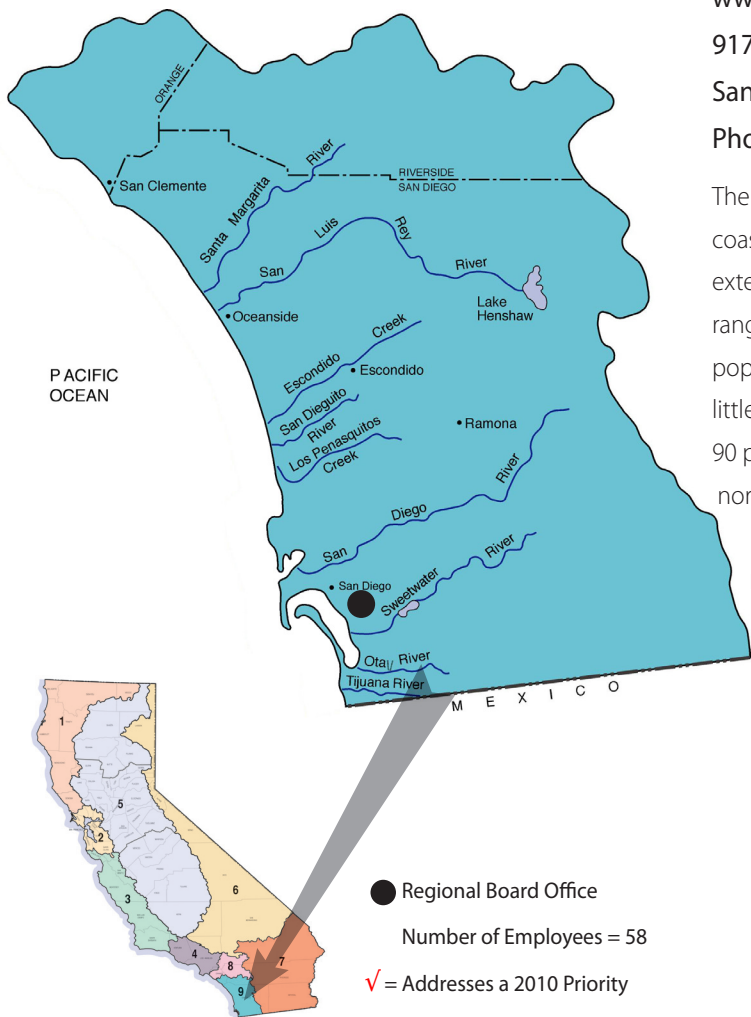
For more information: http://www.waterboards.ca.gov/santaana/public_notices/enforcement_actions.shtml



Oily wastes in Fullerton Creek.
Photo by: Orange County Public Works.

Region 9

SAN DIEGO REGIONAL WATER BOARD



www.waterboards.ca.gov/sandiego

9174 Sky Park Court, Suite 100

San Diego, CA 92123-4340

Phone: (858) 467-2952

The San Diego Region stretches along 85 miles of scenic coastline from Laguna Beach to the Mexican Border, and extends 50 miles inland to the crest of the coastal mountain range. In a mild coastal climate, the region's growing population enjoys many water-related activities; however, little precipitation falls within this semiarid region. About 90 percent of the region's water supply is imported from northern California and the Colorado River.

Upcoming Priorities for 2012

- Develop a single NPDES Municipal Separate Storm Sewer (MS4) permit for the regulation of all co-permittees under the jurisdiction of the San Diego Regional Water Board. Continue to increase the use of Low Impact Development (LID), decrease the effects of hydromodification, and effectively regulate non-storm water discharges.
- Bring the TMDLs for the Los Penasquitos Lagoon, and for the Mouths of Chollas, Paleta, and Switzer Creeks, before the Board for adoption consideration.
- Complete and begin implementation of the Comprehensive San Diego Bay Contaminated Sediments Remediation Strategy, and the San Diego Water Board Monitoring and Assessment Strategy.

Accomplishments

- ✓ International Effort Developed to Address Pollution in the Tijuana River and Tijuana River Estuary
- Permits Now Required for Fireworks Displays Over Waters to Protect Water Quality

ACCOMPLISHMENTS



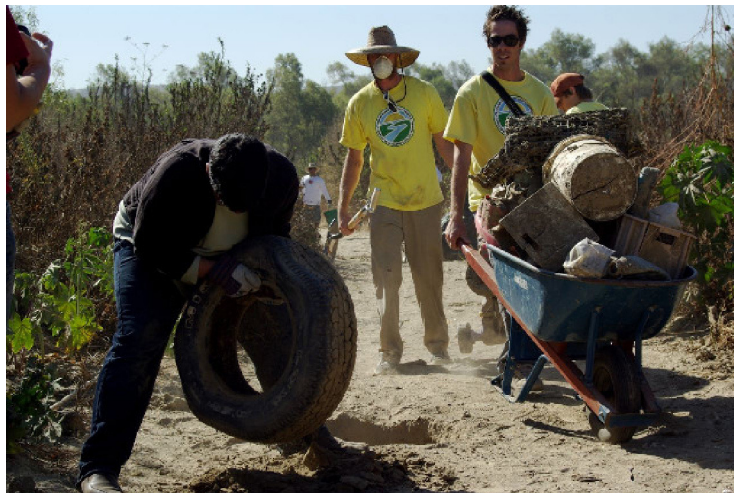
HIGHLIGHT

International Effort Developed to Address Pollution in the Tijuana River and Tijuana River Estuary

What Was Accomplished?

During 2011, the Tijuana River Valley Recovery Team (TRVRT) developed a Recovery Strategy (Strategy), which is a roadmap for long-term recovery and protection of the Tijuana River and Tijuana River Estuary, collectively known as the Tijuana River Valley (Valley). The TRVRT is a large bi-national effort between the United States (U.S.) and Mexico to address pollutant impairments, including trash and sediment, in the Valley. The Tijuana River and Estuary are threatened by discharges of sewage, sediment, and trash originating from sources in both the U.S. and Mexico, causing both water bodies to be listed on the State's list of impaired waters (Clean Water Act Section 303(d) List). To address these pollutant impairments, the TRVRT was convened by the San Diego Regional Water Board in 2008, and operates under the leadership and oversight of the Regional Water Board. The Strategy identifies problems and challenges, establishes goals and the roles of the various environmental agencies on both sides of the international border, and identifies potential funding sources. The goals of the Strategy include using partnerships in the U.S. and Mexico, fostering natural hydrologic connectivity between estuarine and riparian habitats, creating sustainable and interconnected natural habitats, and coordinating recreation and education activities in the Valley with trash and sediment management.

Achievement of the Strategy's goals will result in the restoration of water quality, and the enhancement and protection of beneficial uses, in the Valley without the adoption of water quality restoration strategies, known as Total Maximum Daily Loads, as well as maintenance of the goals into perpetuity. In February 2012, the Regional Water Board will consider endorsing the TRVRT's Recovery Strategy.



Clean-up and restoration efforts in the Tijuana River Valley.
Photo by: Tijuana River Valley Recovery Team.



*Tijuana River Valley showing pollution.
Photos by: : Tijuana River Valley Recovery Team.*

Why Is It Important to the State?

The Tijuana River watershed is a large and complex ecological system that straddles the international border between the U.S. and Mexico. The Tijuana River Estuary is the largest functioning wetland in Southern California, providing habitat for at least six endangered species, and many threatened species, of wildlife and vegetation. It is also one of only two coastal estuaries, and the only coastal lagoon in southern California that is not bisected by roads and railroads, which contributes to its ecological resiliency. The river and estuary provide valuable estuarine, freshwater, and wildlife habitat as well as numerous other important beneficial uses. The Recovery Strategy may be a model for other regions that share watersheds with Mexico, and may be useful in other watersheds where collaboration among multiple parties on problematic pollutants or stressors is necessary to achieve success.

For more information: <http://www.tjriverteam.org/>

Permits Now Required for Fireworks Displays Over Waters to Protect Water Quality

In May 2011, the San Diego Regional Water Board issued a National Pollutant Discharge Elimination System (NPDES) Permit to control water pollution caused by residual firework wastes discharged to coastal and inland surface waters from public firework displays. The permit applies to firework displays over any water body within the boundaries of the San Diego Region and is the first NPDES permit of its type in the nation. The permit balances the importance of public firework displays as part of our national heritage and community celebrations with the need to prevent degradation of water resources and sediment quality from the fallout of firework combustion residue. Firework discharges can pollute waters used for municipal supply and recreational purposes. Perchlorate is one of the main pollutants of concern and is known to contaminate drinking water supplies if significant amounts accumulate in waterways. The San Diego Regional Water Board's adoption of the NPDES Permit will enable firework event promoters to apply for permit coverage so that they can lawfully discharge pollutants to surface waters from firework events in accordance with the terms of federal and State water pollution laws.

For more information: http://www.waterboards.ca.gov/sandiego/publications_forms/general_orders.shtml



The State Water Board, located in Sacramento, works with the Regional Water Boards to protect and restore water quality. Where water quality issues cross Regional Water Board boundaries or have significant statewide application, the State Water Board may develop statewide water quality control plans and policies, including water quality standards, and issue general permits that cover specific types of discharges. The State Water Board also approves regional basin plans, reviews petitions that contest Regional Water Board actions, addresses enforcement, and provides administrative and other functions in support of the Water Boards. The State Water Board also separately administers grant and loan programs to assist communities in need, examines and proposes solutions to important water quality problems, and provides capital for infrastructure and other improvement projects. Unique to the State Water Board is the administration of a complex system of water rights that allocates our scarce surface water resources.



STATE WATER RESOURCES CONTROL BOARD

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State Water Board Accomplishments in 2011

- Cosco Busan Oil Spill in San Francisco Bay Nets \$43 Million Fine
- Russian River Frost Protection Regulation Adopted to Protect Salmon
- Three Statewide Water Quality Monitoring Reports Posted Online
- “One-Stop” Citizen’s Guide to Working With the Water Boards Made Available Online
- Special Biological Areas Protected Through Bond Funds
- California Ocean Plan Updated
- New Online Resources to Support Citizen Monitoring Programs
- Underground Storage Tank Cleanup Fund Strengthened to Close More Cases
- Facility Inspections and Sewage Spill Audits Find Violations
- Once Through Cooling Policy Amended
- Sediment Quality Objectives Adopted to Protect Fish and Wildlife in Enclosed Bays and Estuaries





San Francisco Bay.
Photo by: State Water Board Photo.

HIGHLIGHT

Cosco Busan Oil Spill in San Francisco Bay Nets \$43 Million Fine

What Was Accomplished?

In August 2011, a consent decree was issued by the U.S. District Court for the Northern District of California under which the defendants agreed to pay more than \$43 million in natural resource damages, restoration costs, and civil penalties for a fuel spill in November 2007. The incident occurred when the M/V Cosco Busan, a container vessel owned by Regal Stone Limited, collided with the San Francisco-Oakland Bay Bridge in thick fog, puncturing a fuel tank. The puncture led to the ship spilling approximately 53,000 gallons of heavy fuel oil, also referred to as bunker fuel oil, to the San Francisco Bay, Pacific Ocean, and adjoining shorelines, causing injuries to natural resources, including bird and fish species, and their natural habitats. The spill also impacted recreational and other public uses of San Francisco Bay, causing significant economic losses. The consent decree provides substantial funding for projects that will restore and enhance fish and bird populations, and their habitats, and for projects that will enhance public recreational opportunities. The State Water Board worked closely with the San Francisco Bay Regional Water Board, the California Attorney General's Office, and other local, State, and federal agencies to prosecute the action in federal court.

Why Is It Important to the State?

The legal action for the San Francisco Bay spill created a framework through which local and Bay-wide habitat restoration and recreational projects addressing impacts due to the oil spill can be vetted, approved, and funded. Many of these projects will be specifically designed to restore and enhance bird and fish habitats, which were particularly hard hit by the pollution. The spill caused prolonged beach closures in the cities of San Francisco and Richmond, and across San Francisco Bay. As a result, the public could not access the Bay for recreational activities. Economic compensation for these "loss of recreational use" damages accounts for some of the \$43 million settlement and will fund human use-related projects (e.g., fishing, swimming, and boating). The State and Regional Water Boards received reimbursement from the settlement for costs associated with the incident, and \$350,000 from the settlement will also be deposited into the State Water Boards' Waste Discharge Permit Fund, which is used to support the Water Boards' regulatory activities.

To review this and other significant enforcement actions, go to http://www.waterboards.ca.gov/water_issues/programs/enforcement/

HIGHLIGHT

Russian River Frost Protection Regulation Adopted to Protect Salmon

What Was Accomplished?

In September 2011, the State Water Board adopted the Russian River Frost Protection Regulation. This regulation addresses the threat to endangered and threatened salmonids that can occur when stream flows decrease and water levels rapidly recede due to cumulative water diversions for crop protection during a frost. During a frost, the high, simultaneous demand for water by multiple growers can lower stream levels to the point that fish become stranded and die. Stranding mortality can be avoided by coordinating and managing frost diversions to reduce instantaneous demand. The frost protection regulation applies to vineyard and orchard growers in the Russian River stream system who divert water for frost protection (excluding water diverted upstream of Warm Springs Dam in Sonoma County or Coyote Dam in Mendocino County). The regulation establishes that, after March 14, 2012, any diversion of water from the Russian River stream system, including the pumping of hydraulically-connected groundwater, for crop frost protection purposes from March 15 through May 15 shall be diverted in accordance with a State Water Board-approved water demand management program (WDMP). The regulation relies on local self-governance by allowing growers to select an individual or governing body to administer a WDMP on their behalf to ensure that the goals of the program are met. A WDMP must include an inventory of all participating growers' frost diversion systems, a stream stage monitoring program, a risk assessment for salmonid stranding mortality caused by frost diversions, recommended corrective actions, and annual reporting to the State Water Board.

Why Is It Important to the State?

The Russian River watershed, located in Mendocino and Sonoma counties, comprises an area of 1,485 square miles. From its source, approximately 16 miles north of the City of Ukiah, the river flows southward and then westward for 112 miles before entering the Pacific Ocean. Irrigation of vineyards and orchards is the principal use of water in the watershed, with more than 21,000 acres requiring water for frost protection. These crops have an estimated annual production value of \$550 million. The Russian River supports important salmonid populations, which have dramatically declined in the past 15 years due to habitat loss and degradation. Because of these population declines, salmonids are currently protected through the State and federal endangered species acts. The prevention of salmonid stranding mortality will directly benefit other beneficial uses of the Russian River watershed, including healthy fisheries and commercial fishing. Several lawsuits have been filed contesting the regulation and adequacy of the supporting environmental document. While the outcome of these lawsuits is pending decision, many growers are voluntarily implementing key aspects of the regulation addressing the use of water for frost control and salmon protection.

For more information: http://www.waterboards.ca.gov/waterrights/water_issues/programs/hearings/russian_river_frost/

HIGHLIGHT

Three Statewide Water Quality Monitoring Reports Posted Online

What Was Accomplished?

In 2011, the State Water Board's Surface Water Ambient Monitoring Program (SWAMP) published and posted on its website three statewide water quality monitoring reports: the "8-Year Perennial Streams Assessment"



Surface water monitoring in California.
Photo by: CA Department of Fish and Game.

(PSA), "Contaminants in Sport Fish from the California Coast 2009: Summary Report on Year One of a Two-Year Screening Survey", and "Toxicity in California Waters (2001-2009)". The PSA report allows the State Water Board to assess the water quality and biological integrity of all perennial streams of the State. The report estimated half of California's wadeable stream miles are in relatively good biological condition (50 percent), while the other half are either degraded (27 percent) or very degraded (23 percent) compared to reference stream sites. This information will be used to identify and protect healthy streams and set targets for restoring degraded streams. All zones sampled in the "Contaminants in Sport Fish from the California Coast 2009" report had some contaminated fish. The report indicates that in 69 percent of California urban coastal waters, one or more fish caught exceeded a known human health threshold, while in 31 percent of these waters, all fish caught exceeded a known human health threshold. This information will be used to prioritize areas for additional monitoring to support development of fish consumption advisories. The "Toxicity in California Waters" report summarizes the location and magnitude of toxicity observed. Toxicity was observed in every region of the State. This report includes recommendations for improving toxicity monitoring throughout the State.

Why Is It Important to the State?

The surface water quality monitoring information from these reports helps us understand the overall health of the State's surface waters and the organisms that live within them. Understanding and characterizing the health of California's waters is necessary to the health of the people who use and depend upon these resources. Having comprehensive and robust water quality monitoring data allow for the identification of impaired waters, impacted beneficial uses (e.g., navigation, fishing, recreation, drinking), and mechanisms that can be used to correct the problems identified. These monitoring data also provide insight on the capacity of surface waters to support aquatic life (e.g., vegetation, fish, and wildlife), and show what pollutants in fish tissue pose the most widespread potential health concerns to consumers of fish caught on the California coast.

For more information: 8-Year Perennial Streams Assessment (PSA): http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reports/psa_smmry_rpt.pdf and Contaminants in Sport Fish From The California Coast 2009: Summary Report on Year One of A Two-Year Screening Survey: http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/coast_study/coastalsurvey_yr1_noapp.pdf and Toxicity in California Waters: http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/txcty_rprt.pdf



Water Board outreach efforts at Native American Day 2011.
Photo by: Dale Oliver, State Water Board.

HIGHLIGHT

“One-Stop” Citizen’s Guide to Working With the Water Boards Made Available Online

What Was Accomplished?

In 2011, the State Water Board published the “Citizen’s Guide to Working with the California Water Boards” (Guide). The Guide provides an overview of the Water Boards and the many opportunities that Californians have to engage and participate with the Water Boards in decisions and activities that affect the State’s water resources. The Guide provides information on the State Water Board and the nine Regional Water Boards, the various Water Board programs, what to expect when attending Water Board meetings, how public comments are used, how to file an environmental complaint, the water rights application process, and more. The primary goal of the Guide is to assist the public in becoming familiar with the role the Water Boards have in protecting the State’s water resources. At the same time, the Guide is designed to highlight the Water Boards’ work in an easy to read and understand document.

Why Is It Important to the State?

The work of the Water Boards can be very complex and difficult for the public to understand. Likewise, public participation is critical to the success of the Water Boards’ planning and decision making processes. To assist in clarifying what the Water Boards do, the Guide serves as a two-way communication tool. First, it assists the public by simplifying and clarifying the Water Boards’ work. Second, it assists Water Board staff in explaining our work and engaging the public. The Guide is primarily a web-based resource, allowing the public immediate access to Water Board-related information regarding public participation opportunities.

For more information: http://www.waterboards.ca.gov/publications_forms/publications/general/docs/citizenguide2011.pdf



Water wheel game at Native American Day 2011.
Photo by: Dale Oliver, State Water Board.



Low Impact Development and natural vegetation.
Photo by: Unknown.



Point Dume Beach Restroom Under Construction.
Photo by: Unknown.

HIGHLIGHT

Special Biological Areas Protected Through Bond Funds

What Was Accomplished?

In 2011, the State Water Board restarted the Proposition 84 (Prop 84) Areas of Special Biological Significance (ASBS) Grant Program. Since 1983, the State Water Board's California Ocean Plan has prohibited discharges of wastes to ASBS, which are areas that are afforded special protection because of their high natural resource value. This grant program provides over \$32 million in Prop 84 bond money to help local public agencies comply with the discharge prohibition. The State Water Board coordinated with the ASBS Task Force (comprised of experts from local agencies, environmental groups, academia, government, and scientific research organizations) to finalize the scopes of fourteen projects (that were approved for funding in February 2009) and completed agreements with public agencies to fund those projects during 2011. The funded projects collectively address hundreds of discharges into ASBS and will help dischargers comply with the discharge prohibition and/or result in water quality improvements in ASBS. The projects include:

- Replacement of aging septic tanks at public beaches with advanced ultraviolet treatment systems,
- Installation of Best Management Practices and Low Impact Development techniques to capture and treat storm water, and prevent sediment from draining into the ASBS, and
- Installation of porous pavement to allow water to infiltrate the ground rather than flood storm drains or nearby waterways.

The ASBS Grant Program also provides funding to the Southern California Coastal Water Research Project (SCCWRP), a research institute focusing on the coastal ecosystems of Southern California, to help assess the effectiveness of Prop 84 ASBS projects.

Why Is It Important to the State?

ASBS cover much of the length of California's coastal waters, support an unusual variety and diversity of aquatic life, and often host unique individual species. ASBS are basic building blocks for a sustainable, healthy, resilient coastal environment and economy. The Prop 84 ASBS Grant Program assists local agencies with the costs to comply with the ASBS discharge prohibition so that water quality is preserved or enhanced.

For more information: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/asbs/index.shtml



*The Sea Otter (*Enhydra lutris*) is found in several Areas of Special Biological Significance locations.
Photo by: Unknown.*

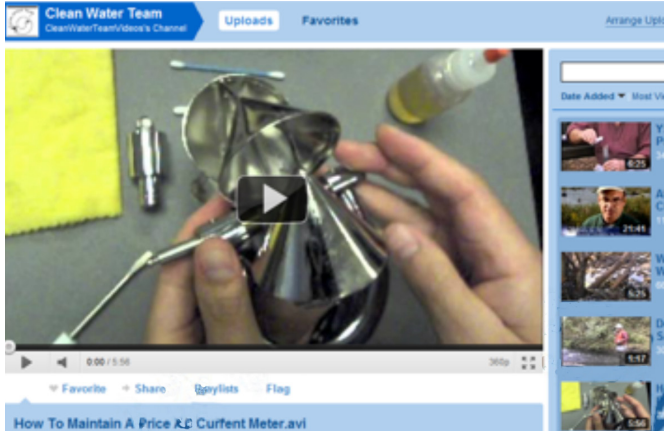
California Ocean Plan Updated

In March 2011, the State Water Board adopted a Triennial Review Workplan that describes the most recent review of the 2009 California Ocean Plan (Ocean Plan) and changes that should be made to ensure the continued adequacy of water quality standards. The Ocean Plan protects California's ocean waters by establishing water quality standards and providing the basis for regulation of wastes discharged into the State's near-coastal ocean waters. In October 2011, the State Water Board approved exceptions to the Ocean Plan's prohibition against waste discharges to Areas of Special Biological Significance (ASBS) for discharges of waste seawater and storm water runoff from three marine research facilities: the Telonicher Marine Laboratory, Hopkins Marine Station, and Monterey Bay Aquarium. In ASBS, which are water quality protection areas that require special protection, discharges of wastes are prohibited or limited by special conditions. These exceptions, however, will not compromise the protection of ocean waters for beneficial uses, and the public interest will be served because the seawater systems from these entities provide support for educational and research activities. Also, a public hearing was held in November 2011 to receive public input on proposed amendments to the Ocean Plan related to model monitoring, control of commercial vessel waste discharges, and invasive species amendments. The Ocean Plan is reviewed periodically to ensure that established standards and requirements are adequate and continue to be protective of marine life and human health.

For more information: http://www.swrcb.ca.gov/water_issues/programs/ocean/index.shtml

New Online Resources to Support Citizen Monitoring Programs

In 2011, the State Water Board's citizen monitoring program, called the Clean Water Team, created and placed online several resources for citizen monitors: an updated Guidance Compendium for Watershed Monitoring and Assessment, a YouTube channel, and a California citizen monitoring calendar. The Clean Water Team works with citizen monitoring groups throughout the State. Because water quality monitoring activities by citizen monitoring groups largely rely on participation by volunteers, students, or non-paid staff, access to water quality training, technical guidance, and organizational materials can be limited. The compendium will enhance a citizen's knowledge and ability to make decisions regarding measurements of water quality in various water bodies. It is useful to field operators, technical advisors and trainers of citizen monitoring groups, agency staff, and other persons interested in water quality issues. The YouTube channel features instructional and educational material for citizen monitors and watershed stewardship



Clean Water Team YouTube channel.
Photo by: State Water Board staff.



Clean Water Team QR Code.
Photo by: State Water Board staff.

groups that is best presented in a video format. The calendar highlights citizen monitoring and important environmental stewardship days. A more skilled constituency of watershed stewards will maximize monitoring resources, encourage better orchestrated monitoring efforts, increase the amount of monitoring being conducted, and both enhance and expand water quality information available to decision-makers and the public.

For more information: http://www.waterboards.ca.gov/water_issues/programs/swamp/cwt_guidance.shtml#10www.YouTube.com/cleanwaterteamvideos and http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/cwt/volunteer/clndr2011.pdf

Underground Storage Tank Cleanup Fund Strengthened to Close More Cases

During 2011, the State Water Board placed all open Underground Storage Tank (UST) Cleanup Fund (Cleanup Fund) claims on annual budgets to implement cost containment recommendations described in a 2010 independent financial management audit. Federal and State laws require owners and operators of petroleum USTs to maintain financial responsibility to pay for damages arising from their tank operations. The Cleanup Fund provides assistance for these owners and operators to meet federal and State requirements, and assists small businesses and individuals by providing reimbursement for unexpected and catastrophic expenses associated with the cleanup of leaking petroleum USTs. Leaking USTs pollute groundwater and pose a threat to public health, safety, and the environment. During 2011, active claims were placed on individual budgets to help contain costs and balance expenditures with revenues. Also in 2011, the storage fee increase (for petroleum stored in USTs) for the Cleanup Fund was extended to January 2014, which will also help pay off costs incurred by claimants. These actions improve the stability and predictability of the Cleanup Fund. The State Water Board continues to pursue case closure for claims where the UST sites have been closed, and no longer represent a threat to human health or the environment, to increase the Cleanup Fund's overall liability. Closing lower priority UST sites allows funding to be allocated to higher priority UST sites for cleanup. Cleanup Fund improvements during 2011 ensured that 1,378 evaluations were completed on claims active for five years or more, while 204 cases were closed that had at least one evaluation recommending case closure, and 872 claims were closed for UST sites that had been cleaned up and closed.

For more information: http://www.waterboards.ca.gov/water_issues/programs/ustcf/



*Underground storage tanks.
Photo by: Amantha Henkel, State Water Board.*

Facility Inspections and Sewage Spill Audits Find Violations

During 2011, the Water Boards implemented an audit of sanitary sewer overflows (SSOs, or spills) that had been reported to the State Water Board, and conducted fourteen facility inspections to determine the level of compliance with the existing statewide general permit for sanitary sewer systems (adopted by the State Water Board in 2006). The inspections revealed that some dischargers were underestimating their spill volumes reported or failing to report overflows altogether. SSOs result in discharges of untreated sewage, bacteria, hazardous materials, and industrial wastewater to California's waters, and can result in the closure of beaches and other recreational areas, inundated properties, and polluted rivers and streams. SSOs are caused by the failure to upgrade aging infrastructure, undersized septic facilities, inadequate maintenance, faulty operation, and poor system design. Since 2007, there have been over 22,000 SSO incidents reported by approximately 1,100 sanitary sewer systems. Of the approximately 98 million gallons of waste associated with these incidents, 78 million gallons reportedly reached surface waters. Information gathered in the SSO audit will be used to compel compliance with permit enrollment and reporting requirements, and to take formal enforcement on all overflows in excess of 50,000 gallons. Information from the SSO audit will be used in future updates of the statewide general permit for sanitary sewer systems.



*Kids on the beach.
Photo by: La Vonna Butz.*

Once Through Cooling Policy Amended

In July 2011, the State Water Board amended its Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Policy). The purpose of the Policy, initially adopted in May 2010, is to reduce the harmful effects associated with cooling water intake structures on aquatic life in the ocean and estuaries. The Policy applies to 19 existing power plants (including two nuclear plants) that currently



Water Board staff viewing screen at Diablo Canyon.
Photo by: Steve Saiz, State Water Board.

have the ability to withdraw over 15 billion gallons per day from the State's coastal waters using a single-pass system, also known as once-through cooling (OTC). Cooling water withdrawals cause adverse impacts when larger aquatic organisms, such as fish and mammals, are trapped against a facility's intake screens (impinged) and when smaller life forms, such as larvae and eggs, are killed by being drawn through the cooling system (entrained). The amendments to the Policy modified some of the final compliance deadlines for OTC power plants owned and operated by the Los Angeles Department of Water and Power (the Harbor, Haynes, and Scattergood generating stations). The amendments also add special requirements for any fossil-fueled power plant with a compliance plan that extends beyond December 31, 2020. These special requirements include the commitment to eliminate using OTC at the facility, and conducting studies to evaluate new technologies or improve existing technologies to reduce impingement and entrainment, and implement a proposal to do so by 2020.

For more information: http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/

Sediment Quality Objectives Adopted to Protect Fish and Wildlife in Enclosed Bays and Estuaries

In April 2011, the State Water Board amended the Water Quality Control Plan for Enclosed Bays and Estuaries (Plan) to protect fish and wildlife. The existing Plan establishes sediment quality objectives (SQOs) for enclosed bays and estuaries that protect sediment-dwelling organism communities from direct exposure to toxic pollutants in sediment, and protects human consumers from contaminants in fish tissue that are transferred through the food web from sediments into finfish and shellfish. California's bays and estuaries are home to a tremendous diversity of life. As such, there are multiple routes by which organisms can be exposed to and affected by sediment contaminants. There are two general types of exposure: direct and indirect. Most direct exposure results from the contact of organisms with the sediment and sediment ingestion. Organisms at greatest risk from direct exposure are benthic invertebrates living in the sediment. Indirect exposure results from the consumption of contaminated prey organisms. Organisms at greatest risk from indirect exposure feed at top level, including human consumers. The amendments to the Plan include the establishment of a narrative SQO that protects wildlife and resident finfish from the detrimental effects caused by exposure to pollutants in sediment. The Regional Water Boards that encompass enclosed bays and estuaries in the State are required to implement the Plan's SQOs to help ensure that aquatic ecosystems and human health are protected.

For more information: http://www.waterboards.ca.gov/water_issues/programs/bptcp/sediment.shtml

Our Vision

A sustainable California made possible by clean water and water availability for both human uses and environmental resource protection.

Our Mission

To preserve, enhance, and restore the quality of California's water resources, and ensure their proper allocation and efficient use, for the benefit of present and future generations.



Water Boards

STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

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SAN FRANCISCO BAY REGION (2)
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CENTRAL COAST REGION (3)
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LOS ANGELES REGION (4)
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Los Angeles, CA 90013
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(213) 576-6600 TEL • (213) 576-6640 FAX

CENTRAL VALLEY REGION (5)
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Fresno branch office
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Fresno, CA 93706

(559) 445-5116 TEL • (559) 445-5910 FAX

Redding branch office
364 Knollcrest Drive, Suite 200
Redding, CA 96002

(530) 224-4845 TEL • (530) 224-4857 FAX

LAHONTAN REGION (6)
www.waterboards.ca.gov/lahontan
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150
info6@waterboards.ca.gov

(530) 542-5400 TEL • (530) 544-2271 FAX

Victorville branch office
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Victorville, CA 92392

(760) 241-6583 TEL • (760) 241-7308 FAX

COLORADO RIVER BASIN REGION (7)
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