TRIENNIAL REPORT 1997-1999
STATE WATER RESOURCES CONTROL BOARD

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
This Triennial Report reflects a number of significant accomplishments that pave the way for increased water quality protection and water rights management as we enter the new millennium. We started this three-year period with a revision to our own Strategic Plan, which outlines a comprehensive approach to resolving our water problems through a systematic realignment of projects, funding and local water management efforts. We have also realigned our priorities to focus more heavily on polluted runoff, or “Nonpoint Source” pollution, California’s primary water quality problem.

To aid us in this new focus, we have increased our efforts to involve the public in all facets of our work. This includes numerous opportunities to provide comments on our water rights process, participate in our new citizen monitoring program, which allows students, environmentalists and interested parties an opportunity to take part in protecting their own rivers and streams and participate in our “Total Maximum Daily Load” process to help set pollutant discharge levels into nearby waterways.

We have also taken steps to increase our enforcement efforts to increase compliance with our laws, by undertaking a comprehensive Compliance Assurance and Enforcement Initiative. Through this time period, I’m proud to say that the State Board and the nine Regional Water Quality Control Boards (Regional Boards) have increased enforcement efforts by almost 50 percent, which will lead to a greater degree of compliance.

Other notable accomplishments include implementation of sweeping Executive Orders by the Davis Administration to identify and clean-up leaking underground storage tanks and the harmful gasoline additive Methyl Ethyl Butyl Ether (MTBE), which will be phased out by 2003.

Of course our primary vanguard in protecting water quality in the state resides with each of our Regional Boards. In this three-year cycle, our Regional Boards have accomplished a great deal: a concerted effort to clean-up underground storage tank leaks; increased enforcement efforts; implementation of agricultural, timber, dairy and urban runoff protection programs and permitting activities in our core regulatory programs.

Joining me in overseeing these outstanding accomplishments were Vice Chair Mary Jane Forster, former longtime Regional Board member in San Diego and member of the National Drinking Water Advisory Council; Board Member John W. Brown, a registered civil engineer with expertise in water rights, resource planning, design and operations and Board Member Arthur G. Baggett, Jr., attorney and former member of the Board of Supervisors for Mariposa County.

We hope that you will enjoy our summary of accomplishments and encourage your continued involvement in our concerted efforts to preserve and enhance the qualities of our state waters.
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California’s waterscape shapes our lives. This vast system of natural streams and lakes, constructed canals and reservoirs, extensive underground basins and miles of coastline provides jobs, recreation and sustenance for over 34 million people. Over the years, state and federal government have established increasingly stronger programs to control pollution discharges. These water quality programs are carried out in California by the State Board and the nine Regional Boards.

The Regional Boards set and enforce water pollution control standards. Each Regional Board issues discharge permits which spell out what, when, where and how much of a particular substance may be discharged. Permittees must monitor their discharges and make reports to the Regional Boards. The Regional Boards are guided by policies established by the State Board. In the following section, you will read about programs in managing water quality including those identified through the State and Regional Boards’ Strategic Plan, Basin Planning, Watershed Management and Nonpoint Source Programs.
A New Focus

Strategic Plan

In 1997 the State and Regional Boards reviewed and updated their 1995 Strategic Plan. It presents new strategies and approaches which reflect new initiatives, revised budget outlooks and advances made since the 1995 Plan.

Many of the new strategies and tasks focus on more fully using a watershed management approach to water quality issues. This approach realigns specific programs, local efforts and funding sources to tackle the highest priority watersheds. With significant public involvement, the Regional Boards have completed individual plans to manage their priority watersheds.

New enforcement approaches, improved consistency and increased compliance are highlighted in the Strategic Plan, as is the need to improve internal data and management systems to better support the Boards’ work.

Watershed Management Initiative

State and Regional Boards continue to implement the Watershed Management Initiative (WMI), originally set out in the 1995 Strategic Plan. Two main principles underlie the WMI:

• that the most effective and efficient method to address water quality problems is to develop a unique solution for each watershed after considering all the problems and opportunities in the watershed.

• that the solutions must involve all affected local interests (often referred to as “stakeholders”). Each Regional Board has crafted its own plans and strategies for watershed management. These include setting priorities for all water quality issues, targeting watersheds for development of individual watershed management plans and implementing those plans.

The strategies and plans from the State and Regional Boards are contained in the “Integrated Plan for Implementation of the Watershed Management Initiative”, Regional Boards targeted watersheds statewide for watershed management activities. These watersheds cover more than half of the geographic area of the state and contain many of the most prominent water quality issues.

State funding for WMI efforts has been approved for the first time, supporting ten full time staff. Their three main tasks are:

• to work with local watershed stakeholders and groups on watershed specific issues;
• to provide coordination between State and Regional Boards programs and with other agencies; and
• to annually revise the Integrated Plan.

In 1999 the State Board approved approximately $7.5 million in federal implementation project grants and $400,000 in planning project grants. These project grants will be targeted at high priority watersheds in concert with the State Boards WMI.

For more information, check: www.swrcb.ca.gov “Nonpoint Source”.

Volunteer Monitoring Programs

All Californians should learn about the watershed they live in. The State Board encourages the public to learn about its watershed by becoming volunteer monitors of local creeks, streams and rivers. Volunteer monitoring activities might include collecting water quality data, evaluating fish habitat, counting birds or making visual observations of stream health. Monitoring information can be used by the community and resource managers to better protect California’s waters. The State Board and many of the Regional Boards are actively involved in volunteer monitoring. The importance of volunteer monitoring can be summarized as follows:

• Educates the community in water quality, aquatic resources and pollution prevention.

• Provides information to:
  – assess effectiveness of pollution prevention measures;
  – establish baseline water quality or biological resource information;
  – establish trends in water quality or aquatic resources;
  – assess effectiveness of enhancement and restoration projects and
  – identify pollution sources and illegal spill.

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Total Maximum Daily Loads

Total Maximum Daily Loads (TMDLs) are planning efforts required by the federal Clean Water Act (CWA) for any water body not meeting water quality standards. There are approximately 500 water bodies subject to this requirement in California. The highest priority areas requiring TMDLs have been identified through the WMI planning process. TMDL work then sets about identifying the amount of pollution that a water body can tolerate and still meet established standards. The sources of excess pollutants are identified and the amounts of pollutants to be controlled are allocated among the responsible parties. Sources involved in TMDLs include both permitted facilities with point source and nonpoint source pollution. Ideally TMDLs are developed within a stakeholder based, watershed management effort where all affected parties contribute to developing the TMDL and initiating strategies to reduce pollutant levels.

Significant progress in developing TMDLs for selected water bodies occurred in 1999. In previous years, existing staff was redirected from other programs to assist in TMDL development. The 1999-2000 budget provided $9.9 million for TMDL programs. These federal and state fundings sources are the first allocated specifically for TMDLs. As 1999 drew to a close, about 100 TMDLs were in progress.

Compliance Assurance & Enforcement

The State and Regional Board’s enforcement program is designed to ensure compliance with applicable laws and regulations. The enforcement program is structured to discourage those who would violate the law, and to establish a level playing field in the regulated community so that those who comply with the law are not put at a competitive disadvantage with those who do not.

AfterissuingitsWaterQualityEnforcementPolicyandGuidanceonApril1996,thestateboard added 21 new positions statewide to improve enforcement activities. At the stateboard, the ComplianceAssurance and Enforcement (CA&E) Unit was created and each Regional Board identified an enforcement coordinator. Compliance Assurance and Enforcement Roundtable meetings are held regularly, providing a needed forum to discuss enforcement topics and disseminate information. Increased resources and an increased emphasis on enforcement have resulted in an increase in enforcement actions. For both FY 1997/98 and 1998/99 there was a 50 percent increase in formal enforcement actions over the previous five-year annual average.

Enforcement and compliance will remain a top priority for the State Board, as outlined in the 1998 Assurance and Enforcement Strategy. This document outlines a number of ways to improve tracking and performance objectives for the various Regional Boards to follow, as well as training programs for inspectors. The 1998 Strategy calls for an annual review and update of the goals contained in the Strategy.

The first annual update, entitled the 1999 Compliance Assurance and Enforcement Initiative, provided a blueprint for program improvements, including the development of an electronic self-monitoring report review, a yearly compliance “report card” and revised administrative procedures for self-monitoring report review.

Information Management

During 1997 and 1998, the Boards completed construction of local area networks and a statewide network greatly improving communication and data sharing among the State and Regional Boards.

In 1999 the State Board put Phase 1 of its System for Water information Management (SWIM) into statewide production. SWIM represents the first centralized database of water quality data. Enhancements to Phase 1 of SWIM will be developed during 2000.

The Water Rights Information Management System is in full use at the State Board. This system includes geographic information system functionality and will eventually be linked to SWIM.
The State Board administers a variety of grant and loan programs to improve water quality.

**Programs**

The State Board has numerous programs to protect water quality. The following programs were highlighted as activity levels increased significantly during this three-year time period:

### Nonpoint Source (NPS) Pollution Management Program

In December 1999, the State Board took a major step in addressing NPS pollution, the nation’s primary cause of water pollution. The Board adopted a Nonpoint Source Plan which went to the California Coastal Commission for adoption before being sent to the United States Environmental Protection Agency (USEPA) and the National Oceanic and Atmospheric Administration for approval.

The plan is the first in the nation to tackle both inland and coastal waters impacted by non-point source pollution, also known as polluted runoff. It adopts numerous management measures to reduce contamination originating from forestry, urban areas, marinas, recreational boating and hydromodification (e.g., dams, man-made channels, etc.). Measures include erosion and sediment control, harvest planning, pesticide management, maintenance of sewage facilities and controls on new building and road construction. The plan provides a 15-year strategy for fully implementing all measures and uses a three-tiered approach for addressing problems. The first tier involves self-determined implementation of management measures, second tier involves regulatory-based encouragement of Best Management Practices and the third, effluent limitations and enforcement actions. Public and stakeholder involvement and education are major elements of the program.

Simultaneously, the State Board continued to award federal CWA NPS Implementation Grants. The process involved targeting and allocating grant funds to water bodies in each Regional Board that most effectively addressed regional priorities. This process was conducted under the WMI according to the State and Regional Boards’ Strategic Plan.

### Financial Assistance Programs

**GRANT PROGRAMS**

- **CWA Section 305(j)/604(b) Water Quality Planning** - Eligible activities include development of watershed plans or other planning functions designed to resolve actual or potential water quality issues. Eligibility is limited to local governments, including city and county agencies, councils of governments and special districts.

- **CWA Section 319(h) Nonpoint Source Implementation Projects** - All projects must be consistent with a State or Regional Board WMI Plan. Eligible activities may include implementing best management practices for agricultural drainage, acid mine drainage, physical habitat alteration, channel stabilization, sediment control, hydrologic modification, dredging, silvicultural practices, septic systems, marine and boating activities, urban runoff, livestock grazing, irrigation water management and confined animal facilities. Eligibility is targeted at non-profit organizations, local governments, special districts and educational institutions; however, state and federal agencies may qualify if collaborating with local entities in watershed management or proposing a watershed management project of statewide significance.

**LOAN PROGRAMS**

- **State Revolving Fund (SRF)** - The SRF is a low interest loan program to construct publicly owned wastewater treatment and reclamation facilities, correct nonpoint source and storm water drainage pollution problems and estuary enhancement activities. For point source dischargers (i.e., wastewater treatment facilities, water reclamation facilities and some storm water facilities) the loan recipient must be a municipality. However, for nonpoint source discharges and estuary enhancement activities, the loan recipient may be a private party or non-profit organization in some instances.

- **Agricultural Drainage Management Program (ADMP)** - The ADMP is a program that provides low interest loans for land and facilities for the treatment, storage, conveyance, reduction and/or disposal of polluted drainage water. Qualifying activities include: surface impoundment’s, conveyance facilities, treatment works or facilities and discharge reduction facilities. State or local agencies are eligible for the loans.

For additional information, check: www.swrcb.ca.gov "Nonpoint Source".

### UNDERGROUND STORAGE TANK CLEANUP FUND

The primary function of the Underground Storage Tank Cleanup Fund (Fund) is to assist eligible owners and operators of underground storage tanks (UST) by (1) providing reimbursement up to $1.5 million for the cost of cleaning up unauthorized releases of petroleum from their USTs and (2) providing reimbursement up to $1 million for third party compensation claims.

The Fund will reimburse eligible costs incurred by current or former owners/operators of USTs for preliminary site assessment, soil and water investigation, corrective action plan implementation and verification monitoring. The Fund does not reimburse the costs associated with UST upgrades, replacement or removal.

During the three calendar year period 1997, 1998 and 1999, the Fund allocated $501 million to fund (1) cleanups of 3,754 new claims which were awaiting funding on the statewide priority list and (2) amendments for previously funded contaminated sites. From January 1, 1997 through December 31, 1999, eligible UST owners/operators received $488.5 million in assistance from the fund.
Confined Animal Facility Program

The State Board has developed a statewide Confined Animal Facility (CAF) Program to enhance the effectiveness of the individual programs of the Regional Boards through coordination and communication among all stakeholders. The statewide CAF Program has several components:

- State and Regional Board staffs meet regularly to coordinate program activities.
- State Board staff meets monthly with industry and other agency representatives to discuss program implementation and receive stakeholder input.
- The State Board has entered into a multi-party Partnership Agreement “Dairy Waste Management: An Integrated Approach to Education and Compliance.” Fifteen other signatories to the Agreement include various state and federal agencies, the University of California and the California Dairy Industry. This Agreement supports the Environmental Stewardship component of the California Dairy Quality Assurance Program as a voluntary cooperative government and industry education/facility evaluation program. It assists California dairy producers in meeting all state, federal, regional and local requirements relating to manure and nutrient management. The agreement’s core components include continuing education workshops for producers, the creation of Environmental Stewardship Farm Management Plans tailored to each dairy and on-site evaluation by a third party.
- Training for dairy owner/operators has been conducted for several years by the University of California and sponsored, in part, by the State Board. This effort is now being coordinated with the Partnership Agreement and has had strong interest and participation by dairy operators.
- Regional Dairy Enforcement Task Forces consisting of state, federal, and local agencies have been formed to coordinate enforcement efforts against CAF owner/operators who violate water quality regulations.

Bay Protection and Toxic Cleanup Program

The Bay Protection and Toxic Cleanup Program identifies toxic hot spots in enclosed bays and estuaries. Under this program, water and sediment samples from these water bodies were analyzed for toxic chemicals and the health of their biological communities. Based on these analyses, the Regional Boards designated some sites as toxic hot spots. Most of the affected Regional Boards have adopted cleanup plans for their toxic hot spots based on the State Board’s September 1998 water quality control policy for guidance in developing regional toxic hot spot cleanup plans. The consolidated plan was adopted by the State Board in June 1999.

Underground Storage Tank (UST) Program - Leak Prevention

The UST Program passed a major milestone on December 22, 1998, the deadline for upgrading tank systems to meet the stringent state and federal requirements for secondary containment, continuous monitoring and spill, overfill and corrosion protection. After December 31, 1998, only upgraded UST systems could receive fuel deliveries under California’s unique upgrade certificate program. From an original total of more than 150,000 in 1985, the universe of regulated USTs shrank to less than 60,000.

The older, bare-steel tanks, which had a high probability of leaking are all out of service, and the UST systems that were installed or upgraded after 1984 are designed and monitored to prevent leaks to the environment.

In 1999 Governor Davis’ Executive Order and new legislation mandated that the State and Regional Boards develop guidelines to:
- prioritize leaks cases based on groundwater vulnerability;
- allocate resources to regulatory oversight agencies primarily Regional Boards and Local Oversight Program agencies based on the priority rankings;
- establish time frames for completion of necessary site investigation and cleanup based in the prioritization scheme;
- perform field based research to find if new and upgraded USTs leak and make recommendations based on the findings;
- perform analysis to determine which provisions of the UST regulations need to be strengthened to protect water quality and human health, safety and welfare.
While MTBE has been used in California on a limited basis as an octane enhancer since the 1970s, its more widespread use to reduce air pollution began in 1992 when federal Clean Air Act requirements mandated use of an oxygenate in those areas of the country not meeting clean air standards.

Because it is both highly water soluble and slow to biodegrade, MTBE began to be detected in ground and surface waters in several areas of California, most particularly Santa Monica, the Lake Tahoe Basin and the Santa Clara Valley. Its appearance in groundwater was primarily the result of leaking underground fuel tanks and piping, with its appearance in surface water attributed to the use of two-stroke marine engines.

In June 1998, the Lawrence Livermore National Laboratory, under contract to the State Board, Department of Defense and the Western States Petroleum Association, published a study which, among several conclusions reached, stated that:

- MTBE is a frequent and widespread contaminant in shallow groundwater throughout California; and
- MTBE has the potential to impact regional groundwater resources and may present a cumulative contamination hazard.

In 1997 several pieces of legislation were signed into law to provide answers to questions about MTBE. Included was SB 521 requiring the University of California to prepare by January 1, 1999, a study and assessment on the health effects data for MTBE and other oxygenates and risks associated with their use. The State Board held two public hearings with the Governor's Office on public and environmental health risks associated with MTBE. Results from the hearings were used to develop measures to protect the environment from the gas additive.

In March 1999 Governor Davis issued an Executive Order calling for the removal of MTBE for gasoline by the earliest possible date, but no later than December 31, 2002. Also pursuant to the Governor's Executive order, draft guidelines for the investigation and cleanup of MTBE in groundwater were developed and submitted for peer review in December 1999.

## Plans And Policies

### California Ocean Plan

This statewide water quality control plan sets physical, chemical, biological and bacteriological standards for protecting the state's coastal waters. It lists beneficial uses to be protected and describes narrative and numerical water quality objectives to protect those uses. In 1997-1998, the State Board examined a number of high priority issues raised by the public during the triennial review process, and in 1998 six proposed Ocean Plan amendments were distributed for public review and comment.

**The six amendments involve:**

1. regulation of acute toxicity on ocean discharges;
2. revision of certain chemical water quality objectives for the protection of human health;
3. a new means of determining compliance with chemical water quality objectives;
4. a mechanism for special water quality protection near coastal waters;
5. revision of the Ocean Plan format and
6. administrative changes to the Ocean Plan.

### Inland Surface Waters Plan/Enclosed Bays and Estuaries Plan

The State Board is developing an Inland Surface Waters Plan (ISWP) and an Enclosed Bays and Estuaries Plan (EBEP), to complement the water quality standards and implementation program of the existing California Ocean Plan. Ultimately, these two plans will set water quality standards for toxic pollutants and establish an implementation program for non-ocean surface waters.

Work on the ISWP/EBEP began in 1987 with eight task forces, representing 11 interest groups, meeting to discuss key issues. In late 1996, the State Board and USEPA agreed to a unique cooperative arrangement to better utilize state resources. This effort will be completed in two phases. The current Phase 1 is being coordinated with USEPA actions to promulgate numeric criteria for priority toxic pollutants under the California Toxics Rule (CTR). Phase 1 consists of developing a policy for implementing the federal CTR criteria. The State Board held public hearings on a draft of the policy in 1997. A workshop on a second policy draft was held two years later. After public review of a third draft, the state Board will consider adoption. The policy is expected to be in place by the spring of 2000. Phase 2 will consist of developing state water quality standards for toxic pollutants and merging them with the implementation policy provisions to create the ISWP and EBEP.

### California Thermal Plan

In January 1971, the State Board adopted a water quality control plan to control the temperature of discharges to coastal and interstate waters and enclosed bays and estuaries of California (California Thermal Plan). Initiating a review of the Thermal Plan, the State Board held a public hearing in August 1998 followed by a review period where issues identified in the hearing were given priority. With the close of the review period, any proposed amendment to the Plan will be published by the State Board and then brought before the public at a hearing before being considered for State Board adoption.
**Waste Discharge Permits and Requirements**

**Waste Discharge Requirements (WDRs)**

Waste Discharge Requirements are permits issued to waste dischargers by the State and Regional Boards under the authority of the Porter-Cologne Water Quality Control Act. These permits place limits on the quality and volume of waste discharged to surface, land or groundwaters. Permittees are also required to conduct and report self-monitoring data. Regional Board staff conduct compliance inspections and when appropriate, apply enforcement remedies. WDRs cover many types of waste discharges, including sewage treatment plants, landfills, commercial and industrial wastewater, power generation facilities and storm water runoff. More than 21,000 activities are regulated with WDRs.

When the state issues WDRs for discharges to surface waters, such as rivers and coastal waters, these WDRs also take the form of National Pollutant Discharge Elimination System (NPDES) permits under the federal CWA. Thus, federal and state requirements are incorporated in one permit for such discharges. Of the 21,000 activities permitted with WDRs, approximately 17,200 are NPDES permits. Storm water runoff NPDES permits comprise the largest group of NPDES permits at approximately 15,000.

**Containment Zones**

In 1996, the State Board adopted controversial changes to this document allowing those cleaning up contaminated sites to leave some groundwater in place without further treatment. Since adoption the Board has been monitoring the implementation of the policy. There are four sites designated as containment zones: three in the San Francisco Bay Region and one in the North Coast Region.

**Storm Water**

In the last 10 years, the State and Regional Boards have implemented the federal NPDES permit program for storm water discharges. Storm water permits differ from permits covering municipal and industrial wastewater discharges where compliance is typically achieved through treatment controls. Compliance with storm water permits typically require permittees to manage activities to avoid pollutants being introduced to storm water runoff.

Storm water discharges are covered by statewide general permits and individual permits. Statewide general NPDES permits have been adopted for industrial and construction activities as well as for Caltrans activities. In 1997 the State Board reissued the statewide general NPDES permit for industrial activities. This permit covers 10 broad categories of industrial activities ranging from scrap recycling to electronics manufacturing. The statewide general NPDES permit for construction activities was adopted by the State Board in 1999. Typically, construction storm water permits apply to land disturbance of at least five acres. Also, in 1999 the State Board issued a general statewide permit to Caltrans. Individual permits are issued to municipalities and other situations not covered by general permits.

**General Permits**

In addition to general storm water permits issued by the State Board, the Regional Boards have increased the use of general permits for regulating waste discharges. General permits are used to regulate similar discharges with a streamlined process. The process involves a permittee enrolling in an existing permit rather than going through the process involved in adoption of an individual permit. By the end of 1999, the State and Regional Boards increased the use of general permits to approximately 80 percent of all activities regulated with WDRs.
A water right is a legal entitlement authorizing water diversions from a specific source for beneficial uses. In California there are two major types of surface water rights: riparian and appropriative.

Riparian rights come with ownership of land adjacent to a water body. A permit from the State Board is not required to divert under a riparian right. Riparian diverters must share the available water with other riparian right holders and the water must be put to a reasonable and beneficial use.

Appropriative rights are required of those users who wish to divert water away from its source or store water in the wet season for use in the dry season. The users must obtain a permit or license from the State Board to ensure the state’s waters are being put to the best possible use. These rights are subject to a priority system with “the first in time being the first in right.”

All water rights are subject to the state constitutional prohibitions against waste, unreasonable use, method of use and method of diversion. The State Board is required to see to the protection of instream uses such as fish and wildlife enhancement, recreation and aesthetic enjoyment.
BAY-DELTA WATER RIGHTS HEARING

The State Board opened an extensive hearing process for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta) during this time to implement the 1995 Bay-Delta Plan. A detailed Environmental Impact Report (EIR) was also released at this time for interested parties to review. The purpose of this monumental regulatory process is to receive evidence regarding the rights and responsibilities of water right holders in the watershed. Diversions within the watershed affect salinity and flow conditions in the Bay-Delta, which provides water to more than 22 million Californians and habitat for numerous fish and other wildlife.

The draft EIR, issued in November of 1997, drew hundreds of pages of comments from stakeholders and other interested parties. Because of the interest in the Bay-Delta proceedings, the usual 60-day comment period was extended. A supplement to the draft EIR was released in early 1998, with a comment period ending in July. Board staff continued to prepare responses while, in April 1998, the Board began public workshops on the Delta.

The Bay-Delta water rights hearing began July 1, 1998 and continued through 1999. The hearing is broken into phases so all parties wishing to testify about a specific subject can present their testimony and documentary evidence to the Board during the discrete phase instead of participating in the entire hearing. The hearing seeks to determine responsibility for meeting water quality objectives adopted in the 1995 Water Quality Control Plan.

The Board held hearings throughout 1999, and, in late December, adopted Decision 1641, which partially implements the 1995 Plan. Decision 1641 addresses the first seven phases of the Bay-Delta hearings. The Decision amends certain water rights by assigning responsibilities to the person or entities holding those rights to help meet the objectives.

The Water Board will take up the remaining portion of the Bay-Delta hearings, Phase 8, in 2000.
As the source of most of the domestic water in the Monterey Peninsula, the Carmel River, and the aquifer underlying it, has been overdrawn, reducing river flows and lowering the groundwater level. In 1995, the State Board ordered the California American Water Company (Cal-Am) to reduce its take of water from the Carmel River and its underlying aquifer. The lowered flow levels were damaging a historic wild steelhead run which is listed as a threatened species pursuant to the Endangered Species Act, in addition to harming riparian habitat.

The Board amended its 1995 decision in 1998, settling the litigation that arose from Cal-Am’s illegal river water diversions. From late 1996 through September 1997, Cal-Am’s total diversions from the Carmel River exceeded the water limits set forth by the State Board. Accordingly, the State Board proposed a fine of $168,000. In lieu of paying the fine, Cal-Am agreed to sell its Forest Lake Reservoir and invest the proceeds from that sale plus an additional $258,000 into a series of domestic water system improvements that provide improved fire protection for the Pebble Beach Community Services District.

The backers of the project initially proposed flooding four islands. This number was halved, with Webb Tract and Bacon Island proposed for water storage, and the remaining two islands, Bouldin Island and Holland Tract, to be used for mitigation. The proponents of the Delta Wetlands plan have done much environmental and other work to further their proposal. However, as unique as the proposal is, the Board, its staff and numerous other parties have many questions about the plan.

Some of the issues raised included buyers for the stored water, availability of water for storage, water quality, levee stability, seepage, nearby natural gas lines and endangered species. The State Board has hired a consultant to do additional work for the environmental impact report, with the proponents paying for the consultant’s work. The draft revised Environmental Impact Report should be released in spring 2000. The SWRCB is expected to conduct another hearing in September of 2000.

First proposed in the 1980s, the Delta Wetlands project for water storage came before the State Board for a hearing in 1997. During that hearing, the State Board heard more than 100 hours of testimony on the proposed project. Delta Wetlands currently proposes siphoning and pumping water onto two islands in the San Francisco Bay-Delta during the wet season, and storing the water for later use. The stored water would be held until the dry season when the water would be sold for export or increased Delta flow.

In the spring of 1998, Imperial Irrigation District (IID) and the San Diego County Water Authority (San Diego) entered into a “Long-Term Conserved Water Transfer” agreement. In July of the same year, the two parties filed a petition with the State Board for a long-term change of a water right permit held by IID. The California Water Code gives the State Board authority over long-term water transfers that involve a change in the point of diversion or change in place of use as proposed in the IID/San Diego transfer agreement.

Under the terms of the agreement, IID would undertake a variety of water conservation measures intended to make 200,000 acre-feet of water annually available for transfer to San Diego. IID would then sell that conserved water to San Diego. The transfer plan calls for the conserved water to be diverted at Lake Havasu, located on the Colorado River approximately 140 miles upstream of IID’s diversion point at Imperial Dam. The water would then be shipped to San Diego through the Metropolitan Water District’s (Metropolitan) Colorado River Aqueduct.

In December 1998, IID and the Coachella Valley Water District signed a memorandum of understanding regarding the proposed transfer and their respective rights to water from the Colorado River. Coachella and IID share a water right for Colorado River water. San Diego and Metropolitan previously settled disagreements regarding the “wheeling” or transporting of the water to San Diego.
IID, Coachella, and Metropolitan participated in negotiations throughout 1999 to resolve potential objections to the proposed transfer. The parties have received assistance from the Department of Water Resources and a special representative of the Secretary of Interior. In December of 1999, the parties agreed upon key terms to be included in a quantification settlement agreement regarding their use of Colorado River water.

In addition to participating in negotiations regarding impacts of the transfer on water users, IID, San Diego and the U.S. Bureau of Reclamation (the agency that controls water flows on the Colorado River) have begun work on an environmental document, to evaluate any potential environmental effects of the proposed transfer. The environmental document will be used by the State Board in its review of the water transfer petition filed by IID and San Diego.

**MONO LAKE**

The final chapter in the decades-long saga over water rights, protection of the public trust and reversing the environmental destruction of Mono Lake, came to a close in 1998 when the State Board adopted an order requiring specific stream and waterfowl habitat restoration matters in the Mono Basin.

The Board voted unanimously in 1994 to amend the water right licenses that authorize the City of Los Angeles to divert water from four streams that feed Mono Lake. The City’s diversions over a period of five decades had caused the water level of Mono Lake to drop precipitously. The Board’s 1994 decision scaled back the authorized level of diversions and instructed the City to prepare restoration plans for the four affected streams.

After several delays for completion of the restoration plans and negotiations, on September 2, 1998, the Board adopted WR 98-05. This order requires the City’s Department of Water and Power to implement specific stream and waterfowl habitat restoration measures for the Mono Basin. Two months later the Board approved an agreement regarding the criteria to be applied for determining when stream restoration monitoring may eventually be terminated. In 1999, the City began to implement the stream and waterfowl habitat restoration measures required by WR 98-05.

**RUSSIAN RIVER**

There are many parties vying for water from the Russian River. The result is that the State Board has some 80 separate water right applications for river diversion on file. To further complicate the challenge, the Russian River is home to a coho salmon run, an endangered species. The solution to the competing interests and environmental concerns will be a complex balance between the wants of prospective water users and environmental concerns.

Board staff has developed water right permit term conditions that will allow many applicants to secure water rights during part of each year. While some applicants will be satisfied with staff recommendations, others will no doubt seek to make their case before the entire Board. Meanwhile, the Federal Energy Regulatory Commission is considering Endangered Species Act protections on the Eel River diversion by Pacific Gas & Electric into the Russian River. This is likely to reduce the amount of water that can be appropriated from the Russian River.
SALINAS VALLEY SEAWATER INTRUSION

The Salinas Valley, one of the most productive agricultural areas in the world, has for decades been called the nation’s salad bowl. Each year thousands of acres are planted and the harvest shipped across the country. The value of the land in terms of its agricultural worth is several billion dollars annually. However, that crop production has come at a cost. To irrigate the land, agricultural wells have pumped millions of gallons of water from the groundwater basin. The aquifers are being depleted at a faster rate than they can be recharged and, as a result, seawater has intruded inland, contaminating two of three aquifers in the northern part of the Salinas Valley to varying degrees. In some places, the intrusion is miles inland and water from some agricultural wells is so brackish it will kill crops if used for irrigation. Percolation from fertilizer applications, septic tanks and unlined wastewater ponds has created a valley-wide problem of nitrate pollution.

The State Board has been closely watching both situations, believing the best solutions will come as a result of a consensus formed among the affected local parties. The other alternative available to stem the seawater intrusion is adjudication by the Board leading to a court order that would determine all rights to pump and use groundwater in the Salinas Valley. This option could seriously affect the area’s economic health. However draconian pumping limits may appear, they remain an option if seawater continues to move farther inland, continues to contaminate the aquifers and is not remedied by local action. To deal with the nitrate problem, best management practices need to be developed and followed if nitrate pollution is to be remedied. The Board is offering assistance to the local water agencies and users to help them develop solutions that are palatable to the local growers.

As the problems took decades to develop, so too, in all likelihood, will the solutions. Some measures, such as using injection wells to recharge the aquifers and using highly treated wastewater for irrigation, are already being tried. Additional pieces to the puzzle, such as increasing existing reservoir capacity to reduce the demand placed on well water and building a more extensive water delivery system, will be needed if the problem of seawater intrusion is to be stopped and reversed.
Regional Boards

OVERVIEW

California is divided into hydrological regions (watersheds) that form the boundaries for the nine Regional Boards. The Regional Boards are responsible for protecting surface, ground and coastal waters in their region. This challenging task recognizes each region’s difference in climate, topography, geology and hydrology. The Regional Boards must also consider all the competing uses of their water. They must balance the needs of the environment, industry, agriculture and municipalities.

Each Regional Board has nine, part-time members who are appointed by the Governor and confirmed by the Senate. The basis for pollution control in each region is its “Basin Plan” which identifies the region’s water bodies, their uses, objectives to protect those uses and a plan to achieve those objectives.

The Regional Boards issue waste discharge requirements (WDRs) and permits to control discharges to surface water, groundwater or wetlands, enforce pollution control requirements, take action against violators and monitor water quality.
REGION ONE

North Coast Regional Board

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 valleys, it accounts for just 15 percent of the State’s land area, but 40 percent of its freshwater runoff. Its 320-mile-long coastline includes numerous estuaries and several environmentally sensitive areas protected by state law. Recreation and tourism are mainstays of the local economy as is timber harvesting. The area’s population centers around Humboldt Bay and Santa Rosa. Headquarters for the Regional Board are in Santa Rosa.

Over the last several years the North Coast Region implemented the Russian River Action Plan which requires dischargers to meet high standards and prohibits wastewater discharges into the river during low-flow conditions. Of particular note is the Laguna Subregional Wastewater Treatment and Reuse Facility, the largest municipal discharger in the Russian River Basin and the Region. An average of 50 percent of its wastewater (3.6 billion gallons a year) is recycled for agricultural, industrial, municipal and wildlife habitat purposes on 5,500 acres of land. The disinfecting process at the facility was changed from gaseous chlorine to ultraviolet light in 1998, and future improvements include expanded irrigation and storage projects and injecting the treated water into the Geysers Steamfields to generate electrical power.

Regional Board staff implemented a petroleum cleanup process to expedite closure of UST cases, ensure protection of beneficial uses of water and address emerging issues such as MTBE by requiring adequate source removal and remediation at leaking tank sites.

The staff developed and implemented successful control strategies founded on Basin Plan actions which anticipated important water quality issues. Examples include the policy for on-site waste treatment for septic tank and associated discharges, an interim policy for USTs and water quality attainment strategies for reducing sediment in the Garcia River and Stemple Creek watersheds.

REGION TWO

San Francisco Bay Regional Board

San Francisco Bay lies at the heart of the Bay Region, home to over six million people. Industries range from high tech computers in “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 heavy urbanization of the region, there are still abundant natural resources, such as migratory birds and fish, in and around the Bay.

The San Francisco Bay Regional Board has put into action regulatory programs resulting in significant pollution reductions over the last 30 years, despite a growing population. They have also assessed over $6 million dollars in fines over the last eight years with about 70 percent of the money being used for local environmental projects.

Regional Board staff has implemented a vigorous enforcement and education program to control erosion from construction sites and, working with local agencies, cleaned up and closed more than 50 percent of the Region’s leaking UST sites. Working with USEPA, Regional Board staff completed most of the cleanup of the Gambonini mercury mine in Marin County. The Regional Board has also worked with local flood control agencies to develop projects that both offer flood protection and protect water quality and natural habitats.

The San Francisco Bay Regional Board has pioneered new ways of regulating water quality in the Bay Area. For surface water issues it has addressed the problem of invasive species and included them on the list of pollutants that are impairing the Bay. Regional Board staff began work on a TMDL for invasive species, working with the ports and the shipping industry. Other TMDLs include mercury and PCBs throughout the Bay and copper and nickel in the South Bay.

The Regional Board also continues significant watershed management efforts, working with stakeholders in Napa and Santa Clara Counties. Staff, working with local agencies in the area of pollution prevention, have used innovative approaches to deal with surface water issues. In the area of groundwater, staff have made detailed assessments of groundwater use in San Francisco and the East Bay Plain. These assessments helped to guide groundwater cleanup issues. Staff have also been working with various agencies to help implement “Brownfields” programs.

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The Central Coast Region extends from Santa Clara County south to northern Ventura County. Its 378 miles of coastline include urban Santa Cruz and the Monterey Peninsula, agricultural Salinas and Santa Maria Valleys and the Santa Barbara coastal plain. Agriculture and related food processing activities are the major industries.

In 1998, the Central Coast Regional Board, in conjunction with the state Attorney General and other agencies, settled with Unocal Corporation for environmental damage from leaking oil pipelines at two San Luis Obispo County locations - Avila Beach and Guadalupe Oilfield. Unocal will pay nearly $62 million in penalties and other assessments to fund various natural resource restoration and water quality projects.

With Regional Board staff support, an education outreach project to help farmers reduce erosion in the Elkhorn Slough watershed was started. The project was originally funded for two years at $55,000 per year, and was refunded at $75,879 per year for three additional years.

The Regional Board reached settlement with PG&E for $14.4 million for CWA violations at the Diablo Canyon Nuclear Power Plant. Funds will benefit the nearby Morro Bay Estuary, State Mussel Watch Monitoring, restoration and enhancement projects in San Luis Obispo County, and the State Cleanup and Abatement Account.

A newly created Watershed Branch, consisting of four separate units, is now focusing on integrating regulatory responsibilities, nonpoint source pollution control, regional monitoring and planning. This effort improves this Region's ability to identify and address high priority water quality issues with appropriate regulatory and non-regulatory tools.

A two-year strategy to implement watershed management in the Salinas River watershed is underway. A stakeholder list and inventory of agencies, groups and organizations active in the watershed has been completed, as has an assessment and evaluation of water resource issues and priorities and a draft watershed management action plan.

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

The activities of the Enforcement and Special Projects Unit, coupled with a strong enforcement effort, has been a primary focus of the Los Angeles Regional Board. This was highlighted in the past year by the issuance of more than $2 million in fines to 25 violators and the issuance of other formal enforcement actions against an additional 25 dischargers.

In preparing its Water Quality Assessment Report, Board staff determined that 166 surface waters, or portions thereof, are impaired and do not fully support their beneficial uses. Each must ultimately have a TMDL developed to address the impairment. Staff also assisted in creating a multi-agency Contaminated Sediments Task Force to develop a long-term management plan for dredging and disposing of contaminated sediments in the Los Angeles area. The Regional Board, in cooperation with the USEPA, is supervising the cleanup of the MTBE responsible for the closure of the city of Santa Monica’s water supply wells.

Since 1997, Regional Board staff has developed five Prospective Purchaser Agreements which have helped to bring non-productive properties back into productive use.

The Regional Board continued to implement its WMI for the Upper San Gabriel River during 1999. This “holistic” approach brings together all stakeholders in a defined watershed with the aim of cooperatively managing all potential point and non-point pollution sources. Stormwater and urban runoff are regulated by three permits covering the 95 cities and two counties within the Los Angeles Region.

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**REGION FIVE**

**Central Valley Regional Board**

The Central Valley Region is the state’s largest. It encompasses 60,000 square miles of the state, or about 40 percent of its total area. Thirty-eight of California’s 58 counties are either completely or partially within its boundaries. This region has a diversity of water protection issues ranging from mining and timber harvest in the north through urban areas and agriculture in the Central Valley to petroleum refining in the southern part of the region. Each part of this region provides its own unique set of challenges.

The Sacramento and San Joaquin Rivers, along with their tributaries, drain the major part of this large area into the Delta prior to emptying into San Francisco Bay. The Delta is also the focal point of the state’s two largest water conveyance projects, the State Water Project and the federal Central Valley Project. The southern third of the San Joaquin Valley contains the Tulare Lake Basin, a closed hydrographic unit except during extremely wet years.

Regional Board staff, headquartered in Sacramento with branch offices in Redding and Fresno, initiated watershed activities for over 500 stakeholders for the Sacramento River and Cache Creek. Working in cooperation with approximately 30 local agencies, they closed over 3,100 UST sites and developed “hot spot” cleanup plans to address dissolved oxygen and mercury problems in the Delta.

The Regional Board adopted the first-ever waste discharge requirements on agriculture to control selenium discharges from the Grasslands Watershed to the San Joaquin River. The Regional Board also improved the regulation of confined animal facilities, especially dairies and of the timber harvest industry. Septic tank standards were also adopted to help protect surface and groundwater quality in predominantly rural and foothill communities.

During the past three years the Regional Board continued to mitigate the effects of abandoned mine discharges of acids and heavy metals which were found to impact the Sacramento River system and the Delta. In 1999, staff and the East Bay Municipal Utilities District completed a $10 million cleanup at Penn Mines in Calaveras County to uncapsulate wastes, improve water quality and the surrounding environment.

The Regional Board also labored to restore the water quality at military bases such as McClellan, Mather and Castle Air Force Bases to facilitate the return of these properties to productive use.

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**REGION SIX**

**Lahontan Regional Board**

The Lahontan Region is named for a prehistoric lake which once covered much of the Great Basin. The region includes about 20 percent of California from the Oregon border south along the eastern Sierra Nevada crest through the northern Mojave Desert. Within this area are hundreds of lakes, streams and wetlands, including 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 newly formed Mojave National Preserve. Other important components of the region’s economy are mining (gold, borax, rare earth), agriculture (mostly livestock grazing) and several military bases. The Lahontan Regional Board has offices at South Lake Tahoe and Victorville.

The Regional Board completed environmental review for cleanup activities at regional military bases. It authorized, in coordination with the state’s Resources Agency, the payment of over $2.2 million from the Tahoe Keys Mitigation Fund to construct projects in the Lake Tahoe Basin.

The Regional Board completed a Watercraft Emission Study at Lake Tahoe and found measurable concentrations of MTBE and benzene in Lake Tahoe. Based, in part, on the results of the study, the Tahoe Regional Planning Agency adopted ordinances banning the use of carburated two stroke engines at Lake Tahoe.

Implementation of remediation activities in 1999 at Leviathan Mine (an inactive sulfur mine acquired by the state in 1984) included: completion of a treatability test and the treatment of 4.5 million gallons of acid mine drainage, revegetation of five acres of disturbed area, construction of treatment lagoons capable of passively treating AMD and the monitoring of flow and water quality at the site.

The Regional Board developed standards for clean up of soils contaminated with petroleum and settled a significant enforcement case involving the late submittal of reports by a mining company. The settlement established stipulated penalties for future violations.

Sampling of snowmelt and road runoff entering a tributary to Lake Tahoe showed the water exceeded Regional Board runoff standards for nutrient and suspended sediments. The Board issued a Notice of Violation to Caltrans, requesting changes in their operations. Subsequently, Governor Davis directed Caltrans to cease the practice.

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The Colorado River Basin Region covers California’s most arid area. Despite its dry climate, the Region contains two waterbodies of state and national significance: the Colorado River and the Salton Sea. The Colorado River irrigates more than 700,000 acres of productive farmland in the Imperial, Coachella, Bard, and Palo Verde Valleys, and provides drinking water to several million people in California’s southern coastal cities.

The Salton Sea Transboundary Watershed, which contains the Salton Sea, is the Region’s Priority Watershed. The Salton Sea is California’s largest lake and has been famous for its sport fishery and recreational uses. The board has actively addressing the sea’s salinity problem, which has threatened area wildlife since 1992.

Among this Board’s accomplishments are implementation of the State’s WMI through extensive stakeholder involvement and annual update of the Regional WMI Chapter, which includes a strategy for TMDL development and self-determined nonpoint source water quality control. For nearly two years, Regional Board staff has supported a stakeholder committee on TMDLs. Committee members have brought valuable input to the TMDL process, including the identification of Best Management Practices for sediment control and development of a stakeholder-based, local Farm Bureau Voluntary Watershed Program.

Regional Board staff has set into motion a progressive enforcement program, resulting in increased compliance by dischargers at permitted facilities. Staff was also instrumental in the passage of state legislation prohibiting new septic tank systems near sewer hook-ups within Mission Springs Water District service east of Palm Springs.

The Santa Ana Region continues to be one of the most rapidly growing areas of the state. While the region is geographically the smallest, only 2,800 square miles, it boasts one of the largest populations (almost five million people). Extensive groundwater basins underlie much of the Region, but local recharge provides only a fraction of the area’s water needs, which are primarily met by imported water. The Santa Ana River, the Region’s main surface water body, transports more than 125 million gallons per day of reclaimed water from Riverside and San Bernardino Counties for recharge into the Orange County Groundwater Basin. This satisfies approximately 40 percent of the county’s water demand. This semi-arid Region is known for its temperate climate and relatively low rainfall — about 15 inches per year. The Regional Board’s office is located in Riverside.

Regional Board staff has developed watershed management plans for the Region’s two highest priority watersheds, the Newport Bay Watershed and the Chino Basin Watershed Management Area. They have also developed TMDLs and plans to address beneficial use impacts caused by sediments and nutrients in the Newport Bay Watershed.

The Regional Board continues to address discharges from dairy and other confined animal feeding operations in the Chino Basin. These discharges degrade underlying groundwater quality and downstream surface water quality.

The Regional Board has helped develop a desalination project for the lower Chino groundwater basin to intercept and desalt poor quality groundwater and thus protect downstream water supplies. The staff have also brought together major stakeholders in the watershed to review the total dissolved solids and nitrogen water quality objectives of the Santa Ana Basin, develop a strategy to protect water quality and optimize water resources development.
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 rain falls within the semi-arid Region. Approximately 90 percent of the Region’s water supply is imported from Northern California and the Colorado River.

San Diego Regional Board staff completed a multi-year contaminated sediment cleanup project in the Commercial Basin portion of San Diego Bay by several boatyards. The Board also adopted permits for the South Bay Power Plant and San Diego Bay shipyards that will mandate significant reductions in waste loading to San Diego Bay.

The Regional Board took the lead in conducting the “Bight 98” regional ocean monitoring program in the area’s coastal waters. Staff coordinated a comprehensive San Diego Bay monitoring program with the Bight 98 project and adopted general waste discharge requirements to close abandoned landfills in the region.

Staff completed the 1998 water quality assessment, with efforts focused on targeted watersheds under the Regional Board’s watershed management approach. They also adopted the Regional Toxic Hot Spot Cleanup Plan for the San Diego Region.

Staff supervised a successful effort to bring all USTs on military bases in the region into compliance with state and federal regulations by the December 22, 1998 deadline. Customer service has improved significantly with upgraded record keeping and information management procedures, including initiation of electronic filing methods, for over 11,000 core files.

Regional Board staff continues to coordinate issuance of WDRs for U.S. Navy dredging projects to implement Home Porting projects in San Diego Bay. The U.S. Navy currently ports nearly a third of the active fleet in San Diego Bay.

During 1999, the board began development of action plans to remediate the regions impaired water bodies, and address pollution sources which have led to a growing number of beach closures.

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California Regional Water Quality Control Boards

North Coast Region (1)
5550 Skylane Blvd., Suite A
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San Diego, CA 92124-1324
(858) 467-2952
# State Water Resources Control Board

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Winston H. Hickox, Secretary for Environmental Protection

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