California Nonpoint Source Program – Annual Initiatives Report

July 1, 2009- June 30, 2010

State Water Resources Control Board
Regional Water Quality Control Boards
California Coastal Commission

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Executive Summary

The State Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Boards (Regional Water Boards) (Water Boards) together with the California Coastal Commission (Coastal Commission) are the lead State agencies for implementing the Nonpoint Source (NPS) Program through the *Plan for California's Nonpoint Source Pollution Control Program* (NPS Program Plan). Consistent with the goals and objectives specified in the 2008-13 NPS Program Five-Year Implementation Plan (NPS Implementation Plan the NPS Program at the State level continued to emphasize that the: (1) key elements of the "Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program" (NPS Implementation Policy) be integrated into the NPS-related programs of the Regional Water Boards and other agencies, as appropriate, and (2) NPS pollution control actions (e.g.; management measure [MMs] management, management practices [MPs]) be implemented consistent with total maximum daily load (TMDL) implementation plans and the U.S. Environmental Protection Agency (USEPA) nine-key elements of a watershed based plan.

During State fiscal year (FY) 2009-2010 activities continued to focus on implementing long-term solutions to solving NPS-related pollution problems by using a combination of regulatory tools and coordination within (intra) and between (inter) NPS-related federal, State, and local agencies. These coordination activities included continued efforts through and/or with the: (1) Irrigated Lands Regulatory Program (ILRP) to ensure that the elements of the state's NPS Implementation Policy are communicated to agriculture-related partner agencies (e.g.; California Department of Food and Agriculture [CDFA], California Department of Pesticide Regulation [CDPR], Natural Resources Conservation Service [NRCS]) and other agricultural stakeholders; (2) CDPR to address pesticide reevaluations (e.g.; chlorpyrifos, diazanon, pyrethroids, copper based hull paints), surface water regulations, and food safety issues; (3) Monterey Bay Sanctuary Water Quality Protection Program to coordinate water quality monitoring, volunteer programs, and support of agriculture MM/MP implementation; (4) Marinas NPS Workgroup with respect to the development of a statewide marina permit and copper hull paint alternatives; (5) Stream and Wetlands Workgroup for development of State Wetlands Protection Policy and tools designed to effectively manage wetland resources; and (6) State Wide Monitoring Programs to address the statewide perennial streams assessment, development of bio-objectives, bioaccumulation monitoring, and stream pollution trend monitoring. The State Water Board is also leading an effort in collaboration with the U.S. Department of Agriculture, Forest Service (USFS) and the pertinent Regional Water Boards in developing a new Water Quality Management Plan (WQMP) to address control of NPS pollution generated by various activities on National Forest System lands in California.

The NPS Program through Clean Water Act (CWA) Section 319(h) funds continued to implement projects necessary to meet priority TMDL reductions by funding fifteen (15) projects totaling over $4,194,660 ($5,996,727 when including project applicant matching funds). A coordinated effort between the State Water Board's TMDL and NPS Programs continues to help focus NPS implementation on high priority watersheds and on projects that address priority TMDLs. The Water Boards have identified 23 impaired watersheds to track progress and document improvements in water quality conditions using a watershed approach related to a key national performance measure in the USEPA 2006-2011 Strategic Plan, the Watershed Improvement Measure (also known as SP-12 or "Measure W"). For FY 2009-10, watershed-wide improvements were documented for the Newport Bay watershed (Santa Ana Regional Water Board [Region 8]) for improvement in water quality in two watershed units due to removal of diffuse sources of nutrients. Restoration of NPS Impaired Waters (also known as USEPAs measure WQ-10) was documented in Chorro Creek (Central Coast Regional Water Board

[Region 3]) for the restoration of body contact recreation and the removal of the low dissolved oxygen impairment. Nonpoint source success story reports for 11 additional water body segments, located in Central Coast Regional Water Board (Regions 3), Central Valley Regional Water Board (Region 5), and Lahontan Regional Water Board (Region 6), are expected in FY 2010-11.

The Regional Water Boards continued their efforts to control NPS pollution through a variety of NPS-related programs addressing the priorities specified in the NPS Implementation Plan. Consistent with the NPS Implementation Policy, most of the Regional Water Board NPS Program activities targeted the control of forestry (silviculture) and agriculture NPS pollution through the development and implementation of waivers of waste discharge requirements (WDRs). The North Coast Regional Water Board (Region 1) adopted Order No. 2010-0029 "Waiver of WDRs for NPS Discharges Related to Certain Federal Land Management Activities on National Forest System Lands", which brought over half of the North Coast Region land base under NPS Implementation Policy compliance. Consistent with the NPS Implementation Policy, the San Francisco Bay Regional Water Board (Region 2) has over 87% of all grazing lands in the Tomales Bay Watershed covered under a waiver and are developing a draft Grazing Waiver for the Napa River and Sonoma Creek watersheds. Region 2 is also developing a conditional waiver of WDRs for vineyards in the Napa River and Sonoma Creek Watersheds. Region 3 staff efforts were focused primarily on activities associated with renewal of their agricultural waiver program through Agricultural Order No. R3-2004-0117. The Los Angeles Regional Board (Region 4) continued to implement their Conditional Waiver of WDRs from Irrigated Lands and began working on the renewal process for this important regulatory option. Region 5 has focused its NPS Program efforts on a draft Environmental Impact Report (EIR) for the Long-Term ILRP required for renewal of their agricultural waiver, addressing salt accumulation in the Central Valley, and the San Francisco Bay-Delta water quality issues. The Colorado River Regional Water Board (Region 7) continues to coordinate with agricultural stakeholders on self-implemented MPs to reduce discharges from agricultural areas in the Imperial Valley. The Santa Ana Regional Water Board (Region 8) continues to develop a regulatory program for agricultural discharges to the San Jacinto River watershed through the Conditional Waiver of WDRs for Agricultural Dischargers Program or "CWAD". The San Diego Regional Water Board (Region 9) devoted most of its NPS-related staff resources to protection and restoration of wetlands and riparian areas.

Introduction

The State Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Boards (Regional Water Boards) (Water Boards) together with the California Coastal Commission (CCC) are the lead State agencies for implementing the Nonpoint Source (NPS) Program through the *Plan for California's Nonpoint Source Pollution Control Program* (NPS Program Plan). The purpose of the NPS Program is to improve the State's ability to effectively manage NPS pollution. The overall goal of California's NPS program is the prevention or control of NPS pollution such that none of the beneficial uses of water is impaired by that pollution. Our efforts are focused on promoting the following:

- Active implementation of the "Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program" (NPS Implementation Policy) by the Regional Boards, particularly through the agricultural waiver of waste discharge requirements (WDRs);
- Concentrating NPS pollution cleanup resources on total maximum daily load (TMDL) implementation priorities;
- Focusing overall efforts and resources on high priority watersheds and problems, as defined by priority TMDLs and other region-specific problems; and
- Acknowledging the balancing act required by programs to both clean up waters polluted by nonpoint sources, and preserve clean waters.

The 2009-10 Nonpoint Source (NPS) Program Annual Initiatives Report (NPS Initiatives Report) reflects the priorities established in the State's most recent long-term planning effort the 2008-13 NPS Program Five-Year Implementation Plan (NPS Implementation Plan). As such, the State is again focusing its annual reporting of NPS pollution control efforts in several major areas that the "core agencies" (e.g.; State Water Board, Regional Water Boards, and the CCC) have focused their efforts this past year. Some of these activities are specific to those aspects of the NPS Program for which the "core agencies" are solely responsible, and others take a broader approach and utilize multi-agency collaboration to address NPS pollution control.

Statewide Nonpoint Source Program Initiatives

The purpose of this section is to delineate these six (6) focus areas and the responsibilities of each of the "core agencies". These six (6) focus areas are: (1) education, outreach, and technical assistance; (2) financial assistance; (3) policy development and support; (4) interagency coordination; (5) critical coastal areas; and (6) monitoring. Each of the focus areas will be discussed with respect to the planned activities to achieve those goals during the implementation planning period from July 1, 2009 – June 30, 2010 and the methods used to assess the performance of the NPS Program in achieving the focus area goals

A. Education, Outreach, and Technical Assistance

This section addresses education, outreach, and technical assistance activities for the California NPS Program. Funding from the United States Environmental Protection Agency (USEPA), various State programs, and bond funds have been used to support technical assistance activities to the Regional Boards, and watershed and other groups who compete for these funds. Grants and contracts have also funded the compilation of management measure (MM) and management practice (MP) technology, and the transfer of this information to other

interested parties. Funds and other technical assistance are also provided to other State, and local programs, irrigated agriculture coalitions, and discharger groups. The NPS Program coordinates this assistance with the State Board's Clean Water Act (CWA) 404/401 Program, the National Pollutant Discharge Elimination System (NPDES) Storm Water Program, the Regional Board's irrigated agriculture waiver programs, University of California Cooperative Extension, California Water Board's Training Academy, and others.

1. Management Practice Miner

During the last year, State Board invested approximately $60,000 towards the updating of the existing Management Practice Miner (MP Miner), so that it can be used as an online tool for dischargers selecting MPs to address specific NPS pollution problems. The upgrades were completed in early spring of 2010. Among the numerous upgrades was a shift to a new server host which has provided a more stable and consistent online service.

State Board staff originally anticipated that 200 MP information sources (e.g.: studies, project results, etc.) would be evaluated and entered into the MP Miner each year. There have been approximately 120 MPs entered into the database to date. These MPs have been approved and are available for dischargers to view. MPs have been, and will continually be, reviewed and entered into the database. Due to State mandated furlough Friday hours (students are generally most available on Fridays for work), MP Miner re-programming and system upgrades and system issues, changes in State Board staff resources (loss of student workers matched with an inability to replace students due to a hard hiring freeze), the estimated annual 200 proposed study benchmark has not been met and has been adjusted to 50 per year.

During the last year, NPS students have reviewed and edited the previously input studies, finding a number of them incomplete and/or not relevant. These have been deleted, causing the overall total to be reduced. However, during this same time period the completed CWA 319h Implementation grant final reports have been reviewed (2002 – 2005) and input into the MP Miner, if the MPS provided Load Reducstions. Each year, the closed grant final reports will be evaluated for MP Load Reduction information and input into the MP Miner, if applicable.

2. Grants Reporting and Tracking System and Natural Resource Projects Inventory

The Grants Reporting and Tracking System (GRTS) and Natural Resources Projects Inventory (NRPI) are on-line, informational data bases which provide stakeholders with a wealth of information on the type and results of resource projects that have been completed in California. GRTS is the U.S Environmental Protection Agency's (USEPA's) main reporting vehicle for the CWA 319h Program. It enables USEPA and States to describe the progress they have made in implementing the national NPS Pollution program. GRTS tracks projects and activities funded with CWA 319h funds. NRPI began as a collaborative effort between UC Davis Information Center for the Environment (ICE) and the California Biodiversity Council (CBC) in 1997. In response to a growing need for more project related data on California's natural resources, existing inventories were synthesized into one database and thousands of new projects were added through individual online entries and electronic database transfers. Today, NRPI is the most comprehensive statewide database of its kind in California with over 8,000 natural resource projects searchable on the Internet. These projects include watershed conservation and acquisition, restoration and noxious weed eradication, assessment, planning, and scientific studies.

State Board NPS Program staff in the Division of Water Quality (DWQ) is now responsible for the updating and compliance issues as they relate GRTS. The database had previously been

managed and overseen by the State Water Board's Division of Financial Assistance (DFA). However, in December of 2009 it was determined that DWQ staff would now be undertaking this task, which includes the requesting and uploading of annual Load Reduction information.

In January 2010, USEPA imposed an April 30, 2010 deadline for all non-compliance issues in GRTS to be corrected and NPS staff met this deadline on March 31, 2010. US EPA mandate was to correct and make accurate all grant information in GRTS from 2002 through 2009. Approximately 107 grants in GRTS were reviewed for accuracy and inclusion of all required documents, mapping, reports, load reductions, data and administrative information. All missing information was obtained by NPS staff from DFA, the Grantee or the Regional Water Board liaison. During this same time period, staff gathered and input all annual Load Reduction information into GRTS to meet the February 2010 deadline. NPS staff attended USEPA's GRTS annual training in Phoenix, Arizona in December 2009 and has completed numerous on-line webex trainings. NPS staff will now house and maintain all closed CWA 319h files in DWQ.

During June 2010, NPS staff coordinated with staff from UC Davis on updating the NRPI database to ensure that all closed CWA 319h information have been entered into both GRTS and NRPI databases and that there were no conflicts in the reported information. Approximately 50 conflicts of information were identified by UC Davis staff and all conflicts have been resolved.

3. Sponsor Technical Outreach Workshops

Efforts toward the achievement of this activity included the sponsoring of technical outreach workshops in collaboration with the State Water Board Training Academy (Training Academy). On May 5, 2010 a workshop called, *A TMDL Road to Watershed Restoration – Doing Them, Implementing Them, and Monitoring Their Effectiveness* took place at the Siskiyou Masonic Lodge in Mt. Shasta City. The Workshop provided a regional and statewide perspective on how TMDLs can be used to inform coordinated watershed planning and to promote the successful implementation of NPS pollution related projects. Topics included: What is a TMDL and how are they Implemented in California (Wilson Yee, USEPA), Tomales Bay TMDL (Carmen Fewless, San Francisco Bay Regional Water Board [Region 2]), Assisting Landowners with the Tomales Bay TMDL (David Lewis, UC Cooperative Extension [UCCE]), Implementation of the Shasta River TMDL (Andy Baker, North Coast Regional Water Board [Region 1]), Assisting Ranchers with TMDL Implementation and Water Quality Monitoring in the Shasta River (David Webb, Shasta Valley Resource Conservation District [SVRCD]), Tailwater Revealed - Uncovering How Agricultural Runoff Impacts Water Quality in the Shasta Valley (Lisa Unkefer, Aquaterra Consulting), Addressing Low Flows in TMDLs - Shasta River TMDL Case Study (Samantha Olson, State Water Board Office of Chief Counsel), Garcia River TMDL (Jonathan Warmerdam, Region1), and Strategies for Monitoring the Effectiveness of TMDLs (Jim Harrington, California Department of Fish and Game [CDFG]). There were a total of 42 individuals in attendance which included 5 federal, 5 public, 4 local and 28 state participants.

After the workshop, attendees participated in a one-day field tour that focused on the implementation of the Shasta River TMDL. The Shasta River meets the Klamath River near the Oregon border and has historically been one of the most productive salmon rivers in the state, as such, it has a high potential for salmon spawning restoration. Grazing and flood irrigation practices over the past 150 years have severely impacted the salmon fishery by increasing stream temperatures and lowering dissolved oxygen levels. The success of implementing the sediment and temperature TMDLs are incumbent on partnering with local landowners and agencies, such as the Shasta Water Association, one of four irrigation districts in the Shasta Valley that serves approximately 160 water users and diverts a total of 42 cubic feet per second

from the river. There were a total of 38 individuals in attendance for the tour with 4 federal, 3 public, 2 local and 29 state participants.

Figure 1: Field Tour at Big Springs Ranch - Mt. Shasta Area During Lecture About Salmon Life-cycle and Habitat on Big Springs Ranch.

To date, the State Water Board has provided over $2 million in grant funds to implement the Shasta River, temperature and dissolved oxygen TMDLs. A total of $735,490 (2005-06 Consolidated Grants Program) funded a Tailwater Reduction: Demonstration and Implementation Project (Phase 1) and $751,442 (2008 CWA 319h NPS Implementation Grant Program) funded Shasta River Watershed Tailwater Reduction Project (Phase 2). Approximately, $635,000 (2005-06 Consolidated Grants Program) funded the removal of one of the five flashboard dams that was part of existing water conveyance structures and replaced it with a new water diversion structure, fish screens, pumps, and irrigation efficiency measures (see Figure 2).

The workshop and tour were funded by the Training Academy and all presentation material is available on their website. Further information on the Shasta River watershed can be accessed on-line at Protect Our Waters Coalition which was formed to ensure the ecological and hydrological integrity of Mt. Shasta's unique headwater areas for future generations. Current members include Trout Unlimited, California Trout, and the McCloud Watershed Council.

The California Department of Pesticide Regulation (CDPR) is the lead agency for regulating the registration, sales and use of pesticides in California. The Water Boards are the lead agencies for coordinating and controlling water quality in California. A training class was developed and provided on February 26-27, 2010 in cooperation with the CDPR that provided an overview of their regulatory authorities, registration processes, environmental monitoring, licensing, pesticide use reporting, and enforcement responsibilities. Emphasis was put on the integration of CDPR's and the Water Board's water quality protection programs. The target audience was

Figure 2: Former Araujo Dam site, with new water diversion and fish screens.

CDPR and Water Board staff that deal with water quality and pesticide issues. Water Board staff and members of the following groups that benefited from this course include: irrigated lands regulatory program; NPS Program; TMDL program; watershed program; basin planning program; and other water quality protection programs. Staff from various programs within the Water Boards and CDPR, county agricultural commissioners, and representatives from other agricultural agencies was the instructors and presenters. Further information and presentations are available at the Training Academy website.

4. USEPA's Watershed and Water Quality Improvement Measures

Restoration of NPS Impaired Waters (also known as USEPAs measure WQ-10 or Success Stories) highlight waterbodies identified by states as being primarily nonpoint source-impaired and having achieved documented water quality improvements. In order to qualify as a Success Story, projects must have received funding from CWA 319 and/or other funding sources dedicated to solving NPS impairments. Water quality improvements are demonstrated through the achievement of water quality standards for one or more pollutants/uses (i.e., removal from the state's CWA section 303(d) list of impaired waters); measured in-stream reduction in a pollutant; or measured improvement in a parameter that indicates stream health such as increases in fish or macroinvertebrate counts. These stories also describe innovative strategies used to reduce NPS pollution, the growth of partnerships and a diversity of funding sources. During the 2009-10 FY a Success Story was documented in Chorro Creek (Central Coast Regional Water Board [Reion3]) for the restoration of body contact recreation and the removal of the low dissolved oxygen impairment. Nonpoint source success story reports for 11 additional water body segments, located in Region 3, Central Valley Regional Water Board (Region 5), and the Lahontan Regional Water Board (Region 6), are expected in FY 2010-11.

The Water Boards have identified 23 impaired watersheds (referred to as "watershed of focus") to track progress and document improvements in water quality conditions using a watershed approach. This is related to a key national performance measure in the USEPA's 2006-2011 Strategic Plan, the Watershed Improvement Measure (also known as SP-12 or "Measure W"). The measure tracks watersheds where water quality conditions have improved by utilizing a watershed approach. One of the primary purposes of this measure is to model and demonstrate

the effectiveness of the watershed approach. For FY 2009-10, watershed-wide improvements were documented for the Newport Bay Watershed (Santa Ana Regional Water Board [Region 8]) for improvement in water quality in two watershed units due to removal of diffuse sources of nutrients.

5. 2009-10 Water Board Annual Performance Report

The Water Boards' Annual Performance Report offers an overview to the general public of the Water Boards' efforts to protect and allocate the State's waters. This report is a feedback tool to help guide the Water Boards' performance. The second edition of the Water Board Annual Performance Report (2009-10) includes water allocation responsibilities and funding programs in addition to the core water quality regulatory programs that were reported in 2008-09. On-going efforts continue to improve the types of information presented in this report.

The NPS Program Unit provided information for three "report cards" that were included in the 2009-10 Annual Performance Report. One "report card" is the CWA Section 319(h) funding card which includes information regarding the CWA Section 319(h) Grant Funding allocation and load reductions, for more information see the Funding Card. The other two "report cards" include information on the restoration of impaired waters that are tracked and documented as key performance measures for USEPA's 2006-2011 Strategic Plan. USEPA's Watershed Improvement Measure (also known as SP-12 or Measure W) was established to demonstrate the effectiveness of the watershed approach in improving water quality conditions in certain impaired watersheds called "watersheds of focus". USEPA's Restoration of NPS Impaired Waters measure (also known as WQ-10) identifies impaired water bodies on CWA Section 303(d) list that have been partially or fully restored as a result of various NPS control activities. For more information on the Water Boards' progress on these two national performance measures please see the Plan and Assess Card.

Performance Review: As in all efforts concerning technical assistance, education, and outreach efforts, the evaluation of their benefits as it relates to water quality improvement are sometimes difficult to measure. The NPS Program did, for the most part, accomplish its primary activities as delineated in the FYP: (1) continuing to update the MP Miner and the new task of managing the GRTS database and making them more effective tools for disseminating practical information on MM and MP implementation; (2) sponsoring technical outreach workshops concerning the implementation of TMDLs; (3) working with CDPR in the presentation of a "CDPR/SWRCB 101" class to increase the integration of CDPR's and Water Board's water quality protection programs; (4) addressing national performance measures for USEPA's Strategic Plan related to Success Stories and Measure W accomplishments; and (5) providing information for and development of two "report cards" for the Water Board's 2009-10 Annual Performance Report. An increase of proposed presentations of the MP Miner tool using "face to face" opportunities with agricultural coalition dischargers in the Region 5 and through State and Regional Water Board roundtables is planned for the coming year. This will provide expanded opportunities for assessing the impact of these presentations on actual "on the ground implementation" of the MMs and MPs. The Water Boards also plan to continue our commitment to completing additional Success Stories and Measure W analyses over the coming FY.

B. Financial Assistance

This section focuses on activities that direct financial assistance to support the clean-up and prevention of NPS pollution, and the restoration, preservation and enhancement of California's water quality.

Over the last decade, financial resources available to address NPS water quality impairments in California have been inadequate to address the full measure of the task. Funds have been made available from both the federal and State government. In addition to the $4 – 5 million CWA Section 319 funds directed annually towards restoring impaired waters, the State has also received funding through bond measures. State Revolving Fund (SRF) loans, and opportunities to leverage compliance penalties or settlement funds, such as Supplemental Environmental Projects (SEPs) have also been available. As the need for additional funding to address NPS pollution sources increases with our understanding of the problem, and funds remain stagnant or begin to decline, our need to better tap and leverage these resources also increases.

The following activities were identified to achieve the goals for this focus area by strategically targeting personnel and financial resources of the NPS Program to achieve measurable NPS pollutant load reductions and water quality improvements. These include activities that direct financial assistance to support the clean-up and prevention of NPS pollution, and the restoration, preservation and enhancement of California's water quality:

1. Coordinating with Partner Agencies

This activity proposed working with partner agencies to ensure that the state's NPS Program objectives are supported in grant, or "assistance agreement", solicitations and contracts. State Board NPS and Irrigated Lands Regulatory Program (ILRP) staff has participated in the quarterly National Resource Conservation Service (NRCS) State Technical Guide Committee (STGC) meetings. In partnership with and parallel to the CDPR-ILRP Focus Group, State Board staff have acted as technical liaisons to the STGC supporting not only Integrated Pest Management (IPM) and pesticide application technology and methods, but also other key State Board concerns like nutrient management, food safety, soil erosion and other NPS pollution concerns.

Also, the State Board staff has been involved with NRCS over the last year to gain an understanding of the Federal Farm Bill and the process used to rank and fund agricultural projects with interest in promoting the ILRP and identifying links between the NRCS and the ILRP. Toward this end State Board staff has been participating in the NRCS' State Technical Advisory Committee (STAC) and Local Working Groups. Through this increased involvement State Board staff was able to lobby for a couple of ILRP related projects in the Central Valley and Central Coast that were funded by NRCS under the Agricultural Water Enhancement Program (AWEP). It is anticipated that as the ILRP evolves, additional projects will be identified and ranked through the NRCS process, specifically under AWEP. The AWEP is a new program established in the 2008 Farm Bill. It is a voluntary conservation initiative that provides financial and technical assistance to agricultural producers to implement agricultural water enhancement activities on agricultural land for the purposes of conserving surface and ground water and improving water quality. As part of the Environmental Quality Incentives Program (EQIP), AWEP operates through program contracts with producers to plan and implement conservation practices in project areas established through partnership agreements. Under AWEP, the NRCS enters into partnership agreements with eligible entities that want to promote ground and surface water conservation or improve water quality on agricultural lands. In 2009, 15 partner groups were selected to work with NRCS California toward mutual natural resource goals. The goals of the AWEP program dovetail very nicely with the goals of the ILRP.

2. Management of Annual Solicitation of CWA 319 Implementation Project Funds

The management of the annual solicitation (Request for Proposal [RFP]) for CWA 319 funds to support NPS pollution planning /assessment and implementation projects was specifically targeted towards the restoration of impaired waterbodies or watersheds using the results of the Water Boards' TMDL and CWA 303(d) Programs. There was an estimated $10.4 million in the annual CWA 319 Grant with approximately $4.2 million allocated to projects. This was the first year that the project funding was split between planning/assessment and implementation projects.

The State Board's two phase, solicitation process began in October 2009 with the receipt of 60 concept proposals (CPs) requesting $28.8 million in grant funds and ended with the consideration of 19 full proposals (FPs) requesting $12.7 million. The CPs and FPs were reviewed by a committee composed of Water Board and USEPA NPS Program staff. Eight (8) planning/assessment projects totaling $842,707 and 7 implementation projects totaling $3,351,953 were recommended to the State Water Board for funding - a total of $4,194,660 (see Table 1). On April 22, 2009 the State Water Board adopted the recommendation to fund the 15 projects.

3. Expanding the Use of State Revolving Funds for NPS Implementation Projects

This activity seeks to expand the use of the SRF in California to include NPS MM implementation projects by providing outreach and education to the NPS pollution community to explain and encourage the use of SRF as a possible funding source. Although SRF has been limited to large infrastructure loans, NPS pollution implementation projects are eligible. The NPS Program will continue to work with stakeholders to encourage innovative uses of the SRF for projects by providing information about SRF Expanded Use Loans (Estuary, Stormwater and NPS) known as Principal Forgiveness Loans (PFLs). These PFLs are a possible NPS funding source, as the loan amounts are 'forgivable' when certain agreed upon circumstances and terms are met by the applicant. In the past, many of the NPS projects could not be funded under the SRF program due to the applicant's inability to qualify for repayment of the loans.

This potential drawback to funding has been examined by NPS staff during the last year and it has been determined that groups such as the ILRP Third Party Coalition (Coalition) groups can apply for and possibly qualify for these loans using their membership fees as repayment funds. Additionally, it is also a possibility that some NPS projects could be funded through the Disadvantaged Communities funds which can also be a benefit to the above mentioned Coalition groups as they begin to implement MPs to address groundwater issues. NPS staff will provide this information via outreach and education to the NPS pollution community.

NPS DWQ staff collaborated with the DFA and TMDL staff in an effort to have priority NPS pollution implementation projects included on the SRF project lists. There are currently numerous NPS projects on the SRF Priority List that also appear on the NPS Regional Board TMDL Preference List which is used to prioritize CWA 319h grants during the annual NPS RFP process. This list has now been and will continue to be provided to DFA in an effort to help focus SRF funding towards adopted and/or soon to be adopted TMDLS in each of the Regional Water Boards.

Table 1: 2009-10 Clean Water Act 319[h] Planning/Assessment and Implementation Project Grants

Regional Board No.	Project Type	Amount Funded ($)	Match Funding ($)	Project Name	Project Description	TMDL Water Body (s) and Pollutants Addressed
1	Planning/ Assessment	95,761	45,532	Scott River Groundwater Study Plan Program	Develop a Ground Water Model to determine the relationship of ground water to water temperature in the Scott River watershed, monitor ground and surface water, and map stream geomorphology.	Scott River Watershed - Sediment and Temperature
2	Planning/ Assessment	125,000	50,000	Developing Prioritization Criteria for Reach-Scale Enhancement and Incision/Erosion Projects in Sonoma Creek Watershed	Produce a science-based methodology and set of criteria to prioritize stream restoration sites in the Sonoma Creek Watershed. The resulting methodology and field data required for normalizing, cross-comparing, and ranking reaches relative to their sediment loading will be captured in a digital spatial analysis system that will be used as a foundation for decisions for future restoration sites.	Sonoma Creek-sediment
2	Planning/ Assessment	100,000	99,500	Napa River Sediment TMDL Monitoring Program	This project will establish an integrated monitoring program to assess effectiveness in attaining the numeric targets listed in the Sediment TMDL and track trends in steelhead and salmon populations in the Napa River Basin.	Napa River-sediment
3	Planning/ Assessment	125,000	0	Pinto Lake TMDL Planning and Assessemnt Project	The project will identify sources and potential implementation solutions to eradicate/reduce cyanbacteria and toxicity in the closed system.	Pinto Lake -Cyanobacteria hepatotoxic microcystins

Regional Board No.	Project Type	Amount Funded ($)	Match Funding ($)	Project Name	Project Description	TMDL Water Body (s) and Pollutants Addressed
5	Planning/ Assessment	75,000	27,703	Bear Creek Ranch Mercury Reduction Plannning Project	The Bear Creek Ranch Mercury Reduction Planning Project will create shovel-ready projects for reducing mercury-enriched sediments in Bear Creek and Cache Creek from previously identified depositional zones on the Bear Creek Ranch.	Bear Creek, Sulfur Creek and Cache Creek-Mercury.
5	Planning/ Assessment	125,000	78,690	Planning for Delta Meylmercury TMDL Implementation (Phase I Control Studies) for Wetlands and Irrigated Ag	This project will facilitate and coordinate compliance with Phase 1 of Delta Mercury Control Program outlined in the draft Sacramento-San Joaquin Delta Methylmercury TMDL and Basin Plan Amendment (BPA) that the Central Valley Regional Water Quality Control Board (CV-RWQCB) is currently developing.	Delta-Mercury
6	Planning/ Assessment	71,946	43,000	Squaw Creek Restoration Preliminary Design	The project will build on existing conceptual designs to restore the channel alignment to its natural condition; improve connectivity between the creek and floodplain; increase water storage capacity through ponds, wetlands and floodplain storage; address bank erosion and failing rip-rap with biotechnical stabilization features; and develop instream aquatic habitat enhancements.	Squaw Creek-Sediment

Regional Board No.	Project Type	Amount Funded ($)	Match Funding ($)	Project Name	Project Description	TMDL Water Body (s) and Pollutants Addressed
8	Planning/ Assessment	125,000	70,000	Implementation of Nutrient TMDLs in the San Jacinto WS Through a Feasibility Assessment for Pollutant Trading for Ag Operators and the Development of a BMP Database Tool	Implementation of nutrient TMDLs for ag operators through development of a feasibility assessment for pollutant trading in the San Jacinto Watershed. The water quality trading (WQT) feasibility assessment will consist of 1) BMP Identification, 2)a pollutant suitability analysis and 3) an economic suitability analysis.	Lake Elsinore (nutrients, sedimentation, siltation and unknow toxicity) and Canyon Lake (nutrients, high bacterial indicators)
1	Implementation	500,000	250,000	Redwood Creek Sediment Reduction Project	This project will reduce excess sediment production by implementing cost-effective erosion control measure applied to high prioirity roads along th exiting network in Redwood Creek.	Redwood Creek, Bridge Creek and Lacks Creek - Sediment
2	Implementation	453,664	344,942	Tomales Bay Pathogen Reduction BMPs on Parklands	Point Reyes National Seashore (PRNS) in collaboration with ranch operators and local, State and Federal agencies plans to implement a series of pathogen Best Management Practices (BMPs) at select locations within the agricultural lands managed by the National Park Service with the Tomales Bay Watershed. The implementation of these BMPs will reduce pathogen loading into storm water runoff delivered to Tomales Bay.	Tomales Bay and its main tributaries (Lagunitas, Olema and Walker Creeks) are listed for pathogens, sediment, and nutrients. Walker Creek is also impaired for mercury.

Regional Board No.	Project Type	Amount Funded ($)	Match Funding ($)	Project Name	Project Description	TMDL Water Body (s) and Pollutants Addressed
2	Implementation	300,000	118,000	Implementing the Fine Sediment TMDL in the Napa River Watershed Through the Fish Friendly Environmental Cert Program	The FFF program is a comprehensive and incentive-based method for improving land management practices to improve water quality and habitat on private lands. A priority under this grant will be to enroll landowners and landmanagers with hillside vineyards, as these sites tend to have greater numbers of erosion sites, and landowners and land managers with sites along the Napa River, in order to increase restoration actions.	Napa River-sediment
3	Implementation	465,500	276,900	Morro Bay Ag Water Quality Enhancement Program	This Project will complete design and implementation strategies for agricultural water quality improvement projects that will result in significant reductions in pollutant loading to Morro Bay. Farm projects will focus on improvements in irrigation efficiency and nutrient management. Ranch projects will include riparian fencing and off-creek watering systems, manure management systems, and other proven techniques for reducing inputs of nutrients and pathogens into waterways.	Los Osos Creek (fecal coliform, nitrates, sedimentation), Morro Bay (pathogens, sedimentation), Warden Creek (fecal coliform, nitrate), Chorro Creek (E. coli, fecal coliform, nutrients, sedimentation/siltation)
5S	Implementation	782,789	78,000	Wetlands Mgmt and Ag Organic Matter Reduction to Decrease Methylmercury Loads from the Cosumnes River Preserve	The project seeks to reduce methylmercury discharge loads from the Cosumnes River Preserve's managed wetland units and organic rice operations. Data collected during this proposed project would then be used in conjunction with exisitng data to develop and implement an initial management strategy to attempt to control and/or limit methylmercury production and subsequent discharges back into the Lower Cosumnes and Mokelumne Rivers.	Sacramento-Joaquin Delta-Methylmercury

Regional Board No.	Project Type	Amount Funded ($)	Match Funding ($)	Project Name	Project Description	TMDL Water Body (s) and Pollutants Addressed
6S	Implementation	250,000	86,000	Coldstream Canyon Floodplain Restoration	The project supports the Truckee River TMDL: sediment from dirt roads, urban areas, legacy erosion sites. Cold Creek is one the top sediment contributors to the TMDL. The project will reduce sheer stress and create 2.5 acres of new floodplain, capturing sediment and slowing flows. This will reduce sediment delivery to Cold Creek and the Truckee River, and improve habitat for macroinvertabrates, fish and birds.	Truckee River-Sediment
9	Implementation	600,000	233,800	SIYB Copper Hull Paint Conversion Project	The project will also develop a vessel tracking database to document and track all hull paint conversion over the entire TMDL period. This project proposes to convert approximately 250 boats from copper to non-copper hull paint to permanently reduce the dissolved copper load The reduction in copper loading will directly achieve water quality benefits in SIYB which is impaired for dissolved copper. This project will also be valuable to other copper-impaired areas as it aims to bring more attention to the feasibility and use of non-copper alternatives.	San Diego Bay-Copper
Planning/Assessment Projects		842,707	414,425			
Implementation Projects		3,351,953	1,387,642			
Program Totals		4,194,660	1,802,067			

4. Coordination with Integrated Regional Water Management Program

The California Department of Water Resources (CA DWR) is currently administering $1 billion through its Integrated Regional Water Management Program (IRWMP) for both water quality and supply projects. This resulted in approximately 50 Regional Acceptance Process (RAP) interviews statewide. NPS Regional Water Board staff participated in the review process and meetings with CA DWR for projects within their Regional boundaries, in an effort to coordinate funding sources that could be used to implement NPS projects. State Board NPS staff was not able to attend meetings or participate in these reviews during this year due to time and travel constraints, however, does anticipate increased participation in this process over the next three (3) years.

Region 2 NPS staff works closely with the Bay Area IRWMP. In 2009-10 NPS staff attended all Coordinating Committee meetings (the main group working on IRWMP) and was also on the two subcommittees: (1) Planning and Process and (2) Project Selection. NPS staff have commented on the RAP and the planning application and worked with other partners on implementation project development. Staff also reviewed applications for Proposition 50 proposals. Staff is not reviewing the Prop 84 planning proposal since Region 2 has only one IRWMP in the Region and the DFA-State Water Board has decided to review the application. NPS staff is expected to remain closely involved with the IRWMP process in the coming year.

Region 3 NPS staff reviewed and provided comments on the Planning and Implementation Proposal Solicitation Packages (PSPs) and Guidelines for Propositions 84 and 1E. Staff also communicated Region 3 priorities to the IRWM area contacts via phone/email, including developing and circulating two concept proposals for the IRWM areas. These concept proposals were: (1) Healthy Functioning Watersheds: Irrigation Efficiency and Nutrient Management on Agricultural Lands and (2) Healthy Functioning Watersheds: Green Infrastructure and the Preservation and Protection of Hydrologic Processes. NPS staff participated in IRWM technical reviews and consensus meetings with CA-DWR for planning proposals and on November 18, 2009 hosted IRWM Implementation Solicitation Workshop at the Regional Board headquarters.

In 2009-10 Region 5 NPS staff continued to provide support for the IRWM. Staff participated in the regional application process (RAP reviews, interviews and recommendations), proposal solicitation process (PSP for Proposition 50 and 84 monies), and development of Regional Board program descriptions and priorities. IRWM meetings during 2009 included RAP application review, RAP coordination, RAP interviews, communication with regional entities, and ongoing support for regional entities. Twenty-three (23) RAP regional entities were approved for the Central Valley Region. The PSP is through review and will be released in 2010 providing monies are made available. A primary goal of Region 5 IRWM participation is to include water quality programs and goals (NPS, TMDLs, Cental Valley Salts, irrigated lands program, etc.) in the IRWM process. Staff has created information papers on specific priority issues for use by the regional management entities so that they are informed about water quality issues in their regions. NPS Program staff will continue to participate in the IRWM program to assure water quality concerns are included in technical and funding processes. Although funding sources remain uncertain, the IRWM process will likely be the structure through which funding for water supply and water quality enhancement is distributed to regional entities.

The Colorado River Regional Water Board (Region 7) NPS staff reviewed three planning grant applications submitted by the following IRWMP groups during 2009-10: Borrego Valley, Coachella Valley and Imperial Valley. NPS staff also attended several public workshops for the Coachella and Imperial Groups during the 2009-10 year.

The Santa Ana Regional Water Board (Region 8) NPS Program staff reviewed and commented on internal draft IRWMP planning and implementation grant PSPs in January 2010, participated in an IRWM teleconference in September 2009, participated in the RAP interview of Santa Ana Watershed Project Authority (SAWPA) in July 2009. Prior to July 2009, NPS staff participated in RAP process (review application, met with other reviewers, participated in consensus review development, etc.) leading up to the July 2009 RAP interview.

5. Establishing Criteria for CWA 319(h) Implementation Grant Projects
Water Board NPS staff participated in the setting of criteria for grant programs and the selection of project grants to ensure NPS source pollution goals and objectives were supported this year. State Board staff requested that each Regional Water Board provide a preference list of TMDLs for their specific regions. These preference lists were used as one of the determining factors/criteria for selecting the 2010 CWA 319h projects for funding and for future funding processes. These lists can and will be updated annually by the Regional Boards, as priorities in those areas change.

Performance Review: For the most part the goals of the financial assistance aspects of the NPS Program for the NPS Implementation Plan were met either directly or the ground work for the goal was formulated. Continued support was provided directly through the funding of fifteen (15) projects totaling over $4,194,660 through CWA 319 funds ($5,996,727 when including project applicant matching funds). New and innovative ways of acquiring additional funding for NPS projects was initiated through coordination efforts with other state and federal agencies (e.g.; SRF, IRWM) at the “grass roots” level through interagency cooperation. And the first steps in focusing the next CWA 319 RFP on projects for the implementation of specific TMDLs in preferential watersheds was initiated through a coordinated effort between the State Water Board’s TMDL and NPS Programs.

C. Policy Development and Support

This section focuses on the development and implementation of policies that support the clean-up and prevention of NPS pollution, and the restoration, preservation and enhancement of California’s water quality.

The CA NPS Program’s priorities focus on strategies for achieving environmental outcomes associated with protecting the State’s surface waters and ground waters from NPS pollution and promoting sustainable water supplies. An integral part of this effort lies in the development and support of innovative and effective policies to meet these priorities. In addition, a challenge in the development and implementation of these policies is to maintain a statewide framework of consistency to the greatest extent possible, while fostering recognition of the unique environments (e.g.; political, climatic, ecological) that confront each Regional Water Board. To this end, a number of plans and policies need to be or are currently being developed and/or implemented that will impact the CA NPS Program and need to be addressed over the next five years. These policies address the following subject areas: (1) implementation of the NPS Implementation and Enforcement Policy (NPS Implementation Policy); (2) State Water Plan water quality integration; and (3) stream, wetland systems, and riparian areas protection.

1. NPS Implementation and Enforcement Policy

The use of waste discharge requirements (WDRs) and waivers of WDRs to control discharges from the agriculture and forestry land use categories has fundamentally changed the way these two land use categories are being regulated. This enhanced regulation of NPS discharges can be attributed to more rigorous application of the requirements specified in the NPS Implementation Policy. It is anticipated that during the next three years, application of the NPS Implementation Policy by the Regional Water Boards will continue to expand with the use of more sophisticated tools for tracking MM/MP implementation and resulting water quality improvements. It is not anticipated that the NPS Implementation Policy will be revised during the next three years other than to reflect any relevant amendments to the Porter-Cologne Water Quality Control Act (California Water Code). As such, the CA NPS Program needs to be involved in promoting its use by the Regional Water Boards through active participation in related interagency and intra-agency committees and the development of relevant regulatory and enforcement tools.

a. California Coastal Marinas Permit for Marinas and Recreational Boating

An activity that State Water Board staff focused on in 2009-10, which was not included in the NPS Implementation Plan was the development of a California-Coastal Marinas Permit for Marinas and Recreational Boating. Due to increasing impairment of coastal marinas from petroleum hydrocarbon discharges, trash and loading from copper-based Anti-Fouling Paints (AFPs) from boat hulls, the State Board NPS staff has been in the process of developing WDRs for marinas (General Coastal Permit).

In 2009-2010 the State Water Board with the cooperation of stakeholders and other agencies has been gathering and assessing facts and information to address copper impairments in coastal waters related to the widespread use of copper-based antifouling paints on boat hulls in marinas. Solutions to address these and other water quality issues related to coastal marinas, such as bacteria/pathogens, are being explored using both regulatory and non-regulatory actions. In terms of information gathering, the State Water Board is anticipating the findings of a $727,000 federal nonpoint source grant awarded to the Unified Port of San Diego to test non-copper alternatives to copper-based antifouling paints. The State Water Board expects findings from this study to be released in December 2010. In 2010, a $600,000 CWA Section 319(h) grant was awarded to Unified Port of San Diego for the project, “Shelter Island Yacht Basin Copper Hull Paint Conversion Project” which provides financial incentives to boaters to switch from copper-based antifouling paint to non-copper based hull coatings. The grant also develops an on-line tracking database and provides education and outreach to the greater boating community including boat yards and antifouling hull coating manufacturers. The State Water Board is continuing to work closely with the Department of Pesticide Regulation (CDPR) in its reevaluation of copper-based antifouling paints.

As a non-regulatory course of action, the State Water Board is evaluating recognition of programs that prescribe voluntary, self-implemented best management practices (BMPs), such as those presented by the California Clean Marinas Program (CMP). CMP is in the process of strengthening its program in response to a review conducted by a subcommittee of the Marina and Recreational Boating Interagency Coordinating Committee (IACC) in 2007 and revisited again in 2010. Further developments on the regulatory and non-regulatory

solutions to address water quality impairments from marinas and recreational boating are vetted through the Interagency Coordinating Committee (IACC). For 2010-11 the State Water Board plans on revisiting the proposed coastal marinas permit to determine what the most appropriate course of actions are in safeguarding water quality at coastal marinas. Any ultimate decision will be based in large part upon additional information provided by ongoing studies and informational efforts, as well as the feasibility of alternative, voluntary compliance efforts, such as CMP. Other activities include working with Region 2 and interested stakeholders to designate Tomales Bay a Federal No Discharge Zone for sewage from recreational boating. For more information see the NPS Website, Regulatory Solutions.

b. Nonpoint Source Activities on National Forest Lands

Several types of NPS activities take place on National Forest System lands in California, including timber harvest, rangeland management, dispersed and concentrated recreation, fuel treatments, and fire suppression. Of these, only timber harvesting is regulated by WDRs and/or waivers. The existing statewide Water Quality Management Plan (WQMP) for National Forest System Lands in California, certified by the State Water Board in 1981 and last updated in 2000, is implemented by the U.S. Department of Agriculture, Forest Service (USFS).

The State Water Board and USFS both recognize that the current WQMP needs to be updated. For example the current WQMP does not do the following: (1) address new, current nonpoint sources of pollution which have become important (e.g., off-highway vehicle recreation), (2) set forth actions needed to help restore waters that are listed as impaired under CWA Section 303(d); (3) actions to minimize existing legacy pollution-generating sites; or (4) conform to many subsequent changes in the water quality regulatory landscape. These regulatory changes include new mandates that all waivers of WDRs be formal, conditional, temporary, and include a monitoring component, as well as the requirements of the NPS Program Plan and the NPS Implementation Policy.

To that end, State Water Board staff has collaborated with the USFS in updating the USFS WQMP. During the last year, these activities have included: (1) conducting a November 30, 2009 public workshop to advise the public of our objectives and the process for achieving them, to solicit public comment, and to solicit representatives for a stakeholders' group; (2) forming a stakeholders' group representing many different interests; and (3) forming a staff-level working group comprising Water Board and USFS representatives.

On behalf of the USFS, State Water Board staff has: (1) facilitated seven stakeholders' group meetings during the year; (2) collated all stakeholder comments into a spreadsheet; and (3) created and maintained a website for posting relevant information, notices, and comments. State Water Board staff has also chaired several meetings of the staff-level working group and conducted one listening session with Native American tribal representatives. State and Regional Water Board and USFS managers had three meetings during this time.

USFS has completed updating its WQMP. State Water Board staff has drafted a proposed statewide waiver of WDRs for NPS activities covered in the USFS WQMP, a related management agency agreement, and associated California Environmental Quality Act (CEQ) documents. The WQMP, waiver and CEQA documents are expected to be released for public review late 2010 with a State Water Board adoption scheduled for early 2011. Additional information can be found at the State Water Board Forestry Website.

c. Confined Animal Facilities

Confined animal facilities (CAFs) are defined in California regulations and include poultry facilities, feedlots, dairies, etc. Federal regulations use the term "animal feeding operations" (AFOs) for the same type of facilities and use the term "concentrated animal feeding operations (CAFOs) to identify a subset of AFOs based on the animal population at the facility. CAFOs that discharge or propose to discharge manure or process water to waters of the United States are regulated with National Pollution Discharge Elimination System (NPDES) permits. Such discharges are allowed only for limited periods during storms that exceed a 25-year, 24-hour storm event.

In California, manure produced at poultry facilities and feedlots has generally not been problematic for water quality, and only dairies have been subject to formal regulatory oversight. Before 1980, most dairies were regulated under NPS programs. Currently, most dairies are regulated as point sources with NPDES permits, WDRs, or a waiver of WDRs. However, because most dairies have associated farming activities, there is a need to coordinate between the CAF program, the NPS Program, and the ILRP. The California Dairy Quality Assurance Program provides information on the regulation of dairies and the protection of water quality.

There are about 1,850 dairies in California. Most of those dairies are in three areas: the coast north of San Francisco (within Region 1 and 2) with about 250 dairies combined; Region 5 with about 1,400 dairies; and the Chino Basin (Region8) with about 150 dairies. Other Regional Water Boards currently involved in the dairy program include the Lahontan Regional Water Board (Region 6) and Region 7. Following is a brief summary of current dairy program activities in those regions with the majority of the State's dairies.

Region 1: There are about 200 dairies in the North Coast Region that have historically been regulated under a waiver of WDRs. North Coast Regional Board staff is evaluating using an NPDES permit and/or a WDRs, and/or a new waiver of WDRs to regulate dairies.

Region 2: There are about 50 dairies in the San Francisco Bay Region that are primarily regulated under a waiver program. However, WDRs are used for dairies that do not comply with waiver conditions. Currently, no CAFs in Region 2 are under a NPDES permit.

Region 5: The Central Valley Regional Water Board adopted General WDR Order No. R5-2007-0035 for cow dairies on May 3, 2007. Order R5-2007-0035 originally applied to about 1,500 dairies operating in the Region when the Order was adopted. About 100 dairies in the Region went out of business in 2008–2010. Any dairies that went into operation after October 17, 2005, or facilities that expanded in size after that date, were required to obtain individual WDRs. Region5 is developing a general NPDES permit for approximately 10 dairies that qualify as a CAFO and have had periodic discharges of wastes to waters of the United States.

Order R5-2007-0035 requires each dairy to prepare a Waste Management Plan that addresses the production area and a Nutrient Management Plan that addresses the land application areas. Because of the extensive work required, there is a timetable that allows phased development and implementation of plans and necessary improvements. All changes must be in place by July 2012. In addition, the Order also requires each dairy to submit annual reports and to test all domestic, commercial, and agricultural wells at the dairy. Based on the submitted information, some dairies have been required to monitor

groundwater and report the results. To help answer questions regarding Order R5-2007-0035, Region 5 staff address frequently asked questions (FAQs) on the CAF page of their website.

Region 6: The Lahontan Region has approximately 10 dairies, and regulates some of them with WDRs and the others with a waiver of WDRs. In April 2010, Region 6 staff prepared a summary of the regulation of dairies in that region.

Region 7: The Colorado River Region uses a General NPDES permit to regulate a few dairies and approximately 20 feedlots in that region. The General Permit requires regulated facilities to prepare and implement a Waste Management Plan.

Region 8: The Santa Ana Region uses a General NPDES permit to regulate approximately 150 dairies in that region. The General Permit requires each dairy to prepare and implement a Waste Management Plan to ensure that all manure is kept under control. Because residual salts and nutrients from historic farming and dairying operations have impacted groundwater in the Region, the General Permit requires most of the manure produced in the Region to be exported.

d. Irrigated Lands Regulatory Program

State Water Board NPS staff has been working with the Regional Water Boards and agriculture-related partner agencies (e.g.; California Department of Food and Agriculture [CDFA], CDPR, NRCS) as part of the State Water Board's ILRP Roundtable to ensure that the elements of the state's NPS Implementation Policy are effectively integrated into all of the Regional Board's irrigated agriculture regulatory programs. State Water Board NPS staff has participated in the ILRP Roundtable quarterly meetings, Region 5's ILRP Technical Issues Committee and Management Plan meetings, Region 8 meetings to develop their Conditional Waiver for Agricultural Discharges (CWAD), and will be participating in Region 7's Technical Advisory Committee (TAC) as they develop and implement a Conditional Prohibition of Agricultural Discharges within the Coachella Valley. State Board NPS staff has actively participated as Charter members of the advisory group for the Region 5's Long-term ILRP to further ensure that the requirements of the NPS Implementation Policy are addressed appropriately and will continue to do so in the remainder of 2010.

During the last year, Regions 3 and 5 and the Los Angeles Regional Water Board (Region 4),collectively enrolled an additional 266 irrigated agricultural operations, which comprised 37,373 acres of irrigated agricultural land, under their respective general conditional waivers of WDRs. This resulted in a total of 77 percent of the irrigated agricultural operators and 81 percent of acreage being regulated in these three regions. It is evident that Region 5, which covers about 40 percent of the geographical area of the State, has 86 percent of the irrigated agricultural operators and 92 percent of acreage among these three regions. To comply with the conditions of the waiver, irrigated agricultural dischargers implement management measures, monitor water quality, and implement corrective actions as needed to protect water quality. Because each Regional Water Board's ILRP is in a different phase of development, reporting on the number of acres, as well as the corresponding number of agricultural operations, enrolled will increase as additional Regional Water Boards adopt general conditional waivers of WDRs for discharges from irrigated agricultural land.

The conditional waivers in Regions 3, 4, 5, and the San Diego Regional Water Board (Region 9) require either the owner or the operator to enroll. The Regional Water Boards can enforce the waiver enrollment requirement by taking action against either the owner or

the operator. It should be noted that enforcement activities to address non-filers require significant staff resources. Shifting staff to address non-filers will further stress the minimal resources currently allocated to the ILRP which are being used to implement the other elements of the program. There is a need to explore the possibility of soliciting other agricultural related regulatory agencies to assist in identifying non-filers.

2. State Water Plan - Water Quality Planning

The California Water Code specifies the California Water Plan (Water Plan), prepared and updated by the CA DWR, as the master plan to guide the orderly and coordinated control, protection, conservation, development, management and efficient utilization of the water resources of the State. Water management activities will often have unavoidable environmental consequences, and the link between water supply management and water quality are inseparable.

In order to readily identify statewide and regional water quality protection requirements in considering future water supply issues, and to better inform water quality considerations about water supply issues, as part of the Strategic Plan Update 2008–12 the State Water Board has committed to collaborate with the CA DWR to integrate the Regional Water Quality Control Plans (Basin Plans) and other statewide water quality control plans and policies into a comprehensive Water Quality Plan. The Water Quality Plan will comprise a key element of the Water Plan.

The State Board NPS Program staff has developed a chapter for the 2010 update to the Water Plan that defines and addresses NPS pollution prevention through existing and proposed Water Board programs. This chapter should include, but is not limited to, discussions on: (1) status of NPS pollution prevention and associated Water Board programs and policies; (2) NPS pollution prevention as function of land use category; (3) major issues such as irrigated agriculture, confined animal facilities, monitoring, and emerging issues; and (4) estimated costs associated with NPS pollution prevention programs. The chapter can be found at the CA DWR State Water Plan website.

3. Stream and Wetland Systems Protection Policy

Section 401 of the CWA requires that any person applying for a federal permit which may result in a discharge of pollutants into Waters of the United States must obtain a water quality certification that the specific activity complies with all applicable state water quality standards, limitations, requirements, and restrictions. For more information on the State Water Board 401 program, please see the CWA 401 Program Website. In order to fill the gap in regulation between what constitutes a federal jurisdiction of wetland resources (e.g. wetland areas hydrologically connected to Waters of the United States) and the jurisdiction of wetland resources hydrologically tied to Waters of the State, the Water Boards are developing policies to protect these unique and important wetland and riparian areas. The Regions 1 and 2 are developing a Stream and Wetland Systems Protection Policy in coordination with State Water Board's Wetland and Riparian Area Protection Policy. Region 2 plans to adopt their policy as a Basin Plan amendment by the end of the 2011 fiscal year.

This year culminated many years of NPS Program resources used to support the development of tools designed to effectively manage wetland resources. In March of 2010, the California Wetlands Portal was released. The purpose of the Wetlands Portal is to provide the public information on the quantity and quality of California wetlands. On June 22, 2010, the California Water Quality Monitoring Council formally endorsed the California Wetland Monitoring

Workgroups' (CWMW) coordinated strategy - the State Wetland and Riparian Area Monitoring Program (WRAMP). WRAMP utilizes a standardized, cost-effective tool (California Rapid Assessment Method [CRAM]) for assessing the health of wetlands and riparian habitats. The Monitoring Council calls for every agency and program involved in management of California's wetlands to find ways to incorporate WRAMP into their permitting and other wetland management programs. The Council calls on the CWMW to provide broad oversight and direction and act as the coordinating body for wetland monitoring, assessment and data management.

For 2010-11, the NPS Program staff will work to integrate WRAMP into their grantee requirements for wetland and riparian restoration projects. The Coastal Commission NPS Program could require their coastal development permit applicants through water quality certifications for energy projects and any local land-use agency when updating their Local Coastal Plans to use and report on wetland restoration and mitigation projects using WRAMP. The NPS Program could require the use of WRAMP for the monitoring and assessment of CWA Section 319(h) funded restoration projects. However, only an initial assessment would be completed within the timeframe of the 3-year grant cycle. In order to effectively manage wetland resources using WRAMP, additional monitoring and assessment would need to occur to determine if the wetland and riparian restoration projects were successful. Some suggestions include designating a small percentage of project funds specifically to conduct long-term monitoring of restoration sites to determine if the restoration targets were achieved. Resources could be leveraged by partnering with other agencies and research institutions.

4. Atmospheric Deposition

In 2009-10 State Water Board NPS staff continued efforts to collaborate with the CDPR to develop more effective methods of aerial pesticide application that minimizes problems associated with pesticide drift and volatilization, has participated in the development of the CDPR Pesticide Air Monitoring Network. The network will sample ambient air for multiple pesticides in several communities on a regular schedule, over the next five or more years. The data gathered will be used to evaluate and improve protective measures against pesticide exposure. CDPR requested that the Pesticide Registration and Evaluation Committee (PREC) serve as a forum for discussing the scientific and technical aspects of the pesticide air monitoring network project. PREC members provided input regarding technical/scientific issues related to the planning and implementation of the project. The project scientific objectives are to identify common pesticides in air and determine concentrations, compare concentrations to health levels, estimate cumulative exposure to multiple pesticides, track trends in air concentrations, and correlate concentrations with use and weather patterns. State Board NPS staff plans to continue to attend these meetings and to provide input as requested by CDPR.

5. Coordination with the Total Maximum Daily Load Program

In 2008-09 the State Water Board TMDL, NPS and other regulatory programs (WDRs, NPDES and Stormwater) formed a DWQ working group and have continued meeting throughout 2009-10 in an effort to improve communication and coordination at the State program level and to improve inter-program communication and coordination at the Regional Water Boards. Subjects under discussion include: (1) how to write and develop TMDL implementation plans so they can be implemented effectively through the NPS Implementation Policy; (2) coordination of Watershed Priorities in both the TMDL and NPS Workplans; (3) promoting that State Board TMDL, NPS and other regulatory program staff attend other program Roundtables;

(4) expansion of the existing TMDL Planner/Tracker database system to enable and ensure more consistent implementation and to track the implementation of TMDLs subject to the NPS Program/Policy and other Regulatory programs; (5) coordination of compliance monitoring between programs; and (6) improve TMDL implementation plan language for improved enforceability through permits, waivers and prohibitions.

The group has identified that the various programs have/use different terminology. The group is working to improve communication and has completed development of a draft standard lexicon that was presented to the various Roundtables. This lexicon is not a static document, it can and will need to be continually updated as the Programs change.

Performance Review: At the State Water Board level the NPS Program has performed well over the last year. Continued support of the effective use of the NPS Implementation Policy has been achieved from two perspectives. NPS Program staff involvement in a number of interagency coordination groups to spread the message of the requirements of using the key elements of the NPS Implementation Policy has resulted in it becoming more common as the method for regulating sources of NPS pollution (e.g.; ILRP, WQMP for National Forest Lands; CAFs). In addition, State Water Board NPS Program staff has been directly implementing the NPS Implementation Policy by developing the Marina's General Coastal Permit. Other issues that were identified as activities in the NPS Implementation Plan were completed this fiscal year (e.g.; State Water Plan – Water Quality Planning). While others continue to be addressed at varying levels within the State Water Board, these have shown limited progress during this fiscal year (e.g.; Atmospheric Deposition).

D. Interagency Coordination

Interagency coordination is required to effectively implement the California NPS Program, in part because the program goals are based upon the regulatory authorities of 28 state agencies. Local government agencies need to participate in NPS Program implementation since critical land use decisions occur at the local level. Informational tools developed by the state agencies and recipients of NPS grant funds need to be effectively communicated to those responsible for land use management throughout the state. Monitoring for the effects of NPS pollution is expensive and interagency coordination can identify common goals where both the costs and results of monitoring programs can be shared. Interagency coordination is also needed to help set statewide objectives for the most critical NPS issues. The Interagency Coordinating Committee (IACC) groups have been formed to develop partnerships among state agencies to address NPS issues, to build better relationships with local land use and water quality agencies to reduce the impacts of NPS, and to develop and support efforts to share information on protecting water quality from NPS with government agencies and others. The following are examples of NPS Program staff efforts toward these goals during the FY 2009-10.

1. Irrigated Lands Regulatory Program Roundtable

The State Water Board developed the Irrigated Lands Regulatory Program (ILRP) to assess and control the impact that discharges from irrigated agricultural lands have on waters of the state. Many surface water bodies and groundwater basins in California have been identified as being impaired by agricultural sources. The ILRP objectives are to monitor, assess, and control the impact to receiving waters caused by discharges from irrigated agricultural lands. To accomplish these objectives, the ILRP conducts the following activities: (1) program oversight; (2) coordination with federal, state, and local agencies; (3) coordination with the state legislative

bodies; (4) public outreach, (5) information management; (6) discharger fee development and collection; and (7) oversight of the ILRP Roundtable.

Consistent with these objectives, the ILRP Roundtable was formed from a committee of state agencies working on implementing agricultural MMs in accordance with the California NPS Program Plan. The missions of each agency relative to sources of pollution in agriculture were examined to formulate a means for collaboration, and to establish overall objectives for the collaborative process. The result of this effort, which formulated the focus of California relative to agriculture NPS pollution prevention, is the ILRP Roundtable Objectives discussed below. These objectives are to: (1) provide for more efficient use of existing agency resources by continuing to improve upon and expand current interagency and intra-agency coordination in order to more effectively manage agricultural pollution (including monitoring and enforcement mechanisms); (2) develop information on the overall effectiveness of MP implementation on improving water quality; (3) develop and implement TMDLs for waterbodies impaired by agricultural sources; (4) promote outreach and education and provide technical assistance to the agricultural community; (5) assess waterbodies, identify sources of NPS impacts from agricultural land uses, and increase the number of inspections of potential sources; and (6) develop watershed based plans and target the implementation of MMs/MPs to address impacts from agricultural land uses.

In 2009-10, State and Regional Water Board ILRP staff held quarterly meetings which included agency staff from the CDPR, CDFA, US EPA, California Department of Fish and Game (CDFG), and California Agricultural Commissioners working towards these objectives. The ILRP roundtables continue to provide a valuable forum for addressing water quality impacts from agriculture such as Regional Board program development and implementation, the CDPR Surface Water Regulation development, groundwater nutrient management, and Food Safety issues.

State Board NPS staff and the ILRP Program Manager have been coordinating efforts with Regional Board ILRP staff in an effort to support the development and implementation of a MM/MP tracking database to enable the compilation and dissemination of technologies for on-the-ground management practice information, to be used to demonstrate implementation effectiveness consistent with the requirements of the NPS Implementation Policy. There are a number of tracking databases currently under development and/or in use at the Regional Board level. The goal is to determine which one of these could possibly be expanded and used by all ILRPs. This activity will be ongoing during the next year. The desired outcome is to examine all available technologies, determine which could be expanded for statewide use and then support its expansion and use.

State Board NPS and ILRP staff has also requested that State Board staff in the Office of Information Management and Analysis (OIMA) analyze one of these Regional Board database projects, specifically The University of Redlands Project. This project has been completed by a grantee in Regional Board 7 and the only requirement at this time, per the grantee, is the need for server support. OIMA State Board staff is attempting to procure this server support to resolve the issue. If this can be accomplished, this database program could then be shared statewide.

Performance Review: The ILRP has been extremely effective in meeting the NPS Program's needs for coordinating the irrigated agriculture programs within the Water Boards and with those of "sister" agricultural related agencies (e.g.; CDPR, CDFA). The Regional Water Boards with developing programs (e.g.; Regions 1, 2, 8, and 9) have been able to make use of the ILRP to take advantage of "lessons learned" from their counterparts with more developed programs

(Region 3, 4, and 5). With respect to the NPS Program's long-term efforts to use the ILRP to provide a means to track and assess MM/MP implementation and effectiveness statewide in the agriculture land-use category seem to be coming to fruition with the tentative selection of the University of Redlands model as potential prototype.

2. Department of Pesticide Regulation and the Water Boards

In 2010, Water Board coordination and collaboration with the CDPR encompassed many programs and activities. Most of these activities represent a continuation or evolution of the previous year's interactions. In April 2010, CDPR and the Water Boards held a two-day interagency training workshop, which provided an opportunity for attendees to learn about each agency's authorities, mandates, and programs (see Section A.3). An interagency Management Agency Agreement (MAA) meeting was also held in April 2010 to provide CDPR and Water Board staff an opportunity to exchange information on current topics and issues to interest. The MAA coordinators from both agencies provided attendees with the history and background on the MAA and the associated Pesticide Management Plan. Many staff also made presentations on topics related to pesticide and water quality. Staff also collaborated and interacted on more routine activities (e.g., scientific document reviews and pesticide-related basin planning) and on numerous planned events (e.g., CDPR advisory committee meetings, stakeholder workshops, and Water Board hearings). Overall, increased interactions and information sharing have effectively strengthened technical and policy coordination between CDPR and the Water Boards. Some of the interactions between CDPR and the Water Boards, that are not included in other sections, include:

- Pyrethroid reevaluation. Water Board representatives attended regular meetings between CDPR and pyrethroid registrants to provide input and feedback to CDPR to facilitate the reevaluation process. Moreover, the Water Boards also provided critical review of documents submitted by the registrants. In 2010, CDPR initiated an information sharing forum known as the Pyrethroid Reevaluation Stakeholder Meeting (PRSM) that meets on a monthly basis. PRSM participants typically include representatives from municipal stormwater programs, publically-owned treatment works, CDPR, and the State Water Board.
- Diazinon and Chlorpyrifos reevaluation. In June 2010, CDPR expanded its reevaluation of diazinon to include irrigation-season use. The initial impetus that led to this major decision was a formal Management Agency Agreement (MAA) request from the Central Coast Regional Water Quality Control Board that asked CDPR to initiate its "Process for Responding to the Presence of Pesticides in Surface Water" for the insecticides - diazinon and chlorpyrifos. Even though CDPR found that these two insecticides were already being addressed through existing CDPR and Water Boards' regulatory programs, the existence of substantial data gaps in the irrigation-season use areas for diazinon necessitated the action. Outcomes?
- Surface Water Regulatory Program. Surface water regulatory concepts may serve as the basis for statewide regulations that will help minimize the off-site movement of many currently-used pesticide active ingredients. For more information see Surface Water Regulatory Program. CDPR and the Water Boards also continued to explore the concepts of a regulatory reward system for agricultural producers who are certified by approved third parties as practicing management practices that are protective of water quality. This reward system is currently integrated into the surface water regulatory concept package.
- Food Safety. CDPR continued involvement in the Water Board facilitated Food Safety and Water Quality Focus Group, which exists to help the agencies involved evaluate the potential impacts of the Leafy Green Marketing Agreements on water quality in

California. For CDPR, the agreements could have an effect on pesticide use as well as the MPs that it recommends to growers.

Performance Review: As the two primary state agencies addressing pesticide use and contamination problems in the State, coordination between the Water Boards and CDPR is of critical importance. During the past year, the two agencies have continued to expand their coordination efforts through both formal MAA meetings and staff level efforts. Overall, increased interactions and information sharing have effectively strengthened technical and policy coordination between CDPR and the Water Boards.

3. Monterey Bay Sanctuary Water Quality Protection Program

The NPS Program has partnered with the Monterey Bay National Marine Sanctuary Water Quality Protection Program (WQPP) over the last decade to coordinate water quality monitoring, volunteer programs, support of agriculture MM implementation and recently the development of the Phase II storm water program. Past successful programs that have been implemented by the WQPP and the NPS Program include the Snapshot Day and First Flush citizen monitoring programs (including the state wide snapshot day project), coordination with Region 3 to support municipal implementation of the Phase II storm water programs, support of agriculture monitoring and coordination programs and implementation of the NPS Program funded Central Coast Water Quality Synthesis, Assessment, and Management (SAM) Project and SAM water monitoring data integration effort that has led to the first regional data set capable of answering the NPS monitoring program questions.

In the summer of 2010 the WQPP partners signed an updated version of the Memorandum of Understanding (MOU) that outlines how each partner agency will support the implementation of the WQPP strategic plan objectives. Signatories to the MOU include numerous NPS Program partners and the State NPS Program Plan is visibly referenced in the MOU. Partner agencies of the MOU include Regional Boards 2&3, the State Water Quality Control Board, the California Coastal Commission and the USEPA Region 9, all of which have reaffirmed their support for the cumulative objectives within the Sanctuary WQQP.

Key projects that are currently underway include:

- Central Coast Water Quality Data Synthesis, Assessment and Management (SAM) Project. Goals of the project include enhancement of the regional water quality monitoring network and improving access to knowledge used for managing coastal watershed and nearshore marine systems. A key milestone for 2009 was the completion of a Strategic Plan for Central Coast Water Quality Monitoring Coordination and Data Synthesis which has been distributed to our partners on the Central Coast. The plan outlines sets of tasks related to data integration and access, monitoring coordination, tracking land-use management improvements, and data analysis/reporting that will improve our ability to assess and respond to changing water quality conditions in Central Coast watersheds and the Monterey Bay National Marine Sanctuary.
- Integrated Regional Water Management Plan. Eighteen organizations in the Monterey County area (led by the WQPP, Big Sur Land Trust and Moss Landing Marine Labs (previously of the NPS)) have recently come together to create a new “region” for the purposes of integrated regional water management (IRWM) planning and project implementation. An IRWMP is a comprehensive planning document to encourage regional strategies for management of water resources. An IRWMP should investigate a broad spectrum of management strategies, identify the benefits of integrating water management strategies, and identify priorities for implementing projects and programs.

The Greater Monterey County IRWMP will outline how the set of over 54 projects can be implemented in a collaborative way to ensure that the overall program addresses water supply, ground water protection as well as coastal water quality and wetland resource management.

- Stormwater Evaluation and Reporting Partnership. NPS and WQPP staff hosted a set of meetings between Regional Boards 3 and 6 regarding mechanisms to track Stormwater program implementation and quantify load reductions from the combine set of Urban MM actions. Moss Landing Marine Labs and WQPP have submitted a 319 grant proposal in collaboration with the City of Watsonville to support the development of these tools for the central coast. A meeting between the WQPP, MLML and the Central Coast Regional Board is scheduled for December.

Performance Review: The NPS Program primarily through the efforts of the Coastal Commission and Region 3 have partnered with the WQPP for a number of important projects. These have included the Snapshot Day and First Flush citizen monitoring programs (including the state wide snapshot day project), coordination with Region 3 to support municipal implementation of the Phase II storm water programs, support of agriculture monitoring and coordination programs and implementation of the NPS Program funded Central Coast Water Quality SAM Project. As evidenced by the recent MOU, the NPS Program (e.g.; Water Boards and Coastal Commission) is firmly committed to continued support and involvement in the WQQP.

4. Marinas Nonpoint Source Workgroup

The Marinas NPS Workgroup (Workgroup) has the following goals: (1) promote improvements to marina water quality through implementation of good management practices, (2) make efficient use of state, federal and local resources to address water pollution in marinas and boating facilities by sharing information, avoiding duplicative efforts, identifying technical gaps, and updating policies and regulatory oversight and (3) develop partnerships among government agencies responsible for addressing NPS pollution related to boating and marinas.

The Workgroup was derived from a committee of state agencies working on implementing Marinas and Recreational Boating MMs in accordance with the California NPS Program Plan. The Workgroup identified the following topics as priority issues with respect to assessment, implementation and education on boating and marina-related efforts statewide: (1) bacterial issues/pathogens including sewage, vessel waste, and pumpout stations; (2) copper boat paints; (3) invasive species; (4) gas, oil and grease; (5) stormwater runoff; (6) graywater; and (7) abandoned vessels. The Workgroup also includes organizations, businesses and individuals with interest in marina and boating issues throughout the state, and generally meets quarterly.

In early 2010, CCC and State Water Board staff and other workgroup members held meetings with the California Clean Marina Program (CMP) working towards having CMP staff (primarily Tim Leathers) address comments submitted by the Workgroup in 2007. The purpose of the comments was to ensure that the industry-led CMP addresses concerns of state regulators. The State Water Board staff used the Workgroup forum to initiate discussions with marina stakeholders on potential aspects of proposed WDRs for coastal marinas. Workgroup members provided comments on the proposal in various formats.

CDPR continued participation in the Non-Point Source Interagency Coordinating Committee's Marinas and Recreational Boating Workgroup. Moreover, CDPR is the lead agency for the Antifouling Strategy Workgroup (formerly the Copper Antifouling Paint Sub-Workgroup), which

serves to identify fouling control methods and strategies that could help reduce boaters' reliance on copper AFPs. CDPR staff and the Port of San Diego both conducted studies on this subject in the last two years. CDPR initiated a reevaluation of copper AFPs products on June 2010 after it linked widespread occurrences of elevated dissolved copper concentrations in California marinas to copper AFP use on boat hulls. In the reevaluation, CDPR required that AFP registrants submit leach rate data, coating category identification, and mitigation strategy identification. CDPR hopes that mitigation strategies can be used to successfully lower copper concentrations to coastal marinas to levels that are below water quality standards. The key monitoring study that led to the reevaluation was a 2006 multi-regional marina study that was planned and conducted jointly by CDPR and the Water Boards.

Coastal Commission staff produced a short report on Commission actions since 2005 addressing water quality in marinas. The Department of Toxic Substances Control (DTSC) initiated work on a toolkit to increase implementation of pollution prevention strategies at marinas, and eliminate or reduce hazardous waste generation. Education and outreach activities supported by Workgroup participants have included free mobile sewage pump-out service in the Marina Del Rey, oil exchange programs in Alamitos and Long Beach Harbors, installation of four Absorbent Exchange Centers along the bay in partnership with the City of San Francisco and a study to determine effectiveness of pump-out facilities in four southern California Counties. Outreach and education are fundamental elements of the state's NPS Program in the area of boating and marinas and are dependent on continued state and local funding, volunteer labor and support by the marine industry. These resources have been adversely impacted by the state economy. Future plans are to work with the CMP staff to improve the marina certification program, work with State Water Board and other state agencies to identify tools (regulatory or other) to protect coastal waters impacted by marinas and boating, and begin to expand the scope of Workgroup meetings to address additional priority issues.

For more information see the CCC Clean Boating Page, the NPS Encyclopedia - Marinas and Boating BMPs Page, and Changing Tide Newsletter.

Performance Review: In spite of the overall belt-tightening of state government, the Marinas Workgroup has continued to function as an effective forum through the voluntary participation of agency staff and other interested parties. Turnover of staff at the Coastal Commission and inconsistent attendance by some participants (possibly due to changing agency priorities) has led to a narrowed focus on the proposed coastal marinas permit, antifouling paint, and the adequacy of the CMP. Other issues (gray-water, invasive species, etc.) have been delayed. New staff hired by the CCC and ongoing support of SWRCB and CDPR staff should help to maintain ongoing efforts and may expand the focus of the Workgroup in the coming year. Strong lobbying by marinas and recreational boating advocates led to a slow-down in the development of the coastal marinas permit and a renewed effort by industry to augment the CMP certification program so that it adequately addresses state laws and regulations.

5. California Nonpoint Source Wetland Program

The NPS wetland staff is tasked with developing programs and partnerships with state and regional entities to improve the water quality and the condition of wetlands. Actions are aimed at accomplishing two main goals: (1) improve multi-agency efforts to manage and restore wetland habitat along the coast and (2) develop tools to help track the states success in protecting and restoring wetland habitat.

Due to limited resources of the NPS Program and the diffuse nature of wetland management responsibilities among State Resources and California Environmental Protection Agencies, a

collaborative program was developed among state agency staff and regional researchers (California Wetland Demonstration Program 2005-2008) to meet the complexity of coordinating wetland protection procedures within California.

In October 2009, California completed the State of the State's Wetland Report (State Wetland Report). The report reviewed the status of wetland management and science in California. Much of those data were derived from reports and research orchestrated by the state and regional partners who implemented the California Wetland Demonstration Program, and which led to the establishment of the California Wetland Monitoring Workgroup (CWMW). In addition to compiling the current knowledge on the status and trends of California's wetland extent and condition, the State Wetland Report also makes seven key recommendations for future action. The CWMW has taken on the task of implementing those recommendations. Specific recommendations currently being addressed include: (1) establish a mechanism in state government to coordinate state wetlands programs and to standardize wetland monitoring and assessment procedures; (2) adopt a common approach for wetland identification, mapping, and classification; (3) provide common tools and approaches for wetland management; and (4) share wetland and riparian area data and information with the public.

These recommendations are currently being implemented by members of the CWMW and results of these efforts will be reported to the California Water Quality Monitoring Council for action. Since many of the tools enhance the State's ability to coordinate and standardize wetland research and management, it is now the task of state agencies to work to integrate these tools into agency reporting and permitting procedures. Initial steps may include State and Regional Water Board adoption of the CRAM method as a grant and permit reporting tool, and the Wetland Tracker portal as a tool to coordinate wetland mitigation and restoration activities.

Accomplishments during 2009-10 included:

1. The State of the State's Wetlands Report (October 2009). The report reviewed the status of wetland management and science in California. Much of those data were derived from reports and research orchestrated by the state and regional partners who establish the CWMW.
2. The Wetland Monitoring Tenants: The CWMW has completed a draft report to the California Water Quality Monitoring Council (CA Monitoring Council) containing priority recommendations to improve and expand wetland monitoring efforts throughout California. The document provides detailed recommendations for development and implementation of the State wetland monitoring program and outlines the long-term strategy for coordination among wetland programs in California.
3. Technical Bulletin Use of CRAM: The State of California has initiated implementation of its statewide wetlands monitoring program, with the aid of a grant from USEPA Region IX. The first phase of the program has demonstrated how California can implement EPA's three-tiered assessment framework with a variety of wetland assessment tools. A complete guidance document regarding the intended application of the three-tiered framework has been completed by the CWMW. This Technical Bulletin provides a framework for agency adoption of wetland tools to measure the performance of the California's "Wetland No-Net-Loss" Policy.
4. Creation of Level 2 Workgroup: The CWMW collaborators have created a hierarchy to ensure that the appropriate attention and sufficient state resources are allocated to the numerous tasks and responsibilities associated with developing the state's wetland monitoring program. In addition to establishing the CWMW as an official workgroup of the California Monitoring Council, a set of subcommittees have been established to

oversee tool development and use among state partners. The Level 2 Workgroup was created in late 2009 to guide assessment tool development.

5. Submittal of wetland grants to support Level 2 Workgroup: The Level 2 workgroup is tasked with development of additional wetland assessment tools, including CRAM, for additional wetland classes (other than Riverine and Estuarine which are complete); creation of ambient assessment data and reference site inventories for use in evaluating CRAM results; and ongoing Quality Assurance and training. The Central Coast regional team (the Central Coast Wetlands Group and CCC staff) wrote and submitted a grant application to the USEPA Wetland Development program that would, if funded, continue to support tool and program development efforts of the Level 2 Workgroup.
6. Received funding for additional CRAM modules: Currently, only two wetland CRAM modules (riverine and estuarine) have been thoroughly validated. Funding has been secured to complete verification and validation procedures (described in Stein et al. 2009) for coastal river-mouth lagoons (managed by CCC and Central Coast Wetlands Group), dry creek beds (by the Southern California Coastal Water Research Project [SCCWRP]) and certain types of depressional systems (by San Francisco Estuary Institute [SFEI] and Tahoe regional partners).
7. State Wetlands Portal: The California Monitoring Council is unveiling the third My Water Quality internet portal to connect decision makers and the public with water quality information. The theme of this new portal is "Are Our Wetland Ecosystems Healthy?" The new California Wetlands portal includes interactive maps and monitoring data that focus on the location, extent, and health of the state's wetlands. The data are compiled from regional partners who have been leading the efforts to coordinate wetland monitoring and tracking for California.
8. Compilation of wetland projects within State Wetland Tracker: One of the CWMW milestones is to establish project tracking databases in the Central Coast and South Coast based on the model in San Francisco Bay. Currently, the California Wetland Tracker includes 399 restoration and mitigation projects in three regions: 265 projects in the Bay Area, 36 South Coast projects, and 98 Central Coast projects.

For more information consult the following:

- Using CRAM (California Rapid Assessment Method) To Assess Wetland Projects as an Element of Regulatory and Management, October 13, 2009 http://www.waterboards.ca.gov/water_issues/programs/monitoring_council/wetland_workgroup/docs/techbulletin_cram.pdf
- Draft Tenets of a State Wetland and Riparian Area Monitoring Program, January 2010. http://www.waterboards.ca.gov/water_issues/programs/monitoring_council/wetland_workgroup/docs/2010/tenetsprogram.pdf
- Validation of a wetland rapid assessment method: use of EPA's Level 1-2-3 framework for method testing and refinement. Eric D. Stein, et al., WETLANDS, Vol. 29, No. 2, June 2009, pp. 648–665.

Performance Review: The largest roadblock to coordinated tracking and reporting of grant and regulatory wetland projects is the limited adoption of these tools by state agencies. Currently no State agency has the staff resources to address the legal and programmatic procedures necessary to integrate these tools into grant and regulatory programs. Further, few State agency staff have received the necessary training to fully understand the value of these resources or the utility of the data provided by CRAM and Wetland Tracker. The CCC and other CWMW partners are working to ease the adoption of these tools by State agencies. This includes supporting regional training workshops on CRAM and Wetland Tracker and adoption of

these tools by state agencies, support for the Level 2 workgroup efforts to manage tool development, scientific validation of collected data and foster broad adoption of standardized tools, and providing comments on the development of a Riparian Status and Trends monitoring program and State riparian protection policies.

6. Klamath Basin Monitoring Program

The Klamath Basin Monitoring Program (KBMP) was established in 2007 to enhance monitoring efforts in the Klamath Basin including waters residing in California and Oregon. The members in this group include, but are not limited to, state and federal agencies, local agencies, watershed organizations and tribes in both States. The mission of KBMP is "to implement, coordinate, and collaborate on water quality monitoring and research throughout the Klamath Basin. The KBMP provides guidance and technical support for monitoring activities, and promotes the sharing of high quality data to inform resource management within the basin." The progress accomplished by the KBMP has been substantial; however the road to a sustainable, self-operating entity is long and challenging.

As with other large coordinating efforts, the coordination and collaboration takes time, energy, commitment, passion, sustainable funding and keeping an 'eye on the goal/mission' of the Program from all its members. To date, the members have completed several important and crucial steps towards functioning as a Monitoring Program; thanks to funding provided by California NPS Program and SWAMP. The funding provided the initial and continuing infrastructure support for the Program. In the past few years, KBMP has developed governing rules, Monitoring Plan, semi annual newletters (Klamath Current), Strategic Plan, Draft Communication and Outreach Plan, Database and established Subcommittees (Steering, Technical Review, and Database), and the Blue-Green Algae Tracker tool. Current efforts include refining the internal Organizational Structure, as well as identifying KBMP's niche within the broader array of activities in the Klamath Basin. Additional group tasks are developing a monitoring strategy (prioritizing monitoring efforts), Quality Assurance Project Plan, building the external component of the Communication Plan, refinement of the Blue-Green Algae Tracker tool, and securing long-term sustainable funding. Continuing and less tangible challenges include gaining some individual members' recognition of the program's value, and transitioning towards a program that will be locally managed (and not require as much state and federal assistance).

During 2009- 10, the NPS Program served as secretary of the Steering Committee. This role included scheduling and participating Steering Committee, General Membership meeting, and debriefing meetings with North Coast Regional Board and US EPA. Meeting participation included meeting facilitation, developing and presenting agenda items, and developing meeting notes. The NPS Program provided the communication structure for meetings (eg., webex , meeting equipment and materials etc.). In addition, the NPS Program searched for other potential funding avenues with private and public entities.

The KBMP will continue its Monitoring Program, with the intent of developing a synergistic role with the many restoration plans and activities within the basin. It will also continue to seek out new partnerships and work with the nascent Upper Klamath Basin group (Upper Basin). The goal is - the two groups [Upper Basin and KBMP (lower basin)] will join forces to provide the water quality monitoring component for the entire basin. KBMP Monitoring Plan, draft Quality Assurance Project Plan (QAPP), and General and Subcommittee meeting minutes are available under 'Documents' on the KBMP website.

Performance Review: Progress has been slow, however KBMP is moving forward. This is a very diverse group of stakeholders, who have worked independently for years. In addition, they are spread across two States. Now, they are being asked to work together; this in itself is a very difficult task, especially when the various entities have to meet their own mandates. Therefore, it is not unexpected that progress would be slow. However, there is a lot of passion among its members to improve the health of watershed and provide the monitoring component to help make that happen. There are a few areas of improvement in the management of this group that may help increase buy-in from KBMP members/stakeholders. One area is to increase the communication between the two semi-annual meetings to keep the members up-to-date on the progress of KBMP. This will also increase transparency, as well as trust with the members. The other is to create a partnership with restoration entities in the basin and offer the KBMP as the water quality monitoring component for their program. The KMBP Steering Committee will work to improve these areas in the next year.

E. California Critical Coastal Areas Program

The purpose of the Critical Coastal Areas (CCA) Program is to ensure protection or restoration for important coastal water resources that are threatened or impacted by runoff from adjacent coastal land areas. The program promotes the implementation of all appropriate MM's found in the NPS Program Plan and, where necessary, the development and implementation of "additional management MMs" to protect or restore those waters.

The Coastal Commission is tasked with coordinating the CCA Program in California as part of its work to implement the NPS Program Plan. In 2000, COASTAL COMMISSION staff brought together representatives of 15 state agencies, 2 federal agencies and 2 non-governmental organizations (Ocean Conservancy, California Coastkeeper Alliance) to develop a list of California CCAs and a strategy for protecting or restoring those areas. The group (the California CCA Committee) considered declaring the whole coast to be "critical", but decided against that strategy, partially due to existing protections of coastal resources found in the California Coastal Act. Working with minimal funding over a period of two years, the CCA Committee came up with a list of 101 CCAs based on previous state efforts that had already identified important coastal resources and state waters impaired by pollution (i.e., the Clean Water Act 303(d) list).

The CCA Strategic Plan developed by the CCA Committee in 2002 indicated that the California program would promote the development of Watershed Assessments and CCA Action Plans using state, local and federal resources. This was considered to be an "additional Management Measure" supplementing the 61 MMs previously approved as part of the NPS Program Plan. In 2006, the Committee selected five watershed areas as pilot projects to put into practice the CCA strategy using volunteer efforts of state and local agency staff and other interested stakeholders. The Pilot CCA program has shown progress in each of the five watersheds. Those projects most successful in obtaining funding achieved milestones (e.g., completed Action Plans) at a faster rate.

All of the pilot projects were faced with a variety of coordination and funding challenges. Due to the cessation of state bond funded projects that were approved for several pilot projects, the Coastal Commission staff focused on program assessment work. Updated pilot project fact sheets, a report on the lessons learned from the pilot program fact sheet and an updated CCA List were completed this fiscal year.

Two implementation projects identified in the Trinidad Bay Integrated Coastal Watershed Management Plan were approved for state funding in 2009. A Nonpoint Source Watershed Assessment for the James Fitzgerald Marine Reserve was completed in December 2008. The City of Newport Beach has continued to implement the CCA model by using results of their Watershed Assessment and Action Plan (called the Central Orange County Integrated Regional and Coastal Watershed Management Plan) to guide water quality protection efforts. They also completed an addendum of the Newport Coast Flow and Water Quality Assessment study in June 2009. Unfortunately, the bond funding program was halted before the Trinidad Pier Reconstruction and the Trinidad Stormwater projects could start work. Approved water quality projects affecting Fitzgerald Marine Reserve CCA were also put on hold.

The City of Newport Beach completed the current draft of the Central Orange County Integrated Regional and Coastal Watershed Management Plan in mid 2008 and was considering comments in 2009. Although the list of priority projects is being used by City staff, the document has not been finalized.

For more information see Critical Coastal Areas (CCA) Program and http://www.coastal.ca.gov/nps/cca-nps.html and Protecting Coastal Waters: State of California 2002 Critical Coastal Areas Draft Strategic Plan.

Performance Review: Over the last two years, Coastal Commission staff initiation of pilot project or statewide CCA meetings has been curtailed by loss of key staff due to budget cuts, retirement and voluntary reductions in time base. New staff hired in late 2009 and early 2010 are beginning to help complete our CCA tasks. Recently (Spring 2010) bond funding is beginning to be restored and efforts are being made to restart pilot projects. Coastal Commission staff met with SFEI staff in March 2010 to discuss ways to reconvene the CCA area partners and complete tasks that have been dormant for over a year. Coastal Commission staff plan the following next steps: (1) support local partners in pilot projects by working to identify funding for the projects identified in the Watershed Assessment and Action Plan and by offering coordination, facilitation, and technical review services; (2) work with local partners, and state and federal agencies, to identify and overcome policy barriers to water quality improvements; (3) take the lead on implementing high priority projects identified the CCA Watershed Assessment and Action Plan; (4) work with the pilot projects that have not completed watershed assessments and action plans towards completion of those documents; (5) support implementation of priority water quality protection projects; and (6) facilitate meetings with the past participants of the CCA pilot project teams and with the local government staff over the next year to discuss next steps and appropriate roles of the partners.

F. Monitoring

This section focuses on water quality monitoring activities for the California NPS Program. These activities are designed to enhance information needed for implementation at many levels (e.g., from local watershed organizations to state and federal agencies and the private sector) and among various programs. The monitoring activities of the California NPS Program are coordinated with the Water Boards' Surface Water Assessment and Ambient Monitoring Program (SWAMP) and other related efforts. They address the biological, chemical, physical and ecosystem aspects of tracking and monitoring, including surface freshwater, estuarine, and marine environments in California. Therefore, these activities will encourage comprehensive, watershed-based, and cross-programmatic monitoring.

1. Surface Water Ambient Monitoring Program (SWAMP)

The Water Boards' SWAMP uses two valid data collection approaches (probabilistic and targeted) to address both statewide and regional level needs. A probabilistic (or random) design is used to address broad statewide questions like - what is the overall quality of surface water in California? Whereas, a targeted design addresses regional questions such as - what is the water quality at a particular water body or location? The information gathered from both questions is important and relevant in directing NPS Program resources to protect and restore water quality.

a. Statewide Perennial Streams Assessment

The Perennial Streams Assessment (PSA) Program is a probabilistic design study that builds off of two earlier programs - the U.S. EPA's Environmental Assessment Monitoring Program (EMAP) - West and the California Monitoring and Assessment Program (CMAP). Together, these programs have collected ten (10) years of bioassessment data. Bioassessment is the collection of benthic macroinvertebrates (BMI) or organisms (bugs and crayfish, worms and snails) living at the bottom of continually flowing streams. In addition to BMIs, physical habitat data and pollutants in the water column are also collected. Physical habitat data such as pebble size, shading material (e.g.; trees, shrubs, and other vegetation), and stream bank stability gives a picture of living conditions and food for the survival of the stream organisms. The number, diversity and species of the BMI communities indicate poor, fair, and good water quality. Water samples are also collected and analyzed to detect the presence of pollutants (e.g.; nutrients, fine sediment, minerals etc.) in the stream waters. Pollutants can be correlated to specific land uses (e.g.; agriculture, urban, forestry, etc.). Correlating BMI, physical habitat and pollutant information can provide the NPS Program with information on the estimated extent of risk due to pollutants entering the streams from land use activities. This information can also help direct NPS Program resources toward implementing MMs/MPs or projects to improve water quality conditions caused by pollutants from specific land uses.

During the past year, the CDFG through the support of the NPS Program completed the Synthesis Report: Integrating Probability and Targeted Survey Designs in Regional Stream Condition Assessments with Examples from Southern Coastal California. The report evaluated the potential for combining datasets from random (probabilistic) and targeted monitoring surveys and presented an approach to combining data from the two types of surveys. Biological, chemical and habitat data from 63 probability sites and 133 targeted monitoring sites in southern coastal California were complied and the distribution of analyte values collected under the two designs was compared. The analysis clearly demonstrates that both targeted and probabilistic sampling designs were necessary for effective non-point source water quality monitoring programs. Probability designs are the only survey type capable of giving an objective overview of the range of conditions present in the resource of interest. By contrast, targeted designs often are needed to fill in critical data gaps and answer site-specific questions. It was concluded that the most effective way to 'integrate' probability and targeted surveys is to use probability surveys to produce an unbiased regional framework for interpreting targeted results and to supplement this framework as needed with sites targeted to fill data gaps.

b. Development of Bio-Objectives for California Perennial Streams and Rivers

In 2009, SWAMP initiated a process for developing freshwater biological objectives for perennial streams and rivers in California. Biological objectives will provide crucial numeric and narrative benchmarks that will be used to describe the conditions necessary to improve water quality and protect beneficial uses. Several committees were established to provide technical expertise, develop regulatory tools, training and outreach for entities to ensure proper uses of the tools.

For more information on biological objective development see Proposed Policy for Biological Objectives (for Perennial Streams & Rivers of) the State of California.

c. Bioaccumulation Monitoring Program

The Bioaccumulation Monitoring Program (BiMP) is a long term effort to comprehensively monitor contaminant in sport fish residing in lakes and reservoirs, coastal waters, rivers, and streams. Bioaccumulation in California water bodies has an adverse impact on both the fishing and aquatic life beneficial uses. The fishing beneficial use is affected by human exposure to bioaccumulative contaminants through consumption of sport fish. The aquatic life beneficial use is affected by exposure of wildlife to bioaccumulative contaminants, primarily piscivorous species exposed through consumption of small fish. Different indicators are used to monitor these different types of exposure. Monitoring of status and trends in human exposure is accomplished through sampling and analyzing sport fish. On the other hand, monitoring of status and trends in wildlife exposure can accomplished through sampling and analysis of wildlife prey (small fish, other prey species) or tissues of the species of concern (e.g., bird eggs or other tissues of juvenile or adults of the species at risk).

Over the long-term, a SWAMP bioaccumulation monitoring program is envisioned that assesses progress in reducing impacts on both the fishing and aquatic life beneficial uses for all water bodies in California. In the near-term, however, funds are limited, and there is a need to demonstrate the value of a comprehensive statewide bioaccumulation monitoring program through successful execution of specific components of a comprehensive program. Consequently, the SWAMP Bioaccumulation Oversight Group decided to focus on sampling that addresses the issue of bioaccumulation in sport fish and impacts on the fishing beneficial use. This approach is intended to provide the information that the state government and the public would consider to be of highest priority. Monitoring focused on evaluating the aquatic life beneficial use will be included in the BiMP when expanded funding allows a broader scope. Preliminary evaluation of impacts on the aquatic life beneficial will also be explored using the data collected to evaluate impacts on the fishing beneficial use.

In the first half of 2010, SWAMP released the report Contaminants in Fish from California Lakes and Reservoirs, 2007-2008: Summary Report on a Two-Year Screening Survey. The report was a two-year statewide survey of contaminants in sport fish from lakes and reservoirs in California. The report consisted of data collected from 122 lakes sampled in 2008 and 150 lakes sampled in 2007. The results identified mercury from gold-mining industry as the primary contaminant and polychlorinated biphenyls (PCBs) as the secondary contaminants of concern in California lakes. Mercury contamination of California water bodies is largely a legacy of historic mercury and gold mining, but can also reach lakes from regional and global emissions to the atmosphere. However, the degree of mercury contamination in the state's lakes is comparable to the average condition observed across the U.S. in a recent national lakes survey. PCBs were second to methylmercury as a potential health concern to consumers of fish caught from California lakes. PCBs are persistent chemicals that are now banned, but were commonly used in electrical, industrial and other applications. Other pollutants, including dieldrin, DDT, chlordanes, and selenium, were also found, but generally at low levels.

The planning and design of the BiMP for the coastal waters was conducted in 2009. This is a two-year study conducted in coordination with several partners to facilitate and increase cost efficiency. Sampling will occur in prevalent coastal fishing waters (near-shore areas, including bays and estuaries, in waters not exceeding 200 meters in depth and mostly less than 60 meters deep). The first year of sampling will focus on the Southern California Bight region and San Francisco Bay including adjacent coastal areas. The second year will cover coastal areas

not sampled in the first year. More information on the Coastal Study is available at Coastal Study - Bioaccumulation in Sport Fish.

d. Stream Pollution Trend Monitoring
Statewide Stream Pollution Trend (SPoT) Monitoring at Integrator Sites. SPoT was launched to conduct long-term statewide trend monitoring in streams of large of watersheds. The objective of this program is to assess whether concentration of stream-borne contaminants can be detected at time scales appropriate for management decision making. The study provides the NPS Program important information, at a broad scale, on whether management activities and/or decisions are improving water quality. The first year of sampling was completed in 2009. A total of 97 site locations were sampled through a targeted design. The second year of sampling will begin mid-summer of 2010. A report on the 2009 sampling will be available soon at the SWAMP Website.

2. Statewide Monitoring Coordination

a. California Water Quality Monitoring Council
The California Water Quality Monitoring Council (Monitoring Council) was established in 2007 through a Memorandum of Understanding (MOU) signed by the Secretaries of the California Environmental Protection Agency (Cal EPA) and California Natural Resources Agency. The MOU, mandated by California Senate Bill 1070 (Kehoe, 2006), requires the Monitoring Council to develop specific recommendations to improve the coordination and cost-effectiveness of water quality and ecosystem monitoring and assessment, enhance the integration of monitoring data across departments and agencies, and increase public accessibility to monitoring data and assessment information.

The Monitoring Council made substantial progress in 2009. Four theme-based workgroups were created to address the web portal questions: Is it Safe to Swim in Our Waters?; Is it Safe to Eat Fish and Shellfish from Our Waters?; Is Our Water Safe to Drink?; and Are Our Aquatic Ecosystems Healthy?. The workgroups are composed of state, federal, and local public and private entities. Each workgroup aligns with the theme-based "My Water Quality" portals. The "Safe to Swim" and "Safe to Eat the Fish" portals were developed in 2009. The "Wetland Ecosystem Health in California" portal was finalized in early 2010. The web portals can be accessed through the My Water Quality website.

b. Communication and Outreach
Under the California Water Quality Monitoring Network Workgroup of the Monitoring Council, and in conjunction with the California Clean Water Team, a series of webinars were presented to a variety of monitoring entities. The themes of the webinars ranged from information on water quality monitoring tools to various types of existing programs in California. These webinars can be viewed at the California Water Quality Monitoring Collaboration Network.

Performance Review: SWAMP has made great strides in collecting information on water quality through their three statewide monitoring programs. The data management system, California Environmental Date Exchange Network (CEDEN) used by SWAMP and other surface water data collectors (e.g.; ILRP, etc.) will be available to water quality managers and the public soon. This information will be useful in helping the NPS Program direct their resources in areas where NPS pollution stemming from land uses have the most serious effect on water quality. More information on SWAMP Performance is available at the Water Boards' Annual Performance Report - Fiscal Year 2009-10.

Regional Water Board Initiatives

The Regional Water Board's implement performance-based NPS programs to achieve healthy, functioning watersheds, coastal and inland environments, and groundwater basins through leveraged efforts to generate on-the-ground change. Through documentation of program implementation and analysis of environmental change, they strive to evaluate and modify NPS water quality priorities. Program evaluation occurs with short term metrics, such as the number of farm work plans developed, number of site inspections conducted, and/or number of participants trained. In addition, they evaluate environmental change through longer term metrics such as changes in impervious surface in a watershed, trends in various water quality parameters, and/or changes in riparian corridor health.

In addition to NPS pollution priorities mandated by legislation, statute, regulation, the State Water Board, California Environmental Protection Agency (Cal-EPA), and the U.S. EPA, Regional Water Boards also determine priorities based on Board and staff assessments of Regional needs. Regional Boards are responsible for implementing the NPS Implementation and Enforcement Policy, and are currently developing programs and policies to address this responsibility.

North Coast Regional Water Board (Region 1)

The North Coast Regional Water Board (Region 1) has organized its NPS Program Initiatives as a function of the six land-use categories identified in the NPS Program Plan. These land-use categories are: (1) agriculture; (2) forestry (silviculture); (3) urban areas; (4) marinas and recreational boating; (5) hydromodification; and (6) wetlands, riparian areas, and vegetated treatment systems. Within each land-use category the Regional Board has identified the focus and methods of their implementation efforts and where appropriate identified their priorities for the five-year implementation planning period. An office reorganization in 2008 resulted in the NPS program joining the Timber Harvest Division, bringing the CWA sections 401 and 319(h) programs into one unit.

Initiative 1.1.: Agriculture

Initiative 1.1.a. Shasta and Scott River Watersheds

In FY 2009-2010, staff continued to implement the Shasta River and Scott River TMDLs. As called for in the NPS Implementation Plan, staff has been cooperating with the CDFG in the Shasta River watershed as they develop their Incidental Take Permit per the Endangered Species Act (ESA) application process for "listed" coho salmon. Also, implementation of these TMDLs has led to efforts to reduce tailwater discharges and sediment delivery, and to retain and foster planting and restoration of riparian areas.

NPS Staff resources were spent developing the workshop, *A TMDL Road to Watershed Restoration – Doing Them, Implementing Them, and Monitoring Their Effectiveness* offered through training academy (see Section A.3). Additional staff time was spent on the Klamath River TMDL, which was adopted by the Regional Water Board in March of 2010.

Initiative 1.1.b: Dairies

There are approximately 150 milk cow dairies in Region 1, with the highest concentration in western Sonoma County and Humboldt's Lower Eel River Valley. Dairies are generally

regulated by National Pollutant Discharge Elimination System (NPDES) permits (including stormwater), general WDRSs (GWDRs), individual WDRS, or waivers of WDRs throughout the state; however the regulation at Region 1 has lacked a formal region-wide permitting mechanism. Currently only one dairy has individual WDR (Alexandre located in Crescent City California). Five dairies have Industrial stormwater permits (97-03- DWQ), all in Sonoma and Marin Counties. Many of the North Coast dairies have been inspected in the past as needed in response to complaints, and as part of California Code of Regulations (CCR) Title 27, which provides the authority to regulate discharges from confined animal facilities.

Staff prepared an informational item to the Regional Water Board during their January 2010 meeting which unveiled a refocused permitting effort, including assigning two staff to work on a proposed WDR/waiver and a NPDES CAFO permit. Regional Board staff has been collaborating with the State Water Board Office of Public Participation (OPP) and DWQ, staff from Region 2, and USEPA. Stakeholders include the Western United Dairymen, the Farm Bureau, RCDs, and the Laguna de Santa Rosa Foundation. USEPA has provided funding for a private contractor to assist with permit writing and inspections, and populating our newly-developed database of dairies in region.

Staff will tentatively present a three-tier permitting program for North Coast dairies at the May 2011 Regional Water Board meeting. Regional Water Boards are required by the statewide NPS Implementation Policy to develop permits for all discharges associated with NPS and agricultural activities. The federal CWA established the NPDES program to regulate point source discharges of pollutants to waters. The US EPA revised CAFO regulations in November 2008, requiring facilities that discharge to obtain a NPDES permit.

Parameters to be regulated include nitrogen, phosphorus, sediment, temperature, bacteria and other pollutants as circumstances dictate. Monitoring and reporting will be required under all three permits. Some form of nutrient management planning will be required with milestones to be reached every year to guide compliance over a period of time. Water quality improvements to protect the beneficial uses of water may include proper wastewater pond sizing and lining, riparian fencing, proper storage and land application of manure waste, and separation of clean stormwater from production areas, especially during storm events.

The annual CWA 319 workplan called for 0.5 PY for the dairy effort. Another 0.5 PY comes from our timber program, as they are “loaning” us a half-time staffer. We are also receiving $115,000 in contract money from the USEPA (Section 106 FY 2010 Supplemental Grants) to help develop the permits and train inspectors. Despite these shortcomings, staff continues to implement the steps called for in the NPS Implementation Plan, which called for developing a dairy regulatory effort that is similar to the Region 2’s approach, that is compliant with the NPS Implementation Policy, and that incorporates the recently promulgated EPA Confined Animal Feeding Operation regulations.

<u>Initiative 1.1.c.: Specific Grazing Operations with Confirmed Water Quality Concerns</u>
Pursuant to the NPS Implementation Plan, staff has targeted specific grazing operations with confirmed water quality concerns. In the Shasta River, targeted grazing operations (Emmerson Ranch and the Big Springs Ranch) have been inspected and as a result have developed or are currently developing ranching plans (following Region 2’s Tomales Bay Ranch Plan model).

In response to a complaint from an Elk River downstream neighbor about grazing activities, staff requested Mr. Andy Westfall to develop a grazing management plan. Staff has worked closely with Mr. Westfall to address the water quality concerns, including designing and instituting a

coliform monitoring program to determine potential impact from grazing activities. Monitoring will continue to the next FY. The TMDL for Elk River is currently under development.

Initiative 1.1.d.: Laguna de Santa Rosa
As called for in the NPS Implementation Plan, staff is conducting early TMDL implementation and information gathering efforts, and conducting periodic surveillance and water quality monitoring in conjunction with core regulatory and TMDL activities. Adoption of a dairy waiver/permit program (Initiative 1.1.b.) will address the need for nutrient reductions in the Laguna de Santa Rosa watershed.

Initiative 1.2.: Forestry (Silviculture)

The Regional Water Board adopted Order No. 2010-0029 "Waiver of Waste Discharge Requirements For Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands", which brought over half of the Region 1 land base under NPS Implementation Policy compliance. A liaison team, made up of three staff, was set up to interface with the USFS on administering and complying with the waiver.

The Regional Water Board and the Klamath National Forest signed two MOUs for the Salmon and Scott River watersheds which commit the two agencies to "identify those elements of existing USFS plans and commitments that will support achieving TMDL loading capacities and would be expected to lead to meeting the North Coast Regional Water Board Water Quality Plan (Region 1 Basin Plan) water quality standards for temperature." These MOUs describe the specific implementation actions that the Forest Service will take to achieve the TMDLs.

INITITATIVE 1.3.: MARINAS AND RECREATIONAL BOATING FACILITIES

This category has been determined to be the lowest priority of the six categories, due to the lack of documentation of any significant water quality impacts. Consequently, there has been little activity. Staff will periodically visit marinas and boating facilities throughout the Region, incidental to travel for higher priority work. If staff observe and/or confirm significant water quality issues or concerns, staff will recommend appropriate progressive enforcement actions. If staff observe or confirm recurring or significant water quality issues at multiple facilities, staff may recommend revising the priority level and timeline for developing a region-wide policy to regulate these facilities.

Staff will continue to participate in IACC meetings and will follow the ongoing General Marina Pemit development. Due to other high priorities in the region and a low number of marinas in the area, this will remain a low priority.

Initiative 1.4.: Urban Runoff

County roads continue to be a significant component of the sediment problems in our TMDL watersheds. TMDL and NPS staff determined that a third-party certification program, called the Five County Salmonid Restoration Program (5C Program, a third-party program) is an appropriate mechanism to ensure TMDL compliance for sedimentation caused by rural roads in five north coast counties. This program is proposed to be certified by the Regional Water Board. The 4C Program for Sonoma and southern Mendocino Counties may also be a subject of certification. In addition, a Municipal Separate Storm Sewer System (MS4) permit for Sonoma County was adopted by the Board in July 2009, which encompasses urban runoff and roads discharges.

Initiative 1.5.: Wetlands

Staff continues to issue water quality certifications. Our contract Association of Bay Area Governments (ABAG) employee, dedicated to issuing CWA 401 certifications for the California Department of Transportation (CalTrans), spent much of the second half of the FY working on the certification for the Willits Bypass project (largest construction project in the State), which includes a mitigation and land management plan. Plans call for issuing the WDR/certification next fiscal year. Also, advancements have been made in bringing consistency to our CWA 401 certification process, which had been spread across two divisions. In FY 2009/2010 over 80 water quality certifications were issued which resulted in 10 denials without prejudice, 20 Notices of Exemption and 78 public notices posted. The funding for the ABAG position comes from Caltrans, and is administered through ABAG.

Performance Review: The Regional Water Board's main focus for the past year was to continue applying the NPS Implementation Policy through issuing WDRs for Siskiyou County Road maintenance activities, development of a dairy permitting program, and implementing the Scott and Shasta River TMDLs. Significant progress was made in these areas. The dairy permitting program moved forward to include more than 150 dairies in the region, which was presented in a public meeting. The Regional Water Board also adopted the USFS "Waiver of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands", which brought over half of the North Coast Region land base under NPS Implementation Policy compliance. This waiver will also serve as a template/model for the development for the statewide waiver with the USFS at State Water Board. In addition, two MOUs were signed with the Regional Board and the Klamath National Forest for the Salmon and Scott River Watersheds to identify and specify actions that the USFS will pursue to achieve the goals of the TMDL. In 2010 -11, the primary focus will be working on dairies and specific grazing operations with confirmed water quality concerns in the Shasta and Scott River Watersheds. To a lesser extent (secondary focus) will be working on agricultural areas and large-scale flower producers in the Laguna de Santa Rosa and the Smith River Watersheds.

San Francisco Bay Regional Water Board (Region 2)

The primary causes of NPS pollution impairment or threat in the San Francisco Bay Regional Water Board (Regional 2) are from activities associated with hydromodification, agriculture, legacy mercury mining, and urban runoff. Of these, agriculture (including confined animal facilities, grazing, and vineyards), hydromodification, and mercury mining remediation are high priorities for non-point source (NPS) pollution regulation, while urban runoff pollution is primarily addressed through our stormwater NPDES permit program (both Phase I and Phase II).

The staff of Region 2 continue working on four major NPS initiatives that are related to our high priority NPS issues: 1) working in collaboration with Region 1 to develop an amendment to the San Francisco Bay Regional Water Quality Control Plan (Region 2 Basin Plan) to protect stream and wetland systems through a Stream and Wetland Systems Protection Policy, 2) implementing a conditional waiver of WDRs for grazing lands in Tomales Bay and initiating work on a WDR waiver for grazing in Sonoma and Napa Counties, 3) developing a WDR/Waiver for vineyards, and 4) other TMDL implementation activities, including an increased focus on mercury mine cleanup as part of moving into TMDL implementation activities in the Walker Creek (Tomales Bay, Marin County) and Guadalupe River (Santa Clara County) watersheds.

Initiative 2.1: Stream and Wetland Systems Protection Policy

Regions 1 (North Coast) and 2 (San Francisco Bay) have determined that a "Stream and Wetland Systems Protection Policy" (Stream and Wetland Policy) is needed to address a number of water quality concerns:

- Substantially degraded streams and wetlands, with a high number of watersheds that do not support their designated beneficial uses. Because streams and wetlands provide water quality functions that protect watershed-wide water quality, degradation of these areas is a serious threat to the overall aquatic ecosystem.
- Existing and emerging water quality issues that affect streams and wetlands include land use changes, NPS pollution, hydromodification, and climate change. We do not currently have an adequate policy framework to deal with these issues in a coordinated fashion, which leads to inefficient and uneven regulation and missed opportunities to address water quality.
- Uneven protection of stream and wetland resources through local efforts: recent local planning efforts have emphasized the need for additional guidance.
- Limited Federal regulatory jurisdiction over streams and wetlands due to Federal court decisions, which has increased the need for States to take an active role in protecting these resources.
- The need to address adopted and proposed statewide plans and policies such as the Water Board's NPS Implementation Policy, which requires the Regional Water Boards to regulate all NPS discharges that impact streams and wetlands and other waters of the state, and the State Water Board's proposed "Wetland and Riparian Area Protection Policy," which will set general statewide goals for stream and wetland protection, while requiring Regional Water Boards to develop region-specific implementation plans for stream and wetland protection.

The Stream and Wetland Policy will focus on protecting and restoring the physical characteristics of stream and wetland systems (e.g., stream channel shape and slope, riparian shade cover, floodplain width, and flow regimes) in order to protect beneficial uses. Currently, staff are working on a final draft Region 2 Basin Plan Amendment, including new beneficial uses, water quality objectives, and an implementation plan, which has received scientific peer review this year. This will be followed by external public review and comment in fall 2010 and a Regional Water Board adoption hearing in 2011.

Staff are also working on stream permitting and fish protection rapid permit guidelines. After adoption of the Stream and Wetland Policy, Region 2 staff will continue to develop high-priority implementation tools for staff and the regulated community, including local governments. This may include additional performance criteria to incorporate into Regional Water Board permits in order to assess compliance with water quality standards, assessment tools to ensure appropriate project design, and general WDRs for certain classes of activities.

The Regional Water Board may also implement watershed planning and partnership efforts and develop model language for general plans, specific plans, and ordinances that protect and restore water quality. It is expected that these activities will continue throughout the current five year NPS Implementation Plan. Region 2 staff anticipates developing numeric criteria for permits and model language for general plans following adoption of the Stream and Wetland Policy.

This policy development is a very complex process, and working through technical details and peer review has involved a large amount of staff time and resources. Milestones for 2010-11 include: 1) completion of a peer review of draft Basin Plan Amendment language and supporting staff report in December 2010, 2) development of sediment and habitat parameters for performance criteria (also peer reviewed), and 3) development of a Rapid Permit Assessment Users Manual that will serve as an implementation guidance document for local governments.

Initiative 2.2: Conditional Waivers of Waste Discharge Requirements for Grazing Lands

Tomales Bay Watershed

Sampling analyses have shown that Tomales Bay and its tributaries are impaired by pathogens, and one of the sources listed is grazing activities in the watershed. The Regional Water Board adopted a conditional waiver of WDRs in July 2008 to regulate this source of NPS pollution in the larger Tomales Bay Watershed. The goal of the Grazing Waiver is to reduce the amount of sediment, nutrients, pathogens, and mercury in Tomales Bay and its tributaries, by requiring landowners and operators to implement appropriate MMs on grazing lands. Development and implementation of this waiver (and the Napa-Sonoma waiver discussed below) are significant as the waivers identify a comprehensive strategy towards land management aimed at preventing and minimizing discharge of all pollutants, not just pathogens, from grazing lands covered by the program. This strategy constitutes early implementation of TMDLs and addresses the other impairments in the watershed (i.e., nutrients, mercury, siltation/sedimentation) prior to development of future proposed TMDLs, as well as implementing the Water Board's NPS Implementation Policy and the California Water Code (CWC).

The Grazing Waiver requires landowners/operators to prepare Ranch Water Quality Plans (RWQPs) (or amend existing plans) that include an implementation schedule for the MMs identified in the plans. The waiver applies to facilities larger than 50 acres, based on Information received from the Marin County Planning Department that indicates that grazing parcels 50 acres or larger account for approximately 90% of all the grazing lands acreage in the Tomales Bay Watershed. If the potential for water quality impacts is found at smaller facilities, the Regional Water Board will then issue individual permits, or require these smaller facilities to be covered under the waiver. We are also working on a grazing waiver for selected watersheds in Napa and Sonoma Counties as noted below.

Landowners/operators of facilities covered under the waiver were required to submit a Report of Waste Discharge, or equivalent document, by January 31, 2009. In November 2008 we sent notices to the owners of 420 parcels thought to be within the Tomales Bay Watershed. However, the database we received from Marin County included many parcels outside of the Tomales Bay Watershed, which became evident when we started receiving phone calls from landowners that had received the letters but were not within the watershed. On June 19, 2009, Water Board staff mailed 110 Notices of Overdue Submittal to those landowners who had not submitted an NOI (Notice of Intent) or an NONA (Notice of Non-applicability). The notice letters reminded landowners of their responsibility to comply with the requirements of the Grazing Waiver, set July 31, 2009, as the final deadline for the submittal of an NOI or NONA, and stated that failure to submit the appropriate documentation by the July 31 deadline may lead to enforcement action. As of August 2009, Water Board staff revised the estimated number of agricultural parcels that may require coverage under the waiver to 235. To date, staff have received a total of 204 NOIs, leaving 34 that have not responded.

In summary, through the above-noted series of notices and reminders to landowners, and with the help of agencies like the Marin County RCD and the Marin Agricultural Land Trust (MALT), we have the following numbers for the Grazing Waiver compliance:

- 204 Parcels – owner/operators submitted NOIs to be covered under the Waiver
- 182 Parcels were determined not to be required to be under the Waiver, by either an actual NONA from the parcel owner/operator or by RCD/MALT determination
- 34 Parcels listed are under Non-Response and will be followed up on by staff in 2010-11

Regional Water Board staff continues to work with landowners, agricultural representatives, and the public to facilitate compliance with the Grazing Waiver. Staff has processed the paperwork submitted by landowners or operators of grazing lands in the Tomales Bay Watershed and are comparing it to watershed and parcel maps.

Other activities related to implementation of the Grazing Waiver include:

- Regional Water Board staff contracted with Marin Resource Conservation District (RCD), through the State Board's Cleanup and Abatement Account, for $200,000 for projects to stabilize Walker Creek, in order to address sediment and mercury.
- Regional Water Board staff finalized a $30,000 TMDL-funded contract with Marin RCD to provide outreach on the Grazing Waiver requirements and to prepare a template RWQP for ranches in the watershed.
- Marin RCD was awarded a 2008 CWA 319(h) NPS grant in the amount of $800,000 to work with ranchers on development of their RWQPs and to implement MMs, as required by the Waiver. The Grant Agreement was executed on June 1, 2010, and work is beginning on the project.
- Water Board staff worked with CWA 319(h) grant applicants at the Point Reyes National Seashore on a successful grant proposal in the amount of $453,000 for implementation of pathogen reduction MMs on parklands.

<u>Napa River and Sonoma Creek Watersheds</u>

In December 2009, Regional Water Board staff conducted the first public meeting with various local agencies and interested parties in the Napa River and Sonoma Creek Watersheds to discuss development of a grazing waiver and the waiver process, and to receive initial feedback on requirements to be included in the new waiver. The participants at the kick-off meeting included representatives from the NRCS, Southern Sonoma Resource Conservation District, Napa County Farm Bureau, Sonoma Ecology Center, Western United Dairymen, UCCE, and a local rancher representative.

A follow-up working group meeting was held on February 24, 2010. Regional Water Board staff continued to work with farm bureau and local agencies to determine eligibility criteria. Staff is also working closely with local Napa and Sonoma agencies to identify eligible participants for the waiver. We have begun the process of meeting with a technical advisory committee comprised of local experts, to vet focused technical issues such as performance standards and monitoring strategies. We convened a kickoff meeting on June 2, and will be holding future meetings.

Other outreach activities included an item in a Sonoma Farm Bureau newsletter and presentations at the North Bay Watershed Association's Watershed Council meeting held on June 22, 2010 and at the Watershed Information Center and Conservancy (Napa County) meeting on June 24, 2010. The draft waiver will be presented at the next working group meeting

in late summer or early fall. A draft waiver is now expected in fall 2010, with a final in summer 2011. This new waiver will use the Tomales Bay grazing waiver as a model.

Regional Water Board milestones include: 1) enrolling owners/operators of 87% of all grazing lands in the Tomales Bay Watershed into the waiver program within the two years, 2) conducting follow-up actions necessary to secure coverage of the remaining 13% of grazing land, 3) ensuring all RWQPs are developed and/or updated – working with the local RCD and UCCE, 4) working to meet the goal of implementing all proposed MMs and management objectives by the end of the five-year period, including work with stakeholders to successfully receive grant funding for implementing MMs in the Point Reyes National Seashore and along the east shore of Tomales Bay, and 5) outreach to local stakeholders to initiate the development of a draft Grazing Waiver for the Napa River and Sonoma Creek watersheds (expected to be completed by fall 2010), including holding working group meetings, outreach presentations, and forming a technical advisory committee.

Initiative 2.3: Waste Discharge Requirements Waiver for Vineyards

Another land use identified as significantly impacting sedimentation in streams is vineyard development and operation. Where hillside vineyards replace mature mixed evergreen forests, peak runoff rate and volume from the vineyard site may increase substantially. Installation of subsurface drainage pipes may increases storm runoff, at a faster rate, than under natural conditions; if discharges from drainage pipes are collected at a single point of discharge, there is the potential to further concentrate runoff volume. The above effects have the potential to cause off-site gully erosion and/or shallow landslide failures, especially in locations where hillslope soils and bedrock are soft and easily eroded.

The Regional Water Board plans to focus on addressing vineyard NPS pollution through a variety of ways in the next several years. The goals, in terms of performance standards for vineyard management, are to: 1) control excessive rates of sediment delivery to channels resulting from vineyard surface erosion; 2) control road-related sediment delivery to channels; 3) effectively attenuate significant increases in storm runoff so that vineyards shall not cause or contribute to downstream increases in rates of bed and bank erosion; 4) accelerate natural recovery and prevent human-caused increases in gullies and shallow landslides; 5) control the discharge of toxic substances (e.g., pesticides); 6) control the discharge of nutrients; and 7) protect stream and riparian areas.

Regional Water Board staff is currently working on developing a conditional waiver of WDRs for vineyards in the Napa River and Sonoma Creek Watersheds. The key element of the waiver program will be the development of a “Farm Water Quality Plan”, which will be designed to guide a strategy for choosing and implementing appropriate MPs. The farm planning process involves the vineyard operator/owner assessing his/her own land, evaluating potential sources of pollutants, identifying where MPs need to be implemented or revised, and then developing and implementing a plan (with a schedule) to put the identified MPs into place. To meet the performance standards stated above, the farm plan must address surface erosion, storm water runoff, sediment delivery from roads, pesticide use, nutrient management, and protection of stream areas.

Staff has initiated outreach activities and convened a Technical Advisory Committee (TAC), and anticipates releasing a public review draft in late 2010 or early 2011. Regional Water Board consideration of adoption of the Vineyard Waiver is expected in summer or fall of 2011. Vineyard sediment control performance standards may be achieved through expanding the total

vineyard acreage enrolled and independently certified under the third-party Fish Friendly Farming Program or other farm certification programs.

Region 2 staff expect to be able to track progress by the numbers of acres enrolled in a third party monitoring program such as Fish Friendly Farming, the number of management plans in place, the number of vineyards in compliance with the Vineyard Waiver, and measurement and monitoring of runoff volumes and erosion, as well as in-stream monitoring of spawning gravels and redd scour. The target will be to reduce sediment delivery associated with land use activities by 25 percent or more by 2017 and 37% by 2022. The Fish Friendly Farming program was awarded a CWA 319(h) grant in 2010, which will be expected to considerably expand the number of acres enrolled in the program. Napa RCD was also awarded a CWA 319(h) grant in 2010 to establish an integrated monitoring program to assess effectiveness in attaining the numeric targets listed in the Napa River sediment TMDL and to track trends in steelhead and salmon populations in the Napa River Basin.

During the 2009-10 year, we initiated outreach activities and set up a TAC, and staff began work on a draft conditional waiver of WDRs for Vineyards. We also worked with applicants to successfully fund two new CWA 319(h) grants: for Fish Friendly Farming and for instream monitoring. While working with Fish Friendly Farming since 2004, we have certified farm plans at more than 100 vineyard properties covering approximately 10,000 acres of vineyards, and 5,000 acres of adjacent rural lands, covering an estimated 40% of the Napa River watershed.

Initiative 2.4: Other TMDL Implementation Activities

A major focus of the Region 2's NPS Implementation Plan is on implementing TMDLs, through waivers of WDRs as noted above, as well as other implementation activities, partnering with local governments, RCDs and other stakeholders.

The highest priority TMDLs for the NPS Implementation Plan include Napa River pathogens and sediment, Sonoma Creek pathogens and sediment, Tomales Bay pathogens, Walker Creek mercury, and Guadalupe River mercury. Implementation activities will be those laid out in TMDL implementation plans, with specified actions for each source category.

For the pathogen TMDLs, implementation actions include: (1) requiring plans by Marin, Sonoma, and Napa counties for on-site sewage system inspection and repair programs and annual reports on progress of these programs; (2) implementing the grazing lands waiver for Tomales Bay Watershed (as noted above); (3) developing grazing waivers for Napa River and Sonoma Creek Watersheds (see above); (4) developing a vineyard waiver for Napa and Sonoma Counties (as noted above) (5) updating WDRs/waivers for dairies and ensuring compliance with existing dairy WDRs and waivers; and (7) ensuring compliance with existing NPDES permits and WDRs for sewage treatment facilities. The Water Board and other stakeholders will also be conducting creek water quality monitoring for Tomales Bay, the Napa River and Sonoma Creek, and will be evaluating the results (various timelines depending on the TMDL), to assess progress in meeting TMDL targets and to evaluate implementation measures.

Sediment TMDLs for Napa River and Sonoma Creek will focus on land use activities that contribute to sediment in creeks, namely farming (including vineyards), grazing, road maintenance, and erosion, with the goal of reducing current sedimentation rates by 50% within the next 10-20 years. The TMDLs call for reports of waste discharge from rural landowners, vineyard operators, and park departments, as well as measures to improve stream and fishery habitats through water management and restoration activities. This includes developing guidelines to maintain in-stream flows, developing restoration plans and implementing projects

in specific tributaries, completing water rights surveys, and other actions as specified in the TMDL implementation plans. The timeframe for development and submittal of erosion control and management plans, and/or evidence documenting effective practices in place, is expected to be from three to five years following adoption of the TMDLs.

The Walker Creek mercury TMDL addresses mercury in Walker Creek and Soulajoule Reservoir in Marin County. The TMDL allocations and implementation plan are designed to control the amount of mercury discharged to Walker Creek and from Soulajule Reservoir and prescribe and promote actions to minimize the potential for mercury to be present in the toxic and bioavailable form of methylmercury. Implementation actions include WDRs, the grazing waiver for Tomales Bay, monitoring, site remediation, and erosion control. The Regional Water Board will conduct monitoring and evaluate the results and need for further management actions every five years, beginning in 2011.

The Guadalupe River Watershed mercury TMDL addresses mercury in the Guadalupe River, Lake Almaden, Alamitos Creek, and four reservoirs within the watershed. Implementation actions include effective source control measures for mining waste such as erosion control, riparian restoration, and bank stabilization; mercury and methylmercury monitoring in reservoirs and lakes; and stormwater controls and monitoring activities. These implementation actions have a 20-year timeline, with activities beginning January 1, 2009. The first 10 year phase includes erosion control at mines, methylmercury controls at reservoirs, and assessment of Alamitos Creek with development of a plan for remediation and creek restoration. ABAG successfully applied for a 2008 CWA 319(h) grant to cap and stabilize eroding mercury-contaminated sediments along a tributary to the Guadalupe River, as an initial TMDL implementation action. Early implementation actions have included:

- Issuing CWC 13267 Orders to former mercury mine site property owners requiring the locating of mining wastes, assessment and ranking of wastes with respect to their erosion potential and bioavailability, and reporting of their results. These evaluations will inform future Regional Water Board actions requiring responsible parties to implement corrective actions for control of eroding mine wastes.
- Requiring responsible parties to evaluate and report on studies and corrective actions to address dry season thermal stratification of mercury-impaired reservoirs and lakes in the watershed; and
- Promoting a coordinated watershed monitoring effort aimed at furthering our understanding of mercury loading to San Francisco Bay and progress towards attainment of the TMDL.

All of the above TMDLs include having Regional Water Board staff work closely with a variety of local stakeholders, including local government agencies, to support and enhance their current efforts, including supporting grant funding, providing technical help and oversight for projects, and working collaboratively to develop guidelines and tools. Specific details and timelines for TMDL implementation can be found on the San Francisco Bay Regional Water Board's TMDL website.

Performance Review: Our region's highest priorities for NPS implementation this year have focused on 1) continuing to develop and refine the technical documents for our Stream and Wetland Systems Protection Policy Basin Plan Amendment and associated guidance documents, 2) successfully implementing our Grazing Waiver in Tomales Bay Watershed as part of our pathogen TMDL implementation, and 3) initiating and continuing development of Grazing and Vineyard Management Waivers of WDRs in the Napa River and Sonoma Creek Watersheds, as part of pathogen and sediment TMDLs. We are also moving ahead with other

TMDL implementation activities in the various watersheds as noted above, with a particular focus on mercury remediation activities in the Walker Creek and Guadalupe River Watersheds. Although furloughs and grant program freezes have had an impact on this work, we are on track for all these tasks and expect to see continued progress in meeting water quality improvement goals within the next five years. We will continue to evaluate progress and make adjustments as needed each year based on water quality priorities.

Central Coast Regional Water Board (Region 3)

The Central Coast Regional Water Board (Region 3) has developed NPS water quality priorities using water quality data, legislative mandates, statutes, regulations, and input from internal and external stakeholders. As such, a balance must be achieved from competing demands in order to promote our mission to protect, restore and enhance water quality. Region 3 NPS Program staff regularly reviews priorities to respond to legal changes and make efficient use of resources. For example, in the last few years changes to the CWC, as specified in the NPS Implementation Policy, which pertain to waivers of WDRs have necessitated redirection of significant resources, primarily on waivers for irrigated agriculture, but also with some redirection for timber harvest. The three areas discussed below, irrigated agriculture, TMDLs, and water quality monitoring, reflect current Regional Water Board priority actions or initiatives.

The vision for Region 3 is expressed through the following goals:

Regional Board Goal #1: Healthy Aquatic Habitat: By 2025, 80% of aquatic habitat is healthy, and the remaining 20% exhibits positive trends in key parameters.

Regional Board Goal #2: Proper Land Management: By 2025, 80% of lands within any watershed will be managed to maintain proper watershed functions, and the remaining 20% will exhibit positive trends in key watershed parameters

Regional Board Goal #3: Clean Groundwater: By 2025, 80% of groundwater will be clean, and the remaining 20% will exhibit positive trends in key parameters

The Region Water Board identified two high priority initiatives in the NPS Implementation Plan: Irrigated Agriculture and Water Quality Monitoring - Central Coast Ambient Monitoring Program (CCAMP). Below are descriptions of activities and progress for each initiative.

Initiative 3.1: Irrigated Agriculture

During 2009-2010, Region 3 devoted approximately 1.8 PYs (80%) of its allocated CWA 319(h) resources, as well as 1.7 PYs from the ILRP to implement the Central Coast Regional Water Board's Agricultural Regulatory Program, including efforts to renew the Agricultural Order. In addition, staff from programs outside the Agricultural Regulatory Program contributed approximately 0.5 PYs to assist in evaluation of pollutant loading, surface water quality, groundwater quality, and aquatic habitat conditions to inform the renewal of the Agricultural Order.

During FY 2009-10, staff efforts were focused primarily on activities associated with renewal of the Agricultural Order (Agricultural Order No. R3-2004-0117), In February 2010, staff released

preliminary draft recommendations for an updated Agricultural Order. In May and July 2010, staff held Board workshops to receive comments and input from the Board and public. The Central Coast Regional Water Board reviewed three alternative proposals for regulating discharges from irrigated lands and over 1200 comment letters in response to staff's preliminary draft recommendations for an agricultural order (released on February 1, 2010). Staff will complete the review of comments and alternatives submitted, continue to receive input from stakeholders, and bring a draft order to the Regional Water Board for adoption during 2010-2011.

Region 3 is also advancing implementation of the Agricultural Regulatory Program to maximize progress towards measurable water quality protection and improvements. Staff is prioritizing regulatory and enforcement actions (inspections, notice of violations and enforcement actions) that will result in the reduction or elimination of agricultural discharges contributing to water quality impairments in priority watersheds. Staff anticipates related water quality improvements within the next five years, as demonstrated through the watershed-scale monitoring and individual reporting required of specific dischargers. In addition to efforts to renew the Agricultural Order, the Central Coast Water Board Agricultural Regulatory Program completed the following efforts during Fiscal Year 2009 – 2010:

- Finalized operational measures to evaluate Agricultural Regulatory Program effectiveness and progress towards the vision of healthy watersheds and measurable goals - sustainable land management, clean groundwater, and healthy aquatic habitat.
- Prioritized agricultural water quality issues in the Santa Maria, Pajaro, and Salinas River watersheds.
- Developed and initiated implementation of watershed implementation strategies for the priority watersheds focused on the highest priority water quality issues in those watersheds, including outreach regarding compliance requirements and water quality conditions, inspections, required monitoring and reporting, enforcement, and other follow-up.
- Initiated evaluation of data management efforts for the Agricultural Regulatory Program to ensure effective reporting on regulatory compliance and program priorities.
- Coordinated with the Cooperative Monitoring Program to initiate 2010 follow-up monitoring.
- Conducted 9 field visits and site inspections, and issued 10 CWC 13267 orders requiring information related to water quality issues in priority watersheds, including degradation of aquatic habitat and nitrate loading to groundwater.
- Issued 40 Notices of Violation (NOV) related to wetland filling, failure to enroll in the Agricultural Order, and failure to comply with monitoring requirements.
- Initiated efforts to revise the Notice of Intent to Enroll (NOI), Notice of Enrollment (NOE), and Notice of Termination (NOT) process and forms.

Despite continuing efforts in the Agricultural Regulatory Program, agricultural discharges continue to load pollutants to surface water and groundwater and impact water quality. As a result, severe water quality conditions persist in agricultural areas of the Central Coast region. Agricultural program staff is evaluating the current use of Farm Plans and associated MP checklists, and how such efforts result in measurable water quality improvements. Staff's intent is to further evaluate Farm Plan-related requirements and tools to ensure growers are in compliance with the Agricultural Order, and making progress towards resolving the highest priority water quality issues at specific operations and at a watershed scale. Associated monitoring and reporting will be linked to requirements and clearly stated objectives. Agricultural

Regulatory Program staff and Preservation Inc (the organization that runs the Cooperative Monitoring Program) have finalized 2010 Follow-Up Monitoring to evaluate overall effectiveness of the Cooperative Monitoring Program and conduct specific follow-up related to sediment toxicity.

Staff developed new operational measures to measure progress towards water quality improvement, to begin tracking in FY 2010-11 and 2011-12. Staff plans to acquire this information through routine compliance reporting and formal information requests (CWC 13267 letters) to growers in high priority watersheds and through field inspections. Staff began this work in 2009-2010 in a few areas and has initiated efforts to align compliance reporting documents but does not yet have sufficient information to evaluate progress made by the Agricultural Regulatory Program and individual dischargers. Examples of Agricultural Regulatory Program Operational Measures follow below and can be found in its entirety at the Regional Water Board's Internet site.

The numbers/values that follow in italics represent the targets/goals set:

- Number of acres certified sustainable: increasing trend
- Volume of tailwater produced by watershed (OR acres of land discharging tailwater by watershed OR number of days with tailwater discharges by watershed): reducing trend
- Number of acres where tailwater is treated by watershed: 80% of all enrolled acres within 5 years; annual targets – 10% in year 1, 25% in year 2, 40% in year 3, 65% in year 4
- Pounds of high risk pesticides applied by watershed: decreasing trend
- Number of acres implementing integrated pest management: 80% of all enrolled acres within 5 years; annual targets – 10% in year 1, 25% in year 2, 40% in year 3, 65% in year 4
- Areal extent of good quality or high value/function? aquatic habitat on agricultural lands by watershed: increasing trend
- Number of compliance inspections or enforcement actions related to volumes of tailwater discharges, failure to implement or improve irrigation efficiency, failure to implement or improve nutrient management, failure to implement integrated pest management, or removal, degradation or failure to protect aquatic habitat: increasing trend.

In response to the severe water quality conditions that persist in agricultural areas of the Central Coast Region as a result of continuing agricultural discharges that load pollutants to surface water and groundwater, the Agricultural Regulatory Program is conducting a comprehensive evaluation of program implementation activities in parallel with renewing the Agricultural Order. As part of that evaluation, staff has found that significant improvement is necessary to evaluate compliance, conduct necessary follow-up and enforcement, manage information and data related to the discharger and specific discharges, document and measure water quality improvements, and assess performance with performance measures relevant to water quality improvement in the highest priority areas.

As a result, staff has already initiated improvements by: (1) refining performance measures, (2) making improvements to the type of data we require about agricultural operations and dischargers in a revised NOI and annual compliance document, (3) making improvements to the way the Regional Water Board manages agricultural regulatory program data and how we analyze the data in the context of water quality conditions, (4) making improvements to the way

we evaluate compliance where water quality improvement is needed most urgently, (5) making improvements to the way we issue enforcement actions using an expedited process, and (6) increasing the accountability of landowners as dischargers. These improvements have all been initiated over the last twelve to eighteen months, and while such changes will take time, evidence of these improvements has already been brought before the Regional Water Board in terms of items focused on holding dischargers accountable to resolving the severe water quality impairments in agricultural areas (such a nitrate loading to drinking water).

Initiative 3.2: Water Quality Monitoring

The Central Coast Ambient Monitoring Program (CCAMP) is the Central Coast Regional Water Board's regionally scaled water quality monitoring and assessment program. CCAMP is primarily funded by the State Water Board's SWAMP and by a private endowment held with the Bay Foundation of Morro Bay. The CCAMP mission is to collect, assess and disseminate scientifically based water quality information to aid decision makers and the public in maintaining, restoring and enhancing water quality and associated beneficial uses. This includes integrating data from various Water Board programs as well as other data collection efforts (citizen monitoring, grants, and others).

During FFY 2009-2010, the CCAMP website (http://www.ccamp.org) was significantly improved and now displays data and information measured against water quality standards and indicators, so that staff and the public can see changes in water quality over time at regional, watershed, waterbody and sampling site scales. Staff expects to detect and understand these changes over several years. Staff is also working on adding information that shows changes in land uses (e.g., increase or decrease in impervious surfaces) or practices (e.g., increase or decrease in fertilizer or pesticide use) in order to be able to relate on-the-ground implementation actions to changes in water quality in streams and estuaries.

Performance Review: The objectives set forth for FY 2009-10 were met, except for some of the activities in the Agricultural Regulatory Program. In addition, NPS Program staff participated in the grant solicitation process and developed a list of Measure 'W' watersheds for Region 3. Staff also managed two grants, one in the Pajaro River Watershed and the other on Santa Cruz County Roads. Both projects have been successful in implementing practices to reduce sediment loading in their respective watersheds. The Agricultural Regulatory Program is progressing in their effort to revise the Conditional Waiver, including MP tracking and reporting and monitoring requirements. The region-wide farm MP report has been delayed to align the requirements with the upcoming new Conditional Waiver Order that is propose to be adopted in February 2011. Staff will continue to focus on agricultural program activities on impaired watersheds with TMDLs, increase the implementation of irrigation, nutrient and pesticide MPs, and evaluate monitoring data to determine water quality trends in agricultural watersheds.

Los Angeles Regional Water Board (Region 4)

Nonpoint source pollution is a critical threat to water quality in the Los Angeles Regional Water Board (Region 4). Many of the impaired waterbodies identified on Region 4's CWA 303(d) list identify the potential source of the pollutant as having a NPS origin. In order to fulfill our mission to protect, restore, and enhance water quality, reducing NPS pollution is a priority. The initiatives discussed below, reflect the NPS priorities of the Regional Water Board for the next five years: irrigated agriculture, trash, and atmospheric deposition.

During the next five years, Region 4 will consider new waivers or other regulatory approaches to address nonpoint sources of pollution such as golf courses and horse stables. The Regional Water Board also intends to increase and improve MP tracking under the conditional waiver for irrigated lands to include more site visits and MP field verification. Nonpoint sources of selenium due to geologic sources, such as those in the upper reaches of the Los Angeles River watershed, may also be addressed. Finally, the Regional Water Board will implement the load allocations assigned to in-lake sediments in the McGrath Lake Pesticides and Poly-Chlorinated Biphenyls (PCBs) TMDL, the Machado Lake Pesticides and PCBs TMDL, and the Machado Lake Nutrients TMDL though memorandums of agreement (MOA) with responsible parties. Once the MOAs are executed, Region 4 staff will review lake water quality management plans, work with stakeholders to secure funding, and oversee implementation milestones to remediate the lake sediments and attain load allocations.

Initiative 4.1.: Irrigated Agriculture

This fiscal year, the Los Angeles Regional Board implemented the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Conditional Waiver) and began working on renewal of the Conditional Waiver. The Conditional Waiver is scheduled for consideration at the October 2010 Regional Board hearing in fiscal year 2010-11.

Implementation focused on (1) review and approval of required monitoring reports and water quality management plans (WQMPs) and (2) increasing enrollment in the Conditional Waiver program. First, staff reviewed annual monitoring results submitted by the two approved Discharger Groups in the Region (the Ventura County Agricultural Irrigated Lands Group, or VCAILG, and the Los Angeles Irrigated Lands Group, or LAILG). The monitoring reports demonstrated continued exceedances of water quality benchmarks. Therefore, both the VCAILG and LAILG have developed WQMPs and staff has reviewed and provided comments on these WQMPs. According to the WQMPs, MP implementation was initiated in late 2009. It is expected that the 2010 monitoring results, due in February 2011, will report water quality improvements in priority areas where MPs have been implemented. Second, in order to increase enrollment and ensure equitable implementation of the Conditional Waiver program, Region 4 has been pursing enforcement actions against non-filers. As a follow up to five Administrative Civil Liability (ACL) actions issued to non-filers in May 2009, Region 4 engaged in settlement negotiations and formal enforcement proceedings during this fiscal year. In addition, the Los Angeles Regional Water Board issued four more ACLs on February 18, 2010 and is working with the recipients of the ACLs to settle the complaints.

Staff began working on renewal of the Conditional Waiver in the latter part of this fiscal year. Staff developed preliminary drafts of the renewal and met with stakeholder representatives to discuss key elements and the renewal process. Staff made changes based on stakeholder comments, completed a staff report supporting the renewal, conducted California Environmental Quality Act (CEQA) review, and drafted template enrollment documents for the Conditional Waiver. The fiscal year 2009-10 effort is documented by the fact that the Regional Board noticed the renewal for public comment on August 6, 2010.

Ongoing activities specified in the NPS Implementation Plan will achieve the objectives of the Conditional Waiver program, which include monitoring the water quality impacts from irrigated agriculture discharges and mitigating those impacts as necessary. Staff will continue to review monitoring reports and WQMPs to ensure that they are revised as necessary to reflect the results of monitoring. In addition, staff will oversee the implementation of WQMPs to ensure that MPs are employed at all sites that contribute to benchmark exceedances. As part of this effort,

staff is overseeing a CWA 319h grant for implementation of MPs to reduce agricultural TMDL loads in the Calleguas Creek and Santa Clara River Watersheds. Thus far, the CWA 319h grant has resulted in four workshops to educate growers and the implementation of eight types of MPs serving over 1000 acres of primarily citrus and avocado trees, with minor acreage in lettuce, celery and peppers. MPs included irrigation efficiencies and erosion control such as in-row mulching, straw wattles, and raised beds.

As a result of Region 4 activities, enrollment in the program has increased 10% over the past year. Overall, 90% of the irrigated acreage in the Region is enrolled, including 95% of the irrigated acreage in Ventura County and 22% of the irrigated acreage in Los Angeles County. The Conditional Waiver also requires that growers and/or farm managers participate in eight hours of educational training. Currently, 90% of VCAILG members have completed the training, while the majority of LAILG members have not completed the training. LAILG is confronted with unique challenges, such as the small amount of irrigated acreage in Los Angeles County and difficulties identifying and communicating with small growers. In response to these challenges, Region 4 staff is working with LAILG representatives to address their concerns and ensure that the Conditional Waiver requirements are implemented in a cost effective and equitable manner. For example, the previously mentioned CWA 319(h) grant will provide educational workshops for growers in Los Angeles County. Implementation of the Conditional Waiver is an iterative process and it may take years of the MP implementation, monitoring, and upgrading to completely address pollution from agricultural sources.

Initiative 4.2.: Trash

In order to address NPS trash pollution, the Los Angeles Regional Water Board developed and are implementing a Minimum Frequency of Assessment and Collection (MFAC) program in conjunction with Best Management Practices (BMPs) (MFAC/BMP program). The MFAC/BMP program is implemented for waterbodies that have adopted Trash TMDLs. The MFAC/BMP program includes an assessment of trash on the surface or shoreline of the waterbody of concern, collection of all visible trash that accumulates on the surface or shoreline of the waterbody, and implementation of BMPs to attain a progressive reduction of the amount of trash collected at each collection event. A Trash Monitoring and Reporting Plan, which is developed as part of the MFAC/BMP program, is used to determine baseline trash amounts and determine the progressive reduction required to attain zero trash. The goal of the MFAC/BMP program is to attain zero trash from nonpoint sources. Zero trash is determined by the fact that trash does not accumulate in deleterious or nuisance amounts on the surface and the shorelines of waterbodies to adversely affect beneficial uses.

This fiscal year, the Region 4 NPS staff coordinated its efforts with TMDL activities to develop load allocations and an implementation plan for the Santa Monica Bay Nearshore/Offshore Debris TMDL. The TMDL includes MFAC/BMP requirements and NPS implementation actions. This effort is documented by the fact that the TMDL will be noticed for public comment in the early part of FY 2010-11 on July 30, 2010. The Los Angeles Regional Water Board also continued to oversee implementation of MFAC/BMP programs for six previously adopted TMDLs with NPS load allocations. Region 4 has begun developing an access database to track implementation of trash TMDLs.

Ongoing activities under the NPS Implementation Plan include tracking the number of MFAC/BMP programs implemented for six adopted TMDLs, the baseline amount of trash reported in the Trash Monitoring and Reporting Plans for the six TMDLs, the number and location of BMPs implemented, and the reduction in trash collected at and/or in waterbodies.

Staff has approved five TMRPs submitted in compliance with previously adopted TMDLs. The TMRPs began implementation in 2009 and the results from the monitoring and reporting will be tracked by Region 4 staff.

The Regional Water Board has approved five MFAC/BMP and TMRP programs for the six TMDLs. The results of the TMRPs have not yet been reported. Region 4 staff will track progress of the MFAC/BMP program once reports are received.

Initiative 4.3.: Atmospheric Deposition

In May 2007, the Los Angeles Regional Board issued CWC section 13267 letters to the largest stationary sources of toxic metals in the region. Region 4 staff reviewed the reports submitted by the air emissions facilities to assess the degree of their contribution to water pollution. Staff tracked the number of air emissions facilities investigated, the quantity of pollutants emitted, and made preliminary findings. NPS staff completed a draft analysis of air emitter facility data and submitted it to TMDL staff in March 2010. The NPS and TMDL programs are coordinating to incorporate the findings of the analysis into the Port of Los Angeles and Long Beach TMDLs.

Other TMDLs in the Region with significant direct air deposition components are being developed by USEPA. These TMDLs are the Los Angeles Area Lakes TMDLs for multiple pollutants, including nutrients, PCBs, and mercury. This fiscal year, NPS staff reviewed TMDL technical documents and air deposition assessment techniques before the documents were noticed by EPA in April 2010.

Initiative 4.4.: Implementation of Total Maximum Daily Loads (TMDLs)

- Calleguas Creek Chlorpyrifos, Diazinon, and Toxicity TMDL. The load allocations of this TMDL are being implemented through the Conditional Waiver. The VCAILG WQMP has identified priority subwatersheds in the Calleguas Creek watershed where MPs must be implemented. The Los Angeles Regional Board has reviewed the WQMP to ensure that it MPs are prioritized to attain load allocations by the implementation deadline of March 24, 2016.
- Calleguas Creek Organochlorine Pesticides and PCBs TMDL. The load allocations of this TMDL are being implemented through the Conditional Waiver. The VCAILG WQMP has identified priority subwatersheds in the Calleguas Creek watershed where MPs must be implemented. Region 4 has reviewed the WQMP to ensure that MPs are prioritized to attain load allocations by the implementation deadline of March 24, 2026.
- Calleguas Creek Nitrogen TMDL. The load allocations of this TMDL are being implemented through the Conditional Waiver. The VCAILG WQMP has identified priority subwatersheds in the Calleguas Creek watershed where MPs must be implemented. Region 4 staff has reviewed the WQMP to ensure that MPs are prioritized to attain load allocations by the implementation deadline of July 16, 2010.
- Santa Clara River Nutrient TMDL. The load allocations of this TMDL are being implemented through the Conditional Waiver. The VCAILG WQMP has identified priority subwatersheds in the Santa Clara River watershed where MPs must be implemented. Region 4 has reviewed the WQMP to ensure that MPs are prioritized to attain load allocations by the implementation deadline of March 23, 2012.
- Revlon Slough and Beardsly Wash Trash TMDL. The load allocation for this TMDL will be implemented through the MFAC/BMP Program. The TMRP has been approved for implementation of this TMDL. The MFAC/BMP Program can now be implemented and

ongoing tracking will be performed by Region 4 staff to ensure that load allocations are attained by the implementation deadline of March 2013.

- Port of Los Angeles/Long Beach Toxic Pollutants TMDL. This TMDL is currently under development. The Los Angeles Regional Baord NPS and TMDL programs are coordinating to write the load allocations for atmospheric deposition and an implementation plan for this TMDL.

Performance Review: The primary focus for 2009 – 10 was implementing the Los Angeles Region Conditional Waiver for Irrigated Lands (Conditional Waiver), and assisting the groundwater permitting staff prepare a septic system prohibition in Malibu. The Regional Board has struggled with low enrollment in their Conditional Waiver Program, which has led to higher costs and lower grower confidence. To address this issue, staff intends to increase the direct outreach efforts and attempt to increase enrollment through the waiver renewal process. Malibu Civic Center Septic System prohibition was adopted by the Regional Board. The State Board noticed the prohibition for proposed approval on June 28, 2010. The main objective for next year is to focus on NPS linking NPS MMs to impaired waterbodies and TMDL implementation.

Central Valley Regional Water Board (Region 5)

Consistent with the statewide NPS Program, the overall goals of the Central Valley Regional Water Board's (Region 5) NPS Program are to restore waters impacted by NPS pollution and protect unimpaired waterbodies. Six Central Valley Regional Water Board "initiatives" have been identified that should result in measurable water quality improvements within the next five years. The focus on these areas does not preclude work on other sources of NPS pollution. These initiatives are: (1) San Francisco Bay-Delta; (2) Central Valley Salinity CV-SALTS; (3) dairies; (4) runoff from irrigated lands; (5) watershed work; and (6) implementation of the NPS elements of TMDLs.

Initiative 5.1.: San Francisco Bay – Delta Initiative

This initiative overlaps multiple NPS initiatives including irrigated lands, salinity management, and TMDLs. The Delta is called out specifically because of its Regional and Statewide importance. The Delta and the San Francisco Bay, called the Bay-Delta, is the largest estuary on the west coast of North America. Three rivers, the Sacramento, San Joaquin, and Mokelumne, feed the Bay-Delta with a combined average unimpaired flow of about twenty-two million acre-feet per year. Beneficial uses of Delta water are freshwater aquatic habitat, water contact recreation, irrigation water, and municipal and domestic supply. The Delta is home to over 280 species of birds and more than 50 species of fish, making it one of the most ecologically important aquatic habitats in the State. Over half of the drinking water for the State of California is pumped from the Delta. Protecting Delta beneficial uses is one of the Central Valley Water Board's highest priorities.

Water quality impairments in the Delta result primarily from contamination being carried into the Estuary by tributaries or from in-Delta land use and water management practices. The most significant surface water quality problems in the Delta are bioaccumulative substances, pesticides, salinity, dissolved oxygen, urban stormwater runoff, and toxicity. In all cases, non-point sources contribute significantly to the loads of these constituents to the Delta.

In FY 09-10, staff coordinated with other agencies to implement studies and evaluate study results on the potential impacts of ammonia on delta smelt and diatoms. Staff participated in

various Delta workshops where scientists came together to discuss the potential impact of ammonia, pesticides, water management, and survey methods on Delta aquatic life. In addition, staff coordinated with other agencies on studies to determine if pesticides and other contaminants were at concentrations in the Delta that could impair beneficial uses. A study was conducted to monitor discharges from Delta islands, and another to monitor nutrient concentrations throughout our region of the Delta. Region 5 staff continued to implement the adopted diazinon and chlorpyrifos, dissolved oxygen, and salinity TMDLs in the Delta and tributaries to the Delta. A Delta regional monitoring program is under development.

Initiative 5.2.: Central Valley Salinity Initiative: CV-SALTS

The CV-SALTS initiative is a stakeholder-led process established by the State Water Board and Region 5, with committee meetings held on a monthly basis. State and Regional Water Board staffs are helping stakeholders understand Water Board procedures as they prepare to develop basin plan amendment recommendations. In September 2009 the Water Boards held a well-attended special basin planning training session geared specifically to the CV-SALTS stakeholders. This was followed in November with an introduction to the Region 5's triennial basin plan review process. CV-SALTS stakeholders hosted two regional workshops to gather input from local interests regarding concerns over beneficial use protection and beneficial use designation. Staff assisted but this was primarily a stakeholder driven effort. The feedback from the workshops will help inform the workplan for the Beneficial Use and Objectives Study planned for FY 2010-2011.

The final draft of the Salt and Nitrate Sources Pilot Implementation Study Report was released this FY. This study was conducted for the Central Valley Salinity Coalition by a group of consultants. The goal of this study was to develop and document procedures to quantify the significant salt and nitrate sources in the Central Valley and to test these procedures in three pilot areas to assess region-wide applicability of the methodology. Assessment of the pilot project by the Technical Advisory Committee is underway. On March 8, 2010, Region 5 staff released a draft Technical Report, Salt Tolerance of Crops in the Lower San Joaquin River (Stanislaus to Merced River Reaches) for public comment, and presented the information to the CV-SALTS stakeholders. This study follows up on a study the State Water Board commissioned for the South Delta salinity standards effort, and will support work being conducted by the CV-SALTS stakeholders to develop recommendations for salinity objectives in the Lower San Joaquin River.

A MAA to address salt imported into the San Joaquin River Basin by the United States Bureau of Reclamation (USBR) through its Delta-Mendota Canal was approved by the Regional Water Board on October 23, 2008. It was a two-year agreement and contained provisions that USBR submit a draft Compliance Monitoring and Evaluation Plan (CMEP) for Regional Water Board or Executive Officer approval and a draft Compliance Monitoring and Evaluation Report (CMER) by January 1, 2010. The purpose of the plan and report is to evaluate whether USBR meets its agreed upon target of offsetting their excess imported salt load by 25% by July 1, 2010. Since entering into the MAA, USBR has prepared and submitted a draft CMEP and CMER. In the past year, USBR has also revised its salinity management plan and worked with the Regional Water Board to develop a draft Phase II MAA. The CV-SALTS Technical Advisory Committee and stakeholders have been reviewing and commenting on the draft CMEP and CMER, the revised management plan, and draft Phase II MAA. This process is continuing with the goal of the Regional Water Board and USBR entering into a Phase II MAA before the end of the year.

Initiative 5.3.: Dairy Initiative

Animal wastes may produce significant amounts of pathogens, nutrients, and salt contamination. Runoff from animal confinement facilities (e.g., stockyards, dairies, poultry ranches) can impair both surface and ground water beneficial uses. Uncontrolled runoff can also cause nuisance conditions. The greatest potential for water quality problems has historically stemmed from the overloading of the facilities' waste containment and treatment ponds during the rainy season and inappropriate application of waste water and manure. When land and capacity is exceeded, the excessive salts and nutrients can runoff into surface water or be leached to the underlying ground water.

The Annual Report required by the General WDRs for Existing Milk Cow Dairies was due 1 July 2009. As of 21 July 2009, 1,303 Annual Reports had been received from operating dairies in the Region; this is over 90% compliance. Enforcement activities are underway to bring the remaining 83 producers into compliance.

In December 2009, the Central Valley Water Board entered into a $742,000 contract with Environmental Science Associates (ESA) to prepare a Program Environmental Impact Report (EIR) to support the development of a General WDR Order for manure digestion and co-digestion facilities. Adoption of the EIR and General WDR Order will expedite the permitting of manure digester and co-digester projects within the Central Valley Region of California and is consistent with Governor Schwarzenegger's efforts (Executive Orders S-06-06 and S-14-08) to promote the use and production of biofuels and biopower. The General Order will also be consistent with State Water Board Resolution 2007-0059 by improving permitting consistency for digester facilities and allowing for prompter reviews of CEQA documents associated with dairy digester facilities. ESA held three CEQA initial study scoping meetings to seek input on the scope and content of the environmental information that should be considered in the preparation of the Program EIR. Verbal comments were received from the public in all three meetings. Written comments were due 23 April 2010. ESA used the scoping comments to assist in the preparation of the Draft Program EIR, which was released for public comment in early July 2010 for a 45 day comment period. ESA and staff are currently reviewing and responding to comments. The EIR is scheduled to be before the Central Valley Water Board for certification in the December 2010 board meeting.

The dairy industry is preparing an alternative process to individual groundwater monitoring at dairies covered by the Dairy General Order. A stakeholder meeting with representatives of the dairy industry, environmental groups, environmental justice groups, and interested agencies was held on February 4, 2010. Staff is working diligently with interested parties in an attempt to develop an alternative program that can provide the data needed to evaluate what impact dairies are having on groundwater quality. Approval of an alternative groundwater monitoring program would require modification of Monitoring and Reporting Program No. R5-2007-0035.

Initiative 5.4.: Irrigated Lands Regulatory Program Initiative

The ILRP was established in 2002 in response to amendments to the CWC section 13269, which required the termination of a waiver of WDRs that had applied to irrigated land discharges for decades. The ILRP addresses all water quality issues in irrigation and stormwater runoff from about seven million acres of irrigated lands, from near-desert to temperate rainforest climates, hundreds of crop types, and tens of thousands of individual farming operations. According to July 2009 participant lists, 25,000 growers are enrolled in the ILRP through Coalition Groups; however, more than 12,000 growers are not participating. The Executive Officer continues to issue CWC section13267 Orders and NOVs to potential owners of irrigated

lands who may need ILRP coverage. These Orders were effective in getting landowners to provide the required information. Over 800 CWC 13267 Orders were sent out and 226 NOVs were issued.

An advisory workgroup has been developed to propose long-term ILRP alternatives. A Superior Court agreement required the Regional Water Board to release a draft Environmental Impact Report (EIR) for the Long-Term Program by July 31, 2010. The workgroup is comprised of over 40 participants representing federal, State, and local government agencies; and agricultural, environmental and environmental justice groups. Following the workgroup direction, staff developed five programmatic alternatives based on the staff and workgroup participant proposals. In late June and early July of 2009, staff met separately with each of the agricultural water quality coalition and environmental justice representatives who had made proposals to discuss how their concepts were incorporated into a programmatic alternative. The results of the draft EIR, economics, and policy analysis will be used to identify a staff-recommended alternative from the range of alternatives given in the Final Long-term ILRP Alternatives document. Staff has committed to continue to engage stakeholders throughout the draft EIR process. Staff has developed a participation plan inviting small workgroup meetings during the development of the draft EIR and economic analysis.

Since June of 2009, staff has received SWAMP-comparable electronic data from five out of six Coalitions. Staff will be working closely with Coalition leads and stakeholders to ensure that the data submitted meets the formatting and submission guidelines. The submittal of electronic data within the SWAMP-comparable format has allowed ILRP staff to review and promptly make the data available to other staff and the public. An ILRP-specific web-based SWAMP format checking tool is in the final stages of development and slated to soon be ready for use. This tool will streamline data transfer from coalitions to Region 5 staff as well as provide feedback on the format and business rules of SWAMP compatibility for electronic data submittals.

Initiative 5.5: Watershed Program

Numerous local watershed groups, including resource conservation districts (RCDs) have been created to restore watersheds that are degraded, or threatened by various land-use practices. These efforts have achieved stream restorations, improved land management practices, and provided public education regarding watershed health and threats. Within Central Valley Region, there are now approximately 50 locally directed watershed management programs that are working to improve watershed conditions including water quality and aquatic habitat. Regional Water Board staff work with these local watershed groups to provide guidance and technical support for activities that meet our mission to protect and enhance water quality. In this role, we frequently attend watershed groups, RCD, and community meetings; participate on technical advisory committees; review project plans and designs; and evaluate the performance of implemented projects.

Performance Review: The San Francisco Bay-Delta studies, CV-SALTS, dairies, ILRP, watershed program, and TMDL implementation continue as priorities for Region 5. We continue to work on a Regional Monitoring Program for the Bay-Delta, work with the Salinity Coalition on developing technical information to support a region-wide salt and nitrate management policy, continue to implement the general order for existing dairies and have over 90% compliance, develop a long-term program for the ILRP, and continue TMDL implementation. Enforcement activities are underway to bring the remaining dairies and non-filing ILRP dischargers into compliance.

While all activities were affected by the furloughs and budget problems of the State, the Central Valley Regional Water Board considers CV-SALTS its highest priority and maintained the allotted staffing; however, we still expect to be able to show measurable water quality improvement within the next five years. We will continue to evaluate progress and make adjustments as needed each year.

Lahontan Regional Water Board (Region 6)

The overall goals of the Lahontan Regional Water Board (Region 6) NPS Program are to restore waters impacted by NPS pollution and protect unimpaired waterbodies. Five (5) "initiatives" exemplify the Regional Water Board's NPS Program for the next five years (2008-2013). The focus on these "initiatives" does not preclude important work on other sources of NPS pollution in the Lahontan Region. These five (5) initiatives are: (1) Lake Tahoe TMDL Development and Implementation; (2) Grazing Management; (3) Fuels Management/Timber; (4) Leviathan Mine; and (5) NPS TMDL Implementation.

Initiative 6.1.: Lake Tahoe TMDL Development and Implementation

Lake Tahoe, the eleventh deepest lake in the world, sits near the crest of the Sierra Nevada Mountains and is split by the California-Nevada state line. State and federal agencies have adopted many regulations to protect Lake Tahoe's renowned clarity and cobalt-blue color. The Regional Water Board has designated Lake Tahoe as an Outstanding National Resource Water under the federal CWA and considers non-contact recreation (aesthetic enjoyment of the Lake's clarity) as a primary beneficial use. Similarly, the Nevada Division of Environmental Protection (NDEP) has designated Lake Tahoe as a "water of extraordinary ecological or aesthetic value." Despite stringent water quality goals and associated watershed regulations, Lake Tahoe has been losing its famed clarity at a rate of nearly nine inches per year since the late 1960's and has failed to meet transparency and clarity standards. To address this impairment, a phased TMDL Program was started in 2001. The first phase identifies the quantity and sources of pollutants and determines how those pollutant inputs affect the Lake's clarity. The second phase focuses on evaluating pollutant reduction opportunities and packaging a plan to implement the pollution reduction strategies. The third phase will involve implementation, monitoring, and adaptive management.

Status of Implementation for 2009-2010

A decade of work culminated in the completion of the fine grained sediment and nutrients TMDL, which states, fine sediment, phosphorus and nitrogen loads entering Lake Tahoe must be reduced by 65 percent, 35 percent and 10 percent, respectively, during the next 65 years to achieve 100 feet of clarity. Implementation projects include erosion control measures designed to prevent and/or treat urban runoff before it enters the Lake and Creek restoration projects, which focus on stabilizing the banks and slowing the flow of the many tributaries surrounding Tahoe, which naturally filter sediment and nutrients on their course to the lake. The State Board, EPA and OAL will still need to approve this TMDL.

Initiative 6.2.: Grazing

Ranching is the primary agricultural industry in the Lahontan Region. Related grazing agricultural operations may impair drinking water beneficial uses, as indicated by the number of CWA 303(d)-listed impaired water bodies in the Region. Grazing activities are identified as a

source of impairment for approximately 30 waters on the Region's CWA 303(d) list (listed for sediment, nutrients, pathogens and/or habitat alteration.) Thirteen water body segments out of CWA 303(d)-listed water bodies are for violations of pathogen water quality objectives. This is 30 percent of the Lahontan Region's listed waters. The total mileage of pathogen-listed streams (no lakes or wetlands are listed for pathogens) is 87 miles. Livestock grazing operations are the likely source of discharges of pathogens (fecal coliform) to surface waters in these streams, though in some cases, other sources such as rural septic systems or wildlife may be significant contributors. The Lahontan Regional grazing strategy (as presented to the Regional Water Board during the October 2006 Grazing Workshop) identifies the Walker River, the Owens River-Mono Lake, and the Susan River-Eagle Lake watersheds as targeted priorities where the implementation of grazing management practices (MPs) would likely lead to water quality improvement. Addressing and mitigating water quality impairments are economically and administratively preferable to developing a TMDL for CWA 303(d) listed watersheds when possible. In June 2007, the Regional Board adopted a *Waiver of Waste Discharge Requirements For Grazing Operations In The East Walker River Watershed (Bridgeport Valley And Tributaries) of the Lahontan Region*. This waiver requires development of ranch water quality management plans, implementation of MPs and monitoring of the MP effectiveness. In 2008-2013, Lahontan Water Board activities will target CWA 303d-listed water bodies and identify other impaired waterbodies for which sufficient monitoring data does not exist to list the water body on the CWA 303d list. Management practice implementation will focus on waters where impairments may be readily solvable with grazing MP implementation and could reasonably lead to de-listing of impaired water bodies or prevent future listing.

Implementation Results for 2009 - 2010

The second season of monitoring under the Bridgeport Valley Grazing Waiver is complete. We continue to sample for fecal coliform and *e.coli* in two 303(d)-listed waterbodies in the Lake Tahoe Basin -- Trout Creek above Highway 50 and Trout Creek below Highway 50. Additional sampling sites have been added in Alpine County covering the 303-d listed West Fork of the Carson River and several more sampling sites in Markleeville Creek and Milberry Creek will be determined based on consultations with the Alpine County Watershed Group.

Initiative 6.3.: Fuels Management/Timber

Federal and non-federal forested lands are found throughout the Lahontan Region and are managed by timber harvests, fuels reduction, fire suppression, prescribed burns, pesticide/herbicides, reforestation and other activities. Silviculture/timber harvest activities include commercial thinning, clearcutting, and salvaging of dead or drying trees. Harvesting operations can involve equipment such as chainsaws, tractor skidders, dozers, logging trucks and road watering trucks. Logging activities can include road construction and improvement, log landings, watercourse crossing construction and endlining. These activities can result in soil erosion and discharge to surface waters, streamcourse damage, compaction or removal of riparian soil and vegetation, and soil and plant loss in wetlands.

The Regional Water Board reviews timber harvest proposals for both federal and non-federal lands. However, the process is different for both, with special forest management provisions for lands in the Lake Tahoe Basin. In 2003, the Regional Board adopted a conditional waiver of WDRs for discharges related to timber harvest activities. In February 2007, the Regional Board renewed and updated the waiver for a five-year period. Both the original and updated waivers include MPs to protect water quality.

To reduce fire risk around Tahoe Basin communities, over the next 10 years, land management and fire protection agencies, as well as homeowners, will remove designated trees and brush.

To expedite fire protection efforts, the Lahontan Water Board has directed its staff to revise the 2007 timber waiver. It further directed its staff to coordinate with two other Tahoe resource management agencies (Tahoe Regional Planning Agency and US Forest Service - Lake Tahoe Basin Management Unit) to simplify permitting for fire protection activities.

In 2008-2013, Lahontan Water Board activities will include adoption of the revised timber waiver and updated management agreements with Tahoe Regional Planning Agency and United State Forest Service (USFS) - Lake Tahoe Basin Management Unit. Throughout the Region, the Lahontan Water Board will ensure that all harvesting activities submit proper application and certification as required by the timber waiver, as well as review and modify timber harvest plans to ensure compliance with water quality standards and waiver requirements**.**

Implementation Results for 2009-2010

Outreach activities focused on all active Timber Waiver applicants resulted in a high rate of compliance on required monitoring reporting as well as updates to CIWQS on the status of these applicant monitoring programs. The USFS submitted information for100% of its applications, the submittals were either monitoring reports, requests for termination of coverage under past Timber Waivers, requests for low threat projects to be moved to a 2009 Timber Waiver "no notification" category, or information that projects had not started or had been inactive and therefore coverage was not needed. 26 of the 30 (87%) Timber Harvest Plans or other private Timber Waiver projects, only four (4) did not submit monitoring or information. Of these four applications, two of had not started yet and the other two have had activity and were required to submit monitoring. Follow-up correspondence with delinquent enrollees occurred to ensure all required monitoring reports were received. No violations of waiver conditions were noted in the monitoring reports that were submitted.

Colorado River Regional Water Board (Region 7)

The Imperial Valley portion of the Salton Sea Transboundary Watershed has been targeted for the purposes of watershed management, including the development and implementation of TMDLs and implementation of the State's NPS Program Plan. Priority water quality issues in the Colorado River Regional Water Board (Region 7) include management of sedimentation in the New and Alamo Rivers and the approximately 1,300 miles of Imperial Valley agricultural drains, and management of pathogen and trash contamination of the New River. Recently constructed wastewater treatment facilities in Mexicali, Baja California funded by the USEPA and Mexico have removed much of the raw sewage from the New River, which flows across the international border into the Imperial Valley. Water quality at the border has significantly improved in the past few years as a result.

Initiative 7.1: Technical Assistance to Irrigated Agriculture

Irrigated agriculture is the major land use in the Imperial Valley and is identified as a major source of impairment to the Alamo River, New River, and Salton Sea. Water quality constituents of concern associated with irrigated agricultural activities include nutrients, pesticides and sediment. Regional 7 staff regularly meets with Imperial County Farm Bureau (ICFB) staff and Imperial Irrigation District (IID) staff to coordinate Sediment TMDL implementation. Over 95% of farmers are enrolled in the Imperial Valley Farm Bureau's Voluntary TMDL Compliance Program. The short-term goal of this program is a continued reduction of silt and sedimentation in the New and Alamo Rivers and agriculture drains. The long-term goal of this program is a 50% reduction of silt and sedimentation in both the New and

Alamo Rivers by 2014. Continued funding through CWA Section 319(h) has been used to educate Imperial Valley farmers/growers on, and promote the use of MPs through a voluntary TMDL compliance program. Some key performance indicators include:

- Approximately 25,000 BMPs implemented on over 5,000 Imperial Valley farm fields (478,000 acres of farmland in the Imperial Valley covered by program).
- Over 5,000 farm plans submitted to the program during FY 2009-10.
- Ten outreach and education seminars held during FY 2009-10.

Activities commenced in June 2010 on a $900,000 Proposition 50/84 grant funded project called Precision Drain Cleaning BMP Plan. The purpose of the project is to reduce the impacts of IID's dredging and maintenance operations throughout the drainage system by implementing a drain improvement program. The project includes funding for a GPS-guided drain cleaning program and implementation of a program to utilize vegetation as drain erosion inhibitor. Staff will continue to provide technical assistance to IID during the implementation of this grant.

Staff continues to collaborate and coordinate with the ICFB, the IID and the University of Redlands on the creation and development of an on-line database tool. This GIS database manages information on MP and water quality monitoring within each of the various drainsheds. A website provides this information in addition to the five most commonly implemented MPs per drainshed (see The University of Redlands Project).

Initiative 7.2: TMDL Development and Implementation Schedule

The Regional Board's NPS Program will focus on TMDL development and implementation in the Salton Sea watershed, our Priority Watershed. Regional Board staff is currently implementing the following USEPA approved TMDLs*:* Alamo River Silt TMDL, New River Silt TMDL, Imperial Valley Silt TMDL, New River Pathogen TMDL, and New River Trash TMDL. The Colorado Regional Board adopted the New River Dissolved Oxygen TMDL in May 2010, and Revisions to the Coachella Valley Stormwater Channel Bacteria Indicators TMDL in June 2010. Both TMDLs are awaiting approvals by the State Water Board, OAL, and USEPA. Currently, Region 6 is developing the following TMDLs: Alamo River Chlorpyrifos and Diazinon TMDL, New River Chlorpyrifos and Diazinon TMDL, and Legacy Pesticides TMDL for the Colorado River Basin Region.

The Coachella Valley Stormwater Channel (CVSC) is located in the Coachella Valley in Riverside County. The Coachella Valley has been heavily agricultural since the early 1900s. Agricultural lands are irrigated by groundwater and water from the Colorado River delivered to the Valley through the Coachella Canal via the All-American Canal. The CVSC is on the California CWA Section 303(d) list for impairment by pathogens of unknown sources. This listing applies to the 17-mile length of the CVSC from Indio to the Salton Sea. Regional Board staff invited private and public entities to participate in a technical advisory committee (TAC) for development and implementation of a conditional prohibition of agricultural discharges with the Coachella Valley.

Performance Review: The primary focus for FY 2009-10 was TMDL implementation in the Salton Sea watershed. Proposition 50/84 funding was awarded to IID to continue its effort to reduce sediment concentrations throughout the Imperial Valley agricultural drains from their dredging and maintenance activities. Since irrigated agriculture is the major land use in the Imperial Valley and identified as a major source of impairment into the Salton Sea, this project will help reduce pollutant loads through implementation of MPs to ultimately achieve the goals of the TMDL. Staff will continue to educate landowners in making use of farm MPs to reduce

silt/sediment and nutrients in farm runoff, continue effective implementation of the Imperial Valley sediment TMDL, and initiate the Proposition 50/84 grant awarded to the IID, which concentrates on better drain maintenance practices in the Imperial Valley and monitoring and reporting by the Regional Water Board.

Santa Ana Regional Water Board (Region 8)

The primary Santa Ana River Regional Water Board (Region 8) NPS efforts are focused on developing and carrying out programs necessary to implement TMDLs, and to implement MMs/MPs leading to improved water quality. NPS program priorities include: (a) create and implement a regulatory program for management of pollutant loads from agricultural operations, including both irrigated and non-irrigated (dry-farmed) operations (Conditional Waiver of WDRs for Agricultural Dischargers Program or "CWAD"); (b) manage CWA Section 319 grants for projects in the Region: (c), oversight of programs to control NPS discharges in marinas throughout the Region; and (d) management of NPS pollutant loads from forested areas of the Region, principally in the watershed of Big Bear Lake.

Obstacles to addressing these priorities during the past fiscal year include reduced NPS allocations compared to prior FYs, the impact of mandatory furloughs, and overall increased level of work load for NPS staff, resulting in delays in completing some program commitments. Environmental Benefit includes reduction of NPS loads by managing implementation grants aimed at load reductions, maintaining a high level of awareness of regional NPS issues, encouraging voluntary actions to reduce NPS discharges in the face of pending regulatory actions, and timely reporting and follow up on program activities.

Initiative 8.1.: Management of Pollutant Loads from Agricultural Operations

Pollutant loadings carried by runoff discharges from agricultural operations contribute to the impairment of waters in the Region, including waters for which TMDLs have been promulgated and other CWA 303(d)-listed waters. Water quality pollutants associated with agricultural runoff discharges include bacteria, nutrients, sediment and pesticides. Agricultural runoff discharges are also associated with loss of aquatic habitat and wildlife habitat. Regional 8 staff is developing a program of conditional waivers of WDRs, known as the CWAD program, through which it is expected to acquire watershed management area (WMA)-specific information about discharges from agricultural operations. This information will be used to develop and implement NPS control strategies ranging from raising awareness and voluntary installation of MMs, to issuing individual WDRs requiring that MMs be implementation, operation and maintenance, and reporting.

The design of CWAD for the San Jacinto River watershed is intended to influence the behavior of agricultural operators to reduce NPS pollutant discharges from their operations, and include compliance incentives, such as opting out of the program once effective management plans (MMPs) are in place. Agricultural operators and absentee owners of agricultural land in the San Jacinto River watershed tributary will be required to enroll in the CWAD. Waste discharges from dairy CAFOs are already regulated by a Regional Board general permit, and be exempted from participating in the CWAD program. Agricultural operations in the San Jacinto River watershed that may be covered by the CWAD include seasonal dry and irrigated farming of row and field crops, orchards and grove operations, wholesale and retail plant nurseries, turf farms, chicken and horse ranching, and operation and maintenance of large-scale institutional, recreational and commercial landscapes (although regulation of large-scale landscapes may be pre-empted by

the municipal separate storm sewer regulatory program). All of the agricultural operators have been identified by the TMDL working group and approximately 90% are now enrolled in San Jacinto River watershed CWAD. A CWAD Program Advisory Group now meets quarterly.

Eventually, the CWAD program will expand region-wide for other watershed management areas with TMDLs that involve management of NPS pollutant discharges from agricultural operations, including nutrients, sediment and pesticides - organo-chlorine pesticides in particular. Through a CWA Section 106 assistance program, Regional Board staff has requested contractor assistance from USEPA to identify agricultural operators and owners of irrigated lands in these watersheds. Lessons learned from development and implementation of the San Jacinto River watershed CWAD program should make the process of crafting subsequent CWAD programs more effective and efficient.

Initiative 8.2.: Controlling NPS Discharges in Marinas

General Order No. 2004-0017-DWQ was adopted at the request of the Santa Ana Regional Board to provide leverage to enforce the Federal No Discharge Zone (NDZ) designations and implement the Newport Bay fecal coliform TMDL. Following adoption of the General Order, in November 2004, Region 8 staff found that all marinas listed in the Order had either fully complied or had taken steps that would result in their timely compliance. A follow-up inspection program was conducted in 2008 and 2009, some deficiencies were found, marina operators were contacted, and corrective measures were taken. No formal enforcement actions were necessary. An ongoing follow-up program of monitoring and inspections would help to assure that the objectives and requirements of the General Order continue to be met. The one privately operated marina inspected that was found to be deficient corrected their deficiency. Operators of publicly owned marinas and pumpout facilities were notified of the inspection findings, and they have initiated or completed measures to address deficiencies.

NPS discharges of copper from paints and coatings applied to boat hulls to inhibit growth of marine organisms. Discharges result when copper leaches from the coatings, as well as when treated boat hulls are scrubbed clean at their moorings. Studies show that on average antifoulant-coated hulls discharge approximately 50 to 70 pounds of copper per year. A CWA 319(h) grant has been awarded to the Orange County Coastkeepers (OCCK) for a project to implement alternatives to copper-based anti-foulant coatings. The project includes an education component that encourages the use of nontoxic alternatives to copper-based anti-foulant coatings in Newport Bay. As a result of this educational campaign, on June 8, 2010, the City of Newport Beach adopted an Ordinance to ban the use of copper-based paints on boats moored within the City boundary. Regional 8 staff continues to coordinate with the City of Newport Beach, OCCK and State Water Board staff in various activities related to this grant project, including development and review of a draft QAPP.

Initiative 8.3.: Management of NPS Pollutant Loads from Forested Areas Under U.S. Forest Service Control

Forested areas of Region 8 are a source of NPS pollutants that contribute to sediment, nutrient, and other impairments in the watersheds of Big Bear Lake, the San Jacinto River and Lake Elsinore. While some of these forested lands are in private ownership, the majority are national forests under the control of the USFS. In addition to managing national forests as open space, the USFS manages a number of leases of forest land for various uses, most notably ski resorts in the Big Bear watershed. Activities in and uses of the Region's national forests that have the potential to contribute large NPS pollutant loads to receiving waters include ski resorts, operation of unpaved USFS roads, authorized and unauthorized recreational off road vehicle

use, and forestry activities. There are several communities on Big Bear Lake surrounded by national forest. Streams that originate in the national forest areas carry excessive loadings of sediment and nutrients through these communities into Big Bear Lake. The excessive loadings appear to originate in both developed areas as well as the open space, public-use areas under USFS management. USFS continues to participate in the Lake Elsinore and Canyon Lake nutrient TMDL taskforce by conducting water quality monitoring.

While forestry activities are well managed, NPS sediment discharges from leaseholds, USFS forest roads and unauthorized off road vehicle use remains an ongoing concern. USFS areas affected by wild fires have been a high priority for implementing sediment control management measures. Goals for this initiative for the NPS Implementation Plan forested areas include devising a strategy for obtaining USFS participation in cooperative water quality and NPS monitoring programs. This could involve developing a conditional forest management practices waiver of WDRs for NPS pollutants from USFS-managed lands, requiring water quality and NPS monitoring as a condition of the waiver.

Performance Review: Primary focus for Region 8 concerned managing NPS discharges from irrigated and dry-farmed agricultural lands, and other agricultural operations, by instituting a program of conditional waiver of WDRs, the CWAD progam. Successful efforts included participation in several events during this period in which NPS information was distributed through presentations, brochures and pamphlets. These community education and awareness opportunities have been well received, and requests for presentations are occurring more frequently. Work is ongoing to develop and populate a database of likely irrigated agricultural operators who will be subject to the proposed CWAD program, and evaluating alternate approaches for a waiver monitoring program. Currently, a watershed-based approach using existing stakeholder organizations representing a sector of the agriculture industry (e.g.; Milk Producers Council, Nursery Grower's Association) or science-based organizations (e.g.; UCCE, Southern California Coastal Water Research Project) is being considered. These organizations have already demonstrated the capacity to conduct monitoring associated with irrigated agriculture discharges in the watershed and can take on the additional role of monitoring for enrollees in the CWAD. Staff is coordinating with Riverside County Agricultural Commissioners Office to develop a CWAD program agricultural operators' data base with data provided by stakeholders in the San Jacinto/Canyon Lake watershed TMDLs. Managing pollutant loads from marinas and recreational boating, and participating in management of NPS pollutant loads from forest areas managed under the USFS will be additional objectives for FY 2010- 11. Despite continued success, the Region 8 NPS Program remains challenging with numerous obstacles to addressing these priorities during the past year including reduced NPS allocations compared to prior FYs, the impact of mandatory State employee furloughs, and overall increased level of work load for NPS staff, resulting in delays in completing some program commitments.

San Diego Regional Water Quality Control Board (Region 9)

The San Diego Regional Water Board (Region 9) has prioritized wetlands, riparian areas and hydromodification as the major areas of focus for its NPS Program. Healthy wetlands and riparian areas support many important beneficial uses and serve many important functions, including, flood attenuation, groundwater recharge, water purification, and fish and wildlife habitat. The importance of wetlands has been recognized in both federal and California policies calling for "no net loss" of wetlands as well as the NPS Program Plan. Relevant MMs in the NPS Program Plan address the protection of, restoration of, or threats to the physical, chemical,

and biological integrity of wetlands and riparian areas. Numerous land development, infrastructure, and other projects and activities in the San Diego region have individually and collectively resulted in significant loss and degradation of wetlands and riparian areas and their associated functions and beneficial uses. These include the results of dredging and filling; stream channel modifications (e.g.; channelization, concrete lining, undergrounding); and modification of hydrologic and salinity regimes.

The primary tool available to the Region 9 for preventing further loss and degradation of wetlands and riparian areas, and for ensuring appropriate, adequate, and successful mitigation is issuing CWA section 401 certifications. In the San Diego Region, most CWA section 401 applications are subject to the CWA section 404 dredge and fill permitting program administered by the U.S. Army Corps of Engineers (USACE). Region staff receives approximately 150 applications for CWA section 401 certification and approximately 500 CEQA documents annually. Between 2002 and 2004, more than 193 acres of jurisdictional wetlands were permanently impacted in connection with CWA section 401 certifications issued by the Region Water Board.

Region 9 faces the continuing challenge of inadequate resources to handle the workload associated with protection and restoration of wetlands and riparian areas. The SDRWQCB estimates that approximately 7.5 PY is needed annually for all the work associated with Initiative 9.1. Resources available were considerably less than what was needed before mandatory furloughs of state employees were imposed in 2009. Those furloughs have further reduced resources available for this work by approximately 14%. Consequently, only about 25% of what is needed is now available (i.e., approximately 1.9 PY; approximately 1.1 PY from CWA section 319h funds and approximately 0.8 PY from state CWA section 401 certification fees). The San Diego Regional Water Board is working with the State Water Board and other Regional Water Boards to develop a strategy to provide adequate funding for the CWA section 401 certification program (e.g., setting fees at levels that would cover the full cost of Water Board oversight of activities subject to CWA section 401 certification.) Region 9 is also seeking a dedicated source of funding for reviewing and commenting on CEQA documents. Since there is currently no dedicated source of funding for that work, other sources of funding (e.g.; CWA section 319h funding) are supporting that work, to the extent it is done.

Initiative 9.1.: Protection and Restoration of Wetlands and Riparian Areas

Region 9 devotes most of its CWA section 319h staff resources to protection and restoration of wetlands and riparian areas (see Initiative 9.1 in the NPS Implementation Plan). During FY 2009-10 approximately 92 applications for CWA section 401 certification were received, of those 17 were withdrawn, six (6) were issued due to no response from Regional Water Board (by default), 54 were issued based on review, and two (2) were denied. Approximately, fifteen (15) inspections were conducted and five (5) enforcement cases are on-going. Staff received approximately 500 CEQA documents and provided feedback to three (3) with the intent of ensuring that those high priority projects are designed to prevent or minimize adverse effects on wetlands and riparian areas. Staff continues to participate in the proposed statewide WRAMP in meetings of the Water Board CWA section 401 certification coordinating committee and other regional, local and statewide working groups.

Performance Review: Wetlands, riparian areas and hydromodification through the CWA 401 program were the major areas of focus for FY 2009-10. Due to budget constraints and mandatory State employee furloughs imposed on state employees, the CWA section 401 review process has slowed. To be more strategic and effective in protecting wetland and riparian areas,

Region 9 staff is working with the State Water Board and other Regional Water Boards to develop a strategy to provide funding for the CWA 401 Program through setting fees at levels that would cover oversight of activities subject to certification. Funding is also being sought for reviewing and commenting on CEQA documents.

Appendix 1

Acronyms

ABAG:	Association of Bay Area Governments
ACL:	Administrative Civil Liability
BiMP:	Bioaccumulation Monitoring Program
BMP:	Best Management Practice
BOF:	Board of Forestry
Cal-EPA	California Environmental Protection Agency
CalTrans:	California Department of Transportation
CAFOs:	Combined Animal Feeding Operations
CASQA:	California Association of Southern
CAW:	Conditional Agricultural Waiver
CAWALUP:	California Water and Land Use Partnership
CCAMP:	Central Coast Ambient Monitoring Program
CCAs:	Critical Coastal Areas
CCC:	California Coastal Commission
CCLEAN:	Central Coast Long-Term Assessment Program
CenCOOS:	Central Coast Ocean Observation System
CEQA:	California Environmental Quality Act
CRAM:	California Rapid Assessment Method
CMAP:	California Monitoring Assessment Program
CMEP:	Compliance Monitoring and Evaluation Plan
CMER:	Compliance Monitoring and Evaluation Report
CMP:	Clean Marinas Program
CRMPs:	Coordinated Resource Management Program
CV-SALTS:	Central Valley Salinity Initiative
CWA:	Clean Water Act
CWAD:	Conditional Waiver of Agriculture Waste Discharge Requirements
CWC:	California Water Code
DFA:	Department of Finance Assistance (in SWRCB)
DWR:	Division of Water Rights
EIR:	Environmental Impact Report
ESA:	Environmental Science Associates
FY:	Fiscal Year
GAMA:	Groundwater Ambient Monitoring Assessment
IACC:	Interagency Coordinating Committee
ICFB:	Imperial County Farm Bureau
ICFD:	Imperial County Farm District
IID:	Imperial Irrigation District
ILRP:	Irrigated Lands Regulatory Program
IRWMP:	Integrated Regional Watershed Management Projects

LID: Low-Impact Development

MAA: Management Assistance Agreement
MALT: Marin Agricultural Land Trust
MFAC: Minimum Frequency of Assessment and Collection
MMs: Management Measures
MMPs: Management Plans
MOA: Memorandum of Agreement
MOU: Memorandum of Understanding
MPs: Management Practices
MRP: Monitoring and Reporting Program

NDZ: No Discharge Zone
NDEP: Nevada Division of Environmental Protection
NEMO: Nonpoint Education for Municipal Officials
NOAA: National Oceanic and Atmospheric Administration
NOE: Notice of Enrollment
NOI: Notice of Intent
NOV: Notice of Violation
NPDES: National Pollutant Discharge Elimination System
NPS: Nonpoint Source
NRCS: Natural Resources Conservation Service
NOI: Notice of Intent
NONA: Notice of Non-applicability

OC: Organochlorine pesticide

PCBs: Polychlorinated Biphenyls
POTW: Publicly Owned Treatment Works

QAPP: Quality Assurance Project Plan

RCD: Resource Conservation District

SEPs: Supplemental Environmental Projects
SFEI: San Francisco Estuary Institute
SRF: State Revolving Fund
SWAMP: Surface Water Ambient Monitoring Program
SWRCB: California State Water Resources Control Board

TAC: Technical Advisory Committee
THPs: Timber Harvest Plans
TMDL's: Total maximum daily loads
TRPA: Tahoe Regional Planning Agency

UCCE: University of California Cooperative Extension
USACE: United States Army Corps of Engineers
USBR: United States Bureau of Reclamation
U.S. EPA: United States Environmental Protection Agency
USFS: United States Forest Service

WDR:	Waste Discharge Requirement
WQC:	Water Quality Certification
WQMP:	Water Quality Management Plan
WRAMP:	Wetland and Riparian Area Monitoring Program