California Regional Water Quality Control Board

San Diego Region

David Gibson, Executive Officer

Executive Officer's Report

May 9, 2018

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The May report for the Tentative Schedule of Significant NPDES Permits, WDRs, and Actions; Agenda Items Requested by Board Members; and the attachments noted above are included at the end of this report.

Part A – San Diego Region Staff Activities

1. Personnel Report

Staff Contact: Lori Costa

The Organizational Chart of the San Diego Water Board is available at http://www.waterboards.ca.gov/sandiego/about_us/org_charts/orgchart.pdf

Recruitment

The recruitment process has begun to fill three positions: (1) the Engineering Geologist position in the Site Restoration Unit; (2) the Senior Engineering Geologist position in the Site Restoration, Military Facilities Unit; and (3) the Scientific Aid vacancy in the Wetland and Riparian Protection Unit.

2. 2018 WateReuse California Conference

Staff Contact: Alex Cali

Keeping up with the evolution of California's recycled water landscape requires communication with the experts! San Diego Water Board staff, Mr. Alex Cali, attended the 2018 WateReuse California Conference in Monterey to learn about the latest developments in the evolving world of recycled water reuse in California. Attendees of the March 2018 conference included water recycling agencies, engineering consultant firms, product vendors, and regulators. The conference highlighted recycled water producers in the San Diego region. Proposed potable reuse projects by the City of San Diego[1] and Padre Dam Municipal Water District[2] were center pieces of discussion throughout the conference. One conference session presented results from a pathogen study conducted at the North City Water Reclamation Plant (NCWRP). One of the goals of the pathogen study was to provide site specific data to propose log removal treatment credits for the NCWRP for the City of San Diego's Pure Water project. One log removal or reduction means that the number of organisms have been reduced to a concentration that is 10 times smaller than the original. Recently adopted indirect potable reuse regulations require treatment systems to reduce giardia cysts, cryptosporidium oocysts, and enteric virus by reduction values of 10-log, 10-log, and 12-log removal, respectively. As a result of the study, the NCWRP is proposing log removal credits of 3.2-log for giardia cysts, 0.9-log for cryptosporidium oocysts, and 0.7-log for enteric virus.

While potable reuse and related topics were the primary topic of discussion at the conference, other pieces of the sustainable local water supply puzzle were also addressed. For example, Brown and Caldwell presented the results of the County of San Diego's Storm Water Capture Feasibility Study. The study included a County-wide analysis to determine the feasibility of planning, constructing, operating, and managing facilities that capture and reuse storm water beneficially. The study evaluated seventeen parcels of land that fit the qualifying criteria of the study, such as not considering parcels with slopes greater than two percent, building footprints, ecologically sensitive areas, and parcels that would require pumping into sewer force mains. The study concluded that to maximize the beneficial reuse of storm water, storage facilities would discharge to a wastewater treatment facility immediately following a storm. This type of project would make storm water flows available for reuse and is consistent with the storm water reuse

[1] Pure Water Project: https://www.sandiego.gov/water/purewater/purewatersd

[2] East County Water Purification Project: http://eastcountyawp.com/

goals of the statewide Recycled Water Policy. The scenario presented in the study ensures that the wastewater treatment facility would receive only wet-weather flows, however the demand for recycled water is typically lowest during wet weather. The study also concluded that storm water may not be the most reliable source to augment wastewater without including larger onsite storage reservoirs at or near the treatment facility to contain the storm water flows.

The conference provided a forum for producers, purveyors, and even users of recycled water from all over the San Diego Region to share their water reuse success stories with other California agencies. For example, the U.S. Marine Corps Air Station at Miramar (Air Station), whose recycled water use began in 2014, received the Recycled Water Customer of the Year Award for becoming one of the City of San Diego's largest recycled water users and reducing the Air Station's use of potable water.

The San Diego Region continues to lead the State in recycled water development. Both the City of San Diego and Padre Dam Municipal Water District pursued potable reuse projects prior to the adoption of regulations, using a data driven approach to verify the robustness and redundancies of the treatment systems proposed in the Region's potable reuse projects.

Part B – Significant Regional Water Quality Issues

1. Status Update – Groundwater Cleanup and Indoor Vapor Sampling, Former AMETEK/Ketema Facility, El Cajon

Staff Contact: Sean McClain

Vapor Sampling

AMETEK continues to collect indoor and crawl space air samples to assess vapor intrusion at the Starlight, Greenfield, and Villa Cajon Mobile Home Parks. As discussed in the previous Executive Officer's Report (February 2018), DTSC approved AMETEK's proposed mitigation measures at seven mobile homes. AMETEK relocated one family to a new home. The mitigation measure for the remaining six mobile homes is passive ventilation of the crawl space,[3] which is scheduled for completion by August 2018. The objective of the mitigation measure is to increase air circulation and reduce the amount of contaminant vapors potentially accumulating beneath the mobile home.

Quarterly vapor sampling continues at Magnolia Elementary School. Vapor sampling at the school includes the collection of sub-slab and classroom indoor air samples. The vapor results continue to show that the school is safe for occupancy.

Groundwater Cleanup

AMETEK completed Phase 3 of the on-going groundwater remediation using in-situ chemical oxidation (ISCO) at the former AMETEK/Ketema facility. In addition, AMETEK continues to operate an off-site groundwater extraction and treatment system to further reduce concentrations. The off-site system started operation in January 2014 and has extracted and treated approximately 16,000,000 gallons of groundwater.

[3] Modifications to the crawl space skirting to increase ventilation by either replacing the existing skirting materials with a lattice or by increasing the size of the ventilation ports.

DTSC became the lead regulatory agency for this site in February 2017. The San Diego Water Board continues to work closely with DTSC to evaluate the performance of the ISCO remediation and groundwater extraction systems.

2. Status of Claude "Bud" Lewis Carlsbad Desalination Plant NPDES Permit Reissuance

Staff Contact: Ben Neill

This report provides a monthly status update on the San Diego Water Board's review of Poseidon Resources (Channelside) LLC's (Poseidon) Report of Waste Discharge (ROWD) application for reissuance of the National Pollutant Discharge Elimination System (NPDES) permit for the Claude "Bud" Lewis Carlsbad Desalination Plant (CDP) and the development of the draft NPDES permit. The reissuance of the NPDES permit for the CDP is a high priority for the San Diego Water Board and the State Water Board (collectively referred to as Water Boards). Following are updates on key activities since the previous Executive Officer Report update[4]:

1. Chapter III.M.2.a(1) of the California Ocean Plan provides that regional water boards may require an owner or operator of a desalination facility to hire a neutral third party entity to review studies and models and make recommendations to the boards regarding a Water Code section 13142.5(b) determination for the best available site, design, technology and mitigation measures feasible to minimize the intake and mortality of all forms of marine life at new or expanded desalination facilities. The neutral third party may include experts in the field for addressing issues associated with minimizing, mitigating, and monitoring of intake and brine impacts from desalination facilities. The already established Science Advisory Panel (SAP) managed through the California Marine Sanctuaries Foundation (CMSF) has been contacted and informed of the topics for review. In May 2018, the SAP is expected to begin review of outstanding permitting questions posed by the San Diego Water Board related to the Water Code section 13142.5(b) determination for CDP. The SAP response to these questions will be provided to San Diego Water Board members and all interested persons as part of the CDP NPDES permit reissuance proceedings.
2. As discussed in the Executive Officer Report for April 2018, the San Diego Water Board met with Poseidon and the San Diego County Water Authority (SDCWA) on March 20, 2018 to discuss the ongoing permit development and the Water Code section 13142.5(b) determination for stand-alone operations at the CDP. During the meeting, Poseidon and the SDCWA proposed that the San Diego Water Board consider basing the Water Code section 13142.5(b) determination for stand-alone operations on an intake design alternative referred to as Design Alternative 21 pending the outcome of a 2-year demonstration project to further investigate the technical feasibility of placing intake screens in the Agua Hedionda Lagoon. As part of the determination, Poseidon and the SDCWA further requested that the San Diego Water Board consider allowing Poseidon to immediately implement Design Alternative 15, an intake design alternative projected to have higher marine life mortality impacts as compared to Design Alternative 21, if the demonstration project concludes that Design Alternative 21 is infeasible based on yet to be established pass/fail feasibility criteria.

[4] Additional information regarding the CDP can be found in Executive Officer Reports for April 2018, February 2018, December 2017, October 2017, September 2017, August 2017, June 2017, April 2017, February 2017, December 2016, November 2016, October 2016, September 2016, August 2016, May 2016, December 2015, September 2015, and June 2015.

The San Diego Water Board met with Poseidon and the SDCWA again on April 10, 2018 to further review their proposal. Based on a preliminary but not exhaustive evaluation, the San Diego Water Board reported that it does not believe the proposal is supported by Water Code section 13142.5(b) or the relevant Ocean Plan language and that staff do not intend to include it in the administrative draft of the NPDES Permit. Even if the Board were to conclude that pre-determination of a default alternative is somehow consistent with its regulatory obligations, it is not clear that Design Alternative 15 would represent the next best combination of alternatives in terms of marine life protection. During the meeting, the San Diego Water Board proposed that the Water Code section 13142.5(b) determination for stand-alone operations be solely for Design Alternative 21. Pursuant to Chapter III.M.2.a(5) of the Ocean Plan, the Water Code section 13142.5(b) determination may, at the San Diego Water Board's discretion, be conditioned based on the expectation of the occurrence of a future event. Such future events may include, but are not limited to, the permanent shutdown of a co-located power plant with intake structures shared with the desalination facility or a reduction in the volume of wastewater available for the dilution of brine. The Ocean Plan provides examples of a future event that may trigger the need for a new Water Code section 13142.5(b) determination where the original determination is expressly conditioned on a future event. The San Diego Water Board is evaluating whether the Ocean Plan language would support a permit provision to expressly allow a new Water Code section 13142.5(b) determination on the future outcome of an Alternative 21 demonstration study. The Board is also evaluating whether a potential future facility design or operation change based upon the outcome of a demonstration study would support a limited new Water Code section 13142.5(b) determination as an expanded facility.

Poseidon owns and operates the CDP subject to waste discharge requirements established by the San Diego Water Board in NPDES Permit No. CA0109223, Order No. R9-2006-0065. Order No. R9-2006-0065 expired in 2011, but remains in effect under an administrative extension until the reissued NPDES permit supersedes it. The CDP is located adjacent to the Encina Power Station (owned by NRG Energy) on the southern shore of the Agua Hedionda Lagoon in Carlsbad, California. The CDP is the nation's largest seawater desalination plant. On November 9, 2015, the CDP began potable water production providing up to 50 million gallons of drinking water per day to customers within the SDCWA service area. The CDP currently intakes source water from Agua Hedionda Lagoon through the existing Encina Power Station discharge structure.

The San Diego Water Board has developed a dedicated website to inform the public about the NPDES permit reissuance for the CDP: http://www.waterboards.ca.gov/sandiego/water_issues/programs/regulatory/carlsbad_desalination.shtml.

In addition, an email list is available for interested persons to subscribe to at this website: http://www.waterboards.ca.gov/resources/email_subscriptions/reg9_subscribe.shtml.

3. Enforcement Actions for March 2018 *(Attachment B-3)*

Staff Contact: Chiara Clemente

During the month of March 2018, the San Diego Water Board issued 9 written enforcement actions as follows; 1 Notice of Violation, 1 request for technical reports pursuant to California Water Code Section 13267, and 7 Staff Enforcement Letters. A summary of each enforcement action taken is provided in the attached table (Attachment B-3). The State Water Board's

Enforcement Policy contains a brief description of the kinds of enforcement actions the Water Boards can take.

Additional information on violations, enforcement actions, and mandatory minimum penalties is available to the public from the following on-line sources:

State Water Board Office of Enforcement webpage:
http://www.waterboards.ca.gov/water_issues/programs/enforcement/.

California Integrated Water Quality System (CIWQS):
http://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml.

State Water Board GeoTracker database: https://geotracker.waterboards.ca.gov/.

4. Sanitary Sewer Overflows and Transboundary Flows from Mexico in the San Diego Region – February 2018 *(Attachment B-4)*

Staff Contact: Keith Yaeger

Sanitary sewer overflow (SSO) discharges from sewage collection systems and private laterals, and transboundary flows from Mexico into the San Diego Region can contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oil, and grease. SSO discharges and transboundary flows can pollute surface and ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters. Typical impacts of SSO discharges and transboundary flows include the closure of beaches and other recreational areas, the inundation of property, and the pollution of rivers and streams.

Sanitary Sewer Overflows (SSOs)

State agencies, municipalities, counties, districts, and other entities (collectively referred to as public entities) that own or operate sewage collection systems report SSO spills through an on-line database system, the *California Integrated Water Quality System* (CIWQS). These spill reports are required under the Statewide General SSO Order[5], the Regional General SSO Order[6], and/or individual National Pollutant Discharge Elimination System (NPDES) permit requirements. Some federal entities[7] report this information voluntarily. Most SSO reports are available to the public on a real-time basis at the following State Water Board webpage:
https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=sso_main.

Details on the reported SSOs are provided in the following attached tables (Attachment B-4):

[5] State Water Board Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* as amended by Order No. WQ 2013-0058-EXEC, *Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*.

[6] San Diego Water Board Order No. R9-2007-0005, *Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region*.

[7] Marine Corp Base Camp Pendleton reports sewage spills to CIWQS as required by its individual NPDES permit, Order No. R9-2013-0112, NPDES Permit No. CA0109347, *Waste Discharge Requirements for the Marine Corps Base, Camp Pendleton, Southern Regional Tertiary Treatment Plant and Advanced Water Treatment Plant, Discharge to the Pacific Ocean via the Oceanside Ocean Outfall*. The U.S. Marine Corps Recruit Depot and the U.S. Navy voluntarily report sewage spills through CIWQS.

- Table 1: February 2018 - Summary of Public and Federal Sanitary Sewer Overflows in the San Diego Region.
- Table 2: February 2018 - Summary of Private Lateral Sewage Discharges in the San Diego Region.

A summary view of information on SSO trends provided in the following attached figures (Attachment B-4):

- Figure 1: Number of SSOs per Month
- Figure 2: Volume of SSOs per Month

These figures show the number and total volume of sewage spills per month from February 2017 to February 2018. During this period, 47 of the 50 collection systems regulated under the SSO Program reported one or more sewage spills. Three collection systems did not report any sewage spills. A total of 321 sewage spills were reported and approximately 1.2 million gallons of sewage reached surface waters.

Additional information about the San Diego Water Board sewage overflow regulatory program is available at http://www.waterboards.ca.gov/sandiego/water_issues/programs/sso/index.shtml.

Transboundary Flows

Water and wastewater in the Tijuana River and from a number of canyons located along the international border ultimately drain from Tijuana, Mexico into the U.S. The water and wastewater flows are collectively referred to as transboundary flows. The U.S. Section of the International Boundary and Water Commission (USIBWC) has built canyon collectors to capture dry weather transboundary flows from some of the canyons for treatment at the South Bay International Wastewater Treatment Plant (SBIWTP) in San Diego County at the U.S./Mexico border. Dry weather transboundary flows that are not captured by the canyon collectors for treatment at the SBIWTP, such as flows within the main channel of the Tijuana River, are reported by the USIBWC pursuant to Order No. R9-2014-0009, the NPDES permit for the SBIWTP discharge. These uncaptured flows can enter waters of the U.S. and/or State, potentially polluting the Tijuana River Valley and Estuary, and south San Diego beach coastal waters.

Details on the reported transboundary flows are provided in the attached tables (Attachment B-4):

- Table 3: February 2018 - Summary of Transboundary Flows from Mexico into the San Diego Region.

According to the 1944 *Water Treaty for the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande* and stipulations established in IBWC Minute No. 283, the USIBWC and the Comisión Internacional de Limites y Aguas (CILA)[8] share responsibility for addressing border sanitation problems, including transboundary flows. Efforts on both sides of the border have led to the construction and ongoing operation of several pump stations and treatment plants to reduce the frequency, volume, and pollutant levels of transboundary flows. This infrastructure includes but is not limited to the following:

- The SBIWTP, located just north of the U.S./Mexico border, provides secondary treatment for a portion of the sewage from Tijuana, Mexico and dry weather runoff collected from a series of canyon collectors located in Smuggler Gulch, Goat Canyon, Canyon del Sol, Stewart's Drain, and Silva Drain. The secondary-treated wastewater is discharged to the Pacific Ocean through the South Bay Ocean Outfall, in accordance with Order No. R9-2014-0009, NPDES No. CA0108928.
- Several pump stations and wastewater treatment plants in Tijuana, Mexico.
- The River Diversion Structure and Pump Station CILA in Tijuana divert dry weather flows from the Tijuana River. The flows are diverted to a Pacific Ocean shoreline discharge point approximately 5.6 miles south of the U.S./Mexico border, or can be diverted to SBIWTP or another wastewater treatment plant in Tijuana, depending on how Tijuana's public utility department (CESPT) configures

[8] The Mexican section of the IBWC.

the collection system. The River Diversion Structure is not designed to collect wet weather river flows and any river flows over 1,000 liters per second (35.3 cubic feet per second).

Additional information about sewage pollution within the Tijuana River Watershed is available at https://www.waterboards.ca.gov/sandiego/water_issues/programs/tijuana_river_valley_strategy/sewage_issue.html.

Part C – Statewide Issues of Importance to the San Diego Region

1. USEPA Approval of 2014 Clean Water Act Section 303(d) List of Impaired Waters *(Attachment C-1)*

Staff Contact: Chad Loflen

Clean Water Act Section 303(d)(1) directs each state to identify those waters within its boundaries for which existing programs are not stringent enough to meet a water quality standard(s), and to establish a priority ranking for restoring such waters. Waters identified under Clean Water Act Section 303(d)(1) are often referred to as "303(d) listed" or as "impaired." The 303(d) listing requirements apply to both waters impaired by point sources and waters impaired by nonpoint sources of pollution.

The USEPA approved California's combined 2014-2016 Clean Water Act Section 303(d) List (Combined List) of Impaired Waters on April 6, 2018. The Combined List includes 303(d) lists developed by Regional Water Boards 2, 3, 4, 5, 8, and 9. Upon adoption by the Regional Water Boards, each 303(d) list must be reviewed and approved by the State Water Board before being submitted to USEPA for review. Following our Board's adoption of the San Diego Region 2014 List in October 2016, staff prepared the record for State Water Board submittal, assisted State Water Board with requests for information and responses to new public comments, and attended the State Water Board hearing. The State Water Board adopted the list on October 03, 2017. San Diego Water Board staff then provided additional clarifications, when requested, to USEPA as part of its review process.

As specified in the attached letter, USEPA carefully reviewed the State's submittal including the listing decisions, the assessment methodology used by the State in developing its list, and supporting data and information. USEPA's review of California's Combined List is based on USEPA's analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

The next Clean Water Act Section 303(d) List for the San Diego Water Board is scheduled for 2020, with work beginning in fall/spring of 2018/2019. San Diego Water Board and State Water Board staff are in discussions for the best way to conduct data solicitation for the development of the 2020 List. A major shortcoming of the 2014 List was the arbitrary data cut-off date of August 2010, making the most recent data used in the San Diego Water Board's 2014 List over seven years old at the time of USEPA approval. San Diego Water Board staff would like the 303(d) List to reflect the most up-to-date data feasible for inclusion.

Attachment: *USEPA Final CA 303(d) List Approval Letter, April 6, 2018.*

2. California Water Board's 2017 Accomplishments Report *(Attachment C-2)*

Staff Contacts: David Gibson, James Smith

The State Water Board has released the 2017 Accomplishments Report (Report) that highlights achievements of the nine Regional Water Boards and the offices and divisions of the State Water Board. The Report contains 13 sections, including Conservation & Climate Change, Policy & Planning, Surface Water Quality, Drinking Water Quality, Community Outreach & Engagement, Groundwater Quality, Recycled Water, Wastewater Management, and Enforcement. In addition, it outlines the 2018 priorities of the State and Regional Water Boards.

The Report prominently presents several of the San Diego Water Board's projects, including the removal of contaminated sediments from San Diego Bay, the reissuance of the Point Loma Wastewater Treatments Plant's NPDES permit, and the multi-million-dollar settlement agreement with the City of San Diego due to violations of its storm water permit. Other highlights of interest to the San Diego Region are Governor Brown's State of Emergency proclamation for the Lilac Fire, which implemented the San Diego Water Board's emergency permit specifying the proper disposal of fire-related waste and debris; the progress in addressing harmful algal blooms in Lake San Marcos; and the Environmental Justice Symposium hosted by the San Diego Water Board in June 2017. Priorities listed in the Report for the San Diego Water Board in 2018 include the regulation of transboundary flows of pathogens and solid waste in the Tijuana River Valley; the adoption of a Climate Change Action Plan to restore and protect water quality from climate change impacts; and the implementation of the Environmental Justice (EJ) Action Plan to improve wetlands, water quality protection, and participation by residents of the economically disadvantaged and EJ communities.

A copy of the Report is attached: it is also available online and can be found at: https://www.waterboards.ca.gov/publications_forms/publications/general/docs/accomplishments_report2017.pdf.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN DIEGO REGION

Significant NPDES Permits, WDRs, and Actions of the San Diego Water Board

May 9, 2018

APPENDED TO EXECUTIVE OFFICER'S REPORT

DATE OF REPORT
May 9, 2018

TENTATIVE SCHEDULE
SIGNIFICANT NPDES PERMITS, WDRS, AND ACTIONS
OF THE SAN DIEGO WATER BOARD

Action Agenda Item	Action Type	Draft Complete	Written Comments Due	Consent Item
June 20, 2018 ***San Diego Water Board***				
Removing Plastic Trash from the Ocean: Clear Blue Sea *(Mearon)*	Informational Item	NA	NA	NA
Status on Permit Compliance and the Storage of Spent Fuel at the San Onofre Nuclear Generating Station *(Neill)*	Informational Item	NA	NA	NA
Update on Implementation of Wetland Restoration Opportunities and Amendment of Resolution R9-2014-0041 *(Becker)*	Resolution Update	0%	TBD	No
Sea World NPDES Permit Reissuance *(Osibodu)*	Permit Reissuance	100%	30-Apr-2018	No
July 2018 ***No Meeting Scheduled***				
August 8, 2018 ***San Diego Water Board***				
Annual Update on the Healthy Waters Strategy for San Diego Bay *(Chiu)*	Workshop			
Report on 2014 Triennial Review Project to Evaluate Water Contact Recreation (REC-1) Water Quality Objectives and Methods for Quantifying Exceedances *(Santillan)*	Informational	75%	TBD	n/a
Tentative Investigative Order to Quantify Sources of Human Waste in to the San Diego River *(Mitchell)*	Tentative Order	90%	TBD	No
San Luis Rey Wastewater Treatment Plant, City of Oceanside, San Diego County *(Cali)*	Master Recycling Permit Reissuance	95%	8-Jul-18	No

Updated
May 9, 2018

Agenda Items Requested by Board Members

Requested Agenda Item	Board Member	Status
June 24, 2015		
Workshop on low dissolved oxygen conditions in the San Diego River	Strawn	
Information Item regarding high levels of naturally occurring elements in groundwater when they interact with other issues.	Olson	
August 12, 2015		
Information item regarding data supporting Basin Plan Water Quality Objectives	Olson	
December 16, 2015		
San Diego River restoration and land acquisition workshop	Strawn	
August 10, 2016		
SCCWRP Flow Recovery Project Update	Strawn	
March 15, 2017		
Update on Tijuana sewage spill into Imperial Beach	Abarbanel	Ongoing
Information item regarding impacts of population dynamics on water quality	Olson	
Dynamics of Climate Science, perhaps with U.S.N. Climate Scientists	Abarbanel, Morales	June or August 2018 Board Meeting
Revisit Lake San Marcos timeline	Abarbanel	December 2017 EOR
Clarify Operation of value for discharges into San Diego Bay.	Abarbanel	
June 21, 2017		
Follow up on results from Environmental Justice Symposium	Abarbanel	October 2017
Follow up on San Diego Unified Port District information item	Abarbanel	
August 9, 2017		
Update on Commercial Ag Program Enrollments	Abarbanel	September 2017
Threats to Beneficial Uses from Climate Change	Abarbanel	May 2018 Board Meeting
Update on City of San Diego improvements to the construction management program	Abarbanel	May or June 2018 EOSR
September 13, 2017		
Informational Item on SDWB Emergency Response Procedures	Warren	December 2017 EOR
Amendments to WDRs for Commercial Agriculture	Abarbanel	
October 11, 2017		
Update on MS4 Permit's approach to addressing human sources of pathogens and trash affecting receiving waters	Olson	March 2018 EOR
Update on Steelhead Recovery effort	Strawn	Spring or Summer 2018
Update on Commercial Agriculture entollments	Abarbanel	December 2017
Discussion with local partners regarding next gen monitoring approaches	Abarbanel	Ongoing
Return EJ Resolution to Board for approval	Abarbanel	December 2017 Board Meeting
December 13, 2017		
Update on aerators installed in San Diego River	Strawn	
Update on Linden Road MS4 issues	Abarbanel	April 2018 Executive Officer's Report
February 14, 2018		
Update on decommissioning of SONGS	Warren	April 2018 Executive Officer's Report
Informational Item on Pacific Ocean Garbage Patch monitorin	Warren, Abarbanel, Morales	June 2018 or August 2018 Board Meeting
April 11, 2018		
Update on radioactive waste storage at SONGS	Warren	June 2018 Board Meeting
Informational item on EJ collaboration with AG's office	Abarbanel	June 2018 Board Meeting

Enforcement Actions for March 2018

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
3/5/18	Notice of Violation No. R9-2018-0030 and request for technical reports pursuant to California Water Code Section 13267	CalAtlantic Homes-Corona, Atherton Project, unincorporated area of Riverside	Improper installation of a concrete culvert improperly resulting in downstream erosion and sediment deposition	Water Quality Certification No. R9-2012-0075
3/1/18	Staff Enforcement Letter	Heavenstone Ranch Corporation, 40505 Los Amantes, Temecula	Inadequate Best Management Practices (BMPs) for a Risk Level 1 site	National Pollutant Discharge Elimination System (NPDES) Construction General Permit Order No. 2009-0009-DWQ
3/12/18	Staff Enforcement Letter	US General Services Administration-San Ysidro Port of Entry, AppRecyclWW, San Diego	Multiple exceedances of Nitrogen percent reduction requirements	General Waste Discharge Requirements (WDR) Order No. 2014-0153-DWQ
3/17/18	Staff Enforcement Letter	Republic Services Inc. Sycamore Canyon Landfill, Santee	Failure of storm water conveyance system compromised the landfill cover resulting in multiple permit violations	WDR Order No. 99-74

Enforcement Actions for March 2018

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
3/20/18	Staff Enforcement Letter	Department of General Services, CHP Replacement Facility, San Diego	Inadequate BMPs	NPDES Construction General Permit Order No. 2009-0009-DWQ
3/22/18	Staff Enforcement Letter	Milan Real Estate Investments LLC, Camino Town and Country Shopping Center South, Oceanside	Failure to submit four years of annual reports and to keep an updated Storm Water Pollution Prevention Plan (SWPPP)	NPDES Construction General Permit Order No. 2009-0009-DWQ
3/22/18	Staff Enforcement Letter	Land Holdings LLC, Quail Drive, Encinitas	Failure to submit annual report and update the SWPPP	NPDES Construction General Permit Order No. 2009-0009-DWQ
3/30/18	Staff Enforcement Letter	Andrew B Stannard, A B Truck Recycling, San Diego	Inadequate BMPs	NPDES Industrial General Permit Order No. 2014-0057-DWQ

Table 1: February 2018 - Summary of Public and Federal Sanitary Sewer Overflows in the San Diego Region

Responsible Agency	Collection System (CS)	Total Volume[1]	Total Recovered[2]	Total Reaching Surface Waters[3]	Total Reaching Separate Storm Drain and Recovered[4]	Total Discharged to Land[5]	Percent Recovered	Percent Reaching Surface Waters	Percent Reaching Separate Storm Drain and Recovered	Percent Discharged to Land	Surface Water Body Affected	Miles of Pressure Sewer	Miles of Gravity Sewer	Population in Service Area
		(Gallons)					(%)							
Encinitas City	City of Encinitas CS	200	200	0	0	200	100%	0%	0%	100%	-	4.0	123.0	36,100
Escondido City	Hale Avenue Resource Recovery Facility Dish to San Elijo Ocean Outfall CS	550	0	0	0	550	0%	0%	0%	100%	-	10.7	370.0	142,000
La Mesa City	City of La Mesa CS	8	8	0	0	8	100%	0%	0%	100%	-	0.0	155.0	58,244
Poway City	City of Poway CS	21	0	2	0	19	0%	10%	0%	90%	n/a	3.5	185.0	44,006
San Diego City (City Attorney's Office at Civic Center Plaza)	San Diego City CS	400	275	0	0	400	69%	0%	0%	100%	-	153.7	3,021.1	2,207,591
		35	0	0	0	35	0%	0%	0%	100%	-			
		3,750	3,750	0	0	3,750	100%	0%	0%	100%	-			
		150	150	0	0	150	100%	0%	0%	100%	-			
		228	228	0	0	228	100%	0%	0%	100%	-			
		15	0	0	0	15	0%	0%	0%	100%	-			
		36,510	22,710	13,800	22,710	0	62%	38%	62%	0%	San Diego River			
		495	335	0	0	495	68%	0%	0%	100%	-			
Santa Margarita Water District	Santa Margarita Water District CS	1,700	0	1,700	0	0	0%	100%	0%	0%	San Juan Creek	14.0	615.0	155,000
Solana Beach City	City of Solana Beach CS	180	180	0	180	0	100%	0%	100%	0%	-	2.0	49.0	14,000
Valley Center Municipal Water District	Lower Moosa Canyon Reclamation Facility CS	70	0	0	0	70	0%	0%	0%	100%	-	5.0	50.0	4,615
US Marine Corps Base Camp Pendleton	USMC Base Camp Pendleton CS	3,521	1,600	1,921	0	1,600	45%	55%	0%	45%	-	35.0	122.0	90,000
		300	0	300	0	0	0%	100%	0%	0%	n/a			
Totals for Public Spills		**44,312**	**27,836**	**15,502**	**22,890**	**5,920**	**63%**	**35%**	**52%**	**13%**	**-**	**192.9**	**4,568.1**	**2,661,556**
Totals for Federal Spills		**3,821**	**1,600**	**2,221**	**0**	**1,600**	**42%**	**58%**	**0%**	**42%**	**-**	**35.0**	**122.0**	**90,000**

[1]Total Volume = total amount that discharged from sanitary sewer system to a separate storm drain, drainage channel, surface water body, and/or land.

[2]Total Recovered = total amount recovered from a separate storm drain, drainage channel, surface water body, and/or land.

[3]Total Reaching Surface Waters = total amount reaching separate storm drain (not recovered), drainage channel, and/or surface water body, but does not include amount reaching separate storm drain that was recovered.

[4]Total Reaching Separate Storm Drain and Recovered = total amount reaching separate storm drain that was recovered.

[5]Total Discharged to Land = total amount reaching land.

Table 2: February 2018 - Summary of Private Lateral Sewage Discharges in the San Diego Region

Responsible Agency	Collection System (CS)	Total Volume[1]	Total Recovered[2]	Total Reaching Surface Waters[3]	Total Reaching Separate Storm Drain & Recovered and/or Discharged to Land[4]	Percent Recovered	Percent Reaching Surface Waters	Percent Reaching Separate Storm Drain & Recovered and/or Discharged to Land	Population in Service Area	Lateral Connections
		(Gallons)				(%)				
El Cajon City	City of El Cajon CS	5	5	0	5	100%	0%	100%	103,768	16,950
Escondido City	Hale Avenue Resource Recovery Facility Disch to San Elijo Ocean Outfall CS	40	40	0	40	100%	0%	100%	142,000	53,848
		1,965	0	0	1,965	0%	0%	100%		
National City	City of National City CS	20	20	0	20	100%	0%	100%	58,967	8,000
Poway City	City of Poway CS	128	1	0	128	1%	0%	100%	44,006	12,256
San Diego City (City Attorney's Office at Civic Center Plaza)	San Diego City CS	139	98	0	139	71%	0%	100%	2,207,591	267,237
		131	131	0	131	100%	0%	100%		
		35	35	0	35	100%	0%	100%		
		31	31	0	31	100%	0%	100%		
		17	17	0	17	100%	0%	100%		
		13	13	0	13	100%	0%	100%		
San Juan Capistrano City	City of San Juan Capistrano CS	360	180	180	180	50%	50%	50%	40,000	9,900
South Coast Water District	South Coast Water District CS	14	14	0	14	100%	0%	100%	42,000	14,762
Vista City	City of Vista CS	32	0	0	32	0%	0%	100%	90,000	16,525
Totals		**2,930**	**585**	**180**	**2,750**	**20%**	**6%**	**94%**	**2,728,332**	**399,478**

[1]Total Volume = total amount that discharged from private lateral to a separate storm drain, drainage channel, surface water body, and/or land.

[2]Total Recovered = total amount recovered from a separate storm drain, drainage channel, surface water body, and/or land.

[3]Total Reaching Surface Waters = total amount reaching separate storm drain (not recovered), drainage channel, and/or surface water body, but does not include amount reaching separate storm drain that was recovered.

[4]Total Reaching Separate Storm Drain & Recovered and/or Discharged to Land = total amount reaching separate storm drain that was recovered and/or total amount reaching land.

Figure 1: Number of SSOs per Month

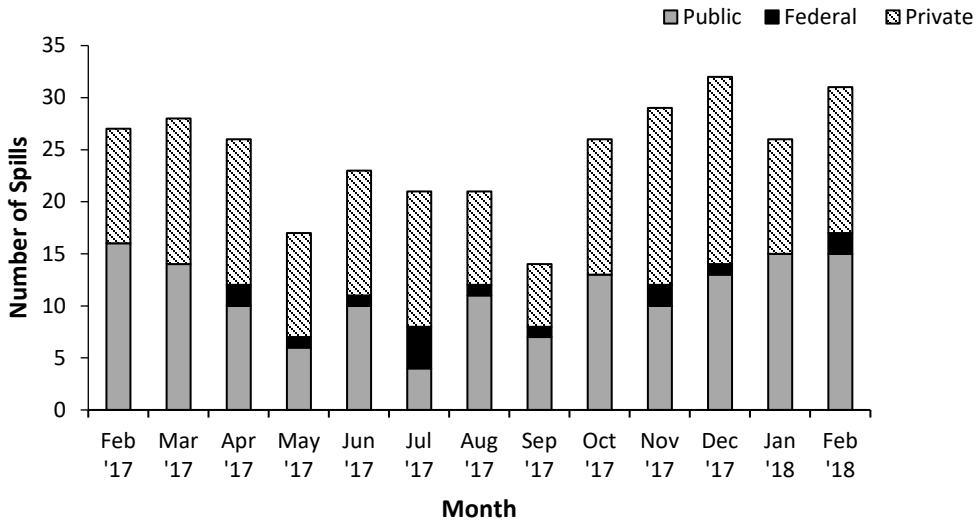

Figure 1: The number of public, federal, and private sanitary sewer overflows (SSOs) per month from February 2017 to February 2018.

Figure 2: Volume of SSOs per Month

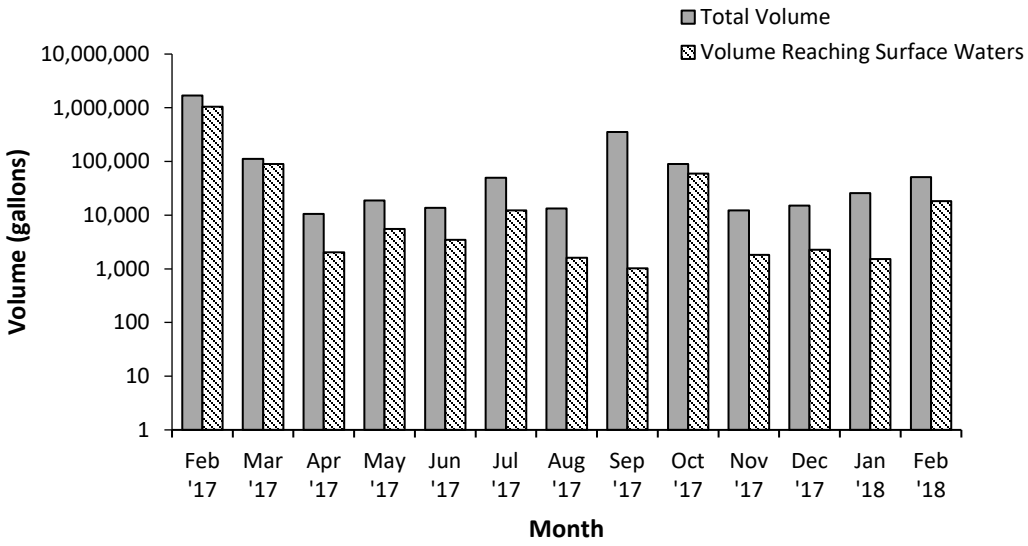

Figure 2: The volume of public, federal, and private sanitary sewer overflows (SSOs) per month from February 2017 to February 2018. Note the logarithmic scale on the vertical axis showing the wide variation is SSO volumes.

Table 3: February 2018- Summary of Transboundary Flows from Mexico into the San Diego Region

Location	Start Date	Total Volume	Total Recovered	Total Reaching Surface Waters	Percent Recovered	Percent Reaching Surface Waters	Additional Details
		(Gallons)			(%)		
Dry Weather[1]							
Tijuana River	2/4/2018	100,000	0	100,000	0%	100%	Due to a rupture in a 24 inch potable water line in Mexico, flow in the Tijuana River bypassed the River Diversion Structure and flowed across the U.S./Mexico border.
Tijuana River	2/9/2018	561,000	0	561,000	0%	100%	Due to an electrical malfunction at pump station CILA, flow in the Tijuana River bypassed the River Diversion Structure and flowed across the U.S./Mexico border.
Tijuana River	2/10/2018	664,000	0	664,000	0%	100%	Due to an electrical malfunction at pump station CILA, flow in the Tijuana River bypassed the River Diversion Structure and flowed across the U.S./Mexico border.
Tijuana River	2/20/2018	304,000	0	304,000	0%	100%	Due to a partial intentional shutdown of pump station CILA to replace electrical equipment, flow in the Tijuana River bypassed the River Diversion Structure and flowed across the U.S./Mexico border.
Tijuana River	2/25/2018	1,185,000	0	1,185,000	0%	100%	Due to an electrical malfunction at pump station CILA, flow in the Tijuana River bypassed the River Diversion Structure and flowed across the U.S./Mexico border.
Total Dry Weather		**2,814,000**	**0**	**2,814,000**	**0%**	**100%**	**-**
Wet Weather[2]							
n/a	-	-	-	-	-	-	-
Total Wet Weather		**-**	**-**	**-**	**-**	**-**	**-**

1 - Order No. R9-2014-0009 requires monthly reporting of all dry weather transboundary flows.

2 - Order No. R9-2014-0009 does not require monthly reporting of wet weather transboundary flows. Any information provided regarding these flows is voluntary.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

APR 06 2018

Eileen Sobeck
Executive Director
California State Water Resources Control Board
P.O. Box 100
Sacramento CA, 95812-0100

Subject: California 2014-2016 CWA Section 303(d) List of Impaired Waters

Dear Ms. Sobeck:

I am pleased to approve the subject list of impaired waters, including all water quality limited segments (WQLSs) and associated pollutants identified by the State Water Resources Control Board (State Board) as requiring a total maximum daily load under CWA section 303(d). In addition, EPA concurs with the State Board's delisting of 191 WQLSs based on approved TMDLs. The legal requirements and the rationale for the actions are detailed in Enclosure 1.

EPA previously conveyed the desirability of evaluating temperature data developed by the California Department of Fish and Wildlife (CDFW) and the California Department of Water Resources (CDWR) in order to assess impacts to impaired fish migration and related beneficial uses in the Delta and San Joaquin River (Enclosure 2). EPA recognizes the challenges of working with voluminous continuous monitoring data and appreciates the constructive discussions our staffs have had on this issue. EPA appreciates the State Board's consideration of reviewing the temperature data "off cycle" so that any possible additional listings could be included in the next review of WQLSs. To assist the State Board, EPA encloses (Enclosure 3) a synthesis of the CDFW and CDWR temperature data for your consideration.

I value the collaboration between our two agencies and look forward to continuing our partnership to protect California's waters. If you have any questions, please contact me at (415) 972-3337, or have your staff contact Janet Hashimoto, Manager of the Water Quality Assessment Section, at (415) 972-3452.

Sincerely,

Tomás Torres April 6, 2018
Director, Water Division

Enclosures

cc: Karen Larsen, DWQ
Rebecca Fitzgerald, DWQ
Jessie Maxfield, DWQ

Enclosure 1

EPA Review of California's 2014-16 CWA Section 303(d) List
Submitted February 5, 2018

Purpose

The purpose of this document is to describe the rationale for the EPA's approval of California's 2014-16 list of water quality limited segments requiring a Total Maximum Daily Load (TMDL) under Clean Water Act Section 303(d). The following sections identify those key elements to be included in the list submittal based on the Clean Water Act and EPA regulations (see 40 CFR 130. 7). EPA carefully reviewed the State's submittal including the listing decisions, the assessment methodology used by the State in developing its list, and supporting data and information. EPA's review of California's list is based on EPA's analysis of whether the State reasonably considered existing and readily available water quality-related data and information, and reasonably identified waters required to be listed.

This review describes the basis for EPA's decision to approve the State's listings of water quality limited segments requiring a TMDL identified in the State's 2014-2016 Integrated Report, (see "Category 5: 2014 and 2016 California 303(d) List of Water Quality Limited Segments"). The portion of the California Integrated Report which EPA defines as the 303(d) List are the waters and pollutants California identifies as "5A: TMDL still required."

Statutory and Regulatory Background

Identification of WQLSs for Inclusion in the List

CWA Section 303(d)(1) directs each state to identify those waters within its boundaries for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard (WQS), and to establish a priority ranking for addressing such waters, taking into account the severity of the pollution and the uses to be made of such waters. The 303(d) listing requirements apply to both waters impaired by point sources and waters impaired by nonpoint sources of pollution.

The EPA regulations provide that a state does not need to list WQLSs where the following types of controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Clean Water Act, (2) more stringent effluent limitations required by federal, State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. See 40 CFR 130.7(b)(1).

In developing its list, each state is required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum: (1) waters identified as partially meeting or not meeting designated uses or as threatened in the state's most recent CWA Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been

reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any CWA Section 319 nonpoint source assessment submitted to the EPA. See 40 CFR 130.7(b)(5). The EPA's 2006 assessment and listing guidance describes additional types of water quality-related data and information that should be assembled and evaluated for developing state lists.

Consideration of Existing and Readily Available Water Quality-Related Data and Information

The EPA regulations at 40 CFR 130.7(b)(6) require each state to include, as part of their submittals to the EPA, documentation to support decisions to rely or not rely on particular data and information, and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the EPA.

Priority Ranking

The EPA regulations at 40 CFR 130.7(b)(4) require each state to prioritize waters on its list for TMDL development, and to identify those WQLSs targeted for TMDL development in the next two years. In prioritizing and targeting waters, each state must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. See 303(d)(1)(A). A state may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and state or national policies and priorities. See 57 FR 33040, 33044-45 (July 24, 1992), and EPA 1991.

Analysis of Submittal from the State of California

Identification of WQLSs

The EPA has reviewed the State's submittals and concludes that the State developed the 2014-16 List in compliance with CWA Section 303(d) and 40 CFR 130.7. The EPA's review is based on its analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

California used its 2012 Section 303(d) List and 305(b) Report as its starting point, and based its 2014-16 Section 303(d) submittal on its analysis of readily available data and information to determine whether additions to or deletions from the 2012 List were necessary. California's approach, wherein previously listed waters remain as WQLSs unless the existing and readily available water quality-related data no longer indicate impairment, is consistent with federal requirements. The EPA finds it was reasonable for California to include most of the previously listed waters on the 2014-16 List.

The State also made efforts to clarify the geographic extent of waterbody segments between the 2012 Section 303(d) List and 305(b) Report and the 2014-16 Water Quality Integrated Report. These clarifications reflect changes in waterbody names, changes in extent of impairment or the splitting of a waterbody into one or more segments. See 2014-16 Water Quality Integrated

Report, Appendix J and Miscellaneous Changes Appendix K. The State updated its web map application to display assessment data and results addressed in the 2014-16 Integrated Report[1]. This California 2014-16 Integrated Report Web Map Application was assembled to make publicly available information about the waterbodies and sample locations assessed in the California 2014-16 Integrated Report.

Assembly of Data and Information

The EPA's review found the data compilation process was clear and provided an adequate basis for water body assessments. The State Board staff devoted considerable effort to assembling new data and information for the 2014-16 Water Quality Integrated Report and development of the 303(d) list. Staff compiled data and information from multiple sources, including each of the data and information categories identified at 40 CFR 130.7(b)(5). The State issued public notice soliciting data and information from the public on January 14, 2010, with submittals requested by August 30, 2010.

Additionally, the solicitation notice was emailed to an extensive emailing list, and posted on the State Board's website. Overall, the State considered data and information submitted during the comment period including: fish advisories; USEPA databases; existing and readily available water quality data and information reported by local, State and federal agencies, citizen groups, academic institutions and the public; and other sources of data and information that were readily available to staff. EPA finds the State's approach to assembling readily available information to be reasonable. EPA's review found the data compilation process was sufficiently clear and consistent with federal listing requirements, and a sufficient basis for water body assessments.

Listing Methodology

The submittal summarizes the listing methodology used by California to develop the 2014-16 Water Quality Integrated Report and 303(d) list, and specifies explicit factors for making listing and delisting decisions for different pollutant types based on different kinds of data. Data are evaluated using the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy)[2].

California's 2014-16 Water Quality Integrated Report includes a list of water segments where a water quality standard is not met or expected to be met, but an impairment is being addressed by an EPA approved TMDL. See 2014-16 Water Quality Integrated Report, Appendix B, Approved TMDL List. EPA understands this list to include water segments and pollutant pairs which the State has identified as impaired but is not requiring a new or revised TMDL at this time (Appendix C. Category 4a) and water segments where the implementation of other pollutant control measures is expected to attain water quality (Appendix D. Category 4b).

The EPA reviewed the various assessments and concludes the State's assessments are consistent with federal listing requirements and applicable water quality standards.

[1] www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml
[2] www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/020315_8_amendment_clean_version.pdf

Public Comments

The State Board and Regional Boards sought public input at several points in the process of developing the 2014-16 Water Quality Integrated Report including:

- The State Board sent a Notice of Public Solicitation of Water Quality Data and Information for the Integrated Report on January 19, 2010. The deadline for submittal of the data was extended from June 30 to August 30, 2010.
- The Regional Boards for the San Francisco, Central Coast, Los Angeles, Central Valley, Santa Ana and San Diego Regions provided advanced notice and opportunity to the public to submit written comments, responded in writing to those written comments, and considered oral testimony in 2016 and 2017.
- The State Board solicited public comments on the list on June 9, 2017 with comments due by July 10, 2017. The response to comments is posted on the State Board website.
- The State Board held a Public Hearing on the list on October 3, 2017.
- The 2014-16 303(d) List was approved by the State Board on October 3, 2017 (Resolution No. 2017-0059).

Conclusions

The EPA Finds that California Properly Added 806 New WQLSs to the 2014-2016 List

Based on all the existing and readily available data, California identified 974 WQLSs in Category 5, which are waterbodies with an impairment for at least one beneficial use in the Integrated Report (Table 1) but only 806 of these WQLSs require a TMDL and are added to the 2014-16 List. Of the 974 WQLSs, 113 WQLSs already have TMDLs in place (see Appendix, Table A1). These 113 WQLSs would normally be in Category 4a but California keeps these waterbodies on the impaired waterbodies list as 5b until all impairments are addressed. 55 WQLSs are being addressed by another program (see Appendix Table A2). These would normally be in Category 4b, but California keeps these waterbodies on the impaired list as 5c. Of the 55 WQLSs addressed by another program, 30 WQLSs for trash are being addressed by the State's Trash Policy and 24 WQLSs for pesticides are being addressed by actions of the Central Valley Regional Board including Resolution No. R5-2014-0041) and 1 WQLS for nitrate was removed because a State action removed the source of the problem.

The EPA Finds That California Demonstrated Good Cause for Delisting 191 WQLSs

EPA reviewed California's rationale for its decision to delist and not include on its 2014-16 List several waters that were included on its 2012 Section 303(d) List. Of the 191 WQLSs that were removed from the 2012 List, 142 of WQLSs were removed due to improved water quality, 48 WQLSs were removed due to TMDL development (4a) and 35 WQLSs were removed because a State action removed the source of the problem (4b). The State demonstrated to EPA's satisfaction that these WQLSs do not require TMDLs or TMDLs were completed. See, 40 CFR 130. 7(b)(6)(iv).

Table 1 Summary of WQLSs added to the 2014-16 Integrated Report.

Pollutant Class	San Francisco RWQCB 2	Central Coast RWQCB 3	Los Angeles RWQCB 4	Central Valley RWQCB 5	Santa Ana RWQCB 8	San Diego RWQCB 9	Pollutant Totals
Pesticides	2	65	36	83	7	32	**225**
Bacteria	10	61	14	27	5	65	**182**
Nutrient-related		54	21	46	1	55	**177**
Toxicity	3	29	13	41	9	15	**110**
Metals	9	14	11	48	1	24	**107**
Benthic Community Effects		5	5		5	28	**43**
Trash			11			19	**30**
Misc.		47	17	28	1	7	**100**
Totals by Regional Board	**24**	**275**	**128**	**273**	**29**	**245**	**974**

Table 2. Summary of WQLSs removed from the 2014-16 List (Delistings)

Pollutant Class	San Francisco RWQCB 2	Central Coast RWQCB 3	Los Angeles RWQCB 4	Central Valley RWQCB 5	Santa Ana RWQCB 8	San Diego RWQCB 9	Pollutant Totals
Bacteria	7	11	19	4	9	5	**55**
Pesticides		14	5	24	4	1	**48**
Metals		3	19	12	2	3	**39**
Nutrient-related		10	11	2		4	**27**
Toxicity		3	1	1			**5**
Turbidity		2				1	**3**
Benthic community effects			1			1	**2**
Electrical conductivity				2			**2**
Pumping			2				**2**
Temperature		2					**2**
Water			2				**2**
Fish			1				**1**
Hydromodification			1				**1**
Sedimentation		1					**1**
Specific-conductivity		1					**1**
Totals by Regional Board	**7**	**47**	**62**	**45**	**15**	**15**	**191**

Priority Ranking and Scheduling

The State's submittal includes a priority ranking for the TMDL completion for those waters requiring a TMDL, using estimated dates for TMDL completion or completion of other actions to achieve water quality. See 2014-16 Water Quality Integrated Report, Appendix A. EPA finds that the priority ranking for TMDL development meets the requirements related to priority setting in 40 CFR 130.7(b). The EPA is not acting on these priorities as federal regulations do not require the EPA approval of priority rankings or schedules.

Administrative Record Supporting This Action

In support of this decision to approve WQLSs to California's 2014-16 List, the EPA reviewed the materials submitted by California with its listing decisions. The administrative record supporting EPA's decision to approve the State's inclusion of the waters and pollutants identified on the State's 303(d) List include the 2014-16 Water Quality Integrated Report, Appendix A, Category 5 List, EPA guidance concerning preparation of Section 303(d) lists, EPA's past comments on California's listing methodology and draft lists, and EPA's decision letter and its enclosures.

The EPA is aware that the State compiled and considered additional materials (e.g., raw data and water quality analysis reports) as part of its list development process that were not included in the materials submitted to the EPA. It is unnecessary for the EPA to consider all the materials considered by the State to determine that the State complied with the applicable federal listing requirements. Federal regulations do not require the State to submit all data and information considered as part of the submittal. See 40 CFR 130.7(b)(6)(ii). However, at the EPA's request, the State did provide additional materials, such as raw data and other relevant information. The EPA determined that the materials submitted by the State provide sufficient documentation to support the decision to approve the 2014-16 List.

Public comments received on the Draft 2014-16 Water Quality Integrated Report, and State Water Board Staff responses to comments, are provided on the State Board web page[3]. EPA reviewed the State's responses to comments received on the Final 2014-16 Water Quality Integrated Report. EPA found the State's responses to public comments reasonable and in accordance with federal listing requirements.

[3] www. waterboards. ca. gov/water_issues/programs/tmdl/docs/integrated_report_responsetocomments. pdf

References

Submittal

State Water Resources Control Board, 2014 and 2016. California Integrated Report Clean Water Act Sections 303(d) and 305(b) Staff Report dated October 3, 2017.

State Water Resources Control Board, 2018. Transmittal of the 2014 and 2016 California Integrated Report. [Clean Water Act Sections 303(d) and 305(b)]. Letter to Tomás Torres, Region 9 Water Division Director and supporting materials, including the Integrated Report, and responsiveness summary, dated February 5, 2018.

Other Documents

CA, State Water Resources Control Board, 2015. Amendment to the Water Quality Control Plan for the Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. April 7, 2015. https://www. waterboards. ca. gov/water_issues/programs/trash_control/docs/01_final_sed. pdf

Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for the control of Diazinon and Chlorpyriphos Discharges. California Regional Water Quality Control Board, Central Valley Region. Resolution r5-2014-0041. https://www. waterboards. ca. gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2014-0041_res. pdf

EPA 1978. December 28, 1978 Federal Register Notice, Total Maximum Daily Loads Under Clean Water Act, finalizing EPA's identification of pollutants suitable for TMDL calculations, 43 Fed. Reg. 60662.

EPA 1985. January 11, 1985 Federal Register Notice, 40 CFR Parts 35 and 130, Water Quality Planning and Management: Final Rule, 50 Fed. Reg. 1774.

EPA 1991. Guidance for Water Quality Based Decisions: The TMDL Process. EPA 440/4- 91-001 U. S. Environmental Protection Agency, Office of Water, Washington, DC.

EPA, 2001. 2002 Integrated Water Quality Monitoring and Assessment Report Guidance, Robert H. Wayland III, Director, Office of Wetlands, Oceans and Watersheds, November 19, 2001.

EPA. 2001. Water Quality Criterion for the Protection of Human Health: Methylmercury. Final. EPA-823-R-01-001. January 2001

EPA, 2003b. Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act; TMDL-01-03, Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, July 21, 2003.

EPA, 2005. Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act. Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, July 29, 2005.

EPA, 2006. Information Concerning 2008 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, October 12, 2006.

EPA, 2009. Information Concerning 2010 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Suzanne Schwartz, Director, Office of Wetlands, Oceans and Watersheds, May 5, 2009.

APPENDICES

Table A1. WQLS in Category 5 with existing TMDL (5b). EPA considers these to be Category 4a.

Region	Water Body Name	Pollutant(s)
2	Calabazas Creek (Santa Clara County)	Diazinon
2	Lakeshore Park Beach (Marina Lagoon, San Mateo County)	Indicator Bacteria
2	Miller Point (Tomales Bay)	Indicator Bacteria
3	Alisal Creek (Monterey County)	Ammonia
3	Alisal Slough (Monterey County)	Ammonia
3	Alisal Slough (Monterey County)	Diazinon
3	Blanco Drain	Toxicity
3	Blosser Channel	Diazinon
3	Blosser Channel	Chlorpyrifos
3	Bradley Canyon Creek	Chlorpyrifos
3	Bradley Channel	Diazinon
3	Bradley Channel	Escherichia coli (E. coli)
3	Bradley Channel	Malathion
3	Chorro Creek	Sodium
3	Chorro Creek	Total Dissolved Solids
3	Chualar Creek	Oxygen, Dissolved
3	Chualar Creek, South Branch	Ammonia
3	Greene Valley Creek (Santa Barbara County)	Malathion
3	La Brea Creek	Fecal Coliform
3	Main Street Channel	Oxygen, Dissolved
3	Main Street Channel	Escherichia coli (E. coli)
3	Main Street Channel	Malathion
3	Merrit Ditch	Diazinon
3	Millers Canal	Nitrate
3	Moro Cojo Slough	Nitrate
3	Natividad Creek	Diazinon
3	Nipomo Creek	Escherichia coli (E. coli)
3	Orcutt Creek	Escherichia coli (E. coli)
3	Orcutt Creek	Malathion
3	Orcutt Creek	DDE
3	Orcutt Creek	Cyfluthrin
3	Orcutt Creek	Cyhalothrin, Lambda
3	Orcutt Creek	DDD
3	Oso Flaco Creek	Chlorpyrifos
3	Oso Flaco Creek	Malathion
3	Oso Flaco Lake	Endrin
3	Oso Flaco Lake	Toxicity
3	Oso Flaco Lake	Fecal Coliform
3	Oso Flaco Lake	Escherichia coli (E. coli)
3	Oso Flaco Lake	DDT
3	Pajaro River	Diazinon
3	Pajaro River Estuary	Diazinon
3	Salinas River Lagoon (North)	Chlorpyrifos
3	Salinas River Lagoon (North)	Toxicity
3	San Lorenzo River	Fecal Coliform
3	Santa Maria River	Diazinon
3	Santa Maria River	Cypermethrin

3	Santa Maria River	Malathion
3	Santa Maria River	DDD
3	Santa Maria River	DDE
3	Santa Maria River Estuary	Chlorpyrifos
3	Santa Maria River Estuary	DDE
3	Santa Maria River Estuary	Toxicity
3	Santa Maria River Estuary	DDD
3	Santa Maria River Estuary	Diazinon
3	Santa Maria River Estuary	Malathion
3	Santa Maria River Estuary	Oxygen, Dissolved
3	Struve Slough	Fecal Coliform
3	Tembladero Slough	Oxygen, Dissolved
3	Trout Creek Gulch	Fecal Coliform
3	Unnamed tributary to Orcutt Creek	Toxicity
3	Unnamed tributary to Orcutt Creek	Toxicity
3	Unnamed tributary to Orcutt Creek	Chlorpyrifos
3	Unnamed tributary to Orcutt Creek	Chlorpyrifos
3	Unnamed tributary to Orcutt Creek	Diazinon
3	Unnamed tributary to Orcutt Creek	Diazinon
3	Unnamed tributary to Orcutt Creek	Ammonia
3	Unnamed tributary to Orcutt Creek	Ammonia
3	Unnamed tributary to Orcutt Creek	Nitrate
3	Unnamed tributary to Orcutt Creek	Nitrate
3	Valencia Creek	Fecal Coliform
3	Watsonville Slough	Fecal Coliform
4	Balboa Lake	Ammonia
4	Bull Creek (Los Angeles County)	Ammonia
4	Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on 1998 303d list)	Nitrogen, Nitrite
4	Compton Creek	Zinc
4	Dominguez Channel Estuary (unlined portion below Vermont Ave)	Copper
4	Duck Pond Agricultural Drains/Mugu Drain/Oxnard Drain No 2	DDD
4	Duck Pond Agricultural Drains/Mugu Drain/Oxnard Drain No 2	DDE
4	Duck Pond Agricultural Drains/Mugu Drain/Oxnard Drain No 2	Chlorpyrifos
4	Echo Park Lake	Chlordane
4	Echo Park Lake	Dieldrin
4	Fox Barranca (tributary to Calleguas Creek Reach 6)	Chlordane
4	Fox Barranca (tributary to Calleguas Creek Reach 6)	DDT
4	Fox Barranca (tributary to Calleguas Creek Reach 6)	DDE
4	Honda Barranca	DDE
4	Honda Barranca	DDD
4	Honda Barranca	Chlorpyrifos
4	Honda Barranca	DDT
4	Honda Barranca	Chlordane
4	Los Angeles River Reach 3 (Figueroa St. to Riverside Dr.)	Indicator Bacteria
4	Los Angeles River Reach 6 (Above Sepulveda Flood Control Basin)	Copper
4	Rio De Santa Clara/Oxnard Drain No. 3	DDD
4	Rio De Santa Clara/Oxnard Drain No. 3	DDE
4	Rio Hondo Reach 3 (above Spreading Grounds)	Indicator Bacteria
4	San Gabriel River Estuary	Indicator Bacteria
4	Santa Clara River Reach 3 (Freeman Diversion to A Street)	Indicator Bacteria
4	Wildlife Lake	Ammonia
8	San Diego Creek Reach 1	DDT
9	Pacific Ocean Shoreline, Dana Point HSA, at Dana Point Harbor at patrol dock	Indicator Bacteria

9	Pacific Ocean Shoreline, Laguna Beach HSA, at Broadway Creek	Indicator Bacteria
9	Pacific Ocean Shoreline, Lower San Juan HSA, 1000 feet south of outfall	Indicator Bacteria
9	Pacific Ocean Shoreline, Lower San Juan HSA, 10000 feet south of outfall	Indicator Bacteria
9	Pacific Ocean Shoreline, Lower San Juan HSA, 2000 feet south of outfall	Indicator Bacteria
9	Pacific Ocean Shoreline, Lower San Juan HSA, 3000 feet south of outfall	Indicator Bacteria
9	Pacific Ocean Shoreline, Lower San Juan HSA, 4000 feet south of outfall	Indicator Bacteria
9	Pacific Ocean Shoreline, Lower San Juan HSA, 5000 feet south of outfall	Indicator Bacteria
9	Pacific Ocean Shoreline, Lower San Juan HSA, 7500 feet south of outfall	Indicator Bacteria
9	Pacific Ocean Shoreline, Lower San Juan HSA, at South Doheny State Park Campground	Indicator Bacteria
9	Pacific Ocean Shoreline, Lower San Juan HSA, at surfzone outfall at Doheny State Beach	Indicator Bacteria
9	Pacific Ocean Shoreline, San Clemente HA, at San Clemente City Beach at Pier	Indicator Bacteria
9	Pacific Ocean Shoreline, San Clemente HA, at South Capistrano Beach at Beach Road	Indicator Bacteria
9	Pacific Ocean Shoreline, San Diego HU, at Stub Jetty, south of the San Diego River outlet, near Cape May Avenue	Indicator Bacteria

Table A2. WQLS in Category 5 with a program to achieve water quality (5C). EPA considers these to be 4b.

Region	Water Body Name	Decision Pollutant(s)
3	San Antonio Creek (San Antonio Watershed, Rancho del las Flores Bridge at Hwy 135 to downstream at Railroad Bridge)	Nitrate
4	Hueneme Drain	Trash
4	J Street Drain (Ventura County)	Trash
4	Ormond Beach Wetlands	Trash
4	Oxnard Drain	Trash
4	Sanjon Barranca Creek	Trash
4	Santa Clara River Reach 1 (Estuary to Hwy 101 Bridge)	Trash
4	Santa Clara River Reach 3 (Freeman Diversion to A Street)	Trash
4	Santa Clara River Reach 5 (Blue Cut gaging station to West Pier Hwy 99 Bridge) (was named Santa Clara River Reach 7 on 2002 303(d) list)	Trash
4	Santa Clara River Reach 10 (Sespe Creek, from confl with Santa Clara River Reach 3 to above gaging station - 500 ft downstream from Little Sespe Cr)	Trash
4	Santa Clara River Reach 4A (A Street, Fillmore to Piru Creek)	Trash
4	Santa Paula Creek Reach 1 (confluence w Santa Clara River to Diverson Dam)	Trash
5	Cottonwood Creek (S Madera County)	Diuron
5	Dry Creek (Madera County)	Diuron
5	Dry Creek (Madera County)	Diazinon
5	Dry Creek (tributary to Tuolumne River at Modesto, E Stanislaus County)	Diuron
5	Hospital Creek (San Joaquin and Stanislaus Counties)	Chlorpyrifos
5	Hospital Creek (San Joaquin and Stanislaus Counties)	Diuron
5	Hospital Creek (San Joaquin and Stanislaus Counties)	Methyl Parathion
5	Ingram Creek (from confluence with Hospital Creek to Hwy 33 crossing)	Chlorpyrifos
5	Ingram Creek (from confluence with Hospital Creek to Hwy 33 crossing)	Diuron
5	Littlejohns Creek	Chlorpyrifos
5	Lone Tree Creek	Diazinon
5	Main Drain (Kern County)	Diuron
5	Orestimba Creek (above Kilburn Road)	Diuron
5	Pine Creek (Butte County)	Chlorpyrifos
5	Ramona Lake	Diuron
5	Salt Slough (Mud Slough to Sand Dam, Merced County)	Chlorpyrifos
5	San Joaquin River (Bear Creek to Mud Slough)	Diuron
5	Sand Creek (tributary to Marsh Creek, Contra Costa County; partly in Delta Waterways, western portion)	Diazinon

5	Snake River (Butte and Sutter Counties)	Chlorpyrifos
5	Temple Creek	Chlorpyrifos
5	Ulatis Creek (Solano County)	Diuron
5	Walker Creek (Glenn County)	Chlorpyrifos
5	Willow Slough Bypass (Yolo County)	Chlorpyrifos
5	Willow Slough Bypass (Yolo County)	Diuron
9	Mission Bay Shoreline, at Enchanted Cove	Trash
9	Pacific Ocean Shoreline, Batiquitos HSA, at Moonlight State Beach (Cottonwood Creek outlet)	Trash
9	Pacific Ocean Shoreline, Coronado HA, at G Ave, Central Beach	Trash
9	Pacific Ocean Shoreline, Imperial Beach Pier	Trash
9	Pacific Ocean Shoreline, Loma Alta HSA, at Loma Alta Creek mouth	Trash
9	Pacific Ocean Shoreline, Los Monos HSA, Carlsbad State Beach at Tamarack Ave	Trash
9	Pacific Ocean Shoreline, Mission San Diego HSA, at Ocean Beach pier at Narrangaset	Trash
9	Pacific Ocean Shoreline, Point Loma HA, at Sunset Cliffs and Froude Street	Trash
9	Pacific Ocean Shoreline, Rancho Santa Fe HSA, at Powerhouse Park	Trash
9	Pacific Ocean Shoreline, San Diego HU, at Stub Jetty, south of the San Diego River outlet, near Cape May Avenue	Trash
9	Pacific Ocean Shoreline, San Elijo HSA, at Cardiff State Beach at parking lot entrance	Trash
9	Pacific Ocean Shoreline, San Luis Rey HU, Oceanside Pier at Pier View Way	Trash
9	Pacific Ocean Shoreline, Scripps HA, at Belmont Park at Mission Beach (near San Fernando Place)	Trash
9	Pacific Ocean Shoreline, Scripps HA, at Crystal Pier	Trash
9	Pacific Ocean Shoreline, Scripps HA, at North Lane at Windansea Beach	Trash
9	Pacific Ocean Shoreline, Scripps HA, at Pacific Beach Drive, Pacific Beach	Trash
9	Pacific Ocean Shoreline, Scripps HA, at Tourmaline Surf Park, Pacific Beach	Trash
9	Pacific Ocean Shoreline, Scripps HA, at Vallecitos Court at La Jolla Shores Beach	Trash
9	Pacific Ocean Shoreline, Torrey Pines State Beach, at North Beach Entrance parking lot	Trash

Table A3. WQLS with an existing TMDL and no other impairments(4a). Does not include WQLSs in Table A1.

Region	Water Body Name	Pollutant(s)
3	Alisal Slough (Monterey County)	Oxygen, Dissolved
3	Blanco Drain	Oxygen, Dissolved
3	Clear Creek (San Benito County)	Mercury
3	San Antonio Creek (Rancho del las Flores Bridge at Hwy 135 to RR Bridge)	Chlorpyrifos
3	San Luis Obispo Creek (below Osos Street)	Nutrients
3	Struve Slough	Bacteria
3	Watsonville Slough	Bacteria
4	Abalone Cove Beach	Bacteria
4	Ballona Creek	Selenium
4	Bluff Cove Beach	Bacteria
4	Cabrillo Beach (Outer)	Bacteria
4	Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Crk Reaches 2 & 3, and lower Conejo Crk/Arroyo Conejo N Fk on 1998 303d list)	Endosulfan (tissue)
4	Calleguas Creek Reach 12 (was Conejo Creek/Arroyo Conejo North Fork on 1998 303d list)	Ammonia
4	Coyote Creek	Lead
4	Dominguez Channel (lined portion above Vermont Ave)	Diazinon
4	Dominguez Channel Estuary (unlined portion below Vermont Ave)	Zinc (sediment)
4	Hermosa Beach	Bacteria
4	Lake Sherwood	Ammonia
4	Lake Sherwood	Organic Enrichment/ Low Oxygen
4	Leo Carillo Beach (South of County Line)	Bacteria
4	Lincoln Park Lake	Lead

4	Long Point Beach	Bacteria
4	Los Angeles River Reach 3 (Figueroa St. to Riverside Dr.)	Lead
4	Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Copper
4	Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Ammonia
4	Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Lead
4	Los Angeles/Long Beach Inner Harbor	Bacteria
4	Malaga Cove Beach	Bacteria
4	Manhattan Beach	Bacteria
4	Nicholas Canyon Beach	Bacteria
4	Point Dume Beach	Bacteria
4	Point Fermin Park Beach	Bacteria
4	Portuguese Bend Beach	Bacteria
4	Robert H. Meyer Memorial Beach	Bacteria
4	Royal Palms Beach	Bacteria
4	San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam	Bacteria
4	Santa Clara River Reach 3 (Freeman Diversion to A Street)	Ammonia
5	Elk Grove Creek	Chlorpyrifos
5	Marsh Creek (Marsh Creek Reservoir to San Joaquin River; partly in Delta Waterways)	Diazinon
5	San Joaquin River (Bear Creek to Mud Slough)	Chlorpyrifos
5	San Joaquin River (Merced River to Tuolumne River)	Boron
5	San Joaquin River (Stanislaus River to Delta Boundary)	Electrical Conductivity
8	Newport Bay, Lower (entire lower bay, including Rhine Channel, Turning Basin and South Lido Channel to east end of H-J Moorings)	Chlorpyrifos
8	Newport Bay, Upper (Ecological Reserve)	Chlorpyrifos
8	San Diego Creek Reach 1	Pesticides
9	Pacific Ocean Shoreline, Scripps HA, at Avenida de la Playa at La Jolla Shores Beach	Bacteria
9	Pacific Ocean Shoreline, Scripps HA, at La Jolla Cove	Bacteria
9	Pacific Ocean Shoreline, Scripps HA, at Ravina	Bacteria

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

November 3, 2016

Joseph Simi
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670

Re: Proposed Revisions to the 303(d) List of Impaired Water Bodies and Integrated Assessment Report for the Central Valley Region

Dear Mr. Simi:

EPA reviewed the Clean Water Act Sections 305(b) and 303(d) 2014 Integrated Report for the Central Valley Region Draft Staff Report, dated September 2016 and have a few comments. We request the State consider further analysis of several waterbodies and additional listings where data show impairment.

Temperature Assessments Discard Many Impaired Waters

The Staff Report indicates that of 189 new waterbody evaluations for temperature, elevated temperatures were found in 39 yet only one was recommended for listing. The State states in the Staff Report that most of these were waterbodies that had surface grab samples only in summer months at the edges of swimming holes and would be unrepresentative of temperature conditions. However, in reviewing the lines of evidence, there are many waterbodies that are well mixed lotic systems where a surface grab sample showing exceedances of temperature thresholds would still be representative of most of the water column and suggest a temperature impairment for the waterbody as a whole. There are several waterbodies, such as segments of the Sacramento River that have substantial data collected under the Irrigated Lands Regulatory Program indicating impairment. Additionally, for many of these waterbodies continuous monitoring stations with existing data published by a sister State Agency, Department of Water Resources in publically available databases (e.g. California Data Exchange Center (CDEC) found at www.cdec.water.ca.gov and the California Water Data Library http://www.water.ca.gov/waterdatalibrary/) are available to confirm impairments initially identified by the already analyzed grab sample data.

EPA also notes that the thresholds selected in the Staff Report for this listing cycle, 21°C and 24°C for rainbow trout and steelhead respectively, are much warmer than the temperatures recommended in EPA's *2003 Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards.*

Existing Numeric Temperature Criteria Do Not Appear to be Utilized as Thresholds

EPA notes that in the Lines of Evidence for river segments that have more protective numeric standards than the thresholds utilized for comparison to the narrative objective, the more

protective numeric standard was not used. Table III-4 and I1I-4A in the Sacramento and San Joaquin River Basin Plan identifies specific objectives for Deer Creek and the Sacramento River. As an example, 56°F (13.3°C) is a numeric objective for Sacramento River between Keswick Dam and Hamilton City but the line of evidence for this segment appears to have been compared to a 21 ℃ threshold.

Continuous Monitoring Data in the Delta is "Readily Available Information"

In implementing section 303(d) of the Clean Water Act the State is required to assess all "readily available data and information"[1] when putting together a list of impaired waters. Federal policy[2] does not define this as narrowly as California has chosen to interpret it. EPA does not believe all readily available information were included in the development of the proposed list of impaired waters. California appears to have discarded all the continuous data reported in CDEC and the California Water Data Library. However, EPA notes this data is used by the State Board to implement water management decisions and is used by the Central Valley Regional Board in developing TMDLs.

The omission of continuous monitoring information is particularly notable in the Delta where 24 continuous monitoring stations are identified in Table 7 of the 2006 Bay-Delta Plan as stations to assess compliance with water quality objectives[3] and are not assessed for this Integrated Report. It has resulted in illogical listing decisions such as the listing of the Stockton Deep Water Ship Channel for temperatures unsuitable to support migration of cold water species, but none of the surrounding waters are listed as impaired. The Draft Staff Report also has inconsistent assessments for dissolved oxygen and salinity in the 2006 Bay-Delta Plan when there is an abundance of publically available data identifying broader impairments. These data should be assessed and incorporated into the final Staff Report.

The broader issue of incorporating readily available continuous monitoring data, not just from the Delta but across the State, should be addressed in the next listing cycle. These data are not readily incorporated into the California Environmental Data Exchange Network (CEDEN) but are collected at a great cost and effort by the State and other agencies and should be assessed against water quality objectives to accurately report the condition of California's waters to the public.

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[1] In developing Section 303(d) lists, states are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses. or as threatened, in the state's most recent CWA Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards: (3) waters for which water quality problems have been reported by governmental agencies, members of the public. or academic institutions; and (4) waters identified as impaired or threatened in any CWA Section 319 nonpoint assessment submitted to EPA. See 40 CFR § 130.7(b)(5).

[2] See pp. 30-32 of the Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act (IRG). http:s://\\'\\\ \\ .epa.!!o\·/sit..:./produl.:tion/filc.s/20 I.'i-iO/d()(:u1m.:1m/200(1ir!e-rcpon .pdf

[3] "This Plan requires, and the permits and license of the DWR and the USBR include conditions for, a monitoring program to provide baseline information and determine compliance with water quality objectives." pp 41 of the 2006 Bay-Delta Plan

Monitoring Data Collected by CDFW for San Joaquin River Restoration Has been Overlooked

A multi-agency effort has been underway to restore the San Joaquin River since 2008. The upper restoration reaches have had temperature data collected since well before the data cutoff of 2010 and continue to be intensely scrutinized for suitability for salmonid reintroduction. These data are collected by the California Department of Fish and Wildlife (CDFW) and are an attachment to thjs letter.

The Salmon Protection Objective Should be Assessed

EPA notes that despite readily available data and information the Staff Repmt does not assess the Salmon Protection Objective found in Table 3 of the *Water Quality Control Plan for the San Francisco Bay/Sacramento- San Joaquin Delta Estuary* (2006 Bay-Delta Plan)

> Water quality conditions shall be maintained, together with other measures in the watershed, sufficient to achieve a doubling of natural production of chinook salmon from the average production of 1967-1991, consistent with the provisions of State and federal law.

This objective was adopted in the Water Quality Control Plan due to its inclusion in the Central Valley Project Improvement Act (CVPIA). Pursuant to CVPIA, US Fish and Wildlife Service has developed numeric targets to achieve this goal that are included in Table 1 and Appendix B-1 of the Restoration Plan for the Anadromous Fish Recovery Program. These can be accessed at the following website and are also included as an Appendix to this letter: http..://wW\\'. t\vs.gov/cno/fishcrics/CAMP/Documents/Final_Restoration_Plan_for_the_AFRP.pdf

California collects the data used to assess progress towards these targets for many of these tributaries. CDFW publishes this information at this website: https://nrm.df!!.ca.gov/Fi leHandler.m,hx·?Documnent 1D=84381 &i nl inc= 1

And existing program summary describing how all of the data are collected can be found here: httpc.://nrm.dfo. ca.Qov/Fi leHancllcr.ashx'!DocurncnllD=.H9 1&i nlinc

The listing for Salmon Protection would be consistent with the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List. Section 3.9 states that a water segment should be listed "if the water segment exhibits significant degradation of biological populations as compared to reference site(s) and is associated with water or sediment concentration of pollutants including but not limited to chemical concentrations, temperature, dissolved oxygen or trash". There are readily available data collected by a sister State agency (CDFW) to assess the Salmon Protection objective.

If you have any questions, please contact Valentina Cabrera at 415-972-3434 or cabrera-stagno.valentina@epa.gov or Terry Fleming at 415-972-3462 or fleming.terrence@epa.gov.

Sincerely,

cJ t,Jtol

Janet Hashimoto
Chief, Water Quality Assessment Section

Appendix: Table 1 and Appendix B-1 from the Restoration Plan for the Anadromous Fish Recovery Program

T<lble l. T::irget brodwno11 lev·ds for amdromow, frh m Celln<ll Y<lllcy·n w rs and sn-eams.

Specie:-	Target
Chi.nook s<1lmon. all rnccS a	990.000
Fall nm	..,50.000
Late-foll nm	6°.000
\Yi.nter nm	110.000
SpriJ.1g nm	68.000
Steclheacf	13.000
Srriped ba-./	2.:-00.000
.-\meric:m sh<l(f	-UOO
\\11ire :.mrgeon	11.000
Green :nlrgeo11	.000

Preliminary estimated production targets for chinook salmon. Data for rivers without a race designation are for fall-run chinook salmon.

Race and river	Production target
All races combined	990,000
Fall run	750,000
Late-fall run	68,000
Winter run	110,000
Spring run	68,000
Sacramento River	
Fall run	230,000
Late fall run	44,000
Winter run	110,000
Spring run	59,000
Clear Creek	[illegible]
Cow Creek	4,600
Cottonwood Creek	5,900
Battle Creek	
Fall run	10,000
Late-fall run	500
Paynes Creek	330
Antelope Creek	720
Mill Creek	
Fall run	4,200
Spring run	4,400
Deer Creek	
Fall run	1,500
Spring run	6,500
Miscellaneous creeks	1,100
Butte Creek	
Fall run	1,500
Spring run	2,000
Big Chico Creek	800
Feather River	170,000
Yuba River	66,000
Bear River	450
American River	160,000
Mokelumne River	9,300
Cosumnes River	3,300
Calaveras River	2,200
Winter run	
Stanislaus River	22,000
[illegible]	[illegible]
Merced River	18,000

Enclosure 3

EPA Synthesis of Continuous Temperature Data from California Department of Fish and Wildlife and the California Department of Water Resources

This Enclosure summarizes EPA's evaluation of temperature monitoring data in certain water bodies and considers how the indicated temperatures may adversely affect the designated (beneficial) uses for fish habitat, migration, and spawning.

The water bodies under consideration are the San Joaquin River (Friant Dam to Mendota Pool), San Joaquin River (Bear Creek to Mud Slough), San Joaquin River (Mud Slough to Merced River), Delta Waterways (southern portion), Delta Waterways (central portion), Delta Waterways (northern portion), Delta Waterways (western portion), Suisun Bay, and Carquinez Straight.

Applicable water quality standards for these water bodies are established in the Sacramento and San Joaquin River Basin Plan. All the aforementioned segments have the Cold Freshwater Habitat (COLD) designated use and the Migration of Aquatic Organisms (MIGR) designated use for Cold Freshwater Habitat (COLD) with a footnote indicating "salmon and steelhead" (See RWQCB Central Valley, 2009, Table II-1). The San Joaquin River (Friant Dam to Mendota Pool) segment also has the Spawning, Reproduction, and/or Early Development (SPWN) designated use for COLD with a footnote indicating "salmon and steelhead" (See RWQCB Central Valley, 2009, Table II-1, pp. II-7). Additionally, the Sacramento and San Joaquin River Basin Plan addresses temperature with the following narrative and numeric objectives: "The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. … At no time or place shall the temperature of COLD or WARM intrastate waters be increased more than 5°F above natural receiving water temperature. … In determining compliance with the water quality objectives for temperature, appropriate averaging periods may be applied provided that beneficial uses will be fully protected." (RWQCB Central Valley Region, 2009, pp. III-8)

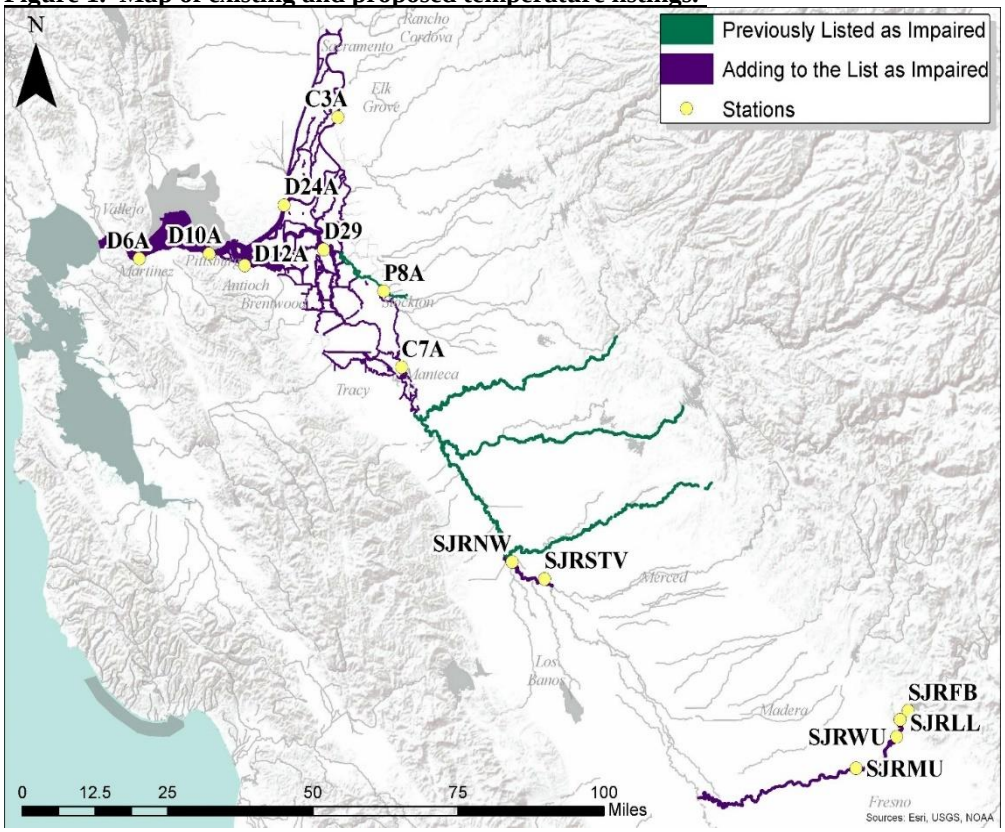
Documentation of the natural receiving water temperature is not readily available so an assessment of whether the migration and spawning uses were being achieved was conducted by comparing the current temperatures to the temperature requirements of salmonid species identified in the EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards (2003a). EPA believes that the Region 10 guidance and its associated Technical Issue Papers provide the most comprehensive compilation of research related to salmonid temperature requirements available. The studies compiled in the guidance and associated papers address the full geographic extent of salmonid populations including California. The recommended numeric criteria to protect coldwater salmonids in this report were recommended for use by California's Department of Fish and Game (now Fish and Wildlife) in their temperature data submittal and subsequent comments for California's 2008-2010 303(d) list and were subsequently utilized by EPA to add water-quality limited segments to that list. Additionally, the guidance's recommended numeric criteria have been used by the National Marine Fisheries Service as thresholds when considering the suitability of expected water temperatures for Central Valley steelhead in the Stanislaus River under the proposed actions in their Biological and Conference Opinion on the

Long-term Operations of the Central Valley and State Water Project (2009). An enormous amount of temperature data has been collected for the subject segments of the San Joaquin River and its tributaries. After review of the data, EPA finds that the subject segments are not attaining the relevant numeric temperature criteria for migration, freshwater habitat and spawning of coldwater salmonids. Observed exceedances are greater than the 10% exceedance threshold for conventional and other pollutants as expressed in Table 3.2 of the State Listing Policy. A summary of the water body specific findings is included in the following section.

Data Used by EPA

EPA Region 9 has reviewed continuous temperature data collected by the California Department of Fish and Wildlife (CDFW) for the San Joaquin River restoration project from 2002 to 2010 and data from the Department of Water Resources (DWR) from January 1, 1995 to August 30, 2010 from the sampling sites shown in Figure 1 and Table 1.

Figure 1. Map of existing and proposed temperature listings.



The Region 10 guidance includes recommended temperature criteria for salmon and trout based on different life stages. The recommended temperature for salmon and trout adult migration is <20ºC as a 7-day average daily maximum (7DADM) and this was applied to all delta segments and the lower two reaches of the San Joaquin River. In the upper San Joaquin River (Friant Dam to Mendota Pool) multiple life stages were assessed. For the migration life stage and the Steelhead summer rearing life stage the Salmon and Trout Migration plus Non-Core Juvenile Rearing recommendation was utilized and is <18ºC 7DADM. For spawning, the Salmon and Trout Spawning, Egg Incubation, and Fry Emergence recommendation was utilized and is <13ºC 7DADM. For juvenile rearing the Salmon/Trout "Core" Juvenile Rearing recommendation was utilized and is

<16°C 7DADM. The evaluation thresholds and seasons during which they were applied are summarized below in Table 2.

Table 1. Waterbodies evaluated for listing

Waterbody	Size	Site Location	Site Code	Source
San Joaquin River (Friant Dam to Mendota Pool)	70 miles	SJR Friant Bridge	SJRFB	CDFW
		SJR Lost Lake	SJRLL	CDFW
		SJR Willow Unit	SJRWU	CDFW
		SJR Rank Island	SJRRI	CDFW
		SJR Sportsman Club	SJRSC	CDFW
		SJR Milburn Unit	SJRMU	CDFW
		SJR Gravely Ford	SJRGF	CDFW
San Joaquin River (Bear Creek to Mud Slough)	14 mile	SJR Stevenson Bridge	SJRSTV	CDFW
San Joaquin River (Mud Slough to Merced River)	3 miles	SJR Newman Waste Water	SJRNW	CDFW
Delta Waterways (southern portion)	3,125 acres	San Joaquin River @ Mossdale	C7A	DWR
Delta Waterways (central portion)	11,425 acres	San Joaquin River @ Prisoners Point	D29	DWR
Delta Waterways (northern portion)	6,975 acres	Sacramento River @ Hood	C3A	DWR
Delta Waterways (western portion)	14,524 acres	San Joaquin River @ Antioch Ship Channel	D12A	DWR
		Sacramento River @ Rio Vista	D24A	DWR
Suisun Bay	25,335 acres	Sacramento River @ Mallard Island	D10A	DWR
Carquinez Straight	5,657 acres	Sacramento River @ Martinez	D6A	DWR

EPA evaluated a fifteen-year period of DWR data. The 7DADM measurement was calculated by eliminating any calculations with less than 7 consecutive measurements and by reviewing only the data rated as good with a "G" data quality flag by DWR. The CDFW data was similarly evaluated, however, the available data only went back as far as 2002. We assessed the number of valid 7DADM for the seasonal periods noted in Table 2 and then noted how many of those exceeded the thresholds in Table 2. Results are provided below in Table 3. These data were then evaluated for potential impairments using the binomial Table 3-2 from the California 303d listing policy and all segments were found to be impaired. It should be noted that the most upstream site in the San Joaquin River (Friant Dam to Mendota Pool) segment did not show impairment for any life stage whereas at least one life stage was impaired in the three downstream sites.

Table 2. Evaluation thresholds used for listing

Waterbody	Life Stage	Season	7DADM Threshold
San Joaquin River (Friant Dam to Mendota Pool)	Migration	March 15 – June 15 (smolts) September 1 – October 31 (adults)	<18ºC
	Spawning	October 1 – December 15	<13ºC
	Juvenile Rearing	March 15 – June 15	<16ºC
	Steelhead Summer Rearing	June 15 – September 15	<18ºC
San Joaquin River (Bear Creek to Mud Slough)	Migration	March 15 – June 15 (smolts) September 1 – October 31 (adults)	<20ºC
San Joaquin River (Mud Slough to Merced River)	Migration	March 15 – June 15 (smolts) September 1 – October 31 (adults)	<20ºC
Delta Waterways (southern portion)	Migration	March 15 – June 15 (smolts) September 1 – October 31 (adults)	<20ºC
Delta Waterways (central portion)	Migration	March 15 – June 15 (smolts) September 1 – October 31 (adults)	<20ºC
Delta Waterways (northern portion)	Migration	March 15 – June 15 (smolts) September 1 – October 31 (adults)	<20ºC
Delta Waterways (western portion)	Migration	March 15 – June 15 (smolts) September 1 – October 31 (adults)	<20ºC
Suisun Bay	Migration	March 15 – June 15 (smolts) September 1 – October 31 (adults)	<20ºC
Carquinez Straight	Migration	March 15 – June 15 (smolts) September 1 – October 31 (adults)	<20ºC

Table 3. Waterbodies proposed for temperature listings (bolded and *italicized* values in the last column exceed the listing thresholds for listing)

Waterbody	Site Code	Start Date	End Date	Life Stage	# of calculable 7DADMs in appropriate season	#7DADM in appropriate season which exceed
San Joaquin River (Friant Dam to Mendota Pool)	SJRFB	5/30/2002	8/1/2010	Migration	629	0
				Spawning	382	31
				Juvenile Rearing	352	0
				Steelhead Summer Rearing	400	0
	SJRLL	5/30/2002	8/1/2010	Migration	1082	0
				Spawning	501	***203***
				Juvenile Rearing	737	0
				Steelhead Summer Rearing	543	1
	SJRWU	7/8/2007	6/10/2010	Migration	457	2
				Spawning	228	***115***
				Juvenile Rearing	274	44
				Steelhead Summer Rearing	256	38
	SJRRI	8/19/2008	8/31/2010	Migration	308	44
				Spawning	152	***63***
				Juvenile Rearing	186	***47***
				Steelhead Summer Rearing	199	***89***
	SJRSC	6/4/2002	8/31/2010	Migration	439	***155***
				Spawning	104	***69***
				Juvenile Rearing	290	***180***
				Steelhead Summer Rearing	289	***283***
	SJRMU	7/2/2007	8/1/2010	Migration	431	***263***
				Spawning	160	***122***
				Juvenile Rearing	279	***197***
				Steelhead Summer Rearing	310	***310***
	SJRGF	5/26/2008	8/31/2010	Migration	329	***224***
				Spawning	152	***104***
				Juvenile Rearing	207	***129***
				Steelhead Summer Rearing	264	***264***
San Joaquin River (Bear Creek to Mud Slough)	SJRSTV	8/6/2008	1/19/2010	Migration	215	***123***
San Joaquin River (Mud Slough to Merced River)	SJRNW	9/9/2008	7/13/2009	Migration	146	***90***
Delta Waterways (southern portion)	C7A	1/01/1995	8/30/2010	Migration	1965	***749***
Delta Waterways (central portion)	D29	8/12/2008	8/30/2010	Migration	308	***118***
Delta Waterways (northern portion)	C3A	12/21/1998	8/30/2010	Migration	1492	***431***

Delta Waterways (western portion)	D12A	1/03/2008	8/30/2010	Migration	391	***117***
	D24A	9/23/2008	8/30/2010	Migration	280	***74***
Suisun Bay	D10A	10/06/2008	8/30/2010	Migration	267	***48***
Carquinez Straight	D6A	1/01/1995	8/30/2010	Migration	2016	***563***

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CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

2017

accomplishments

CALIFORNIA STATE AND REGIONAL WATER BOARDS

The California Water Boards are dedicated to a single vision: abundant clean water for human uses and environmental protection to sustain California's future. Under the federal Clean Water Act and the state's pioneering Porter-Cologne Water Quality Control Act, the Water Boards have regulatory responsibility for protecting the water quality of nearly 1.6 million acres of lakes, 1.3 million acres of bays and estuaries, 211,000 miles of rivers and streams, and about 1,100 miles of exquisite California coastline.

This report summarizes significant accomplishments achieved by the California Water Boards from January through December 2017.

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This report contains hyperlinks embedded in some text and logos.
This report can be accessed online at
http://www.waterboards.ca.gov/publications_forms/publications/general/

Attachment C-2

The State Water Board consists of five full-time Board members, each filling a position defined by statute. Each Regional Water Board is governed by seven Board members who represent categories related to the control of water quality and must reside, or have a place of business, within their region. All Water Board members are appointed by the Governor and confirmed by the Senate.

California Water Board Locations

1 = Region 1 (North Coast)
2 = Region 2 (San Francisco Bay)
3 = Region 3 (Central Coast)
4 = Region 4 (Los Angeles)
5 = Region 5 (Central Valley)
6 = Region 6 (Lahontan)
7 = Region 7 (Colorado River Basin)
8 = Region 8 (Santa Ana)
9 = Region 9 (San Diego)
★ = State Water Board Offices

State Water Board Division of Drinking Water District Offices Map

ABOUT THE WATER BOARDS

The California Water Boards are comprised of the State Water Resources Control Board (State Water Board), located in Sacramento, and the nine semi-autonomous Regional Water Quality Control Boards (Regional Water Boards), located in specific watersheds throughout California. The Water Boards are part of the California Environmental Protection Agency (CalEPA).

The Water Boards monitor and report on the quality of surface water and groundwater, develop and implement plans to restore impaired waters, and fund restoration and capital improvement projects aimed at protecting public health and the environment. The complexity of California's statewide and regional water issues is reflected in the large number of Water Board programs and activities throughout the state.

The State Water Board develops statewide policy and regulations for the protection of water quality, regulates drinking water, administers California's water rights system, and supports Regional Water Board efforts. In addition, the State Water Board provides financial assistance in the form of grants and loans for projects that clean up and protect water quality, drinking water supplies, and that otherwise protect water resources. The nine Regional Water Boards implement policy and regulations, develop long-range plans, issue permits, evaluate permit compliance, and take enforcement actions. Together with the Regional Water Boards, the State Water Board is authorized to implement the federal Clean Water Act, and the state and federal Safe Drinking Water Acts in California.

FISCAL YEAR 2016/2017 FAST FACTS

Over 50,000 facilities regulated

Over 7,500 inspections conducted

Nearly 4,000 enforcement actions

Over 5,500 permitting actions

Over 34,000 water rights holders regulated

Nearly $1.5 billion in Clean Water State Revolving Funds allocated

Over $200 million in Drinking Water State Revolving Funds allocated

Source: Water Board's Fiscal Year 2016-2017 Performance Report

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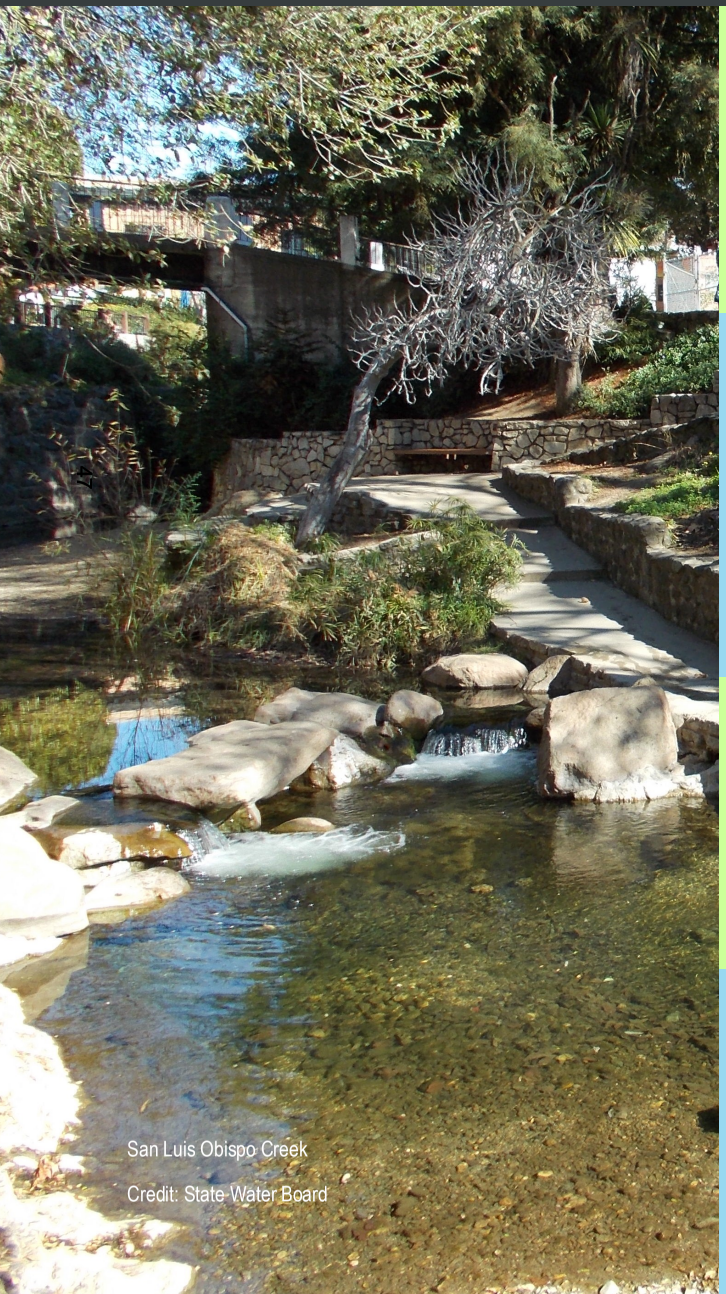
Conservation & Climate Change

2017 Accomplishments



San Luis Obispo Creek

Credit: State Water Board

Water Conservation Regulations Updated

In February 2017, the State Water Board extended existing water conservation regulations (initially adopted in 2014), which prohibit wasteful practices such as watering lawns after rainfall, and set conservation mandates for water suppliers that do not have enough water to withstand three additional dry years (the water supplier "stress test"). After a thorough review of the state's water supply conditions, the regulations were partially rescinded in April 2017, lifting the water supplier "stress test" requirements and remaining mandatory conservation standards for water suppliers. Monthly reporting of water use and prohibitions against wasteful practices remained in place through November 2017.

Climate Change Resolution Adopted by State Water Board

In March 2017, the State Water Board adopted a resolution and committed to a proactive approach in addressing climate change through all Water Board actions, including drinking water regulation, water quality protection, and financial assistance. The State Water Board is committed to using current data and models to inform and support Board actions. The approach builds on a 2007 resolution which supported the implementation of the landmark climate change law, Assembly Bill 32. Additionally, in December 2017, the Central Valley Regional Water Board adopted the Central Valley Region Climate Change Work Plan, which builds upon the State Water Board's efforts. The work plan describes the impact of climate change on water quality in the Central Valley and in particular on each of the Regional Water Board's programs. It describes current and future priority projects the Regional Water Board will undertake to adapt programs in response to climate change.

Project Approved in South San Francisco Bay to Protect Against Sea Level Rise

In December 2017, the San Francisco Bay Regional Water Board adopted a permit for the South San Francisco Bay Shoreline Project (Santa Clara County). The project provides flood protection and shoreline resiliency against projected sea level rise for the community of Alviso and parts of the City of San Jose by constructing approximately four miles of flood management levee. Once complete, the project will restore tidal action to approximately 2,900 acres of historically-diked tidal marsh, and will protect homes, schools and businesses along the shoreline, including the San Jose-Santa Clara Regional Wastewater Treatment Facility. The project incorporates elements to restore and enhance salt marsh habitat while providing a resilient shoreline in the face of sea level rise.

Climate Change Strategy Workshop Held in Los Angeles Region

The Los Angeles Regional Water Board developed the Los Angeles Region Framework for Climate Change Adaptation and Mitigation in 2015 which outlined expected impacts of climate change on water quality and beneficial uses, and initiated the identification of regulatory measures Regional Water Board programs could take to mitigate climate change impacts. To further inform the development of mitigation measures and priorities, the Regional Water Board held a public workshop in August 2017. The workshop presented Regional Water Board efforts that will identify mitigation measures and sought stakeholder input. The workshop highlighted the need for innovative, flexible, and coordinated implementation of regional solutions to address climate change.

Water Boards Respond to Catastrophic Wildfires

Santa Rosa

Credit: State Water Board

In 2017, California experienced catastrophic wildfires on a scale never before witnessed. The Water Boards quickly adapted and adjusted priorities to protect public health, water quality, and the environment. Wastes generated from disasters such as wildfires can be voluminous and contain hazardous pollutants (i.e., fire retardant chemicals, household chemicals, and automotive fluids) that if not properly disposed of are toxic to human health and the environment, and can create new and exacerbate existing water quality threats. The Water Boards coordinated closely with many entities, including the Federal Emergency Management Agency (FEMA), the State Office of Emergency Services (Cal OES), the California Department of Forestry and Fire Protection (CAL FIRE), volunteer groups, and other organizations to conduct response and recovery efforts. Working with these partners, the Water Boards assessed damage, identified water quality threats, and recommended mitigation actions so emergency response resources could be prioritized.

Central LNU Complex Fires

On October 8, 2017, unprecedented wildfires (the Central LNU Complex fires) began in Mendocino, Napa, Solano, Sonoma and Yuba counties, prompting Governor Brown to declare a State of Emergency. The fires claimed numerous lives, ravaged nearly 200,000 acres, and destroyed or damaged 9,000 structures. After the fires ceased and in anticipation of winter rains, the North Coast Regional Water Board conducted field assessments, prioritized mitigation actions, and provided technical assistance to implement controls to prevent fire waste and debris from entering storm water collection systems and streams within the Redwood Valley, Pocket, Tubbs and Nuns fires impacted areas. To address waste disposal issues, the Regional Water Board issued an emergency permit specifying the conditions for the proper disposal of waste and debris. In response to the Nuns Fire (Sonoma County), the San Francisco Bay Regional Water Board worked to protect water quality at high priority sites, mitigated polluted storm water discharges in the Sonoma Creek Watershed, and provided additional time to those required to enroll under the region's vineyards permit if the fires had impacted them. To manage the drinking water emergency response, the State Water Board's Division of Drinking Water (DDW) established its first-ever statewide virtual Division Response Center. The Response Center took over the functions of the Santa Rosa Drinking Water District Office so staff could evacuate and provided information to local incident command centers and Cal OES. Over 100 water systems were monitored for damage and emergency needs during the fires. Twenty water systems were damaged and seven systems completely destroyed. After the fires, DDW worked with systems to test the quality of their drinking water, issue unsafe water consumption alerts, and return systems to full service.

Thomas, Rye, and Creek Fires

On December 4, 2017, the largest fire in California history, the Thomas Fire, ignited in Southern California, prompting Governor Brown to again declare a State of Emergency. The fire burned over 280,000 acres and destroyed or damaged over 1,300 structures. In response, the Central Coast Regional Water Board issued an emergency permit to Santa Barbara County enabling the clean out of debris and waste from the local flood control system and Carpinteria Creek to reduce flood risk to downstream communities. In anticipation of winter storms that would cause heavy erosion in burn areas, the Regional Water Board worked closely with partners to clean up impacted areas. The Los Angeles Regional Water Board also issued a disaster-related emergency waste handling and disposal permit to streamline waste handling and disposal in the event of large regional disasters. The Regional Water Board also coordinated with partners to determine the extent of the Thomas, Rye, and Creek fires' burn damage and impacts on water quality to prioritize mitigation. In addition, fire-impacted landfills, industrial and construction sites were inventoried and investigated to determine damage in order to prioritize cleanup efforts. The Regional Water Board also assisted CAL FIRE in assessing geohazards (i.e., landslides) after the Thomas Fire. Following the Thomas Fire, DDW worked with damaged water systems in Ventura County to assist bringing them back into service.

Lilac Fire

On December 7, 2017, Governor Brown proclaimed another State of Emergency for the Lilac Fire (San Diego County), which burned 4,100 acres and destroyed or damaged 221 structures, immediately putting into effect the San Diego Regional Water Board's emergency permit (adopted in 2014), which specifies the proper disposal of disaster-related waste and debris. In anticipation of receiving significant volumes of fire-generated waste, both Sycamore and West Miramar landfills (the landfills closest to the fire zone) immediately enrolled under the permit.

Anticipating Future Disasters

The Water Boards are taking steps to prepare for catastrophic events, including the adoption of emergency waste disposal permits (including those mentioned above) that allow the Water Boards to immediately respond during such situations. In 2017, the San Francisco Bay and Santa Ana regional water boards also adopted emergency permits which specify the disposal conditions of disaster waste and debris at designated landfills and other areas. Such permits streamline cleanup efforts and facilitate the immediate disposal of wastes generated during a State of Emergency to facilities where the waste poses the least threat to human health and the environment. Click here and here for additional information.

Policy & Planning
2017 Accomplishments

Illegal Cannabis Cultivation Site.

Credit: State Water Board

Environmental Standards for Cannabis Cultivation Adopted

In October 2017, the State Water Board adopted the Cannabis Cultivation Policy and a cannabis permit, known as the Cannabis General Order, setting strict standards for cannabis cultivation to protect water flows and water quality in California's streams and rivers. The Policy establishes statewide requirements that will be implemented through the general permit and as conditions for cannabis-related water rights, known as Small Irrigation Use Registrations for Cannabis Cultivation. The Policy protects California's waters from cannabis-related waste discharges, establishes protections for riparian areas and wetlands, and protects stream flows. The Policy was developed in consultation with the California Department of Fish and Wildlife and the California Department of Food and Agriculture (CDFA). It will be incorporated into all commercial cannabis licenses issued by CDFA under its CalCannabis Cultivation Licensing Program.

Agreement Adopted to Restore Salton Sea to Protect Public Health and Wildlife

In November 2017, the State Water Board accepted a landmark agreement that helps define the state's commitment to restore and manage the Salton Sea. The largest lake in California, the Sea's receding shoreline presents public health risks due to particulate air pollution from dust blown from the exposed lakebed. Declining water levels are increasing the Sea's salinity, threatening wildlife food sources, and affecting migratory bird habitat, including several threatened and endangered species that use the Sea as a critical stop on the Pacific Flyway. The agreement outlines the State Water Board's oversight role in monitoring and ensuring progress toward the goals of the state's Salton Sea Management Plan, including annual milestones for restoration of the exposed lakebed. The State Water Board will hold annual meetings to track progress on the construction of 29,800 acres of ponds, wetlands, and dust-suppression projects. Also, in November 2017, the Colorado River Basin Regional Water Board developed an online forum to enhance communication and coordination among stakeholders and the California Natural Resources Agency's advisory committees involved in restoration at the Sea.

Part 1 of the California WaterFix Project Hearing Completed

In July 2017, the State Water Board completed Part 1 of a two-part public hearing to consider a water right change petition for the California WaterFix Project. With the project, the Department of Water Resources and the U.S. Department of the Interior are proposing to add points of diversion or re-diversion of water on the Sacramento River for the State Water Project and the federal Central Valley Project. Part 1 focused on impacts to other legal users of water and was completed in July 2017. Commencing in early 2018, Part 2 will address effects on fish and wildlife, public interest and Delta flow criteria. The hearing will also inform the consideration of a water quality certification for the project.

Final Scientific Report in Support of Phase II Update of Bay-Delta Plan Completed

In October 2017, the State Water Board released the final Scientific Basis Report that identifies the science upon which the comprehensive Phase II Update of the Bay-Delta Plan is based. The Phase II Update is focused on changes to the Bay-Delta Plan needed to protect fish and wildlife, including Delta outflows, interior Delta flows, Sacramento River and Delta tributary inflows and coldwater habitat.

Policy & Planning

2017 Accomplishments

Water Board Enforcement Policies Updated

In April 2017, the State Water Board adopted an updated Water Quality Enforcement Policy. The updated Enforcement Policy furthers the Water Boards' goals of preserving, enhancing and restoring the quality of water resources and drinking water for the protection of public health and the environment, and advancing environmental justice in enforcement. The updates bring greater transparency to the enforcement process and methodology for assessing penalities. The State Water Board also adopted an updated Policy on Supplemental Environmental Projects (SEPs), which was updated due to statutory changes requiring the Board to develop a SEP Policy that benefits disadvantaged communities. A SEP is an environmentally beneficial project that a person subject to a Board enforcement action voluntarily agrees to undertake in settlement of that action and to also offset a portion of a civil penalty.

Program Adopted to Protect Central Valley Aquatic Life from Harmful Pyrethroid Pesticides

In June 2017, the Central Valley Regional Water Board adopted a program to protect aquatic life from the impacts of pyrethroid pesticides. Pyrethroid pesticides are commonly used in urban and agricultural areas to control a variety of insect pests. Pyrethroids are toxic to aquatic life and are considered a potential factor in the decline of Delta fish species of concern. The program requires urban and agricultural dischargers throughout the Sacramento and San Joaquin River basins, including the Bay-Delta, to monitor for pyrethroids. Where pyrethroids are found at levels that present a risk to sensitive aquatic life, dischargers will be required to implement practices to reduce pyrethroid discharges.

Water Boards Quality Management and Assurance Plans Approved

In February 2017, the State Water Board and the United States Environmental Protection Agency (USEPA) approved the Water Boards Quality Management Plan, which outlines the pathway to integrate quality assurance principles into all environmental data collection, assessment and analytical work of the Water Boards. In July 2017, USEPA approved the State Water Board's Surface Water Ambient Monitoring Program Quality Assurance Program Plan (QAPP), which establishes quality assurance and quality control standards in order to produce water quality data that is scientifically valid, defensible and of known and documented quality. In addition, USEPA approved the National Pollutant Discharge Elimination System (NPDES) QAPP in August 2017, which outlines requirements for collecting environmental data that is used for the regulatory compliance of NPDES-permitted facilities.

Central Valley Salt and Nitrate Management Plan Accepted and Supporting Studies Adopted

In March 2017, the Central Valley Regional Water Board accepted the Central Valley Salinity Alternatives for Long-Term Sustainability Salt and Nitrate Management Plan (SNMP). Three supporting case studies were also adopted in 2017, which provide guidance on salt management areas; a framework for designating municipal and domestic supply in agriculture-dominated waters to allow for water reuse; and salinity objectives to protect uses in the Lower San Joaquin River. The SNMP will address salt and nitrate accumulation that threatens the water supply for millions of Californians as well as the long-term viability of agriculture and industry in the Central Valley.

Miners Slough Salmon Lecture

Credit: Water Boards

Surface Water Quality
2017 Accomplishments

Leviathan Mine

Credit: Lahontan Regional Water Board

Report on Health of State's Waters Approved

In October 2017, the State Water Board approved the combined 2014 and 2016 list of surface waters that do not meet water quality standards, known as the Clean Water Act Section 303(d) List of impaired waters. The State Water Board also finalized and submitted to USEPA a report on the overall water quality health of the state's surface waters. Together, the list and report are known as the 2014 and 2016 California Integrated Report, which includes water quality assessments for water bodies in the San Francisco Bay, Central Coast, Central Valley, Santa Ana, Los Angeles and San Diego regions. Over 50,000 water quality data assessments were conducted, resulting in 974 new impaired water listings and 191 delistings (removal from the 303(d) List).

Mercury Limits Adopted to Protect Consumers of Mercury-Contaminated Fish

In May 2017, the State Water Board adopted statewide mercury limits to protect beneficial uses associated with the consumption of fish by both people and wildlife. This consistent, statewide regulatory approach established new beneficial use definitions to protect California Native American cultural and subsistence fishing and non-tribal subsistence fishing uses. In addition, the action created five new water quality objectives that establish safe consumption levels for fish known to contain accumulated mercury. The objectives are based on the consumption rates for three populations at a higher risk of mercury exposure because they depend on these fish as a regular part of their diet: recreational sportfishers, tribal subsistence fishers, and non-tribal subsistence fishers. In addition, two objectives were established to protect wildlife from the harmful effects of mercury.

Vineyard Regulatory Program Adopted in San Francisco Bay Region

The San Francisco Bay Regional Water Board adopted a general permit in July 2017, establishing a program to regulate pollutant discharges from vineyards in the Napa River and Sonoma Creek watersheds. The permit requires actions to control storm water runoff and the discharge of sediment from vineyards and unpaved roads located on vineyard properties, and to also control pesticide and nutrient discharges from vineyards. Properties in these watersheds that include a five-acre or larger vineyard are required to enroll in and comply with the requirements of the permit.

Emergency Treatment at Leviathan Mine Superfund Site Prevented Toxic Discharges

Due to record precipitation in 2017, the Lahontan Regional Water Board implemented emergency treatment in early March to prevent the untreated discharge of polluted water, known as acid mine drainage (AMD), to Leviathan Creek from Leviathan Mine Superfund Site's storage ponds. Summer treatment operations followed in early June, successfully preventing the discharge of toxic heavy metals and arsenic to Leviathan Creek by neutralizing approximately 26 million gallons of AMD. In addition, two small landslides were stabilized to preserve site infrastructure, including the primary access route to the storage ponds, AMD treatment facilities, and storm water drainage facilities, which are critical elements used to prevent AMD discharges.

Surface Water Quality
2017 Accomplishments

Contaminated Sediments Removed from San Diego Bay

In 2017, approximately 7,795 cubic yards of contaminated sediment were removed from San Diego Bay. In August 2017, the San Diego Regional Water Board approved a remediation plan allowing the U.S. Navy to remove contaminated sediment in their Naval Training Center Boat Channel, which is contaminated with toxic amounts of copper, lead, zinc, DDT, and chlordane. In 2017, the Navy removed approximately 7,665 cubic yards of contaminated sediment by dredging from the Boat Channel. Three permits were also adopted in December for Navy facilities to ensure the protection of water quality in the Pacific Ocean and the Bay. In addition, Teledyne Technologies (TDY) dredged approximately 130 cubic yards of contaminated sediment from the Bay in 2017 near the mouth of a storm drain that conveyed pollutants from its former aerospace component manufacturing facility. TDY placed clean sand augmented with activated carbon over a one-acre treatment area to reduce bioaccumulation of any residual polychlorinated biphenyls (known as PCBs).

Restoration Projects Completed in Lahontan Region

In 2017, four restoration projects were completed in the Lahontan Region. The most significant project completed was the Middle Martis Creek Wetlands Restoration Project. Located near Highway 267, the project resulted in the restoration of over 340 acres of wetlands and improved one mile of stream habitat. The project will improve water quality, enhance fish and wildlife habitat, and help reduce greenhouse gas emissions. Such projects help advance the development of the Lahontan Regional Water Board's supplemental environmental project (SEP) enforcement program. The Regional Water Board may allow a portion of a discharger's monetary civil liability to be used for important and valuable water quality and quantity improvement projects (SEPs) within the Region. In addition, during 2017, the Regional Water Board continued to work with stakeholders to develop potential SEPs that satisfy the State Water Board's SEP Policy and the region's SEP enforcement program.

Plan Adopted to Address Selenium in Newport Bay Watershed

In August 2017, the Santa Ana Regional Water Board amended its Basin Plan to incorporate a selenium water quality restoration strategy for the Newport Bay Watershed. Known as a Total Maximum Daily Load (TMDL), the strategy was originally developed in 2002 by USEPA. Since that time, the Regional Water Board has worked extensively with stakeholders, regulators, and the scientific community to develop a revised attainment strategy for selenium in freshwater within the watershed. Selenium concentrations in a number of freshwater streams within the watershed, including San Diego Creek, Santa Ana Delhi Channel, and Peters Canyon and Big Canyon washes, exceed selenium water quality objectives.

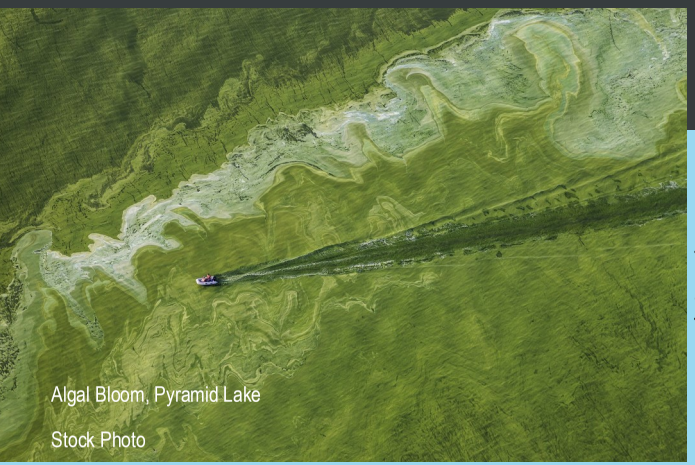
Newport Bay Water Quality Restoration Strategy Amended

In June 2017, the Santa Ana Regional Water Board amended its Basin Plan to extend the compliance schedule for the Fecal Coliform TMDL for Shellfish Harvesting in Newport Bay, and revised the definition for the shellfish harvesting beneficial use to ensure consistency with the statewide definition. The three-year time extension will allow the Regional Water Board and stakeholders to investigate fecal coliform issues related to the TMDL and to consider whether modifications to the TMDL are necessary. Modifications may include natural source exclusion in order to account for bacterial contributions from uncontrollable sources, such as waterfowl.

West Martis Creek

Credit: Lahontan Regional Water Board

Water Boards Address Freshwater Harmful Algal Blooms



Algal Bloom, Pyramid Lake

Stock Photo

Cyanobacteria, known as blue-green algae, are essential components of healthy freshwater ecosystems. However, when conditions favor cyanobacteria growth, they can rapidly multiply and create nuisance algal blooms. Blooms that are dominated by toxin-producing photosynthetic organisms, including cyanobacteria (called harmful algal blooms, or HABs), pose health risks to domestic animals, wildlife, and humans if toxins are ingested.

Statewide Water Board Efforts

The Water Boards' Freshwater Harmful Algal Blooms (FHAB) Program, coordinated by the State Water Board and implemented by the Regional Water Boards, took actions in 2017 to address HABs statewide. The FHAB team responded to 181 verified reports of HABs statewide (a two-fold increase from 2016) and coordinated with partners including state and federal agencies, county public health departments, lake and water managers, cities and counties, tribes, non-profits, and private stakeholders, to post 141 advisory warning signs to alert the public of potential health risks at waters affected by HABs. To better inform the public, HABs data was posted to the California HABs online web portal, HAB information was developed as part of the inaugural Water Quality Status Report, and a pre-Labor Day assessment was released regarding HAB risks at 43 popular recreational water bodies. To effectively protect public health, the Water Boards closely coordinate efforts with local partners. When monitoring indicated harmful toxin levels, advisory signs were posted at recreational water bodies and beaches throughout the state, including waters used by tribes for cultural and subsistence purposes. Due to the geographic extent of the regions, successful partnerships are critical to ensure prompt responses to HABs. In 2017, the Water Boards provided notification, guidance, training, and tools to local partners supporting appropriate and timely responses. In particular, in August 2017, the North Coast Regional Water Board led two HAB trainings for county public health departments, and State and Regional Water Board staff. The success of these coordinated efforts was notable in the North Coast Region, resulting in the prevention of adverse health impacts to the public and pets throughout nearly 600 HAB-impacted river miles in the Klamath, Eel, and Russian rivers during 2017.

Significant Efforts

In 2017, working successfully with local partners and stakeholders, the Regional Water Boards made significant strides in addressing HABs at Lake Temescal (City of Oakland) in the San Francisco Bay Region, at Pinto Lake (City of Watsonville) in the Central Coast Region, at Lake Tahoe (El Dorado County) in the Lahontan Region, at the Salton Sea (Imperial and Riverside counties) in the Colorado River Basin Region, and at Lake San Marcos (City of San Marcos) in the San Diego Region. Aluminum sulfate (alum) was applied to Lake Temescal, a popular swimming beach, in the fall to reduce the occurrence of HABs by reducing the cyanobacteria nutrient food supply. Advisory signs were also posted at a pond near Huichica Creek, which was associated with two dog deaths. To reduce blooms at Pinto Lake, alum was applied in the spring. Pinto Lake experiences HABs due to historical nutrient accumulation. The lake continued to experience some blooms in 2017, but they were not as widespread and had lower concentration of toxins than in prior years. The City of Watsonville also made road improvements to reduce nutrient-rich sediment from entering the lake. Although toxin levels in the southern part of Lake Tahoe were low, colder temperatures in September and the circulation of water by the Tahoe Keys Property Owners Association aided in reducing the occurrence of blooms. The Colorado River Basin Regional Board established a HABs monitoring program for the Salton Sea after the Board learned a non-profit, SEAthletes, was introducing children to paddle sports at the Sea. As a precaution, sampling occurred in the areas where children were to recreate and toxins were detected. This prompted the posting of advisory signs and informing SEAtheletes of the findings. Additionally, alum treatment was conducted in Lake San Marcos in the spring and subsequent monitoring indicated significant progress in reducing nutrients. The lake has long experienced HABs due to ongoing nutrient discharges.

Ongoing Efforts

The North Coast and Central Valley regional water boards are working together to facilitate an international scientific workgroup with the goal of accelerating mutual learning and understanding of key issues related to benthic (occurring at the bottom of a water body) HABs in rivers and lake systems. The Central Valley Regional Water Board is also conducting an evaluation study with the goal of developing management and mitigation actions to reduce HAB frequency, magnitude, and duration. Additionally, the Water Boards utilized innovative tools, including satellite imagery risk assessments and unmanned aerial systems fitted with digital cameras and imaging sensors. The State Water Board also co-chairs the California Cyanobacteria and Harmful Algal Bloom Network, a multi-agency collaborative effort part of the California Water Quality Monitoring Council.

Algal Bloom, Pyramid Lake

Stock Photo

Drinking Water Quality
2017 Accomplishments

Water Systems Required to Test School Drinking Water for Lead

The State Water Board's Division of Drinking Water (DDW), collaborating with the California Department of Education, took the initiative to test for lead in drinking water at all California public K-12 schools. In 2017, DDW and county public health departments amended the permits of approximately 1,200 public water systems requiring them to test school drinking water for lead upon request by school officials. A total of 2,160 schools requested lead sampling in 2017, and 1,908 schools were sampled. Fifty-two sampling locations had elevated lead levels. Pursuant with the Lead and Copper Rule for Drinking Water (LCR), laboratories were encouraged to utilize DDW's Lab-To-State web portal to submit data for public water systems. In 2017, a total of 1,331 water systems conducted LCR sampling and 486 systems submitted data through the portal. Together, these data helps to inform where public sources of drinking water have elevated levels of lead and copper.

Drinking Water Standard Adopted for Recognized Carcinogen

In July 2017, the State Water Board adopted a drinking water standard for 1,2,3-trichloropropane (1,2,3-TCP), a man-made chemical and recognized carcinogen that was used in industrial cleaning solvents and soil fumigant pesticides. This is the first drinking water standard adopted by the State Water Board since DDW joined the State Water Board from the California Department of Public Health in July 2014. Approximately 100 water systems in the state serving approximately 920,000 Californians have detected 1,2,3-TCP above the new standard in at least one drinking water source. Several Central Valley communities are particularly impacted due to their reliance on groundwater and past agricultural pesticide use containing 1,2,3-TCP. Public water systems are required to notify their customers and take corrective action when their drinking water exceeds the new drinking water standard.

Drinking Water Replacement Program Established for Salinas Valley Residents

Working closely with the State Water Board and the Central Coast Regional Water Board, in April 2017, the Salinas Basin Agricultural Stewardship Group agreed to supply replacement drinking water to Salinas Valley communities whose drinking water is above the nitrate drinking water standard. The temporary program will be organized and funded by the Stewardship Group members (a coalition of local agricultural owners and operators), and will run for up to two years while the parties work toward permanent solutions to respond to the challenges of nitrate in Salinas Valley groundwater. The program covers small water systems and some domestic water supply wells used by approximately 850 residents in the rural area. Additionally, in September 2017, the State Water Board created Facebook pages to inform and engage remote, rural Salinas Valley residents regarding the replacement drinking water program. The pages feature public service announcements in English and Spanish and reached over 7,000 individuals during 2017.

Free Drinking Water Well Testing Initiated for San Luis Obispo County

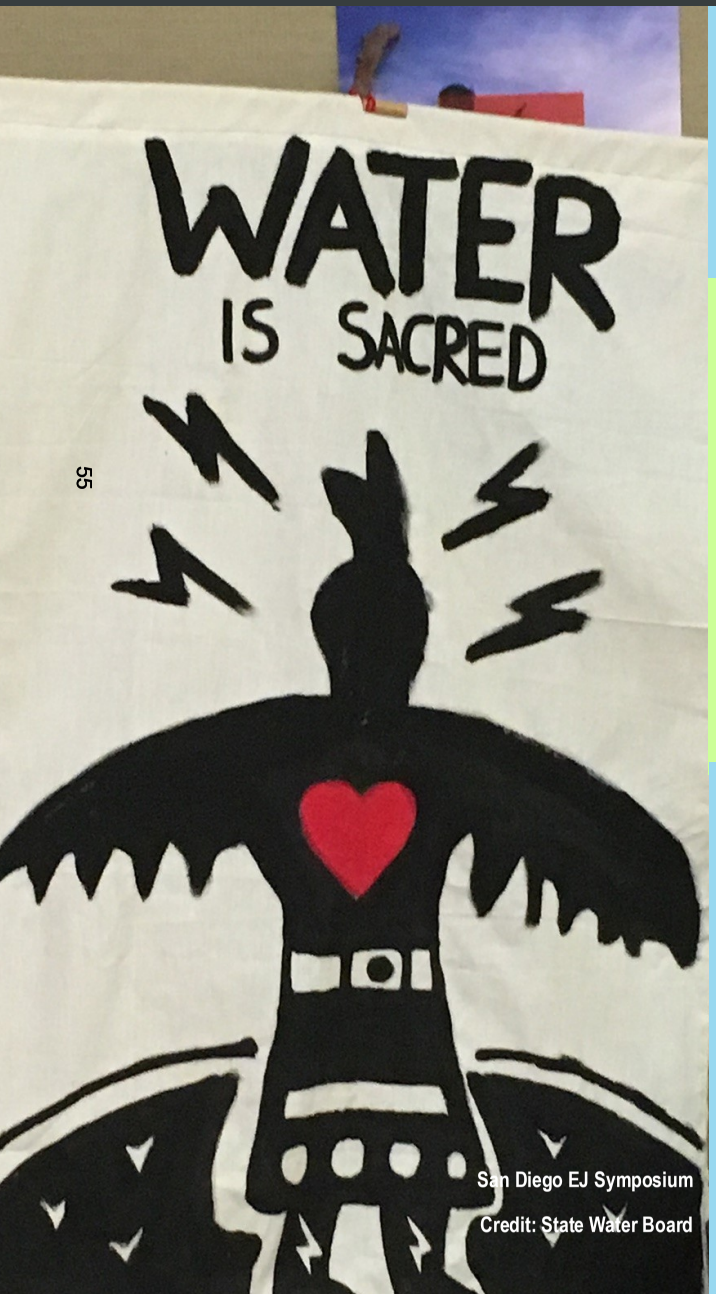
In August 2017, the Central Coast Regional Water Board, in coordination with San Luis Obispo County Environmental Health Services, initiated a free, voluntary drinking water well sampling project for county residents, as well as lab analyses, for residents who rely on private groundwater wells for their drinking water. The project is intended to inform residents of their drinking water quality and will allow for the compilation of a shared dataset to help inform decision-makers and residents of their local well water quality. As of December 31, 2017, approximately 85 domestic drinking water wells had been tested for nitrate, arsenic, chromium, perchlorate, and other pollutants, and the results were provided to well owners.

Public Outreach on Drinking Water Issues

Credit: State Water Board

Community Outreach & Engagement

2017 Accomplishments



San Diego EJ Symposium

Credit: State Water Board

Human Right to Water Website Launched to Provide Drinking Water Information to Public

In February 2017, the State Water Board launched the Human Right to Water (HRTW) web portal. The portal allows users to look up their community water system and see if it complies with federal drinking water standards. It also includes an interactive map showing water systems that are out of compliance with these standards. The portal will be updated as new information becomes available, including information on accessibility and affordability. The Water Boards' efforts on the California HRTW law strives to ensure every Californian has access to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

Nearly 50 Water Systems Consolidated Statewide to Provide Safe Drinking Water

Specific water systems that consistently fail to provide safe drinking water are required to consolidate with, or receive an extension of service from, another public water system. In 2017, approximately 50 consolidations of small water systems to larger systems occurred statewide with the goal of providing safe and affordable drinking water. Consolidations require complex coordination among multiple parties, including the State Water Board's Division of Drinking Water. Notable consolidations occurred in Colusa, Riverside, and Sacramento counties. In Riverside County, approximately 420 customers of the County Water Company of Riverside had their water supply consolidated into Elsinore Valley Municipal and Eastern Municipal water districts. Prior to the consolidation customers experienced water outages and were supplied water above the nitrate drinking water standard. In Colusa County, the Del Oro Water Company-Walnut Ranch District consolidated with the City of Colusa's water supply system, providing safe drinking water to 180 Del Oro customers. In Sacramento County, Ox Bow Marina Mutual Water Company, serving 200 customers, was consolidated with California American Water Company's Isleton water system. Both Del Oro and Ox Bow were supplying customers with water above the arsenic drinking water standard. All three consolidated water companies are now defunct.

Projects Funded to Support Solutions in Small and Disadvantaged Communities

In 2017, the State Water Board approved $15.6 million in Proposition 1 funding for a wastewater consolidation project in Lewiston (Trinity County), and $5.3 million in Proposition 1 funding for a wastewater collection and treatment project in Willow Creek (Humboldt County). The North Coast Regional Water Board assisted these disadvantaged communities (DACs) and worked closely with the State Water Board to facilitate funding. The Lewiston project will consolidate three wastewater collection and treatment systems that have met the end of their useful lives and present potential threats to water supplies. The Willow Creek project will provide wastewater collection and treatment to downtown Willow Creek where decades-old septic systems are starting to fail. These projects support HRTW by assisting DACs with permanent and sustainable wastewater collection and treatment solutions. Also, during 2017, the State Water Board's Site Cleanup Subaccount Program (SCAP) issued its first 30 grants totaling nearly $18 million. The funding supports the cleanup of long-neglected contaminated groundwater sites and projects where cleanup has stalled due to the lack of funds. SCAP projects include former dry cleaner businesses, small metal plating facilities, brownfield sites (sites where reuse is hampered due to contamination), and industrial facilities. Most cleanup sites are located in small or disadvantaged communities. The projects will remove toxic contaminants from groundwater across the state, reducing threats to human health and the environment.

Community Outreach & Engagement
2017 Accomplishments

Environmental Justice Efforts Advanced by the Water Boards

The first State Water Board Environmental Justice (EJ) Summit, held in November 2017, drew more than 60 participants consisting of non-governmental organizations (NGOs) and State and Regional Water Board staff. Planned in collaboration with the Regional Water Boards and NGOs, the event assessed Water Board progress toward achieving EJ goals, identified solutions for emerging issues, and built on partnerships. Topics included the Sustainable Groundwater Management Act, funding and technical assistance, and implementation of the HRTW law. At the San Diego Regional Water Board's EJ Symposium in June 2017, residents voiced their concerns and identified the water quality issues most important to them. The North Coast Regional Water Board, partnering with Sonoma County, local Resource Conservation Districts, and the Rural Community Assistance Corporation, are collaborating with stakeholders and residents to plan, develop, and implement sustainable solutions to address failing septic systems located in DACs in the Russian River Watershed. A Citizen Advisory Group has been established to seek input from concerned residents, build consensus on solutions, and secure funding. During 2017, the Los Angeles Regional Water Board participated on the California Environmental Protection Agency EJ Task Force's City of Pomona initiative, which aims to increase compliance with environmental laws in EJ communities located in the City. The Regional Water Board also actively participated in local interagency efforts through targeted inspection and enforcement activities in response to community concerns. Also, in 2017, the Colorado River Basin Regional Water Board co-chaired and participated on an EJ task force for the Eastern Coachella Valley and participated in meetings of the Imperial Valley EJ task force. Both task forces are a collaboration with the non-profit, Comite Civico Del Valle, with the focus on making improvements in disadvantaged communities.

Drinking Water Guide for EJ and Disadvantaged Communities Released

In November 2017, the State Water Board released a new educational resource: The Drinking Water Resource Guide for Environmental Justice and Disadvantaged Communities of the Central Valley and Central Coast of California. Developed and designed with input from stakeholders, this bilingual (English and Spanish) guide serves as a companion to the Citizen's Guide to Working with the California Water Boards and is specific to the needs of these regions. The Guide will enable communities to take action to help create and maintain a safe, clean, affordable, and accessible water supply. Topics covered include contaminants found in drinking water, testing private wells, how to receive emergency water, and how to file a drinking water complaint.

Training Conducted to Support Volunteer Scientists and Identify Fecal Contamination

In September 2017, the State Water Board's volunteer citizen science monitoring program, the Clean Water Team, conducted trainings on the applicability of water contact sanitary surveys and USEPA's Marine Beach Sanitary Survey App. The sanitary survey trainings were provided to watershed managers, citizen scientists, EJ organizations, and tribal members to assist them in identifying the sources and magnitude of fecal bacterial contamination at beaches and recreational water bodies. Citizen science monitoring programs are an important part of protecting the health of those who recreate at the state's many beaches, lakes, ponds and streams, and who use these waters for cultural or subsistence purposes.

Volunteer Citizen Scientists, Lodi

Credit: State Water Board

Groundwater Quality
2017 Accomplishments

Oil and Gas Field

Credit: State Water Board

Permits Adopted to Protect Water Resources from Oil and Gas Field Activities

In April 2017, the Central Valley Regional Water Board adopted three general permits to regulate the storage and discharge of oilfield produced water, a by-product of oil production, to land (primarily ponds). The permits require oil and gas facilities to submit technical information and demonstrate that produced water discharges comply with state laws, policies, and regulations. Once technical information compliance is achieved, oil and gas facilities are issued a notice of applicability that brings them under the appropriate permit. Facilities currently regulated by individual permits will be brought under the general permits after unregulated facilities have been addressed. Due to concerns regarding the use of treated produced water to irrigate crops for human consumption, the Regional Water Board's panel of food safety experts continued to meet in 2017. Thus far, analyzed produce samples (irrigated with and without produced water) do not identify any safety concerns related to consuming produce irrigated with produced water. However, additional samples will continue to be collected and analyzed, along with a detailed review and assessment of toxicity associated with chemicals used by the oil and gas industry during drilling and oil production activities.

Efforts Move Forward to Address San Fernando Valley Groundwater Contamination

To address widespread contamination in the San Fernando Valley groundwater basin, the Los Angeles Regional Water Board, as part of a technical advisory committee established in late 2017, worked to ensure cleanup and restoration projects conducted by the Los Angeles Department of Water and Power are coordinated with and complementary to other cleanup efforts by other parties. In addition, in 2017, the State Water Board provided $50 million in Proposition 1 funding to address the contamination in the basin. Remediation of the basin is a priority for the Regional Water Board because the basin is a vital drinking water source for the Los Angeles area.

Water Quality Objective Adopted to Protect Groundwater in Santa Ana Region

The Santa Ana Regional Water Board continued to implement the Region's Salt and Nutrient Management Plan. During 2017, working with stakeholders, the Regional Water Board amended its Basin Plan to revise the nitrate (as nitrogen) water quality objective for the Chino-South Groundwater Management Zone. To protect drinking water, it was determined that revising the objective was appropriate and the revised objective will not adversely impact municipal and domestic water supply or other uses. Revision of the nitrate water quality objective will allow for recycled water reuse within the Chino-South Groundwater Management Zone. Due to historical agricultural land use in the area, nitrate concentrations have been rising steadily in the aquifer for the past 40 years.

Local Programs Approved to Address Septic System Discharges in San Bernardino County

In 2017, the Santa Ana Regional Water Board approved local programs intended to protect water quality and public health from discharges associated with septic systems for the cities of Rancho Cucamonga and Yucaipa in San Bernardino County. These programs, known as Local Agency Management Programs (LAMPs), are the first to be approved in the Region pursuant to the 2012 Onsite Wastewater Treatment System Policy, which regulates septic systems in the state. The policy allows local agencies to manage septic systems via LAMPS, which are tailored to take into account local condition variability (i.e., unique geographical conditions) to ensure water quality and public health are protected.

Recycled Water
2017 Accomplishments

More Than $748 Million in Water Recycling Projects Funded

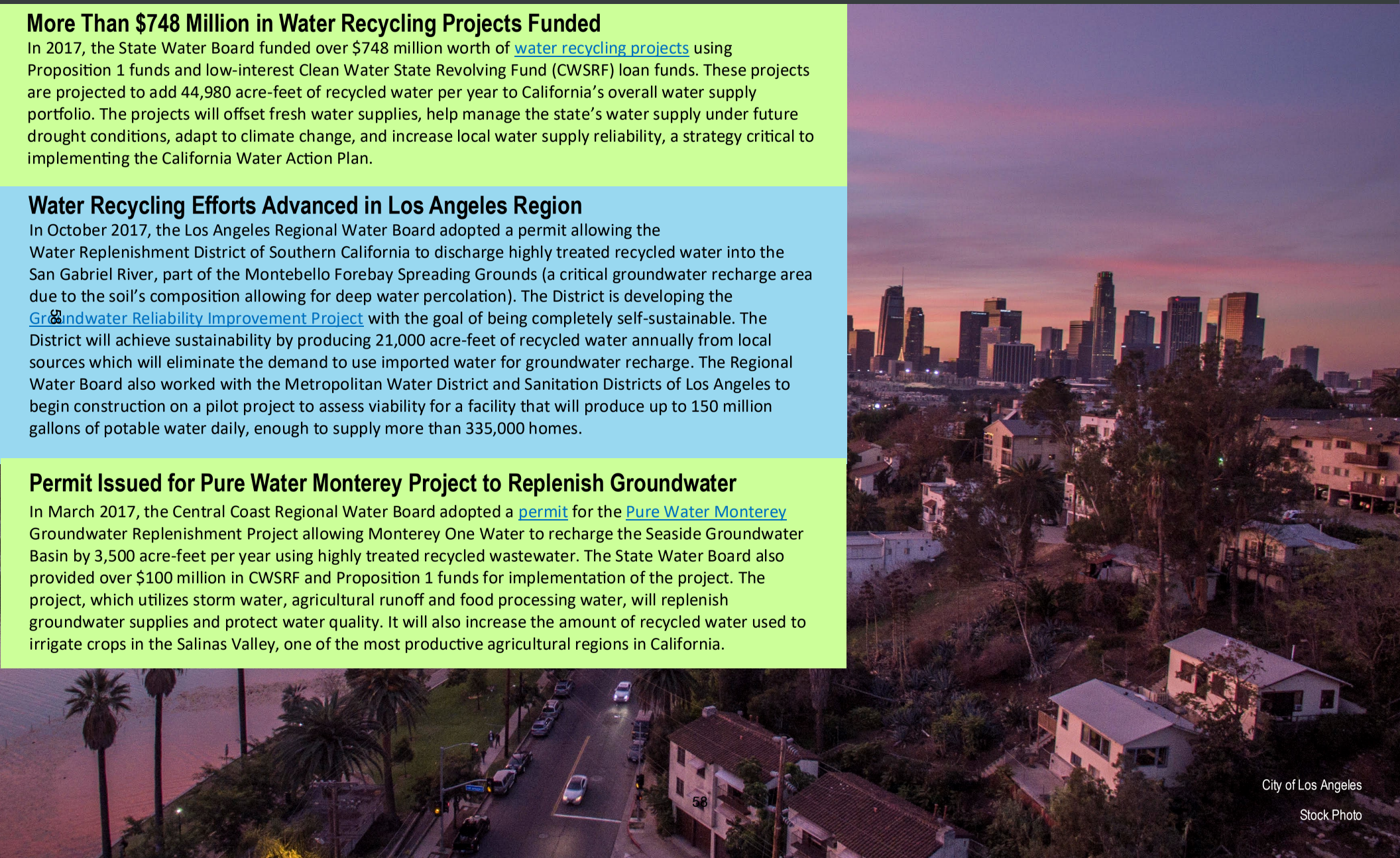
In 2017, the State Water Board funded over $748 million worth of water recycling projects using Proposition 1 funds and low-interest Clean Water State Revolving Fund (CWSRF) loan funds. These projects are projected to add 44,980 acre-feet of recycled water per year to California's overall water supply portfolio. The projects will offset fresh water supplies, help manage the state's water supply under future drought conditions, adapt to climate change, and increase local water supply reliability, a strategy critical to implementing the California Water Action Plan.

Water Recycling Efforts Advanced in Los Angeles Region

In October 2017, the Los Angeles Regional Water Board adopted a permit allowing the Water Replenishment District of Southern California to discharge highly treated recycled water into the San Gabriel River, part of the Montebello Forebay Spreading Grounds (a critical groundwater recharge area due to the soil's composition allowing for deep water percolation). The District is developing the Groundwater Reliability Improvement Project with the goal of being completely self-sustainable. The District will achieve sustainability by producing 21,000 acre-feet of recycled water annually from local sources which will eliminate the demand to use imported water for groundwater recharge. The Regional Water Board also worked with the Metropolitan Water District and Sanitation Districts of Los Angeles to begin construction on a pilot project to assess viability for a facility that will produce up to 150 million gallons of potable water daily, enough to supply more than 335,000 homes.

Permit Issued for Pure Water Monterey Project to Replenish Groundwater

In March 2017, the Central Coast Regional Water Board adopted a permit for the Pure Water Monterey Groundwater Replenishment Project allowing Monterey One Water to recharge the Seaside Groundwater Basin by 3,500 acre-feet per year using highly treated recycled wastewater. The State Water Board also provided over $100 million in CWSRF and Proposition 1 funds for implementation of the project. The project, which utilizes storm water, agricultural runoff and food processing water, will replenish groundwater supplies and protect water quality. It will also increase the amount of recycled water used to irrigate crops in the Salinas Valley, one of the most productive agricultural regions in California.

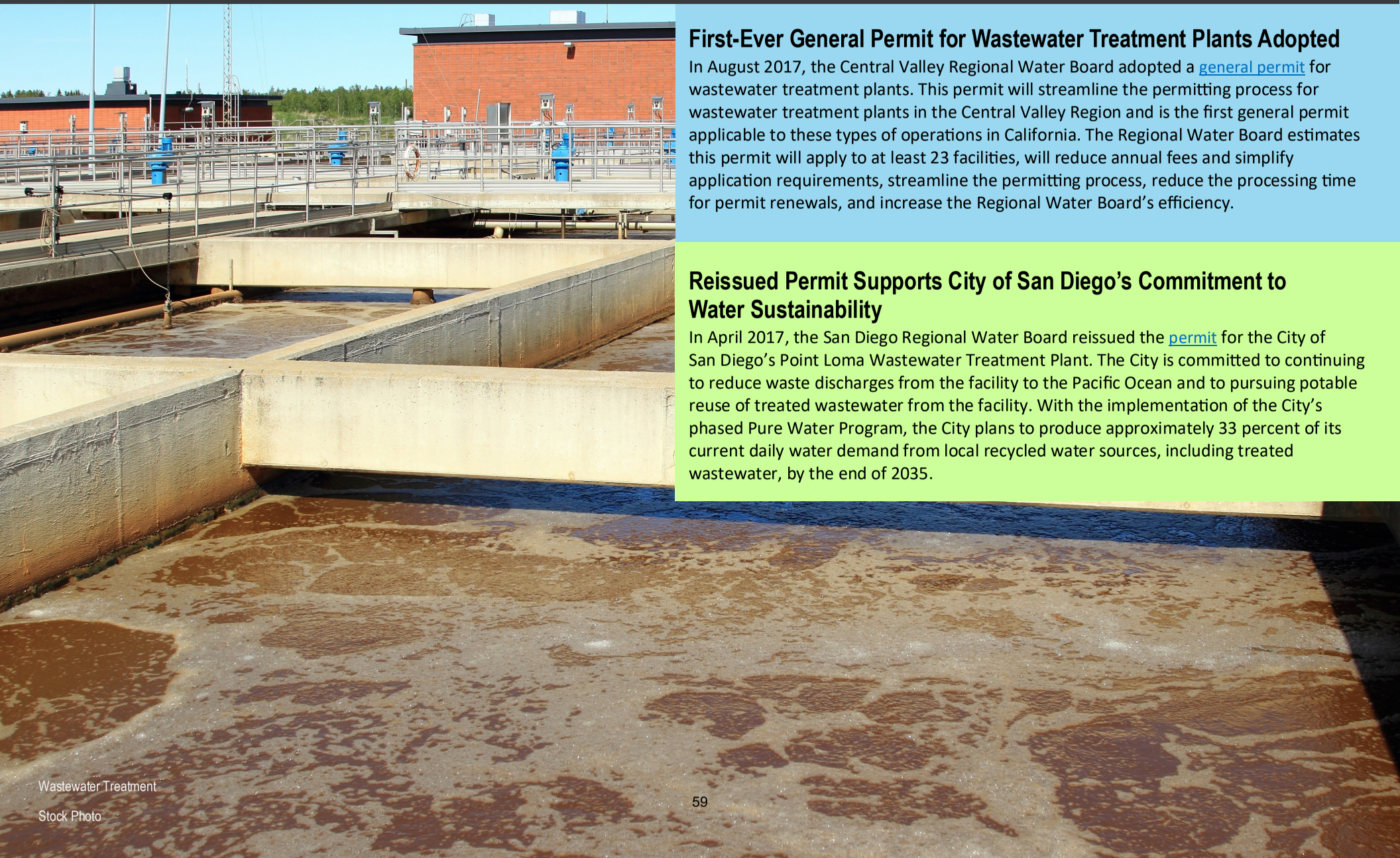


City of Los Angeles

Stock Photo

Wastewater Management

2017 Accomplishments



First-Ever General Permit for Wastewater Treatment Plants Adopted

In August 2017, the Central Valley Regional Water Board adopted a general permit for wastewater treatment plants. This permit will streamline the permitting process for wastewater treatment plants in the Central Valley Region and is the first general permit applicable to these types of operations in California. The Regional Water Board estimates this permit will apply to at least 23 facilities, will reduce annual fees and simplify application requirements, streamline the permitting process, reduce the processing time for permit renewals, and increase the Regional Water Board's efficiency.

Reissued Permit Supports City of San Diego's Commitment to Water Sustainability

In April 2017, the San Diego Regional Water Board reissued the permit for the City of San Diego's Point Loma Wastewater Treatment Plant. The City is committed to continuing to reduce waste discharges from the facility to the Pacific Ocean and to pursuing potable reuse of treated wastewater from the facility. With the implementation of the City's phased Pure Water Program, the City plans to produce approximately 33 percent of its current daily water demand from local recycled water sources, including treated wastewater, by the end of 2035.

Wastewater Treatment

Stock Photo

Nonpoint Source Pollution Control
2017 Accomplishments

Permit Adopted in Central Coast Region to Protect Drinking Water from Agricultural Discharges

In March 2017, the Central Coast Regional Water Board approved a three-year permit for its Irrigated Lands Regulatory Program (ILRP), which regulates discharges associated with irrigated agriculture. Nitrate pollution of drinking water supplies is a critical problem throughout the Central Coast Region. Studies indicate fertilizer from irrigated agriculture is the primary source of nitrate contamination in drinking water wells and significant nitrate loading continues as a result of agricultural fertilizer practices. Provisions in the permit aim to ensure the protection of public health and water quality by requiring groundwater well monitoring and expanding the reporting requirements on nitrogen applied to crops.

Agriculture Water Quality Management Plans Implemented in Central Valley Region

The Central Valley Regional Water Board ILRP requires growers to develop management plans and implement practices to address water quality problems caused by agricultural discharges. Nineteen management plans were successfully implemented and deemed completed by the Regional Water Board in 2017 (most for eliminating pesticide and toxicity water quality problems). Options to obtain regulatory coverage under the ILRP permit include joining a coalition group that assists farmers and landowners in complying with permit requirements. In 2017, to obtain permit coverage, farmers and landowners enrolled a total of 111,500 irrigated agricultural acres in the Central Valley Region with a coalition group.

Irrigated Agriculture

Stock Photo

Enforcement

2017 Accomplishments

Mothball Fleet

Credit: San Francisco Bay Regional Water Board

Last of "Mothball Fleet" Military Ships Departs Suisun Bay

In August 2017, the Cape Borda, the last of 57 dilapidated former military ships known as the "Mothball Fleet," was towed from Suisun Bay for steel recycling in Brownsville, Texas. The ships were removed because they were found to be contaminating the Bay with tons of heavy metal-laden toxic paint peeling from the ships decks and hulls. The departure of the Cape Borda represented the U.S. Maritime Administration's compliance with an April 2010 consent decree and is the final action completed as part of an 11-year collaborative effort by the San Francisco Bay Regional Water Board, the San Francisco Baykeeper, the Natural Resources Defense Council, and Arc Ecology. Cleanup of the "Mothball Fleet" is now complete.

City of San Diego Required to Pay $3.2 Million for Storm Water Permit Violations

In August 2017, the San Diego Regional Water Board adopted a $3.2 million settlement agreement with the City of San Diego due to violations of its storm water permit. The City failed to ensure construction sites protected local streams and coastal lagoons from loose sediment, including the Los Peñasquitos Lagoon and the Tijuana River Estuary. During inspections of construction sites, the Regional Water Board identified numerous sites that did not adequately implement erosion and sediment control practices required by the City's storm water permit. During 2017, the City paid half of the penalty, and under the agreement, the City is allowed to use the remaining half to complete four supplemental environmental projects. Also, the City has committed to make necessary changes to gain compliance with the permit.

Settlement Reached with U.S. Army Corps of Engineers Over Clean Water Act Violations

During 2017, the Los Angeles Regional Water Board and the U.S. Army Corps of Engineers reached a settlement agreement over Clean Water Act violations related to two dredge and fill operations conducted by the Corps in the Los Angeles River and its tributaries. These unpermitted activities resulted in sediment and pollutant discharges that impacted water quality, aquatic life, and wildlife habitat. As part of the settlement, the Regional Water Board and the Corps entered into a memorandum of understanding that is expected to improve communication between both parties to ensure the protection of water quality in the Region.

Consulting Firm Banned from Water Board Programs Due to Negligence and Fraud

In August 2017, the State Water Board settled a negligence and fraud claim against Ami Adini & Associates (AAA), an environmental consulting firm, for the ineffective and negligent cleanup of petroleum-contaminated underground storage tank (UST) sites throughout the state. Due to submitting false information to the State Water Board's Underground Storage Tank Cleanup Fund requesting reimbursement for the remediation of these sites, AAA surrendered more than $1 million in reimbursements it expected to receive. The company and its owners are disqualified from working with any State Water Board program in the future. Also, the State Water Board settled with three UST site owners over costs that had been billed to the Fund for unreasonable or unnecessary cleanup work conducted by AAA, which resulted in an additional savings of more than $19,000 to the Fund.

Financial Assistance
2017 Accomplishments

More Than $1.5 Billion in Funding Committed to Projects to Protect Californians, the Environment, and Water Quality

The State Water Board's Clean Water State Revolving Fund Program had its most productive year since its inception in 1989. In 2017, the Program financed 37 projects worth more than $1.5 billion, providing affordable financing for California's vital water protection infrastructure, including the construction of sewage treatment plants, and recycled wastewater production and delivery infrastructure; the recharge of groundwater with recycled wastewater; the elimination of storm water pollution; and the protection of the Bay-Delta.

More Than 900 Reimbursement Requests Cleared by the Underground Storage Tank Cleanup Fund

The State Water Board's Underground Storage Tank Cleanup Fund cleared a backlog of approximately 975 reimbursement requests in 2017. The Fund's efforts provided claimants with much needed cost reimbursements and reinvigorated site cleanup activities at hundreds of underground storage tank cleanup sites across the state.

Significant Savings Emerged from Completed Cleanup Account Study

The State Water Board's Expedited Cleanup Account Program (ECAP) completed a year-long study in June 2017, with 40 Underground Storage Tank Cleanup Fund (USTCF) claims participating. The objective was to evaluate the effectiveness and efficiency of the ECAP process, which is intended to reduce costs for petroleum UST clean up sites and the time for UST cases to achieve closure. The results indicated an average cost savings of $95,763 and time savings of 11.7 months per claim, fewer ineligible costs, and faster review of reimbursement requests. At least 75 percent of the 40 cases are projected to be in the closure process within two years, and 92 percent within five years. The results demonstrate the ECAP process is an effective method for reducing costs and time to bring a UST claim to closure. It is projected that the cost and time savings will increase.

Drinking Water Operator Certification Statutes Updated

In January 2017, updated statutes for the State Water Board's Drinking Water Operator Certification Program became effective. The statutes, which were last updated in 2001, include civil liabilities for water treatment and water distribution operators; the ability to issue a certificate by reciprocity to any person holding a valid, unexpired, comparable certification issued by other states, territories and tribal governments; and formalized the advisory committee members and their representations. In addition, the updates removed obsolete language and added a dual certificate discount for wastewater operators holding a current and valid drinking distribution or treatment certification.

Children at Muir Beach

Credit: State Water Board

North Coast Regional Water Board (Region 1)

Region Snapshot & 2018 Priorities

2018 Priorities

- Coordinate efforts to address water quality impacts due to low flows. Complete and distribute a report documenting results of Regional Water Board flow monitoring efforts in the Trinity River Watershed. Collaborate with the California Department of Fish and Wildlife on an analysis of the relationship of flow to dissolved oxygen in Russian River tributaries. Support Division of Water Rights efforts to implement the California Water Action Plan in the Shasta River, South Fork Eel River, and Mark West Creek.
- Increase focus on enforcement of non-compliant cannabis cultivation sites. Continue work with the State Watershed Enforcement Team on assessing individual cultivation sites from a multi-agency watershed perspective. Work with agency partners to identify and take appropriate action on cannabis cultivation facilities that fail to comply with water quality laws and regulations. Continue enrollment enforcement efforts associated with the Cannabis Regulatory Program.
- Consider the Action Plan for the Russian River Watershed Pathogen TMDL to protect contact and non-contact recreation beneficial uses.
- Revise the general permit for confined animal feeding operations/dairies in the Region.
- Consider a nutrient offset/water quality credit trading program for the Laguna de Santa Rosa Watershed, a tributary to the Russian River.

Region 1 Accomplishments in this Report:
Pages 5, 10, 12 and 13

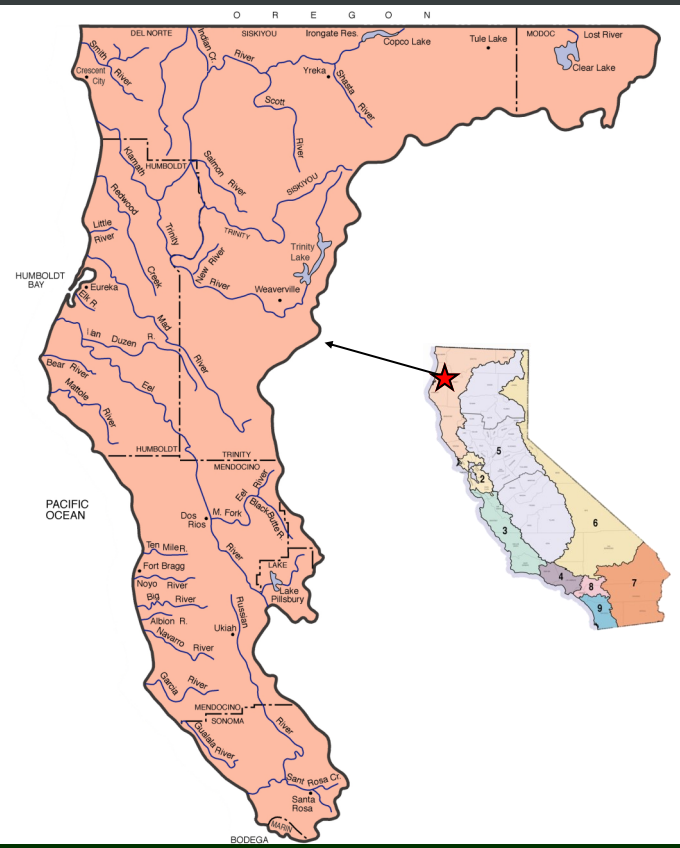
REGION SNAPSHOT

Approximately **20,000** square miles

340 miles of coastline

27,000 acres of lakes

16 urban water suppliers

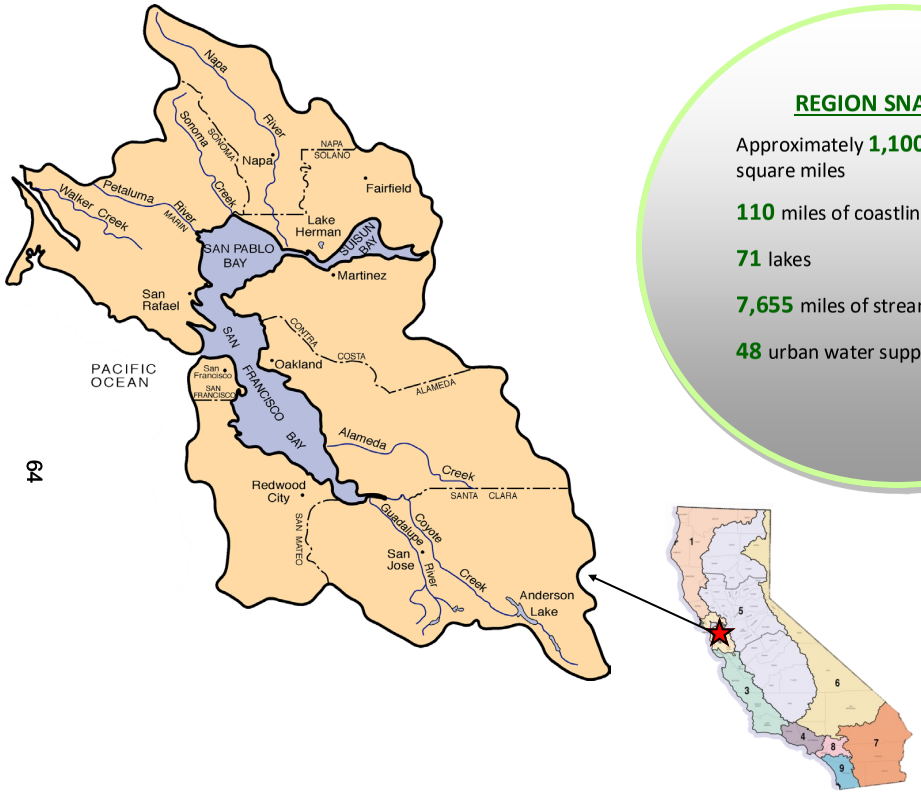


Remote wilderness and towering redwoods characterize the North Coast Region, which stretches from the Oregon border to Marin County. A land of wet coastal mountains and drier inland valleys, it accounts for 12 percent of the state's land area, but 35 percent of its freshwater runoff. Its 340-mile-long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

North Coast Regional Water Board
5550 Skylane Blvd., Suite A, Santa Rosa, CA 95403
707-576-2220 www.waterboards.ca.gov/northcoast

San Francisco Bay Regional Water Board (Region 2)

Region Snapshot & 2018 Priorities



REGION SNAPSHOT

Approximately **1,100** square miles

110 miles of coastline

71 lakes

7,655 miles of streams

48 urban water suppliers

64

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

San Francisco Bay Regional Water Board
1515 Clay Street, Suite 1400, Oakland, CA 94612
510-622-2300 www.waterboards.ca.gov/sanfranciscobay

2018 Priorities

- Develop and adopt TMDLs for impaired waters, including Suisun Marsh, while implementing TMDLs by: implementing the vineyard regulatory program (adopted in 2017) to address sediment discharges in Napa and Sonoma valleys; enhancing creek restoration; and addressing cleanup and reducing the discharge of PCBs, pathogens, and pesticides in urban storm water runoff to watersheds in the Region.
- Continue to implement a nutrient management strategy for San Francisco Bay, focusing on the science to support nutrient objective development, monitoring, modeling, and load reductions. Better understand harmful algal blooms in the Bay and freshwater lakes, reservoirs, and creeks and how to minimize them.
- Identify, prioritize, and oversee cleanup of under-funded dry cleaner pollution sites, abandoned mine sites, and sites causing elevated vapor intrusion into buildings.
- Pursue aggressive enforcement efforts with an emphasis on wastewater and sewage spills, trash and debris discharges, illegal fill of wetlands and streams, and polluted storm water discharges.

Region 2 Accomplishments in this Report:
Pages 4, 5, 8, 10 and 18

Central Coast Regional Water Board (Region 3)

Region Snapshot & 2018 Priorities

2018 Priorities

- Work with individual small Central Coast communities to encourage water supply diversification and water recycling projects. Efforts include working with decision-makers, expediting permitting, and assisting in accessing funding opportunities.
- Implement Region-wide domestic drinking water well testing program, with testing expanded to Monterey, Santa Barbara, and other counties.
- Continue efforts with agriculture operations to reduce pollutant discharges to surface water and groundwater. Additionally, ensure replacement drinking water is provided as appropriate where drinking water sources are found to be impaired.
- Continue implementing actions to deal with effects and threats posed by climate change, including re-siting and appropriately upgrading wastewater facilities. Develop a climate change adaptation strategy that identifies existing and planned tasks, and efforts to combat threats from changing and more extreme weather patterns.

Region 3 Accomplishments in this Report:
Pages 5, 10, 11, 15 and 17

REGION SNAPSHOT

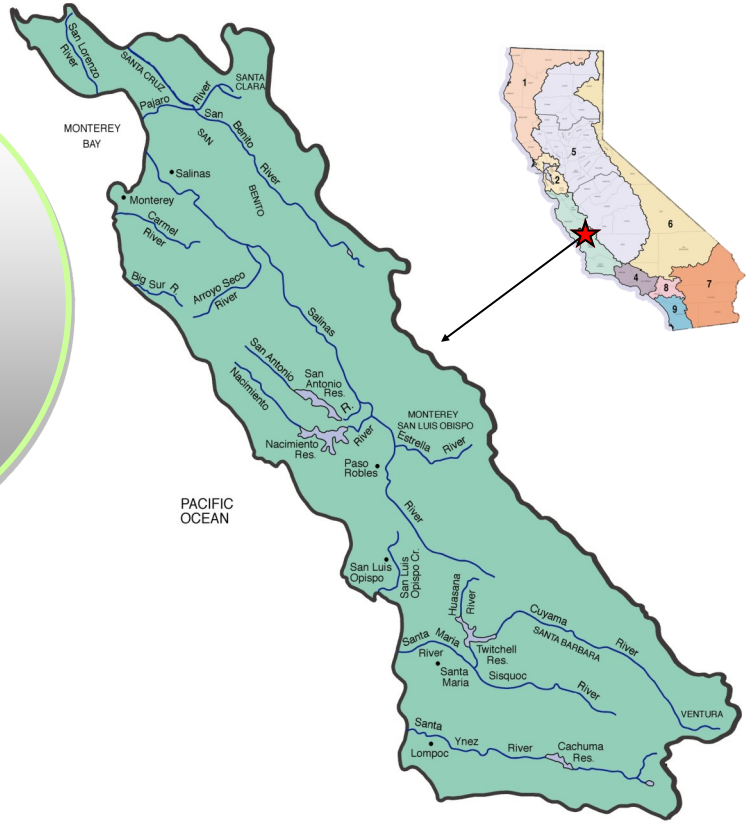
Approximately **11,274** square miles

378 miles of coastline

Over **25,000** acres of lakes

2,360 miles of streams

33 urban water suppliers

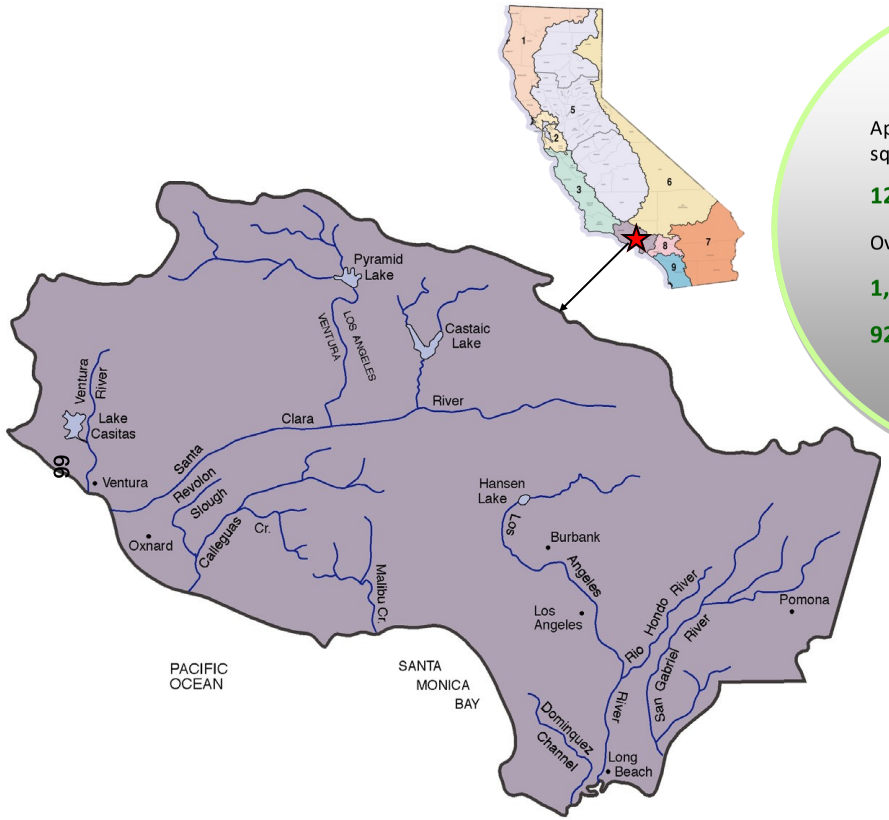


The Central Coast Region extends from Santa Clara County south to northern Ventura County. The Region includes the urbanized Monterey Peninsula, the agricultural Salinas and Santa Maria valleys, and the Santa Barbara coastal plain. Tourism, power and oil production, and agriculture and related food processing activities are the major industries.

Central Coast Regional Water Board
895 Aerovista Place, Suite 101, San Luis Obispo, CA 93401
805-549-3147 www.waterboards.ca.gov/centralcoast/

Los Angeles Regional Water Board (Region 4)

Region Snapshot & 2018 Priorities



REGION SNAPSHOT

Approximately **4,447** square miles

120 miles of coastline

Over **12,000** acres of lakes

1,115 miles of streams

92 urban water suppliers

With 10 million residents, the Los Angeles Region is the most densely-populated Region . It encompasses all of the coastal watersheds of Los Angeles and Ventura counties, along with portions of Kern and Santa Barbara counties. In Ventura County, agriculture and open space exist alongside urban, residential, and commercial areas. In northern Los Angeles County, open space is steadily being transformed into residential communities.

Los Angeles Regional Water Board
320 West Fourth Street, Suite 200, Los Angeles, CA 90013
213-576-6600 www.waterboards.ca.gov/losangeles

2018 Priorities

- Issue a regional municipal storm water permit covering all municipal separate storm sewer systems (known as MS4s) in the Region to provide regional consistency, while allowing flexibility to customize storm water management programs on a watershed basis.
- Expand cleanup efforts under the Proposition 1 Groundwater Sustainability Program. Continue work with water purveyors in San Fernando and San Gabriel valleys and the Central Groundwater Basin on cleanup projects to address source contamination and water supply.
- Ensure compliance with the State Water Board's Industrial General Storm Water Permit by conducting inspections and enrolling non-filers in disadvantaged communities and Environmental Justice areas.
- Develop a climate change resolution outlining the Region's response to current and projected climate change impacts and present the resolution to the Regional Water Board for consideration.
- Consider four Local Agency Management Programs, prepared by Los Angeles and Ventura counties, and the cities of Malibu and Glendora.
- Continue the investigation of contaminated sites impacting water supply wells under the Site Cleanup Subaccount Program. Focus on sites within the San Gabriel and Central groundwater basins.

Region 4 Accomplishments in this Report:
Pages 4, 5, 10, 13, 14, 15 and 18

Central Valley Regional Water Board (Region 5)

Region Snapshot & 2018 Priorities

2018 Priorities

- Amend the Basin Plan to incorporate a salt and nitrate control program that prioritizes safe drinking water for users of groundwater contaminated by elevated nitrate.
- Accept and implement a Delta Nutrient Research Plan to determine if further nutrient management is needed to address harmful algal blooms, low dissolved oxygen, aquatic weeds, and healthy ecosystems in the Delta.
- Implement the State Water Board's Water Quality Order for Irrigated Lands in the Eastern San Joaquin River Watershed, once adopted.
- Continue food safety panel activities regarding use of oilfield produced water on crops for human consumption. Continue to collect and analyze produce samples and complete literature reviews and toxicity analyses of chemicals in produced water.

Region 5 Accomplishments in this Report:
Pages 4, 7, 10, 14, 16 and 17

Central Valley Regional Water Board

Sacramento: 11020 Sun Center Drive, Suite 200, Rancho Cordova, CA 95670, 916-464-3297

Fresno: 1685 E Street, Fresno, CA 93706, 559-445-5116

Redding: 364 Knollcrest Drive, Suite 205, Redding, CA 96002, 530-224-4845

www.waterboards.ca.gov/centralvalley/

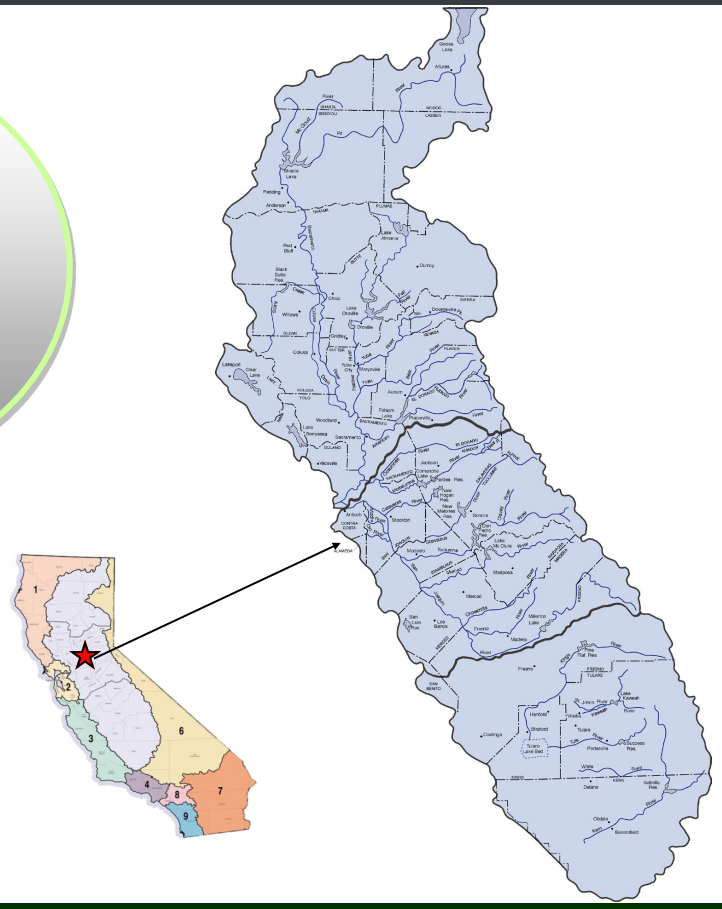
REGION SNAPSHOT

Approximately **60,000** square miles

579,110 acres of lakes

83,624 miles of streams

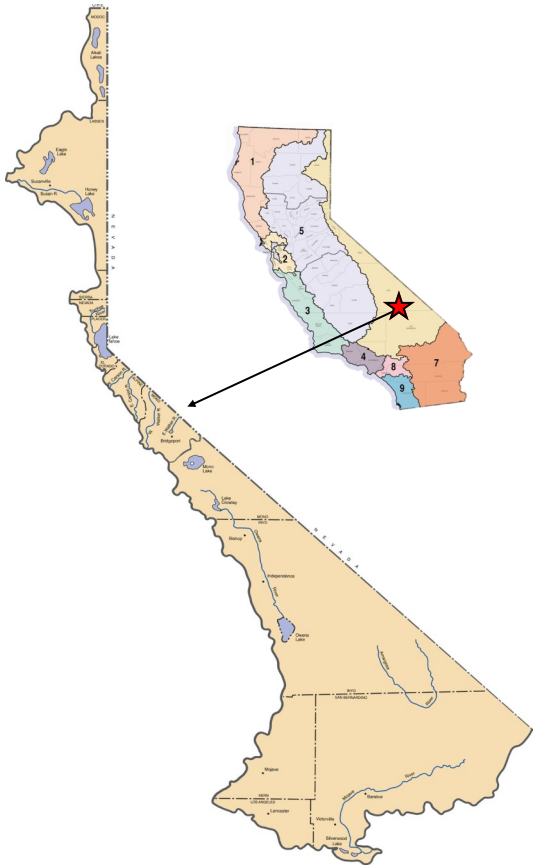
101 urban water suppliers



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

Lahontan Regional Water Board (Region 6)

Region Snapshot & 2018 Priorities



REGION SNAPSHOT

Approximately **1,581** square miles

Over **700** lakes

3,100 miles of streams

21 urban water suppliers

Region 6 Accomplishments in this Report:
Pages 8, 9 and 10

The Lahontan Region is named for a prehistoric lake that once covered much of the Great Basin. The Region includes approximately 20 percent of California from the Oregon border south along the eastern crest of the Sierra Nevada through the northern Mojave Desert. Within this area are hundreds of lakes, streams, and wetlands, including the nationally-significant Lake Tahoe and Mono Lake. Tourism is the most important industry in the Region, which includes Death Valley National Park, the Mammoth Lakes area, and portions of the Mojave National Preserve.

Lahontan Regional Water Board

South Lake Tahoe: 2501 Lake Tahoe Blvd., South Lake Tahoe, CA 96150, 530-542-5400 (Annex: 971 Silver Dollar Avenue)
Victorville: 15095 Amargosa Road, Bldg. 2, Suite 210, Victorville, CA 92394, 760-241-6583
www.waterboards.ca.gov/lahontan

2018 Priorities

- Ensure compliance with an enforcement order to the former Lake Tahoe Laundry Works requiring the containment of chlorinated solvent contamination, and determine and address the resulting groundwater contamination.
- Adopt a general permit for confined animal feeding operations and provide replacement water for affected private domestic well users that have been impacted with nitrates due to past dairy practices.
- Implement groundwater cleanup using Site Cleanup Subaccount Program funds to address perchlorate contamination in the Barstow area from historic illegal perchlorate discharges. At least eight residences' private wells have been adversely affected and are receiving bottled water using Cleanup and Abatement Account funds. Staff are researching additional long-term funding sources.
- Adopt a general permit for small domestic wastewater treatment systems for up to 50,000 gallons per day of wastewater discharged to land. This permit would include commercial cannabis cultivation operations which do not discharge to wastewater systems.
- Address bacteria water quality impairments by re-assessing bacteria impairments by reviewing recently compiled water quality data, and seeking grazing improvements and watershed restoration in Bishop Creek and the West Fork Carson River.
- Complete review of Local Agency Management Plans and bring to the Regional Water Board for consideration. Work with local agencies to develop Water Quality Assessment Plans to assess impacts from onsite septic systems on groundwater over the next five years.
- Continue to oversee Pacific Gas and Electric's Hinkley Compressor Station hexavalent chromium cleanup and ensure the United States Geological Survey chromium background study continues to completion.
- Ensure compliance at military bases with California requirements. Regulatory oversight will be focused at George Air Force Base, Edwards Air Force Base, and China Lake Naval Air Weapons Station.
- Develop a Climate Change Adaptation Strategy. Adapt regulatory requirements and decisions to better protect floodplains, wetlands, stream environments, and recharge zones/riparian/drainage areas. Require improved infrastructure resilience for sewer conveyance, pump stations, and storm drainage.
- Continue to work with the Central Valley Regional Water Board, the U.S. Forest Service (USFS) and Bureau of Land Management (BLM) to develop a nonpoint source permit to ensure regulatory compliance and water quality protection on USFS and BLM managed lands.

Colorado River Basin Regional Water Board (Region 7)

Region Snapshot & 2018 Priorities

2018 Priorities

- Continue to assist and provide regulatory guidance to the Natural Resources Agency for its Salton Sea Management Program.
- Continue efforts regarding the New River Improvement Project.
- Update the Basin Plan regarding the latest developments with Salton Sea management and restoration efforts.
- Adopt general permits for irrigated agriculture in Palo Verde Valley and Palo Verde Mesa.
- Complete the Region's Integrated Report pursuant to Clean Water Act Sections 303(d) and 305(b).
- Continue to address the threat from septic system discharges to groundwater in the Coachella Valley.

Region 7 Accomplishments in this Report:
Pages 6, 10 and 13

Colorado River Basin Regional Water Board
73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260
760-346-7491 www.waterboards.ca.gov/coloradoriver/

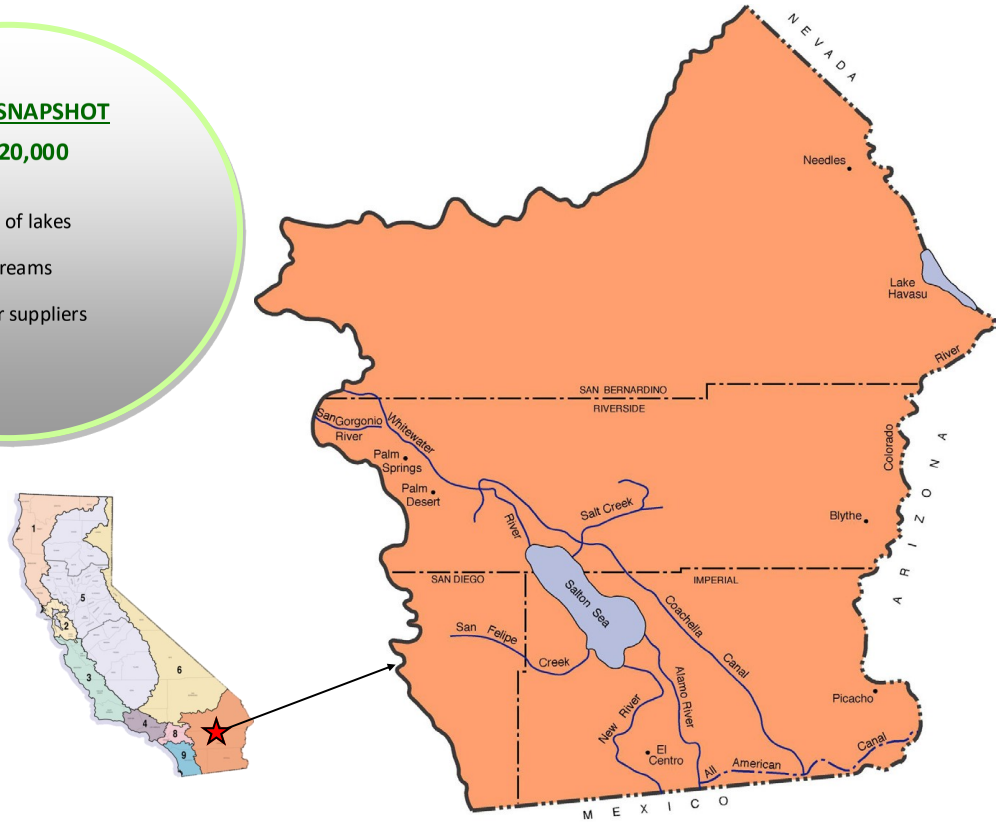
REGION SNAPSHOT

Approximately **20,000** square miles

250,000 acres of lakes

900 miles of streams

16 urban water suppliers



The Colorado River Basin Region covers California's most arid area. Despite its dry climate, the Region contains two water bodies of State and national significance: the Colorado River and the Salton Sea. The Salton Sea is California's largest inland lake, covering approximately 343 square miles. Water from the Colorado River irrigates more than 700,000 acres of productive farmland in the Imperial, Coachella, Bard, and Palo Verde valleys. The Colorado River also provides drinking water to several million people in California's southern coastal cities.

Santa Ana Regional Water Board (Region 8)

Region Snapshot & 2018 Priorities

REGION SNAPSHOT

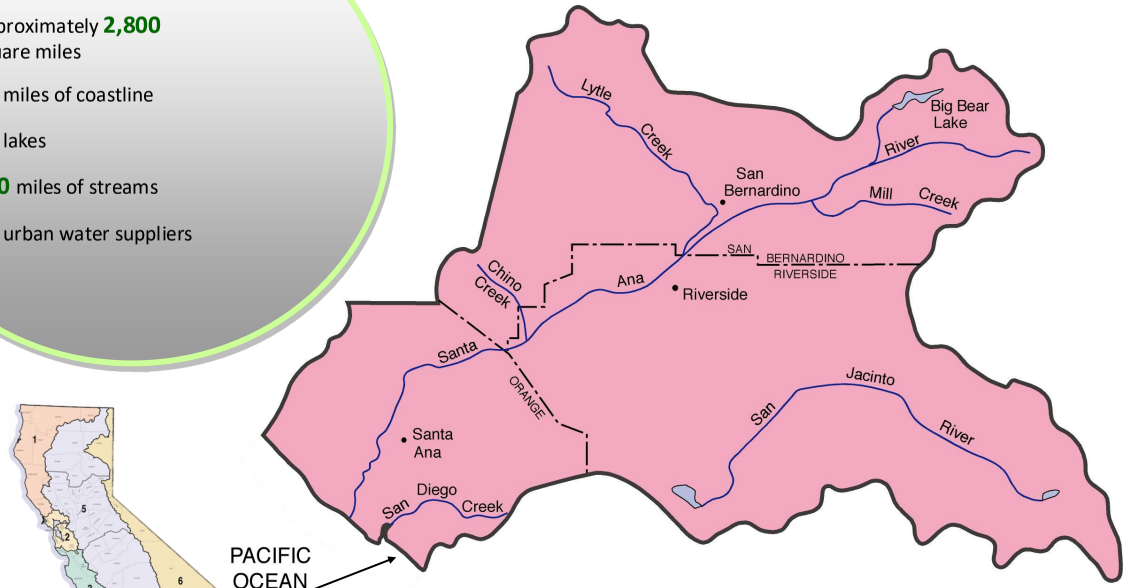
Approximately **2,800** square miles

24 miles of coastline

17 lakes

460 miles of streams

53 urban water suppliers



The Santa Ana Region, which extends from the San Bernardino and San Gabriel mountains in the north and Newport Bay along the coast, continues to be one of the most rapidly-growing areas of the state. While the Region is geographically the smallest at 2,800 square miles, it has one of the largest populations with almost 5 million people. This semi-arid Region is known for its temperate climate and relatively low rainfall - approximately 15 inches per year.

Santa Ana Regional Water Board
3737 Main Street, Suite 500, Riverside, CA 92501
951-782-4130 www.waterboards.ca.gov/santana

70

2018 Priorities

- Renew Poseidon's Huntington Beach desalination plant permit. The existing permit for the facility operations expired in February 2017.
- Adopt copper TMDLs for Newport Bay. Copper from antifouling paints used on recreational boats is the largest source of copper to the Bay. Continue work with stakeholders to resolve legal, scientific, and technical issues. Adoption is expected in fall 2018.
- Continue to work with water supply and wastewater agencies to implement and refine the Salt Management Plan, specifically to update the salt and nitrogen waste load allocation for wastewater treatment plants that discharge to the Santa Ana River and its tributaries.
- Renew the Scrap Metal Storm Water General Permit, which expired in February 2017. Adoption is expected late-2018.
- Oversee the four public water agencies who received Proposition 1 groundwater sustainability program grant funds to implement six groundwater cleanup projects.
- Renew the General Dairy Permit, which expires in June 2018. Currently over 100 dairy-related concentrated animal feeding operations are enrolled under the Permit.
- Revise the Lake Elsinore and Canyon Lake Nutrient TMDL. New information and modeling efforts have led stakeholders to recommend revisions to the TMDL.
- Amend the Basin Plan to revise the current prohibition on new septic systems in Quail Valley (City of Menifee). The revision will allow a limited number of new septic systems where the lithology and surrounding septic system density provide sufficient treatment capacity for the new systems.

Region 8 Accomplishments in this Report:
Pages 5, 9, 10 and 14

San Diego Regional Water Board (Region 9)

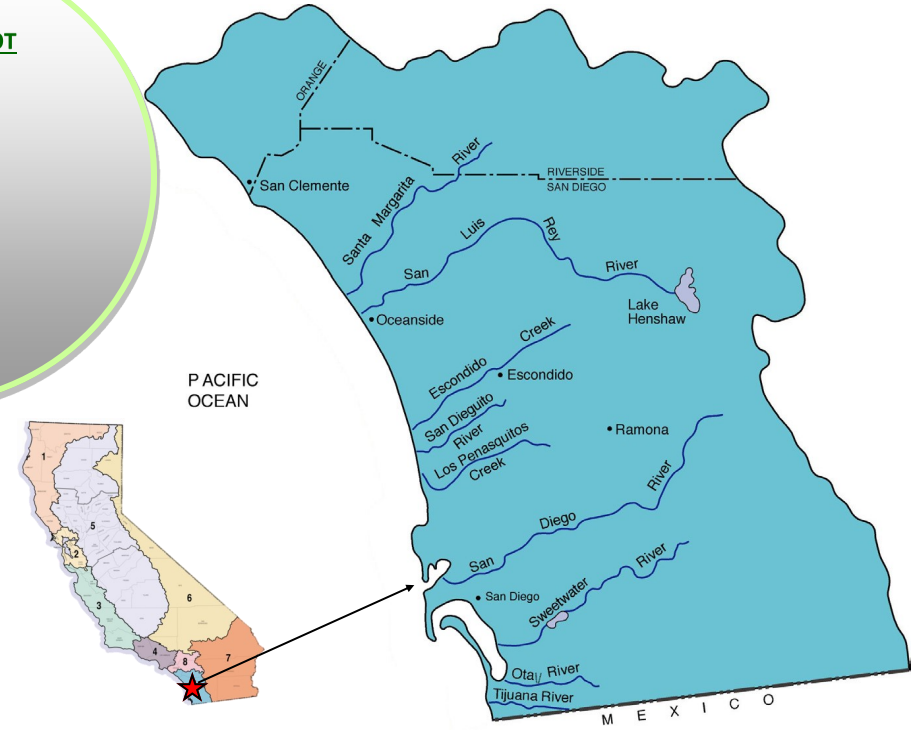
Region Snapshot & 2018 Priorities

2018 Priorities

- Adopt biological objectives for the attainment of ecosystem-related beneficial uses.
- Regulate transboundary river flows of pathogens and solid waste and completing a feasibility study of a Tijuana River border pollution control project in San Ysidro.
- Advance Indirect Potable Reuse Project(s) for the Miramar Reservoir (City of San Diego) and Lake Jennings (Padre Dam Municipal Water District, Helix Water District, City of El Cajon and San Diego County).
- Enroll at least 1,500 commercial agricultural operations in the Commercial Agriculture Regulatory Program.
- Develop a Next Generation Monitoring Technology Project to enhance water quality investigation and protection measures in permitting, enforcement, and planning actions.
- Reissue the San Diego Regional Municipal Storm Water Permit, and improve implementation of human source fecal control Best Management Practices by co-permittees, particularly in the San Diego River Watershed.
- Adopt a TMDL or TMDL-alternative for eutrophication to restore Santa Margarita River Estuary and Famosa Slough.
- Adopt a Climate Change Action Plan to restore and protect water quality from climate change impacts.
- Reissue the Poseidon Claude "Bud" Lewis Desalination Facility permit.
- Issue a permit for Sycamore Landfill, one of the largest landfills in the Region.
- Approve a feasibility study and remediation plan for, and have dischargers cleanup contaminated sediments in the Tow Basin site and Lockheed Martin's marine terminal railway site in San Diego Bay.
- Adopt an amendment to the Sewage Collection System Permit.
- Reissue permits for discharges to San Elijo Ocean and Encina Ocean outfalls that include significantly improved ocean outfall monitoring programs.
- Implement the Environmental Justice (EJ) Action Plan to improve wetlands, water quality protection, and participation by residents of economically disadvantaged and EJ communities.
- Designate the Marine Corps Recruit Depot as a Phase II Storm Water Permit co-permittee.
- Develop a remediation plan with the U.S. Navy for the "Fiery Marsh" site on Coronado's North Island, known as Site 9. Reissue Master Recycling Permits for Marine Corps Base Camp Pendleton and the South Orange County Wastewater Authority.
- Issue the Doheny Ocean Desalination Project permit.

REGION SNAPSHOT

Approximately **3,900** square miles
85 miles of coastline
19,220 acres of lakes
910 miles of streams
29 urban water suppliers



The San Diego Region is divided into a coastal plain area, a central mountain-valley area, and an eastern mountain valley area. The Region enjoys a climate and location that supports many agricultural and industrial uses of water. Having a mild coastal climate, the Region's growing population enjoys many water-related activities; however, little precipitation falls within this semi-arid Region. Approximately 90 percent of the Region's water supply is imported from northern California and the Colorado River.

Region 9 Accomplishments in this Report:
Pages 5, 9, 10, 13, 16 and 18

San Diego Regional Water Board
2375 Northside Drive, Suite 100, San Diego, CA 92108
619-516-1990 www.waterboards.ca.gov/sandiego/

State Water Resources Control Board

2018 Priorities

Drinking Water Priorities

- Achieve 100 percent testing of California public K-12 schools for lead.
- Release a new hexavalent chromium drinking water standard for public comment.
- Complete approval process for the Surface Water Augmentation regulations and begin permitting and implementing recycling projects under the regulations.
- Complete an online web portal to allow water systems to report their lead service line inventory investigations and timelines to replace those service lines.
- Establish a framework for the regulation of potable water reuse projects.
- Obtain Board approval to lower the detection limit for purposes of reporting for perchlorate for public water source sampling.
- Eliminate the lab assessment backlog in the Environmental Lab Assessment Program.
- Complete sanitary surveys for 85 percent of the public water systems that need an inspection.

Water Rights Priorities

- Adopt the Phase I changes to the Bay-Delta Plan related to San Joaquin River flows and southern Delta salinity.
- Release the Staff Report and draft Phase II changes to the Bay-Delta Plan focused on Sacramento River and Eastside Delta in-flows, Delta outflows, cold water habitat, and interior flows for public comment.
- Complete Part 2 of the hearing on the California WaterFix Project water right changes petition focusing on fish and wildlife and appropriate Delta flow criteria for the project.
- Eliminate backlog of Federal Energy Regulatory Commission (FERC) hydropower projects with pending water quality certification applications. Water quality certifications establish conditions to protect water quality and become requirements of the FERC license, once issued.
- Release a draft water quality certification and environmental impact report for the Lower Klamath Project, the Klamath River Renewal Corporation's proposed project to decommission four dams on the Klamath River in accordance with the Amended Klamath Hydroelectric Settlement Agreement.

Financial Assistance Priorities

- Develop and implement an updated system for prioritizing and selecting projects that will receive Clean Water State Revolving Fund (CWSRF) financing, and continue to implement streamlining measures in the CWSRF program.
- Facilitate and fund the consolidation of small drinking water systems serving disadvantaged communities though coordination with the Division of Drinking Water, funding partners, and stakeholders.
- Reduce the surplus in the Underground Storage Tank Cleanup Fund (USTCF) by increasing the number of reimbursements.
- Resolve the backlog of approximately 200 USTCF reimbursement appeals.
- Execute funding agreements for projects awarded Proposition 1 Groundwater Sustainability Program grants in the first funding round, and solicit and award projects in the second funding round.

State Water Board Accomplishments in this Report:
Pages 4-8, 10-15, 18 and 19 72

State Water Board Headquarters
Credit: State Water Board

State Water Resources Control Board

2018 Priorities

Trinidad State Beach

Credit: State Water Board

Water Quality Priorities

- Adopt and establish statewide provisions for aquatic toxicity in the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California (ISWEBE).
- Adopt and establish statewide Procedures for Discharges of Dredged or Fill Material to Waters of the State (proposed Procedures), for inclusion in the ISWEBE and Water Quality Control Plan for Ocean Waters of California.
- Release the public review draft of the amendment to the 2013 Policy for Water Quality Control for Recycled Water.

Statewide Water Management Priorities

- Adopt water conservation regulations permanently prohibiting wasteful uses of water.
- Develop water loss performance standards for urban retail water suppliers.
- Complete the Low Income Rate Assistance Report for the Legislature.
- Continue to implement the Sustainable Groundwater Management Act by providing technical support, requiring groundwater extraction reporting, assessing fees, and exercising probationary designation authorities where necessary.
- Evaluate and score project applications associated with the Proposition 1 Water Storage Investment Program overseen by the California Water Commission.
- Coordinate implementation of the State Water Board's Climate Change Resolution, track and report progress, and prepare for any Water Board participation in the 2018 Global Climate Action Summit.

Information Management and Analysis Priorities

- Conduct strategic planning, research, and monitoring to advance the Water Board's ability to detect and respond to freshwater harmful algal blooms across California.
- Provide avenues for increasing agency-wide data literacy through the Annual Watershed Health Indicator and Data Science Symposium, and other events, trainings, and workgroups. Promote data visualization tool applications, availability, and ability.
- Develop and make available resources and tools to support consistent, science-based watershed health assessments by the Water Boards, stakeholders, and partner agencies.
- Conduct an external business review of the Surface Water Ambient Monitoring Program (SWAMP) through review of existing projects, business practices, and the needs of SWAMP partners, including non-governmental organizations, academia and all potential consumers of this data. Develop a SWAMP strategic plan and business plan to implement recommendations of the review.
- Educate and train Water Board staff on our quality management system, which is the whole system we use to govern the quality of our work and includes the organization's Quality Management Plan, Quality Assurance Program Plans and associated project plans. Develop requirements, tools, and processes for monitoring and data acquisition to ensure quality data to make defensible Water Board decisions.

State Water Resources Control Board

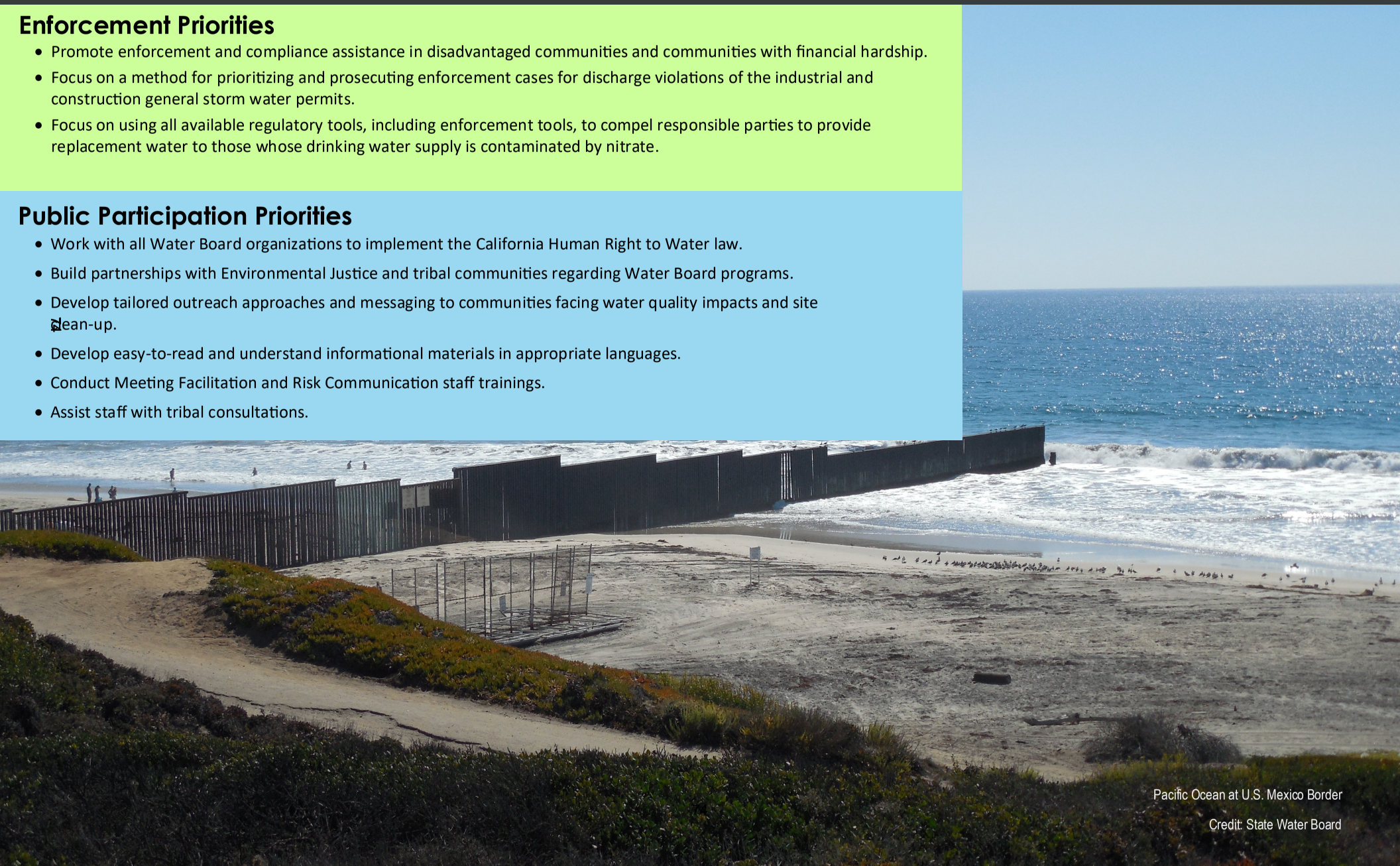
2018 Priorities

Enforcement Priorities

- Promote enforcement and compliance assistance in disadvantaged communities and communities with financial hardship.
- Focus on a method for prioritizing and prosecuting enforcement cases for discharge violations of the industrial and construction general storm water permits.
- Focus on using all available regulatory tools, including enforcement tools, to compel responsible parties to provide replacement water to those whose drinking water supply is contaminated by nitrate.

Public Participation Priorities

- Work with all Water Board organizations to implement the California Human Right to Water law.
- Build partnerships with Environmental Justice and tribal communities regarding Water Board programs.
- Develop tailored outreach approaches and messaging to communities facing water quality impacts and site clean-up.
- Develop easy-to-read and understand informational materials in appropriate languages.
- Conduct Meeting Facilitation and Risk Communication staff trainings.
- Assist staff with tribal consultations.



Pacific Ocean at U.S. Mexico Border

Credit: State Water Board

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

2017 accomplishments

CALIFORNIA STATE AND REGIONAL WATER BOARDS

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Carneros Creek

Credit: State Water Board