Central Valley Regional Water Quality Control Board

What We Do

2017/2018

www.waterboards.ca.gov

Our Mission:

To preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for benefit of present and future generations.

Central Valley (Region 5) Offices located in:
Rancho Cordova, Fresno, and Redding

For more information about what we do:
https://www.waterboards.ca.gov/centralvalley/

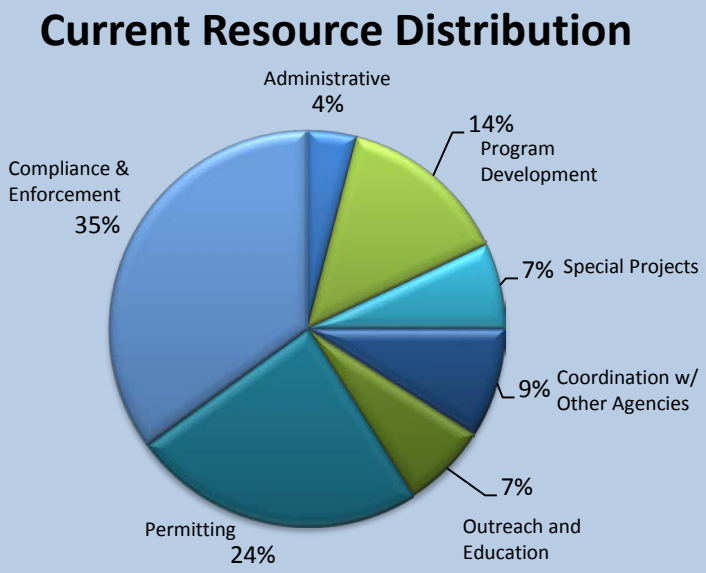
For state of California employment information:
http://www.calhr.ca.gov/

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

Overview

The Cannabis Cultivation Waste Discharge Regulatory Program was formed in 2014, when resources were allocated to both the Water Boards and the Department of Fish & Wildlife, to reduce the environmental damage caused by cannabis cultivation. California residents passed Proposition 215, the California Compassionate Use Act, in 1996. Since that time, cannabis cultivation has increased exponentially straining law enforcement, local governments, wildlife, and water resources. The resources allocated in 2014 were used to create a multi-disciplinary Marijuana Task Force (Pilot Program), and to implement a priority-driven approach to address the natural resources damages resulting from marijuana cultivation on private lands and state owned lands of high conservation value in northern California. Additionally, in 2016 California residents passed Proposition 64, which created a legal avenue for both medical and recreational cannabis cultivation state wide.

In 2016 and 2017, the Program expanded when the Water Boards and Department of Fish & Wildlife each received additional positions. Currently the Central Valley Water Board has five positions assigned to the Redding office and one to the Rancho Cordova office. Program resources are currently focused on improving process efficiency; enrolling cultivators in the Board's *General Waste Discharge Requirements for Discharges of Waste Associated with Medicinal Cannabis Cultivation Activities* (WDRs); and pursuing enforcement actions where necessary.



Primary concerns associated with cannabis cultivation include illicit grading activity, illegal water diversion, and chemical/nutrient transport to waters of the state.

Program Goals

1) Development of a regulatory program;
2) Targeted enforcement in high value watersheds;
3) Education and outreach to cultivators about best management practices; and
4) Multi-agency coordination at the state and local level.

Accomplishments FY 2016-2017

Performance Targets	Target	Accomplished
Compliance and Enforcement Inspections	32	9
Enrollment Inspections	32	3
Outreach and Education Workshops	18	17
General Order Enrollments	150	558

Priority Projects	Status
Develop program File Management/CIWQS/ECM procedures	Ongoing
Develop Enrollment Enforcement Strategy for EMG approval	Completed draft, pending final review
Updates to the Strategic Plan	Ongoing, expected completion FY 17/18
Cannabis Identification & Prioritization System	Funded FY 16/17, Implementation FY 17/18
Anadromous Fisheries Restoration Project Study	Ongoing, final report anticipated 2018

Priority Projects FY 2017-2018

Transition to Statewide General Order:
State Water Board staff have developed a Statewide General Order of WDR for cannabis cultivation for Board consideration in October 2017. Central Valley Water Board staff have assisted the State Water Board in this effort. Should the Order be adopted, Central Valley Water Board staff will need to transition existing permittees to the statewide General Order; extensive outreach and education will be conducted during the transition period.

Strategic Plan Updates:
The program's strategic plan was developed in 2013/2014. Since that time, numerous changes to the program have occurred due to passage of new legislation and the expansion of the program statewide. Staff will work with the State and Regional Boards to update the strategic plan to incorporate necessary changes and to promote consistency within the statewide Cannabis Program.

Hiring and Training New Staffs:
The Cannabis Program experienced numerous staffing changes in 2016/2017 and will be receiving 10 new cannabis positions in FY 2017/2018. Hiring and training new staff requires significant time commitments from both management and existing staff, and has therefore been identified as a priority project.

Program Manual/Onboarding:
Preparation of a Program Manual has been identified as a Priority Project for FY 2017/2018.

Program Priorities FY 2017-2018:

- Develop program File Management/CIWQS/ECM procedures
- Reduce Enforcement Case Backlog
- Present an Enrollment Enforcement Strategy to the Executive Management Group for consideration
- Complete updates to the Cannabis Identification and Prioritization System
- Continue work with the Department of Fish and Wildlife on a cannabis related Anadromous Fisheries Restoration Project Study

Performance Targets FY 2017-2018

	Target
Compliance and Enforcement Inspections	20
Enrollment Inspections	32
Outreach and Education Workshops	18
General Order Enrollments	150

Central Valley Water Board Program Fact Sheet FY 2017-2018

Compliance and Enforcement Program

Overview

The State Water Resources Control Board and its nine Regional Water Quality Control Boards protect the waters of the State by ensuring compliance with clean water laws and taking enforcement actions when violations occur. The Water Boards have authority under the California Water Code to regulate and enforce any activity or factor that may affect the quality of the waters of the state.

The Water Boards' compliance and enforcement actions are guided by the Water Board's 20 May 2010 Enforcement Policy. The Enforcement Policy has been revised and is in the process of being adopted by the Office of Administrative Law.

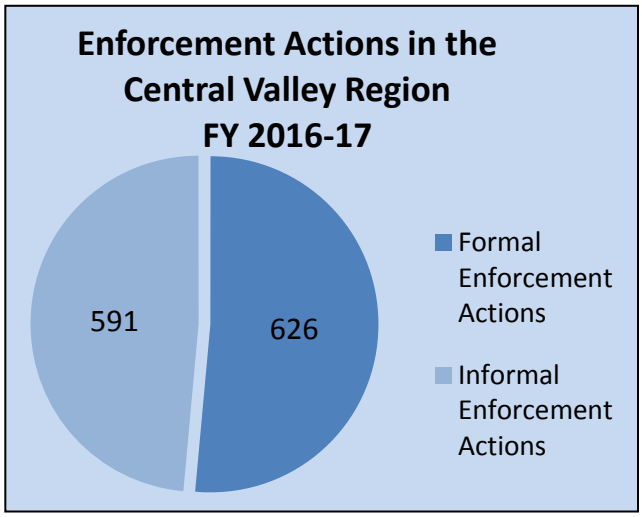
The Compliance and Enforcement Program is comprised of two types of subprograms:

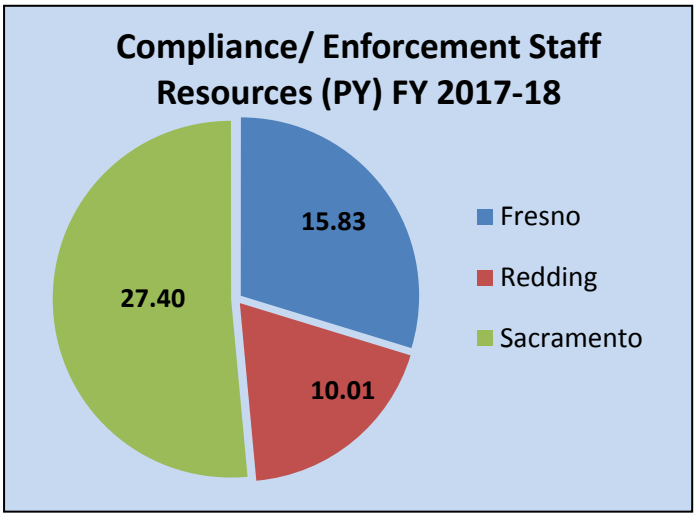
- Core-Regulatory; and,
- Non-Core Regulatory (i.e., "other").

The three Core-Regulatory programs are:

- The National Pollutant Discharge Elimination System (NPDES) Program – regulates discharges to surface waters including wastewater treatment plants;
- The Land Disposal Program (sometimes referred to as the "Title 27 Program") – regulates the discharge to land of certain solid and liquid wastes so as to prevent water quality impacts;
- The WDR Program (sometimes referred to as the "Non Chapter 15 (Non 15) Program") – regulates point discharges exempt pursuant to Subsection 20090 of Title 27.

For these three programs, the Compliance and Enforcement components are entirely encapsulated within the Compliance and Enforcement Program. For the other programs that have Compliance and Enforcement components—Stormwater, Confined Animals, Irrigated Lands, Water Quality Certifications, Cannabis, Oil Fields, Non-Point Source, and Forest Activities—those respective Program Managers are ultimately responsible for all facets of their Programs, including Compliance and Enforcement. However, the Compliance and Enforcement Priorities for those respective Programs are also incorporated into the Compliance and Enforcement Work Plan.





Accomplishments FY 2016-2017

Program	Metric	16-17 Target	Achieved	Percent
NPDES	Major Facilities Inspected	25	23	92%
	Minor Facilities Inspected	16	22	138%
WDR	Total Inspections	165	186	113%
Land Disposal	Landfill Inspections	104	132	127%
	All Other Inspections	20	43	215%
Stormwater	Construction Inspections	385	420	109%
	Industrial Inspections	195	215	110%
Confined Animals	Total Inspections	280	326	116%
Timber Harvest	Total Inspections	166	130	78%

Quantitative Goals

1. **Addressing all MMPs within 18 Months –**363 of 397 or 91% of all MMPs were addressed with formal enforcement actions.
2. **Addressing all Class I Violations with Formal Enforcement within 18 Months –** All 91 Class I Violations were addressed within 18 months old with formal enforcement actions.

Qualitative Goals

3. **Emphasize Discharge Violations and Associated Penalties –** 36 of 41 discretionary ACLs included discharge violation penalties. The 5 five ACLs that did not include discharge violation penalties were issued as "Compressed ACLs" (see below).
4. **Increase Enforcement Presence in Water Quality Certification Program –** 13 inspections were conducted. The inspection target goal of 25 inspections was missed due to staffing constraints. In addition to inspections, one ACLO for violations in the Water Quality Certification Program was approved.

Priorities FY 2017-2018

1. **Compliance Assistance –**Develop and distribute educational materials to potential Dischargers in disadvantaged and environmental justice communities to facilitate compliance.
2. **Comprehensively Track Spills and Complaints –** Implement Region-wide spreadsheet to track all complaints for all three offices to ensure that all complaints are adequately addressed, and be able to report how many complaints we receive and how they are addressed.
3. **Utilize Compressed ACLs in Multiple Programs –**Utilize the Central Valley Water Board's new Compressed ACL process in additional Water Board programs such as the Irrigated Lands and Confined Animals programs.
4. **Increase Enforcement Presence in Water Quality Certification Program –** Conduct 25 inspections for compliance with Water Quality Certification conditions

Performance Targets FY 2017-1018

Program	Metric	17-18 Target
NPDES	Major Facilities Inspected	27
	Minor Facilities Inspected	6
WDR	Total Inspections	170
Land Disposal	Landfill Inspections	93
	All Other Inspections	26
Stormwater	Construction Inspections	289
	Industrial Inspections	195
Confined Animals	Total Inspections	325
Timber Harvest	Total Inspections	166

Overview

The Central Valley is one of the world's most productive agricultural areas. It is home to a variety of agricultural operations that rely on animals, including chickens, cows, sheep, goats, pigs, and even bees.

Confined Animal Facilities are farms or ranches where livestock are held for a significant part of the time and provided food, as opposed to grazing, where livestock eat forage that grows naturally or in pastures. Federal regulations include a definition for Concentrated Animal Feeding Operations (CAFOs), which are a subset of Confined Animal Facilities that meet certain size thresholds. The Board regulates Confined Animal Facilities primarily under authority of the California Water Code, which does not include a size threshold.

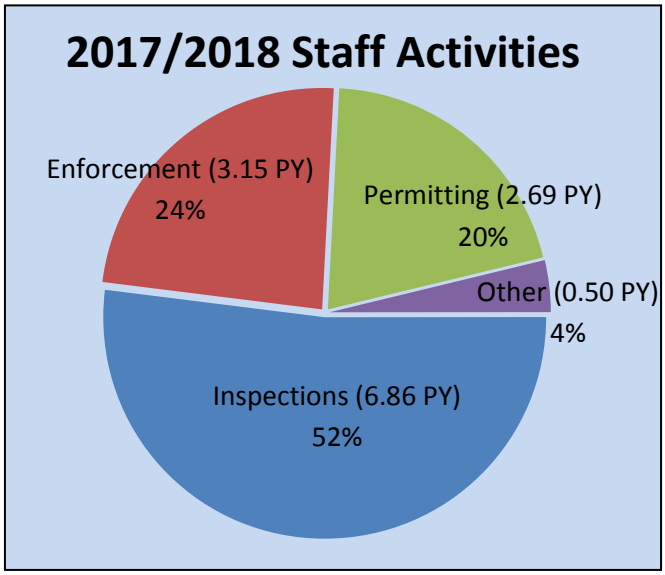
Most Confined Animal Facilities in the Central Valley are dairies. There are also a significant number of feedlots (for beef cattle and to raise support stock for dairies) and poultry facilities. Since the early 2000's, the Board has spent much of its resources on developing and implementing regulations for dairies. The Board is currently underway to develop general orders to regulate feedlots and poultry facilities. Nearly 1,300 dairies are in the Central Valley, most regulated by a comprehensive Dairy General Order adopted for existing dairies in 2007 that has requirements for corrals, production areas, ponds, and land application areas. New dairies or dairies that have expanded since then, are subject to individual orders with the same requirements.

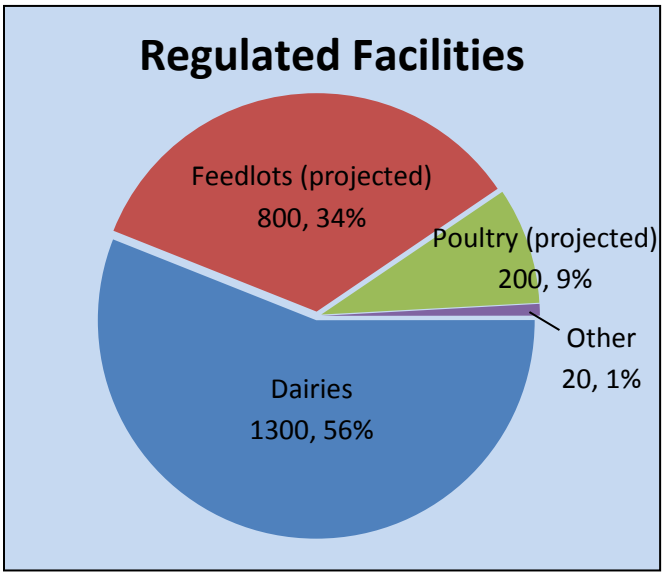
Dairy sizes vary from fewer than 100 cows to nearly 10,000 cows at the largest dairies. The average dairy size is about 1,200 cows. We estimate there are up to 800 commercial feedlots, varying in size from fewer than 100 to several thousand head, and up to 200 commercial poultry facilities, housing anywhere from 400 to 600,000 birds. There are also a small number of goat and swine facilities in the Region.

There are 12 staff working in the program, supplemented by approximately 3 or 4 other staff that each have a small percentage of their time to help with the program. Staff are fairly equally divided between the Rancho Cordova and Fresno offices. Staff from the Rancho Cordova office also oversee the dozen or so dairies that are in the area covered by the Redding office.

Goals

The objective of the Confined Animal Facilities Program is to prevent impairment of surface water or groundwater by regulating discharges from confined animal facilities. Discharges include manure, wastewater, and storm water runoff that may contain waste constituents. Primary constituents of concern are salts and nitrate. Our goal is to preserve the human right to safe, clean, affordable, and accessible water, as well as the benefits of a healthy and sustainable livestock industry.





Accomplishments FY 2016/2017

- Issued a general order for poultry facilities (R5-2016-0087).
- Issued a general order for bovine feedlots (R5-2017-0058).
- Conducted 324 inspections, which exceeded the performance target of 280 by about 15%.
- Added new requirements for ponds that do not have separation from groundwater to be upgraded or closed and for use of flow meters (or equivalent technology) to measure wastewater applied to cropland to both the poultry and bovine feedlot general orders.
- Took formal enforcement for an unpermitted dairy pond discharge.
- Oversaw installation of several dairy digester projects, including a centralized digester accepting manure from a network of dairies.
- Began transition of dairy data into an interactive, GIS database (GeoTracker), which will lead to improved transparency and easier sharing of information.

Priority Projects FY 2017/2018

- Conduct education and outreach to enroll facilities in the general orders for poultry facilities and bovine feedlots. If necessary, conduct progressive enforcement for dischargers that fail to enroll.
- Revise the Dairy General Order to address pesticide use on cropland, improved nutrient management planning, composting regulations, use of flow meters (or equivalent technology) to measure wastewater applied to cropland and dairy ponds with no separation from groundwater.
- Maximize compliance with nutrient management planning and mortality management requirements through inspections and enforcement.
- Continue oversight of the Dairy Representative Monitoring Program to ensure management practices at dairies are protective of water quality.
- Participate in the California Department of Food and Agriculture's grant program to encourage dairy digesters and other manure management practices that reduce short-lived climate pollutants and to streamline the permitting of manure digesters and co-digesters.

Performance Target FY 2017-2018

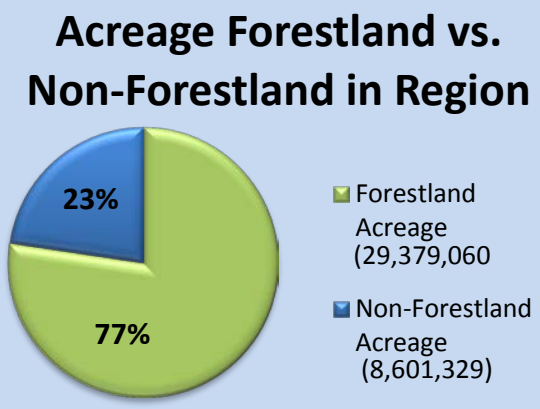
- Program staff will conduct 325 inspections.

Overview

The Forest Activities Program permits discharges of pollutants in storm water runoff to waters of the states from timberland management activities under a General Order of Waste Discharge Requirements. There are two main program areas: participation in the inter-agency review team led by CAL FIRE for timber harvesting projects on non-federal lands, and oversight of projects on U.S. Forest Service lands.

51% of timber harvested commercially statewide is logged annually in the Central Valley Region overseen by 11.1 PY of program staff (8.4 Redding, 2.3 Sacramento, 0.4 Fresno).

Timber harvesting and fuel management projects on non-federal lands permitted through CAL FIRE come in many forms: from short-term 120 day projects such as those to remove trees from a building pad, to industrial harvesting projects good for 7 years, and up to non-expiring 15,000 acre working forest management plans where non-industrial landowners can harvest timber in a responsible and sustainable manner over a lifetime. Projects on federal lands can be a combination of various activities including; harvesting, hazard tree removal, fuel management, meadow and aspen restoration, and roads work.



Goals

The goal of the FAP is to prevent discharges to surface waters from timber harvesting and other timberland management activities in accordance with the state's 2004 Non Point Source Policy. Through implementation and oversight of these projects the program aims to restore access to habitat for fish, reduce anthropogenic channel modifications, and reduce the impacts from legacy road and watercourse crossings. The program works toward this goal by reviewing individual projects, making site specific recommendations and ensuring compliance through inspections and necessary enforcement.

The primary pollutant of concern for the program is sediment, although the program also addresses; incidental petroleum discharges from heavy equipment, water drafting controls, pesticide application impacts and direct impacts to riparian zones from harvesting operations including removal of canopy that can result in stream temperature increases.

The program implements specified best management practices (BMP) through site-specific recommendations, including those directed at:

- Discharges of sediment from road construction, reconstruction, use and maintenance
- Activities within harvested areas to prevent channelization of runoff
- Preventing alterations to hydrology affecting sediment loads in local waters
- Watercourse crossings designed to ensure fish passage and handle 100 year flood flows

Accomplishments FY 2016 – 2017

Task	Task Description	Accomplishments/Status
1	Propose Timberland General Order (WDR) to board at hearing	Adopted - June 2017.
2	Battle Creek Watershed Based Plan development and assessment	Steady progress - Expected completion in FY 17/18.
3	Post-Fire Assessment Activities	Assisted the state assessment team on two fires in late 2016.
4	Federal Non-Point Source Permit development Engaged R6 in cooperative outreach and development effort Stakeholder survey conducted	Steady progress – Expected completion in FY 18/19.
5	Passive Sampling System – Pesticide Use Post-Fire	Phase I of USGS contract for study completed. Phase II initiated.
6	Conduct 166 Inspections	161 (reduction due to staff attrition mid-year)

Priority Projects FY 2017-2018

- Creating the First Watershed Based Plan for a non-303(d) listed waterbody: Battle Creek provides a unique opportunity to address a mixed use watershed with significant potential for high quality salmonid habitat before an impairment listing is necessary.
- Addressing 120 million drought and bug-killed trees and the associated increased risk of catastrophic wild fire within the region.
- Conducting post-fire assessment in partnership with federal, state and local entities, and providing oversight of post-fire salvage logging operations.
- Creating a new permit for federal non-point source activities with the potential to discharge.
- Understanding the role herbicide applications play in the timing of sediment discharges from post-fire salvage logging operations.

Engaging in outreach to the heavy equipment operators that implement BMP in our forested lands due to the crucial role they play in protecting our waters.

Performance Targets FY 2017 – 2018

Conduct 166 inspections

Overview

There are an estimated 35,000 irrigated agricultural operations within the Central Valley Water Board's jurisdiction, on approximately 7 million acres of land. Common to these operations is the use of water to sustain crops. Depending on the irrigation method, geography, geology, climate, and constituents (e.g., nutrients, pesticides) present or used at a site, water discharged from the site may carry these constituents as waste into groundwater or surface waters.

The Irrigated Lands Regulatory Program (ILRP) regulates waste discharges from irrigated lands using seven geographic and one commodity-specific general orders for growers that are part of a third-party group (coalitions). There are 14 coalitions helping growers comply with the general orders. There is also a general order for growers who choose to be regulated individually.

The ILRP general orders were adopted from December 2012 to July 2015; coalitions are working with growers at slightly different stages of implementation. The first general order, adopted for the Eastern San Joaquin Watershed, was petitioned by environmental/environmental justice groups and agricultural representatives. A number of issues have been raised by the petitioners, including the adequacy of the ILRP's current groundwater protection strategy. In February 2016, the State Water Board issued a proposed order in response to the petition. During FY 2017 - 2018, staff will continue to address issues brought up during the petition as we provide more details regarding the robustness of the current ILRP groundwater protection strategy. A revised proposed order is anticipated during the Fall of 2017.

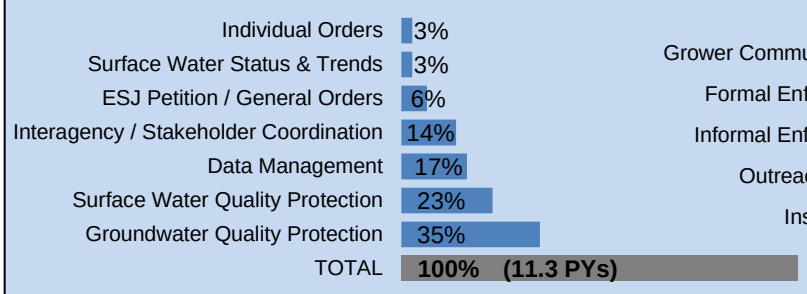
The ILRP consists of 0.7 PY[1] (Redding), 6.8 PY (Fresno) and 11.2 PY (Sacramento) for a total of 18.7 PYs for the region. Program implementation activities are shown in the charts below.

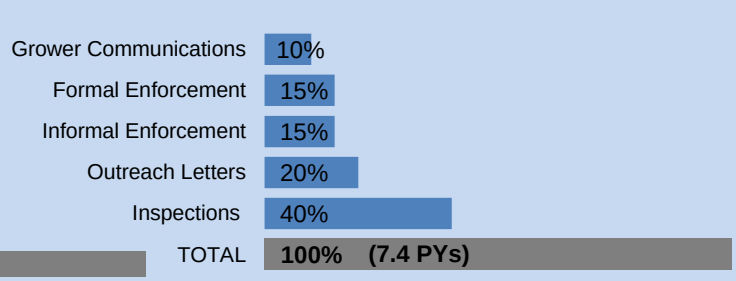
[1]PY=person year or resources to fund one Central Valley Water Board staff

Goals

The goal of the ILRP is to prevent discharges from irrigated lands from causing or contributing to exceedances of water quality objectives through order implementation, appropriate compliance and enforcement, and coordination with all interested parties. This includes preserving both the human right to safe, clean, affordable, and accessible water, and a healthy and sustainable irrigated agriculture.

Order implementation includes oversight of coalition and grower activities and management of water quality data. Compliance and enforcement activities include maximizing grower enrollment and order compliance. Coordination is facilitated through regular stakeholder meetings and other venues.





Accomplishments for FY 2016-2017

Groundwater

- *Management Practice Evaluation Program (MPEP) – Conditional approval of Southern San Joaquin Coalitions' MPEP; June information item to obtain Board direction and stakeholder input*
- *Regional Groundwater Trend Monitoring Program – Revised MRP Orders to allow coalitions to coordinate with other programs (dairies, CVSALTS, etc.) on a regional trend monitoring program*
- *Groundwater Quality Management Plans (GQMP) – Approval of Western San Joaquin Coalition's GQMP which provides performance goals of coalition outreach and grower implementation of practices protective of groundwater quality. Working on approval of other coalitions' GQMPs.*

Surface Water

- *Management Plan Completions – ILRP requires growers to implement improved practices to address identified water quality problems caused by agricultural pollutants. In FY16/17, 24 management plans were completed; most for eliminating pesticides and toxicity problems.*
- *Delisting of CWA Section 303(d) impaired waters – In FY 16/17, our Board supported the delisting of 64 waterbody/pollutants based on completion of ILRP management plans, both because of improved water quality and from recognition of the management plan process as an effective regulatory tool for addressing water quality problems.*

Compliance and Enforcement

- *Increasing enrollment acreage – During FY16/17, Board staff continued compliance and enforcement efforts to address non-filers which included employing new, plain-English documents to increase enrollment in the program. It resulted in the addition of approximately 36,000 acres and 800 operations to the program.*
- *Enforcing Order requirements – Assessed significant monetary penalties against growers who failed to comply with ILRP Order requirements*
- *Enforcement coordination with coalitions – ILRP staff continue to use "last chance" phone calls and coordination with coalitions to bring growers into compliance (with both enrollment and reporting requirements) before initiation of formal enforcement.*

Performance Targets

	16/17 Targets	16/17 Products	17/18 Targets
Groundwater Quality Management Plan Reviews	14	14	
Annual Report Reviews	13	12	14
Management Practice Evaluation Plan Reviews	2	2	
Regional Groundwater Trend Monitoring Plan Review			1
Issue Pesticide Evaluation Protocol	1	1	
Non-enrollment Inspections	2000	2900	1250
On-farm (Order compliance) Inspections	115	114	95
Reminder letters with trifolds			2500
Stakeholder Meetings	4	4	4
Draft surface water quality status and trend report	1	0	1
Actively participate in State Water Board Petition Process	1	1	1

Ongoing Issues

- More focused outreach to small farm operations, especially those with non-English speaking operators, is needed for comprehensive implementation of the program.
- Provide transparency and flexibility to evolve with best available science to protect water quality.

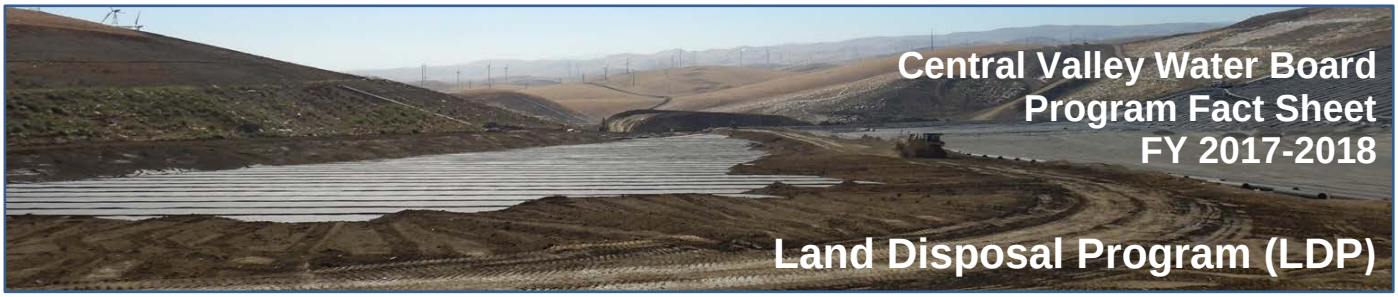


Photo: Altamont Landfill and Resource Recovery Facility, Alameda County

Overview

The Land Disposal Program (LDP) regulates the land discharge of solid and liquid wastes to prevent water quality impacts. These wastes include municipal solid waste (MSW), hazardous wastes, designated wastes (such as petroleum impacted soils and auto shredder waste), and nonhazardous and inert solid wastes. In general, these wastes cannot be discharged directly to the ground surface without impacting groundwater or surface water and, therefore, must be contained to isolate them from the environment. The regulations applicable to these discharges are found in Title 27, for nonhazardous wastes, or Chapter 15 of Title 23, for hazardous wastes, of the California Code of Regulations. These regulations have both prescriptive and performance standards for waste containment, monitoring, and site closure. The requirements are implemented through the adoption of Waste Discharge Requirements (WDRs) for the disposal facilities.

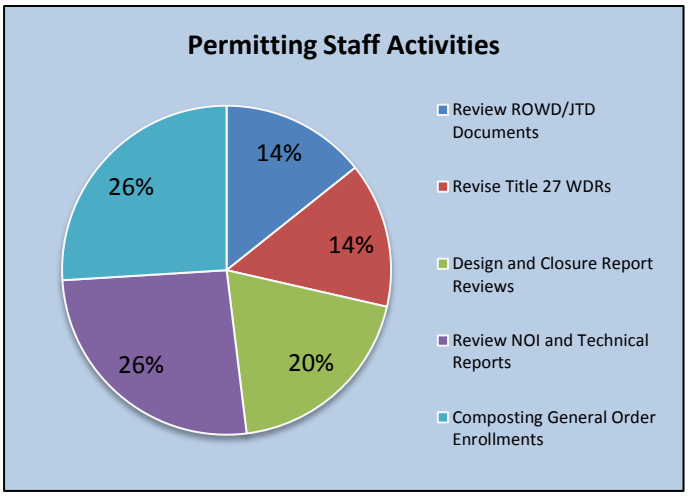
Throughout the Region, the LDP has approximately 175 facilities that discharge waste to land, including landfills (i.e., active/receiving waste, closed, or unregulated); industrial surface impoundments; and waste piles. These sites are regulated under waste discharge requirements implementing Title 27. The LDP also regulates certain food processing facilities and composting operations which generate liquid wastes such as olive brining and composting green waste. Composting sites are regulated under the LDP, but do not have the same prescriptive standards as Title 27 landfills and surface impoundments. Waste management units used to contain the various liquid and solid wastes include landfills, waste piles, surface impoundments, and land treatment units.

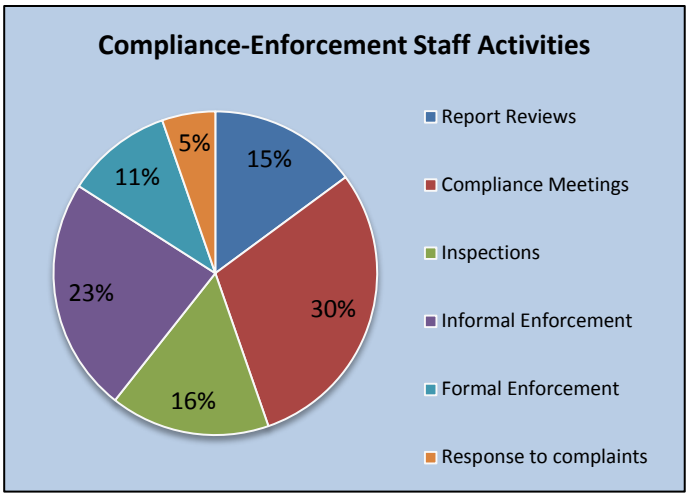
Of the 175 facilities, 39 landfill facilities across the Central Valley Region are actively receiving waste. These 39 active landfills pay tipping fees to CalRecycle and the Water Board system receives a portion of those fees for regulating water quality.

The nine personnel years (PYs) working on permitting writing review LDP WDRs on a 5-year, 10-year, or 15-year review schedule depending on the threat and complexity assigned to the site, and update the WDRs as necessary to address landfill expansion, adding waste management units, or closure. The five compliance and enforcement PYs monitor compliance with the WDRs, conduct regular inspections, and issues enforcement orders when violations occur.

Goals

The primary goal of the program is to protect groundwater and surface water quality from contaminants associated with landfills, liquid waste surface impoundments and other waste containment units. The program achieves this goal by ensuring permits are kept up to date with Title 27 regulations and implementing timely enforcement where necessary.





Accomplishments FY 2016-2017

WDRs Revisions		
	Target	Completed
Fresno	3	4
Redding	2	2
Sac	6	5
Totals	**11**	**11**

Number of Facilities Inspected		
	Target	Completed
Fresno	51	53
Redding	19	14**
Sac Permitting*	8	6
Totals	**78**	**73**

*Permitting and construction inspections only

** Inspection target not met due to long term vacancy

Priority Projects FY 2017-2018

The following table presents performance targets for the upcoming year.

		Fresno	Redding	Sac	Totals
FY 2017-18 Performance Targets	**WDRs**	**3**	**2**	**8**	**13**
	Insp	**50**	**15**	**5[1]**	**70**

[1]Represents Permitting Unit construction inspections only.

In addition, approximately 12 additional composting facilities are anticipated to be enrolled in the Composting General Order.

Central Valley Water Board Program Fact Sheet FY 2017-2018

Mines Program

Photo: Sulphur Bank Mercury Mine, Lake County

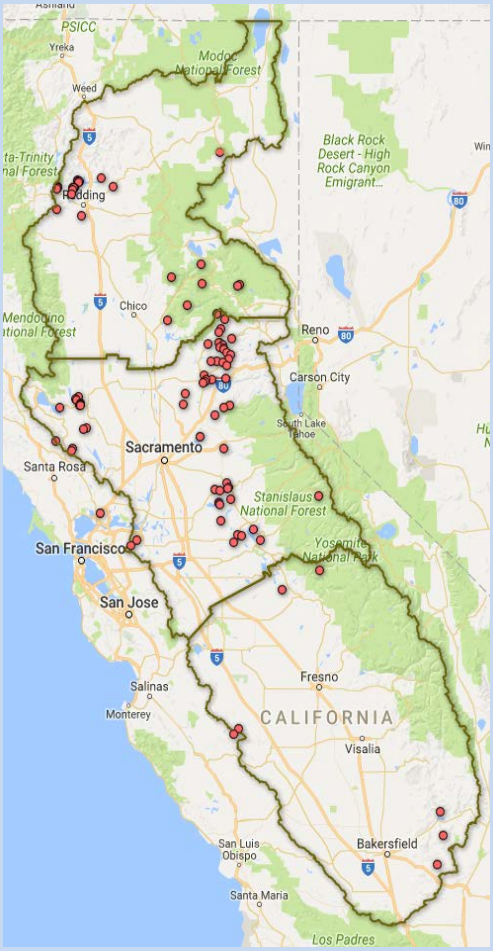
Overview

Currently, Central Valley Water Board staffs regulate 92 mine sites with known or potential water quality impacts. This is a subset of the 47,000 abandoned mine sites with physical and/or environmental hazards that have been identified across the State by the Department of Conservation. As presented in the chart on the following page, 11% of the 92 mine sites are active gold mines, 11% are inactive mine sites, 11% are sites with remediation underway, 30% are closed mine sites, and 37% are abandoned mines. Region wide, approximately five technical staff personal years (PYs) are budgeted for the Mines Program, which is spent managing high priority enforcement cases, conducting inspections and reviewing compliance reports for active and closed sites, and identifying potential responsible parties for abandoned mine sites.

The Mines Program is implemented using multiple programs. Staffs working in the Land Disposal, NPDES, WDR, Site Cleanup, Basin Planning, and NPS Programs assist in working on mines in order for the Board to meet its workplan commitments. The Mines Program's success requires the direct involvement and accomplishment of key tasks in the above programs and external departments and agencies. A significant number of mine sites require point source discharge permits through the NPDES Program, and several sites with NPDES permits also require WDRs through the Land Disposal Program.

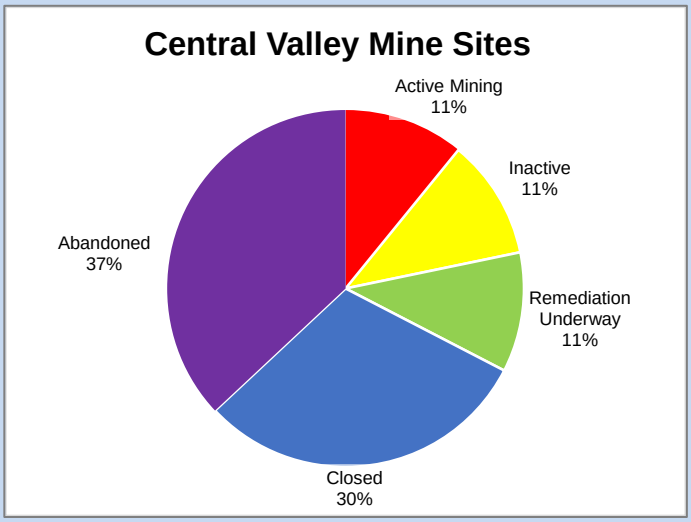
Mine sites that have impacted surface waters within the region exist across private, State, and Federal lands. Private land owners who purchased property with historical mine operations, who did not cause, contribute to, or exacerbate the contamination, are potentially liable to clean-up the mine site. Many of these landowners lack the financial and technical ability or the incentive to address environmental impacts resulting from the former mine operations. State and Federal agencies are addressing some of the abandoned mines on their lands, but due to the sheer number of sites and available resources, cleanup activities at these sites have been extremely slow. Primary pollutants from mine sites include low pH and total and dissolved metals including arsenic, copper, mercury, and zinc.

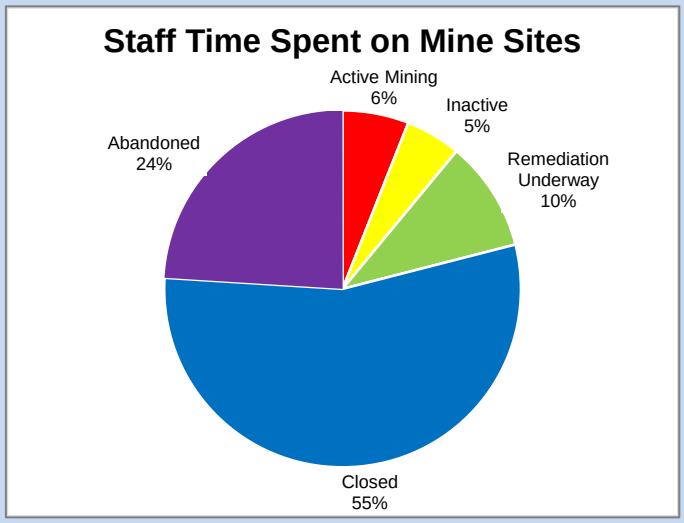
Central Valley Water Board Mine Sites



The map above shows the distribution of mine sites currently regulated by the Central Valley Water Board.

Generally, mercury mines are located along the Coast Range, gold mines are located in the Sierra Nevada foothills and copper and other base metal mines are located in the Klamath Mountains near Redding.





- Active - primarily small scale gold mines that operate intermittently depending on the price of gold.
- Inactive - sites that have not begun mining operations or have shut down for an extensive amount of time.
- Remediation Underway - sites that have implemented remediation measures such as bulkhead seals, treatment systems, and/or storm water controls.
- Closed mines - sites that completed all mining operations, implemented remediation measures and are conducting long-term monitoring activities.
- Abandoned or Orphan – an inactive hard rock mine or primary metal processing mill site for which, despite reasonable and diligent efforts, no financially viable party (except the owner of the site who did not cause, contribute to, or exacerbate the contamination) exists to perform or pay for, or has been required to perform or pay for, environmental cleanup actions under applicable law. Many of these sites have not been fully characterized for metals and other constituents, and staffs are working with property owners and other agencies to address these data gaps.

Accomplishments FY 2016-2017

Walker Copper Mine, Plumas County -Sacramento County Superior Court hearing is scheduled for 15 September 2017. Staff provided an Administrative Record and assisted in drafting a brief. Staffs continue to complete monitoring and O&M at the mine site.

Mount Diablo Mercury Mine, Contra Costa County -A settlement agreement with Sunoco to construct a system to divert spring water to an infiltration gallery and reduce the amount of water and dissolved metals being discharged to the Lower Pond was approved in June 2017. The 2017 State budget also includes State Parks funding for cleanup at the Mount Diablo Mercury Mine
.

Performance Targets	Accomplishments
Permits Issued –Calaveras Cement, Spanish Mine, Washington Mine, North Star Mine, Empire Mine,	Completed
NPDES Individual Permit –Malakoff Diggins	Draft in progress, expected to be completed in early FY17/18
Title 27 WDR Rescissions –Oriental Mine, Spenceville Mine, and Pioneer Pit Mine	Completed
Compliance and Enforcement Inspections	Targeted=14; Accomplished=18

Priority Projects FY 2017-2018

Performance Targets	Targets
NPDES Individual Permit –Malakoff Diggins,	August 2017
NPDES Individual Permit –Royal Mountain King	April 2018
NPDES Permit Rescission –Spanish Mine	August 2017
Title 27 WDRs –US Mine Corporation	April 2018
Non-15 WDRs – Bully Hill / Rising Star Mines	June 2018
Update Enforcement Orders	Dec 2017 through Jun 2018
Compliance and Enforcement Inspections	14

Overview

The National Pollutant Discharge Elimination System (NPDES) program is a federal program, under the Clean Water Act, that has been delegated to the State of California for implementation through the State Water Resources Control Board and the nine Regional Water Quality Control Boards. The NPDES program controls water pollution by regulating point sources that discharge pollutants into waters of the United Sates. Point sources are discrete conveyances such as pipes or man-made ditches. Since its introduction in 1972, the NPDES program has been responsible for significant improvement to water quality.

The NPDES program regulates point source discharges through issuing individual permits (major or minor) or covering the discharge under a general permit. Major permits cover facilities discharging greater than 1 million gallons per day. Minor permits cover facilities discharging less than 1 million gallons per day. General Permits issued by both the State and Regional Boards cover numerous broad categories of similar discharges and can include both major and minor facilities. NPDES permits are valid for five years.

The Central Valley Region currently manages 50 major permits, 63 minor permits, and 3 general permits (116 total permits). Approximately 70% of the major and minor individual permits regulate discharges from municipal wastewater treatment facilities. The remaining 30% of the individual permits regulate discharges from mines, groundwater cleanup sites, saw mills, and industrial facilities (landfills, food processing, wineries, etc.). The three general orders primarily regulate discharges from construction sites, groundwater cleanup sites, potable water systems, fish hatcheries and fish farms. Both the individual and general permits regulate pollutants to ensure that surface water (rivers, creeks, and lakes) quality is protected.

Management of the program is broken into two components Permitting and Compliance, and Enforcement. NPDES permitting program staff evaluates each application and assign appropriate discharge limits within permits to protect the specific surface water that receives the discharge. The limits include constituents such as metals, salinity, nutrients, pesticides, and organics. The NPDES Compliance and Enforcement staff ensures that the dischargers are complying with the discharge limits and conditions included in their permits and when necessary take appropriate enforcement actions to protect water quality.

Approximately 25.7 PY are dedicated to the NPDES program (3.5 PY in Fresno, 5.6 PY in Redding, and 16.6 PY in Sacramento). Approximately 6.6 PY are dedicated to Compliance and Enforcement activities (1.2 PY in Fresno, 1.75 PY in Redding, and 3.65 PY in Sacramento). Program activities are summarized in the below chart.

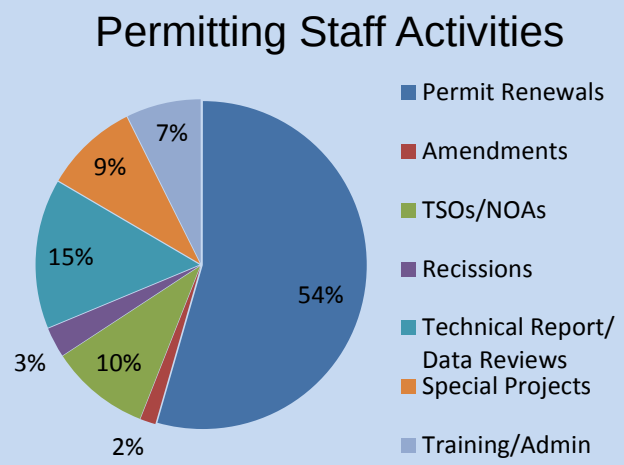
Goals

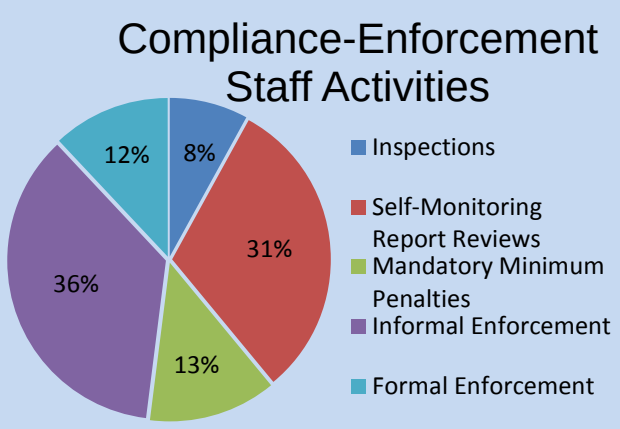
The program goals are to ensure that:

- Point source discharges to surfaces waters are regulated to ensure that state and federal water quality objectives are met and beneficial uses (drinking water and aquatic habitat) are protected;
- Permits are written for all point source discharges to surface waters;
- Permits are renewed every five years;
- Renew permits within 6 months of the permit expiration date; and
- The cost of compliance is considered when writing/renewing permits.

The additional goals of the NPDES Compliance and Enforcement program are:

- To foster consistency throughout the Region for all staff working in compliance and enforcement;
- Provide guidance for all staff tasked with enforcement actions; and,
- Generate a fair and respected enforcement presence within the regulated community.





Accomplishments FY 2016-2017

	Target	Achieved
Major Permits Renewed	5	4*
Minor Permits Renewed	11	6*
Major Inspection	25	21
Minor Inspections	16	20

*Four of the planned minor permits and one of the major permits scheduled to be renewed were rescinded and the discharges were either covered under a general permit or the Discharger ceased discharging to surface water. The staff resources allocated to the renewals were redirected to the following unscheduled tasks: enrolling the discharges under the appropriate general orders; compiling and analyzing toxicity data; additional stakeholder outreach on the proposed Municipal General Order; Constituents of Emerging Concern (CECs) special project; Royal Mountain King Mine NPDES permit renewal; and drafting a new individual NPDES permit for the State of California Department of Parks and Recreation, Malakoff Diggins State Historic Park for consideration at the August 2017 Board meeting.

Priority Projects Accomplishments FY 2016-2017

- *Lean Six Sigma Program* – the region conducted a collaborative team effort to identify areas to improve efficiencies in renewing individual NPDES permits. *Complete*
- *Low Level Toxicity Study* – the region started working with industry experts and stakeholders to understand the potential increase in reoccurring, but intermittent, low level chronic toxicity (less than 2 TUc with a percent effect of less than 25 percent). *Ongoing*
- *Ammonia Planning Effort* – USEPA adopted new recommended criteria for calculating ammonia limits in NPDES permits in 2013. As the criteria are recommended we are not obligated to implement it. Board staff is working with the applicable State and Federal agencies and stakeholders to conduct a Basin Planning effort to determine how to best implement the recommended criteria in Central Valley waters. *Ongoing*
- *Plan to address Climate Change impacts* – NPDES program staff provided input on the region's draft plan to address the impacts of Climate Change. *Ongoing*
- *Draft General Permit for municipalities* – Board staff worked with stakeholders to develop and draft a general permit for municipalities that can meet their effluent limits at the time they discharge to surface waters. The draft permit is scheduled for consideration at the August 2017 Board meeting. *Completed*
- *Develop NPDES Program Manual* – Board staff drafted a manual to guide new and existing staff through the core permitting activities. *Ongoing*
- *Develop Environmental Performance Measures* –NPDES program staff provided input to the region-wide effort to develop environmental performance measures for each program. *Ongoing*
- *Cost Tracking/Program Efficiency Study* – NPDES program staff participated in a study to better understand where efficiencies can be made in the program. The data was used in the Lean Six Sigma process. *Ongoing*

Priority Projects FY017 - 2018

- *Start Implementing Lean Six Sigma Recommendations* – NPDES program staff will begin implementing the areas of improvement identified in the FY 2016-2017 Lean Six Sigma program.
- *Ammonia Planning Effort* – Board staff will continue working with the applicable State and Federal agencies and stakeholders to conduct a Basin Planning effort to determine how to best implement the recommended criteria in Central Valley waters.
- *Chronic Toxicity* – Board staff will continue working with industry experts and stakeholders to better understand the potential increase in reoccurring, but intermittent, low level chronic toxicity.
- *Constituents of Emerging Concern (CECs)* – Board staff will continue working with publicly owned treatment works (POTWs) and Municipal Separate Storm Sewer Systems (MS4s) to begin implementing the statewide CEC Pilot strategy developed by State Board. The strategy will be implemented in a phased approach and take into consideration the information collected through previous studies and the region's Pesticide program.

Performance Targets FY 2017-2018

	Target
Major Permits Renewed	8
Minor Permits Renewed	9
Major Inspection	27
Minor Inspections	6

Overview

Nonpoint source pollution is the leading cause of water quality impairment in California. The primary nonpoint sources in the Central Valley include runoff and percolation from land use activities related to agriculture, timber harvests, cannabis cultivation, abandoned mines, recreation, and urban and rural development. The goal of the Central Valley Nonpoint Source Program (NPS Program) is to restore waters impacted by NPS pollution and protect unimpaired water bodies by assessing problem sources and implementing management programs.

The Central Valley NPS Program implements the statewide *California Nonpoint Program Implementation Plan for 2014-2020* (Six-Year Implementation Plan), which was approved by the U.S. Environmental Protection Agency (USEPA) in August 2015. The purpose of this plan is to improve the State's ability to effectively manage NPS pollution and conform to the requirements of the federal Clean Water Act and the federal Coastal Zone Act Reauthorization Amendments of 1990. The Six-Year Implementation Plan focuses on impaired water bodies and water bodies that face immediate water quality threats from new and expanding development.

The Central Valley NPS Program encompasses several programs and more than 70 staff who are working together to address NPS pollution. State funding supports the majority of NPS Program staff time. The USEPA provides a limited amount of funding from the Clean Water Act Section 319(h) grant program ("319(h) funding") to implement Six-Year Implementation Plan activities that are consistent with federal nonpoint source priorities, with focus on impaired water bodies. Section 319(h) funding supported ~5% of all FY2016-17 staff time for Central Valley NPS Program efforts. The second page of this fact sheet describes Section 319(h)-funded activities.

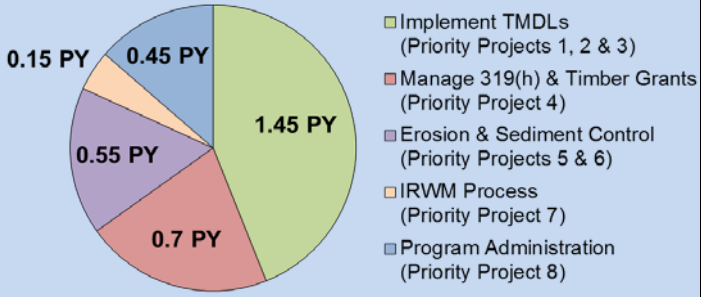
Six-Year Implementation Plan Initiatives

The Six-Year Implementation Plan identifies the following six "initiatives" where the Central Valley NPS Program and its associated programs will focus their efforts; associated programs are noted in parentheses and are described in separate program-specific fact sheets.

1. Protect Sacramento-San Joaquin Delta Beneficial Uses (Delta Program and TMDL Program)
2. Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS Program)
3. Dairies (Confined Animal Facility Program)
4. Irrigated Lands (Irrigated Lands Regulatory Program)
5. Timber Harvest Activities and Waiver of Waste Discharge Requirements (Forest Activities Program)
6. Protect Threatened and High Quality Waters (multiple programs, including above programs, Water Quality Certification Program and Mining Program)

The Six-Year Implementation Plan identifies goals and performance measures for each of the initiatives. The Six-Year Implementation Plan also identifies a set of "targeted waterbody-pollutant combinations" with water quality improvement goals designed to demonstrate the success of NPS Program activities. Targeted waterbody-pollutant combinations include pesticides in the Delta and its tributaries, phosphorus and mercury in Clear Lake, selenium in Mud Slough, among others.

Accomplishments of 319(h)-Funded Activities FY 2016-2017



1. Supported stakeholder efforts to implement the Clear Lake Nutrient Total Maximum Daily Load (TMDL) Control Program and initiated development of a report on implementation progress
2. Implemented the Grasslands Bypass Project Waste Discharge Requirements (WDRs) under the Irrigated Lands Regulatory Program, which implements the San Joaquin River, Mud Slough, and Grasslands Bypass Selenium TMDLs
3. Implemented WDR-required pesticide management plans under the Irrigated Lands Regulatory Program, which implement pesticide TMDLs
4. Managed three 319(h) grant projects continued from the previous year, managed two new Timber Fund grant projects, and executed agreements for three new Timber Fund grant projects
5. Worked with power companies to update their maintenance plans and schedules to more effectively reduce sediment discharges from power-line corridor maintenance roads
6. Assessed and implemented enforcement to reduce sediment and metals discharges from shooting ranges that discharge to high-quality, threatened, and impaired waters
7. Participated in the Integrated Regional Water Management (IRWM) planning process
8. Conducted 319(h) and Timber fund grant proposal review and selection process, provided performance reports to the USEPA, and identified measures to account for climate change factors and potential NPS water quality impacts

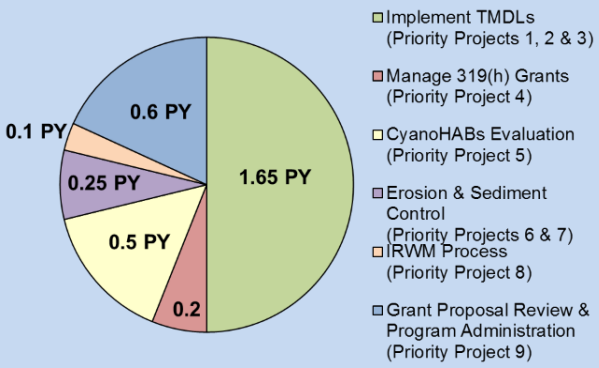
Unaddressed Work

During the year all Section 319(h) Work Plan goals were substantially met except for completing a report to the Central Valley Water Board on implementation progress for the Clear Lake nutrients TMDL. The primary reason for this is Section 319(h)-funded positions had an approximately 20% vacancy rate for FY 2016-17 (0.7 PY in two positions that were to develop the report). Section 319(h)-funded positions enter FY 2017-18 with no vacancies.

319(h)-Funded Priority Projects FY 2017-2018

There are five types of 319(h)-funded priority projects planned for FY17/18: TMDL implementation, grant management, evaluation of cyanobacteria and other harmful algae blooms (cyanoHABs), erosion and sediment control, and watershed management planning. The priority projects include the following:

1. Implement the Clear Lake Nutrient TMDL
2. Implement the San Joaquin River Selenium TMDL
3. Implement pesticide TMDLs and pesticide management plans
4. Manage 319(h) grants
5. CyanoHAB evaluation
6. Erosion control for power-line corridors
7. Erosion and metals control for shooting ranges
8. Participate in the Integrated Regional Water Management planning process
9. Grant proposal review, development of success stories, and other program administration



Overview

California is the third largest oil producing state in the United States. Most of that production occurs in the Central Valley. California oil is usually comingled with water in underground formations. This oil/water mixture is extracted and the oil is separated from the water, which is then called produced water or produced wastewater. Approximately 189 million barrels of oil and 2.9 billion barrels of produced wastewater were generated from California's onshore operations in 2015. A barrel (bbl) is equivalent to 42 gallons. Approximately 152 million bbls of oil and 2.1 billion bbls of this produced wastewater were generated primarily in the southern portion of the Central Valley. About 770 million bbls of produced wastewater were injected into aquifers of the Central Valley using disposal wells regulated under the State's underground injection control (UIC) program. About 1.05 billion bbls of produced wastewater were used for enhanced oil recovery operations like steam flooding and water flooding. The remaining produced wastewater was disposed of by discharge to land primarily through unlined ponds. Where the quality is adequate, some of this wastewater was recycled for use as irrigation water. Other wastes generated by oil field operations include drilling muds and solids and sludges generated when tanks and equipment are cleaned. These materials are typically tested to confirm they are not hazardous, mixed with soil, and then used as road mix and berm materials within the oil fields.

The Oil Field Program regulates four primary activities: well development drilling mud disposal, production well produced water disposal and reuse, UIC practices, and well stimulation practices under Senate Bill 4 (or SB4).

Discharges to land include drilling muds, produced wastewater discharges, including but not limited to, those to ponds, roads for dust control, and irrigation; and solids mixed with clean soil as road mix and berm material. These discharges are regulated under individual and general waste discharge requirements (WDRs), and when appropriate, enforcement orders, such as cleanup and abatement orders. Unpermitted discharges, spills, and other illicit discharges are subject to enforcement actions by the Board including the imposition of civil liabilities.

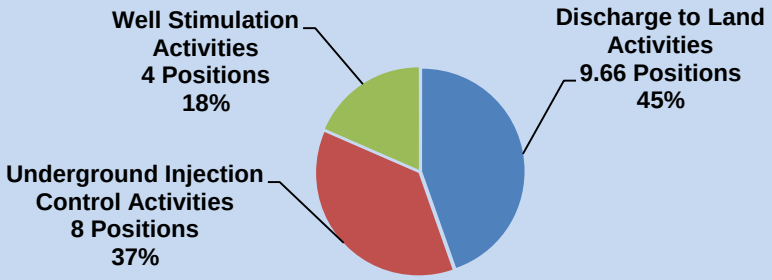
The federal Safe Drinking Water Act (SDWA) regulates the injection of wastes associated with oil and natural gas operations into underground formations through Class II injection wells, referred to as the UIC Program. The SDWA specifies the nature and character of an aquifer that is not expected to be a source of drinking water and that can be exempted from SDWA protections. Oil field wastes can then be injected into those aquifers. The U.S. Environmental Protection Agency (USEPA) granted to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) regulatory primacy over the program in 1983. The Central Valley Water Board and State Water Board (Water Boards) staff, review aquifer exemption applications to ensure approval will not adversely affect waters of existing or potential beneficial use. Water Boards staff also review individual DOGGR draft UIC Project Approval Letters (PALs) (UIC well permits) to ensure the protection of water quality. Senate Bill 4 (2013) enacted changes to the California Water Code regarding well stimulation activities, including hydraulic fracturing. A Memorandum of Agreement (MOA) between DOGGR and the Water Boards was signed in 2015 to delineate each agencies' authority, responsibilities, and notification and reporting requirements associated with protecting groundwater quality from well stimulation activities.

As of July 2015, groundwater monitoring or an exclusion from monitoring must be in place prior to well stimulation. Water Board's staff review well stimulation (WST) applications, proposed monitoring plans, and proposed groundwater monitoring exclusions to ensure that well stimulation treatments and activities will not adversely affect water quality.

Goals

The goal of the Oil Field Program is to properly regulate oil field discharges and oversee monitoring activities to ensure the protection of surface and groundwaters and human health. This includes issuing effective regulatory and monitoring orders for discharges to land in a timely manner. It also includes reviewing aquifer exemption applications, UIC permits, and SB4 related groundwater monitoring programs and providing appropriate comments to State Water Board in a timely manner.

Program Distributions



Accomplishments FY 2016-2017

Discharge to Land Program	
Revised Pond Monitoring Programs	16
Pond General WDRs	3
Complaint and Facility Inspections	68
Food Safety Expert Panel Meetings	8[1]
Administrative Civil Liabilities Issued	1

[1] Three public, two closed, and three conference calls.

UIC Program	
Aquifer Exemption Applications Reviewed	18
Project Approval Letters Reviewed	15
13267 Orders Issued	2
13267 Order Completion Letters Issued	15
Groundwater Monitoring Programs Reviewed	1

SB4 Program	
Area Specific Groundwater Monitoring Plans Reviewed	6
Well Stimulation Applications Reviewed	95
Groundwater Monitoring Exclusion Requests Reviewed	4

Staff developed a Memorandum of Agreement (MOA) between the Central Valley Water Board and those that generate treated produced wastewater and the water districts that blend it with other supplies and distribute it for irrigation of crops. The MOA will allow Central Valley Water Board, with input from the Food Safety Expert Panel convened by Board staff in 2015, oversight of scientific studies to assess the efficacy of the reuse of produced wastewater for irrigation.

Staff also sampled in March and April citrus in two water districts for oil field constituents of concern. The results were presented at a public meeting of the Food Safety Expert Panel in Rancho Cordova in June.

Priority Projects FY 2017-2018

- GENERAL ORDER ENROLLMENT Staff will enroll dischargers currently operating under cleanup and abatement orders into one of the three General Orders for Oil Field Discharges to Land.
- FOOD SAFETY EXPERT PANEL Staff will work to hold eight Panel member meetings, including at least four public meetings.
- ENFORCEMENT Staff will pursue appropriate enforcement for oil field related violations of the California Water Code.
- INSPECTIONS Staff will conduct at least 80 inspections of oil field facilities, spills, and complaints.
- UNDERGROUND INJECTION CONTROL Staff will review and make recommendations on aquifer exemption applications and underground injection control project approval letters, to ensure that the exemptions and approvals are protective of water quality.
- WELL STIMULATION ACTIVITIES Staff will review all proposed well stimulation permit applications, exclusions, and proposed groundwater monitoring programs in a timely manner.

Overview

The Site Cleanup Program (SCP) regulates and oversees the investigation and cleanup of contaminated sites that are polluting, or threaten to pollute, surface and/or groundwater. In Region 5 there are over 29 technical and administrative staff (see office distribution below) overseeing investigation and cleanup actions at sites that have been impacted by releases of pollutants to soil, soil gas, groundwater, surface water, sediments and indoor air. SCP sites include pollution from recent or historical surface and subsurface releases at large industrial facilities such as military bases, railyards, oil refineries and factories. SCP sites also include smaller facilities such as dry cleaners, plating shops, pesticide and fertilizer distribution facilities, equipment repair facilities and blighted sites located in urban areas throughout the region.

Cleanup of Brownfield sites is also an important focus of the SCP. Brownfields are defined as former industrial or commercial sites where current or future use is affected by real or perceived environmental contamination. Many of these properties are in blighted, urban areas and environmental justice communities. Cleanup and redevelopment of Brownfield properties often results in contaminant removal, reduced impact to surface water and groundwater, stimulated economic growth, and return of urban properties to safe and productive uses. Additional information about Brownfields can be found at: www.waterboards.ca.gov/water_issues/programs/brownfields.

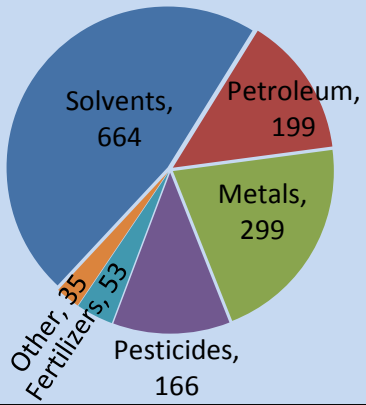
SCP case work is prioritized based upon threat to water quality and protection of human health and the environment. California State law requires the person responsible for pollution to pay for staff time and all direct costs required to oversee and implement a cleanup action. These costs are tracked and invoiced through the State and Regional Board's Cost Recovery Program. A continuing goal of the SCP is to enroll dischargers in our Cost Recovery Program so that staff resources and funding will continue to be available for this important cleanup work long into the future.

The types of pollutants encountered at SCP sites are diverse and include fertilizers, fuels, heavy metals, perchlorate, solvents, radiological material and many others. Additional information on the SCP can be found at: www.swrcb.ca.gov/water_issues/programs/scp/index.shtml

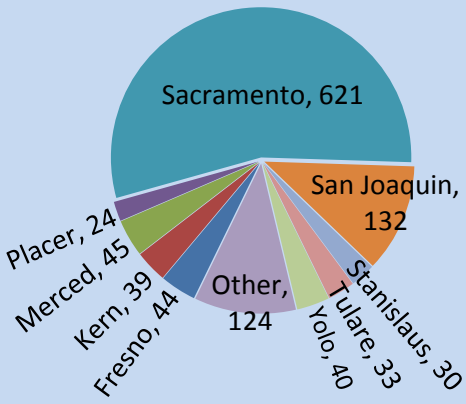
Goals

The primary mission of the SCP is to protect water quality, regulate practices which have the potential to pollute water, and enforce state and federal laws and policies. To do this SCP staff must identify contaminated sites, provide technical and regulatory oversight of cleanup activities, and ensure that remedies result in site restoration and protection of human health, the environment and water quality.

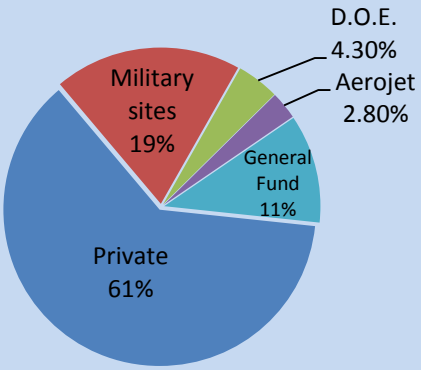
Contamination Types



Cases by County



Personnel Distribution



Major Accomplishments for FY 2016 – 2017

Staff provided technical review and regulatory oversight on over 400 site investigation, remediation and remedial design documents. This work resulted in the cleanup and closure of 100 contaminated sites and the removal of over 180 million pounds of contaminated soil, soil gas, free product (gasoline, diesel, solvents, etc.) and contaminated groundwater. Key highlights of our efforts are as follows:

Sacramento Office - Staff completed technical and regulatory review of 332 site investigation and remediation documents. Data contained in these documents is used to design safe and cost effective remedies to clean up sites in our area. A total of 56 sites were moved to active remediation and 75 sites were closed and put back into safe and productive use. Sacramento staff continued efforts to identify sites that may be eligible for grants through Senate Bill 445 (SB445) (also known as the Site Cleanup Subaccount Program or "SCAP") and to reduce our site backlog in Geotracker. Staff work on our priority projects has resulted in award of SCAP grants of almost half a million dollars, completion of 177 technical review and site summary memoranda, a reduction in our backlog by 168 cases, creation of a Geographic Information System (GIS) mapping tools to evaluate the impact of solvents, 1,2,3-trichloropropane (1,2,3-TCP) and hexavalent chromium, and the start of Brownfield redevelopment at the Sacramento Railyard. The GIS maps have proven to be a useful tool for identifying orphan plumes (plumes with no identified source) and for assessing groundwater concentrations of naturally-occurring contaminants (such as arsenic in the Sierra foothills) and baseline concentrations of contaminants that do not occur naturally but have a regional presence (such as pesticides).

Fresno Office – Staff completed technical and regulatory review of 62 site investigation, design and remediation documents. Data contained in these documents is used to design safe and cost effective remedies to clean up sites in the Fresno office area. A total of 5 sites were moved to active remediation and 20 sites were closed and put back into safe and productive use. Fresno staff continued efforts to identify sites that may be eligible for SCAP grants and to reduce our site backlog in Geotracker. Staff work on our priority projects has resulted in SCAP funded projects of almost a half million dollars, completion of 30 technical reviews and site summary memoranda, reduction in our backlog by 30 cases, continued progress on the former Elk Hills Naval Reserve and crude oil refineries sites in the southern portion of our region. Ongoing remediation at these facilities removed over a million of pounds of contamination from our environment during fiscal year 2016 – 2017

Redding Office - Staff completed technical and regulatory review of 8 site investigation, design and remediation documents. Data contained in these documents is used to design safe and cost effective remedies to clean up sites in our area. Redding SCP staff provided the technical oversight and guidance needed to successfully consolidate and cap contamination at the Old Red Bluff Burn Dump. Redding staff working on priority projects has resulted in a total of 3 sites being moved to active remediation, 5 sites being closed and put back into safe and productive use, identification of a number of sites which may be eligible for SCAP grants. To date these efforts have resulted in SCAP funded projects of over a million dollars for assessment and cleanup.

All of these efforts combined truly support our goal of protecting public health and water quality, and will continue to support economic development in the cities and counties located in the Central Valley Region.

Accomplishments FY 2016-2017

	Target	Accomplished
Site Characterization Reports Completed	139	402*
New DoD Sites To Active Remediation	15	17
New Cleanup Program Sites To Active Remediation	84	39**
Cleanup Program Sites Closed	68	100

*This is the first year that we have tracked this target. We found that we are completing far more reviews then originally estimated.
**Sacramento County has delayed completion of a 45 site Record of Decisions (RODs) for privatized sites at McClellan Park to FY 17/18.

Performance targets FY 2017-18

	Target
Site Characterization Reports Completed	420
New DoD Sites To Active Remediation	9
New Cleanup Program Sites To Active Remediation	80
Cleanup Program Sites Closed	64

Overview

The Storm Water Program implements National Pollutant Discharge Elimination System (NPDES) permits to regulate the discharge of pollutants in storm water to waters of the U.S. The program is divided into three main areas of activity: construction (including Caltrans projects), industrial, and municipal. The Central Valley Water Board has 12 PYs to implement the program.

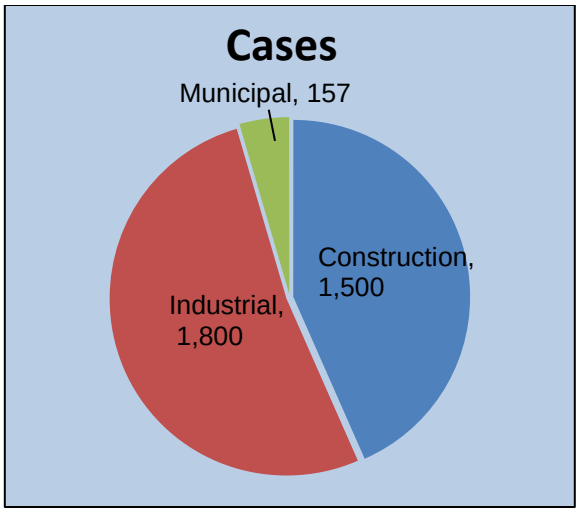
Construction Storm Water: Dischargers (including Caltrans) whose construction projects disturb one or more acres of soil, or disturb less than one acre but are part of a larger common plan of development, are required to obtain coverage under the State Water Board's Construction Storm Water General Permit. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. The General Permit requires implementation of Best Management Practices (BMPs) to minimize the discharge of pollutants in storm water, and requires visual and chemical monitoring. Water Board staff reviews monitoring reports, conducts compliance inspections of construction sites to ensure that BMPs are being properly implemented, and conducts enforcement activities as needed.

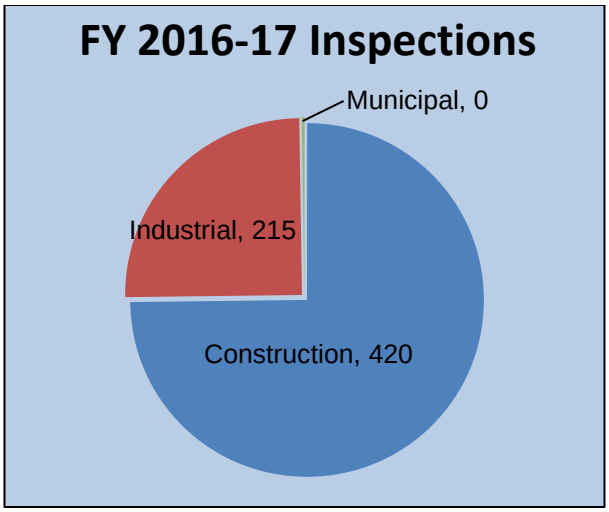
Industrial Storm Water: The State Water Board's Industrial Storm Water General Permit is used to regulate discharges associated with 10 broad categories of industrial activities. The General Permit requires the implementation of management measures, including BMPs, that will achieve specific performance standards. The General Permit requires four sampling events throughout the year. Water Board staff reviews monitoring reports, conducts compliance inspections of industrial sites to ensure that BMPs are being properly implemented, and conducts enforcement activities as needed.

Municipal Storm Water: Municipal Separate Storm Sewer Systems (MS4s) collect and discharge runoff from rain or snow melt from surfaces such as rooftops, paved streets, highways or parking lots and can carry with it pollutants such as oil, pesticides, herbicides, sediment, trash, bacteria, and metals. MS4s also collect non-storm water runoff such as from irrigation sprinklers, car washing, foundation drains, water line flushing, etc. The runoff can then drain directly into a local stream, lake, or bay. Additionally, impervious surfaces in urban areas contribute to an increase in runoff flow, velocity and volume. As a result, streams are hydrologically impacted through streambed and channel scouring, instream sedimentation and loss of aquatic and riparian habitat. A State Water Board General Permit, and a Central Valley Water Board Regionwide General Permit are used to regulate designated MS4 operators such as cities, counties, college campuses, military bases, prisons, etc. These permits require designated MS4 operators to implement programs to eliminate the discharge of pollutants in storm water discharges. Water Board staff reviews management plans, and monitoring reports, and conducts audits of MS4 programs.

Goals

- Ensure water quality protection at construction and industrial sites through a strong field presence, and review of reports and monitoring data.
- Ensure water quality protection associated with MS4 discharges by ensuring approved management plans are being implemented and are effective.
- Take enforcement actions when appropriate for failure to implement effective storm water pollution controls.





Accomplishments FY 2016-2017

	Accomplishments FY2016-2017
Construction: Focus on maintaining a strong field presence and formal enforcement actions, as needed.	• 420 field inspections • 375 enforcement actions
Industrial: Address significant workload associated with the revised Industrial general permit. This workload includes • Helping permittees navigate the new online requirements • Conduct Inspections • Identifying permit compliance issues • Conduct formal enforcement, as needed.	• Implemented focused, prioritized effort for case follow up. • 215 field inspections • 342 enforcement actions.
Municipal: Implement Region's new general MS4 permit. Significant staff time will be required to coordinate with the permittees during the Reasonable Assurance Analysis and Storm Water Management Plan development processes.	• Held several meetings with permittees • Developed Reasonable Assurance Analysis guidance.

Performance Targets Accomplished FY 2016-2017

	Target	Accomplished
Construction site inspections	385	420
Industrial site inspections	195	215
MS4 Audits	0	0

Priority Projects and Performance Targets FY 2017-2018

In addition to continue to implement the priority projects described above in FY 2016-2-17, staff will conduct the following:

	Target
Construction site inspections	385
Industrial site inspections	195
MS4 Audits	0

Overview

The California Surface Water Ambient Monitoring Program (SWAMP) was created to fulfill the legislative mandate for a unifying program that would coordinate all surface water quality monitoring conducted by the State and Regional Water Boards. The SWAMP program conducts water quality monitoring directly and through collaborative partnerships, and provides numerous reports, fact sheets and tools, all designed to support water resource management in California. SWAMP monitoring programs are designed to address one or more of the following assessment questions:

- *Status*: What is the overall quality of California's surface waters?
- *Trends*: What is the pace and direction of change in surface water quality over time?
- *Problem Identification*: Which water bodies have water quality problems and which areas are at risk?
- *Diagnostic*: What are the causes of water quality problems and where are the sources of those stressors?
- *Evaluation*: How effective are clean water projects and programs?

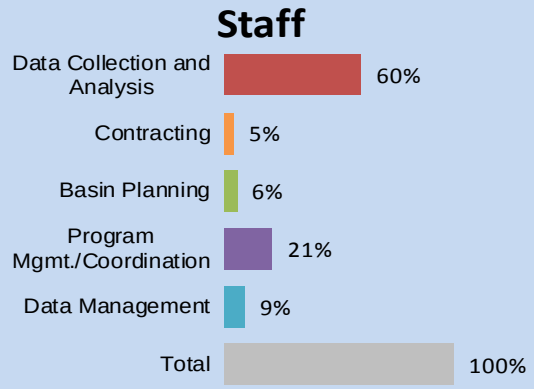
The equivalent of four full-time positions (4 PY) is dedicated to the Central Valley Water Board SWAMP program with additional support provided by eight temporary scientific aids. SWAMP staff members coordinate closely with other regional programs like the Irrigated Lands Regulatory Program (ILRP), Non-point Source Program (NPS), and the Delta Regional Monitoring Program (Delta RMP) to provide monitoring support, manage and share data, and leverage resources.

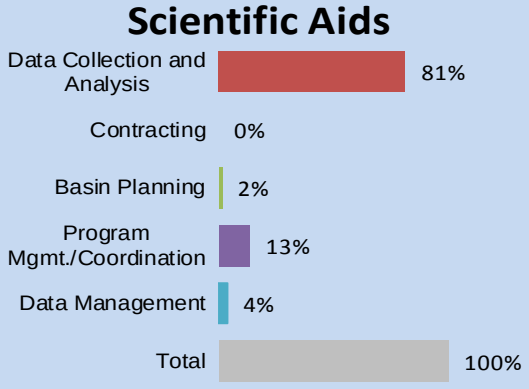
Goals

The Central Valley Water Board has four overarching goals for its SWAMP efforts:

- Evaluate ambient water quality, beneficial use protection, and potential sources of impairment.
- Evaluate effectiveness of the Water Board water quality improvement policies.
- Coordinate internal and external monitoring efforts to leverage limited resources.
- Ensure timely availability of monitoring results.

In FY 17/18, the estimated percentage of time permanent staff and scientific aids will spend on core SWAMP activities identified to meet these goals are shown in the graphs below.





Ongoing Priority Projects

Monitoring Efforts

- Safe to Swim: In FY 17/18 SWAMP will initiate its eleventh season of monitoring to assess recreation safety in Central Valley's rivers and streams.
- Sacramento Watershed Coordinated Monitoring Program: In 2017, SWAMP and the Department of Water Resources (DWR) began the tenth year of water quality trend monitoring at 56 sites in the Sacramento watershed.
- Tulare Lake Basin Rotational Monitoring: Fresno staff will continue monitoring in the Kern River watershed, as part of the multi-year Tulare Lake Basin Rotational Monitoring Program.
- Cyanobacteria and other Harmful Bacteria (CHAB) Response - Staff will work with the Central Valley Water Board CHAB coordinator and the State Water Resources Control Board to conduct initial bloom response monitoring as needed.

Support for the Delta RMP

SWAMP contract resources will continue to support targeted toxicity monitoring as part of the Delta Regional Monitoring Program's Monitoring Design to assess impacts of current use pesticides.

Accomplishments FY2016-2017

Because the focus of SWAMP is surface water monitoring and assessment, performance measures for the Central Valley Water Board's regional program emphasize the analysis and interpretation of information collected. This includes online posting of project fact sheets and review of study results with management. This will allow the Central Valley Water Board to make informed decisions regarding water quality issues that may need further attention.

Measure	Performance Measures	Status
1	Complete 2017-2020 SWAMP budget planning (statewide contracts)	Completed
2	Microbial Source Tracking – Complete contract	Delayed but expected to be completed FY 17/18
3	DWR Coordinated Monitoring – *E.coli* results summarized and presented to Executive Management	Completed
4	Safe to Swim –Results summarized and presented to Executive Management; Fact Sheet posted online for 12-month study	Completed Pending final review
5	San Joaquin River Toxicity - Results summarized and presented to Executive Management and related program managers	Study extended into FY 17/18
6	Tulare Lake Basin Rotation Monitoring - Fact Sheet(s) posted online with Executive Management approval	Draft in progress, expected to be completed FY 17/18

Performance Measures FY 2017-2018

Measure	Performance Measures	Deliverable Date
1	Complete two DWR contracts (Sacramento Coordinated Monitoring and Battle Creek gauging stations)	31 March 2018
2	DWR Coordinated monitoring – *E.coli* results summarized and presented to Executive Management	31 March 2018
3	Tulare Lake Basin Rotation Monitoring - results summarized and presented to Executive Management; Fact Sheet(s) posted online w/ Executive Management approval	31 May 2018 30 June 2018
4	Lower San Joaquin River Toxicity - Results summarized and presented to Executive Management and related program managers; Fact Sheet posted online with Executive Management approval	31 March 2018 30 June 2018
5	Safe to Swim - *E.coli* results summarized and presented to Executive Management	31 March 2018
6	Title 22 Monitoring – results summarized and presented to Executive Management; Fact Sheet posted online with Executive Management approval	31 March 2018 30 June 2018

Overview

The Groundwater Protection Act (Sher, 1983) created the Underground Storage Tank (UST) program in California. The State Water Board maintains statewide authority over the program, adopting cleanup policies and regulations. The two main components of the program are permitting of operating tanks (leak prevention) which is run by the local Certified Unified Program Agencies (CUPAs), and cleanup which is shared between select CUPAs and the 9 Regional Water Quality Control Boards. Authority to require UST cleanups is found in both the Water Code and the Health and Safety Code.

The ultimate goal of the UST program is the protection of beneficial uses of water and human health from the effects associated with the release of fuel hydrocarbons from UST systems. This is accomplished by defining the extent of the contamination, identifying potential exposure pathways, determining the amount of exposure occurring and, if necessary, reducing the amount of exposure occurring. To reduce the amount of exposure contaminants may be remediated and/or the exposure routes interrupted/removed.

Currently there are nearly 16 positions in the Central Valley Regional Water Board to oversee the cleanup element of the UST program.

An important component of the UST program is the State Board's UST Cleanup Fund (CUF). The CUF is funded by a $0.02/gallon storage fee collected by the California Board of Equalization. CUF monies are used for many purposes including the reimbursement of UST release investigation and cleanup costs and the funding of Regional Board staff. Approximately 90% of the funding is provided through the CUF and the remaining 10% is provided by the federal government.

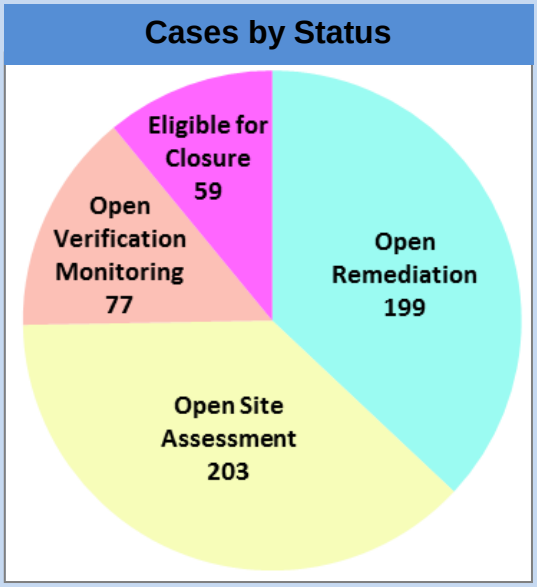
At the start of FY 17/18 there were a total of over 3300 cases (both open and closed) for which the Regional Board had regulatory responsibility. Of these cases over 83% have been satisfactorily investigated, mitigation measures taken and the facilities issued a "No Further Action Required" determination. Of the 537 cases that remain open/active 59 are identified as "Open-Eligible for Closure". The UST program is a mature program and decreasing in size as the number of UST cases closed exceeds the number of new cases coming into the program. In the past 3 years Region 5 has closed approximately 278 cases but has picked up approximately 200 new cases from local agencies. Therefore the long term view of the Regional Board program is fewer cases but more involvement in those remaining open.

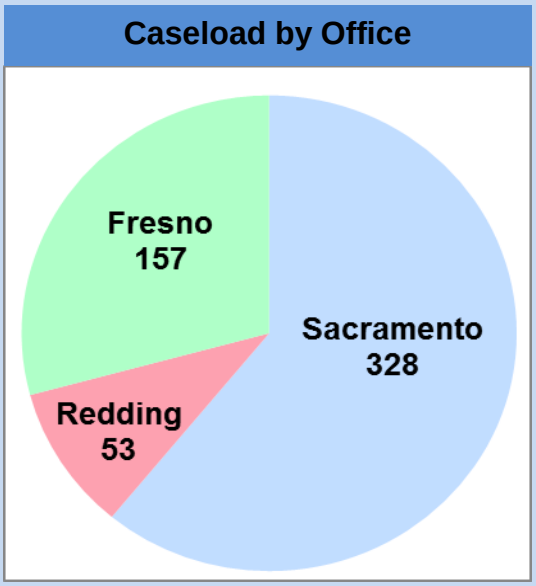
Inactive cases where there is a potential threat to human health or the environment or responsible parties are not responsive may be nominated for funding from the Emergency, Abandoned, and Recalcitrant (EAR) program. Investigation and cleanup at EAR sites will take years and require significant staff resources since in most cases there are no responsible parties and Water Board staff must develop and manages contracts, overseeing all aspects of investigation, property access and cleanup. The EAR program is funded by the CUF.

Many of the responsible parties in the UST program are small businesses who don't have experience working with the Regional Board therefore customer service and communication is very important. We do our utmost to make regular contact with responsible parties. We review every case every year to determine if it is ready for closure. If so we direct the responsible party to begin the closure process per the Low Threat Closure Policy. If the case is not ready for closure we identify the impediments and this information is included in correspondence to the responsible parties, in addition to being posted to the State Board's GeoTracker website which is available to the public. Additionally, we review and respond to all work plans and closure requests within 60 days so that projects do not stall.

Goals

The highest priority for the UST Program is to protect the public and environment from the effects of unauthorized releases from UST through the investigation and mitigation of the released constituents. Staff will continue to work with Responsible Parties to close active UST cases in as short of time needed to complete the work. When applicable, we will implement the State's Low Threat Closure Policy for USTs and concentrate work on the remaining high-threat cases. For all open cases we have identified the remaining impediments to closure and posted the findings on GeoTracker so they are available for public viewing.





Accomplishments FY 2016-2017

Performance targets for FY 16-17	Target	Accomplished
• Number of cases to be closed:	80	77
• Number of cases into active remediation:	29	29
• Issue formal enforcement orders:	18	10
• Review all open cases for possible closure	100%	100%
• Evaluate impediments to closure and update Path to Closure Plans in Geotracker for all open cases	100%	100%
• Responded to work plans and case closure requests within 60 days (295 work plans and closure requests received during year)	100%	97.6%

Unaddressed Work

During the year we substantially met all goals except for enforcement orders where we issued 67% of our beginning of the year goal. The primary reason for this is that we had an approximately 12% vacancy rate (1.6 PYs in 4 positions) due to retirements and other staff moves. This resulted in having to move work around so the top priorities as established by the State Water Resource Control Board of closing cases, moving cases into remediation and reviewing reports were met. We enter FY 2017/18 with one vacancy.

Performance Targets and Measures FY 2017-2018

The State Board performance criteria are a 10% closure rate and 10% of the cases with a status of “Site Investigation” moved to a status of “Remediation. Over the past 5 years Region 5 has averaged approximately 14% in each of these categories. In FY 2017/18 Region 5 is projected to close approximately 70 cases (13.2% of beginning of year total). We also expect to move approximately 29 cases from a status of “investigation to one of “remediation” (approximately 12% of our beginning of year cases in site investigation.

Performance targets for FY 16-17	Target
• Number of cases to be closed:	70
• Number of cases into active remediation:	24
• Issue formal enforcement orders:	16
• Review all open cases for possible closure	
• Evaluate impediments to closure and update Path to Closure Plans in Geotracker for all open cases	100%
• Responded to work plans and case closure requests within 60 days	100%

Overview

The Water Quality Certification program regulates removal or placement of materials in wetlands and waterways in the State. Examples of such projects include navigational dredging, flood control channelization, levee construction, channel clearing, fill of wetlands for development, bridge piers, docks, etc. These types of projects generally require a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (Corps), and the State's Water Quality Certification is issued pursuant to Section 401 of the Clean Water Act to certify that the project approved by the Corps will also meet State water quality requirements.

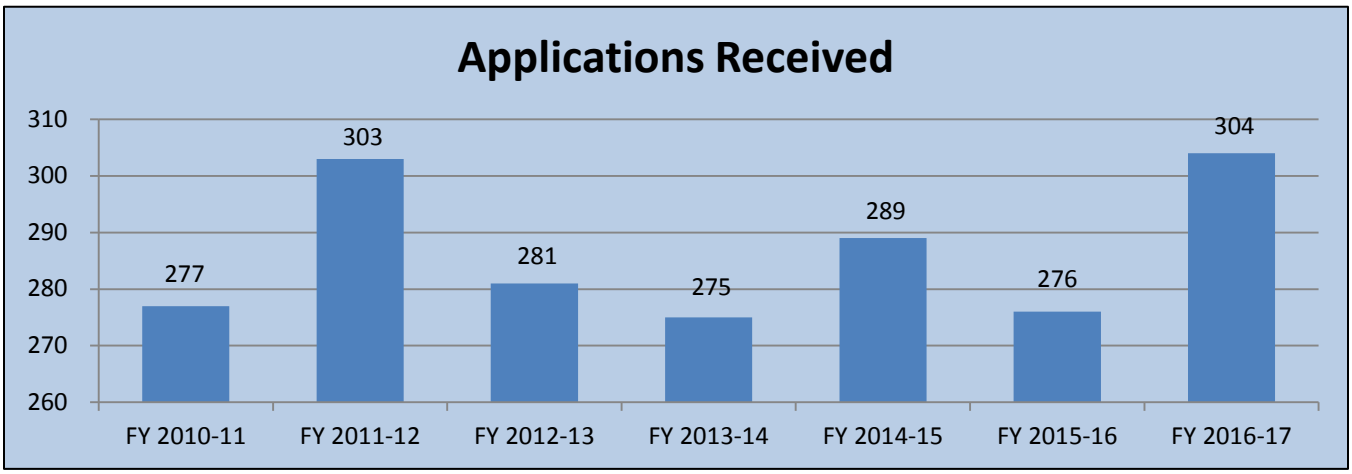
The program protects all waters, but has special responsibility for wetlands, riparian areas, and headwaters because these waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. The program is involved with protection of special-status species and regulation of hydromodification impacts. The program implements the State and Federal Wetlands No Net Loss Policies, which seeks to avoid, reduce, and mitigate impacts.

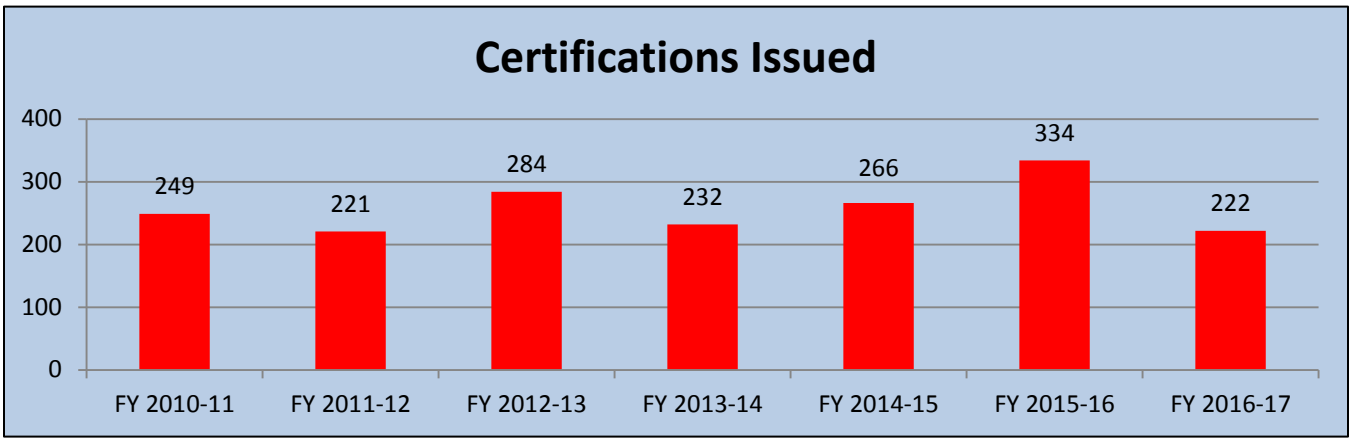
Most projects are regulated by the Regional Water Boards; however the State Water Board regulates multi-region projects and supports and coordinates the Program statewide. Regional Water Board staff issues Water Quality Certifications based on information contained in application packages. Regional Water Board staff conducts inspections of WQC projects and takes appropriate enforcement action as needed.

The Central Valley Water Board dedicates 9 PYs to implement this program.

Staff Activities

- Issuance of certifications and associated permits for non-jurisdictional waters.
- Inspection of certification projects.
- Follow up compliance/enforcement activities.
- Meetings with applicants/consultants.
- Internal/External program round tables.
- Coordination with U.S. Army Corps staff.
- Program management coordination.
- Training and Outreach to regulated community and stakeholders.
- Training of Regional Water Board staff.
- Participation in the Central Valley In-Lieu Fee Program.
- Participation in Habitat Conservation Plan programs.





Priority Projects	Accomplishments FY 2016-17	Plan FY 2017-18
-Timely issuance of certifications. Due to the high number of applications received, review and issuance of certifications takes the majority of available staff resources. Process streamlining using workload sharing, and development of new program tools such as general orders, will result in more timely issuance of certifications, and free up resources for other program priorities.	Issued 222 certifications. Modified new template to be easier to use. Shared workload across region.	Assist in development of short form template, and application tracking and data management improvements.
-Increase compliance and enforcement activities. Review of applications and issuance of certifications does not ensure that water quality and wetland resources are protected. To do this, staff field presence is required. A goal of the program is to increase the numbers of inspections and follow up compliance and enforcement activities. Streamlining in other program areas will help allow for these activities.	Conducted 13 inspections, and 15 enforcement actions, but certifications issuance workload is still limiting field activities.	Continue streamlining, and staff training and development to increase time available for field activities.
-Staff training and development. The program has a number of new supervisors and staff. In order to maximize the contributions of these new staff and make them effective, training and development activities will be conducted.	Internal and external training conducted.	Due to staff turnover, training continues to be a priority.
-Develop general order/certification for maintenance dredging.		

Performance Targets for FY 2017 – 2018

- Review 95% of applications for completeness within 30 days of receipt.
- Issue 95% of certifications within 60 days of receiving complete information.

Photo: Rio Alto ponds

Overview

The Waste Discharge to Land Program regulates discharges of waste that may affect the quality of surface and ground waters of the state. The Program includes staff from three offices: Redding, Sacramento, and Fresno. This Program is the oldest state water quality control program, and covers a wide variety of discharges. In the Central Valley, the Program primarily regulates wastewater (sewage) treatment facilities, food processing industries (including wineries), wastewater recycling, sand and gravel mines, and other industries that discharge non-hazardous wastes. A staff of 23 full-time positions currently regulates over 1,400 facilities in the Central Valley.

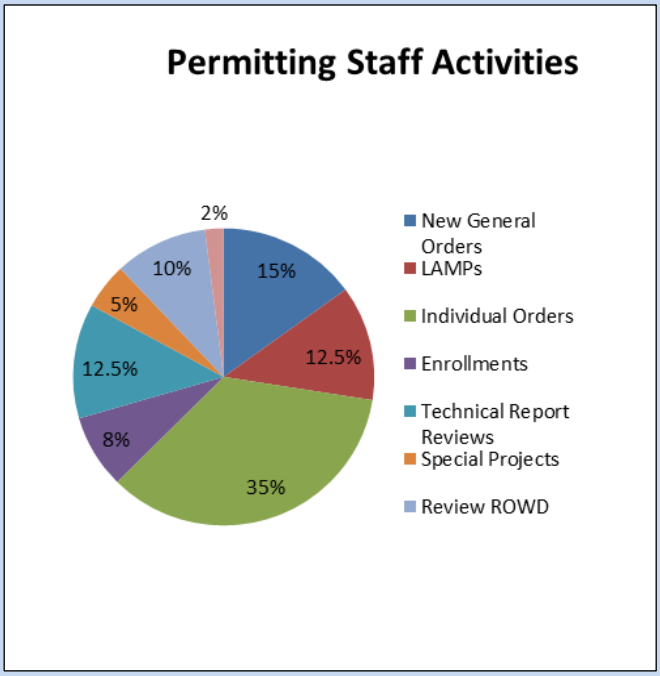
To implement this Program, Board staff review permit applications submitted by dischargers (referred to as Reports of Waste Discharge, or ROWDs), and draft permits for the discharges (referred to as Waste Discharge Requirements, or WDRs.) Any discharger proposing to discharge waste that may impact groundwater must first receive WDRs prescribed by the Board before the discharge may occur. The WDRs will include conditions and provisions that establish requirements a discharger must meet. These include numeric and/or narrative effluent and receiving water limits to protect beneficial uses of the receiving waters, prohibitions of discharge and monitoring and reporting requirements. WDRs must fully comply with all applicable laws, regulations, and policies, such as the State Anti-degradation Policy. After the WDRs have been drafted and circulated for public comment, Board staff will then present the WDRs to the Board for adoption. In addition to permit writing, staff also reviews reports, monitoring data, and other materials submitted by the discharger in compliance with their WDRs. Staff also periodically review existing WDRs and update them as necessary. Compliance and enforcement staff monitor the dischargers' compliance with their WDRs, conduct periodic inspections, and issue enforcement orders when needed.

Sometimes WDRs are written for a specific discharger (individual WDRs), and sometimes WDRs are written to regulate a similar group of dischargers (general WDRs). Currently, there are around 1,040 dischargers regulated by individual WDRs, and 390 dischargers regulated by general WDRs. The Program is also charged with developing and overseeing conditional waivers, which may be used to regulate those discharges that have the lowest threat to water quality. Conditional waivers must be reviewed once every five years so that the Board may continuously evaluate whether regulating a discharger under a waiver is appropriate. Some discharges generally fit within the category of waste discharge to land, but are large enough to merit programs of their own. See the program fact sheet for the Land Disposal (facilities requiring full containment of the waste), Confined Animal Facilities, Irrigated Lands and Oil Fields Programs.

In addition to the WDR workload, this Program is also responsible for implementing the state-wide Onsite Wastewater Treatment Systems Policy. This includes reviewing local area management plans (LAMPS) for implementation by local counties.

Goals

The primary goal of the program is to protect the quality of ground and surface waters from unreasonable degradation and to prevent pollution and nuisance conditions like odors or flies. Program achieves this goal through timely processing of applications for new or revised WDRs, updating existing WDRs to assure they stay current, and implementing timely enforcement where necessary.



Accomplishments and Status

Projects FY 2016-2017

Lean 6- Sigma: Through the end of the fiscal year, accomplished a 63% reduction in the time it takes to process permit applications. Introduced a new tracking sheet in July 2017.

Climate Change: Drafted WDR section of the *Climate Change Work Plan*. Plans to address impacts are: increase permitted use of recycled water, accelerate the adoption of anaerobic digester technology, and identify alternative treatments that have less energy demand but still protective of water quality.

Review Draft State-Wide General WDRs: State Board did not issue draft state-wide general WDRs for use in the Central Valley.

Accomplishments FY 2016-2017

	Redding		Sacramento		Fresno	
	Target	Completed	Target	Completed	Target	Completed
Permitting						
Individual WDRs	5	5	8	9	12	12
General WDRs/Waiver Enrollments	25	22	10	31	25	21
Pre-Permit Inspections	5	6	8	11	12	12
Compliance and Enforcement						
Inspections	40	39	55	64	40	46

Program Priorities for FY 2017-2018

- Continue Lean 6 Sigma Implementation and Tracking
- Geotracker Deployment to the WDR Program
- LAMP Program Review Completion
- Develop New Region-Wide General Orders
- Renew Expiring Waiver Orders
- Update WDR Program Manual

Performance Targets FY 2017-2018

	Redding	Sacramento	Fresno
Permitting			
Individual WDRs	4	11	14
General WDRs/Waivers	27	23	50
LAMP Processing[a]	1	5	3
Develop New General Orders	1	1	1
Pre-Permit Inspections	14	11	14
Compliance and Enforcement			
Inspections	28	55	40

a) All other LAMPS have been received and reviewed the previous fiscal year