

California Regional Water Quality Control Board

San Diego Region

David Gibson, Executive Officer



Executive Officer's Report

December 14, 2016

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

Part A – San Diego Region Staff Activities

1. Personnel Report

Staff Contact: Lori Costa

The Organizational Chart for the San Diego Water Board can be viewed at:
http://www.waterboards.ca.gov/sandiego/about_us/org_charts/orgchart.pdf.

Departure

Kelly Flint, a Scientific Aid in the Central Cleanup Unit, left State service on November 28, 2016. She began work at the Regional Board as a volunteer in the Compliance Assurance Unit then was hired in May 2016. Kelly expects to receive a Bachelor of Science degree in Environmental Engineering from San Diego State University in May 2017.

Recruitment

The Wetland and Riparian Protection Unit is in the process of filling their Scientific Aid vacancy. The Southern Cleanup Unit has begun the recruitment process to fill an Engineering Geologist vacancy and the Storm Water Management Unit has begun the recruitment process to fill a Student Assistant Engineer vacancy.

2. Southern California Salinity Management Symposium

Staff Contact: Julie Chan

The Southern California Salinity Coalition, the National Water Research Institute, and the Southern California Water Committee sponsored a symposium on salinity management in southern California. The symposium was held at the Metropolitan Water District of Southern California in Los Angeles on November 17. Julie Chan, Chief of the Groundwater Protection Branch, participated on two panels. The first panel addressed regulatory issues associated with salinity. Ms. Chan was joined on the panel by Santa Ana Water Board Executive Officer Kurt Berchtold, and Los Angeles Water Board Executive Officer Sam Unger. Her presentation touched on the Board's Practical Vision strategy for a sustainable local water supply, the overall condition of salinity in the San Diego Region's aquifers, the State Water Board's plan to revise the *Recycled Water Policy*, and our efforts to compel recycled water agencies to complete salt and nutrient management plans as required by the Policy.

Ms. Chan also participated on a panel addressing management of salinity in the southern California region. Her presentation focused on the San Diego Water Board's ongoing effort to update its 25 permits for recycled water projects in the region, and to revise discharge specifications for salinity and other constituents where needed to account for the increasing strength of source water quality, likely due to the drought. She also stated that better information is needed to understand how drought and climate change are affecting long-term rainfall recharge to our aquifers, and their ability to assimilate salts.

Several speakers presented information on available technology to achieve zero liquid discharge, or "ZLD" from wastewater. The recycled water technology used in southern California produces brines that are about 25 percent water. Although there is still some liquid in the resultant brines produced from ZLD technologies, they can achieve up to 96 percent recovery of water from brines. The technology is still too expensive for most applications, and does produce solid salt wastes that need to be either marketed or disposed. Despite the expense, recycled water agencies are interested in this technology because the cost of water continues to increase, the supply of imported water is less reliable, and the capacity in brine lines is fully subscribed.

3. Public Meeting Regarding Vapor Concerns from Former Ametek Facility, El Cajon

Staff Contact: Sean McClain

The San Diego Water Board participated in a public meeting with the Department of Toxic Substances Control on November 16, 2016, at the Magnolia Elementary School in El Cajon. The meeting discussed the plans to expand the vapor sampling to the adjacent mobile homes and provided an update on vapor sampling at the school. Approximately 100 people attended, including parents and representatives from local media. Translation service was provided in both Spanish and Arabic.

There was considerable interest and questions from residents in the vicinity of the school, and from those in the two adjacent mobile home parks. The Water Board explained that, based on the results of the initial testing at the school boundary, the vapor sampling will be expanded to the immediately adjacent mobile homes both north and west of the school. An AMETEK representative provided copies of the access agreement to the adjacent property owners in attendance. AMETEK will contact the remaining property owners regarding access to conduct vapor sampling.

AMETEK continues to operate an on-site groundwater extraction and ultraviolet-oxidation treatment system. The system started operation in October 2012 and has extracted and treated over seven million gallons of groundwater polluted by chlorinated solvents. AMETEK augmented the groundwater remediation system in January 2015 by installing four additional groundwater extraction wells located along the northwestern boundary of the Magnolia Elementary School property. The system's extraction and treatment rate has increased to approximately 700,000 gallons per month since the City of San Diego approved a request to increase the discharge rates to the sanitary sewer.

In addition to the remediation started in October 2012, AMETEK began in-situ chemical oxidation (ISCO) injections in August 2015 to remediate the impacted groundwater beneath the site. Plans to expand the ISCO injections to remediate the onsite groundwater plume are currently being implemented.



Former Ametek Facility and Magnolia School Location Map, El Cajon, CA.

Part B – Significant Regional Water Quality Issues

1. Status of Claude “Bud” Lewis Carlsbad Desalination Plant NPDES Permit Reissuance (*Attachment B-1*)

Staff Contact: Ben Neill

This report provides a monthly status update on the San Diego Water Board’s review of [Poseidon Resources \(Channelside\) LLC’s \(Poseidon\) Report of Waste Discharge \(ROWD\)](#) application for reissuance of the National Pollutant Discharge Elimination System (NPDES) permit for the [Claude “Bud” Lewis Carlsbad Desalination Plant \(CDP\)](#) and the development of the draft NPDES permit.

Poseidon owns and operates the CDP subject to waste discharge requirements established by the San Diego Water Board in NPDES Permit No. CA0109223, Order No. R9-2006-0065. Order

No. R9-2006-0065 expired in 2011, but remains in effect under an administrative extension until such time as it is superseded by the reissued NPDES permit.

The CDP is located adjacent to the Encina Power Station (owned by [NRG Energy](#)) on the southern shore of the [Agua Hedionda Lagoon](#) in Carlsbad, California. The CDP is the nation's largest seawater desalination plant. On November 9, 2015, the CDP began potable water production providing up to 50 million gallons of drinking water per day to customers within the [San Diego County Water Authority's](#) (SDCWA) service area. The CDP is currently designed to intake source water from Agua Hedionda Lagoon through the existing Encina Power Station intake structure.

Product Water Cost Comparison

According to the Water Purchase Agreement between Poseidon and the SDCWA (<http://www.sdcwa.org/sites/default/files/files/waterpurchaseagreement.pdf>), the price of water paid by the SDCWA varies based on a number of factors including but not limited to operating costs, electricity costs, debt service, and equity return. Currently, the SDCWA pays \$2,125 to \$2,368 per acre-foot to Poseidon for the first 48,000 acre-feet of product water. The SDCWA has the option to purchase an additional 8,000 acre-feet of product water per year from Poseidon at a lower rate. The following table provides a comparison of costs per acre-foot paid by various entities for water to the cost per acre-foot of Poseidon's desalinated seawater.

Table 1: Comparison Cost of Potable Water (in \$/acre-foot)

Poseidon- Claude "Bud" Lewis Carlsbad Desalination Plant	Metropolitan Water District of Southern California	San Diego County Water Authority	City of San Diego
\$2,125 to \$2,368 ¹	\$942 ² to \$979 ³	\$1,460 ² to \$1,547 ³	\$1,936 to \$4,357 ⁴

1. Treated water rate effective 7/1/16. The price includes the cost for treatment (\$1,760 to 1,949 per acre-foot) and delivery into the SDCWA aqueduct (\$419 per acre-foot). The low-end of the range is for the SDCWA's maximum annual purchase of 56,000 acre-feet. The high-end of the range is for SDCWA minimum annual purchases of 48,000 acre-feet.
2. Treated water rate effective 1/1/16.
3. Treated water rate effective 1/1/17.
4. Treated water rate effective 7/1/16. The price increases across four tiers based on the amount of water consumed. The prices shown reflect Tier 1 and Tier 4 pricing.

Seawater Desalination Energy and Greenhouse Gas Emission Considerations

The CDP requires electricity to produce potable water from seawater and to deliver the potable water to the SDCWA supply system. The following table compares the energy needed to produce and deliver the desalinated water to the energy required to import and treat water.

Table 2: Comparison of Energy Consumption (in kWh/acre-foot)

CDP Production	CDP Delivery	CDP Combined Production and Delivery	Imported Water Delivery and Treatment	Net Increase in Energy Consumption for CDP Water
3,467	1,507	4,974	3,416	1,558

According to section 4.2 of the 2006 Environmental Impact Report for the CDP (<http://carlsbaddesal.com/eir>), the generation of the electrical power needed to produce potable water is the most significant indirect source of greenhouse gases related to the CDP. The following table summarizes the estimated maximum direct and indirect daily emissions of greenhouse gases associated with the CDP.

Table 3: Greenhouse Gas Emissions (in pounds/day)

Emission Source	Carbon Monoxide (CO)	Reactive Organic Compounds (ROC)	Nitrogen Oxides (NOx)	Sulfur Oxides (SOx)	Particulate Matter < 10 microns (PM10)
Direct Sources (Landscaping, Vehicles)	7.21	0.74	6.68	0.01	0.24
Indirect Source (Energy Use)	285.83	20.01	59.66	32.39	62.88
Total	293.04	20.75	66.34	32.40	63.12

Poseidon has committed to several actions to offset the direct and indirect emission of greenhouse gasses including minimizing energy usage at the CDP, implementing energy recovery devices at the CDP, using on-site renewable energy, supporting reforestation projects in Rancho Cuyamaca State Park, recycling carbon dioxide used in the water treatment process, and purchasing carbon offsets.

Additional information regarding costs, energy consumption, and greenhouse gas production related to the production of potable water at the CDP is included as Attachment B-1 to this Executive Officer's Report.

NPDES Permit Development Status

The reissuance of the NPDES permit for the CDP is a high priority for the San Diego Water Board and the State Water Board (collectively referred to as Water Boards). Following are updates on key activities since the previous Executive Officer Report update¹:

- On October 21, 2016, the U.S. Fish and Wildlife Service (USFWS) released for public review and comment the draft environmental impact statement (dEIS) for the Otay River Estuary Restoration Project. The project will implement Poseidon's Marine Life Mitigation Plan to restore coastal wetlands at the south end of San Diego Bay to offset potential impingement and entrainment impacts to marine organisms caused by the CDP's use of estuarine source water. The implementation of this project was required by the San Diego Water Board as a condition of the current NPDES permit. San Diego Water Board staff have reviewed the dEIS and is preparing a comment letter. Comments on the dEIS are due to the USFWS by December 5, 2016. A copy of the dEIS is available on the USFWS website at: https://www.fws.gov/refuge/San_Diego_Bay/what_we_do/Resource_Management/Otay_Restoration.html
- On November 2, 2016, the Water Boards met with representatives from the SDCWA and Poseidon to continue discussion on technical details of the August 2016 ROWD addendum, potential design configurations, technological alternatives, and additional information needed to complete the draft permit. As a result of the meeting, Poseidon agreed to provide clarifying information on the proposed discharge location of the fish return system and marine life impacts from alternative configurations of the brine discharge.
- A meeting is tentatively scheduled with Poseidon for December 15, 2016, to continue discussions on the outstanding issues related to the development of the draft NPDES Permit.

Preparation of the draft NPDES permit is underway and portions of the draft have been completed where possible using available information. A tentative schedule for completion of the draft NPDES permit and scheduling the matter for Board action is provided in the table below. This schedule is based on the submittal of complete information by Poseidon on all technical issues identified to date and the adequacy of the submitted information.

¹ Additional information regarding the CDP can be found in Executive Officer Reports for [November 2016](#), [October 2016](#), [September 2016](#), [August 2016](#), [May 2016](#), [December 2015](#), [September 2015](#), and [June 2015](#).

Table 4: Tentative Schedule for San Diego Water Board Consideration of Adoption of the CDP NPDES Permit Reissuance

Task	Days to Complete
<p>Complete evaluation of the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life as required by Water Code section 13142.5(b).</p> <p>Complete preparation of the draft NPDES permit.</p> <p>This time period includes internal review, coordination with other regulatory agencies, and meetings to confer with Poseidon. This time period does not include holding a public workshop on the draft NPDES permit.</p>	160
Public comment period on draft NPDES permit and Water Code section 13142.5(b) determination.	30 - 45
<p>Complete analysis of public comments and prepare a response to comments document.</p> <p>Prepare agenda package for the San Diego Water Board public hearing to consider adoption of the draft NPDES permit and the Water Code 13142.5(b) determination.</p>	60-120
Conduct San Diego Water Board public hearing to consider adoption of draft NPDES permit	1

The San Diego Water Board has developed a dedicated website to inform the public about the NPDES permit reissuance for the CDP:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/regulatory/carlsbad_desalination.shtml.

In addition, an email list is available for interested persons to subscribe to at this website:

http://www.waterboards.ca.gov/resources/email_subscriptions/reg9_subscribe.shtml.

2. Commercial Agriculture Regulatory Program Update

Staff Contact: Barry Pulver

On November 9, 2016 the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) adopted the following General Orders:

- [Order No. R9-2016-0004](#), General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Dischargers that are Members of a Third-Party Group in the San Diego Region (Third-Party General Order)
- [Order No. R9-2016-0005](#), General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Dischargers Not Participating in a Third-Party Group in the San Diego Region (Individual General Order)

The General Orders require an estimated 6,000 commercial agricultural operations located on 70,000 acres of land in the San Diego Region to implement effective management practices to protect water quality. Commercial agricultural operations within the San Diego Region are required to enroll under either the Third-Party General Order or the Individual General Order by August 7, 2017.

Successful implementation of the General Orders requires an aggressive and far reaching outreach program. The purpose of the outreach program is to inform commercial agricultural operations of the requirements of the General Orders, provide compliance assistance, and encourage enrollment under the General Orders by the August 7, 2017 deadline.

The first San Diego Water Board outreach event is scheduled for December 15, 2016, during a meeting of the [Santa Margarita Watershed Nutrient Initiative – Stakeholder Group](#). The focus of this outreach event is to 1) provide the Santa Margarita Watershed Nutrient Initiative - Stakeholder Group with information regarding the General Orders, and 2) enlist the assistance of the Santa Margarita Watershed Nutrient Initiative - Stakeholder Group in spreading the word to the agricultural community on the requirements of the General Orders.

The Santa Margarita Watershed Nutrient Initiative - Stakeholder Group is composed of a broad range of stakeholders with diverse interests, formed to address nutrient water quality issues in the Santa Margarita River Watershed. The Santa Margarita Watershed Nutrient Initiative - Stakeholder Group is working with the San Diego Water Board's Restoration and Protection Planning Unit on a Total Maximum Daily Load (TMDL) development project to address eutrophic conditions in the Santa Margarita River Estuary. The General Orders, which require commercial agricultural operations to eliminate or reduce discharges of waste that cause or contribute to exceedances of water quality standards in receiving waters, will be a key component to the success of this effort.

On November 28, 2016, the State Water Board, Office of Public Affairs issued a press release regarding the adoption of the General Orders to 60 media outlets in the San Diego Region. A copy of the press release will soon be available on the State Water Board webpage at http://www.waterboards.ca.gov/press_room/press_releases/2016.shtml.

3. East County Advanced Water Purification Project Update

Staff Contact: Fisayo Osibodu

The drought-busters are here with drinking water from innovative sources! Padre Dam Municipal Water District (Padre Dam) plans to expand its Ray Stoyer Water Reclamation Facility (Ray Stoyer WRF) and construct a new Advanced Water Purification Facility.

The full scale implementation of the project will treat up to 21 million gallons per day (mgd) of wastewater generated in east San Diego County at the Ray Stoyer WRF, and produce about 15.5 mgd of purified recycled water from the Advanced Water Purification Facility (AWF). Purified recycled water from the AWF will be used to augment surface water resources in Lake Jennings and/or replenish the Santee Groundwater Basin. For surface water augmentation, purified recycled water from the AWF will be blended with imported raw water supplies in Lake Jennings before it is treated to drinking water quality at Helix Water District's Levy Water Treatment Plant. Padre Dam currently operates an Advanced Water Purification Demonstration Facility (Demonstration Facility), which produces 100,000 gallons per day of purified water for pilot scale testing of treatment processes that will be incorporated into the full scale AWF. The planned expansion of the Ray Stoyer WRF is a critical component of the East County Advanced Water Purification Project,² which is a collaboration between Padre Dam, Helix Water District (Helix WD), the County of San Diego, and the City of El Cajon.



Padre Dam Demonstration Facility

San Diego Water Board staff attended a meeting of the Independent Advisory Panel (Panel) for the project on November 18, 2016. The Panel is administered by the National Water Research Institute and provides expert peer review of the technical, scientific, regulatory, and policy aspects of the project. The panel is comprised of experts in fields such as water and wastewater treatment, toxicology, drinking water standards, epidemiology, and microbiology. The meeting was hosted by Padre Dam to update the Panel, State Water Board Division of Drinking Water (DDW) staff, San Diego Water Board staff, and other stakeholders on the project. Fisayo Osibodu, David Barker, and Joann Lim attended on behalf of the San Diego Water Board.

The Panel presented information on the following topics:

- Overview of the project goals and a schedule for implementing the three phases of the project.
- Overview of existing operations at Lake Jennings and the Helix WD Levy Water Treatment Plant.

² Additional information on the East County Advanced Water Purification Project is available at: <http://eastcountyawp.com/about-the-program/a-regional-solution/>

- Results of computer modeling to evaluate mixing and dilution of purified water in Lake Jennings under various operational and meteorological conditions.
- Proposed improvements to the Ray Stoyer WRF.
- Results of testing at the Demonstration Facility.
- Approach for ensuring the proposed discharge of purified water to Lake Jennings complies with the surface water quality objectives, with particular attention to nitrogen and phosphorus.

The San Diego Water Board's Practical Vision recognizes the need to create a sustainable local water supply that will help reduce the San Diego Region's reliance on imported water supplies. The State Recycled Water Policy establishes goals to increase the use of recycled water over 2002 levels by at least one million acre-feet by 2020, and by at least two million acre-feet by 2030. The East County Advanced Water Purification Project is consistent with the Practical Vision for a sustainable local water supply and statewide goals for increasing recycled water use. The staff will continue to update the San Diego Water Board on this item in future Executive Officer Reports.

4. San Diego Bay Shipyard Sediment Site Remedial Actions Completed

Staff Contact: Charles Cheng

The San Diego Bay Shipyard Sediment Site responsible parties have verified that sediment cleanup levels stipulated in Cleanup and Abatement Order No. R9-2012-0024 (CAO) were met in the dredge area, and sand covers successfully placed where dredging was infeasible as allowed under the CAO. According to the *Final Cleanup and Abatement Completion Report, San Diego Shipyard Sediment Site*, a total of 142,745 cubic yards of contaminated sediment was removed from the site, and 42,698 tons of cover material was placed in sloping and under pier areas. The details of the remedial activities, including sampling results, are provided in *North Shipyard Remedial Action Plan Implementation Report, July 2016* and the *Final Cleanup and Abatement Completion Report, San Diego Shipyard Sediment Site – South Shipyard, June 2014*. These reports are available on our website at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/shipyards_sediment/index.shtml
1

The next milestone of the project is to commence post-remedial monitoring in 2018 to determine if the sediment cleanup levels are maintained at the site, and if the CAO's two and five-year remedial goals are achieved.³ The Cleanup and Abatement Order requires monitoring two and five years after dredging is completed. If the 5-year monitoring shows that the remedial goals are not met, a third monitoring event at the 10-year mark is required under the CAO.

³ Remedial goals are in CAO Section D.3.c.

5. Famosa Slough Alternative Total maximum Daily Load (TMDL) Project Update

Staff Contacts: Jody Ebsen and Cynthia Gorham

The San Diego Water Board's Restoration and Protection Planning Unit (RPPU) is working with a stakeholder group comprised of the City of San Diego and Friends of Famosa Slough to develop a strategy to restore water quality in Famosa Slough so that it will support and maintain its estuarine and wildlife beneficial uses. Famosa Slough is one of the few remaining estuarine habitats along the San Diego River near its terminus into the Pacific Ocean within the City of San Diego. Famosa Slough provides habitat for shore birds and wildlife, and it is a significant feeding and resting site for migratory birds. It is managed as a wetland preserve by the City of San Diego with the help of Friends of Famosa Slough. The Friends of Famosa Slough are a local citizens group who has been instrumental in the protection, preservation, and restoration of Famosa Slough wetlands. They have worked closely with the City of San Diego to make improvements to create an area for the public's use while providing educational opportunities on the importance of wetlands.

The urban development surrounding Famosa Slough bisects the 37-acre site into two areas, a 12-acre channel and a 25-acre open water area. Famosa Slough is listed on the 303(d) list for eutrophic conditions, which are most apparent during the summer dry-weather season when excessive algal growth occurs. Eutrophication occurs when excess nutrients (nitrogen and phosphorus) enter a water body and cause dense growth of aquatic plants and algae. The intense aquatic plant and algae growth results in the depletion of oxygen in the water which can impact the health of animal populations.

PROJECT INFORMATION

Famosa Slough Nutrient TMDL		<i>Report Date</i>	December 1, 2016
		<i>Report Period</i>	September - November 2016
		<i>Overall Status</i>	Project is on track
Project Coordinator	Jody Ebsen	Project Contacts	Jody Ebsen and Cynthia Gorham
Supervisor	Cynthia Gorham, Restoration and Protection Planning Unit		
Project Description	The goal of this project is to restore the water quality so that it fully supports its most sensitive ecosystem health beneficial uses including estuarine and wildlife beneficial uses.		

Project Objective(s)	<ol style="list-style-type: none"> 1. To develop an alternative TMDL in collaboration with stakeholders to establish implementation actions through the Regional Storm Water permit and the required Water Quality Improvement Plan for the San Diego Watershed to restore Famosa Slough. 2. To understand Famosa Slough's ecological condition and calculate nutrient load reductions using models. 3. To adopt numeric targets for macroalgal biomass and dissolved oxygen for Famosa Slough which will protect its beneficial uses based on the draft Nutrient Numeric Endpoints for California Estuaries. 4. To identify measurable environmental outcomes that will demonstrate progress towards TMDL attainment of load reductions and numeric targets needed to restore the beneficial uses of Famosa Slough. 		
Key Milestones	Action	Date	Notes
	Conduct CEQA Scoping Meeting	February 2016	Completed
	Selection of Indicators for Estuarine Numeric Targets	August 2016	Completed
	Numeric Target Selection	October 2016	Completed
	Allowable Loads Determination	October 2016	Completed
	Load and Waste Allocations	October 2016	Completed
	Final Model Report and Draft Technical Report	September 2016	Delayed until December 2016 due to external party's priorities on other Water Board projects
	Complete Staff Report	October 2016	Delayed until January 2017
	Public Workshop	November 2016	Delayed until March 2017
	Board Hearing	December 2016	Delayed until May 2017
Project web site	http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/famosa_slough.shtml		

Reporting Period Events

Accomplishments during period	<ul style="list-style-type: none"> • Dissolved oxygen and macroalgae biomass values have been determined as target indicators to measure changes in the slough's condition. • A load reduction has been determined that will restore Famosa Slough to a high quality habitat condition and protect all designated beneficial uses. • Staff is working to integrate the TMDL implementation plan into the Water Quality Improvement Plan for the San Diego Watershed.
Collaboration during period	<ul style="list-style-type: none"> • Staff met with the stakeholders on September 21, October 19 and November 16, 2016.
Activities planned, but not completed	<ul style="list-style-type: none"> • Staff did not review a completed Model Report and TMDL Technical Report because it has been delayed to December 2016.
Key issues during period	<ul style="list-style-type: none"> • The modeling results provided guidance for selection of management actions, target indicators, and the appropriate target levels that have been identified to restore water quality and protect beneficial uses. We are using the Nutrient Numeric Endpoint Approach, which is a relatively new process for assessing health in California estuaries and does not have a history of precedence for setting TMDL nutrient numeric targets.
Looking Forward	
Activities planned for next reporting period	<ul style="list-style-type: none"> • Staff will finalize the TMDL Report with an implementation plan and open the public comment period. • Hold public workshop.
Key issues on the horizon	<ul style="list-style-type: none"> • Adopting an alternative TMDL that is not a Basin Plan amendment is a new process in the San Diego Region and requires developing new procedures.

6. Santa Margarita River Estuary Total Maximum Daily Load (TMDL) Project Update

Staff Contacts: Hiram Sarabia and Cynthia Gorham

Background

The San Diego Water Board's Restoration and Protection Planning Unit (RPPU) has been participating in a collaborative effort to address nutrient impairments in the Santa Margarita Estuary (Estuary), Santa Margarita River (River), and major tributaries. The Santa Margarita Watershed Nutrient Initiative Stakeholder Group (Stakeholder Group) was formed in 2012 with an ambitious agenda intended to address nutrient issues on a watershed scale. It is chaired by the County of San Diego and composed of a broad range of stakeholders, including tribes, municipalities, special districts, U.S. Marine Corps Base Camp Pendleton, and nongovernmental organizations, along with technical assistance from consultants and the Southern California Coastal Water Research Project (SCCWRP). Among its goals are identifying regulatory targets and management strategies based on the latest science and inclusive, collaborative discussions.

PROJECT INFORMATION

Santa Margarita River Estuary TMDL		<i>Report Date</i>	December 1, 2016
		<i>Report Period</i>	July 2016-November 2016
		<i>Overall Status</i>	Project is on track
Project Coordinator	Hiram Sarabia	Project Contacts	Hiram Sarabia and Cynthia Gorham
Supervisor	Cynthia Gorham, Restoration and Protection Planning Unit		
Project Description	The goal of this project is to reduce nutrient loading to the Estuary so that it fully supports its most sensitive ecosystem health beneficial uses including: EST, RARE, SPWN.		
Project Objective(s)	<ol style="list-style-type: none"> 1. To expedite the Estuary's restoration process by adopting an alternative and collaborative approach to TMDL development. 2. To assess the Estuary's ecological condition and develop watershed and estuary models to estimate necessary nutrient load reductions. 3. To adopt macroalgal biomass and dissolved oxygen numeric targets for the Estuary that protect beneficial uses based on the draft Nutrient Numeric Endpoint (NNE) Approach for Estuaries. 4. To ensure that measurable progress is made towards achieving necessary load reductions and numeric targets by establishing implementation actions through the: 1) Regional Storm Water permit and a Water Quality Improvement Plan for the Santa Margarita River Watershed (municipalities and counties), 2) Caltrans storm water permit, 3) Phase II municipal storm water permit (Camp Pendleton), and the 4) General Agricultural Waste Discharge Requirements (agricultural dischargers). 		
Key Milestones	Action	Date	Notes
	Selection of Indicators for Estuarine Numeric Targets	March 2015	Completed
	Estuary Hydrodynamic and Water Quality Modeling	December 2015	Completed
	Conduct CEQA Scoping Meeting	January 2016	Completed
	Approval of MOU	January 2016	Expected in January 2017
	Final Estuary Model Calibration Report	May 2016	Completed
	Final Model Application Report	May 2016	Completed
	Numeric Target Selection	June 2016	Completed September 2016

	Allowable Loads Determination	September 2016	Completed September 2016
	Load and Waste Load Allocations	August 2016	Expected December 2016
	Draft Staff Report	December 2016	On-Schedule
	Public Workshop and Board Hearing	2017	Likely Spring and Winter 2017, respectively
Project web site	http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/santa_margarita_river_estuary.shtml		

PROGRESS REPORT

Reporting Period Events	
Accomplishments during period	<ul style="list-style-type: none"> The stakeholder group has agreed upon TMDL numeric targets for dissolved oxygen (mg/l) and algal biomass (g dry-wt/m²) values using the draft Nutrient Numeric Endpoint Framework. These targets are used to determine TMDL total pollutant loads, allowable loads, and load reductions. The stakeholder group has agreed upon total pollutant load and waste load reductions needed to achieve the targets. The Water Board hired a replacement temporary Student Aid (Ms. Mayra Estrada) to support the development of the Estuary TMDL.
Collaboration during period	<ul style="list-style-type: none"> Facilitated meetings with watershed stakeholders, their consultants, and SCCWRP were held on July 26, August 23, and October 4, 2016. The focus has been on identifying TMDL numeric target levels and load reductions that will restore water quality and protect beneficial uses.
Activities planned, but not completed	All activities are being implemented as planned.
Key issues during period	The modeling results provided guidance for selection of management actions, target indicators, and the appropriate target levels. We are using a draft NNE approach to determine nutrient numeric endpoints for estuaries, which does not have a history of precedence and long-term study in California.
Looking Forward	

Activities planned for next reporting period	<ul style="list-style-type: none"> • Meet with Stakeholder Group on December 15, 2016 in Murrieta to provide an understanding to the stakeholders on the responsibilities that the agricultural community will have under the new Agricultural WDRs, which will be used in implementation of this TMDL. • Final load and waste load allocations (allowable load and load reduction for each responsible discharger group) will be provided. • Complete compliance monitoring framework. • Complete Draft Staff Report. • Approve MOU. • Begin peer review process.
Key issues on the horizon	<ul style="list-style-type: none"> • Developing an implementation plan that will meet the nutrient targets and load reductions within the TMDL schedule considering a portion of the pollutant load is not allocated to a discharger (i.e., natural open space and groundwater).

7. Basin Plan Triennial Review 3rd Quarter Progress Reports

Staff Contacts: Chad Loflen, Melissa Valdovinos, Michelle Santillan

Introduction

Periodic review of the Water Quality Control Plan for the San Diego Basin (Basin Plan) is required by state and federal law. California Water Code section 13240 states that Basin Plans "...shall be periodically reviewed and may be revised." Federal Clean Water Act section 303(c)(1) states that the Water Boards "...shall from time to time (but at least once each three year period...) hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards." Because federal law requires that water quality standards be reviewed every three years, the periodic review of the Basin Plan is commonly referred to as the "triennial review."

The San Diego Water Board concluded its most recent Basin Plan Triennial Review in May 2015. The purpose of the review was to identify needed updates and revisions to water quality standards and other elements of the Basin Plan. The product of the review is a priority list of suggested projects, which may result in Basin Plan revisions, and that serve as the basis of a three-year work plan. The priority list was endorsed via [Resolution No. R9-2015-0043](#).

The Tier 1 priority Basin Plan review projects include:

1. Biological Objectives for Water Bodies in the San Diego Region
2. Chollas Creek Metals Site Specific Water Effect Ratio (WER)
3. Evaluation of Contact Water Recreation (REC-1) Water Quality Objectives and Methods for Quantifying Exceedances

Included below are progress reports for the Tier 1 projects. More information on the Basin Plan review process and results is available at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/tri_review.shtml

ISSUE 1: BIOLOGICAL OBJECTIVES FOR WATER BODIES IN THE SAN DIEGO REGION

1.A. ISSUE 1 PROJECT INFORMATION

Biological Objectives for Water Bodies in the San Diego Region		<i>Report Date</i>	December 1, 2016
		<i>Report Period</i>	September 2016- November 2016
		<i>Overall Status</i>	Project is on track
Project Coordinator	Chad Loflen	Project Contacts	Chad Loflen and Betty Fetscher
Supervisor	Jeremy Haas, Healthy Waters Branch		
Project Description	The purpose of this project is to develop biological water quality objectives for the attainment of beneficial uses of inland surface waters.		
Project Objective(s)	<ol style="list-style-type: none"> 1. To promote biological integrity of all surface waters. 2. To preserve high quality streams, including non-perennial streams. 3. To use biological integrity to assess the condition of surface waters where the science is already developed and to add types of waters as science is developed. 4. To better protect and restore altered streams from predictable hydrologic or physical stressors. 5. To prevent further biological degradation of streams that have suffered from large scale hydrologic and physical stressors. 		
Triennial Review Commitments	Basin Plan Amendment should: <ol style="list-style-type: none"> 1. Incorporate a narrative biological objective for water bodies in the San Diego Region. 2. Establish numerical measures by which to interpret the narrative objective. 		
Key Milestones	Action	Date	Notes
	Public informational meeting	Fall 2015	Held with CEQA scoping meeting July 2016
	Draft Technical Reports complete	July-Sept 2016	Delayed to Spring 2017
	Public Workshop	Summer 2016	Project CEQA Scoping Meeting held July 28, 2016
	Public and Peer Review Submission	Oct-Dec 2016	Delayed to Spring 2017
	Board Hearing	Late 2017	
Project web site	http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/bio_objectives/ Lyris list: http://www.waterboards.ca.gov/resources/email_subscriptions/reg9_subscribe.shtml		

1.B PROGRESS REPORT: Biological Objectives

Reporting Period Events	
Accomplishments during period	<ul style="list-style-type: none"> • Continued analysis of results from non-perennial streams surveys • Regional Board adoption of Clean Water Act Integrated Report for the San Diego Region that included California Stream Condition Index (CSCI) scores that: <ol style="list-style-type: none"> 1. Identified waterbodies where scores indicated associated beneficial uses were met 2. Identified waterbodies where degradation and impairment was evident using CSCI scores combined with chemistry and physical habitat evaluations • Project leads have begun drafting the technical reports for the project • Received state funding to continue non-perennial stream assessment work in degraded systems
Collaboration during period	<ul style="list-style-type: none"> • Project leads attended the annual California Aquatic Bioassessment Workgroup conference in Davis, California. • Project leads were in regular communication with State Water Board staff working on a statewide Implementation Plan for Assessing Biological Integrity in Surface Waters • Project leads were in regular communication with State Water Board staff on inclusion of biological data in the California 303(d)/305(b) Integrated Report
Activities planned, but not completed	None. Commencement of work on the technical reports was delayed due to competing demands for staff time for the Clean Water Act Integrated Report.
Key issues during period	<ul style="list-style-type: none"> • Project team has been focused on using and presenting bioassessment data in the Integrated Report in a meaningful way • Project team continues to pursue potential approaches for conducting economic considerations to satisfy Water Code section 13241 and CEQA
Looking Forward	
Activities planned for next reporting period	<ul style="list-style-type: none"> • Continue to coordinate with State Water Board • Work on draft Basin Plan amendments, including technical report and Substitute Environmental Document
Key issues on the horizon	<ul style="list-style-type: none"> • External resources may be required to complete economic consideration assessment

Issue 2: CHOLLAS CREEK METALS SITE SPECIFIC WATER EFFECT RATIO**2.A. ISSUE 2 PROJECT INFORMATION**

Chollas Creek Metals Site Specific Water Effect Ratio (WER)		<i>Report Date</i>	December 1, 2016
		<i>Report Period</i>	September-December 2016
		<i>Overall Status</i>	Project is on track
Project Coordinator	Melissa Valdovinos	Project Contact	Melissa Valdovinos
Supervisor	Cynthia Gorham, Restoration and Protection Planning Unit		
Project Description	The purpose of this project is to Revise the Basin Plan based upon the results of completed water effects ratios (WERs) for Chollas Creek dissolved copper and dissolved zinc prepared by the City of San Diego.		
Project Objective(s)	<ol style="list-style-type: none"> 1. Use site-specific data to revise total maximum daily loads (TMDLs) for dissolved copper and dissolved zinc in Chollas Creek. 2. Protect beneficial uses of Chollas Creek and downstream waters. 		
Triennial Review Commitments	<ol style="list-style-type: none"> 1. Amend the Basin Plan to establish site-specific and chemical-specific WERs to be incorporated into the water quality objectives for toxic pollutants in Chollas Creek, and to revise the dissolved copper and zinc WERs in the Chollas Creek Metals TMDLs. 2. The Basin Plan should also be amended to clarify the application of WERs in the California Toxics Rule (CTR) when developing numeric water quality objectives for toxic pollutants. 		
Key Milestones	Action	Planned Date	Notes
	Hold CEQA scoping meeting	Held September 2015	Approximately 20 attendees
	Submit documents for peer review	Completed June 2016	Two external peer reviewers
	Receive peer review comments	Received September 2016	
	Finalize staff/technical report	October 2016	Completed
	Board hearing	December 2016	Scheduled for Dec 14, 2016
Project web site	http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/basinplan_wer.shtml		

2.B ISSUE 2 PROGRESS REPORT: Chollas Creek WER

Reporting Period Events	
Accomplishments during period	Received and responded to peer review comments. Received and responded to public comments. Prepared agenda materials for Board’s consideration on December 14.
Collaboration during period	Met with non-governmental organizations in November to discuss their comments.
Activities planned, but not completed	n/a
Key issues during period	Staff asked for, and received, confirmation from peer reviewers that they reviewed the material supporting our conclusion that downstream San Diego Bay waters would not be adversely affected.
Looking Forward	
Activities planned for next reporting period	If the Board adopts the WER Basin Plan Amendment, staff will next submit the material to the State Board for its approval.
Key issues on the horizon	After State Board approval, staff will submit to USEPA for its approval. Then, staff will request that State Board revise its general NPDES permits accordingly.


ISSUE 3: EVALUATION OF CONTACT WATER RECREATION (REC-1) WATER QUALITY OBJECTIVES AND METHODS FOR QUANTIFYING EXCEEDANCES

3.A. ISSUE 3 PROJECT INFORMATION

Evaluation of Contact Water Recreation (REC-1) Water Quality Objectives and the Methods for Quantifying Exceedances		<i>Report Date</i>	December 1, 2016
		<i>Report Period</i>	September 2016-November 2016
		<i>Overall Status</i>	Project is experiencing delays
Project Coordinator	Michelle Santillan	Project Contacts	Michelle Santillan and Cynthia Gorham
Supervisor	Cynthia Gorham, Restoration and Protection Planning Unit		
Project Description	The project purpose is to determine whether and to what extent data supports amending the REC-1 objectives, implementation provisions for applicable TMDLs, or the TMDLs themselves. Then, as appropriate, to develop recommendations for carrying out such amendments. Results of the evaluation may include Basin Plan amendments to water quality objectives or the Bacteria TMDLs, and/or other Board actions.		

Project Objective(s)	<ol style="list-style-type: none"> 1. To protect REC-1 beneficial uses; 2. To adopt new and/or updated regulations based upon the latest technical findings and scientific understanding; 3. To facilitate effective use of resources by regulated parties; and 4. To ensure judicious use of San Diego Water Board resources. 		
Triennial Review Commitments	<p>Staff commitments to:</p> <ol style="list-style-type: none"> 1. Continue participating on related technical, scientific, and regulatory advisory groups. 2. Conduct a public workshop during fiscal year 2015-16 following community outreach on applicable science, particularly in relation to selection of indicators and compliance with objectives in wet weather. 3. Seek a third-party cost-benefit analysis regarding compliance with regulations of the San Diego Water Board, with a specific focus on the infeasibility of meeting wet-weather TMDL water quality objectives. 		
Key Milestones	Action	Planned Date	Notes
	MOU with MS4 Copermittee working group	November 2015	Finalized in October 2016
	Cost-benefit study public scoping meeting	August 2015	Held September 16, 2015
	REC-1 public workshop	Spring 2016	Planned for April 2017
	Cost-benefit analysis draft work plan public meeting	August 31, 2016	Held August 31, 2016
	Cost-benefit analysis completed	Spring 2017	Expected May 2017
	Staff technical reports drafted	May 2017	Expected Fall 2017
	Board hearing for any recommended changes	2018	May require CEQA and peer review processes.
Project web site	http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/issue3.shtml		

3.B ISSUE 3 PROGRESS REPORT – Rec-1 Water Quality Objectives

Reporting Period Events	
Accomplishments during period	<ul style="list-style-type: none"> • The draft Cost-Benefit Analysis work plan was released for public review and a 30-day comment period from August 17, 2016 to September 16, 2016. The Cost-Benefit Analysis focuses on the wet weather targets and implementation for TMDLs adopted to address impairments of REC-1 water quality objectives. One comment letter was received. • A public meeting to receive comments on the draft Cost-Benefit Analysis workplan was held at the Water Board office on August 31, 2016. The meeting was attended by approximately 25 people from local government, consulting, and non-governmental organizations. There were questions and discussion about the scope of the study, the methodology being used, data sources, policy decisions, and the overall process.  <ul style="list-style-type: none"> • The draft Cost-Benefit Analysis workplan, public comments received, and a meeting summary has been posted on the project website.
Collaboration during period	<ul style="list-style-type: none"> • Staff is actively participating in a TMDL stakeholder working group and continues to participate and track various technical studies that are currently underway that can inform the selection of pathogen indicators and objectives. • Staff participated in Cost-Benefit Analysis steering committee meetings on September 28, October 25, and November 16, 2016. • The Memorandum of Understanding (MOU) between the San Diego Water Board and the County of San Diego, County of Orange, and the City of San Diego was finalized in October 2016. The purpose of the MOU is to memorialize commitments between the parties including, but not limited to, using the best available science and information to facilitate potential updates.
Activities planned, but not completed	n/a

Key issues during period	none
Looking Forward	
Activities planned for next reporting period	The draft Cost Benefit Analysis report is now expected to be completed in March 2017. A public meeting will be scheduled to discuss the results in Spring 2017.
Key issues on the horizon	The State Board plans to release a draft staff report on statewide Bacteria Objectives in Fall 2016 or Spring 2017.

8. Waivers: Enrollment and Stakeholder Outreach

Staff Contact: Roger Mitchell

The San Diego Water Board currently controls the discharge of 121 low threat projects in the region through implementation of the 12 conditional waivers (waivers) of waste discharge requirements. Prescribed in Order No. R9-2014-0041,⁴ the waivers are an efficient and prudent use of the Board's authority, allowing it to focus its limited resources on higher-threat priorities while protecting water quality from low-threat discharges. The waivers also serve the public by providing a tool that allows low-threat projects to comply with the Water Code without the need to develop costly and time-consuming individual waste discharge requirements. The 12 waivers are listed below.

Waiver No. 1: Discharges from On-site Graywater Disposal Systems

Waiver No. 2: Discharges to Land of Recycled Water

Waiver No. 3: Miscellaneous "Low Threat" Discharges to Land

Waiver No. 4: Discharges of Winery Process Water to Lined Evaporation Ponds at Small Wineries

Waiver No. 5: Discharges of Waste to Land at Composting Facilities

Waiver No. 6: Discharges from Silvicultural Operations

Waiver No. 7: Discharges from Animal Operations

Waiver No. 8: Discharges from Aquatic Animal Production Facilities

Waiver No. 9: Discharges of Slurries to Land

Waiver No. 10: Discharges/Disposal of Solid Wastes to Land

Waiver No. 11: Aerially Discharges Wastes Over Land

Waiver No. 12: Discharges of Emergency/Disaster Related Wastes

⁴ http://www.waterboards.ca.gov/rwqcb9/water_issues/programs/waivers/waivers.shtml

Figure 1 illustrates the historical distribution of waiver enrollment for the 143 projects enrolled in the 12 waivers since their adoption by the Board in 2014.⁵ The stacked bars show the time periods in which projects were enrolled. In December 2014, 55 projects had been enrolled in the newly adopted waivers. By December 2015, 57 additional projects were enrolled. Thirty one new projects were enrolled by December 2016.

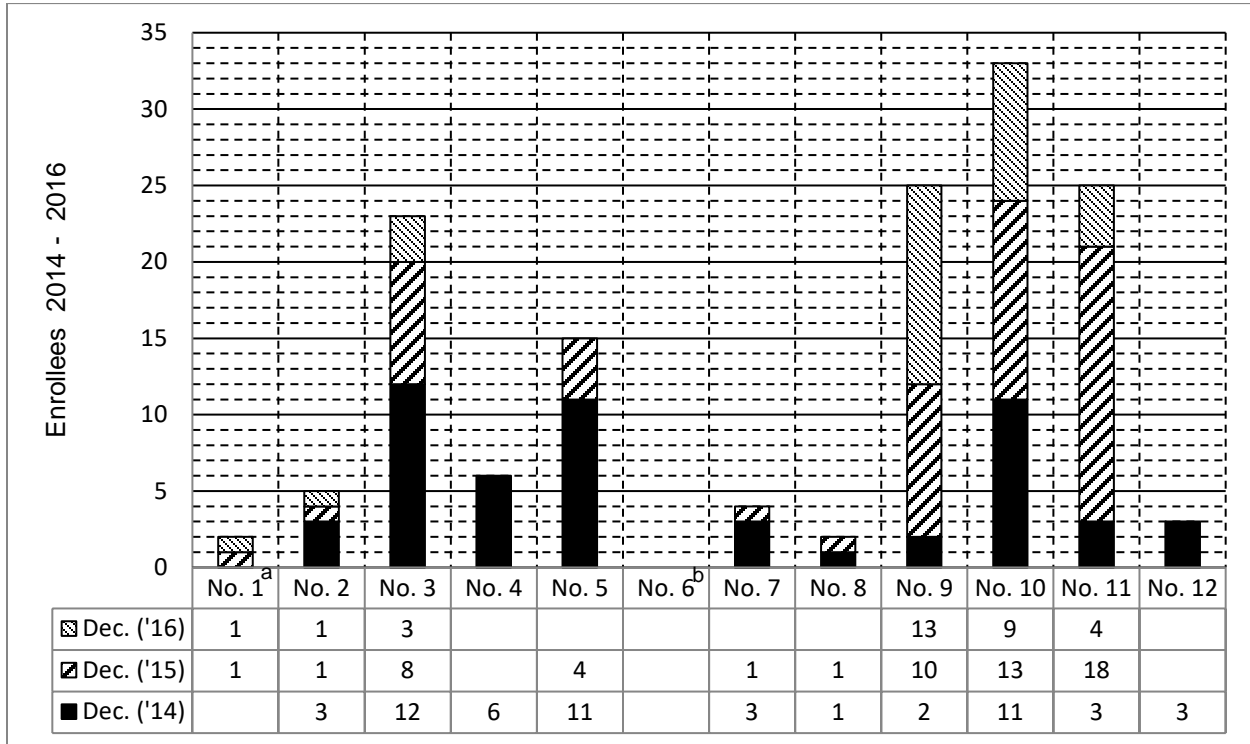


Figure 1: Waiver Enrollment and Distribution.

a – Waiver No. 1, the Onsite Graywater Disposal Waiver requires dischargers to submit a notice of intent (NOI) for enrollment only when the discharger proposes to discharge graywater to land, and subject to the Plumbing Code Graywater Standards.

b – Waiver No. 6, the Silvicultural Waiver requires the U.S. Forest Service to submit an NOI only when directed by the San Diego Water Board.

Staff continues to maintain an email distribution list as the principal mechanism for providing stakeholders with information on the waivers. This past year, staff collaborated with industry leaders to develop strategies to get information on waivers out to people whose projects can be assisted or streamlined through waiver enrollment. One such effort on outreach to the construction community was described in the [June Executive Officer's Report](#).

⁵ Enrollment of many of these projects was terminated upon completion of the project. As mentioned above, 121 projects are currently enrolled in the waivers.

9. Status Report on Review of Environmental Project Applications (SEPs and ECAs)

Staff Contact: Chiara Clemente

To meet the goals of San Diego Board Resolution [R9-2015-0020](#),⁶ staff solicited and is now reviewing proposals for consideration in the creation of a pre-approved Project List to be made available to entities that elect to settle an administrative civil liability and fund an environmental project. A list of projects that staff will propose for approval will be brought to the Board for consideration at the February 2017 Board meeting.

According to the State Water Board's Policy on Supplemental Environmental Projects (i.e., [SEP Policy](#)), dischargers that have been assessed a monetary penalty by the San Diego Water Board may satisfy up to 50 percent of the total liability by funding an eligible Supplemental Environmental Project (SEP) or Enhanced Compliance Action (ECA). ECAs are further defined in the State Board's [Enforcement Policy](#). That portion of the liability is initially suspended and then dismissed when the discharger can demonstrate successful completion of the proposed project(s). A discharger can either conduct the SEP or ECA itself, or contract with a third party for completion of the project.

Following a public workshop in July 2016 and a four month call for proposals, staff received 42 proposals. Three of these projects focus on the removal of trash, 21 focus on stream or wetland restoration including invasive plant removal, 7 focus on research or design studies, 12 focus on monitoring, and 7 focus on education and outreach. Of the 42 submittals, 13 appear to provide benefit to a disadvantaged community. Many of the project proposals contain one or more of the above mentioned components.

More information about the solicitation process is available on the Board's [enforcement web-page](#), where the list of proposed projects will be posted.

10. Enforcement Actions for October 2016 (Attachment B-10)

Staff Contact: Chiara Clemente

During the month of October, the San Diego Water Board issued 26 written enforcement actions as follows: 2 Administrative Civil Liabilities in the form of Expedited Payment Letters, and 24 Staff Enforcement Letters. A summary of each enforcement action taken is provided in the attached Table (Attachment B-10). The State Water Board's [Enforcement Policy](#) contains a brief description of the kinds of enforcement actions the Water Boards can take.

⁶ "A Resolution in Support of Funding Projects that Further the Practical Vision Priorities with Consideration to Environmental Justice and Disadvantaged Communities and the Recovery of Streams, Wetlands and Riparian Systems"

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

State Water Board Office of Enforcement webpage:

http://www.waterboards.ca.gov/water_issues/programs/enforcement/.

California Integrated Water Quality System (CIWQS):

http://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml.

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

11. Sanitary Sewer Overflows and Transboundary Flows from Mexico in the San Diego Region – September 2016 (*Attachment B-11*)

Staff Contacts: Dat Quach and Joann Lim

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

The information below summarizes SSO spills and transboundary flows in the San Diego Region reported during **September 2016**:

Sewage Collection System SSO Spills	Private Lateral SSO Spills	Transboundary Flows from Mexico
10 spills reported, totaling 9,401 gallons (860 gallons reached surface waters or a tributary storm drain). There was one closure of a recreational area associated with these spills ⁷ .	15 spills reported, totaling 3,894 gallons (95 gallons reached surface waters or a tributary storm drain). No closures of beaches or other recreational areas due to these spills were reported.	Two dry weather transboundary flow events, totaling 690,390 gallons were reported (690,390 gallons reached surface water). No closures of beaches or other recreational areas due to these flow events were reported ⁸ .

⁷ South Coast Water District spilled 860 gallons of raw sewage to Dana Point Harbor on September 17, 2016. The Dana Point Harbor from "F" through "O" docks was closed from September 17 to September 19, 2016.

⁸ Mr. Steve Smullen of the USIBWC reported that it does not appear that flow reached the Dairy Mart Road Bridge.

Sanitary Sewage Overflows (SSOs)

State agencies, municipalities, counties, districts, and other entities (collectively referred to as public entities) that own or operate sewage collection systems report SSO spills through an on-line database system, the *California Integrated Water Quality System (CIWQS)*. These spill reports are required under the [Statewide General SSO Order](#)⁹, the [San Diego Region-wide SSO Order](#)¹⁰, and/or individual National Pollutant Discharge Elimination System (NPDES) permit requirements. Some federal entities¹¹ report this information voluntarily. The SSO reports are available to the public on a real-time basis at the following State Water Board webpage:

https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=sso_main.

Details on the reported SSOs are provided in the following attached tables (Attachment B-11) titled:

- Table 1: September 2016 - Summary of Public and Federal Sanitary Sewer Overflows in the San Diego Region.
- Table 2: September 2016 - Summary of Private Lateral Sewage Discharges in the San Diego Region.

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

Transboundary Flows

Water and wastewater in the Tijuana River and from a number of canyons located along the international border ultimately drain from Tijuana, Mexico into the U.S. The water and wastewater flows are collectively referred to as transboundary flows. The U.S. Section of the International Boundary and Water Commission (USIBWC) has built canyon collectors to capture dry weather transboundary flows from some of the canyons for treatment at the South Bay International Wastewater Treatment Plant (SBIWTP), an international wastewater treatment plant located in San Diego County at the U.S./Mexico border. Dry weather transboundary flows that are not captured by the canyon collectors for treatment at the SBIWTP, such as flows within the main channel of the Tijuana River, are reported by the USIBWC

⁹ State Water Board Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* as amended by Order No. WQ 2013-0058-EXEC, *Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*.

¹⁰ San Diego Water Board Order No. R9-2007-0005, *Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region*.

¹¹ Marine Corp Base Camp Pendleton reports sewage spills to CIWQS as required by its individual NPDES permit, Order No. R9-2013-0112, NPDES Permit No. CA0109347, *Waste Discharge Requirements for the Marine Corps Base, Camp Pendleton, Southern Regional Tertiary Treatment Plant and Advanced Water Treatment Plant, Discharge to the Pacific Ocean via the Oceanside Ocean Outfall*. The U.S. Marine Corps Recruit Depot and the U.S. Navy voluntarily report sewage spills through CIWQS.

pursuant to [Order No. R9-2014-0009](#), the NPDES permit for the SBIWTP discharge. These uncaptured flows can enter waters of the U.S. and/or State, potentially polluting the Tijuana River Valley and Estuary, and south San Diego beach coastal waters.

Details on the reported transboundary flows are provided in the attached table (Attachment B-11) titled:

- Table 3: September 2016 - Summary of Transboundary Flows from Mexico into the San Diego Region.

According to the 1944 *Water Treaty for the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande* and stipulations established in [IBWC Minute No. 283](#), the USIBWC and the Comisión Internacional de Limites y Aguas (CILA)¹² share responsibility for addressing border sanitation problems, including transboundary flows. The USIBWC and/or CILA have constructed and are operating several pump stations and treatment plants to reduce the frequency, volume, and pollutant levels of transboundary flows. This infrastructure includes but is not limited to the following:

- The SBIWTP, located just north of the U.S./Mexico border, which provides secondary treatment for a portion of the sewage from Tijuana, Mexico and dry weather runoff collected from a series of canyon collectors located in Smuggler Gulch, Goat Canyon, Canyon del Sol, Stewart's Drain, and Silva Drain. The secondary-treated wastewater is discharged to the Pacific Ocean through the South Bay Ocean Outfall, in accordance with Order No. R9-2014-0009, NPDES No. CA0108928.
- Several pump stations and wastewater treatment plants in Tijuana, Mexico.

The River Diversion Structure and Pump Station CILA divert dry weather flows from the Tijuana River at a point just south of the international border to the Pacific Ocean, at a point approximately 5.6 miles south of the U.S./Mexico border. The River Diversion Structure is not designed to collect wet weather flows and any flows over 1000 liters per second (lps).

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

1. Harmful Algal Blooms in California and Resources for Addressing Them

Staff Contacts: Betty Fetscher and Carey Nagoda

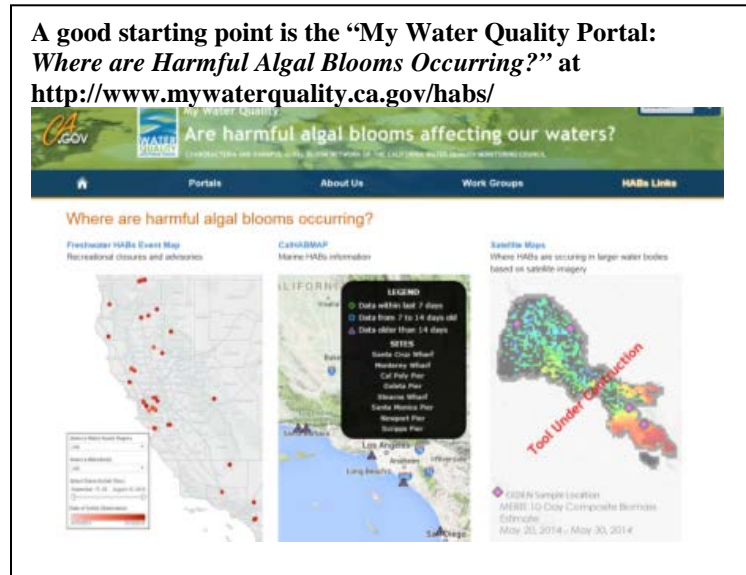
Harmful algal blooms (HABs) are natural phenomena that can be exacerbated by human activity. They involve the proliferation of algae to an extent that causes problems for humans and/or other animals. At the November 2016 Board meeting, Board Member Olson requested information on the status of HABs, and specifically related to cyanobacteria (“blue-green algae”), in the San Diego Region. Statewide and regional maps are now available online for viewing where and when HABs have been *reported* (see first three links at end of this text). However, reporting is voluntary, and since HABs are episodic, ephemeral, and often go unnoticed, reported HABs

¹² The Mexican section of the IBWC.

likely represent only a fraction of what is actually occurring at any given time. Nonetheless, a recent staff outreach effort to regional lake/reservoir managers has indicated that cyanobacterial blooms of varying degrees of severity have occurred this year at several locations, including: Lindo Lake, Lakes Hodges and Morena, Barrett and Diamond Valley reservoirs, and a portion of the San Diego River going through Mast Park in Santee.

Under conducive conditions, any water body can potentially harbor a HAB event, which is of concern for several reasons relating to beneficial uses:

1. HABs often produce toxins (*potentially affected beneficial uses include: MUN, AGR, AQUA, COMM, REC-1*),
2. They can lead to hypoxia (*WARM, COLD, WILD, EST*),
3. They sometimes produce compounds causing foul odors and/or tastes (*MUN, REC-2*),
4. They may entrain wildlife, block light from reaching lower depths, or reduce wildlife access to breeding sites (*SPWN*), and
5. They can be unsightly (*REC-2*).



HABs may manifest as aggregations of plankton in the water-column, scums on the water surface, or extensive mats/globules on stream or pond bottoms, and culprit species may be single-celled or multicellular. In San Diego Region, freshwater HABs typically involve cyanobacteria. In addition, coastal brackish and marine waters may support blooms of diatoms that can produce the toxin domoic acid or dinoflagellates that can produce saxitoxin (causing paralytic shellfish poisoning), or okadaic acid (diarrhetic shellfish poisoning).

HABs and their associated toxins have increased globally in geographic distribution, frequency, duration, and severity, including recent blooms of a “golden alga” that has caused [fish kills in Southern California](#) inland water bodies and elsewhere. A variety of anthropogenic factors are known or suspected to have driven recent increases in HABs, including [nutrient](#) (nitrogen and phosphorus) and organic matter over-enrichment; climate change, with increased temperatures and salinity, lake vertical stratification, and water residence times (stagnation), and attenuation of scouring flows; as well as shifts toward more alkaline pH.

The San Diego Water Board has been involved in several types of HABs-related monitoring and [research](#) in recent years, including surveys of blooms and algal toxins in [lentic](#) and [lotic](#) water bodies. Results suggest that algal toxins are produced commonly throughout the region. Although San Diego Water Board does not have a dedicated HABs monitoring program, staff have been working with the State Water Board to help test assessment methods and develop approaches to responding to HAB events in an effort to provide water-body managers with guidance on how to protect the public.

More information on HABs can be found at the following:

State Water Board: <http://www.mywaterquality.ca.gov/habs/index.html>

SCOOS: <http://www.sccoos.org/data/habs/>

HABMAP: <http://www.habmap.info/data.html>

EPA: <https://www.epa.gov/nutrient-policy-data/cyanohabs>

USGS: http://pubs.usgs.gov/fs/2006/3147/pdf/FS2006_3147.pdf

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

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

December 14, 2016

APPENDED TO EXECUTIVE OFFICER'S REPORT

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

Action Agenda Item	Action Type	Draft Complete	Written Comments Due	Consent Item
January 2017				
<i>No Meeting Scheduled</i>				
February 8, 2017				
<i>San Diego Water Board</i>				
Resolution Designating San Diego Metropolitan Transit System (MTS) as a Small MS4 and subject to the requirements of the statewide Phase II Municipal Storm Water Permit (<i>Felix</i>)	Resolution	95%	9-Jan-2017	Likely
NPDES Permit Reissuance for the Point Loma Waste Water Treatment Plant, Part Two of a Joint Hearing with USEPA (<i>Lim</i>)	NPDES Permit Reissuance (adoption consideration hearing)	0%	21-Dec-2016	Maybe
2016 Accomplishments and Operation Planning Preview for 2017 (<i>Gibson</i>)	Information Item	NA	NA	NA
Tentative Resolution Adopting a List of Supplemental Environmental Projects (<i>Clemente</i>)	Tentative Resolution	10%	29-Nov-2016	No
Election of Regional Board Chair and Vice-Chair (<i>Gibson</i>)	NA	NA	NA	No
March 8, 2017				
<i>San Diego Water Board</i>				
Resolution of Commitment to an Alternative Process for Achieving Water Quality Objectives for Biostimulatory Substances in Famosa Slough (<i>Ebsen</i>)	TBD	5%	TBD	Likely
NPDES Permit Modification of Waste Discharge Requirements for the South Orange County Wastewater Authority (SOCWA) Discharge to the Pacific Ocean Through the San Juan Creek Ocean Outfall (<i>Lim</i>)	NPDES Permit Amendment	90%	TBD	Likely
Update on Education and Outreach Efforts of the Storm Water Copermittees (<i>Walsh</i>)	Information Item	NA	NA	NA
Update on the Tijuana River Valley Recovery Team 5 Year Action Plan (<i>Valdovinos</i>)	Information Item	NA	NA	NA
Resolution Endorsing Key Uses at Key Areas in the San Diego Region (<i>Posthumus</i>)	Tentative Resolution	50%	TBD	No

Agenda Items Requested by Board Members

Requested Agenda Item	Board Member	Status
June 24, 2016		
Workshop on low dissolved oxygen conditions in the San Diego River	Strawn	
Information Item regarding high levels of naturally occurring elements in groundwater when they interact with other issues.	Olson	
August 12, 2015		
Information item regarding data supporting Basin Plan Water Quality Objectives	Olson	
December 16, 2015		
San Diego River restoration and land acquisition workshop	Strawn	
August 10, 2016		
SCCWRP Flow Recovery Project Update	Strawn	
November 9, 2016		
Monthly Updates on Cost Benefit Analysis	Abarbanel	Executive Officer's Report
Storm Water Education and Outreach by Copermittees	Abarbanel	Executive Officer's Report
Modern Monitoring Workshop	Abarbanel	To be held in Feb. or March 2017
Magnolia Elementary (Ametek) Cleanup	Warren	Executive Officer's Report



Seawater Desalination in the San Diego Region

The San Diego County Water Authority (Water Authority) added desalinated seawater to its diversified water supply portfolio in December 2015 with the start of commercial operations at the nation's largest seawater desalination plant. This new, drought-proof supply reduces the region's dependence on water from the Colorado River and Sacramento-San Joaquin Bay-Delta that is vulnerable to droughts, natural disasters and regulatory restrictions.

In November 2012, the Water Authority approved a 30-year Water Purchase Agreement with Poseidon Water for the purchase of up to 56,000 acre-feet of desalinated water per year. This is enough water to meet about 8 percent of the San Diego region's projected water demand in 2020. Poseidon Water (Poseidon) is a private, investor-owned company that develops water and wastewater infrastructure. Poseidon built the Claude "Bud" Lewis Carlsbad Desalination Plant (Carlsbad Desalination Plant) and a 10-mile conveyance pipeline to deliver desalinated water to the Water Authority's Second Aqueduct in San Marcos. Once the construction was complete, Poseidon assumed responsibility for operation and maintenance of the desalination plant, and the Water Authority assumed responsibility for operation and maintenance of the conveyance pipeline.

The 30-year Water Purchase Agreement assigns appropriate risks to the private sector while keeping costs for water rate payers as low as possible. The agreement transfers to Poseidon and its investors the risks associated with design, construction and operation of the desalination plant. It also transfers to Poseidon responsibility for making the debt service payments on the conveyance pipeline if the Carlsbad Desalination Plant is not meeting its production requirements.

Cost of Water

Water from the Carlsbad Desalination Plant is more expensive than the region's traditional imported water sources, but it has the significant advantages of being drought-proof and locally controlled. The plant also is south of the major Southern California fault lines, providing added water supply security in case an earthquake severs imported water supply lines.

The cost of desalinated water from the plant has been factored into the Water Authority's 2016 water rates. This new water supply from the Pacific Ocean costs the typical homeowner about \$5 per month.

The Water Purchase Agreement sets the price of water from the Carlsbad Desalination Plant at \$2,125 to \$2,368 per acre-foot in 2016, depending on how much water is purchased annually. The first 48,000 acre-feet of water purchased each year will pay for the fixed costs of the project and the variable costs of water production. The Water authority has the option to purchase an additional 8,000 acre-feet per year at a lower rate that reflects only the variable costs of incremental water production.

Table 1 provides a comparison of the cost desalinated water produced by the Carlsbad Desalination Plant to the cost of water supplied by the Metropolitan Water District of Southern California, San Diego County Water Authority and City of San Diego.

Table 1 Comparison of Cost of Water			
Claude "Bud" Lewis Carlsbad Desalination Plant	Metropolitan Water District of Southern California	San Diego County Water Authority	City of San Diego
(\$/acre-foot)	(\$/acre-foot)	(\$/acre-foot)	(\$/acre-foot)
\$2,125 to \$2,368 ¹	\$942 ² to \$979 ³	\$1,460 ² to \$1,547 ³	\$1,936 to \$4,357 ⁴
<p>1. Water Purchase Agreement rate effective 7/1/16. The price includes the cost treatment (\$1,760 to 1,949 per acre-foot) and delivery into the Water Authority aqueduct in San Marcos (\$419 per acre-foot). The low-end of the range is for Water Authority maximum annual purchases of 56,000 acre-feet, and the high-end of the range is for Water Authority minimum annual purchases of 48,000 acre-feet.</p> <p>2. Treated water rate effective 1/1/16</p> <p>3. Treated water rate effective 1/1/17</p> <p>4. Treated water rate effective 7/1/16. Price increases across four tiers based on amount consumed. Prices shown reflects Tier 1 and Tier 4 pricing.</p>			

Energy Consumption

Water from the Carlsbad Desalination Plant requires more energy than the region's traditional imported water sources. However, advances in reverse osmosis membranes and energy recovery systems have driven down process energy requirements. As a result, during the first 10 months of commercial operations, the plant operated at 8.5 percent below the energy consumption guarantees in the Water Purchase Agreement.

The Carlsbad Desalination Plant requires 3,467 kilowatt-hours of electricity to produce one acre-foot of desalinated water that meets all of the state and federal drinking water requirements. An additional 1,507 kilowatt-hours of electricity are required to pump the desalinated water from sea level to the Water Authority's Second Aqueduct at an elevation of 1,170 feet above sea level. Therefore, the total energy requirements to produce an acre-foot of desalinated water, and deliver that water into the regional water supply system is 4,974 kilowatt-hours per acre-foot.

Meanwhile, the need to pump imported water into the San Diego region, and treat that water to meet drinking water standards, has been reduced as a result of project operations. As a result of project operations, the avoided energy consumption associated with reduced water imports is 3,416 kilowatt-hours per acre-foot.¹ Therefore, as shown in Table 2, the net increase in energy consumption associated with the Carlsbad Desalination Project when compared to the imported water that is displaced by the project operations is 1,558 kilowatts per acre-foot.

Carlsbad Desalination Plant Energy Consumption	Desalinated Water Delivery System Energy Consumption	Combined Plant and Delivery System Energy Consumption	Avoided Imported Water Delivery and Treatment Energy Consumption	Net Increase in Energy Consumption
(kWh/acre-foot)	(kWh/acre-foot)	(kWh/acre-foot)	(kWh/acre-foot)	(kWh/acre-foot)
3,467	1,507	4,974	3,416	1,558

Energy Minimization and Green House Gas Reduction Plan

The operation of the Carlsbad Desalination Plant does not result in the direct emission of greenhouse gasses. However, Poseidon has made a commitment to minimize energy consumption in the plant and offset indirect emissions associated with electricity purchases for the project such that the project is "net carbon neutral." These commitments are set forth in the Energy Minimization and Greenhouse Gas Reduction Plan that was approved by the Coastal Commission in 2008.

¹ Carlsbad Desalination Project Energy Minimization and Greenhouse Gas Reduction Plan.

A key energy minimization feature is the 144 energy recovery devices installed in the plant to capture the hydraulic energy in the brine discharge from the reverse osmosis processes and transfer that energy to the incoming seawater. These devices save the plant approximately 146 million kilowatt-hours of energy per year, reducing carbon emission by 42,000 metric tons annually.

To address concerns about the greenhouse gas emissions, the project undertook an unprecedented series of voluntary commitments. These include a commitment to use of on-site renewable energy, sequester carbon through reforestation projects in fire-ravaged areas of Rancho Cuyamaca State Park, sequester carbon through the use recycled CO₂ in the water treatment process², and purchase carbon offsets for the residual portion of plant energy not supplied by renewable sources. As a result, the Carlsbad plant has earned recognition as the first large-scale water treatment plant in California to be operated on a net-carbon-neutral basis.

References

For more information on the Carlsbad Desalination Project see:

<http://www.carlsbad-desal.com>

<http://www.sdcwa.org/seawater-desalination>

² The Carlsbad Desalination Plant converts CO₂ that otherwise would have been released to the atmosphere to harmless compounds that aid in the water treatment process.

Enforcement Actions for October 2016

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
10/04/2016	Expedited Payment Letter (EPL) Order No. R9-2016-0166	San Diego City Metropolitan Wastewater Dept., Point Loma WWTP, San Diego	Agreement to pay \$3,000 Mandatory Minimum Penalty for effluent discharge violations	National Pollutant Discharge Elimination System (NPDES) Order No. R9-2009-0001
10/04/2016	EPL Order No. R9-2016-0138	San Diego City Metropolitan Wastewater Dept., South Bay WRP, San Diego	Agreement to pay \$3,000 Mandatory Minimum Penalty for effluent discharge violations	NPDES Order No. R9-2013-0006
10/07/2016	Staff Enforcement Letter	Murrieta WMWD Collection System (CS), Murrieta	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ
10/07/2016	Staff Enforcement Letter	City of Oceanside CS, Oceanside	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ
10/07/2016	Staff Enforcement Letter	City of Poway CS, Poway	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ
10/07/2016	Staff Enforcement Letter	City of San Clemente CS, San Clemente	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ
10/07/2016	Staff Enforcement Letter	Rancho California Water District, Santa Rosa WRF CS, Temecula	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ

Enforcement Actions for October 2016

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
10/07/2016	Staff Enforcement Letter	Ranch Santa Fe Community Services District CS, Encinitas	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ
10/07/2016	Staff Enforcement Letter	San Diego City CS, San Diego	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ
10/07/2016	Staff Enforcement Letter	Santa Margarita Water District CS, Santa Margarita	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ
10/07/2016	Staff Enforcement Letter	South Coast Water District CS, Laguna Niguel	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ
10/07/2016	Staff Enforcement Letter	Trabuco Canyon Water District CS, Trabuco Canyon	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ
10/07/2016	Staff Enforcement Letter	Vallecitos Water District, Meadowlark CS, San Marcos	SEL for Category 1 sewage spills for the period of August 1, 2014 to August 31, 2016	Order No. R9-2006-0003-DWQ

Enforcement Actions for October 2016

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
10/17/2016	Staff Enforcement Letter	GDCV II BP Village Podium REIT LLC & GDCV II BP Village C-2 REIT LLC, Ground Water (GW) Extraction Park Boulevard & Imperial Avenue, San Diego	Deficient Reporting of Self-Monitoring Reports (SMR) for months of July and August 2016	NPDES Order No. R9-2015-0013
10/17/2016	Staff Enforcement Letter	Promenade Development Corp., GW Extraction at Promenade in Pacific Beach, San Diego	Deficient Reporting of SMRs for months of July and August 2016	NPDES Order No. R9-2015-0013
10/17/2016	Staff Enforcement Letter	Rancho Mission Viejo, GW Extraction Facility Planning Area 2 & Cow Camp Road, San Juan Capistrano	Deficient Reporting of SMRs for months of July and August 2016	NPDES Order No. R9-2015-0013
10/17/2016	Staff Enforcement Letter	San Marcos City, GW Extraction Las Posas Reach Flood Protection Const. Dewatering, San Marcos	Deficient Reporting of SMRs for months of July and August 2016	NPDES Order No. R9-2015-0013
10/17/2016	Staff Enforcement Letter	LPP Lane Field LLC, GW Extraction Lane Field South Hotel, San Diego	Deficient Reporting of SMRs for months of July and August 2016	NPDES Order No. R9-2015-0013

Enforcement Actions for October 2016

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
10/17/2016	Staff Enforcement Letter	Sweetwater Authority Groundwater Demin, Chula Vista	Deficient Reporting of SMRs – April 2016 through June 2016	Order No. R9-2010-0012
10/17/2016	Staff Enforcement Letter	San Diego City Metropolitan Wastewater Dept., South Bay WRP, San Diego	Failure to report or use appropriate minimum levels (MLs)	Order No. R9-2013-0006
10/17/2016	Staff Enforcement Letter	San Diego City Metropolitan Wastewater Dept., Point Loma WWTP, San Diego	Failure to report or use appropriate MLs	Order No. R9-2009-0001
10/17/2016	Staff Enforcement Letter	Southern California Edison, SONGS Unit 2 & 3 Combined, San Clemente	Failure to report or use appropriate MLs	NPDES Order No. R9-2015-0073
10/19/2016	Staff Enforcement Letter	International Metals Ekco Ltd, Ekco Metals, San Diego	Deficient implementation of Best Management Practices (BMPs)	NPDES Industrial General Permit No. 2014-0057-DWQ
10/20/2016	Staff Enforcement Letter	1310 K Street Apartments Investors LLC, GW Extraction Alexan San Diego, San Diego	Deficient Reporting of SMRs for months of July and August 2016	NPDES Order No. R9-2015-0013

Enforcement Actions for October 2016

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
10/20/2016	Staff Enforcement Letter	GW Extraction, Alvarado Hospital Medical Center, San Diego	Deficient Reporting of SMRs for months of July and August 2016	NPDES Order No. R9-2015-0013
10/20/2016	Staff Enforcement Letter	Aliso Viejo City, GW Extraction Dairy Fork Wetland Restoration Project, Aliso Viejo	Deficient Reporting of SMRs for months of July and August 2016	NPDES Order No. R9-2015-0013

Table 1: September 2016 - Summary of Public and Federal Sanitary Sewer Overflows in the San Diego Region

Responsible Agency	Collection System	Total Volume* (Gallons)	Total Recovered* (Gallons)	Total Reaching Surface Waters*	Percent Recovered (%)		Percent Reaching Surface Waters	Additional Details	Miles of Pressure Sewer	Miles of Gravity Sewer	Population in Service Area
					Percent Recovered	Percent Reaching Surface Waters					
Coronado City	City Of Coronado CS	3,000	3,000	0	100%	0%	0%		6.6	39.3	24,697
La Mesa City	City of La Mesa CS	45	45	0	100%	0%	0%		0.0	155.0	58,244
		35	35	0	100%	0%	0%				
Poway City	City of Poway CS	153	82	0	54%	0%	0%	1*	3.4	195.0	43,930
San Diego City	San Diego City CS (Wastewater Collection System)	1,500	1,500	0	100%	0%	0%		145.0	3,027.0	2,186,810
		1,420	1,120	0	79%	0%	0%	2*			
		357	357	0	100%	0%	0%				
San Diego County Dept of Public Works	County of San Diego CS	981	200	0	20%	0%	0%	3*	10.0	408.0	151,500
Solana Beach City	City of Solana Beach CS	1,000	1,000	0	100%	0%	0%		2	49	14,000
South Coast Water District	South Coast Water District CS	910	50	860	5%	95%	95%		0.4	13,813.0	42,000
	Totals for Public Spills	9,401	7,389	860							
	Totals for Federal Spills	0	0	0							

*Total Recovered plus Total Reaching Surface Waters does not always equal Total Volume for one or more of the following reasons: 1) a portion of the spill may have been discharged to land and not recovered, 2) a portion of the spill may have been discharged to a drainage channel and recovered (all of the volume discharged to a drainage channel whether recovered or not is considered reaching surface waters), and/or 3) a portion of the spill may have been discharged directly to surface waters and recovered (all of the volume discharged directly to surface waters whether recovered or not is considered reaching surface waters).

1* 153 gallons were discharged to land. 82 gallons were recovered, and 71 gallons seeped into the ground and/or evaporated.

2* 1,420 gallons were discharged to land. 1,120 gallons were recovered, and 300 gallons seeped into the ground and/or evaporated.

3* 981 gallons were discharged to land. 200 gallons were recovered, and 781 gallons seeped into the ground and/or evaporated.

Table 2: September 2016 - Summary of Private Lateral Sewage Discharges in the San Diego Region

Responsible Agency	Collection System	Total Volume*	Total Recovered* (Gallons)	Total Reaching Surface Waters*	Percent Recovered (%)		Percent Reaching Surface Waters	Additional Details	Population in Service Area	Lateral Connections
					Percent Recovered	Percent Reaching Surface Waters				
Eastern Municipal Water District	Temecula Valley RCS	95	0	95	0%	100%			236,007	57,065
		25	25	0	100%	0%			142,000	53,848
Escondido City	HARRF Disch To San Elijo OO CS	60	60	0	100%	0%			67,000	20,680
		146	146	0	100%	0%			43,930	12,205
Leucadia Wastewater District	City of Poway CS	440	440	0	100%	0%				
		1,000	1,000	0	100%	0%			14,487	4,829
Rancho California Water District	Santa Rosa WRF-Recycled Wtr CS	176	176	0	100%	0%				
		117	117	0	100%	0%				
San Diego City	San Diego City CS (Wastewater Collection System)	319	319	0	100%	0%				
		445	445	0	100%	0%			2,186,810	267,237
San Diego City	San Diego City CS (Wastewater Collection System)	135	135	0	100%	0%				
		300	300	0	100%	0%				
Vista City	City of Vista CS	123	123	0	100%	0%				
		450	450	0	100%	0%				
Totals		63	63	0	100%	0%			90,000	16,383
Totals		3,894	3,799	95						

*Total Recovered plus Total Reaching Surface Waters does not always equal Total Volume for one or more of the following reasons: 1) a portion of the spill may have been to land and not recovered, 2) a portion of the spill may have been to a drainage channel and recovered (all of the volume discharged to a drainage channel whether recovered or not is considered reaching surface waters), and/or 3) a portion of the spill may have been discharged directly to surface waters and recovered (all of the volume discharged directly to surface waters whether recovered or not is considered reaching surface waters).

Table 3: September 2016 - Summary of Transboundary Flows from Mexico into the San Diego Region

Location	Start Date	Total Volume	Total Recovered (Gallons)	Total Reaching Surface Waters	Percent Recovered	Percent Reaching Surface Waters (%)	Additional Details
Tijuana River	9/5/2016	390	0	390	0	100	The Del Sol Canyon Collector captures transboundary flows from Mexico and sends the flows to the headworks of the South Bay International Wastewater Treatment Plant. On September 5, 2016, debris clogged the intake screens on the Del Sol Canyon Collector and transboundary flows bypassed the collector.
Tijuana River	9/8/2016	690,000	0	690,000	0	100	All dry weather flow in the Tijuana River that would otherwise flow into the United States is currently diverted from the river bed at the international border using the River Diversion Structure located on the Mexican side of the border. The probable cause of this transboundary flow was a power interruption at the pump station for the River Diversion Structure. The power interruption was due to bridge construction nearby.
Total Dry Weather		690,390	0	690,390	0	100	
Wet Weather ²							
Tijuana River	9/20/2016	n/a	n/a	n/a	n/a	n/a	At 7:00am on September 20, 2016, storm water runoff resulted in large flows in the Tijuana River that flowed past the River Diversion Structure. Mexico eventually shut down the pump station for the River Diversion Structure until weather conditions improved on the evening of September 22, 2016. No transboundary flow amounts reported.
Total Wet Weather		n/a					

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

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