California Regional Water Quality Control Board

San Diego Region

David Gibson, Executive Officer

Executive Officer's Report

April 12, 2017

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The April 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. Landfill Program Staff Attend Class on Evaluating Seismic Design

Staff Contact: John Odermatt

Planning and design are the primary environmental safeguards that keep millions of tons of solid waste out of our waters and in its place – in the landfills. California is a land of change, not only climate change but tectonic change as well. Last year, California experienced over 7,740 earthquakes.[1] Keeping solid waste in the landfills requires that they be designed and built to withstand the shaking and ground motion caused by earthquakes in our tectonically active state.

Figure 2: Slope Failure at Prima Deshecha Landfill

State and federal regulations require Water Board staffs to provide a technical evaluation of slope stability and seismic aspects of landfill designs prior to construction, expansion, closure, or post-closure. In March, San Diego Water Board staff members Amy Grove, Alex Cali and John Odermatt attended a two-day class on the evaluation of seismic design for landfills. The class, held in Riverside at the Santa Ana Water Board, was presented by the Department of Water Resources and sponsored by the State Water Board.

The course covered the concepts of field and laboratory testing, static and pseudo-static analytical approaches, ground motion prediction estimates, shear strength and other parameters, failure modes, deformation potential, and construction quality issues. The knowledge staff obtained from this class is essential for the technical review of proposed engineering design reports for landfill facilities and for developing effective waste discharge requirements that protect the water resources of the San Diego Region.

[1] Recent Earthquakes in California: http://earthquaketrack.com/p/united-states/california/recent.

2. Publication on Cyanotoxins at the Land Sea Interface in Southern California

Staff Contact: Carey Nagoda

San Diego Water Board staff Carey Nagoda, Chad Loflen, and (former staff) Lilian Busse participated in the planning and sample collection for a study of cyanotoxins at the land-sea interface that was recently published in the Journal *Toxins*. Staff participated in the study because cyanotoxins can negatively impact many beneficial uses of our waters, such as contact water recreation (REC-1), commercial and sport fishing (COMM), aquaculture (AQUA), estuarine habitat (EST), cold freshwater habitat (COLD), warm freshwater habitat (WARM) and marine habitat (MAR). The study investigated the prevalence and geographic distribution of cyanobacteria and cyanotoxins in estuarine and brackish coastal environments, where little is known compared to marine and freshwater environments. The results provide a clearer recognition of the connections between freshwater, estuarine, and marine habitats with respect to our understanding of cyanobacteria and their toxins.

Cyanobacteria (Figure 1) and cyanotoxins were found at sites in Santa Barbara, Ventura, Los Angeles, Orange, and San Diego counties. In San Diego County, twenty one potentially toxin-producing genera were identified from fifteen sites, and cyanotoxins were detected (not quantified, presence/absence only) in particulate (intracellular) samples at seven of the fifteen sites. These results highlight the need for future assessments and establishment of a monitoring program. Following this study, California State Water Resources Control Board developed Phase 1 of the California Freshwater Harmful Algal Blooms Assessment and Support Strategy (http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/SWAMP/HABstrategy_phase%201.pdf). Additionally, EPA released draft recreational water quality criteria for two cyanotoxins (microcystins and cylindrospermopsin) in December 2016.

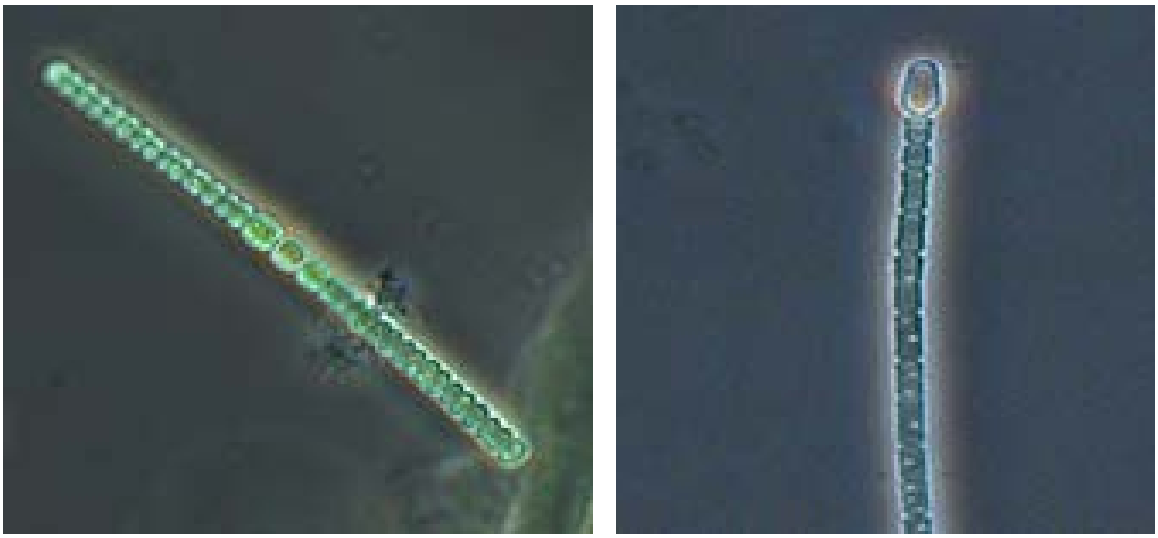


Figure 1: Examples of cyanobacteria found in San Diego County, *Anabaena* sp (left) and *Cylindrospermopsis* sp. (right).

The study started in 2015, focused on southern California, and was a collaborative effort among the University of Southern California, Southern California Coastal Water Research Project (SCCWRP), and San Diego Water Board. San Diego Water Board efforts were partially-funded by Surface Water Ambient Monitoring Program (SWAMP) regional funds. The article, titled "Multiple Stressors at the Land-Sea Interface: Cyanotoxins at the Land-Sea Interface in the Southern California Bight," was published on March 9, 2017, and is available at: http://www.mdpi.com/2072-6651/9/3/95/htm. The abstract is:

Blooms of toxic cyanobacteria in freshwater ecosystems have received considerable attention in recent years, but their occurrence and potential importance at the land-sea interface has not been widely recognized. Here we present the results of a survey of discrete samples conducted in more than fifty brackish water sites along the coastline of southern California. Our objectives were to characterize cyanobacterial community composition and determine if specific groups of cyanotoxins (anatoxins, cylindrospermopsins, microcystins, nodularins, and saxitoxins) were present. We report the identification of numerous potentially harmful taxa and the co-occurrence of multiple toxins, previously undocumented, at several locations. Our findings reveal a potential health concern based on the range of organisms present and the widespread prevalence of recognized toxic compounds. Our results raise concerns for recreation, harvesting of finfish and shellfish, and wildlife and desalination operations, highlighting the need for assessments and implementation of monitoring programs. Such programs appear to be particularly necessary in regions susceptible to urban influence.

Additional information on the status of harmful algal blooms in California is available from the following online sources:

California Harmful Algal Blooms (HABs) Portal: http://www.mywaterquality.ca.gov/habs/index.html.

Executive Officer's Report, December 14, 2016, Part C.1: http://www.waterboards.ca.gov/sandiego/publications_forms/publications/docs/executive_officer_reports/2016/EOR_12-14-2016.pdf.

3. Commercial Agriculture Regulatory Program Update *(Attachment A-3)*

Staff Contact: Barry Pulver

In order to leverage limited resources, the San Diego Water Board is seeking opportunities to work collaboratively with other interested entities to educate the operators and owners of commercial agricultural operations in the San Diego Region on the requirement to enroll under one of the two General Agricultural Orders adopted in November 2016. Following is a summary of the outreach activities that have happened since publication of the March Executive Officer's Report:

- The San Diego Farm Bureau mailed letters to 368 current Farm Bureau members who are not members of the San Diego Region Irrigated Lands Group, providing notice of the August 7, 2017 deadline to enroll in the General Agricultural Orders and information on how to comply. A copy of the letter is attached (Attachment A-3a).

- The San Diego Farm Bureau included a multi-page article on the General Agricultural Orders in the Winter 2017 edition of *San Diego Grown*. *San Diego Grown* is the quarterly newsletter of the San Diego Farm Bureau that has over 5,000 dues-paying members. A copy of the article is attached (Attachment A-3b).
- As requested, the Rancho California Municipal Water District in Riverside County provided staff with information on its 1,545 agricultural customers on March 20, 2017. The San Diego Water Board will use this information to reach out directly to those individuals.
- The San Diego County Department of Agriculture, Weights & Measures plans to begin distribution of the Notification of Enrollment Deadline to its current inventory of 433 commercial nursery/greenhouse facilities located within the unincorporated areas of San Diego County.

Background

The San Diego Water Board has adopted two General Agricultural 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); *and*
- 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 Agricultural 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.

For additional information about the Commercial Agricultural Regulatory Program visit the San Diego Water Board's website at: http://www.waterboards.ca.gov/sandiego/water_issues/programs/commercial_agriculture/commercial_ag.shtml.

Part B – Significant Regional Water Quality Issues

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

Staff Contact: Ben Neill

This report provides a monthly status update on the San Diego Water Board's review of Poseidon Resources (Channelside) LLC's (Poseidon) Report of Waste Discharge (ROWD)

application for reissuance of the National Pollutant Discharge Elimination System (NPDES) permit for the Claude "Bud" Lewis Carlsbad Desalination Plant (CDP) and the development of the draft NPDES permit.

Poseidon owns and operates the CDP subject to waste discharge requirements established by the San Diego Water Board in NPDES Permit No. CA0109223, Order No. R9-2006-0065. Order No. R9-2006-0065 expired in 2011, but remains in effect under an administrative extension until the reissued NPDES permit supersedes it.

The CDP is located adjacent to the Encina Power Station (owned by NRG Energy) on the southern shore of the Agua Hedionda Lagoon in Carlsbad, California. The CDP is the nation's largest seawater desalination plant. On November 9, 2015, the CDP began potable water production providing up to 50 million gallons of drinking water per day to customers within the 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.

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 Board(s)). Following are updates on key activities since the previous Executive Officer Report update:[2]

- Water Board staff visited the CDP to discuss the possible locations of the intake screens on February 27, 2017.
- Water Board staff met with Poseidon and the San Diego County Water Authority to continue discussions on issues related to the development of the draft NPDES permit on February 28, 2017.
- San Diego Water Board staff met with representatives from San Diego Coastkeeper, the Surfrider Foundation San Diego Chapter, and the Coastal Environmental Rights Foundation to discuss the permitting of several desalination projects in the San Diego Region, including the CDP, on March 3, 2017.
- Water Board staff held a teleconference with Poseidon to discuss the possible locations of the intake screens on March 7, 2017.
- Poseidon submitted Appendix ZZ to the ROWD – *Marine Life Mortality Report and Mitigation Calculation* on March 7, 2017. Water Board staff is reviewing the Appendix.
- Poseidon submitted a revised Appendix VV to the ROWD – *Establishing the Location of the Zone of Initial Dilution for Stand-Alone* Operation on March 13, 2017. Water Board staff is reviewing the Appendix.

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

- The State Water Board heard an information item at the March 21, 2017 Board meeting regarding the *Encina Power Station Reliability Report* from the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) with recommendations regarding the compliance schedule for Encina Power Station contained in the *Once-Through Cooling Water Policy* (OTC Policy). SACCWIS includes representatives from the California Energy Commission (CEC), California Public Utilities Commission (CPUC), California Coastal Commission (CCC), California State Lands Commission (SLC), California Air Resources Board (CARB), the California Independent System Operator Corporation (CAISO), and the State Water Board. NRG Energy had originally chosen to decommission the entire Encina Power Station by December 31, 2017, rather than implement measures to comply with the OTC Policy. Due to recent stressors on the State's energy supply grid, SACCWIS has initiated a process to request the State Water Board to defer the compliance date for Encina Power Station Units 2-5 until December 31, 2018, to maintain grid reliability. If the State Water Board concurs with the recommendation, the Encina Power Station will continue to draw in source water for the CDP, deferring the date for stand-alone operations by at least one year.

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. Update on Indoor Vapor Testing and Groundwater Cleanup, Former AMETEK/Ketema Facility, El Cajon

Staff Contact: Sean McClain

Vapor Sampling – Greenfield and Starlight Mobile Home Parks

AMETEK continues to assess vapor intrusion, primarily trichloroethylene (TCE), into homes at the Starlight and Greenfield Mobile Home Parks in El Cajon (Figure 1). These parks overlie the plume of groundwater contaminated with chlorinated solvents emanating from the former AMETEK facility. AMETEK proposed soil vapor, indoor air, and crawl space vapor sampling at the 19 homes near the Magnolia Elementary School property boundary. The homes are shown in yellow on Figure 1. Due to access constraints, 17 of the 19 homes were sampled for potential vapor intrusion in February and March 2017. An additional 12 soil vapor probes were installed in the mobile home parks and sampled in March 2017. Because TCE and other chemicals are present in ambient air in the area, the soil vapor samples are needed to better understand the potential contribution to indoor air levels from the groundwater plume.

Vapor samples at 7 of the 17 homes were reported to contain TCE above the California Department of Toxic Substances Control's (DTSC) environmental screening level (ESL). ESLs are risk based concentrations intended to help identify areas that may require further data

collection. AMETEK resampled these seven homes to confirm the previous results per DTSC's vapor intrusion guidance.

Based on the results, air purifying units were installed in two homes until further mitigation options can be evaluated. A Human Health Risk Assessment Report from all vapor results is expected in May 2017. The San Diego Water Board is working closely with DTSC to determine additional sampling locations and appropriate mitigation measures.

In addition to the sampling at the Starlight and Greenfield Mobile Home Parks, quarterly vapor sampling continues at Magnolia Elementary School. Results of this sampling continue to show that the school is safe for occupancy.

Public Outreach

The San Diego Water Board notified residents by mail, in English and Spanish as appropriate, of the preliminary results and that additional sampling of some homes was needed to confirm results and help determine next steps. DTSC, along with the San Diego Water Board and San Diego County Public Health Department, will schedule the next public meeting, upon completion of the Human Health Risk Assessment. DTSC and Board staffs will present the findings of the risk assessment and the latest environmental monitoring results from the school, mobile home parks, and the Former AMETEK/Ketema facility at the meeting.

Groundwater Cleanup

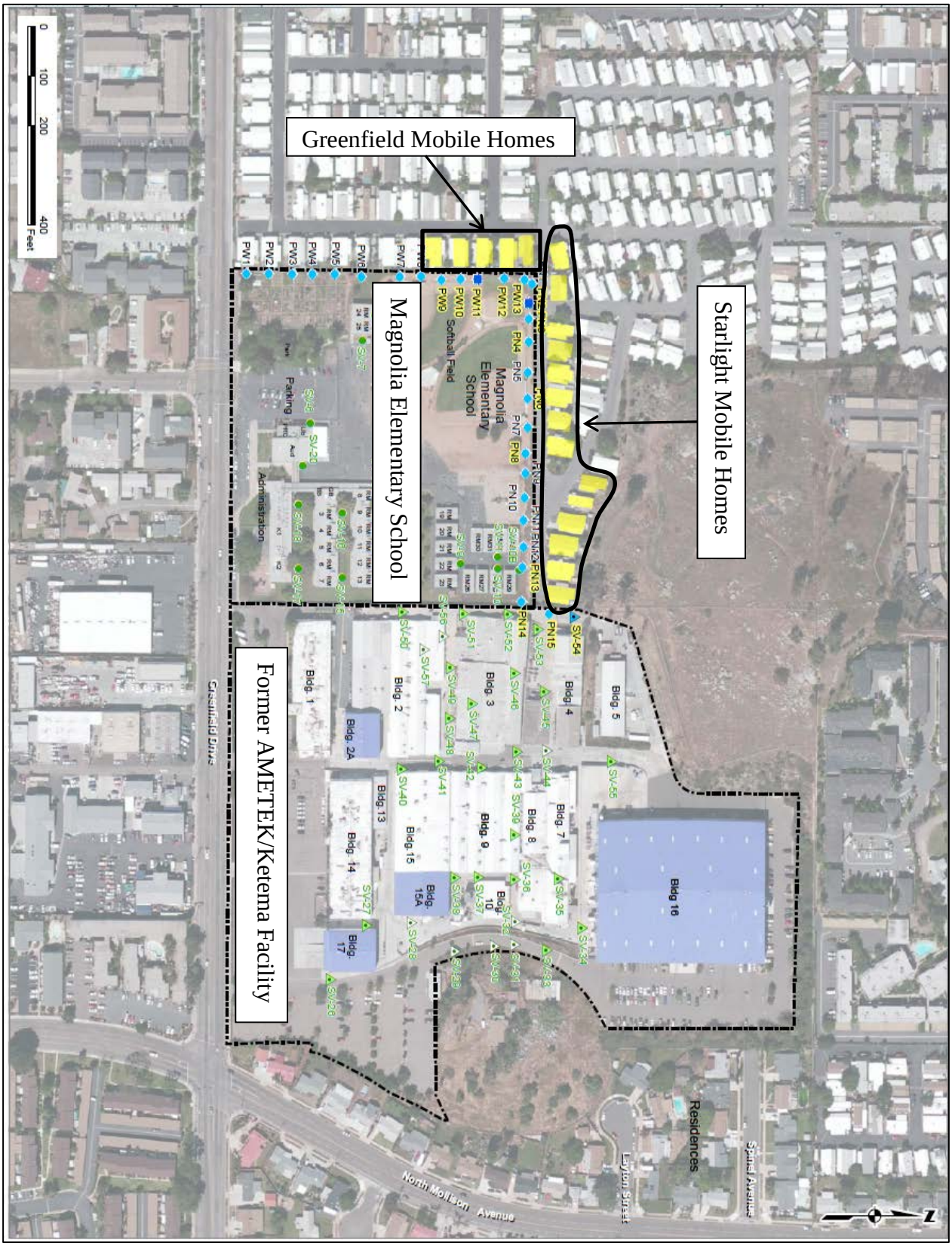
AMETEK completed the installation of the Phase 2 in-situ chemical oxidation (ISCO) groundwater remediation system at the former AMETEK/Ketema facility and began full scale operations in November. The ISCO remediation consists of injecting potassium permanganate solution into groundwater at 27 injection wells to reduce the concentrations of the chemicals of concern. The groundwater is monitored quarterly to evaluate the effectiveness of the injections.

In addition to the ISCO system, AMETEK continues to operate an off-site groundwater extraction and ultraviolet-oxidation treatment system. The off-site system started operation in January 2014, and has extracted, treated, and safely disposed of approximately 10,400,000 gallons of groundwater.

Regulatory Lead Transferred to DTSC

Since the groundwater remediation system installed at the former AMETEK facility is operating at full scale, the San Diego Water Board has transferred lead regulatory oversight of this project to DTSC. DTSC is best suited to take the lead regulatory role in this case because it provides site-specific exposure and health risk assessments for schools and residential communities, has toxicologists and vapor risk managers on staff, and wrote the statewide guidance on vapor intrusion sampling. The San Diego Water Board will continue to consult with DTSC on the case, and provide guidance on groundwater cleanup issues.

Figure 1


Greenfield Mobile Homes
Starlight Mobile Homes
Magnolia Elementary School
Former AMETEK/Ketema Facility
Magnolia Elementary School
Softball Field
Parking
Administration
Bldg. 1
Bldg. 2
Bldg. 2A
Bldg. 3
Bldg. 4
Bldg. 5
Bldg. 7
Bldg. 8
Bldg. 9
Bldg. 10
Bldg. 13
Bldg. 14
Bldg. 15
Bldg. 15A
Bldg. 16
Bldg. 17
Residences
North Morrison Avenue
Layton Street
Spruce Avenue
Greenfield Drive
0 100 200 400 Feet

3. Famosa Slough Alternative Total Maximum Daily Load Project Updates

Staff Contacts: Jody Ebsen and Cynthia Gorham

The San Diego Water Board's Restoration and Protection Planning Unit 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. The strategy is being pursued as an alternative to the adoption by the San Diego Water Board of a Basin Plan amendment specifying total maximum daily loads (TMDLs) for nutrients in the slough. 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. Despite its urban surroundings, the 37-acre site is a significant feeding and resting site for migratory birds and provides habitat for other shore birds and wildlife. 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 stimulate dense growth of aquatic plants and algae which depletes oxygen in the water and impacts the ecological health of the water body.

PROJECT INFORMATION

Famosa Slough Nutrient Alternative TMDL		*Report Date*	March 30, 2017
		Report Period	December 2016 – March 2017
		Overall Status	Project is delayed
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 Famosa Slough's most sensitive ecosystem health beneficial uses including estuarine and wildlife beneficial uses.		
Project Objective(s)	1. To develop an alternative TMDL in collaboration with stakeholders to establish implementation actions through the MS4 and the required Water Quality Improvement Plan for the San Diego Watershed to restore water quality in 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	Received March 2017 due to external party's priorities on other Water Board projects
	Complete Staff Report	October 2016	Delayed until April 2017
	Public Workshop	November 2016	Delayed until May 2017
	Board Hearing	December 2016	Delayed until June 2017
Project web site	http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/famosa_slough.shtml		

Reporting Period Events	
Accomplishments during period	• n/a
Collaboration during period	• In anticipation of receiving the completed TMDL Technical and Modeling Report, no stakeholder meetings were scheduled during this time frame.
Activities planned, but not completed	• Receipt of the TMDL Technical and Modeling Report from the City of San Diego was delayed to March 31, 2017. Staff will review the report in April 2017. • Staff will finalize a staff report, open a public comment period, and hold a public workshop after the TMDL Technical and Modeling Report is reviewed.
Key issues during period	• Unexpected delays were due to the limited availability of consulting resources to work on competing Water Board priorities.
Looking Forward	
Activities planned for next reporting period	• Review TMDL Technical and Modeling Report. • Finalize staff report. • Open a public comment period and hold a public meeting.
Key issues on the horizon	• Ensure Famosa Slough TMDL implementation is included in the 2018 update of the San Diego Watershed Water Quality Improvement Plan.

4. Basin Plan Triennial Review Rec-1 Progress Report

Staff Contact: 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. 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 are:

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

This report provides an update on Issue 3 of 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 3: EVALUATION OF CONTACT WATER RECREATION (REC-1) WATER QUALITY OBJECTIVES AND METHODS FOR QUANTIFYING EXCEEDANCES

I. ISSUE 3 PROJECT INFORMATION

Evaluation of Contact Water Recreation (REC-1) Water Quality Objectives and the Methods for Quantifying Exceedances		*Report Date*	April 1, 2017
		Report Period	December 2016 – March 2017
		Overall Status	Project is on track
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, the implementation provisions for applicable TMDLs, or the TMDLs themselves, and then as appropriate, 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)	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	Staff commitments to: 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 analysis public scoping meeting	August 2015	Held September 16, 2015
	REC-1 public workshop	Spring 2016	
	Cost-benefit analysis draft work plan public meeting	August 31, 2016	Held August 31, 2016
	Draft Cost Benefit analysis Report	April 2017	
	CEQA Scoping Meeting and Cost-benefit analysis public meeting	May 31, 2017	
	Cost-benefit analysis completed	August 2017	
	Technical reports completed	September 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*		

II. ISSUE 3 PROGRESS REPORT

Reporting Period Events	
Accomplishments during period	
Collaboration during period	• The REC-1 TMDL stakeholder working group met in January, February, and March 2016. • The Cost Benefit Analysis Steering Committee met in January, February, and March 2017. • Staff briefed the USEPA on the project in February 2017.
Activities planned, but not completed	n/a

Key issues during period	none
Looking Forward	
Activities planned for next reporting period	• The Cost Benefit Analysis technical advisory committee will meet in April 2017 to review the draft cost benefit analysis and will provide comments. • The draft Cost Benefit Analysis report is expected to be completed in April 2017. A public meeting to discuss the results will be held in May 2017.
Key issues on the horizon	• A public workshop will be scheduled for summer or fall 2017. • The State Water Board plans to release a draft staff report on statewide Bacteria Objectives in fall 2017.

5. 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) have 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		*Report Date*	March 1, 2017
		Report Period	December 2016-March 2017
		Overall Status	Project is overdue
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, which are: EST, RARE, MIGR, and SPWN.		
Project Objective(s)	5. To expedite the Estuary's restoration process by adopting an alternative and collaborative approach to TMDL development. 6. To assess the Estuary's ecological condition and develop watershed and estuary models to estimate necessary nutrient load reductions. 7. 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 California Estuaries. 8. 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 4) the Region-wide 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	Delayed to address other pressing items
	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
	Final Load and Waste Load Allocations	August 2016	Delayed, expected in April 2017
	Draft Staff Report	December 2016	Delayed, expected in May 2017

	Public Workshop and Board Hearing	2018	Delayed, expected in Winter 2018 and Spring 2018, 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	• RPPU reviewed and submitted comments for the draft Santa Margarita River Estuary MS4 Nutrient Loading Study prepared by Tetra Tech to support the development of Load and Waste Load Allocations. • RPPU received and reviewed 1) Proposals for Load Allocations and Reductions Approach, and 2) draft Load and Waste Load Allocations, both prepared by the County of San Diego on behalf of the Stakeholder Group. • RPPU continued working with Stakeholder Group and project consultants to develop a compliance monitoring approach for the Estuary TMDL.
Collaboration during period	• A Technical Advisory Committee meeting was held on February 8, 2017, to discuss numeric model needs to support the development of a TMDL for the Lower Santa Margarita River. • Facilitated meetings with the Stakeholder Group, SCCWRP, and project consultants were held on December 15, 2016, and March 14, 2017. • The focus of these meetings has been on defining the next steps in the TMDL development for the Santa Margarita River, TMDL Load Allocations and compliance monitoring for the Estuary, and the completion of the Estuary TMDL Draft Staff Report.
Activities planned, but not completed	• Complete Watershed Modeling to Finalize Waste Load and Load Allocations. • Finalize compliance monitoring approach. • Review and finalize Draft Staff Report for peer review submission • Complete Peer Review submission.
Key issues during period	none
Looking Forward	
Activities planned for next reporting period	• Complete Watershed Modeling to Finalize Waste Load and Load Allocations. • Finalize compliance monitoring approach. • Review and finalize Draft Staff Report for peer review submission. • Complete Peer Review submission.
Key issues on the horizon	• Complete Peer Review in Fall 2017. • Public Workshop in Winter 2018.

6. Stormwater Monitoring Coalition Report on the Regional Stream Survey 2015

Staff Contact: Betty Fetscher

The Stormwater Monitoring Coalition (SMC) works collaboratively to improve the management of stormwater in Southern California. Members include:

- Regional Water Quality Control Boards (San Diego, Santa Ana, & Los Angeles)
- State Water Resources Control Board
- Counties of San Diego, Los Angeles, & Orange
- Counties of Riverside & San Bernardino—Flood Control
- Ventura County Watershed Protection District
- Cities of Los Angeles & Long Beach—Public Works
- California Department of Transportation
- Southern California Coastal Water Research Project (SCCWRP)

In addition, the SMC collaborates with the U.S. Environmental Protection Agency Office of Research & Development.

The SMC has conducted statistically robust, probability surveys assessing the condition of wadeable streams in California's South Coast region since 2009. The major goal of the program is to provide the technical foundation for scientifically sound management of stormwater by answering three questions:

- What is the biological condition of streams in the South Coast region?
- What stressors are associated with streams in poor condition?
- Is the condition of streams changing over time?

A newly released report summarizes the status of the SMC's current 5-year survey by describing major developments and accomplishments that occurred in during its first year (2015) (http://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/963_2015_SMC_Report_EnginChannels.pdf). Another, more comprehensive, report will be released after completion of the 5th year of the current cycle. SMC's first 5-year monitoring cycle occurred between 2009 and 2013. Results are summarized in: http://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/844_SoCalStrmAs.

SMC's current survey includes standard priority indicators, such as benthic macroinvertebrates, algae, riparian wetlands (i.e., the California Rapid Assessment Method), stream physical habitat, nutrients, and major ions, which are being sampled at every site. Conversely, certain indicators (i.e., toxicity, metals, and pyrethroids in the water column) have been dropped since the previous

survey cycle, based on recommendations by the SMC workgroup. New additions to the current survey include:

- Inclusion of nonperennial streams (previous efforts focused on perennial)
- Improved trend detection through site revisits (a total of 47 "trend" sites that had been sampled in the first cycle of the survey were revisited in 2015)
- New analytes and indicators (i.e., hydromodification impact potential, aquatic invasive vertebrate occurrences, hydrologic state, cellular bioassays, and non-target analysis of chemicals of emerging concern)

One of the report's highlights demonstrates how survey data are applied by the County of Orange in the Water Quality Improvement Plan (WQIP) for San Juan Hydrologic Unit by prioritizing problems in the watershed based on SMC data, emphasizing biological indicators like benthic macroinvertebrates and algae. A WQIP is a document developed through a collaborative effort by the Copermittees in each Watershed Management Area, and other key stakeholders, including representatives from the San Diego Water Board. The Water Quality Improvement Plans include descriptions of the highest-priority pollutants or conditions in a specific watershed, goals and strategies to address those pollutants or conditions, and time schedules associated with those goals and strategies. By allowing the Copermittees to expend their resources to address the highest-priority issues, they will no longer be required to address "all pollutants, all of the time," as was the premise of previous storm water permits.

The goal of the San Juan WQIP is to 1) determine high-priority water-quality problems; 2) identify goals, strategies, and schedules to address them; and 3) propose an approach to monitor and assess progress. In all three elements, the SMC survey provides the foundation and the framework for implementing these goals.

The report also includes results from a study examining condition of biological communities in engineered channels. Key points highlighted in the report are:

- Engineered channels surveyed to date are, generally speaking, in worse ecological health than natural channels, based on selected biological indicators (benthic macroinvertebrate and algae assemblages).
- While engineered channels invariably have poor scores for the California Stream Condition Index (CSCI) based on benthic macroinvertebrates, algal indices occasionally indicated better biological conditions—sometimes similar to reference condition. This wide range in index scores suggest that some engineered channels support more ecosystem functions than others.
- Within engineered channels, design and construction characteristics (e.g., armoring material or presence of low-flow features) did not influence index scores or other measures of ecological condition.
- Within engineered channels, algal indices may reflect water quality conditions better than the macroinvertebrate index. For example, lower specific conductivity was associated

with higher diatom index scores, but not CSCI scores. However, both types of indices have some capacity to respond to stressor gradients in these systems.

- Targeted sampling (particularly from hardened channels with good water quality, or engineered channels with high bioassessment index scores) and experimental studies may clarify the factors that support better ecological conditions.
- Survey data can provide a context for evaluating the biological condition of streams in engineered channels, thereby helping managers recognize factors, such as water quality or stream temperature, that may lead to better conditions.

Staff will use information from the report in efforts to assess the municipal storm water program, in development of biological objectives, and in assessments of key areas for habitat and ecosystem beneficial uses. To learn more about the activities and findings of the SMC, please visit their website at www.socalsmc.org.

7. Status Sheets for Fish and Shellfish Consumption and Contact Recreation in San Diego Bay *(Attachment B-7)*

Staff Contact: Chiara Clemente

In accordance with the process identified in the Strategy for a Healthy San Diego Bay, in 2016 staff conducted an initial assessment of water quality conditions in San Diego Bay related to contact recreation and fish and shellfish consumption. Board staff provided a summary of findings at the October 12, 2016 Board Meeting. As a follow-up to that item, we have prepared status sheets for each intended to summarize and convey our findings to the general public. The status sheets (Attachment B-7) are available on the Board's "Healthy San Diego Bay Webpage." Staff are now initiating a unified monitoring program for those two Key Beneficial Use categories and working on an initial assessment for non-contact recreation in San Diego Bay.

8. Annual Evaluation of Regional Enforcement Priorities

Staff Contact: Chiara Clemente

Advisory and prosecution staff members (led by the Executive Officer and Assistant Executive Officer, respectively) met in February 2017 to reevaluate the existing regional enforcement priorities. This is an annual evaluation that is also called for in the Enforcement Policy, which demands that "each Regional Water Board will identify and reevaluate its own regional priorities on an annual basis." For 2017, advisory and prosecution staff agreed to continue the existing priorities for another year.

In 2016, the advisory and prosecution staff chose to prioritize enforcement of violations that affected a key area of one or more key beneficial use categories (i.e. municipal water supply, fish and shellfish consumption, recreation, and ecosystem health) recently described in Resolution No. R9-2017-0030 at the March 2017 Board Meeting. Examples of such scenarios might include

sanitary sewer overflows that result in beach closures at intensively used beaches, or unauthorized discharge of fill to high quality or reference stream areas.

This focus ensures that violations which potentially do harm in the most important water body areas are not overlooked, but it is not the only determinate factor when selecting cases for formal enforcement. Other factors considered include variables such as timing/case readiness, available resources, program-specific enforcement priorities, degree of harm to receiving waters, and environmental justice considerations.

9. Enforcement Actions for February 2017 (*Attachment B-9*)

Staff Contact: Chiara Clemente

During the month of February, the San Diego Water Board issued six written enforcement actions as follows; one Notice of Violation and five Staff Enforcement Letters. A summary of each enforcement action taken is provided in the Table below. The State Water Board's Enforcement Policy contains a brief description of the kinds of enforcement actions the Water Boards can take.

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

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

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

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

10. Sanitary Sewer Overflows and Transboundary Flows from Mexico in the San Diego Region – January 2017 *(Attachment B-10)*

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 **January 2017**:

Sewage Collection System SSO Spills	Private Lateral SSO Spills	Transboundary Flows from Mexico
19 spills were reported, totaling 181,409 gallons (13,200 gallons reached surface waters or a tributary storm drain). A spill on January 21, 2017 affected public access to the San Diego River, and a spill on January 25 affected public access to Aliso Creek. Staff is not aware of any other closures of beaches or other recreational areas due to the other reported spills.	10 spills were reported, totaling 3,302 gallons (950 gallons reached surface waters or a tributary storm drain). Staff is not aware of any closures of beaches or other recreational areas due to the reported spills.	On December 16, 2016, the operation of Pump Station CILA was suspended due to the large flows in the Tijuana River resulting from precipitation in the Tijuana watershed. As of March 14, 2017, Pump Station CILA has not been turned back on due to the large flows. As a result, there was a continuous transboundary flow of the Tijuana River into the U.S. throughout January 2017. Note: There was a large sewage spill transboundary flow event, initially estimated to be 143 million gallons, reported in February 2017. More information regarding this event will be provided in the Executive Officer report for the May 2017 Board meeting.

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,[3] the San Diego Region-wide SSO Order,[4] and/or individual National Pollutant Discharge Elimination System (NPDES) permit requirements. Some federal entities[5] report this information voluntarily. The SSO reports are available to the public on a real-time basis at the following State Water Board

[3] 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*.

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

[5] 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.

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-10) titled:

- Table 1: January 2017 - Summary of Public and Federal Sanitary Sewer Overflows in the San Diego Region.
- Table 2: January 2017 - 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) 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 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-10) titled:

- Table 3: January 2017 - 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)[6] share responsibility for addressing border sanitation problems, including transboundary flows. The USIBWC and/or CILA 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:

[6] The Mexican section of the IBWC.

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

The River Diversion Structure and Pump Station CILA divert dry weather flows from the Tijuana River at a point just south of the international border to a Pacific Ocean shoreline discharge point approximately 5.6 miles south of the U.S./Mexico border. The River Diversion Structure is not designed to collect wet weather river flows and any river flows over 1,000 liters per second (35.3 cubic feet per second).

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

1. State to Adopt Drinking Water Standard for 1,2,3-Trichloropropane

Staff Contact: Julie Chan

The State Water Board has proposed draft regulations to establish a drinking water maximum contaminant level (MCL) for 1,2,3-trichloropropane (1,2,3-TCP) at 5 parts per trillion. The State Water Board will hold a public hearing on April 19, 2017 to receive public comments regarding the proposed 1,2,3-TCP regulations and an associated California Environmental Quality Act Draft Initial Study/Mitigated Negative Declaration.

1,2,3-TCP is a man-made chlorinated hydrocarbon. Historically, 1,2,3-TCP was used as an industrial solvent, cleaning and degreasing agent, and paint and varnish remover. It was also a component in soil fumigants. Since the 1950s, agricultural use of soil fumigants as pesticides and nematocides was prevalent in the United States. 1,2,3-TCP is used as a chemical intermediate in the production of certain compounds,[7] and may also be generated as a byproduct during the production of certain compounds.[8]

1,2,3-TCP is a known toxin and California has identified it as a chemical known to cause cancer. The U.S. Environmental Protection Agency has identified 1,2,3-TCP as likely to be carcinogenic in humans. There is no federal drinking water standard for 1,2,3-TCP.

[7] Such as dichlorohydrin, dichloropropene, epichlorohydrin, glycerol, propylene chlorohydrin, and propylene oxide.

[8] Such as dichloropropene, hexafluoropropylene, and polysulfone liquid polymers, and as a cross-linking agent in the synthesis of polysulfides.

1,2,3-TCP has been found in drinking water sources in 24 of the 58 counties in California. The majority of these detections were in the counties of Kern, Los Angeles, Fresno, and Tulare. Kern County has over 100 drinking water sources with detectable levels of 1,2,3-TCP. In the early 2000s, the Marine Corps detected 1,2,3-TCP at levels above the proposed MCL in a drinking water supply well near the air station at Camp Pendleton. The Marine Corps subsequently abandoned the well.

The public comment period for the proposed regulations and draft Initial Study/Mitigated Negative Declaration began on **March 4, 2017** and will conclude on **April 21, 2017**. The State Water Board tentatively anticipates adoption of the proposed regulations and approval of the Mitigated Negative Declaration in the summer 2017. A separate notice of public hearing for the adoption of the proposed regulations and Mitigated Negative Declaration will follow. For more information go to: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/123TCP_SBDDW-17-001.shtml.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN DIEGO REGION

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

April 12, 2017

APPENDED TO EXECUTIVE OFFICER'S REPORT

DATE OF REPORT
April 12, 2017

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
May 10, 2017 ***No Meeting Scheduled***				
June 21, 2017 ***San Diego Water Board***				
Tentative Resolution Addressing Threats to Beneficial Uses from Climate Change *(Haas)*	Tentative Resolution	100%	23-Feb-17	No
The California Ocean Science Trust Reports on the State of the California Coast *(Gibson)*	Information Item	NA	NA	NA
Update on the Tijuana River Valley Recovery Team 5 Year Action Plan *(Valdovinos)*	Information Item	NA	NA	NA
Sweetwater Authority, Richard A Reynolds Desalination Facility, Brine Discharge to Lower Sweetwater Basin *(Rodriguez)*	NPDES Permit Reissuance	100%	1-May-2017	Maybe
Resolution of Commitment to an Alternative Process for Achieving Water Quality Objectives for Biostimulatory Substances in Famosa Slough *(Ebsen)*	TBD	50%	TBD	Likely
July 2017 ***No meeting scheduled***				

Updated
April 12, 2017

Agenda Items Requested by Board Members

Requested Agenda Item	Board Member	Status
June 24, 2015		
Workshop on low dissolved oxygen conditions in the San Diego River	Strawn	
Information Item regarding high levels of naturally occurring elements in groundwater when they interact with other issues.	Olson	
August 12, 2015		
Information item regarding data supporting Basin Plan Water Quality Objectives	Olson	
December 16, 2015		
San Diego River restoration and land acquisition workshop	Strawn	
August 10, 2016		
SCCWRP Flow Recovery Project Update	Strawn	
November 9, 2016		
Modern Monitoring Workshop	Abarbanel	To be held in Feb. or March 2017
March 15, 2017		
Update on Tijuana sewage spill into Imperial Beach	Abarbanel	
Information item regarding impacts of population dynamics on water quality	Olson	
Dynamics of Climate Science, perhaps with U.S.N. Climate Scientists	Abarbanel, Morales	
Revisit Lake San Marcos timeline	Abarbanel	November 2017 EOR
Clarify Operation of value for discharges into San Diego Bay.	Abarbanel	

Dear San Diego County Farm Bureau Member,

In 2009 the San Diego County Farm Bureau established the San Diego Regional Irrigated Lands Group (SDRILG) as an exclusive member benefit. Those members who signed up for SDRILG were then in compliance with the state regulations covering agricultural runoff.

The San Diego Regional Water Quality Control Board has now set August 7, 2017, as the deadline to comply with the latest iteration of regulations governing agricultural runoff. Again, SDRILG membership will provide coverage for those Farm Bureau members who participate in the group.

As a Farm Bureau member who was not previously in the group, we want to advise you that the enrollment fee to enter the program is currently $250 per acre capped at $1250, but will go to $300/$1500 on June 1, 2017.

You can enroll in SDRILG at **https://noi.sdirrigatedlandsgroup.org/**

For more information, please feel free to contact the Farm Bureau office at 760-745-3023.

Sincerely,

Eric Larson
Executive Director

WINTER 2017 / ISSUE 1

San Diego GROWN

The Voice of Local Farmers

GROWING SOLUTIONS AT SOLUTIONS FARMS

FARM TO FORK IN SAN DIEGO

TAKE NOTE: WATER NEWS, CANNABIS, AND HLB

A FRESH LOOK AT PITAHAYA

SAN DIEGO COUNTY FARM BUREAU

SAN DIEGO COUNTY FARM BUREAU
WINTER 2017

GWDRQ&A

Agricultural Runoff Order

The San Diego Water Board has set August 7, 2017, as the deadline for agricultural producers to be in compliance with the recently adopted General Waste Discharge Requirements for Agricultural Operators. Farm Bureau members who previously enrolled in the San Diego Region Irrigated Lands Group's compliance program for Waiver No. 4 will be guided through the transition into the new program prior to the deadline when the program documents are ready. Farm Bureau members who did not enroll under the previous program are advised that the enrollment fee to enter the program is currently $250 per acre capped at $1250, but will go $300/$1500 on June 1, 2017. For more information non-enrolled members can contact the Farm Bureau office.

Why is there an Ag Order?

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) is responsible for making certain that local government and businesses are in compliance with state and federal runoff regulations. Locally, for commercial agriculture the General Agricultural Orders (Ag Order) format was selected to replace Waiver No. 4, the previous regulation.

Does my farming operation require compliance?

Meeting any one of several tests requires Ag Order compliance:

- Intent to make a profit.
- Owner or operator files an IRS Form 1040 Schedule F Profit or Loss from Farming.
- Owner or operator is required to have an Operator Identification Number for pesticide use reporting.
- Operator receives agricultural water pricing (residential/ag meters may be exempt)

What are the compliance boundaries?

The Ag Order covers all of Region 9 which includes the San Mateo Watershed in southern Orange County, the Upper Santa Margarita Watershed in southern Riverside County, and all watersheds in San Diego County that drain to the west.

How do I comply with the Ag Order?

The San Diego Water Board gives you the option of compliance through a third-party group or as an individual. The San Diego Region Irrigated Lands Group (SDRILG) was formed as a third-party group so Farm Bureau members would have the easiest path to compliance.

I was already in the SDRILG for Waiver No. 4. Am I covered for the Ag Order?

Yes, if your Farm Bureau membership has been continuous your coverage for the Ag Order will be secured with new and renewed documents.

Why is Farm Bureau membership required?

Membership organizations would be working against the interests of their own members by providing services for non-members. SDRILG is affiliated with the Farm Bureau and was created to be a third-party group solely as a member benefit offering a path to compliance for runoff regulations.

What if I would rather not be a Farm Bureau member?

Individual compliance is an option.

How can I meet individual compliance?

That will require a direct relationship with the San Diego Water Board, so they should be contacted. www.waterboards.ca.gov/sandiego/

Is Farm Bureau just working hand-in-hand with regulators in order to make money?

As a recognized non-profit organization Farm Bureau has no motivation to be profitable, but costs must be covered. It was Farm Bureau's volunteer leaders who decided members needed a path to compliance with the regulations. Non-members are welcome to join and participate.

Why has San Diego been targeted by the regulators?

These regulations are not unique to San Diego. Farmers across the state and nation face similar, and often more onerous, runoff compliance regulations.

(continued on page 41)

GWDR *(continued from page 40)*

Do I have to pay any fees?

If you have maintained continuous Farm Bureau membership since enrollment in Waiver No. 4 there are no additional enrollment fees due for the Ag Order. For growers new to Farm Bureau and/or SDRILG there is an enrollment fee of $250 per acre capped at $1250. On June 1, 2017 that fee will be raised to $300/$1500.

The San Diego Water Board has instituted a $200 fee that will be set aside for everyone meeting the August 7, 2017 enrollment deadline.

I was enrolled in SDRILG, but let my Farm Bureau membership lapse. Can I get back in?

Absolutely. You will have the choice of paying all back Farm Bureau dues (which protects your previously paid enrollment fee) or coming in as a new Farm Bureau member and paying the current enrollment fee.

Will there be other fees in the future?

At some time the SDRILG will be charging members a fee to cover annual operating costs.

Do I have to pay for all my acreage or just the planted acreage?

Just the planted acreage.

My farm is certified organic. Do I still have to comply?

State and federal runoff regulations do not contain compliance exemptions and the Ag Order applies to all farms regardless of production technique.

What if there is no runoff from my farm?

The state and federal clean water rules for agriculture make the assumption that even if there is no irrigation runoff from a farm there will be storm events when all properties experience runoff.

ASSESSING CONTAMINANTS IN FISH & SHELLFISH IN SAN DIEGO BAY

Fishing is a key recreational and subsistence activity in San Diego Bay. Several contaminants exist in bay sediments that can become incorporated into fish and shellfish tissue, via bioaccumulation and biomagnification, potentially posing a threat to humans consuming the seafood.

The California Office of Environmental Health Hazard Assessment (OEHHA) conducts scientific evaluations of risks to public health. In 2013, OEHHA released an advisory for San Diego Bay identifying the weekly number of servings of select fish species considered safe to eat, based on contaminant levels measured in fish tissue that could affect human health. The 2013 OEHHA advisory relies on contaminant-concentration data in fish tissue collected from 1999 through 2010. Since that time, additional data from several efforts have become available.

SAN DIEGO BAY: A RESOURCE OF MANY USES

San Diego Bay is an important water body in the San Diego region due to its ecological value and because it supports tourism; commercial, recreational, and subsistence fishing; and a variety of recreational, maritime, industrial, commercial, and military uses. For this reason, the San Diego Water Board endorsed a "Strategy for a Healthy San Diego Bay" via Resolution No. R9-2015-0086 in June 2015. The Strategy identified the key beneficial use categories of the Bay as:

- **Recreation (water contact ("REC-1") and non-water-contact ("REC-2"));**
- **Human consumption of fish and shellfish; and**
- **Habitats and ecosystems**

A primary goal of the Strategy is to use monitoring data to assess attainment of these key beneficial uses, as well as changes in their status over time, and to communicate findings to the public.

DATA AVAILABLE FOR ANALYSIS SINCE THE 2013 OEHHA ADVISORY

- **SCCWRP Bight Regional and Regional Harbor Monitoring Programs and City of San Diego Shallow Water Habitat Survey (Fish Tissue, 2013-2014)**
- **San Diego Water Board Surface Water Ambient Monitoring Program (Lobster Tissue, 2014-2015)**
- **NOAA Mussel Watch Program (Mussel Tissue, 2010-2015)**
- **CDPH Marine Biotoxin Monitoring Program (Clam and Mussel Tissue, 2011-2016)**
- **San Diego County DEH Beach and Bay Monitoring Program (Water Quality, 2014-2016)**

This "status sheet" presents analyses of more recent data collected by federal, state, and local agencies. Data analyzed included contaminant levels in fish, lobster, and mussel tissue, marine biotoxins in clam and mussel tissue, and levels of fecal indicator bacteria in water where bivalve shellfish may be harvested by the public. This information is not intended as a consumption advisory; rather, the goal is to evaluate whether the key beneficial use category of "safe to eat" is being met. This information can be used to educate the public and to prioritize efforts for achieving healthy waters in San Diego Bay.

Common Fish and Shellfish Analyzed


Pacific Chub Mackerel


Spotted Sand Bass


California Spiny Lobster


Mussel


California Halibut


Topsmelt


Round Stingray


Pismo Clam

CONTACT:
Betty Fetscher, Ph.D., Senior Environmental Scientist
Betty.Fetscher@waterboards.ca.gov

Project partners:

Table 2. Chemical Contaminants Found Above Levels of Concern in Analyzed Fish and Shellfish Tissue

Species Analyzed	Key Contaminants of Concern
California Halibut	Mercury, PCBs
Pacific Chub Mackerel	Mercury, PCBs
Round Stingray	Mercury, PCBs
Spotted Sand Bass	Mercury, PCBs
Topsmelt	PCBs
California Spiny Lobster	Mercury
Mussel	PCBs, Pesticides (Dieldrin)

LEVELS OF OTHER CONTAMINANTS IN BIVALVE SHELLFISH

Bivalve shellfish (e.g. clams and mussels) may also contain biotoxins which can cause illness in humans if consumed. Levels of marine biotoxins were not found to be above Food and Drug Administration action levels at the two locations sampled in San Diego Bay. As an extra precaution, there is a statewide annual mussel quarantine limiting consumption from May 1 to October 31, the time of year when marine biotoxins tend to be most prevalent.

Levels of bacteria in the water can also indicate risk of human illness for shellfish consumption. Levels of total coliform indicator bacteria measured from water at six public beaches in San Diego Bay were analyzed and compared to the total coliform standards for shellfish harvesting in the San Diego Basin Plan. Bacteria levels were elevated at all beaches analyzed, indicating that shellfish harvested from these areas may be unsafe to eat.

PCBs and mercury are still present at levels of concern in fish from San Diego Bay. Contaminants in lobster and bivalve shellfish from San Diego Bay may also pose a risk.

CONTAMINANTS IN FISH AND SHELLFISH TISSUE

Tissue from fish, lobsters, and mussels were analyzed for several contaminants (e.g. heavy metals, PAHs, PBDEs, PCBs, pesticides) that can pose a risk to human health if consumed in seafood. Contaminant levels measured in fish, lobster, and mussel tissue were compared to OEHHA advisory concentrations (Table 2).

Tissue from all fish species analyzed contained levels of concern for PCBs. Most fish species analyzed also contained levels of concern for mercury. These findings support the OEHHA advisory for limiting the consumption of fish from San Diego Bay.

Lobster tissue samples were found to contain levels of concern for mercury. Tissue analyzed from mussels contained levels of concern for PCBs and pesticides (specifically dieldrin). Consumption of lobster and mussels in large enough quantities may pose a risk to human health.

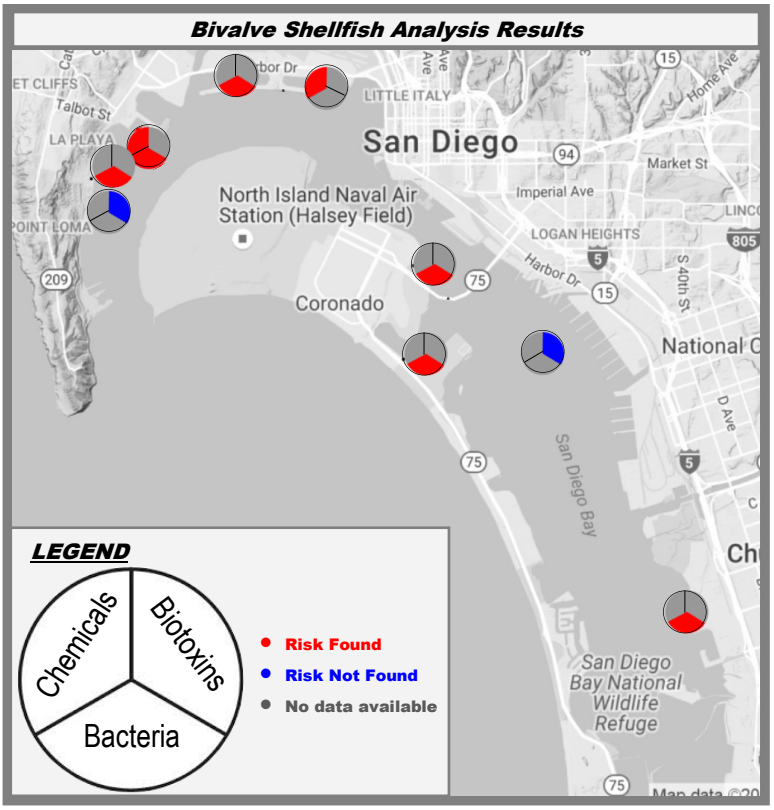


Figure 1. Sampling locations and analysis results for bivalve-shellfish tissue or water-column grabs. Depending upon the monitoring program, stations were sampled for either chemical constituents or marine biotoxins in tissue, or for total coliforms indicator bacteria in the water column. See legend for a key to what was measured at each station, and analysis results.

STAY INFORMED!

- Visit the OEHHA website for the latest consumption guidelines and advisories (http://oehha.ca.gov/advisories/san-diego-bay).
- Look for consumption guidelines and advisory signs posted at popular fishing piers throughout San Diego Bay.
- Visit the San Diego Water Board website for information about bioaccumulation studies and angler surveys conducted in San Diego Bay (http://www.waterboards.ca.gov/sandiego).

ASSESSING BACTERIA LEVELS IN SAN DIEGO BAY

MONITORING & ASSESSMENT
SAN DIEGO WATER BOARD
February 2017

Are ecosystems healthy | IS IT SAFE TO SWIM | Are fish and shellfish safe to eat | Is water safe to drink

Photo: C. Gorham

This "status sheet" reports on current conditions of San Diego Bay in terms of its ability to support water-contact recreation (i.e., the "REC-1" beneficial use). Water quality standards are commonly used to determine if waters are safe for human contact. Fecal indicator bacteria such as *Enterococcus* have been linked to various pathogens commonly associated with sewage (or fecal matter). When *Enterococcus* levels in water exceed standards deemed safe for human water contact, the potential risk of contracting a waterborne illness increases.

Photo: J. Haas

SAN DIEGO BAY: A RESOURCE OF MANY USES

San Diego Bay is an important water body in the San Diego region due to its ecological value and because it supports tourism; commercial, recreational, and subsistence fishing; and a variety of recreational, maritime, industrial, commercial, and military uses. For this reason, the San Diego Water Board endorsed a "Strategy for a Healthy San Diego Bay" via Resolution No. R9-2015-0086 in June 2015. The Strategy identified the key beneficial use categories of the Bay as:

- **Recreation (water contact ("REC-1") and non-water-contact ("REC-2"));**
- **Human consumption of fish and shellfish; and**
- **Habitats and ecosystems**

A primary goal of the Strategy is to use monitoring data to assess attainment of these key beneficial uses, as well as changes in their status over time, and to communicate findings to the public.

Beach advisories are posted when bacteria levels are above the water quality standards and swimming is not advised. SD County Department of Environmental Health routinely monitors swimming areas to evaluate bacteria levels. In San Diego Bay, weekly samples are collected at six beaches between April 1st and October 31st of each year. In some cases (such as at Shelter Island Shoreline Park in 2015), monitoring continues through the winter months. This monitoring of bacteria levels allows for evaluation of how often each beach met or did not meet safe swimming water quality standards during the "dry" season (May through September) and "wet" season (October through April).

Photo: J. Anderson

Photo: E. Chan

CONTACT:
Betty Fetscher, Ph.D., Senior Environmental Scientist
Betty.Fetscher@waterboards.ca.gov

Project partners:

ASSESSING THE REC-1 BENEFICIAL USE IN SAN DIEGO BAY

For regulatory purposes, *Enterococcus* levels are expressed in two ways: The first is the one-time *Enterococcus* concentration detected in a single sample. The other is the average level of the *Enterococcus* concentrations detected in up to five samples collected during any 30-day period. Sample results are compared to *Enterococcus* REC-1 water quality standards. If concentrations in a given water body are greater than the REC-1 water quality standards more than 10 percent of the time, there is a greater risk for illness in humans from water contact. San Diego Bay *Enterococcus* data were compiled from a 2-year period (May 2014 through April 2016) to assess the bacteria conditions during the "dry" and "wet" seasons.

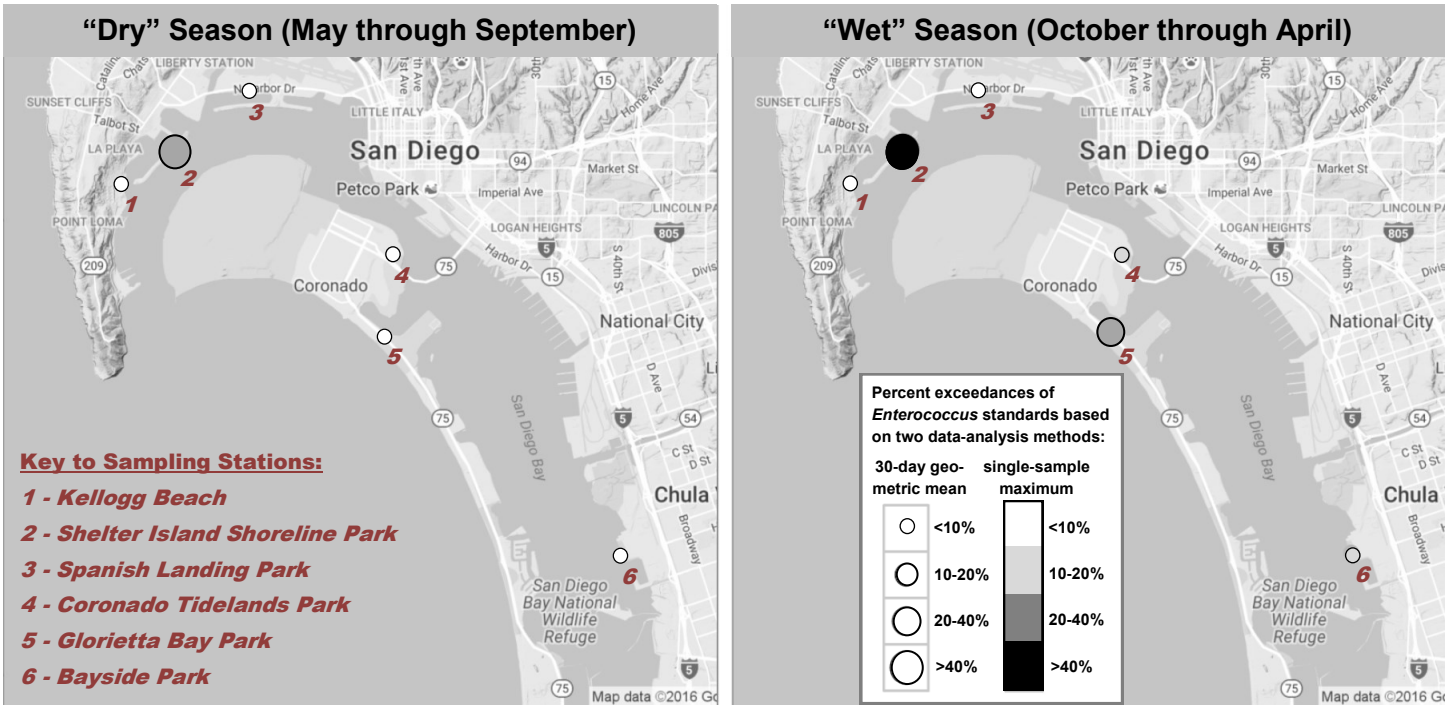


Figure 1. Frequencies at which contact-recreation standards for *Enterococcus* were exceeded, in the dry and wet seasons, reported in two ways, as: 1) 30-day geometric mean, and 2) single-sample maximum. For the former, increasing diameter of the data point, and for the latter, the shift from white toward black, represent higher percentages of exceedances of *Enterococcus* standards.

Enterococcus levels were found to be higher in the "wet" season, suggesting that the increased risk of illness in humans from water contact may be linked to storm water runoff.

ARE REC-1 STANDARDS BEING MET?

While *Enterococcus* results show water quality standards are being met and support water contact recreation much of the time, there were some variations by season and location. At Spanish Landing Park and Kellogg Beach, *Enterococcus* levels met REC-1 standards during both "dry" and "wet" seasons. At Glorietta Bay, Coronado Tidelands, and Bayside Parks, *Enterococcus* levels met REC-1 standards during the "dry" season, but did not meet REC-1 standards during the "wet" season. At Shelter Island Shoreline Park, where samples were collected throughout the year, *Enterococcus* levels did not meet REC-1 standards during both the "dry" and "wet" seasons.

BE PART OF THE SOLUTION

The San Diego Water Board and the Port of San Diego are working together to improve water quality throughout San Diego Bay.

How can you be part of the solution?

- **KEEP YOURSELF INFORMED! Visit the County of San Diego Beach Water Quality website to see the most up-to-date water quality data and closure information (http://www.sdbeachinfo.com).**
- **Avoid water contact in San Diego Bay following storm events and in areas where beach advisories are posted.**
- **Do your part to reduce human pathogens in San Diego Bay:**
  -Properly pump out boat holding tanks.
  -Maintain your sewage lines to prevent leaks.
  -Report sewage spills to the local authorities.

Enforcement Actions for February 2017

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
02/05/2017	Notice of Violation No. R9-2017-0039	Hester's Granite Company, Grading Trench at 2266 Willow Glen Drive, El Cajon	Deficient BMP implementation, missing annual report, failure to prepare a Rain Event Action Plan, and unauthorized discharges.	National Pollutant Discharge Elimination System (NPDES) Construction General Permit Order No. 2009-0009-DWQ
02/01/2017	Staff Enforcement Letter	Valley Center Municipal Water District, Lower Moosa Canyon Water Reclamation Facility, Escondido	Exceedances of fluoride and manganese 12-month average effluent limitations.	Waste Discharge Requirements (WDR) Order No. 95-32
02/08/2017	Staff Enforcement Letter	Rancho Santa Fe Community Services District, Rancho Santa Fe Water Reclamation Facility	Exceedances of nitrate, fluoride, chloride, total dissolved solids, and manganese effluent daily maximum and monthly average effluent limitations.	WDR Order No. 92-04
02/10/2017	Staff Enforcement Letter	All Seasons RV Park, LLC, Escondido	Deficient monitoring and exceedances of 12-month average effluent limitation for chloride and daily maximum effluent limitations for sulfate and total suspended solids.	WDR Order No. 94-05

Enforcement Actions for February 2017

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
02/10/2017	Staff Enforcement Letter	Ramona Municipal Water District, San Vincente Wastewater Treatment Plant, Ramona	Exceedances of percent sodium and color 12-month average effluent limitations and 7-day median total coliform effluent limitation.	WDR Order No. R9-2009-005
02/10/2017	Staff Enforcement Letter	San Elijo Joint Powers, San Elijo Water Reclamation Facility, Encinitas	Multiple exceedances of total coliform effluent limitations.	WDR Order No. 2000-10

Table 1: January 2017 - Summary of Public and Federal Sanitary Sewer Overflows in the San Diego Region

Responsible Agency	Collection System	Total Volume*	Total Recovered*	Total Reaching Surface Waters*	Total Discharged to Land*	Percent Recovered	Percent Reaching Surface Waters	Percent Discharged to Land	Miles of Pressure Sewer	Miles of Gravity Sewer	Population in Service Area
		(Gallons)				(%)					
CSU San Diego	San Diego State University CS	250	0	250	0	0%	100%	0%	0.0	6.0	35,000
Chula Vista City	City of Chula Vista CS	650	50	600	0	8%	92%	0%	3.4	503.0	265,070
Del Mar City	City of Del Mar CS	125,000	125,000	0	0	100%	0%	0%	2.8	29.0	4,199
El Toro Water District	El Toro Water District R9 CS	2,000	2,000	0	0	100%	0%	0%	6.0	118.0	50,180
Moulton Niguel Water District	Moulton Niguel Water District CS	750	0	750	0	0%	0%	0%	10.5	491.7	172,000
National City	City of National City CS	7,500	0	7,500	0	0%	100%	0%	1.0	105.0	58,967
Oceanside City	City of Oceanside Collection System, La Salina WWTP	100	0	0	100	0%	0%	100%	35.6	439.7	171,455
Rainbow Municipal Water District	Rainbow Municipal Water Dist CS	24,000	24,000	0	0	100%	0%	0%	3.0	60.0	9,800
San Clemente City	City of San Clemente CS	105	105	0	0	100%	0%	0%	3.7	174.6	65,399
San Diego City (City Attorney's Office at Civic Center Plaza)	San Diego City CS (Wastewater Collection System)	267	117	0	150	44%	0%	56%	145.0	3,032.0	2,207,591
		15,500	0	0	15,500	0%	0%	100%			
		80	80	0	0	100%	0%	0%			
		91	91	0	0	100%	0%	0%			
		156	0	0	156	0%	0%	100%			
San Diego County Depart of Public Works	County of San Diego CS	10	0	0	10	0%	0%	100%	10.0	408.0	151,500
		3,500	0	3,500	0	0%	100%	0%			
		500	100	0	400	20%	0%	80%			
Santa Margarita Water District	Santa Margarita Water District CS	600	0	600	0	0%	100%	0%	14.0	615.0	155,000
Valley Center MWD	Lower Moosa Canyon Recl Facil SC	350	300	0	50	86%	0%	14%	5.0	50.0	4,615
	Totals for Public Spills	181,409	151,843	13,200	16,366						
	Totals for Federal Spills	0	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).

Table 2: January 2017 - Summary of Private Lateral Sewage Discharges in the San Diego Region

Responsible Agency	Collection System	Total Volume*	Total Recovered*	Total Reaching Surface Waters*	Total Discharged to Land*	Percent Recovered	Percent Reaching Surface Waters	Percent Discharged to Land	Population in Service Area	Lateral Connections
		(Gallons)				(%)				
Chula Vista City	City of Chula Vista CS	1,340	700	640	0	52%	48%	0%	265,070	49,532
Escondido City	HARRF Disch To San Elijo OO CS	40	0	0	40	0%	0%	100%	142,000	53,848
Fallbrook Public Utility Dist	Fallbrook Plant 1, Oceanside of CS	100	90	0	10	90%	0%	10%	23,000	4,683
La Mesa City	City of La Mesa CS	10	10	0	0	100%	0%	0%	58,244	13,000
National City	City of National City CS	2	2	0	0	100%	0%	0%	58,967	8,000
		10	10	0	0	100%	0%	0%		
Poway City	City of Poway CS	85	85	0	0	100%	0%	0%	44,507	12,212
San Diego City (City Attorney's Office at Civic Center Plaza)	San Diego City CS (Wastewater Collection System)	190	190	0	0	100%	0%	0%	2,207,591	267,237
		1,225	975	250	0	80%	20%	0%		
Vista City	City of Vista CS	300	240	60	0	80%	20%	0%	90,000	16,483
	Totals	3,302	2,302	950						

*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: January 2017 - Summary of Transboundary Flows from Mexico into the San Diego Region

Location	Start Date	Total Volume	Total Recovered	Total Reaching Surface Waters	Percent Recovered	Percent Reaching Surface Waters	Additional Details
		(Gallons)			(%)		
Dry Weather[1]							
Tijuana River	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Dry Weather		n/a	n/a	n/a	n/a	n/a	
Wet Weather[2]							
Tijuana River	12/16/2017	n/a	n/a	n/a	n/a	n/a	On December 16, 2016, the operation of Pump Station CILA was suspended due to the large flows resulting from precipitation in the Tijuana watershed. The Pump Station CILA resumed operations on March 24, 2017. Due to the amount of flow in the river, not all flow will be diverted by the pump station. Some flow will continue to pass into the U.S. No transboundary flow amounts reported. Note: There was a large (~143 million gallons) transboundary flow event reported in February 2017. More information regarding this event will be provided in the EOR for the May 2017 Board meeting.
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.