

# California Regional Water Quality Control Board

San Diego Region

David Gibson, Executive Officer



## Executive Officer's Report

August 10, 2016

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

## **Part A – San Diego Region Staff Activities**

### **1. Personnel Report**

*Staff Contact: Lori Costa*

The Organizational Chart of the San Diego Water Board can be viewed at [http://www.waterboards.ca.gov/sandiego/about\\_us/org\\_charts/orgchart.pdf](http://www.waterboards.ca.gov/sandiego/about_us/org_charts/orgchart.pdf)

#### Recruitment

The recruitment process has begun to fill an Engineering Student Assistant position in the Land Discharge Unit and Scientific Aid positions in the Wetland and Riparian Protection Unit and the Restoration and Protection Planning Unit.

### **2. Budget Report**

*Staff Contact: Lori Costa*

On June 27, 2016, Governor Jerry Brown signed a “balanced, on-time state budget that doubles California’s Rainy Day Fund and pays down debt.”

The budget includes 117 new positions for the State and Regional Boards. The San Diego Regional Board received one new position. The budget also contains a 5% general salary increase for employees in engineering (BU9) and scientist (BU10) classifications.

The SEIU bargaining units have not yet reached agreement with the administration on a new contract; at this time we do not know what if any increase those staff will receive. Similarly, the administration has not made any announcement on an excluded employee pay increase for associated excluded employees.

## **Part B – Significant Regional Water Quality Issues**

### **1. Clean Water Act Section 401 Water Quality Certification Program**

*Staff Contacts: Eric Becker and Nicole Gergans*

#### **Background**

The San Diego Water Board’s Wetland and Riparian Protection Program (Program) seeks to preserve, protect, restore, and enhance the Region’s wetlands, streams, and other aquatic resources that are waters of the United States and/or State (waters). The San Diego Water Board’s ability to issue federal Clean Water Act section 401 Water Quality Certifications (Certifications) to applicants that condition the discharge of dredge or fill material to waters is the cornerstone of the Program. To achieve no net loss and a net gain of wetlands and other aquatic resources, applicants are expected to avoid deliberate discharges of materials into waters and then to minimize discharges that cannot be avoided. When impacts are unavoidable, applicants are required to provide “compensatory mitigation” to offset the impacts as a condition of the Certification. Compensatory mitigation attempts to recreate the structure and functions of the impacted waters through creation, re-creation, rehabilitation, and enhancement either on- or off-site.

Consistent with the San Diego Water Board's Practical Vision and the 2015 Operational Plan, the Wetland and Riparian Protection and Compliance Assurance Units (San Diego Water Board staff) have implemented a proactive approach to ensure applicant compliance with Certification requirements. Internal and external audits of the Program have previously identified the need for a stronger emphasis on Certification compliance reviews. The new approach provides an increased emphasis on evaluating compliance with Certification requirements through monitoring report reviews and increased field verifications. Resources have been directed over the last two years to conduct the compliance reviews and enforcement follow-up.

The comprehensive compliance reviews started with Certifications issued in 2009, since a majority of these projects should have started construction, implemented the required compensatory mitigation, or both. In 2009, the San Diego Water Board issued Certifications and amended Certifications for 79 separate projects that impacted waters. Following an initial screening of all 79 certified projects, 17 projects were identified for further evaluation based on various factors such as missing reports, types of impacts to waters, and whether the project had started construction. Of the 17 projects, 10 were field inspected by San Diego Water Board staff.

### **Findings**

A variety of compliance issues were discovered that pertained to the failure of the applicant to comply with Certification requirements. The most common compliance issue was reporting violations, where required reports were either not submitted or did not provide the required information. Of the 17 projects selected for further review, the applicants for 9 projects had not submitted any required reports and the applicants for the remaining 8 projects had submitted incomplete reports. Another major compliance issue noted in the audit was that project applicants did not always following through on implementing the details of their own project plan, mitigation plan, or maintenance and monitoring requirements. This resulted in larger unauthorized impacts to aquatic resources, inadequate mitigation, or failed mitigation. It was also evident that monitoring techniques were not always performed correctly or the monitoring did not adequately reflect site conditions. Lastly, it was noted that while compensatory mitigation sites may have met their stated performance criteria, the mitigation did not result in the expected ecological outcome.

### **Resulting Enforcement**

Staff Enforcement Letters (SEL) were issued to the responsible parties for 13 projects. Four Notices of Violations (NOVs) were issued for a variety of matters including increased impacts to waters that were not authorized by the Certification, failure to submit required reports, failure to implement required compensatory mitigation, and failure to maintain the compensatory mitigation sites. In lieu of more formal enforcement, San Diego Water Board staff engaged in discussions with the applicants to effectively resolve some of the outstanding Certification violations. During these discussions, San Diego Water Board staff and the applicants were often able to come to agreement on providing additional mitigation to compensate for temporal loss and/or increased impacts attributable to the applicants failure to implement required mitigation in a timely manner. Once an agreement in concept has been reached, the original Certifications must be amended to reflect the additional mitigation. The Certifications for two of the projects have already been amended to reflect project changes. Two other projects are still pending resolution for failure to implement and/or maintain mitigation and will be appropriately amended

in the future. When an alternative compliance pathway cannot be reached with the applicant, the cases are considered for formal enforcement actions including administrative enforcement orders requiring applicants to clean up waste and abate existing or threatened conditions of pollution or nuisance; or pay administrative civil liability penalties. Such formal enforcement actions can increase public awareness and deter non-compliance by the applicants. However, the cooperative approach (i.e. alternative to formal enforcement) appears to be effective in enabling San Diego Water Board staff to expend its limited resources in ways that obtain compliance with Certification requirements and achieve maximum water quality benefits.

## **Conclusions**

San Diego Water Board staff found it both challenging and inefficient to address mitigation problems years after issuing the Certifications. Compliance issues need to be promptly identified and corrected. San Diego Water Board staff are now targeting inspections of mitigation sites within a year of installation to determine if mitigation was built to specifications and to address problems early in the post –construction monitoring period. Also, Certification requirements should clearly express enforceable ecological success criteria to ensure that the intended environmental outcomes are met at compensatory mitigation sites. Uses of both formal and alternative enforcement pathways are necessary to compel the regulated community to stay in compliance with Certification requirements. Lastly, changes to the compliance monitoring system (statewide CIWQS database and other tools) are needed to promptly notify applicants to submit missing or complete monitoring reports. UCSD Masters student H. Lawrence Serra evaluated the roadblocks to the success of compensatory mitigation for impacts to waters. Mr. Serra has offered his assistance to San Diego Water Board staff to make necessary changes to the existing compliance monitoring system.

## **2. 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 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. Famosa Slough provides habitat for shore birds and wildlife, and it is a significant feeding and resting site for migratory birds.

The Slough is managed as a wetland preserve by the City of San Diego with the help of Friends of Famosa Slough, a local citizens group who has been instrumental in the protection, preservation, and restoration of Famosa Slough wetlands. Its volunteers work 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 25 acres of open water. Famosa Slough is listed on the Clean Water Act section 303(d) list of impaired water bodies for eutrophic conditions, which are most apparent during the summer dry-weather season when excessive algal growth may occur. Eutrophication

occurs when excess nutrients enter a water body and causes dense growth of aquatic plants and algae. The intense aquatic plant and algae growth results in the depletion of oxygen in the water. Eutrophication negatively affects beneficial uses associated with aquatic life and aesthetics. The most sensitive uses for Famosa Slough are Estuarine Habitat and Wildlife Habitat, which support aquatic life.

Staff is developing an alternative Total Daily Maximum Load (TMDL) to identify activities that will restore Famosa Slough to meet its designated beneficial uses. A TMDL includes a calculation of the maximum amount of a pollutant that can occur in a water body and maintain beneficial uses. Alternative TMDLs identify strategies that can be used with existing permits to reduce pollutants and restore impaired water bodies. Alternative TMDLs allow more flexibility with adaptive implementation plans than a traditional TMDL completed as a Basin Plan amendment. The development of alternative TMDLs is in line with [USEPA's New Vision](#) for the Clean Water Act section 303(d) program to enhance program efficiency while achieving the goals of water quality restoration and protection.

Actions to comply with the existing Regional Storm Water (MS4) permit to reduce nutrients, improve water quality in support of key beneficial uses, and address the eutrophic impairment are being evaluated in the development of this alternative TMDL.

The stakeholder group plans to use the [Nutrient Numeric Endpoint \(NNE\) Approach for Estuaries](#) to select ecological indicator numeric target values and identify subsequent allowable loads for Famosa Slough. The NNE approach has been under development by the Southern California Coastal Water Research Project for the State Water Board since 2009, in response to a USEPA requirement for states to set nutrient criteria. The NNE approach is a measure of water body health using multiple ecological indicators (e.g., algal biomass and dissolved oxygen), rather than nutrient concentrations to evaluate the risk to beneficial uses from eutrophication.

#### PROJECT INFORMATION

<b>Famosa Slough TMDL</b>		<i>Report Date</i>	June 30, 2016
		<i>Report Period</i>	Jan 2016-June 2016
		<i>Overall Status</i>	Project is on track
<b>Project Coordinator</b>	Jody Ebsen	<b>Project Contacts</b>	<a href="#">Jody Ebsen</a> and <a href="#">Cynthia Gorham</a>
<b>Supervisor</b>	Cynthia Gorham, Restoration and Protection Planning Unit		
<b>Project Description</b>	The goal of this project is to restore the water quality so that Famosa Slough fully supports its most sensitive ecosystem health beneficial uses including estuarine and wildlife beneficial uses.		

<b>Project Objective(s)</b>	<ol style="list-style-type: none"> <li>1. To develop an alternative TMDL in collaboration with stakeholders to establish implementation actions to restore Famosa Slough through the MS4 Permit and the required Water Quality Improvement Plan for the San Diego Watershed.</li> <li>2. To understand Famosa Slough's ecological condition and model effects of nutrient load reduction strategies.</li> <li>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 (NNE) for California Estuaries.</li> <li>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.</li> </ol>		
<b>Key Milestones</b>	<b>Action</b>	<b>Date</b>	<b>Notes</b>
	Conduct CEQA Scoping Meeting	February 2016	Completed
	Selection of Indicators for Estuarine Numeric Targets	August 2016	On-Schedule
	Final Model and TMDL Technical Report	September 2016	On-Schedule
	Numeric Target Selection	September 2016	On-Schedule
	Allowable Loads Determination	September 2016	On-Schedule
	Load and Waste Allocations	September 2016	On-Schedule
	Complete Draft Staff Report	October 2016	On-Schedule
	Public Workshop	December 2016	On-Schedule
	Board Hearing	Spring 2017	On-Schedule
<b>Project web site</b>	<a href="http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/famosa_slough.shtml">http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/famosa_slough.shtml</a>		

<b>Reporting Period Events</b>	
Accomplishments during period	The City of San Diego's consultants, Tetra Tech presented initial modeling scenario results to the San Diego Water Board project team. The project team provided oral comments to the stakeholders on the prospective scenarios.
Collaboration during period	<ul style="list-style-type: none"> <li>• A CEQA scoping meeting was held on February 1, 2016.</li> <li>• Project team met with the stakeholders on January 20, March 29, and May 19, 2016. The May 19 meeting also included a site visit.</li> <li>• Project team is negotiating with the City of San Diego to restore/ maintain Famosa Slough as high quality habitat condition and to protect all designated beneficial uses.</li> </ul>

Activities planned, but not completed	None.
Key issues during period	Discussion and determination of numeric target to protect beneficial uses. 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.
<b>Looking Forward</b>	
Activities planned for next reporting period	<ul style="list-style-type: none"> <li>• Tetra Tech will complete the Final Model and TMDL Technical Reports.</li> <li>• San Diego Water Board will begin writing the Staff Report.</li> <li>• Tetra Tech will present the final scenarios for the City of San Diego at a meeting in August 2016.</li> <li>• The San Diego Water Board, the City of San Diego, and the Friends of Famosa Slough will finalize numeric targets and load allocations for Famosa Slough.</li> </ul>
Key issues on the horizon	<ul style="list-style-type: none"> <li>• Finalizing an agreement for numeric targets and total allowable loads using the draft NNE approach.</li> </ul>

### 3. City of San Diego and Kinder Morgan Settlement Related to Contamination at Qualcomm Stadium Property (*Attachment B-3*)

*Staff Contact: Sean McClain*

The City of San Diego and Kinder Morgan announced on June 17, 2016, that they have entered into a settlement resolving all claims related to the historical contamination at the City's Qualcomm Stadium property. The settlement provides for a \$20 million payment to the City, and also includes an agreement by Kinder Morgan to cover additional costs incurred by the City in the redevelopment of the Qualcomm Stadium property or development of the groundwater beneath the property. This settlement ends nine years of litigation between the parties. The Joint Statement from the City and Kinder Morgan is provided in Attachment B-3.

#### **Mission Valley Terminal Background**

The Mission Valley Terminal (MVT) is a 10.5 acre aboveground storage tank facility located in Murphy Canyon in an area bounded by Interstate 15 and San Diego Mission Road in the City of San Diego. The MVT has been in operation since 1962. Gasoline releases from the terminal resulted in a groundwater contamination plume extending off-Terminal approximately 5,000 feet to the south and southwest beneath Friars Road and the Qualcomm Stadium parking lot.

Kinder-Morgan implemented a Corrective Action Plan in 2005 to clean up the soil and groundwater in the off-Terminal Area and to comply with Cleanup and Abatement Order (CAO) No. 92-01, Addendum No. 5 cleanup deadlines. The San Diego Water Board approved Kinder Morgan's proposed alternative groundwater cleanup levels and confirmed completion of the soil and groundwater cleanup in the off-Terminal Area. Additionally, the San Diego Water Board issued Addendum No. 8 to CAO No. 92-01 that established a January 31, 2024 cleanup deadline for the on-Terminal Area and amended the Monitoring and Reporting Program to track the progress of the on-Terminal cleanup.



#### 4. Direct Potable Reuse of Recycled Water – Expert Panel Research Recommendations (*Attachment B-4*)

*Staff Contacts: Alex Cali and Fisayo Osibodu*



DIRECT POTABLE REUSE OF RECYCLED WATER?



A new draft report on the viability of Direct Potable Reuse (DPR) of water in California will be available September 1, 2016 for public comment. The report will be drafted by the State Water Board Division of Drinking Water (DDW) and will include research recommendations from an expert panel issued in a memorandum. Water Code Sections 13560-13569, added after SB 918 in 2010 and SB 322 in 2013 were passed, required investigation into the feasibility of DPR and into the potential of developing uniform water recycling criteria for DPR, and submission of a final report to the Legislature. SB 918 required that an expert panel (Panel) be convened for the purposes of advising the DDW on public health issues and scientific and technical matters regarding the investigation.

In 2013, SB 322 amended the Water Code to require an advisory group to inform both the Panel and the State Water Board in the development of the feasibility report. The amendments included tasking the Panel to evaluate if any additional areas of research were needed to develop uniform recycling criteria for DPR and to provide the recommendations to the State Water Board. As of June 30, 2016; the Panel finished this task and provided the information to the State Water Board in a memorandum. The memorandum with the Panel's recommendation for Key Research Topics can be accessed on the State Water Board's webpage link at: [http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/documents/recycled\\_water/ep\\_research\\_rec.pdf](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/recycled_water/ep_research_rec.pdf)

The Panel finds that there is no need for additional research to be conducted to establish uniform water recycling criteria for DPR. However, the Panel encourages the State Water Board to address six research recommendations that are summarized in its draft memorandum.<sup>1</sup> The Panel identified important areas not being addressed in the WaterReuse research program related to public health, including efforts to identify new contaminants of concern, additional tools to better inform decisions on log removal values (LRVs) for pathogen reduction, and to develop better monitoring techniques. The Panel believes that the additional research would be best if it were supported directly by the State of California. The research recommendations do not need to be conducted before the development of DPR criteria and the Panel states it could be accomplished concurrently with the development of uniform water recycling criteria for DPR.

<sup>1</sup> Expert Panel Draft Key Research Recommendation Related to the Development of Uniform Water Recycling Criteria for Direct Potable Reuse in the State of California (under SWRCB Agreement No. 13-21041)



DDW will incorporate key recommendations from the advisory group and the Panel to develop a draft Report to Legislature that will be provided for public comment on September 1, 2016.

More information regarding the Panel is posted on the DDW webpage at:

[http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/RW\\_SWA\\_DPRexpertpanel.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/RW_SWA_DPRexpertpanel.shtml).

## **5. San Diego and Santa Ana Water Boards Oversight Coordination for Recycled Water Use in Lake Forest (*Attachment B-5*)**

*Staff Contact: Fisayo Osibodu*

How do we encourage reuse and streamline regulation of recycled water on the northern border of the San Diego Region? Recently, the San Diego Water Board agreed to simplify the recycled water use oversight of the Water Reclamation Plants owned and operated by the Irvine Ranch Water District (IRWD) by designating its authority to the Santa Ana Water Board. This established the Santa Ana Water Board as the sole Water Board responsible for regulating treatment, use, and distribution of recycled water distributed from the IRWD. Under authority of Water Code section 13228,<sup>2</sup> the San Diego Water Board provided a letter to IRWD (*Attachment B-5*) memorializing the agreement in response to the IRWD's request.

The IRWD owns and operates the Michelson Water Reclamation Plant (Michelson WRP) and the Los Alisos Water Reclamation Plant (Los Alisos WRP), both of which are located in the Santa Ana Region. Currently, the IRWD discharges of recycled water are regulated by two Master Recycling Permits:

- Order No. R8-2015-0024, *Waste Discharge Requirements and Master Reclamation Permit for the Irvine Ranch Water District Water Recycling Plants Surface Water Discharge and Recycled Water Use*, issued by the Santa Ana Water Board.
- Order No. 97-52, *Waste Discharge and Water Recycling Requirements for the Production and Purveyance of Recycled Water by Member Agencies of the South Orange County Reclamation Authority, Orange County*, issued by the San Diego Water Board.

Recycled water produced by the IRWD is used mainly within the City of Lake Forest for landscape irrigation, agricultural irrigation, indoor uses such as toilet flushing, and in cooling towers. The IRWD reported that it provided an annual average of 29,448 acre feet of recycled water for reuse within the Santa Ana Region from 2010 through 2015. By comparison, the IRWD provided an annual average of only 423 acre-feet of recycled water within the same time period for reuse within the Aliso Creek Hydrologic Subarea of the San Diego Region.

<sup>2</sup> Water Code section 13228(a) Concerning any matter that may be submitted to a regional board by a person or entity that is subject to regulation by more than one Regional Board, the person or entity may submit the matter to one of those regional boards if both of the following requirements are met:

(1) The person or entity submits a written request to all affected regional boards that one Regional Board be designated to regulate the matter.

(2) All affected Regional Boards agree in writing to the designation. Unless the Board of any affected Regional Board denies the request, the Executive Officer of a Regional Board may grant a request submitted pursuant to paragraph (1) on behalf of that Board.

A majority of the recycled water produced from the Michelson and Los Alisos WRPs is distributed to reuse sites in the Santa Ana Region. In addition, data provided by the IRWD demonstrates that for the past 10 years recycled water quality has consistently been in compliance with the applicable groundwater quality objectives in the San Diego Water Board Basin Plan. As a result, granting IRWD's request is not expected to adversely affect water quality within the San Diego Region. Designating the Santa Ana Water Board as the Water Board responsible for regulating treatment, distribution, and uses of recycled water from Michelson and Los Alisos WRPs will relieve the IRWD from the burden of providing duplicative monitoring information to both Regional Water Boards, requiring less time for staff to oversee the projects, and should help to make more resources available to expand the use of recycled water.

The designation agreement will become effective after the San Diego Water Board either amends Order No. 97-52 to terminate the enrollment of the IRWD, or adopts a new Master Recycling Permit to replace Order No. 97-52 that includes the removal of the IRWD. San Diego Water Board staff will keep the Board informed as this process moves forward.

## **6. Status of Claude "Bud" Lewis Carlsbad Desalination Plant<sup>3</sup>** **(Attachment B-6)**

*Staff Contact: Ben Neill*

The [Claude "Bud" Lewis Carlsbad Desalination Plant](#) (CDP), which is owned by [Poseidon Resources \(Channelside\) LLC](#), began potable water production on November 9, 2015. 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, providing up to 50 million gallons of drinking water per day to customers within the [San Diego County Water Authority's](#) (SDCWA) service area.

On September 4, 2015, the San Diego Water Board received an amended application from Poseidon for renewal of their National Pollutant Discharge Elimination System (NPDES) permit, [Order No. R9-2006-0065](#). The amended application describes measures proposed to comply with the [Desalination Amendment](#) to State Water Board's California Ocean Plan that requires new or expanded seawater desalination facilities to use the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life pursuant to California Water Code section [13142.5\(b\)](#).

On April 13, 2016, as the lead agency under the California Environmental Quality Act, the SDCWA released for public review and comment, a [Draft Supplemental Environmental Impact Report](#) (Draft SEIR) to address the CDP's potential increase in potable water production and the new intake system. Because the California Water Code section 13142.5(b) determination will rely in part on the SEIR, the San Diego Water Board and the State Water Board provided comments on the Draft SEIR (Attachment B-6). Final certification of the Draft SEIR by the SDCWA is scheduled for August 25, 2016.

<sup>3</sup> More information regarding the Carlsbad Desalination Plant can be found in Executive Officer Reports for [May 2016](#), [December 2015](#), [September 2015](#), and [June 2015](#).

The renewal of the NPDES permit for the CDP is a high priority for the San Diego Water Board and the State Water Board. To complete the draft of the NPDES permit and the California Water Code section 13142.5(b) determination, the San Diego Water Board has requested that Poseidon provide the following:

- Additional information regarding the dilution of the discharge from the CDP in the Pacific Ocean. Specifically, the San Diego Water Board has asked Poseidon to provide a series of dilution ratios over a range of distances from the discharge point, including the distance where sufficient dilution has been achieved to meet all receiving water quality objectives. This information will be used to identify the appropriate dilution ratio and to define the brine mixing zone in the Pacific Ocean for compliance determination purposes. Poseidon had previously provided a dilution analysis inconsistent with the provisions of the California Ocean Plan and without an examination for a brine mixing zone less than 200 meters from the point of discharge.
- Additional information regarding the discharge's potential to create hypoxic (reduced oxygen) conditions in the Pacific Ocean. The discharge of brine without adequate dilution could potentially create a hypoxic zone on the Pacific Ocean seafloor suffocating benthic aquatic organisms, such as fish and invertebrates.
- Additional information regarding the proposed fish return system for small fish and other aquatic organisms rinsed off the intake screens. The amended application received on September 4, 2015, provides conflicting information regarding the discharge location for the fish return system. Additionally, the amended application did not include an antidegradation analysis for the new discharge location, as required by the Code of Federal Regulations title 40, section 131.12 and State Water Board Resolution No. 68-16.
- Investigation of an alternative to discharge a portion of the brine from the CDP to the Encina Ocean Outfall rather than to the Encina Power Station channel. Poseidon had previously considered the option of sending all of the discharge from the CDP to the Encina Ocean Outfall and had found that option to be infeasible due to a lack of capacity in the outfall pipe. However, Poseidon had not considered the alternative of sending a portion of the effluent from the CDP to the outfall. As part of the adoption of the NPDES permit and the issuance of the California Water Code 13142.5(b) determination, the San Diego Water Board must ensure that Poseidon has considered all preferred alternatives for discharge of the effluent from the CDP. The commingling of the brine discharge with a wastewater discharge is the preferred discharge alternative identified in the Desalination Amendment to the California Ocean Plan. By sending even a portion of the effluent to the Encina Ocean Outfall, Poseidon would reduce the mortality of aquatic species associated with the intake of seawater (impingement and entrainment) and with the outfall (the toxicity associated with the elevated salinity of the effluent and the effects associated with the movement of water in the mixing zone) by decreasing the amount of seawater needed for dilution.

Additional information may be necessary to complete the draft of the NPDES permit and the California Water Code section 13142.5(b) determination. As the San Diego Water Board, in consultation with the State Water Board, identifies the need for additional information, the San

Diego Water Board will carefully weigh the need for the additional information so as not to unnecessarily delay permit development.

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

[http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/regulatory/carlsbad\\_desalination.shtml](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](http://www.waterboards.ca.gov/resources/email_subscriptions/reg9_subscribe.shtml)

## **7. 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 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.

The Stakeholder Group is using the Nutrient Numeric Endpoint (NNE) Approach for Estuaries to select ecological indicator numeric target values and identify subsequent allowable loads for the Estuary, similar to the process used for Loma Alta Slough considered by the Board in Resolution No. [R9-2014-0020](#). The NNE approach has been under development by the SCCWRP for the State Water Board since 2009, in response to a USEPA requirement for states to set nutrient criteria. The NNE approach employs multiple ecological indicators (e.g., algal biomass and dissolved oxygen) rather than nutrient concentrations to evaluate the risk to beneficial uses from eutrophication.

Since the 303(d) listing of the Estuary in 1986, several major sources of nutrients to the Estuary have been eliminated including treated sewage from Camp Pendleton, runoff from agricultural operations on Camp Pendleton, and groundwater dewatering from a nearby transit project. Despite the removal of these nutrient sources impacts to beneficial uses in the Estuary are still evident. Data collected in the Estuary by NAVY SPAWAR on behalf of Camp Pendleton during the fall of 2010, show daily average dissolved oxygen concentrations falling well below the Basin Plan water quality objective (5.0 mg/L) over periods lasting several consecutive days. Furthermore, the same monitoring effort documented ongoing exceedances of Basin Plan water quality objectives for Phosphorus and Nitrogen (0.1 mg/l and 1.0 mg/L) and Macroalgal mats as thick as 30 centimeters covering up to 100% of the water's surface along the banks of the Estuary. In addition, in 2013, monitoring results from Rainbow Creek, a tributary to the Santa

Margarita River located just upstream of the Estuary, showed ambient Total Nitrogen concentrations of 41 mg/L. These lines of evidence indicate that beneficial uses continue to be impaired and that the development of a TMDL is necessary.

Presently, remaining sources of nutrients contributing to potentially eutrophic conditions in the Estuary include: 1) former agricultural fields adjacent to the Estuary; and 2) urban, rural, agricultural, and possibly industrial sources in the watershed. A complicating factor is that field data and modelling show that much of the current nutrient loading is arriving to the Estuary via regional and/or localized subsurface pathways from groundwater and also river flows that infiltrate upstream of the Estuary then resurface within or near the Estuary.

A River project is complementing the Estuary project. A project plan developed by the Stakeholder Group provides direction for nutrient management covering the River and major tributaries. Monitoring on the River has begun to collect data for use in modeling nutrient loads and environmental conditions for the River. The results will be used for future load analysis and TMDL project development for the Santa Margarita River.

**PROJECT INFORMATION**

<b>Santa Margarita River Estuary TMDL</b>		<i>Report Date</i>	June 1, 2016
		<i>Report Period</i>	Mar 2016-June 2016
		<i>Overall Status</i>	Project is on track
<b>Project Coordinator</b>	Hiram Sarabia	<b>Project Contacts</b>	<a href="#">Hiram Sarabia</a> and <a href="#">Cynthia Gorham</a>
<b>Supervisor</b>	Cynthia Gorham, Restoration and Protection Planning Unit		
<b>Project Description</b>	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.		
<b>Project Objective(s)</b>	<ol style="list-style-type: none"> <li>5. To expedite the Estuary’s restoration process by adopting an alternative and collaborative approach to TMDL development.</li> <li>6. To assess the Estuary’s ecological condition and develop watershed and estuary models to estimate necessary nutrient load reductions.</li> <li>7. To adopt macroalgal biomass and dissolved oxygen numeric targets for the Estuary that protect beneficial uses based on the draft NNE Approach for Estuaries.</li> <li>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 the 4) pending General Agricultural Waste Discharge Requirements (agricultural dischargers).</li> </ol>		

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	Underway
	Final Estuary Model Calibration Report	May 2016	Completed
	Final Model Application Report	May 2016	Completed
	Numeric Target Selection	June 2016	Underway
	Allowable Loads Determination	July 2016	On-Schedule
	Load and Waste Allocations	August 2016	On-Schedule
	Complete Draft Staff Report	December 2016	On-Schedule
	Public Workshop and Board Hearing	2017	On-Schedule
<b>Project web site</b>	<a href="http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/santa_margarita_river_estuary.shtml">http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/santa_margarita_river_estuary.shtml</a>		

## PROGRESS REPORT

Reporting Period Events	
Accomplishments during period	<ul style="list-style-type: none"> <li>• Calibration and validation of the Estuary hydrodynamic model was completed by consultants using 2008 and 2009 data, respectively.</li> <li>• Final Estuary Model Calibration Report received from SPAWAR.</li> <li>• Draft and Final Model Application Report received from SCWRPP and Tetra Tech.</li> <li>• Water Board team reviewed and submitted comments for the Draft Calibration of Linked Hydrodynamic and Water Quality Model for Santa Margarita Lagoon Report and Draft Model Application Report.</li> <li>• Water Board team hired a temporary Student Aid to support the development of the Estuary TMDL.</li> </ul>
Collaboration during period	<ul style="list-style-type: none"> <li>• The San Diego Water Board team is meeting and communicating regularly with USEPA, the Pechanga Band of Luiseno Indians, and regional stakeholders. Facilitated meeting with Watershed stakeholders were held on March 16, April 27, and June 21, 2016.</li> <li>• The San Diego Water Board team has continued to work closely with SCCWRP, NAVY SPAWAR/ Camp Pendleton, and project consultants to ensure that progress is being made. Technical meeting were held on March 22 and May 9, 2016.</li> </ul>
Activities planned, but not completed	All activities are being implemented as planned.

Key issues during period	Discussion and determination of numeric target to protect beneficial uses. 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.
<b>Looking Forward</b>	
Activities planned for next reporting period	<ul style="list-style-type: none"> <li>• Completion of Final Application Report.</li> <li>• Selection of final numeric targets.</li> <li>• Determination of allowable nutrient loads.</li> </ul>
Key issues on the horizon	<ul style="list-style-type: none"> <li>• Finalizing numeric targets and total allowable loads using the draft NNE approach.</li> </ul>

## 8. Enforcement Actions for May and June 2016 (*Attachment B-8*)

*Staff Contact: Chiara Clemente*

During the months of May and June, the San Diego Water Board issued 29 written enforcement actions as follows; 1 Expedited Payment Letter, 3 Notices of Violation, and 25 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/](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](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml).

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

## 9. Sanitary Sewer Overflows and Transboundary Flows from Mexico in the San Diego Region – April 2016 (*Attachment B-9*)

*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 **April and May 2016**:

Sewage Collection System SSO Spills	Private Lateral SSO Spills	Transboundary Flows from Mexico
17 spills reported, totaling 64,511 gallons (41,700 gallons reached surface waters or a tributary storm drain)	23 spills reported, totaling 4,179 gallons (264 gallons reached surface waters or a tributary storm drain)	1 dry weather transboundary flow event of 4,860,000 gallons was reported  2 wet weather transboundary flow events were reported; however, no volume was reported

### 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](#)<sup>4</sup>, the [San Diego Region-wide SSO Order](#)<sup>5</sup>, and/or individual National Pollutant Discharge Elimination System (NPDES) permit requirements. Some federal entities<sup>6</sup> 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](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 titled: (Attachment B-9)

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

<sup>4</sup> 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*.

<sup>5</sup> San Diego Water Board Order No. R9-2007-0005, *Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region*.

<sup>6</sup> 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 is not required to report sewage spills but does so voluntarily. The U.S. Navy is not required to report sewage spills but does voluntarily fax in its sewage spill reports. This report does not include sewage spills from U.S. Navy sewage collection systems because this information is not available through CIWQS.

- Table 3: May 2016 Summary of Public and Federal Sanitary Sewer Overflows in the San Diego Region.
- Table 4: May 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](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 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 titled: (Attachment B-9)

- Table 5: April and May 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 Límites y Aguas (CILA)<sup>7</sup> 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

<sup>7</sup> The Mexican section of the IBWC.

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. Statewide Mercury Program**

*Staff Contact: Michelle Mata*

Mercury is negatively impacting the beneficial uses of many waters of the State by making fish unsafe for human and wildlife consumption. State and Regional Water Board staff are developing a statewide water quality control program for mercury (statewide mercury program or program) that would include: 1) a mercury control program for reservoirs; and 2) mercury water quality objectives.

Harmful levels of mercury in fish are a statewide and nationwide problem. Mercury is toxic in all of its forms, but methylmercury is highly toxic and readily available to bioaccumulate in fish, birds, and people. Methylmercury is formed from inorganic mercury where sediments are low in oxygen and bacteria are present, such as at the bottom of reservoirs and in wetland habitats. Infants, young children, and women of childbearing age are most at risk. It is known to cause brain damage, as well as kidney and lung problems, in humans and wildlife. The number of water bodies identified as impaired by mercury is expected to increase substantially as new fish tissue monitoring data are collected and evaluated.

#### Mercury Control Program for Reservoirs

Fish containing harmful amounts of mercury are found in numerous reservoirs across the State. The Statewide Mercury Control Program for Reservoirs would be established by the State Water Board via an amendment to the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California and would apply to mercury-impaired reservoirs.

The Statewide Mercury Control Program for Reservoirs has three main goals:

1. Reduce fish methylmercury concentrations in reservoirs that have already been determined to be mercury-impaired;
2. Have a control program in place that will apply to additional reservoirs when they are determined in the future to be mercury-impaired; and
3. Protect additional reservoirs from becoming mercury-impaired by maintaining low fish methylmercury levels in non-impaired reservoirs.

Implementation would occur over two phases. In Phase 1, the owners and operators of the identified mercury-impaired reservoirs would conduct pilot tests for methods to reduce methylmercury concentrations in reservoir fish. Phase 1 Pilot test subject matters and priority actions include:

1. Management of water chemistry to reduced methylmercury production;
2. Management of fisheries to reduce methylmercury bioaccumulation in fish;
3. Cleanup of priority mine sites;

4. Public health education and protection; and
5. Evaluation of mercury atmospheric deposition.

Phase 1 will last 10 years, after which the State Water Board will conduct a program review to determine effective and feasible reservoir management actions. There is currently one reservoir in the San Diego Region (Lake Hodges) included in Phase 1.

In Phase 2, implementation requirements would be applied to additional reservoirs and corresponding mercury sources as the reservoirs are determined to be mercury-impaired by the Water Boards. Data collected between 2007-2014 indicates that at least 7 additional reservoirs in the San Diego are showing concerning levels of mercury and may become subject to the proposed Policy actions. Initiating Phase 2 would require a future amendment to the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

### Mercury Water Quality Objectives

The State Water Board is also developing mercury water quality objectives to protect humans and wildlife that consume locally caught fish. The objectives will likely be expressed as a methylmercury concentration in fish tissue. The proposed "sport fish objective" protects humans and most wildlife. Average methylmercury concentrations should not exceed 0.2 mg/kg wet weight of methylmercury in fish muscle tissue. This objective protects for consumption of one meal per week of fairly large fish (i.e., legal size catch). About half of all reservoirs in the State meet the proposed sport fish objective. Other objectives are also being considered to protect human health for more frequent fish consumption; few reservoirs meet these proposed objectives.

One of two prey fish objectives would also apply to each reservoir to protect wildlife that eats very small fish. If a reservoir supports California least tern habitat, then the proposed "CA least tern objective" applies; average methylmercury concentrations should not exceed 0.03 mg/kg wet weight in whole fish tissue. If a reservoir does not support California least tern habitat, then the proposed "prey fish objective" would apply; average methylmercury concentrations should not exceed 0.05 mg/kg wet weight in whole fish tissue.

### Additional information

Statewide Mercury Program website:

[http://www.waterboards.ca.gov/water\\_issues/programs/mercury/](http://www.waterboards.ca.gov/water_issues/programs/mercury/)

Interested parties can receive information by email about the Statewide Mercury Water Quality Objectives Project and/or the Statewide Mercury Control Program for Reservoirs by [subscribing online](#) to:

- Mercury - Objectives Policy
- Mercury - Statewide Control Program for Reservoirs (\* located alphabetically under the WATER QUALITY TOPICS)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION

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

August 10, 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
<b>September 14, 2016</b> <i>Riverside County Flood Control District</i>				
WDRs Rescissions: Lilac Oaks Campground, the Rowland Residence, and the Leuthe Residence Onsite Wastewater Treatment Systems, San Diego County (Tentative Order No. R9-2016-0128) ( <i>Osibodu</i> )	WDR Rescission	100%	15-Aug-16	Yes
Consideration of Resolution Certifying Negative Declaration for General Waste Discharge Requirements for Commercial Agricultural Operations ( <i>Pulver</i> )	Resolution	95%	29-Jul-2016	No
General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Dischargers not Participating in a Third Party Group ( <i>Pulver</i> )	New WDR	70%	29-Jul-2016	No
General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Third Party Groups and Members ( <i>Pulver</i> )	New WDR	70%	29-Jul-2016	No
Hearing on the Proposed Administrative Civil Liability Complaint, R9-2016-0092, against KB Home ( <i>Thotakura</i> )	Hearing	95%	Complete	No
<b>October 12, 2016</b> <i>San Diego Water Board</i>				
Tentative Order to Rescind Waste Discharge Requirements Order No. 88-53 and Enroll Mission Avenue Landfill in General Order No. R9-2012-0001 and Monitoring and Reporting Program No. R9-2012-0002. ( <i>Mitchell</i> )	WDR Rescission	100%	19-Sep-2016	Yes
Update on the Status of San Diego Bay Beneficial Uses ( <i>Clemente</i> )	Workshop	NA	NA	NA
Update on the Outreach Efforts by the San Diego Water Board to Engage Disadvantaged Communities ( <i>Jayne</i> )	Information Item	NA	NA	NA
Planning Discussion for upcoming Water Quality Coordinating Committee Meeting in Late October ( <i>Gibson</i> )	Discussion Item	NA	NA	NA
Resolution Adopting the 2012 Clean Water Act Section 303(d) and 305(b) Integrated Report ( <i>Yu</i> )	Tentative Resolution	99%	12-Aug-2016	No
Hearing on the Administrative Civil Liability Complaint against the City of San Diego for Alleged Violations of the Municipal Separate Storm Sewer System Permit ( <i>Jayne</i> )	Hearing	Yes	TBD	No
<b>November 1, 2016</b> <i>San Diego Water Board</i>				
NPDES Permit Renewal for NASSCO ( <i>Schwall</i> )	NPDES Permit Reissuance	75%	TBD	Maybe
Revised Master Reclamation Permit for Production and Purveyance of Recycled Water, San Luis Rey Wastewater Treatment Plant, City of Oceanside, San Diego County ( <i>Cali</i> )	Master Recycling Permit Reissuance	0%	TBD	TBD
Waste Discharge Requirements for the Post-Closure Maintenance and Monitoring at Forester Canyon Landfill, San Juan Capistrano, Orange County ( <i>Grove</i> )	New WDRs	99%	TBD	Maybe

### Agenda Items Requested by Board Members

Requested Agenda Item	Board Member	Status
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	
<b>August 12, 2015</b>		
Information item regarding data supporting Basin Plan Water Quality Objectives	Olson	
<b>September 9, 2015</b>		
Tour of USN laboratory	Olson	Rescheduling
<b>December 16, 2015</b>		
San Diego River restoration and land acquisition workshop	Strawn	
Environmental Justice Outreach Update	Morales	



**Office of the City Attorney**  
**June 17, 2016**

**Contact:** Gerry Braun

**FOR IMMEDIATE RELEASE: June 17, 2016**

Contact: [Gerry Braun](mailto:gbraun@san Diego.gov), Director of Communications: [gbraun@san Diego.gov](mailto:gbraun@san Diego.gov) (619) 533-4782

## **Joint Statement of City and Kinder Morgan Inc. on Settlement of All Claims Related to Historical Contamination at Qualcomm Stadium Property**

The City of San Diego and Kinder Morgan, Inc. announced today that they have entered into a settlement resolving all claims related to the historical contamination at the City's Qualcomm Stadium property. The settlement provides for a \$20 million payment to the City, and also includes an agreement by Kinder Morgan to cover additional, incremental costs, if any, incurred by the City in the redevelopment of the Qualcomm Stadium property or development of the groundwater beneath the property, that are caused by historical releases from the Mission Valley Terminal. This settlement ends nine years of litigation between the parties.

Kinder Morgan is the largest energy infrastructure company in North America, and owns the Mission Valley Terminal, which is a liquid storage facility located just north of the Qualcomm Stadium property in Mission Valley. The Mission Valley Terminal has been in operation since the 1960s, and is the primary fuel distribution hub in San Diego County. The dispute arises from releases of petroleum products dating as far back as the late-1980s and early-1990s, before Kinder Morgan purchased the Mission Valley Terminal. Although Kinder Morgan did not own the Mission Valley Terminal at the time of the earliest releases, the Company accepted the legal responsibility to perform the remediation. According to Kinder Morgan, it has spent over \$75 million remediating the Qualcomm Stadium property to meet the stringent cleanup standards established by the Regional Water Quality Control Board. On May 4, 2016, the Regional Board declared: "The [cleanup standards] provide reasonable protection of beneficial uses and will not result in water quality less than prescribed in water quality control plans and policies adopted by the State Water Board and the San Diego Water Board," and that Kinder Morgan has met those standards.

City Attorney Jan Goldsmith said, "This is a big day for the City of San Diego and Kinder Morgan. The Mayor and City Council's approval of the settlement finally resolves this dispute after three decades. We thank the Regional Water Board for its work on this matter culminating in its May 4, 2016 determination. We particularly appreciate the substantial time and money which Kinder Morgan has put into the cleanup over the years and the company's continuing commitment to cover additional redevelopment costs should there be any due to historical releases. The City recognizes

Kinder Morgan as an important past and future corporate partner in the City of San Diego and is pleased to put this behind us.” Mayor Faulconer added, “I’m glad to put this behind us so we can move forward with future opportunities for Mission Valley. I thank City Attorney Jan Goldsmith, his office and City staff for their hard work on this.”

Kinder Morgan delivers essentially all of the gasoline products used in the City and surrounding areas, provides numerous jobs at the Mission Valley Terminal, and is building five tankers here in San Diego. On Thursday, May 19, 2016, Kinder Morgan celebrated the delivery of the *Magnolia State*, which is an ECO Class tanker – one of the most fuel-efficient and environmentally friendly tankers in the world and symbolizes the emerging future of green shipping – built at General Dynamics NASSCO in San Diego. The *Magnolia State* is the second of five tankers Kinder Morgan will build in San Diego, which adds an estimated 500 jobs and over \$200 million to the local economy. Kinder Morgan General Counsel, David R. DeVeau added, “We are pleased to resolve this matter and look forward to continuing to serve the citizens of San Diego, and the State of California.”

The City of San Diego is represented by City Attorney Jan Goldsmith, Assistant City Attorney Daniel F. Bamberg, and Chief Deputy City Attorney Jon E. Taylor, and outside counsel Rene P. Tatro, Steven R. Tekosky, and Paul Foust from Tatro Tekosky Sadwick LLP. Kinder Morgan is represented by General Counsel, David R. DeVeau, Deputy General Counsel, Alan J. Cooke, and Assistant General Counsel, Nancy E. Van Burgel, and outside counsel Steven M. Strauss, M. Ray Hartman III, and Summer J. Wynn of Cooley LLP.

###

## Joint Powers Agreement Members

Inland Empire  
Utilities Agency

Irvine Ranch  
Water District

Los Angeles  
Department of  
Water and Power

Orange County  
Sanitation District

Orange County  
Water District

West Basin  
Municipal Water District

Jeffrey J. Mosher  
Executive Director

E-mail:  
jmosher@NWRI-USA.org

## Memorandum

**To:** Jing-Tying Chao, P.E.  
Division of Drinking Water  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814

**From:** Adam Olivieri, Dr.P.H., P.E., EOA, Inc.  
Expert Panel Co-Chair

James Crook, Ph.D., P.E., Environmental Engineering Consultant  
Expert Panel Co-Chair

Jeffrey J. Mosher, National Water Research Institute  
Expert Panel Administrator

**Subject:** Expert Panel Draft Key Research Recommendations Related to the  
Development of Uniform Water Recycling Criteria for Direct Potable Reuse  
in the State of California (under SWRCB Agreement No. 13-21041)

**Date:** June 30, 2016

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On behalf of the Expert Panel, the National Water Research Institute (NWRI) is pleased to transmit this memorandum to the California State Water Resources Control Board (State Water Board) regarding preliminary key research recommendations related to the feasibility of developing uniform water recycling criteria for direct potable reuse (DPR). Note that the key research recommendations are draft recommendations and may be edited or otherwise modified as the Expert Panel's report is finalized.

### Charge of the Expert Panel

Per California Water Code Section 13565(a)(1), the Expert Panel is charged with advising the State Water Board on the "feasibility of developing uniform water recycling criteria for direct potable reuse (DPR). The expert panel shall assess what, if any, additional areas of research are needed to be able to establish uniform regulatory criteria for DPR. The expert panel shall then recommend an approach for accomplishing any additional needed research regarding uniform criteria for DPR in a timely manner."

The Panel finds that there is no need for additional research to be conducted to establish uniform water recycling criteria for DPR. However, there are some areas of research that would enhance the understanding and acceptability of DPR in the State of California. The Panel encourages the State Water Board to address the following research recommendations.

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Letter to J. Chao, 6/30/2016

Page 2

### **Current Status of DPR Research**

The Expert Panel notes that applied research has played a significant role in advancing potable water reuse. During the 1990s, the State of California Department of Public Health (now the State Water Board's Division of Drinking Water) pioneered the development of analytical methods for monitoring chemical contaminants and identified compounds to be monitored at potable reuse facilities (i.e., the compounds for which Notification Levels have been established). More recently, the WateReuse Research Foundation (now called the Water Environment & Reuse Foundation) funded research projects on treatment technologies and performance reliability that have been instrumental to advancing DPR. The Expert Panel is impressed by the research that has been funded by the WateReuse Research Foundation and supports the continuation of such research.

Nonetheless, the Expert Panel has identified important areas not being addressed in the WateReuse Research Foundation's research program related to public health, including efforts to identify new contaminants of concern and develop better monitoring techniques. As such, the Expert Panel believes the State Water Board or other agencies that have expertise in this area (e.g., the Department of Toxic Substances Control) should provide oversight and direction for research efforts designed to address these areas.

### **Expert Panel Research Recommendations for California**

The Expert Panel identified several areas of research, as described below, that should be conducted to further ensure the protectiveness of DPR, which would best be supported directly by the State of California. The Expert Panel notes that the recommendations could be done either before and/or concurrent with the development of DPR criteria. While the results of the research could be used by the State to inform the development of draft DPR criteria, the absence of better information is not a barrier to the feasibility of establishing uniform criteria. The recommendations are as follows:

- **Research Recommendation #1:** To better inform targeted monitoring for source control and final water quality, the State Water Board should be proactive in monitoring the literature on the potential health risks that could present serious harm to health over short durations of exposure by compounds likely to be present in recycled water. Of specific concern are chemicals that adversely affect the development of fetuses and children. Other compounds that produce such effects will undoubtedly be discovered in the future. This activity could be initiated concurrently with the development of DPR regulations and continued as an ongoing effort. The Expert Panel recommends that a formal process be established by the State that includes: (1) an internal process to monitor the literature and (2) an external peer review process to address the results of the internal efforts to maintain a high level of awareness of the issues. See **Chapter 3** in the Expert Panel's final report.
- **Research Recommendation #2:** The State Water Board should adopt the use of probabilistic QMRA to confirm the necessary LRVs of viruses, *Cryptosporidium*, and *Giardia* needed to maintain a risk of infection equal to or less than  $10^{-4}$  per person per year. The State should provide oversight, direction, and funding for implementing probabilistic QMRA. The purpose of using probabilistic QMRA is to provide a better assessment of the performance of DPR treatment trains and to provide an opportunity to identify additional effective DPR treatment trains.

Input values for pathogen concentrations should be based on descriptive pathogen statistics resulting from additional review of the literature (as well as information collected from **Research Recommendation #3**). Also, as DPR systems are built, owners and regulators need to take advantage of such full-scale systems to sample and assess actual as-built performance and reliability characteristics. See **Chapter 7**.

- **Research Recommendation #3:** To better inform decisions associated with updating LRVs as well as probabilistic-based QMRA modeling, the State Water Board needs to include monitoring requirements in a regulatory permit to measure pathogens (i.e., *Giardia* cysts, *Cryptosporidium* oocysts, and several human viruses) in raw (untreated) wastewater feeding a DPR system that provide more complete information on concentrations and variabilities. Improved methods should be used that will allow better characterization and improved precision of concentrations of pathogens. See **Chapters 5 and 7**.
- **Research Recommendation #4:** The State Water Board should investigate the feasibility and, where feasible, collect pathogen concentration data for raw wastewater associated with community outbreaks of disease. See **Chapters 5 and 7**.
- **Research Recommendation #5:** The State Water Board should encourage the conduct of short-term research to identify suitable options for final treatment processes that can provide some “averaging” with respect to potential chemical peaks (in particular, for chemicals that have the potential to persist through advanced water treatment). These options might involve: (1) use of a buffer tank (clear well) of a sufficient size, potentially blended with an alternative water source prior to releasing it into the drinking water supply distribution system, or using two tanks feeding into the drinking water supply distribution system; (2) removal of volatile contaminants during a degassing step (decarbonization) similar to the approach that is commonly employed after reverse osmosis treatment in established AWTFs for potable reuse; (3) use of a biologically-active filter after reverse osmosis/advanced oxidation, to provide an additional opportunity for microorganisms (if microorganisms will be able to survive in that environment) to degrade contaminants that may otherwise pass through the filter; or (4) other options. See **Chapter 8**.
- **Research Recommendation #6:** It is important to focus on non-targeted analysis and, furthermore, low molecular weight compounds. For example, the inability of reverse-phase liquid chromatography/mass spectrometry to detect many uncharged, low molecular weight compounds (e.g., halogenated solvents, formaldehyde, and 1,4-dioxane) problematic for potable reuse projects demonstrates the limitations of current analytical approaches for the detection of unknowns that are likely to pass through reverse osmosis membranes. Research is needed to develop more comprehensive methods to identify low molecular weight unknown compounds. It is possible these compounds may be detected by gas chromatography interfaced with time-of-flight mass spectrometers or hydrophilic interaction liquid chromatography (HILIC) coupled with reversed-phase (RP) chromatography prior to triple quadrupole mass spectrometry; however, to date, these methods have not been applied to potable reuse projects to detect these compounds. These methods or others need to be developed to increase the understanding of the make-up of the remaining total organic carbon composed of low molecular weight compounds. In addition, these methods also could address the potential vulnerability of AWTF treatment processes to unintended spills or batch releases of chemicals in the sewershed. See **Chapter 3**.



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**San Diego Regional Water Quality Control Board**

July 22, 2016

Mr. Paul Cook  
General Manager  
Irvine Ranch Water District  
P.O. Box 57000  
Irvine CA, 92619-7000

**In reply refer to:**  
257591: oosibodu

**Subject: Water Board Designation for Regulatory Oversight of Irvine Ranch Water District's Water Recycling Plants**

Mr. Cook:

In response to Irvine Ranch Water District's (Irvine Ranch) request, dated March 30, 2016, the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) and the California Regional Water Quality Control Board, Santa Ana Region (Santa Ana Water Board) have agreed that the Santa Ana Water Board be designated as the sole Water Board responsible for regulating treatment, use, and distribution of recycled water from Irvine Ranch's Water Reclamation Plants (WRPs). As provided in Water Code section 13228, subdivision (a),<sup>1</sup> this letter memorializes the San Diego Water Board's agreement to the designation. Background information supporting the agreement and conditions of the agreement are specified below:

**Background and Supporting Information**

1. Irvine Ranch owns and operates the Michelson Water Reclamation Plant (Michelson WRP) and the Los Alisos Water Reclamation Plant (Los Alisos WRP). The Michelson and Los Alisos WRPs are located in the Santa Ana Region.
2. Irvine Ranch is regulated under two Master Recycling Permits. The first is Order No. R8-2015-0024, *Waste Discharge Requirements and Master Reclamation Permit for*

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<sup>1</sup> (a) Concerning any matter that may be submitted to a regional board by a person or entity that is subject to regulation by more than one Regional Board, the person or entity may submit the matter to one of those regional boards if both of the following requirements are met:

(1) The person or entity submits a written request to all affected regional boards that one Regional Board be designated to regulate the matter.

(2) All affected Regional Boards agree in writing to the designation. Unless the Board of any affected Regional Board denies the request, the Executive Officer of a Regional Board may grant a request submitted pursuant to paragraph (1) on behalf of that Board.

*the Irvine Ranch Water District Water Recycling Plants Surface Water Discharge and Recycled Water Use*, which was issued by the Santa Ana Water Board. The second is Order No. 97-52, *Waste Discharge and Water Recycling Requirements for the Production and Purveyance of Recycled Water by Member Agencies of the South Orange County Reclamation Authority, Orange County*, which was issued by the San Diego Water Board. Irvine Ranch is currently required to submit monitoring reports under both Orders.

3. Recycled water produced by Irvine Ranch is used for landscape irrigation, agricultural irrigation; and for indoor uses such as toilet flushing and in cooling towers,<sup>2</sup> mainly within the City of Lake Forest. From 2010-2015, Irvine Ranch provided an annual average of 29,448 acre feet of recycled water for reuse in the Santa Ana Region, while an annual average of 423 acre-feet of recycled water was reused in the Aliso Creek Hydrologic Subarea (Aliso Creek HSA) of the San Diego Region within the same time period.
4. Recycled water quality data provided by Irvine Ranch shows that average annual concentrations of chemical constituents in recycled water for the past ten years have been in compliance with discharge specifications in Order No. 97-52, and are also below the groundwater quality objectives for the Aliso Creek HSA specified in Table 3-3 of the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan).
5. The Michelson and Los Aliso WRPs are located within the Santa Ana Region. Most of the recycled water produced from these plants is distributed to use sites in the Santa Ana Region. In addition, data provided by Irvine Ranch shows recycled water quality has consistently been in compliance with the applicable groundwater quality objectives in the San Diego Water Board Basin Plan for the past 10 years. As a result, granting Irvine Ranch's request will not adversely affect water quality. The San Diego Water Board also agrees that designating the Santa Ana Water Board as the Water Board responsible for regulating treatment, distribution, and uses of recycled water from Irvine Ranch's WRPs will relieve Irvine Ranch from the burden of providing duplicative monitoring information to both Water Boards.

### **San Diego Water Board Conditions for Designation Responsibility to the Santa Ana Water Board**

1. The San Diego Water Board agrees with the designation of the Santa Ana Water Board as the sole Water Board responsible for regulating the treatment, use, and distribution of recycled water from Irvine Ranch's WRPs. This agreement will become effective when the San Diego Water Board either amends Order No. 97-52 to terminate Irvine Ranch's coverage in the Order, or after the San Diego Water Board adopts a new Master Recycling Permit at a future date to replace Order No.

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<sup>2</sup> As allowed under title 22, California Code of Regulations and authorized by the State Water Board Division of Drinking Water.



- 97-52. The San Diego Water Board will notify Irvine Ranch prior to taking one of the aforementioned actions.
2. Irvine Ranch shall notify the San Diego Water Board in writing prior to distributing recycled water outside the City of Lake Forest or to other parts of South Orange County within the jurisdiction of the San Diego Water Board.
  3. The use and distribution of recycled water from the Michelson and Los Aliso WRPs within the San Diego Region must comply with requirements specified in Order No. R8-2015-0024.
  4. Pursuant to Water Code section 13228, subdivision (b),<sup>3</sup> the designation of the Santa Ana Water Board for regulating the treatment, use, and distribution of recycled water from Irvine Ranch's WRPs, does not preclude the San Diego Water Board from taking enforcement action if necessary for protection of public health, water quality, or the environment.
  5. The bases supporting Irvine Ranch's request to designate a single Water Board for regulatory oversight may change under future conditions and circumstances. Therefore the San Diego Water Board will periodically review the effectiveness of this agreement. Based on this periodic review the San Diego Water Board may terminate the agreement with the Santa Ana Water Board or otherwise modify the agreement subject to the approval of the Santa Ana Water Board.

In the subject line of any response, please include reference **257591: oosibodu**. Please contact Mr. Fisayo Osibodu at 619-521-8036, or at [Olufisayo.Osibodu@waterboards.ca.gov](mailto:Olufisayo.Osibodu@waterboards.ca.gov) if you have any questions or comments.

Respectfully,



David W. Gibson  
Executive Officer

DWG: jgs:jac:jro:oo

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<sup>3</sup> (b) Notwithstanding subdivision (a), any Regional Board that is affected by a matter for which a designation is made in accordance with subdivision (a) may take enforcement action with regard to that matter.

Mr. Paul Cook

- 4 -

cc via email:

Mr. Kurt Berchtold; California Regional Water Quality Control Board, Santa Ana Region; [Kurt.Berchtold@waterboards.ca.gov](mailto:Kurt.Berchtold@waterboards.ca.gov)

Mr. Oliver Pacifico; State Water Board Division of Drinking Water; [Oliver.Pacifico@waterboards.ca.gov](mailto:Oliver.Pacifico@waterboards.ca.gov)

Ms. Lauren Hatch; Orange County Health Care Agency; [Lhatch@ochca.com](mailto:Lhatch@ochca.com)

Ms. Milasol Gaslan; California Regional Water Quality Control Board, Santa Ana Region; [Milasol.Gaslan@waterboards.ca.gov](mailto:Milasol.Gaslan@waterboards.ca.gov)

Mr. Brennon Flahive; South Orange County Wastewater Authority; [bflahive@socwa.com](mailto:bflahive@socwa.com)

Tech Staff Info & Use	
Reg. Measure ID	142503
Place IDs	257591, 237396

## San Diego Regional Water Quality Control Board

May 27, 2016

***Sent Via Email Only***

Mark Tegio, Senior Water Resources Specialist  
San Diego County Water Authority  
4677 Overland Avenue  
San Diego, CA 92123-1233  
E-mail: [mtegio@sdcwa.org](mailto:mtegio@sdcwa.org)

**In reply refer to / attn:**  
640063: bneill

**Subject: Comments on the Draft Supplement to the Precise Development Plan and Desalination Plant Project Final Environmental Impact Report (EIR 03-05), City of Carlsbad, California, SCH Nos. 2004041081 and 2015091060**

Mr. Tegio:

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) and the State Water Resources Control Board (State Water Board) have reviewed the *Draft Supplement to the Precise Development Plan and Desalination Plant Project Final Environmental Impact Report* (Draft SEIR) dated April 2016. The Draft SEIR evaluates potential environmental impacts due to proposed modifications at the Claude “Bud” Lewis Carlsbad Desalination Plant (CDP) owned by Poseidon Resources (Channelside) LP (Discharger). The proposed modifications include the planned transition from co-located and temporary stand-alone operations with the Encina Power Station (EPS) to permanent stand-alone operations with a potential for increased water production.

The San Diego Water Board is the agency responsible for issuing the National Pollutant Discharge Elimination System (NPDES) permit for the discharge of brine and other wastes from the CDP to the Pacific Ocean and for making a determination regarding the factors set forth in California Water Code (CWC) section 13142.5, subdivision (b) (CWC section 13142.5(b))<sup>1</sup>, for the CDP. The NPDES permit will implement the provisions of the *Water Quality Control Plan for Ocean Waters of California*, including the *Amendment to the Water Quality Control Plan for Ocean Waters of California Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Nonsubstantive Changes* (Desalination Amendment). In developing the CWC section 13142.5(b) determination and the NPDES permit for the CDP, the San Diego Water Board, in consultation with the State Water Board, will rely on documents that the Discharger submitted with the Report of Waste Discharge (ROWD), information contained in the Final EIR as supplemented, and other available information. The San Diego Water Board may request that the Discharger submit additional information that is necessary for the CWC section 13142.5(b) determination or for the NPDES permit issuance. Although issuance of an NPDES permit is exempt from California Environmental Quality Act (CEQA) compliance pursuant to CWC section 13389, a CWC section 13142.5(b) determination is a discretionary approval

<sup>1</sup> CWC section 13142.5(b) requires each new or expanded coastal powerplant or other industrial installation using seawater for cooling, heating, or industrial processing, to use the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life.

subject to CEQA compliance. The San Diego Water Board is a responsible agency for purposes of complying with CEQA for a CWC section 13142.5(b) determination requested by the Discharger.

The San Diego Water Board and the State Water Board offer the following comments on sections 1, 2, 3, 4.2, 4.4, 5.1, 5.2.2, and 5.2.4 of the Draft SEIR. The remaining sections were not reviewed.

#### Brine Mixing Zone and Flow Augmentation

1. In section 2.3, page 2.5, the Draft SEIR indicates that the outfall location is the effluent tunnel discharge point. This is inconsistent with the ROWD, as amended in September 2015, which indicates that the outfall location is the EPS surface discharge channel. The Draft SEIR should be amended to clarify the outfall location.
2. The Draft SEIR presumes (e.g. see Page 4.4-6) that the brine mixing zone (BMZ) for the CDP will be approximately 200 meters from the discharge point. However, the Desalination Amendment definition of the BMZ provides that a standard BMZ shall not exceed 100 meters laterally from each discharge point and throughout the water column. For the owner or operator of a facility that has received a conditional CWC section 13142.5(b) determination, was over 80 percent constructed by January 28, 2016, and proposes flow augmentation (additional intake of water for brine dilution) using a surface water intake, the Desalination Amendment provides the option for the Discharger to submit a proposal to the San Diego Water Board for approval of an alternative BMZ. The alternative BMZ shall not exceed 200 meters laterally from the discharge point and throughout the water column. This option is contingent upon the Discharger demonstrating and the San Diego Water Board approving in an NPDES permit, that the combination of the alternative BMZ and flow augmentation provides a level of intake and mortality of all forms of marine life that is comparable to the combination of the standard BMZ and wastewater dilution, if wastewater is available, or multiport diffusers, if wastewater is unavailable. The Desalination Amendment specifies that in no case may the discharge result in hypoxic conditions outside of the alternative BMZ.

The Discharger has submitted a request to the San Diego Water Board for approval of flow augmentation using a surface water intake and an alternative BMZ of 200 meters from the discharge point. The San Diego Water Board, in consultation with the State Water Board, is reviewing this request as part of the CWC section 13142.5(b) determination. As such, the Draft SEIR should be amended to evaluate whether the discharge would result in hypoxic conditions outside of the requested alternative BMZ. Additionally, the Draft SEIR should be amended to evaluate alternatives to flow augmentation and a BMZ greater than 100 meters that may have reduced environmental impacts. These alternatives should include withdrawing less seawater for flow augmentation, a BMZ less than 200 meters from the discharge point, diluting brine using multiport diffusers, and commingling brine with municipal wastewater prior to discharge.

3. In section 4.2, page 4.2-12, the Draft SEIR states that the proposed CDP modifications satisfy the Desalination Amendment's requirements for brine discharge using flow augmentation. In a meeting on April 12, 2016, San Diego Water Board staff verbally requested that the Discharger consult with the Encina Wastewater Authority about the possibility of diverting some of the effluent from the CDP to the Encina Ocean Outfall. The Draft SEIR should be amended to evaluate this alternative discharge option of commingling CDP's brine with wastewater.

#### Fish Return System

4. In section 3.4, page 3-15, the Draft SEIR states that the fish return pipe will have two cleanouts to facilitate cleaning and inspection. The Draft SEIR should be amended to describe the methods that will be used to clean the fish return pipe and the discharge pipe following the permanent cessation of operations at the EPS. Depending on the cleaning methods or agents selected, pollutants may be added to the CDP discharge, possibly resulting in additional environmental impacts. The Draft SEIR should be amended to evaluate the possible environmental impacts associated with discharge to surface waters of cleaning-in-place liquids, solvents, antiscalants, debris from cleaning, and biofouling and antifouling agents.

#### Construction Schedule

5. In section 3.4, page 3-30, the Draft SEIR identifies a schedule of approximately 18 months for the construction of intake and discharge modifications. Because this schedule will extend beyond the planned permanent cessation of operations at the EPS, which is currently scheduled for December 31, 2017, the Draft SEIR should be amended to describe CDP operations during the interim period when EPS is permanently shut down and prior to the new intake structure being constructed and operated.

#### Intake Structure Modifications

6. In section 4.2, page 4.2-5, there is a description of the proposed CDP modifications to the EPS intake structure, which consist of center-flow traveling water screens with 1 mm mesh, axial flow pumps, and a fish return system. Entrapment of marine life may occur in the intake tunnel, if organisms pass through the trash racks at the onset of the tunnel but cannot swim back through them. The Draft SEIR should be amended to evaluate alternative options, such as wedgewire screens, installation of traveling screens at the onset of intake, and an offshore intake structure, that were considered for modifications to the EPS intake structure and that may result in fewer impacts on marine life.

#### Alternative Receiving Water Limitation

7. In section 4.2, page 4.2-12, the Draft SEIR states that the chronic toxicity test results suggest that the CDP qualifies for a facility-specific alternative receiving water salinity limitation as provided in section III.M.3.c. of the Desalination Amendment. As part of the ROWD and the request for a CWC section 13142.5(b) determination for stand-alone operations of the CDP, the Discharger has requested guidance from the San Diego Water Board to identify future research, studies, and monitoring required to evaluate and identify a facility-specific alternative receiving water salinity limitation. The San Diego Water Board, in consultation with the State Water Board, is in the process of reviewing the Discharger's request and has yet to make a decision about whether an alternative receiving water salinity limitation for the CDP is appropriate. The Draft SEIR should be amended to more accurately describe the current status of the alternative receiving water limitation request and must also evaluate the scenario under which the San Diego Water Board does not approve an alternative receiving water salinity limitation.

#### Mitigation

8. In section 4.2, page 4.2-15, the Draft SEIR states that the San Diego Water Board found that the proposed measures for the CDP in the March 27, 2009 *Flow, Entrainment, and Impingement Minimization Plan* (Minimization Plan) are the best available CWC section

13142.5(b) mitigation feasible for the CDP. The Draft SEIR presumes that the San Diego Water Board will accept out-of-kind mitigation and a mitigation ratio of one to ten<sup>2</sup> for purposes of the requested CWC section 13142.5(b) determination. The Draft SEIR also states that no additional marine biological resources mitigation measures beyond those required by the Final Environmental Impact Report are necessary. For clarification, in Order No. R9-2009-0038, the San Diego Water Board found that the Minimization Plan will ensure that the CDP is in compliance with CWC section 13142.5(b) under *co-located and temporary shutdown* operations of EPS (emphasis added) only and that it will be necessary to evaluate compliance with CWC section 13142.5(b) for stand-alone operations if the EPS permanently ceases operations. The San Diego Water Board, in consultation with the State Water Board, is in the process of reviewing the Discharger's request for a CWC section 13142.5(b) determination for stand-alone operations of CDP, including evaluating compliance with the mitigation requirements contained in the Desalination Amendment. The San Diego Water Board has yet to make a decision regarding whether the proposed measures in the Minimization Plan constitute the best available mitigation for stand-alone operations of the CDP. The Draft SEIR should be amended to more accurately discuss the current situation with regards to mitigation.

9. In section 4.2, page 4.2-15, the Draft SEIR re-states section III.M.2.e(7) of the Desalination Amendment, which provides the San Diego Water Board with the discretion, when making a new CWC section 13142.5(b) determination, to account for previously-approved mitigation projects and to require additional mitigation for any additional mortality of marine life. The Draft SEIR should be amended to more accurately discuss the current situation with regards to mitigation considering 1) that the San Diego Water Board has yet to make a decision regarding these provisions and 2) that section III.M.2.e(7) of the Desalination Amendment does not obviate compliance with other mitigation requirements within section III.M.2.e of the Desalination Amendment. The San Diego Water Board will determine the appropriate mitigation requirements to compensate for the intake and mortality of all forms of marine life associated with the construction and operation of the long-term stand-alone facility when it makes the CWC section 13142.5(b) determination. As part of this process, the San Diego Water Board will assess whether to account for previously-approved mitigation as part of the mitigation for stand-alone operations of CDP. The Draft SEIR should be amended to address the possibility that previously approved mitigation will not be credited toward stand-alone operations of CDP.

#### Groundwater Dewatering

10. In section 4.4.3, page 4.4-3, the Draft SEIR states that the construction of the proposed modifications will require groundwater extracted through dewatering to be discharged to the brine discharge structure. The Draft SEIR should be amended to explain and evaluate the impacts of the decision to discharge the groundwater to the brine discharge structure rather than to the intake system to supplement the CDP's process water requirements. The Draft SEIR should also be amended to examine whether the groundwater dewatering wells for construction may be put into permanent use after completion of construction to provide supplemental water for the CDP's process water requirements.

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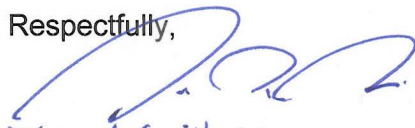
<sup>2</sup> Section III.M.2.e.(3)(b)vi. of the Desalination Amendment requires a mitigation ratio of no less than one acre of mitigation habitat for every ten acres of impacted open water or soft-bottom habitat.

Low Impact Development

11. The Draft SEIR should be amended to address Low Impact Development (LID) requirements, as required by 1) section II.E.3 of San Diego Water Board Order No. R9-2013-0001, *National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems Draining the Watersheds within the San Diego Region* (Order No. R9-2013-0001), as amended; and 2) the City of Carlsbad's *BMP Design Manual*. Where conflict exists between the two referenced documents the most stringent requirements shall apply. The proposed modifications to the CDP provide an opportunity to examine retrofitting or otherwise implement LID principles that would minimize storm water pollution impacts to the receiving waters. Section II.E.3.a(3) of Order No. R9-2013-0001, as amended, contains minimum LID measures that all development projects must implement.

For questions or concerns, please contact Ben Neill with the San Diego Water Board at (619) 521-3376, [Ben.Neill@waterboards.ca.gov](mailto:Ben.Neill@waterboards.ca.gov), or Kim Tenggardjaja with the State Water Board at (916) 341-5473, [Kimberly.Tenggardjaja@Waterboards.ca.gov](mailto:Kimberly.Tenggardjaja@Waterboards.ca.gov). In the subject line of any response, please include the reference "640063: bneill".

Respectfully,

  
for James G. Smith, AEO  
David Gibson  
Executive Officer

DWG:jgs:dtb:bno:bin

cc by email:

Peter MacLaggan, Poseidon Resources (Channelside), [PMacLaggan@poseidon1.com](mailto:PMacLaggan@poseidon1.com)  
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Elaine Lukey, City of Carlsbad, [Elaine.Lukey@carlsbadca.gov](mailto:Elaine.Lukey@carlsbadca.gov)

Tech Staff Info & Use	
Order No.	R9-2006-0065
Party ID	522151
WDID	9 000001429
NPDES No.	CA0109223
Reg. Measure ID	308381
Place ID	640063
Person ID	339921



### Enforcement Actions for May and June 2016

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
06/15/2016	<a href="#">Expedited Payment Letter R9-2016-0003</a>	BAE Systems San Diego Ship Repair Inc., San Diego	Acceptance by Executive Officer of offer to participate in Expedited Payment Program relating to Violations of Order No. R9-2009-0080 minimum penalty amount of \$12,000.	National Pollutant Discharge Elimination System (NPDES) Order No. R9-2009-0080
05/23/2016	<a href="#">Notice of Violation Order No. R9-2016-0124</a>	Sunranch Capital Partners LLC, Portola Center South TTM 15353, Lake Forest	Unauthorized discharge to City of Lake Forest MS4, deficient implementation of Best Management Practices (BMPs), and insufficient Storm Water Pollution Prevention Plan (SWPPP).	NPDES Construction General Permit Order No. 2009-0009-DWQ
05/23/2016	<a href="#">Notice of Violation Order No. R9-2016-0125</a>	USA Portola Properties LLC, Portola Hills Tract 17300 Northwest, Lake Forest	Unauthorized discharge to City of Lake Forest MS4, deficient implementation of BMPs, and insufficient SWPPP.	NPDES Construction General Permit Order No. 2009-0009-DWQ and Clean Water Act section 401 Water Quality Certification (401 Certification) Order No. R9-2013-0113
05/23/2016	<a href="#">Notice of Violation Order No. R9-2016-0126</a>	USA Portola Properties LLC, Tract 17300 Northeast, Lake Forest	Deficient implementation of BMPs, and insufficient SWPPP.	NPDES Construction General Permit Order No. 2009-0009-DWQ

### Enforcement Actions for May and June 2016

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
05/03/2016	Staff Enforcement Letter	Dan Miller Auto Salvage, El Cajon	Operating without recertification of Notice of Intent (NOI) for enrollment under the NPDES Industrial General Permit and failure to properly contain oil and other wastes.	NPDES Industrial General Permit Order No. 2014-0057-DWQ
05/04/2016	<a href="#">Staff Enforcement Letter</a>	City of Oceanside, Mission Basin Desalting Facility and Oceanside Ocean Outfall, Oceanside	Improper operation and maintenance leading to 5,000 gallon spill in January 2016, multiple exceedances of suspended and settleable solids effluent limitations, and improper monitoring of carbonaceous biochemical oxygen demand.	NPDES Permit Order No. R9-2011-0016
05/11/2016	Staff Enforcement Letter	America Auto Repair, San Diego	Operating without recertification of NOI under the NPDES Industrial General Permit and improperly stored engine and transmission cores resulting in transmission fluid leaks.	NPDES Industrial General Permit Order No. 2014-0057-DWQ
05/16/2016	Staff Enforcement Letter	Pio Pico Energy Center LLC, Pio Pico Energy Center, San Diego	Deficient implementation of sediment control BMPs.	NPDES Construction General Permit Order No. 2009-0009-DWQ

### Enforcement Actions for May and June 2016

<b>Enforcement Date</b>	<b>Enforcement Action</b>	<b>Entity/ Facility/ Location</b>	<b>Summary of Violations and Enforcement</b>	<b>Applicable Permit/Order Violated</b>
<b>05/16/2016</b>	Staff Enforcement Letter	Passerelle LLC, Campus Park Project, Fallbrook	Failure to submit annual reports for years 2014, 2015, and 2016.	401 Certification Order No. 12C-048
<b>05/16/2016</b>	Staff Enforcement Letter	OC Dana Point Harbor, Dana Point Harbor Maintenance Dredging, Dana Point	Failure to submit annual reports for years 2015 and 2016	401 Certification Order No. R9-2014-0053
<b>05/16/2016</b>	Staff Enforcement Letter	Caltrans District 11, Chollas Creek BMP Retrofit Project-Phase II, National City	Failure to submit annual reports for years 2015 and 2016.	401 Certification Order No. R9-2013-0193
<b>05/16/2016</b>	Staff Enforcement Letter	Advanced Group 99-SJ & Advanced Group 03-79-2, Distrito La Novia/San Juan Meadows Project, San Juan Capistrano	Failure to submit annual reports for years 2015 and 2016.	401 Certification Order No. R9-2013-0098
<b>05/16/2016</b>	Staff Enforcement Letter	NCA ESCO Escondido LLC, Escondido Boulevard Apartments Project, Escondido	Failure to submit annual reports for years 2015 and 2016.	401 Certification Order No. R9-2013-0191
<b>05/16/2016</b>	Staff Enforcement Letter	Mr. Fernando Arimon, Pacific Landing Apartments, Murrieta	Failure to submit annual reports for years 2015 and 2016.	401 Certification Order No. R9-2013-0157

### Enforcement Actions for May and June 2016

<b>Enforcement Date</b>	<b>Enforcement Action</b>	<b>Entity/ Facility/ Location</b>	<b>Summary of Violations and Enforcement</b>	<b>Applicable Permit/Order Violated</b>
<b>05/16/2016</b>	Staff Enforcement Letter	USA Portola Properties LLC, Portola Center, Lake Forest	Failure to submit annual reports for the year 2015.	401 Certification Order No. R9-2013-0113
<b>05/16/2016</b>	Staff Enforcement Letter	City of Carlsbad, Romeria Street Drainage Improvement Project, Carlsbad	Failure to submit annual reports for years 2015 and 2016.	401 Certification Order No. 10C-093
<b>05/16/2016</b>	Staff Enforcement Letter	Rutter Santiago LP, Saddle Crest, unincorporated Orange County	Failure to submit annual reports for years 2015 and 2016.	401 Certification Order No. 12C-060
<b>05/16/2016</b>	Staff Enforcement Letter	LS Terracina LLC, Terracina Project, unincorporated Riverside County	Failure to submit annual reports for years 2015 and 2016.	401 Certification Order No. R9-2012-0008
<b>05/16/2016</b>	Staff Enforcement Letter	CV Inland Investments 1 LP, North Ranch Residential Development Project, Wildomar	Failure to submit annual reports for years 2015 and 2016.	401 Certification Order No. R9-2013-0140
<b>06/01/2016</b>	Staff Enforcement Letter	Shea Homes Limited Partnership, Element and Z Millennia Phase I Lot 9 Chula Vista Tract No PCS 0903, Chula Vista	Deficient implementation of perimeter control BMPs which lead to minor sediment discharge.	NPDES Construction General Permit Order No. 2009-0009-DWQ

### Enforcement Actions for May and June 2016

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
06/01/2016	Staff Enforcement Letter	G Street Seniors CIC LP, Millenia Lot 10 Volta Senior Apt Homes, Chula Vista	Deficient implementation of perimeter control and sediment control BMPs, and tracking of sediment offsite.	NPDES Construction General Permit Order No. 2009-0009-DWQ
06/01/2016	Staff Enforcement Letter	F Street Family CIC LP, Millenia Lot 9 Duetta Family Apt Homes, Chula Vista	Deficient implementation of perimeter control and sediment control BMPs, and tracking of sediment offsite.	NPDES Construction General Permit Order No. 2009-0009-DWQ
06/07/2016	Staff Enforcement Letter	San Diego County Department of Public Works, Sweetwater Phase III Trail Project, Bonita	Failure to submit annual reports for years 2015 and 2016.	401 Certification Order No. R9-2014-0029
06/21/2016	<a href="#">Staff Enforcement Letter</a>	San Diego City Metropolitan Wastewater Department, Point Loma Waste Water Treatment Plant (WWTP) & Ocean Outfall, San Diego	Exceedance of effluent limitations for settleable solids, deficient monitoring, and late reporting.	NPDES Permit Order No. R9-2009-0001
06/21/2016	<a href="#">Staff Enforcement Letter</a>	San Diego City Metropolitan Waste Water Department, South Bay Water Reclamation Plant (WRP), San Diego	Deficient monitoring during the January 2016 through March 2016 quarterly monitoring period.	NPDES Permit Order No. R9-2013-0006
06/21/2016	<a href="#">Staff Enforcement Letter</a>	Liquid Stone Holdings, LLC, Stone Brewing Company, Escondido	Failure to meet effluent limitations for pH.	NPDES Permit Order No. R9-2012-0006

### Enforcement Actions for May and June 2016

Enforcement Date	Enforcement Action	Entity/ Facility/ Location	Summary of Violations and Enforcement	Applicable Permit/Order Violated
06/21/2016	<a href="#">Staff Enforcement Letter</a>	Sweetwater Authority, Richard A. Reynolds Desalination Facility, Chula Vista	Failure to complete effluent toxicity tests.	NPDES Permit Order No. R9-2010-0012
06/23/2016	Staff Enforcement Letter	Monterey Property Associates Anaheim, LLC, OSH San Carlos Village, San Diego	Deficient implementation of housekeeping and perimeter control BMPs, and tracking of sediment offsite.	NPDES Construction General Permit Order No. 2009-0009-DWQ
06/30/2016	<a href="#">Staff Enforcement Letter</a>	Lilac Enterprises, Inc., Hideaway Lake, Valley Center	Exceedance of effluent limitations for total suspended solids.	Waste Discharge Requirements (WDR) Order No. 97-027

Responsible Agency	Collection System	Total Volume*	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
La Mesa City	City of La Mesa CS	145	40	105	28%	72%		0.0	155.0	58,244
		15	15	0	100%	0%				
		132	132	0	100%	0%				
San Diego City	San Diego City CS (Wastewater Collection System)	460	460	0	100%	0%		145.0	3,002.0	2,186,810
		50	50	0	100%	0%				
		121	121	0	100%	0%				
Vallecitos Water District	Meadowlark CS	57,420	17,500	39,920	30%	70%		6.4	257.3	97,481
US Marine Corps Recruit Depot	MCRD CS	15	10	0	67%	0%	1*	0.0	4.0	8,000
	Totals for Public Spills	58,343	18,318	40,025						
	Totals for Federal Spills	15	10	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\* 15 gallons were discharged to land. Ten gallons were recovered, and five gallons seeped into the ground and/or evaporated.

Responsible Agency	Collection System	Total Volume*	Total Recovered*	Total Reaching Surface Waters*	Percent Recovered	Percent Reaching Surface Waters	Additional Details	Population in Service Area	Lateral Connections
		(Gallons)	(Gallons)	(Gallons)	(%)	(%)			
Carlsbad MWD	Carlsbad MWD CS	2	2	0	100%	0%		69,420	22,000
		53	53	0	100%	0%			
Chula Vista City	City of Chula Vista CS	60	60	40	100%	67%		256,780	49,532
Imperial Beach City	City of Imperial Beach CS	40	40	0	100%	0%		26,324	10,909
Leucadia Wastewater District	Leucadia Wastewater District CS	10	10	0	100%	0%		60,000	20,639
Poway City	City of Poway CS	65	65	0	100%	0%		43,930	12,205
		173	173	0	100%	0%			
San Diego City	San Diego City CS (Wastewater Collection System)	250	250	0	100%	0%		2,186,810	267,237
		333	333	0	100%	0%			
South Coast Water District	South Coast Water District CS	25	25	0	100%	0%		42,000	14,762
Vista City	City of Vista CS	897	818	79	91%	9%		90,000	16,383
	Totals	1,908	1,829	119					

\*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).



Responsible Agency	Collection System	Total Volume*	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
					Total Recovered	Percent Recovered					
Chula Vista City	City of Chula Vista CS	7	7	0	100%	0%			3.4	503.0	256,780
Fallbrook Public Utility Dist	Fallbrook Plant 1, Oceanside of CS	2,000	1,500	0	75%	0%	1*		4.6	76.8	23,000
Imperial Beach City	City of Imperial Beach CS	1,800	1,800	1,000	100%	56%	2*		4.4	39.5	26,324
Poway City	City of Poway CS	25	25	0	100%	0%			3.4	185.0	43,930
Rainbow Municipal Water District	Rainbow Municipal Water Dist CS	186	0	0	0%	0%	4*		3	60	4,600
San Diego City	San Diego City CS (Wastewater Collection System)	300	0	0	0%	0%	5*		145.0	3,002.0	2,186,810
San Diego County Dept of Public Works	County of San Diego CS	650	0	0	0%	0%	6*		10.0	408.0	151,500
	Totals for Public Spills	6,153	3,834	1,675							
	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\* 2,000 gallons were discharged to land. 1,500 gallons were recovered, and 500 gallons seeped into the ground and/or evaporated.

2\* 1,800 gallons were discharged to land. 1,800 gallons were recovered, and 1,000 gallons reached surface water.

3\* Ten gallons were discharged to land. Two gallons were recovered, and eight gallons seeped into the ground and/or evaporated.

4\* All 186 gallons seeped into the ground and/or evaporated.

5\* All 300 gallons seeped into the ground and/or evaporated.

6\* All 650 gallons seeped into the ground and/or evaporated.

Responsible Agency	Collection System	Total Volume*	Total Recovered*	Total Reaching Surface Waters*	Percent Recovered	Percent Reaching Surface Waters	Additional Details	Population in Service Area	Lateral Connections
		(Gallons)	(Gallons)	(Gallons)	(%)	(%)			
La Mesa City	City of La Mesa CS	12	12	0	100%	0%		58,244	13,000
Leucadia Wastewater District	Leucadia Wastewater District CS	25	0	0	0%	0%	1*	60,000	20,639
National City	City Of National City CS	40	40	0	100%	0%		58,967	8,000
		30	5	25	17%	83%			
Padre Dam Municipal Water District	Padre Dam CS	43	43	0	100%	0%		68,902	15,097
		30	30	0	100%	0%			
San Diego City	San Diego City CS (Wastewater Collection System)	270	270	0	100%	0%		2,186,810	267,237
		1,746	1,626	120	93%	7%			
South Coast Water District	South Coast Water District CS	35	35	0	100%	0%		42,000	14,762
		15	15	0	100%	0%			
Vallecitos Water District	Meadowlark CS	15	0	0	0%	0%	2*	97,481	20,603
		10	7	0	70%	0%	3*		
Totals		2,271	2,083	145					

\*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).

1\* All 25 gallons seeped into the ground and/or evaporated.

2\* All 15 gallons seeped into the ground and/or evaporated.

3\* Ten gallons were discharged to land. Seven gallons were recovered, and three gallons seeped into the ground and/or evaporated.

Table 5: April and May 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
						(%)	(%)	
Dry Weather <sup>1</sup>								
Tijuana River	4/5/2016	4,860,000	0	4,860,000	0	100		Transit system accident caused a loss of power to Pump Station CILA.
Total Dry Weather		4,860,000	0	4,860,000	0	100		
Wet Weather <sup>2</sup>								
Tijuana River	4/7/2016	not reported	not reported	not reported	n/a	n/a		Operations at Pump Station CILA were suspended on April 7. Operations resumed at Pump Station CILA on April 15.
Tijuana River	5/6/2016	not reported	not reported	not reported	n/a	n/a		Operations at Pump Station CILA were suspended on May 6. Operations resumed at Pump Station CILA on May 11.
Total Wet Weather		not reported						

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.