### **California Regional Water Quality Control Board**

San Diego Region David Gibson, Executive Officer



Executive Officer's Report October 10, 2018

### **Table of Contents**

| Part A | – San Diego Region Staff Activities   | 2   |
|--------|---|-----|
| 1.     | Personnel Report  | 2   |
| Part B | 8 – Significant Regional Water Quality Issues   | 3   |
| 1.     | Initial Assessments of Key Beneficial Uses Areas (Attachment B-1)   | 3   |
| 2.     | Former Chatham Brothers Barrel Yard Five-Year Remedy Review   | 4   |
| 3.     | Installation Restoration Site 1120, Marine Corps Base Camp Pendleton  | 5   |
| 4.     | Shelter Island Yacht Basin Dissolved Copper TMDL Meets Stage 3 Milestone on Time  | 7   |
| 5.     | Partnering for a Cleaner River Bed, San Diego River   | 9   |
| 6.     | Status of Claude "Bud" Lewis Carlsbad Desalination Plant NPDES Permit<br>Reissuance   | .11 |
| 7.     | Enforcement Actions for August 2018 (Attachment B-7)  | .12 |
| 8.     | Sanitary Sewer Overflows and Transboundary Flows from Mexico in the San Diego<br>Region – July 2018 ( <i>Attachment B-8</i> ) | .13 |
| Part C | 2 – Statewide Issues of Importance to the San Diego Region  | .15 |
| 1.     | Fiscal Year 2017-18 Invoice Collection Report and Fiscal Year 2018-19 Annual Fee Schedule                                     | .15 |
| 2.     | State Water Board Adopts Statewide Bacteria Water Quality Objectives  | .20 |
| 3.     | California Releases New Climate Science, Planning Tools to Prepare for Climate<br>Change Impacts                              | .21 |

The October 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: Jeremy Haas

The Organizational Chart of the San Diego Water Board is available at <u>http://www.waterboards.ca.gov/sandiego/about\_us/org\_charts/orgchart.pdf</u>

### Retirement

After many successes in numerous positions and always with professional courtesy and a most pleasant demeanor, Lori Costa, Administrative Officer, retired from state service on September 30, 2018. Lori began her state career with the State Water Board in 1984. In 1996 she relocated to the San Diego Water Board to serve as the Executive Assistant. Lori received a Superior Accomplishment Award in 2012 as an Associate Government Program Analyst during a time of chronically understaffed administrative positions, and in 2013 promoted to Administrative Officer. It was Lori's steadying efforts during those tumultuous years that reinforced the crucial value of our analysts and technicians have in achieving our water quality mission, and in doing so Lori inspired renaming what had been the Business Services Unit to the Mission Support Services. Now, she is looking forward to spending more time with family, exploring the outdoors, and traveling.

### Transfer

Chehreh Komeylyan, Water Resource Control Engineer, accepted a position in the Groundwater Protection Unit. Chehreh has worked for the San Diego Water Board for 17 years. She will begin her new duties of reviewing Waste Discharge Requirements, site inspections, and enforcement on October 22, 2018.

### Promotion

Brandon Bushnell, was promoted to Water Resource Control Engineer on October 1, 2018 in the Groundwater Protection Unit. Previously, he worked in this unit as a Student Assistant Engineer for two years. Brandon graduated from San Diego State University in May 2018 with a Bachelor of Science degree in Environmental Engineering. His duties include reviewing Waste Discharge Requirements, site inspections, and enforcement.

### **Recruitment**

The recruitment process has begun to fill three positions: (1) the Water Resource Control Engineer position in the Storm Water Unit; (2) the Senior Environmental Scientist (*new*) position in the Wetland and Riparian Protection Unit, and (3) an Engineering Geologist position in the Site Restoration, Military Facilities Unit. Interviews are being conducted for the Student Assistant Engineer position in the Groundwater Protection Unit. Interviews for the Staff Services Manager I position (the Administrative Officer position) in the Mission Support Services Unit have been conducted.

### Part B – Significant Regional Water Quality Issues

### 1. Initial Assessments of Key Beneficial Uses Areas (*Attachment B-1*)

### Staff Contact: Wayne Chiu

Chapter 1 of the Practical Vision is <u>Strategizing for Healthy Waters</u>. The goal of Strategizing for Healthy Waters is for the San Diego Water Board to focus staff and funding on doing work that is most important, useful, and worthwhile for protecting and restoring the health of waters in the San Diego Region. To achieve this goal, the Board's Practical Vision identifies key beneficial uses that are most critical to protecting human and environmental health and identifies projects that will help focus staff resources.

The key beneficial uses identified for the region include Drinking Water Supply (i.e. Is the water safe to drink?), Recreation (i.e. Is it safe to swim in the water?), Fish and Shellfish Consumption (i.e. Are fish and shellfish safe to eat?), and Habitats and Ecosystems (i.e. Is the ecosystem healthy?). Chapter 1 of the Practical Vision calls for staff to identify key areas for those key beneficial uses, and then to assess their conditions in order to set meaningful goals. In March 2017, the Board endorsed a <u>staff report</u> that identifies the key areas for the key beneficial uses in the San Diego Region.

In 2017, Board staff began assessing the conditions of key areas using available data to determine if key beneficial uses are being supported in the key areas assessed. The key beneficial uses and key areas assessed thus far include:

| Key Beneficial Uses            | Key Areas                     |
|--------------------------------|-------------------------------|
| Contact Water Recreation       | Coastal Beach Waters          |
| Fish and Shellfish Consumption | Ocean, Harbor, and Bay Waters |
| Habitats and Ecosystems        | Priority Streams              |

Board staff has prepared status sheets for each initial assessment to summarize and convey our findings to the general public. The status sheets are available on the <u>Key Beneficial Uses and</u> <u>Key Areas webpage</u> and provided in Attachment A-2. In the meantime, Board staff is working on assessing conditions of additional key areas for Habitats and Ecosystems and will prepare status sheets as future assessments are completed.

Findings from assessments will be used by the Board's Priority Setting Team to develop goals and priorities for environmental outcomes that will restore and protect these key beneficial uses in the region. The goals and priorities will then inform how to direct program efforts, plan current and future projects, and allocate staff and resources to focus on what is most important.

### 2. Former Chatham Brothers Barrel Yard Five-Year Remedy Review

### Staff Contact: Sean McClain

The Department of Toxic Substances Control (DTSC) is undertaking its third five-year remedy review of the former Chatham Brothers Barrel Yard (Chatham Yard) cleanup site located in Escondido. The purpose of the review is to confirm that the systems being used to clean up the contamination at the Chatham Yard continue to effectively protect human health and the environment. Monitoring and evaluation of the contamination in soil and groundwater on and off site is ongoing and conducted by the Chatham Yard Potential Responsible Party (PRP) Group. The PRP Group submitted a five-year *Remedy Review Report* (Report) for the Chatham Yard in July 2018. Escondido Neighbors United (ENU) and the Sierra Club North County Group (NCG) submitted comments regarding the Report<sup>1</sup> and DTSC is currently preparing a response. DTSC is planning a public meeting in December 2018 to discuss the Report, the next steps for this project, and receive comments from the public.

DTSC sent a public survey regarding the Chatham Yard to the affected community in August 2018. The results of the survey indicate the community continues to have concerns regarding the human health threats posed by the industrial wastes from the Chatham Yard. San Diego Water Board staff continue to work with DTSC to ensure an open and transparent public process that addresses the public's concerns regarding the groundwater cleanup, impacts to domestic water supply wells, and the risks from contaminants in Felicita Creek. Staff will attend the December 2018 public meeting and provide a report to the Board.

### Site History

The Chatham Yard was a waste oil recovery, solvent recycling, and petroleum distribution facility located at 2257 Bernardo Avenue in Escondido. Paul Chatham purchased the property in 1941 and began operations as a petroleum distribution and oil recovery processing plant. In the 1950's, Paul's sons, Robert and Thomas took over the Chatham Yard operations. Operations continued until the State Department of Health Services and San Diego County Health Department closed the site in December 1981 for alleged unlawful waste handling practices and a lack of permits. Subsequently the property was sold to a housing developer, but the construction firm declared bankruptcy a year later and the land reverted to the Chatham brothers.

In 1992, the DTSC and 55 parties who had generated waste material delivered to the property (the PRP Group) entered into a Consent Decree and the PRP Group took over the investigation and cleanup. Pursuant to the Consent Decree, the PRP Group is implementing the DTSC-approved Remedial Action Plan to clean up the site and conduct groundwater and surface water monitoring. The PRP Group conducts semi-annual monitoring and reporting on 31 groundwater monitoring wells and 14 domestic water supply wells. Surface water is also monitored semi-annually at 13 locations in Felicita Creek. San Diego Water Board staff and DTSC staff evaluate these reports to ensure cleanup progress and the protection of human health and the environment.

<sup>1</sup> The ENU and NCG comment letters can be accessed electronically at the following websites: <u>http://geotracker.waterboards.ca.gov/regulators/deliverable\_documents/3008220851/ENU%20letter%20on%20Rem</u> <u>edy%20Report\_August\_2018.pdf</u> <u>http://geotracker.waterboards.ca.gov/regulators/deliverable\_documents/2932997763/NCG\_letter\_DTSC\_ChathamR</u> RR\_August2018.pdf

### Potential Human Health and Ecological Risk Concerns

The DTSC has determined that the contamination from the Chatham Yard does not pose an unacceptable risk to the public. The DTSC's conclusions were based on risk assessments conducted by the PRP Group and data collected during semi-annual monitoring events. At the DTSC's request, an updated risk assessment and soil vapor survey was performed to evaluate risks to residents living above the groundwater plume. The updated risk assessment evaluated:

- Potential soil vapor exposure to residents living above the plume;
- Potential exposure to the public (children) playing in Felicita Creek;
- Ecological risks; and
- Groundwater used for agricultural purposes.

Based on the data provided, the DTSC did not identify a significant public risk related to the Chatham Yard contamination.

### **Additional Information**

Additional information can be found on the State Water Board's GeoTracker website: <u>http://geotracker.waterboards.ca.gov/profile\_report.asp?global\_id=SL209094184</u> and on the Department of Toxic Substances Control's Envirostor website: <u>http://www.envirostor.dtsc.ca.gov/public/profile\_report.asp?global\_id=37490029</u>.

### 3. Installation Restoration Site 1120, Marine Corps Base Camp Pendleton

### Staff Contact: Beatrice Griffey

Installation Restoration Site 1120 (Site 1120) is located within the southwestern quadrant of Marine Corps Base Camp Pendleton (Camp Pendleton), between the Santa Margarita River Estuary (Estuary) and Cockleburr Creek (Creek), in an area referred to as the Stuart Mesa West Agricultural Fields (West Agricultural Fields). Agricultural activities conducted in this area between the early 1940's and 2011 resulted in unauthorized releases of pesticides, herbicides, and petroleum products. These releases have the potential to impair water quality and threaten the beneficial uses of local receiving waters. Contaminates from the West Agricultural Fields and Maintenance Facility Compound can be spread throughout the surrounding area by off-site

storm water discharges and wind deposition, potentially impacting human and ecological receptors.

### Site 1120 Background Information

From the early 1940s through 2011, Camp Pendleton leased approximately 664 acres of land within its jurisdiction to the Singh Family. Bisected by Interstate Highway 5, the West Agricultural Fields consists of 288 acres, while the Stuart Mesa East Agricultural Fields consists of 376 acres. The Maintenance



Location Map for the Stuart Mesa Agricultural Fields

Facility Compound occupies approximately 20 acres within the northwest corner of the Stuart Mesa East Agricultural Fields (See Figure 1).

During their leasehold, the Singh Family actively farmed the land producing row crops and engaged in agricultural support activities. These agricultural support activities typically included vehicle and equipment storage and maintenance, produce processing and distribution, diesel fuel use and storage, agricultural chemical management and application.

### Site 1120 Conditions

The San Diego Water Board received the Navy's *Draft Final Remedial Investigation Report and Feasibility Study for Installation Restoration Site 1120* (Draft Final RI/FS) in October 2017. The Draft Final RI/FS identified 15 isolated areas within the West Agricultural Fields and Maintenance Facility Compound as impacted by historical unauthorized releases of chemicals. Soil investigation results at 13 of the 15 areas indicate the presence of elevated concentrations of pesticides, herbicides, petroleum, and petroleum constituents at concentrations posing a threat to human and ecological receptors. Collectively, the 15 areas proposed to be cleaned within Site 1120 address less than one acre of impacted soil within the combined 308 acres of the West Agricultural Fields and the Maintenance Facility Compound.

The Draft Final RI/FS claims the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)<sup>2</sup> do not apply to farmed areas where agricultural chemicals and products were legally and properly applied.<sup>3</sup> This claim limits the area of soil cleanup, the cleanup goals, and excludes a majority of the contaminated soil within the West Agricultural Fields and Maintenance Facility Compound.

San Diego Water Board staff notified Camp Pendleton that the remedial goals proposed in the Draft Final RI/FS are not protective of ecological receptors and the remedial goals for toxaphene and dieldrin are not protective of human health in 6 areas. Site records and observations also suggest the agricultural chemicals and products used in the West Agricultural Fields were not legally or properly applied, subjecting the entire 288-acre parcel to the requirements of CERCLA. This would require the Navy to remediate all impacted soil within the West Agricultural Fields.

### Site 1120 Storm Water, Groundwater, and Aerial Discharges

San Diego Water Board staff visited the Agricultural Fields in January of 2017. During the visit, staff observed storm water discharges laden with sediment from the West Agricultural Fields and Maintenance Facility Compound discharging into the Creek and the Estuary. These observations appear to be substantiated by studies that assessed the Creek and Estuary soil, sediment, surface water, and biotic conditions and identified the presence of Site 1120 contaminants.

In addition to storm water discharges, San Diego Water Board staff are also concerned that contaminates from the Agricultural Fields and the Maintenance Facility Compound will be transported and deposited by wind to other areas on- and off-site. Camp Pendleton routinely conducts activities within the West Agricultural Fields to prevent the establishment of vegetation

<sup>&</sup>lt;sup>2</sup> An overview of CERCLA is available electronically at: <u>https://www.epa.gov/superfund/superfund-cercla-overview</u>

<sup>&</sup>lt;sup>3</sup> In accordance with the federal Fungicide, Insecticide, and Rodenticide Act.

and viable ecological habitat. These activities, in combination with military land use activities and natural environmental conditions, have the potential to cause contaminated soil to become airborne and accumulate in areas where impacts to human and ecological receptors could occur, such as the military housing, school, and playground just east of the Agricultural Fields.

Discharges from the West Agricultural Fields and Maintenance Facility Compound to the Creek, Estuary, and Pacific Ocean pose a threat to water quality, designated beneficial uses, and ecological and human receptors. San Diego Water Board staff will continue efforts to stop these discharges and will update the Board as new information becomes available.

### 4. Shelter Island Yacht Basin Dissolved Copper TMDL Meets Stage 3 Milestone on Time

### Staff Contact: Jeremy Haas

The Shelter Island Yacht Basin is a popular recreational marina located in the north end of San Diego Bay. Twenty-two years ago (in 1996), the San Diego Water Board placed the Shelter Island Yacht Basin on the Clean Water Act Section 303(d) List of Water Quality Limited Segments due to elevated levels of dissolved copper in the water column. The San Diego Water Board adopted the Shelter Island TMDL in 2005, and the USEPA granted final approval of the TMDL in February 2006. Since then the San Diego Unified Port District (Port District) has been working with marinas and the boating community in the Yacht Basin to reduce copper loading. Earlier this year, the Port District submitted the 2017 annual report on the progress of the Shelter Island TMDL.



Goode

The Shelter Island Yacht Basin

### The Port District's 2017 Report

demonstrates that overall the Yacht Basin is meeting the 40 percent reduction target set by the San Diego Water Board as an interim loading target to be met by 2018. The Port attributes the success to improved use of best management practices and vessel conversions to less toxic hull coatings.

The most sensitive beneficial uses of the Yacht Basin's waters are those designated for protection of marine aquatic life and aquatic dependent wildlife. Those beneficial uses are threatened or impaired due to elevated levels of dissolved copper. Copper used in antifouling paints to prevent buildup of marine organisms on a vessel's hull can leach into the environment where, even at low concentrations, it is toxic to a variety of aquatic organisms and is persistent in the environment.

The TMDL required that a 76 percent overall reduction of residual copper loading to the Yacht Basin to restore the marine aquatic life and aquatic dependent wildlife beneficial uses. The TMDL established a phased compliance schedule for achieving that reduction as follows:

| Interim | Interim Loading Targets for Attainment of the Shelter Island Yacht Basin |  |  |  |  |
|---------|--|--|--|--|--|
|         | Dissolved Copper TMDL  |  |  |  |  |
| Stage   | Time Period  | Percent Reduction<br>from Current<br>Estimated Loading | Estimated Interim Target<br>Loading (kg/year of<br>dissolved Cu) |  |  |
| Stage 1 | Years 1-2  | 0%   | n/a  |  |  |
| Stage 2 | Years 2-7  | 10%  | 1,900  |  |  |
| Stage 3 | Years 7-12   | 40%  | 1,300  |  |  |
| Stage 4 | Years 12-17  | 76%  | 567  |  |  |

Notably, in 2013 Governor Brown signed Assembly Bill 425 (Atkins) and directed the Department of Pesticide Regulation (DPR) to establish a leach rate for copper-based antifouling paints to protect aquatic environments from the effects of exposure to copper-based antifouling paints. In January 2018 DPR issued its final decision to establish a maximum allowable copper leach rate of 9.5  $\mu$ g/cm<sup>2</sup>/day for all copper-based antifouling paint and coating products labeled for use on recreational vessels. DPR's new restrictions on copper-based antifouling paints and coatings became effective as of July 1, 2018.<sup>4</sup>

The 2017 Annual Report also provides some water quality measurements to assess the status of the beneficial uses. Consistent with results of previous years, the 2017 data show dissolved copper continues to exceed the Water Quality Objectives at most sampling locations,<sup>5</sup> although only the two stations farthest inside the basin had statistically significant effects on developing mussel larvae (stations SIYB-1 and SIYB-2, see Attachment 1). While the dissolved copper loading rates are an indicator of progress toward TMDL attainment, ultimately water quality data as reported to the USEPA pursuant to Clean Water Act sections 305b and 303d will determine whether the beneficial uses are attained.

Both the Port District and the San Diego Water Board have recognized that the new DPR paint regulations cannot solely be relied upon to achieve the TMDL's final target and restore the impaired beneficial uses. Ongoing and additional efforts by the Port District to ensure best management practices for paints and associated marina activities, combined with the new DPR regulations, provide a pathway for success.

<sup>&</sup>lt;sup>4</sup> Information on DPR's program is at https://www.cdpr.ca.gov/docs/registration/reevaluation/chemicals/anti-

https://www.cdpr.ca.gov/docs/registration/reevaluation/chemicals/antifoulant\_paints.htm

<sup>&</sup>lt;sup>5</sup> Five of the six sampling stations exceeded the California Toxics Rule (CTR) criterion continuous concentration (CCC) water quality objective (WQO) of 3.1  $\mu$ g/L, and four of the six stations exceeded the CTR acute criterion maximum concentration (CMC) WQO (4.8  $\mu$ g/L).

In conclusion, in large part to the leadership of the Port District, loadings of dissolved copper have been significantly reduced even prior to the new DPR rule. With DPR's copper paint regulations newly in effect, reductions in dissolved copper should be observed over the next few years.

### 5. Partnering for a Cleaner River Bed, San Diego River

### Staff Contact: Sheila Christine McQuaid Moran

It all started with a question – Can the Water Board help? Even though we were not sure how, our answer was "yes" because this project spoke directly to the Water Board's mission "to protect, enhance, and restore the quality of California's water resources" and aligned with the goals of our region's Practical Vision. In the end, not only was it possible, it made a significant impact and strengthened meaningful relationships with public and private partners.

What were we asked to do? The San Diego River Park Foundation (Foundation) needed us to combine services with the California Department of Fish and Wildlife (CDFW) to provide temporary dumpsters for the cleanup efforts of the Foundation to remove thousands of pounds of trash left behind after law enforcement cleared out a large transient encampment along the river in April 2017. Media coverage at the time provided perspective of what the Foundation was facing with this cleanup. One of the articles stated the encampment spanned almost an acre along the San Diego River near the 5900 block of Fairmont Avenue and was filled with tents, trash, waste, and what appeared to be a chop shop for stolen bicycles.<sup>6</sup> Another article estimated that encampment held about 50 tons of trash.<sup>7</sup> Both shared concerns for human health hazards and destruction of the habitat in that area as debris went right up to the edge of the river.

While we could not offer staff to assist in the cleanup, we could find funds to help with proper disposal of the waste. This would be a new type of partnership for us and required review and input from the State Water Board Division of Administrative Services (DAS). Initially, we considered the dumpsters and waste hauling to be a service, which could be done with a fairly simple service order. However, upon review of our request, DAS suggested the activities better aligned with the purposes of the State Board's Cleanup and Abatement Account (CAA) managed by the Division of Financial Assistance (DFA). Switching course and working with DAS, DFA, the Foundation, and potential contractors, we rapidly secured \$4,836.00 to cover up to six dumpsters for the cleanup and disposal of waste from the large abandoned encampment during the period of May 17, 2017 – June 30, 2017 (see June 2017 EO Report).

Our continued task beyond the initial setup of funding was to manage the CAA contract and be a liaison between the Foundation and our contractor, EDCO Disposal Corporation (EDCO), to coordinate the delivery and removal of the dumpsters during the last month and a half of Fiscal Year 16. However, the contractor unexpectedly decided not to charge for tonnage fees. As a result, money left from the original cleanups in Fiscal Year 16 could support cleanups further down the river to the end of Fiscal Year 17 (June 2018). We coordinated dumpsters for a few more events until we estimated funds would be fully expended. Again, EDCO, the contractor, surprised us by listing all the dumpsters provided in Fiscal Year 17 as donations instead of

<sup>&</sup>lt;sup>6</sup> <u>https://www.10news.com/news/volunteers-clean-up-massive-homeless-encampment-along-san-diego-river-in-mission-valley</u>

<sup>&</sup>lt;sup>7</sup> <u>https://www.kpbs.org/news/2017/apr/26/volunteers-clean-large-san-diego-homeless-camp/</u>

charging to our CAA contract. In the end, the CAA funds paid only \$750.00 for 15 dumpsters at 14 cleanups. The balance of funds reverted back to the CAA.

Through the CAA funding, the generosity of EDCO, the CDFW, and the incredible Foundation volunteers, our support helped with four cleanups in Fiscal Year 16 at the original encampment and 10 more in Fiscal Year 17 further downstream the river, removing an estimated 60,206 lbs. (over 30 tons) of trash from at least three abandoned homeless encampments. This number does not include the tires, batteries, and e-waste recycled. In total, Foundation volunteers filled 15 dumpsters (each 40 cubic yards), which would fill a 2,000 sq. ft. home or our entire board room up to eight feet high. That is a significant impact.

This project was a call to our purpose of restoration and placed a sense of urgency to our response. Below are before and after pictures of some of the original cleanup showing the magnitude of what we face along the San Diego River.



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

### Staff Contact: Ben Neill

This report provides a monthly status update on the San Diego Water Board's review of <u>Poseidon Resources (Channelside) LLC's (Poseidon)</u> Report of Waste Discharge (ROWD) application for reissuance of the National Pollutant Discharge Elimination System (NPDES) permit for the <u>Claude "Bud" Lewis Carlsbad Desalination Plant (CDP)</u> and the development of the draft NPDES permit. The reissuance of the NPDES permit for the CDP is a high priority for the San Diego Water Board and the State Water Board (collectively referred to as Water Boards). Following is an update on key activities since the <u>previous Executive Officer Report</u> update<sup>8</sup>:

- Chapter III.M.2.a(1) of the California Ocean Plan provides that regional water boards may require an owner or operator of a desalination facility to hire a neutral third party entity to review studies and models and make recommendations to the boards regarding a Water Code section 13142.5(b) determination for the best available site, design, technology and mitigation measures feasible to minimize the intake and mortality of all forms of marine life at new or expanded desalination facilities. At the San Diego Water Board's direction, Poseidon funded a previously convened independent Science Advisory Panel (SAP)<sup>9</sup> to provide scientifically justified assessment and recommendations to the Board on the intake technology and mitigation measures feasible to minimize the intake and mortality of all forms of marine life for the stand-alone operation of the CDP.
- On August 28, 2018, the SAP met to discuss finalizing their draft report which was previously commented on by the Water Boards. The SAP subsequently addressed the comments and issued a final report on September 15, 2018 providing the requested assessment of the questions posed by the Water Boards for independent review. The Water Boards will consider the recommendations in the SAP's final report in developing the draft NPDES permit and Water Code section 13142.5(b) determination. The draft NPDES permit is currently undergoing internal review and is being tentatively scheduled for consideration by the San Diego Water Board at a public hearing in the March 2019 time frame.
- On August 28, 2018 the SAP and other interested parties, including the San Diego Water Board, visited several examples of wetland restoration sites within the Sweetwater Marsh portion of the San Diego Bay National Wildlife Refuge. The SAP continues to periodically meet to assist the California Coastal Commission in the review of technical issues pertaining to Poseidon's construction of the <u>Otay River Estuary Restoration</u>

<sup>&</sup>lt;sup>8</sup> Additional information regarding the CDP can be found in the monthly <u>Executive Officer Reports</u> from June 2015 through September 2018 for <u>September 2018</u>, <u>August 2018</u>, <u>June 2018</u>, <u>May 2018</u>, <u>April 2018</u>, <u>February 2018</u>, <u>December 2017</u>, <u>October 2017</u>, <u>September 2017</u>, <u>August 2017</u>, <u>June 2017</u>, <u>April 2017</u>, <u>February 2017</u>, <u>December 2016</u>, <u>November 2016</u>, <u>October 2016</u>, <u>September 2016</u>, <u>August 2016</u>, <u>May 2016</u>, <u>December 2015</u>, <u>September 2015</u>, and <u>June 2015</u>.

<sup>&</sup>lt;sup>9</sup> The SAP was previously convened by the California Coastal Commission and consists of three independent scientists with expertise in coastal biology, ecology and hydrodynamics. The SAP is comprised of Dr. Pete Raimondi, professor and chair of the Department of Ecology and Evolutionary Biology at the University of California (UC) Santa Cruz; Dr. Richard Ambrose, professor in the Department of Environmental Health Sciences at UC Los Angeles; and Dr. Brett Sanders, professor in the Department of Civil and Environmental Engineering at UC Irvine.

<u>Project</u>. The Project is designed to fulfill the compensatory mitigation requirements of permits previously issued to Poseidon by the California Coastal Commission and San Diego Water Board for the CDP. The Water Boards will stay engaged as necessary to ensure compliance with the mitigation requirements.

- On September 13, 2018, San Diego Water Board met with Poseidon to discuss the schedule for finalizing the draft NPDES permit. At the meeting, other issues were also discussed including the mitigation calculations for impacts attributable to construction of intake alternative 21 using wedgewire screens in Agua Hedionda Lagoon, the phased construction schedule for the intake structure and Poseidon's request to allow sufficient time to implement and assess an intake pilot project, techniques for cleaning the proposed intake structure and pipeline laterals, and the potential costs for construction and operation of the new intake structure.
- On September 14, 2018, Ben Neill from the San Diego Water Board joined Poseidon, the U.S. Fish and Wildlife Service, and the U.S. Army Corps of Engineers at the Otay River Estuary Restoration Project to review aspects of the Clean Water Act section 404 and 401 permitting that will be required to construct the wetlands mitigation Project. Modeling predicts slightly increased tidal flows of seawater in the Otay River channel resulting from the Project might scour an embankment supporting the San Diego South Bay Bike trail. The Project is proposing to rehabilitate existing riprap armoring to ensure the bike path is protected.

### Background

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

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

http://www.waterboards.ca.gov/sandiego/water\_issues/programs/regulatory/carlsbad\_desalination\_n.shtml.

In addition, an email list is available for interested persons to subscribe to at this website: <a href="http://www.waterboards.ca.gov/resources/email\_subscriptions/reg9\_subscribe.shtml">http://www.waterboards.ca.gov/resources/email\_subscriptions/reg9\_subscribe.shtml</a>.

### 7. Enforcement Actions for August 2018 (Attachment B-7)

### Staff Contact: Chiara Clemente

During the month of August 2018, the San Diego Water Board issued 1 Investigative Order, 1 Notice of Violation, and 17 Staff Enforcement Letters. A summary of each enforcement action taken is provided in the attached table (Attachment B-7). 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: <u>http://www.waterboards.ca.gov/water\_issues/programs/enforcement/</u>.

California Integrated Water Quality System (CIWQS): <u>http://www.waterboards.ca.gov/water\_issues/programs/ciwqs/publicreports.shtml</u>.

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

# 8. Sanitary Sewer Overflows and Transboundary Flows from Mexico in the San Diego Region – July 2018 (*Attachment B-8*)

### Staff Contact: Keith Yaeger

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

### Sanitary Sewer Overflows (SSOs)

State agencies, municipalities, counties, districts, and other entities (collectively referred to as public entities) that own or operate sewage collection systems report SSO spills through an online database system, the *California Integrated Water Quality System* (CIWQS). These spill reports are required under the <u>Statewide General SSO Order</u><sup>10</sup>, the <u>San Diego Regional General</u> <u>SSO Order</u><sup>11</sup>, and/or individual National Pollutant Discharge Elimination System (NPDES) permit requirements. Some federal entities<sup>12</sup> report this information voluntarily. Most SSO reports are available to the public on a real-time basis at the following State Water Board webpage:

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

<sup>&</sup>lt;sup>10</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>&</sup>lt;sup>11</sup> San Diego Water Board Order No. R9-2007-0005, *Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region.* 

<sup>&</sup>lt;sup>12</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 and the U.S. Navy voluntarily report sewage spills through CIWQS.

Details on the reported SSOs are provided in the following attached tables (Attachment B-8):

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

A summary view of information on SSO trends is provided in the following attached figures (Attachment B-8):

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

These figures show the number and total volume of sewage spills per month from July 2017 to July 2018. During this period, 36 of the 50 collection systems regulated under the SSO Program reported one or more sewage spills. Fourteen collection systems did not report any sewage spills. A total of 318 sewage spills were reported and 154,151 gallons of sewage reached surface waters.

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

### **Transboundary Flows**

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

Details on the reported transboundary flows are provided in the attached table (Attachment B-8):

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

According to the 1944 *Water Treaty for the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande* and stipulations established in <u>IBWC Minute No. 283</u>, the USIBWC and the Comisión Internacional de Limites y Aguas (CILA)<sup>13</sup> share responsibility for addressing border sanitation problems, including transboundary flows. Efforts on both sides of the border have led to the construction and ongoing operation of several pump stations and treatment plants to reduce the frequency, volume, and pollutant levels of transboundary flows. This infrastructure includes but is not limited to the following:

<sup>&</sup>lt;sup>13</sup> The Mexican section of the IBWC.

- The SBIWTP, located just north of the U.S./Mexico border, provides secondary treatment for a portion of the sewage from Tijuana, Mexico and dry weather runoff collected from a series of canyon collectors located in Smuggler Gulch, Goat Canyon, Canyon del Sol, Stewart's Drain, and Silva Drain. The secondary-treated wastewater is discharged to the Pacific Ocean through the South Bay Ocean Outfall, in accordance with Order No. R9-2014-0009, NPDES No. CA0108928.
- Several pump stations and wastewater treatment plants in Tijuana, Mexico.
- The River Diversion Structure and Pump Station CILA in Tijuana divert dry weather flows from the Tijuana River. The flows are diverted to a Pacific Ocean shoreline discharge point approximately 5.6 miles south of the U.S./Mexico border, or can be diverted to SBIWTP or another wastewater treatment plant in Tijuana, depending on how Tijuana's public utility department (CESPT) configures the collection system. The River Diversion Structure is not designed to collect wet weather river flows and any river flows over 1,000 liters per second (35.3 cubic feet per second).

Additional information about sewage pollution within the Tijuana River Watershed is available at

https://www.waterboards.ca.gov/sandiego/water\_issues/programs/tijuana\_river\_valley\_strategy/s ewage\_issue.html.

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

### 1. Fiscal Year 2017-18 Invoice Collection Report and Fiscal Year 2018-19 Annual Fee Schedule

Staff Contact: Kimberly McMurray-Cathcart

### **Summary of Content**

- I. <u>Introduction;</u>
- II. <u>A summary of invoicing for the San Diego Region in Fiscal Year 17-18;</u>
- III. <u>Unpaid invoices in the San Diego Region Fiscal Years 2014 to 2018;</u>
- IV. <u>Unpaid invoices in the San Diego Region Fiscal Year 2017-18 by program;</u>
- V. Process for collection of unpaid invoices; and
- VI. Fiscal Year 2018-19 annual fee schedule highlights.

### I. Introduction

Each person who discharges waste or proposes to discharge waste that could affect the quality of the waters of the State is required by Water Code section 13260 to pay an annual fee and file a report of waste discharge with the appropriate Regional Water Board. Fees are set by the State Water Board by adoption of regulations which establishes an annual schedule of fees in accordance with Water Code section 13260. The State Water Board is required by Water Code section 13260 to adjust fees annually to conform to the revenue levels set forth in the Budget

Act. The State Water Board adopted the annual schedule of fees for Fiscal Year (FY) 2018-19 on 20 September 2018.<sup>14</sup>

Annual fees are collected through scheduled invoicing of dischargers by the State Water Board. Revenue collected through the invoicing of annual fees is deposited in the Waste Discharge Permit Fund (WDPF), as required by Water Code section 13260. Inquiries from dischargers about the nature, basis, and content of the invoices sent by the State Water Board are fielded by the Fee Coordinators at the Regional Water Boards.

Distinct from other program fees, Site Cleanup Program (SCP) dischargers are not subject to invoicing or payment of annual fees under Water Code section 13260. Instead, Water Code section 13304 authorizes the Regional Water Boards to recover costs associated with the oversight of clean up at sites where a discharge of waste has occurred, and that discharge creates, or threatens to create, a condition of pollution or nuisance. The SCP is funded from the Cleanup and Abatement Account (Cleanup Account), oversight costs are billed to responsible parties pursuant to Water Code section 13365, and the costs recovered are deposited back into the Cleanup Account in accordance with Water Code section 13441. The State Water Board invoices dischargers on behalf of the Regional Water Boards for oversight work performed by staff assigned to a cleanup site.

### II. Invoicing Fiscal Year 2017-18

The State Water Board generated 2,120 WDPF invoices for San Diego Region dischargers in FY 2017-18. The invoices represented \$8,048,334 in revenue for the WDPF; approximately 10 percent less revenue than was invoiced in FY 2016-17. The State Water Board sent San Diego Region dischargers in the SCP 138 invoices for work performed between July 2017 and March 2018. The invoices represented \$716,688 in Cleanup Account recovery costs, which is a 2.8 percent reduction in recovery costs billed over the same period in FY 2016-17.

Decreased revenue for the WDPF in FY 2017-18 from invoices generated in the San Diego Region is largely attributable to changes in the FY 2017-18 Fee Schedule. A one-time fee reduction in the Land Disposal program of 12.6 percent was provided in FY 2017-18 and a permanent reduction in annual fees was implemented in the Storm Water program of approximately 6.8 percent after a trend demonstrated revenues exceeded expenditures over several years.

### III. Unpaid Invoices in the San Diego Region Fiscal Years 2014 to 2018

As of 1 July 2017, the total amount of unpaid WDPF invoices from FY 2014-15 through FY 2017-18 is \$611,080. Of that total, \$26,035 is owed by federal facilities. The following bar chart provides the total amount of unpaid invoices for each fiscal year between July 2014 and June 2018 for all WDPF programs and separately displays the amounts attributable to federal facilities. The chart also depicts that overall receivables generally decrease over time due to persistent collection efforts.

<sup>&</sup>lt;sup>14</sup> The Fee Schedule is in the California Code of Regulations at title 23, Cal. Code Regs., §2200 (Fee Schedule). Following the filing of the adopted Fee Schedule with the Secretary of State, the FY 2018-19 Fee Schedule can be found at: <u>https://www.waterboards.ca.gov/resources/fees/</u>.



### IV. Unpaid Invoices in the San Diego Region Fiscal Year 2017-18 by Program

Out of the combined sum of WDPF and SCP invoices generated in FY 2017-18 in the San Diego Region, 3.65 percent amounting to \$319,816, remains unpaid.<sup>15</sup> The following charts provide the elements of past due fees by program as of 30 June 2018:



### V. Process for Collection of Unpaid Invoices

Thirty days after an annual fee or SCP invoice is sent, payment to the State Water Board is due (Due Date). Following the Due Date, the State Water Board Division of Administrative Services (DAS) pursues payment compliance through a notice process to dischargers with unpaid invoices. DAS mails delinquent parties a Demand for Payment within 30 days following the Due Date, a Notice of Violation within 60 days, and then a Final Collection Letter within 90 days. The Final Collection Letter notifies a discharger that the overdue payment will be sent to a collection agency. Across the State, there is about a 98 percent success rate collecting amounts

<sup>&</sup>lt;sup>15</sup> Unpaid receivables as a percentage of total revenue in FY 2016-17 at the end of the fiscal year 30 June 2017 were 4 percent. At the end of FY 2017-18 the unpaid receivables in FY 2016-17 as a percentage of total revenue for that fiscal year dropped to 2.26 percent. See, McMurray-Cathcart, *Fiscal Year 2016-17 Invoice Collection Report and Fiscal Year 2017-18 Annual Fee Schedule* (Dec. 13, 2017) Executive Officers Report, <u>Unpaid Invoices in the San</u> <u>Diego Region Fiscal Year 2016-17 by Program</u> [Part C-2, Chapter III, pg. 57].

due on invoices from dischargers. The remaining two percent of past due invoices are sent to a collection agency.

Pursuant to Water Code section 13261, the Water Boards can assess civil liability in an amount up to \$1,000 per day for unpaid annual fee invoices. Unpaid annual fee invoices may also justify rescission of waste discharge requirements, including storm water and other National Pollutant Discharge Elimination System (NPDES) permits. Under Water Code section 13304, a judgment lien may be recorded on a property where SCP oversight costs have not been recovered from a discharger and that lien may be foreclosed by the State to recover money on the judgment lien.

The San Diego Region relies on the DAS process and has generally pursued civil liability for past due annual fees through an Administrative Civil Liability (ACL) Complaint only when the discharger is facing an ACL for other violations.

Federal facilities do not receive Demands for Payment, Notices of Violation and Final Collection Letters for failure to pay invoices, as overdue payments attributable to federal facilities are referred to the State Water Board, Office of the Chief Counsel, for collection.

### VI. Fiscal Year 2018-19 Annual Fee Schedule Highlights

WDPF expenditures have exceeded revenue for the last three fiscal years. In FY 2017-18 the loss to the WDPF was \$7.4 million, resulting in further depletion of the fund reserve from 9.3 percent in FY 2016-17, to 3.7 percent at the end of the previous fiscal year. The beginning balance in the WDPF in the new fiscal year beginning 1 July 2018 is approximately \$13.8 million.<sup>16</sup>

If annual fees remained at levels set by the FY 2017-18 Fee Schedule, total revenue forecasted was approximately \$142.5 million for FY 2018-19. Total expenditures in FY 2018-19 are projected to be \$157.4 million. At FY 2017-18 Fee Schedule revenue levels, a loss of \$14.9 million to the WDPF would have been the anticipated result, depleting the fund reserve to a negative balance of 0.6 percent.

As shown in the table below, increases in fees were proposed and adopted for most programs to offset approximately half of the revenue shortfalls this fiscal year. Fee increases were minimized as the State Water Board again resolved to use the fund reserve to offset expenditures in most programs<sup>17</sup> that will hold increases in fees at, or near, single digit percentages in FY 2018-19:<sup>18</sup>

<sup>&</sup>lt;sup>16</sup> A 6-year analysis of the WDPF condition is available at: <u>https://www.waterboards.ca.gov/board\_info/agendas/</u> <u>2018/sept/092018\_5\_att%201\_fund\_condition.pdf</u>. The adjusted balance at the beginning of FY 2018-19 includes an artifact of \$9 million related to a conversion to the new accounting system practices associated with posting of advance collections in FI\$Cal.

<sup>&</sup>lt;sup>17</sup> WDPF cost drivers per program and a comparison of projected revenue, based on the FY 2017-18 Fee Schedule and the adopted Fee Schedule for FY 2018-19, is available at <u>https://www.waterboards.ca.gov/board\_info/agendas/</u>2018/sept/092018\_5\_att\_2\_cost\_drivers.pdf.

<sup>&</sup>lt;sup>18</sup> Presentation 20 September 2018 to the State Water Board on Agenda Item 5, *Consideration of a Resolution Adopting Emergency Regulations Revising the Core Water Quality Regulatory Fee Schedule*, DAS senior staff, David Ceccarelli, Glen Osterhage, and John Russell. https://www.waterboards.ca.gov/board\_info/agendas/2018/sept/092018\_2nd\_revised\_agenda.pdf

|                   | FY                   | 2016-17             | FY                   | 2017-18             | FY                   | 2018-19             | Deferred<br>Increase         |
|-------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|------------------------------|
| Program           | Required<br>Increase | Adopted<br>Increase | Required<br>Increase | Adopted<br>Increase | Required<br>Increase | Adopted<br>Increase | Deferred<br>to FY<br>2019-20 |
| WDR               | 3.0%                 | -                   | 10.2%                | -                   | 18.6%                | 9.5%                | 9.1%                         |
| Land<br>Disposal  | -                    | -                   | -                    | -                   | -                    | -                   | -                            |
| WQC (401)         | 32.4%                | 20%                 | 22.1%                | 20%                 | 18.1%                | 9.2%                | 8.9%                         |
| Storm<br>Water    | -                    | -                   | -                    | -                   | -                    | -                   | -                            |
| NPDES             | 3.3%                 | -                   | 6.8%                 | -                   | 19.6%                | 10.0%               | 9.6%                         |
| CAF               | -                    | -                   | 9.8%                 | -                   | 12.2%                | 6.2%                | 6.0%                         |
| Ag Land<br>(ILRP) | 3.1%                 | -                   | 22.3%                | 16.0%               | 17.4%                | 8.9%                | 8.5%                         |
| Cannabis          | -                    | -                   | -                    | -                   | -                    | -                   | -                            |

Offsets from the fund reserve allows the State Water Board to meet the budgetary expenditures and maintain a projected fund reserve of approximately 4 percent in FY 2018-19. However, maintenance of a minimum 5 percent fund reserve per program has been considered prudent in past fiscal years. The forecast in revenue and expenditures in FY 2018-19 means the WDPF is expected to operate at a loss of approximately \$7.6 million and the fee increases illustrated in the above table that were deferred this fiscal year should be anticipated in FY 2019-20.

Revenue is projected to meet expenditures in the Land Disposal and Storm Water programs in FY 2018-19 and no fee increases or reductions in fees were proposed. The one-time fee reduction employed to reduce Land Disposal program fees in FY 2017-18 was removed from the adopted Fee Schedule.

There were no proposed changes to section 2200.9 of the FY 2018-19 Fee Schedule pertaining to waivers of waste discharge requirements (Waivers). A review of all Regional Water Board Waivers was undertaken in FY 2017-18 and a determination was made that additional fee categories for Waivers were unnecessary: either a fee for the Waiver discharge type already exists in the Fee Schedule; or the fees for the Waiver were appropriately waived in the applicable legislation; or were classified as emergency Waivers to which fees were inapplicable.

Following the State Board resolution to adopt the Fee Schedule, the proposal will be filed with the Office of Administrative Law (OAL) for review as emergency rulemaking under Government Code section 11342.545. As an emergency regulation, the Fee Schedule is posted on the OAL website and is subject to a brief public notice and comment period.<sup>19</sup> There is a tencalendar day period for OAL to make a decision. If the Fee Schedule is approved by OAL, it will be filed with the California Secretary of State. The Fee Schedule is effective as of the date it is filed with the Secretary of State. The State Water Board will begin to send invoices for FY

<sup>&</sup>lt;sup>19</sup> The content will be posted on the OAL website at <u>https://oal.ca.gov/regulations/emergency\_regulations/</u> <u>Emergency\_Regulations\_Under\_Review/</u>.

2018-19 annual fees after the effective date of the Fee Schedule.<sup>20</sup> Throughout the fiscal year, approximately 26,000 invoices will be generated and mailed, the staggered timing being associated with specific programs. Typically, about 5 percent of invoiced parties contact the San Diego Region Fee Coordinator with questions. Some inquires, such as requests to terminate or transfer permit coverage, involve follow-up actions facilitated by program staff.

### 2. State Water Board Adopts Statewide Bacteria Water Quality Objectives

### Staff Contact: Michelle Santillan

U.S. EPA established new recreational water quality criteria recommendations in 2012 (U.S. EPA 2012 Recreational Criteria) based on updated national epidemiological studies and a broader definition of illness designed to protect the public from exposure to harmful levels of pathogens while participating in water-contact recreational activities.

Based the U.S. EPA 2012 Recreational Criteria, the State Water Board adopted a Resolution on August 17, 2018, which established Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California – Bacteria Provisions and a Water Quality Variance Policy (Part 3



of the ISWEBE). In addition, the Resolution also amended the California Ocean Plan to update Bacteria Provisions (Part 3 of the ISWEBE and the Ocean Plan amendment are hereafter collectively referred to as the Bacteria Provisions). The Bacteria Provisions supersede numeric, but not narrative, water quality bacteria objectives for the primary contact recreation (REC-1) beneficial use in the water quality control plans established by the Regional Water Quality Control Boards (Regional Water Boards) prior to the effective date of the Bacteria Provisions.

The Bacteria Provisions establish updated bacteria water quality objectives for the protection of the REC-1 beneficial use based on a risk protection level of 32 illnesses per 1,000 recreators. The Bacteria Provisions established *Escherichia coli* (*E. coli*) as the sole indicator of pathogens in freshwater; enterococci as the sole indicator for saline inland surface waters, enclosed bays, and estuaries; and enterococci as one of the indicators in ocean waters. The Ocean Plan Amendment retains the fecal coliform objective contained in the existing California Ocean Plan because recent California-specific epidemiological studies, including the Surfer Health Study in the San Diego Region, demonstrate that fecal coliform is a good indicator of fecal contamination and is a better indicator than enterococci of gastrointestinal illness during certain types of water exposure and environmental conditions.

Generally, the Bacteria Provisions become effective upon adoption by the State Water Board and approval by the State Office of Administrative Law and U.S. EPA. Once approved, the numeric water quality objectives contained in the Bacteria Provisions will immediately supersede objectives for bacteria contained in any water quality control plan (Basin Plan) to the extent any conflict exists. San Diego Water Board staff anticipate updating the San Diego Basin Plan to reflect the Statewide Bacteria Provisions within the next two years as part of the 2018 Triennial

<sup>&</sup>lt;sup>20</sup> DAS generates invoices based on information entered by San Diego Water Board staff into the California Integrated Water Quality System database (<u>http://www.waterboards.ca.gov/water\_issues/programs/ciwqs/</u>) and by State and Regional Water Boards staff in the Storm Water Multiple Application and Report Tracking System database (<u>https://www.waterboards.ca.gov/water\_issues/programs/stormwater/smarts/</u>).

Technical Reports

Basin Plan Review workplan (see Item 7 on the October 10, 2018 agenda). The bacteria water quality objectives shall be implemented, where applicable, through permits, water quality certifications, waste discharge requirements (WDRs), waivers of WDRs, and *future* TMDLs once the State and Regional Water Boards incorporate the conditions into permits or requirements. Additional information can be found on the State Water Board's Bacterial Objectives website: <u>https://www.waterboards.ca.gov/bacterialobjectives/</u>.

## **3.** California Releases New Climate Science, Planning Tools to Prepare for Climate Change Impacts

### Staff Contact: Jeremy Haas

"In California, facts and science still matter," said Governor Edmund G. Brown Jr. on the release of California's <u>Fourth Climate Change Assessment</u>, which details new science on the devastating impacts of climate change and provides planning tools to support the State's response. The Fourth Climate Change Assessment provides compilation of original climate research and includes 44 technical reports and 13 summary reports on climate change impacts. Associated products available on-line include Statewide Reports, Regional Reports, Technical Reports, and Tools.

Statewide Summary

San Diego Region Report

<complex-block>

The goal is to help ready the State for a future punctuated by severe wildfires, more frequent and longer droughts, rising sea levels, increased flooding, coastal erosion and extreme heat events. The peer-reviewed research translates global models into scaled-down, regionally relevant reports to fill information gaps and support decisions at the local, regional and State levels.

The statewide Summary Report presents an overview of the main findings of temperature, water, wildfire, sea level, communities, and governance in the context of existing climate science, including strategies to adapt to climate impacts and key research gaps. Regional reports provide a summary of relevant climate impacts and adaptation solutions for specific regions.

Much of the research and many of the findings are relevant for water resources in the San Diego region and helpful for the San Diego Water Board to reach its <u>climate change goals</u> of Resolution No. R9-2018-0051. For instance, models estimate that under mid-to-high sea level rise scenarios, 67 percent of Southern California beaches may completely erode by 2100. One study with San Diego Gas & Electric identified electric utility assets around Mission Bay and San Diego Bay vulnerable to sea level rise. To help prepare resilience actions one study developed technical guidance on design and implementation of natural infrastructure, such as the use of vegetated dunes, marsh sills, and native oyster reefs, for adaptation to sea-level rise.

The full report is available at: <u>http://www.climateassessment.ca.gov/state/docs/20180827-</u> StatewideSummary.pdf.

A 20-page brochure of key findings is available at: <u>http://www.climateassessment.ca.gov/state/docs/20180827-SummaryBrochure.pdf</u>.

The San Diego Region Report is available at: <u>http://www.climateassessment.ca.gov/regions/docs/20180827-SanDiego.pdf</u>.

Individual papers and technical reports are available at: <a href="http://www.climateassessment.ca.gov/techreports/">http://www.climateassessment.ca.gov/techreports/</a>

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

### SAN DIEGO REGION

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

October 10, 2018

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<br>Due | Consent Item |
|--|--|----------------|-------------------------|--------------|
|  | November 14, 2018<br>No Meeting Scheduled  |                |                         |              |
|  |  |                |                         |              |
|  | December 12, 2018<br>San Diego Water Board |                |                         |              |
| Update on the Clean Water Act section 401 Program for Dredged<br>and Fill Material Discharges ( <i>Becker</i> )          | Informational Item                         | NA             | NA                      | NA           |
| Tentative Update on the Decontamination and Dismantling of the<br>San Onofre Nuclear Generating Station ( <i>Neill</i> ) | Informational Item                         | NA             | NA                      | NA           |
| Master Plan Expansion of Sycamore Landfill, Republic Services<br>Inc., San Diego County (Grove)                          | New WDRs                                   | 100%           | 12-Oct-2018             | No           |
| Investigative Order to Quantify Sources of Human Waste in to the<br>San Diego River ( <i>Mitchell</i> )                  | Investigative Order Issuance               | 90%            | 20-Jun-2018             | No           |
|  |  |                |                         |              |
|  | January 2019<br>No Meeting Scheduled       |                |                         |              |
|  |  |                |                         |              |

### Agenda Items Requested by Board Members

| Requested Agenda Item   | <b>Board Member</b> | Status |
|---|---------------------|--------|
|   | June 24, 2015       |        |
| Gary Strawn would like more<br>information on how to address low<br>dissolved oxygen conditions in the San<br>Diego River.                                | Strawn              |        |
| Informational item about how the Board<br>deals with high levels of naturally<br>occurring elements in groundwater when<br>they interact with other uses. | Olson               |        |
|   | August 12, 2015     |        |
| Informational item on the data that supports the Basin Plan WQOs.   | Olson               |        |
|   | December 16, 2015   |        |
| Workshop on the status of restoration and<br>land acquisition efforts along the San<br>Diego River.   | Strawn              |        |
|   | August 10, 2016     |        |
| Informational item before the Board on<br>the SCCWRP Flow Recovery Project<br>once their report is available.   | Strawn              |        |
|   | March 15, 2017      |        |
| Information item regarding impacts of population dynamics on water quality  | Olson               |        |
| Clarify operation of value for beneficial us  | Abarbanel           |        |

### Agenda Items Requested by Board Members

| Requested Agenda Item   | <b>Board Member</b> | Status |
|---|---------------------|--------|
|   | June 21, 2017       |        |
| San Diego Water Board to partner with<br>the San Diego Unified Port District in<br>planning and conducting additional and<br>more focused outreach meetings with<br>stakeholder groups on San Diego Bay<br>water quality issues and environmental<br>justice issues.                              | Abarbanel           |        |
| San Diego Water Board to provide an<br>opportunity for San Diego Unified Port<br>District participation in analysis of the<br>data from the San Diego Bay Fish<br>Consumption Study.  | Abarbanel           |        |
| San Diego Unified Port District report<br>back to San Diego Water Board on the<br>steps the Port District is taking in their<br>decision-making on San Diego Bay<br>projects to ensure "long-term net gain in<br>the quantity, quality, and permanence of<br>wetlands acreage and values"         | Abarbanel           |        |
| San Diego Water Board ito support and<br>encourage the San Diego Unified Port<br>District participation in the Southern<br>California Coastal Water Research<br>Project (SCCWRP) so that the Port<br>District can be a recipient of the water<br>quality science research conducted by<br>SCCWRP. | Abarbanel           |        |
|   | Sentember 13 2017   |        |
| A future board meeting will include an agenda item on how best to amend the WDRs.   | Abarbanel           |        |

### Agenda Items Requested by Board Members

| Requested Agenda Item  | <b>Board Member</b> | Status |
|--|---------------------|--------|
|  | December 13, 2017   |        |
| Gary Strawn wants an Informational Item<br>on the low dissolved oxygen issues in the<br>San Diego River. In particular, he wants<br>to know more about the aerators added to<br>the river. He would like the San Diego<br>River Park Foundation and the San Diego<br>River Conservancy to attend and possibly<br>present information   | Strawn              |        |
|  |                     |        |
| The Board's Tentative Resolution on  | 1 Coldary 14, 2010  |        |
| Climate Change to include a request to<br>obtain a climate scientist as part of the<br>San Diego Water Board staff.  | Abarbanel           |        |
|  |                     |        |
|  | April 11, 2018      |        |
| Identify and review current proposed<br>legislation related to homeless<br>populations and related issues  | Olson               |        |
| Formation of a "Volunteer Climate<br>Science Advisory Panel" to inform board<br>staff of the latest climate science; to<br>consist of members from the Scripps<br>Insitution of Oceanography, the Southern<br>California Coastal Research Project, San<br>Diego State University, the University of<br>California at Irvine, and possibly from<br>the San Francisco Estuary Institute. | Abarbanel           |        |
| Do "more" for environmental justice;<br>work with the recently formed Office of<br>Environmental Justice at the Attorney<br>General. Provide a background report<br>regarding the possibility.   | Abarbanel           |        |

| Requested Agenda Item  | <b>Board Member</b> | Status |
|--|---------------------|--------|
| Future Executive Officer's Reports to<br>clearly explain the opportunity to<br>comment on the proposed enforcement<br>priorities for the coming year.  | Warren              |        |
|  |                     |        |
|  | May 9, 2018         |        |
| Letter to State Water Resources Control<br>Board Executive Director Eileen Sobeck<br>and Board Member Joaquin Esquivel<br>requesting a response to questions posed<br>to Mr. Esquivel by members of the San<br>Diego Water Board at the April 2018<br>Board Meeting. The letter is to be signed<br>by Chair Morales and Vice Chair<br>Abarbanel. | Abarbanel           |        |
| Provide an off-cycle update to the Clean<br>Water Act Section 305(b) and 303(d)<br>Integrated Report (which includes the list<br>of impaired waters). Further, use data<br>submitted to the Board up to six months<br>prior to the time of adoption of the next<br>regularly scheduled Integrated Report.  |                     |        |
| Reach out to the Mayor of Temecula<br>about possible attendance at the October<br>Water Quality Coordinating Committee<br>meeting in Sacramento.   | Abarbanel           |        |
| Provide statistics regarding homeless in<br>the San Diego Region. The list will<br>include health impacts and associated<br>illnesses, along with the number of<br>camps, campers, and the amount of trash.  | Olson               |        |

| Requested Agenda Item   | Board Member               | Status          |
|---|----------------------------|-----------------|
| Send a response to CalEPA's comment<br>letter asking for the establishment of a<br>climate change panel in each Region and<br>asking to create a hiring classification for<br>climate scientists, to be equal to<br>geologists, engineers, and other<br>scientists. | Abarbanel                  |                 |
|   | June 20, 2018              |                 |
| Board Members to visit an Indirect<br>Potable Reuse site in the Riverside Water<br>Board portion of Orange County.  | Olson                      |                 |
| Visit the wastewater treatment facility at SeaWorld.  | Olson                      | October 4, 2018 |
| Incorporate education of the public on the need to protect water quality into Board actions whenever practicable.   | Morales, Abarbanel         |                 |
| Invite Southern California Edison back<br>for another meeting to address Board<br>Member follow up questions.   | Morales, Abarbanel, Warren |                 |
| Meet with Southern California Edison to<br>discuss development fo a new strategy to<br>compel a federal solution to the storage<br>of spent nuclear fuel.   | Abarbanel                  |                 |
|   | August 8, 2018             |                 |
| Update from Southern California Edison<br>about SONGS sooner than the 3-12<br>month window presented in the August<br>agenda package  | Abarbanel                  |                 |
| Inform stakeholders about the upcoming<br>hearings pertaining to desalination plant<br>planned for Huntington Beach   | Morales                    |                 |

| Requested Agenda Item  | Board Member       | Status         |
|--|--------------------|----------------|
| Confer with the director of SCCWRP to<br>explore the possibility of assistance with<br>measuring indicator bacteria to evaluate<br>the protection of human health from<br>recreational activities where the ingestion<br>of water is likely. | Abarbanel          |                |
|  | Soutombor 12, 2018 |                |
|  | September 12, 2018 |                |
| Information on the status of the posting of updated fish consumption advisories.   | Warren             | September 2019 |
| Information on the costs of the City of San Diego's plume tracking efforts.  | Morales            | June 2019      |
| Review the City of San Diego's Strategy for the removal of Arundo donax.   | Olson              | December 2018  |
| Informational item on Encina Wastewater<br>Authority's sludge drying operation.  | Strawn             | June 2019      |
| Update on efforts to expand the use of recycled water by the Encina Wastewater Authority.  | Warren             | June 2019      |
|  |                    |                |

| Requested Agenda Item   | <b>Board Member</b> | Status         |
|---|---------------------|----------------|
|   | September 12, 2018  |                |
| Information on the status of the posting of updated fish consumption advisories.          | Warren              | September 2019 |
| Information on the costs of the City of San Diego's plume tracking efforts.               | Morales             | June 2019      |
| Review the City of San Diego's Strategy for the removal of Arundo donax.                  | Olson               | December 2018  |
| Informational item on Encina Wastewater<br>Authority's sludge drying operation.           | Strawn              | June 2019      |
| Update on efforts to expand the use of recycled water by the Encina Wastewater Authority. | Warren              | June 2019      |
|   |                     |                |



### **FISHING AND SHELLFISH**

### HARVESTING ARE KEY BENEFICIAL USES OF WATER

Recreational and subsistence fishing and shellfish harvesting are key beneficial uses because of their importance to people. Key beneficial uses are the uses of water most critical to human well-being and environmental health. As an initial assessment, this status sheet summarizes some data collected by federal, state, and local agencies having to do with:

- (1) chemical contaminants in fish and mussel tissue,
- (2) biotoxins in mussel tissue, and
- (3) fecal indicator bacteria in water where shellfish may be harvested by the public.

The intent of this assessment is to help to educate the public and prioritize efforts for achieving healthy waters in the San Diego Region.

### COASTAL SHORELINES AND PIERS ARE KEY AREAS

The places most important to a key beneficial use are key areas. In the San Diego Region, key areas for coastal fishing and shellfish harvesting include ocean and bay shorelines and structures such as piers, jetties, docks, and breakwaters accessible to the public for fishing.

### ASSESSING KEY BENEFICIAL USES IN KEY AREAS

The San Diego Water Board strives to focus efforts on what is most important for protecting and restoring the health of regional waters.

To support its Practical Vision (2013), the Board identified key beneficial uses of the region's waters and the key areas for those uses (Resolution R9-2017-0030).

This status sheet represents an initial assessment of conditions for one of the key uses.

Focused assessments on key uses of waters will help the Board set regionwide priorities and measurable goals for protecting and restoring the integrity of waters through regulatory and collaborative efforts.

### SOME HEALTH RISKS ARE ASSOCIATED WITH EATING LOCALLY-COLLECTED FISH AND SHELLFISH

Fish and shellfish are nutritious and good for you to eat, but some can contain toxic chemical contaminants at levels that pose a health risk to those who eat them. Some age groups are more at risk than others. Children and developing fetuses, for example, are the group most at risk to the harmful effects of mercury. In addition to chemical contaminants, shellfish can concentrate biotoxins to levels of concern for human health, as well as pathogens if exposed to sewagecontaminated water.

### **CHEMICAL CONTAMINANTS**

Mercury, in the form found in fish (methylmercury), can harm the brain and nervous system of people, especially unborn babies and children, decreasing learning ability, attention, or memory. PCBs and DDTs can cause a variety of health problems, including effects on the nervous system and cancer, and DDTs can affect reproduction.

BIOTOXINS Paralytic Shellfish Poisoning (PSP) toxin and Domoic Acid (DA) are the two biotoxins of concern in California coastal waters. PSP toxin and DA are produced by certain types of phytoplankton. Both can bioaccumulate in bivalve shellfish and, when ingested, can cause severe neurological effects, including death.

**PATHOGENS** Shellfish from areas with high levels of bacteria may not be safe to eat. Mussels, oysters, and clams exposed to sewage-contaminated water may contain microorganisms that can make people sick. Pathogenic viruses (Norovirus, Adenovirus, Enterovirus, Hepatitus A), bacteria (Vibrio, Campylobacter), and parasites (Giardia, Cryptosporidium) can cause gastroenteritis, respiratory infection, conjunctivitis, and other illnesses.

### Some fish species tend to have higher levels of chemical contaminants



Deborah Woodward, PhD, Environmental Scientist Deborah.Woodward@waterboards.ca.gov



### MERCURY AND PCBs ARE THE MAIN CONTAMINANTS OF CONCERNCHMent B-1

### **CHEMICAL CONTAMINANTS**

Contaminant levels in three data sets were compared to thresholds at which the Office of Environmental Health Hazard Assessment (OEHHA) advises consumption be limited to two or fewer servings per week. Levels above those thresholds represent potential health risk. For PCBs the threshold was >21 ppb and for mercury >70 ppb. For mercury, this threshold is for the most sensitive population.

FISH: A statewide survey conducted in 2009-2010 tested fish tissue from ten coastal sites in the San Diego Region (530 fish of 18 species). Mercury and PCBs were above the thresholds in at least one sample at all ten sites. Elevated risk was not found for the pesticides DDT, chlordane, or dieldrin. FISH: The City of San Diego tests fish tissue from four offshore sites, two near ocean outfalls (Point Loma, South Bay) and two 10-15 km away. In 2015 and 2016, 24 samples were tested. Mercury was above the threshold in at least one sample at all sites (13 of 24 samples). Elevated risk was not found for PCBs, DDT, chlordane, or •• dieldrin.

SHELLFISH: The nationwide NOAA Mussel Watch tests shellfish tissue from 12 sites in the San Diego Region. From 2005 to 2012, 30 samples were tested. PCBs were above the threshold in at least one sample at two sites in San Diego Bay (6 of 30 samples). Elevated risk was not found for PCBs at other sites, or for mercury, DDT, chlordane, or dieldrin.

### **BIOTOXINS**

The statewide California Department of Public Health (CDPH) tests mussel or oyster tissue from three sites in the San Diego Region. From Jan 2014 to Oct 2017, PSP toxin was not detected in any of 375 samples. During the same period, Domoic Acid was detected in only three of more than 130 samples, and each detection was below the human health threshold of 20 µg/g.

### PATHOGENS

From among many coastal locations monitored for bacteria, 13 were selected for their proximity to key areas for shellfish harvesting. From 2012 to 2017, bacteria levels above that considered safe for consumption of shellfish were found in San Diego Bay and Imperial Beach.

|                              | -       | Fish         |            |         |               | Shellfish  | /         |           |  |
|------------------------------|---------|--------------|------------|---------|---------------|------------|-----------|-----------|--|
|                              | Chei    | mical Contam | inants     | Chem    | ical Contamin | ants       | Biotoxins | Pathogens | KEY  |
| Waters in the vicinity of:   | Mercury | PCBs         | Pesticides | Mercury | PCBs          | Pesticides | PSP, DA   | Bacteria  | No health risk;                                  |
| Dana Point                   |         |              |            |         |               |            |           |           | all samples were below                           |
| San Onofre - Crystal Cove    |         |              |            |         |               |            |           |           | threshold  |
| Oceanside                    |         |              |            |         |               |            |           |           | Possible health risk;<br>at least one sample was |
| Aqua Hedionda Lagoon         |         |              |            |         |               |            |           |           | above threshold (in                              |
| La Jolla - San Onofre        |         |              |            |         |               |            |           |           | "limit consumption"<br>category)                 |
| Mission Bay                  |         |              |            |         |               |            |           |           | Possible health risk;                            |
| Pt Loma - La Jolla           |         |              |            |         |               |            |           |           | at least one sample was<br>above threshold (in   |
| San Diego Bay                |         |              |            |         |               |            |           |           | "do not eat" category)                           |
| Tijuana - N. Island/Coronado |         |              |            |         |               |            |           |           | No data  |
| Offshore S. San Diego County |         |              |            |         |               |            |           |           |  |

### CHOOSE THE SAFEST FISH TO EAT

If you fish along the coast and want to eat what you catch, you can protect your health by following the fish consumption advisories issued by the Office of Environmental Health Hazard Assessment (OEHHA). The easy-to-read advisories show the number of servings per week considered safe for different types of fish, taking into account levels of mercury and PCB. Each advisory has two sets of guidelines—one for those most sensitive to the effects of mercury (children 1-17 and women 18 to 45) and one for those less sensitive (women over 45 and men 18 and older). One advisory applies to the entire **California coastline** and, in the San Diego Region, there are specific advisories for **San Diego Bay, Mission Bay, and the coastline north of San Mateo Point.** Together, these provide consumption advice for more than 60 species of fish.

### Fish Consumption Advisories https://oehha.ca.gov/fish/advisories



### HARVEST AT THE SAFEST TIME OF YEAR



The safest time to collect mussels to eat is Nov through April. Mussels should not be collected to eat May through Oct. An **annual quarantine** on sport-harvested mussels is issued by the CDPH for the entire California coastline for May through Oct to protect people from exposure to biotoxins during months that biotoxin-producing phytoplankton are most abundant.

### FOR MORE INFORMATION...

| SWAMP Statewide Survey of Contaminants in Sport Fish   |
|--|
| https://www.waterboards.ca.gov/water issues/programs/swamp/coast study.shtml                 |
| Statewide Fish Contamination Interactive Map   |
| https://step.sfei.org/   |
| City of San Diego Ocean Monitoring Reports   |
| https://www.sandiego.gov/mwwd/environment/oceanmonitor/reports                               |
| NOAA National Status and Trends, includes Mussel Watch                                       |
| https://products.coastalscience.noaa.gov/collections/ltmonitoring/nsandt/default.aspx        |
| CDPH Biotoxin Monitoring Program   |
| https://www.cdph.ca.gov/Programs/CEH/DRSEM/Pages/EMB/Shellfish/Marine-Biotoxin-Monitoring-   |
| Program.aspx   |
| CDPH Annual Mussel Quarantine  |
| https://www.cdph.ca.gov/Programs/CEH/DRSEM/Pages/EMB/Shellfish/Annual-Mussel-Quarantine.aspx |
| State Water Board Portal for "My Water Quality"  |
| http://www.mywaterguality.ca.gov/index.html  |
| Status Sheet about Fish and Shellfish Consumption in San Diego Bay                           |
| https://www.waterboards.ca.gov/sandiego/water_issues/programs/swamp/docs/                    |
|  |

### SAN DIEGO WATER BOARD: http://www.waterboards.ca.gov/sandiego/



Streams are a key area for habitat and ecosystem health in the San Diego region. The San Diego Water Board recently reviewed data on a subset of the region's streams to start answering the question, "Are ecosystems healthy?" The initial assessment included priority streams, or those with the BIOL designated beneficial use in the San Diego Water Board Basin Plan, that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection. Of those with data, approximately half of the streams have good or better ecosystem health indicators (Figure 1).



Figure 1. Ecosystem health data available for priority streams

### ASSESSING KEY BENEFICIAL USES IN KEY AREAS

The San Diego Water Board strives to focus efforts on what is most important for protecting and restoring the health of regional waters. To support its <u>Practical</u> <u>Vision</u> (2013), the Board identified key beneficial uses of the region's waters and the key areas for those uses (<u>Resolution</u> <u>R9-2017-0030</u>).

This status sheet represents an initial assessment of conditions for one of the key uses.

Focused assessments on key uses of waters will help the Board set regionwide priorities and measurable goals for protecting and restoring the integrity of waters through regulatory and collaborative efforts.

### THREE ECOSYSTEM HEALTH INDICATORS

Commonly used and chosen for their ability to integrate multiple aspects of ecosystem health, the three health indicators considered in the initial assessment include:

- BUGS—Community composition of benthic (i.e., bottom-dwelling) macroinvertebrates (BMIs, or / informally, "bugs", which include insects, snails, crustaceans),
- ALGAE—Community composition of benthic \_\_\_\_\_ algae
- 3. **HABITAT**—An index of wetland habitat condition called the California Rapid Assessment \_\_\_\_\_\_\_\_ Method (CRAM)

Each of the three indicators provides a scoring system to describe the stream health as one of four categories, excellent, good, fair, poor.



Source: https://www.epa.gov





Source: Carey Nagoda







### **MONITORING & ASSESSMENT | SAN DIEGO WATER BOARD**



Figure 2. Priority streams with and without ecosystem health indicator data. Stream sites with data are shown as icons corresponding to overall ecosystem health indicator condition: Poor (red), Fair (yellow), Good (green), Excellent (blue). Stream sites without data are shown as a gray dots. Two example sites with data are shown in detail, San Luis Rey River and Santa Ysabel Creek.

### TWO EXAMPLE ASSESSMENTS AND HOW THE DATA WILL BE USED

Two example priority streams are highlighted above in Figure 2, San Luis Rey River and Santa Ysabel Creek. The portion of San Luis Rey River designated for the beneficial use BIOL has data available for bugs (poor), algae (poor) and CRAM (good) and is considered to have poor ecosystem health. Conversely, the segment of Santa Ysabel Creek with the BIOL beneficial use has data available for bugs (excellent), algae (good) and CRAM (excellent) and is considered to have a healthy ecosystem.

The San Diego Water Board will use these assessments to make informed decisions in various programs, focusing efforts on restoration actions for streams such as San Luis Rey River, where enhancing the water quality could lead to better, healthier ecosystem conditions. For streams currently in good health, similar to Santa Ysabel Creek, the San Diego Water Board will focus program efforts on protection to prevent ecosystem health degradation in the future.

SAN DIEGO WATER BOARD: http://jg/ww.waterboards.ca.gov/sandiego/

"Healthy waters realized through collaborative, outcome focused efforts that support both human uses and sustainable ecosystems."



This status sheet reports on current water quality conditions for beaches in the San Diego Region in terms of their ability to support water-contact recreation, such as swimming or surfing. Numeric bacteria water quality standards are commonly used to determine if waters are safe for human contact. The San Diego Water Board

uses fecal indicator bacteria such as *Enterococcus* spp. (*Entero*) to evaluate if waters are safe for human contact. *Entero* are an indicator for various pathogens commonly associated with sewage (or human fecal matter). The San Diego Water Board evaluates *Entero* levels in two ways:

- \* the Geometric Mean (GM), to assess long-term safety
- \* the Statistical Threshold Value (STV), which includes short-term spikes

When *Entero* levels in water exceed standards deemed safe for human water contact, the potential risk of contracting a water-borne illness increases.

### PART I. GENERAL CONDITIONS

We evaluated Beach Watch Program data (i.e., *Entero* levels) from May 2012 to

PRACTICAL VISION PROJECT I — Assessing Key Beneficial Uses in Key Areas

The San Diego Water Board strives to focus efforts on what is most important for protecting and restoring the health of regional waters. To support its <u>Practical Vision</u> (2013), the Board identified key beneficial uses of the region's waters and the key areas for those uses (<u>Resolution R9-2017-0030</u>). This status sheet represents an initial assessment of conditions for one of the key uses. Focused assessments on key uses of waters will help the Board set region-wide strategic priorities and measurable goals for protecting and restoring the integrity of waters through regulatory and collaborative efforts.

April 2017 to determine if concentrations exceeded the water quality standards. As *Entero* concentrations increase in the waters, people are more likely to get sick from water contact. The data were assessed under "dry" condition (zero to "< 0.1 inch" rain intensity) for "summerdry" (May through October) and "winter-dry" (November through April the following year) periods, and "wet " (storm day of "≥ 0.1 inch" rain and the following three days) conditions, over evaluation periods of a month, a quarter, or a half year. Results were classified into three categories: "Clean," "Fail (to meet) Standard," and "Not Enough Samples" (NES). The percentages of clean stations are greater in summer than in winter (see "Evaluation by quarter"), and in dry weather than in wet weather, suggesting adverse impacts from storm water runoff on beach water quality during/following rain events. In wet weather, more than half of the stations across the region were not adequately sampled and so their status cannot be assessed.



For additional information, contact: Xueyuan (Helen ) Yu, Water Resources Control Engineer, at <u>Helen.Yu@waterboards.ca.gov</u> or visit SAN DIEGO WATER BOARD: <u>http://www.waterboards.ca.gov/sandiego/</u>

### PART II. EFFECTS OF BEACH CHARACTERISTICS

Attachment B-1

Many factors can affect beach water quality for water contact. These include

- \* Beach Location (bays and harbors vs. ocean)
- \* Presence of flowing storm drains or creeks

Figure 2 summarizes the status of beach water quality stratified by these factors. After big rain events, stations in bays were generally not sampled and hence their status could not be assessed accurately. In dry weather, more stations in open ocean showed good water quality than in bays and harbors. In small rain events of winter, stormwater runoff carrying pollutants from urbanized areas further impact water quality in bays, increasing the percentages of "fail (to meet) standard" stations while

reducing "clean" stations from 63 to 34 percent.

Higher percentages of beach stations near flowing drains "failed (to meet) standard" in both dry and wet weather (Figure 2, bottom panel), suggesting negative impacts of surface water runoff on beach water quality. This supports the use of the standard warning to avoid water contact during and 72 hours following rain events until stormwater management can deliver clean runoff to beaches and bays.

However, not all stations near flowing drains have bad water quality. For instance, Station EN-010 (near Poinsettia Lane) at South Carlsbad State Beach met water quality standards under all assessed conditions.







r

| Enforcement<br>Date | Enforcement<br>Action  | Entity/ Facility/<br>Location   | Summary of<br>Violations and<br>Enforcement   | Applicable<br>Permit/Order<br>Violated   |
|---------------------|--|---|---|--|
| 8/24/2018           | Notice of<br>Violation R9-<br>2018-0147 and<br>Investigative<br>Order R9-2018-<br>0148 | General Dynamics<br>National Steel &<br>Shipbuilding Co<br>(NASSCO), San<br>Diego | Unauthorized<br>discharges from<br>graving dock<br>failure  | National Pollutant<br>Discharge<br>Elimination<br>System (NPDES)<br>Order No. R9-<br>2016-0116 |
| 8/3/2018            | Staff Enforcement<br>Letter  | City of Carlsbad,<br>Foxes Landing<br>Sewer Lift<br>Station, Carlsbad             | Late reporting  | NPDES General<br>Order No. R9-<br>2015-0013  |
| 8/3/2018            | Staff Enforcement<br>Letter  | City of Coronado,<br>Coronado Country<br>Club, Coronado                           | Late reporting  | NPDES General<br>Order No. R9-<br>2015-0013  |
| 8/8/2018            | Staff Enforcement<br>Letter  | CALTRANS<br>District 11,<br>Descanso<br>Maintenance<br>Station, Descanso          | Exceeded daily<br>maximum and 12-<br>month average<br>effluent limits for<br>total nitrogen,<br>total dissolved<br>solids (TDS), and<br>methylene blue<br>activated<br>substances<br>(MBAS) | Waste Discharge<br>Requirements<br>(WDR) Order No.<br>R9-2006-0063                             |

| Enforcement<br>Date | Enforcement<br>Action          | Entity/ Facility/<br>Location   | Summary of<br>Violations and<br>Enforcement                                       | Applicable<br>Permit/Order<br>Violated  |
|---------------------|--------------------------------|---|---|---|
| 8/8/2018            | Staff Enforcement<br>Letter    | San Elijo Joint<br>Powers, San Elijo<br>Water<br>Reclamation<br>Facility, Encinitas       | Exceeded effluent<br>limits for total<br>coliform and<br>chlorine contact<br>time | WDR Order No.<br>2000-010   |
| 8/14/2018           | Staff Enforcement<br>Letter    | City of Mission<br>Viejo, Phase 1<br>municipal<br>separate storm<br>sewer system<br>(MS4) | Failure to prohibit<br>over-irrigation as<br>an illicit discharge                 | NPDES General<br>Order No. 2013-<br>0001, as amended  |
| 8/14/2018           | Staff<br>Enforcement<br>Letter | Longshadow<br>Ranch Vineyard<br>and Winery,<br>Temecula                                   | Failure to submit<br>a Notice of Intent;<br>discharging<br>without a permit       | WDR General<br>Order No. R9-<br>2016-0004 for<br>Commercial<br>Agricultural<br>Operations; CWC<br>Section 13260 |
| 8/14/2018           | Staff Enforcement<br>Letter    | Hart Family<br>Winery, Temecula   | Failure to submit<br>a Notice of Intent;<br>discharging<br>without a permit       | WDR General<br>Order No. R9-<br>2016-0004 for<br>Commercial<br>Agricultural<br>Operations; CWC<br>Section 13260 |
| 8/16/2018           | Staff<br>Enforcement<br>Letter | Thorton Winery,<br>Temecula   | Failure to submit<br>a Notice of Intent;<br>discharging<br>without a permit       | WDR General<br>Order No. R9-<br>2016-0004 for<br>Commercial<br>Agricultural<br>Operations; CWC<br>Section 13260 |

| Enforcement<br>Date | Enforcement<br>Action       | Entity/ Facility/<br>Location  | Summary of<br>Violations and<br>Enforcement                        | Applicable<br>Permit/Order<br>Violated                                 |
|---------------------|-----------------------------|--|--|--|
| 8/17/2018           | Staff Enforcement<br>Letter | Rancho Santa Fe<br>Community<br>Services District,<br>Rancho Santa Fe<br>Sanitation District<br>Plant, Rancho<br>Santa Fe                                      | Exceeded effluent<br>limits for<br>manganese,<br>chloride, and TDS | WDR Order No.<br>92-04   |
| 8/17/2018           | Staff Enforcement<br>Letter | QED Systems<br>Inc., National City   | Deficient Best<br>Management<br>Practices (BMPs)                   | NPDES Industrial<br>General Permit<br>Order No. 2014-<br>0057-DWQ.     |
| 8/23/2018           | Staff Enforcement<br>Letter | City of San Diego<br>Engineering and<br>Capital Projects<br>Department,<br>Sunset Cliffs<br>Natural Park<br>Hillside<br>Improvements<br>Phase II, San<br>Diego | Deficient BMPs   | NPDES<br>Construction<br>General Permit<br>Order No. 2009-<br>0009-DWQ |
| 8/24/2018           | Staff Enforcement<br>Letter | Oceanside City,<br>La Salina<br>Wastewater<br>Treatment Plant,<br>Oceanside Ocean<br>Outfall, Oceanside  | Exceeded effluent<br>limits for<br>settleable solids               | NPDES Order No.<br>R9-2011-0016  |
| 8/24/2018           | Staff Enforcement<br>Letter | American<br>Recycling, San<br>Diego  | Deficient BMPs   | NPDES Industrial<br>General Permit<br>Order No. 2014-<br>0057-DWQ      |

| Enforcement<br>Date | Enforcement<br>Action       | Entity/ Facility/<br>Location  | Summary of<br>Violations and<br>Enforcement                                 | Applicable<br>Permit/Order<br>Violated  |
|---------------------|-----------------------------|--|---|---|
| 8/29/2018           | Staff Enforcement<br>Letter | CalAtlantic Group<br>Inc., The Enclave<br>at Delpys Corner,<br>Vista | Deficient BMPs  | NPDES<br>Construction<br>General Permit<br>Order No. 2009-<br>0009-DWQ  |
| 8/30/18             | Staff Enforcement<br>Letter | Celebration<br>Cellars,<br>Miramonte<br>Winery, Temecula             | Failure to submit<br>a Notice of Intent;<br>discharging<br>without a permit | WDR General<br>Order No. R9-<br>2016-0004 for<br>Commercial<br>Agricultural<br>Operations; CWC<br>Section 13260 |
| 8/31/2018           | Staff Enforcement<br>Letter | Monarch Buena<br>Vista LLC,<br>Monarch Buena<br>Vista Creek, Vista   | Deficient BMPs  | NPDES<br>Construction<br>General Permit<br>Order No. 2009-<br>0009-DWQ  |
| 8/31/2018           | Staff Enforcement<br>Letter | Di Hguyen, Ab<br>Recycling, San<br>Diego                             | Did not meet level<br>2 reporting<br>requirements                           | NPDES Industrial<br>General Permit<br>Order No. 2014-<br>0057-DWQ   |

# Attachment B-8

| 5        |
|----------|
| ġ        |
| Å        |
| <u>e</u> |
| ie.      |
| 0        |
| Ša,      |
| ē        |
| 육        |
| ₽.       |
| ٨S       |
| ê        |
| ē        |
| ð        |
| e        |
| ě        |
| õ        |
| az       |
| ij       |
| Sar      |
| al (     |
| er       |
| ed       |
| щ<br>П   |
| aŭ       |
| <u>.</u> |
| ą        |
| ፈ        |
| ę        |
| Š        |
| Ĕ        |
| Ē        |
| ຈັ       |
| ά        |
| õ        |
| Ñ        |
| ∃        |
| 2        |
| e,       |
| ğ        |
| Ĕ        |
|          |

|                               |                              |                               |                                   |                                  |   |  | :                    |   |  | •  |                                 |                              |   |  |
|-------------------------------|------------------------------|-------------------------------|-----------------------------------|----------------------------------|---|--|----------------------|---|--|--|---------------------------------|------------------------------|---|--|
|                               |                              |                               | •                                 |                                  |   |  |                      | 0   | 0  | 0  | 0                               | 0                            | ederal Spills                                 | Totals for F                               |
| 2,563,572                     | 4,520.4                      | 220.9                         | -                                 | 18%                              | 2%  | %08                                      | 24%                  | 3,898                                       | 400  | 17,400                                     | 5,277                           | 21,698                       | Public Spills                                 | Totals for I                               |
| 57,000                        | 25.0                         | 0.5                           |                                   | 100%                             | %0  | %0                                       | 50%                  | 300   | 0  | 0  | 150                             | 300                          | University Of California,<br>San Diego CS     | University Of California,<br>San Diego     |
|                               |                              |                               |                                   | 100%                             | %0  | %0                                       | 100%                 | 240   | 0  | 0  | 240                             | 240                          |   |  |
| 35,567                        | 408.0                        | 10.0                          | Sweetwater<br>River               | %0                               | %0  | 100%                                     | 16%                  | 0   | 0  | 16,500                                     | 2,600                           | 16,500                       | County of San Diego CS                        | San Diego County Dept. of                  |
|                               |                              |                               | -                                 | 100%                             | %0  | %0                                       | 55%                  | 500   | 0  | 0  | 275                             | 500                          |   |  |
| 2,201,001                     | 0,021.1                      | 1.001                         |                                   | 100%                             | %0  | %0                                       | 100%                 | 325   | 0  | 0  | 325                             | 325                          |   |  |
| 7 207 EQ1                     | 3 0.01 1                     | 1637                          | -                                 | 100%                             | %0  | %0                                       | 34%                  | 435   | 0  | 0  | 150                             | 435                          |   | City of Son Diogo                          |
|                               |                              |                               | -                                 | 100%                             | %0  | %0                                       | 100%                 | 435   | 0  | 0  | 435                             | 435                          |   |  |
| 44,006                        | 185.0                        | 3.5                           | -                                 | 100%                             | %0  | %0                                       | 10%                  | 935   | 0  | 0  | 68                              | 935                          | City of Poway CS                              | City of Poway                              |
|                               |                              |                               |                                   |                                  |   |  |                      |   |  |  |                                 |                              | Treatment Plant                               |  |
| 69,957                        | 439.7                        | 35.6                          |                                   | 100%                             | %0  | %0                                       | 100%                 | 200   | 0  | 0  | 200                             | 200                          | City of Oceanside CS, La<br>Salina Wastewater | City of Oceanside                          |
| 10,000                        | 00.0                         | 9.0                           |                                   | 33%                              | 67%   | %0                                       | 100%                 | 200   | 400  | 0  | 600                             | 009                          | Oity of Laguria beach                         | City of Laguria Beach Co                   |
| 10,000                        | 0 90                         | 00                            | -                                 | 100%                             | %0  | %0                                       | 100%                 | 25  | 0  | 0  | 25                              | 25                           |   |  |
| 58,244                        | 155.0                        | 0.0                           |                                   | 100%                             | %0  | %0                                       | 100%                 | ę   | 0  | 0  | ю                               | 3                            | City of La Mesa CS                            | City of La Mesa                            |
| 50,207                        | 122.0                        | 4.0                           | -                                 | 100%                             | %0  | %0                                       | 62%                  | 300   | 0  | 0  | 185                             | 300                          | Los Alisos Water Recycling<br>Plant CS        | Irvine Ranch Water District                |
| 23,000                        | 78.6                         | 4.6                           | Fallbrook<br>Creek                | %0                               | %0  | 100%                                     | %0                   | 0   | 0  | 006  | 0                               | 006                          | Fallbrook PUD CS                              | Fallbrook Public Utility<br>District (PUD) |
|                               |                              |                               |                                   |                                  | %)  | 5)                                       |                      |   |  | (Gallons)                                  |                                 |                              |   |  |
| Population in<br>Service Area | Miles of<br>Gravity<br>Sewer | Miles of<br>Pressure<br>Sewer | Surface<br>Water Body<br>Affected | Percent<br>Discharged<br>to Land | Keaching<br>Separate<br>Storm<br>Drain and<br>Recovered | Percent<br>Reaching<br>Surface<br>Waters | Percent<br>Recovered | Total<br>Discharged<br>to Land <sup>5</sup> | Reacting<br>Separate<br>Storm Drain<br>and<br>Recovered <sup>4</sup> | Reaching<br>Surface<br>Waters <sup>3</sup> | Total<br>Recovered <sup>2</sup> | Total<br>Volume <sup>1</sup> | Collection System (CS)                        | Responsible Agency                         |
|                               |                              |                               |                                   | ſ                                | Percent<br>Reaching                                     | Percent                                  |                      | 1-1   | Total<br>Reaching  | Total                                      |                                 |                              |   |  |

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

<sup>2</sup>Total Recovered = total amount recovered from a separate storm drain, drainage channel, surface water body, and/or land. <sup>3</sup>Total Reaching Surface Waters = total amount reaching separate storm drain (not recovered), drainage channel, and/or surface water body, but does not include amount reaching separate storm drain that was recovered. <sup>4</sup>Total Reaching Separate Storm Drain and Recovered = total amount reaching separate storm drain that was recovered. <sup>5</sup>Total Discharged to Land = total amount reaching land.

|  |          | _                      |                      |                        |                   |           |                               |                  | _         |
|--|----------|------------------------|----------------------|------------------------|-------------------|-----------|-------------------------------|------------------|-----------|
| Lateral<br>Connections   |          | 49,532                 | A1 760               | 002.1                  | 256 236           | 107,102   | 14,762                        | 16,525           | 389,806   |
| Population in<br>Service Area  |          | 265,070                | 171 ЛЕК              |                        | 2 207 501         | 100,102,2 | 42,000                        | 90,000           | 2,776,116 |
| Percent Reaching<br>Separate Storm<br>Drain & Recovered<br>and/or<br>Discharged to Land            |          | 100%                   | 100%                 | 100%                   | 100%              | 100%      | 100%                          | 100%             | 100%      |
| Percent<br>Reaching<br>Surface<br>Waters   | (%)      | %0                     | %0                   | %0                     | %0                | %0        | %0                            | %0               | %0        |
| Percent<br>Recovered   |          | 100%                   | 100%                 | 100%                   | 100%              | 100%      | 100%                          | 100%             | 100%      |
| Total Reaching<br>Separate Storm<br>Drain & Recovered<br>and/or Discharged<br>to Land <sup>4</sup> |          | 02                     | 180                  | 10                     | 129               | 57        | 22                            | 50               | 573       |
| Total Reaching<br>Surface Waters <sup>3</sup>  | Gallons) | 0                      | 0                    | 0                      | 0                 | 0         | 0                             | 0                | 0         |
| Total<br>Recovered <sup>2</sup>  | )        | 02                     | 180                  | 10                     | 129               | 57        | 11                            | 50               | 573       |
| Total Volume <sup>1</sup>  |          | 02                     | 180                  | 10                     | 129               | 57        | 22                            | 50               | 573       |
| Collection System (CS)   |          | City of Chula Vista CS | Hale Avenue Resource | Elijo Ocean Outfall CS |                   |           | South Coast Water District    | City of Vista CS | als       |
| Responsible Agency   |          | City of Chula Vista    | City of Eccondido    |                        | City of San Diogo |           | South Coast Water District CS | Vista City       | Tota      |

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

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

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

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



### Figure 1: Number of SSOs per Month





### Figure 2: Volume of SSOs per Month

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

| Location     | Start Date | Total Volume | Total Recovered | Total Reaching<br>Surface Waters | Percent Recovered      | Percent Reaching<br>Surface Waters | Additional Details            |
|--------------|------------|--------------|-----------------|----------------------------------|------------------------|------------------------------------|-------------------------------|
|              |            |              | (Gallons)       |                                  | %)                     | (9                                 |                               |
|              |            |              |                 | Dry                              | / Weather <sup>1</sup> |                                    |                               |
| N/A          | -          | -            | -               |                                  | -                      |                                    |                               |
| Total Dry We | eather     |              | -               |                                  | -                      |                                    | No Dry Weather Flows Reported |
|              |            |              |                 | We                               | t Weather <sup>2</sup> |                                    |                               |
| N/A          |            |              | -               |                                  | -                      |                                    |                               |
| Total Wet We | eather     | •            | -               | -                                | -                      | •                                  | No Wet Weather Flows Reported |

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

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