

Practical Vision and Program Accomplishments for Fiscal Year 2020-2021

The Practical Vision is a tool used to focus limited resources onto the region's highest priorities. Forty-five projects were undertaken during Fiscal Year 2020-2021 (FY 20-21) to implement the Practical Vision. The Board's adoption of the FY 20-21 Operational Plan in September 2020 allocated budget resources and allowed for project implementation, assignment of project teams, and establishment of project milestones and schedules.

Along with the work of the Practical Vision, San Diego Water Board staff attend to day-to-day programmatic work. This work falls into four broad categories: planning, permitting, compliance assessment, and enforcement. Every year, San Diego Water Board staff prepare programmatic work plans that include performance measure commitments tracked by the State Water Resources Control Board (State Water Board) and reported to the legislature. Although some Practical Vision projects overlap with program performance measure commitments, there is a large body of work beyond the Practical Vision priorities that staff must complete each year to meet the Board's programmatic responsibilities.

This report describes important Practical Vision projects and core program accomplishments undertaken FY 20-21.

Chapter 1. Healthy Waters

Tijuana River Border Pollution Control Efforts: Total Maximum Daily Loads Development, USMCA Project Funding Secured. The San Diego Water Board is involved in several efforts (listed below) to address transboundary flows carrying sewage, trash, and sediment into the Tijuana River Valley from Mexico that have polluted the area for decades, particularly after storms. Polluted transboundary flows are the worst they have been in 30 years, which has exacerbated the chronic serious threat to public health, water quality, and the environment. However, in 2020-2021 progress has been made on several fronts that, if sustained, could result in measurable positive public and environmental health outcomes. It is critical that these efforts are followed through to completion to protect public health in the communities of San Ysidro and Imperial Beach, and to restore the water quality and environmental health of the Tijuana River Valley and coastal waters of the Pacific Ocean.

- The Board continued development of Total Maximum Daily Loads (TMDLs) for indicator bacteria and trash from the Tijuana River Valley transboundary flows. Scientific peer review is expected to begin by the end of 2021.
- The United States-Mexico-Canada Agreement (USMCA) became effective July 1, 2020. USMCA funding priorities includes an appropriation of \$300 million for wastewater infrastructure projects near the U.S.-Mexico international border. The San Diego Water Board participates in the United States Environmental Protection Agency led USMCA Interagency Consultation Group, which offers the

San Diego Water Board an opportunity to promote allocation of funds to endorse U.S.-side preferred project alternatives. These recent efforts build on previous San Diego Water Board-led Tijuana River Valley Recovery Team (TRVRT) work, including the 2012 TRVRT Recovery Strategy and 2015 Five-Year Action Plan (Resolution Nos. R9-2012-0030 and R9-2015-0035).

- Moving to protect water quality in the Pacific Ocean and safeguard public health and the environment, the San Diego Water Board adopted a cease and desist order in May 2021 directing the United States Section of the International Boundary and Water Commission (USIBWC) to make repairs and comply with the requirements of its reissued National Pollutant Discharge Elimination System (NPDES) permit. Located in south San Diego County, the South Bay International Wastewater Treatment Plant (SBIWTP), owned and operated by the USIBWC, treats an average of 25 million gallons per day of raw sewage that flows across the international border from Tijuana, Mexico. The SBIWTP discharges secondary-treated wastewater to the Pacific Ocean through the South Bay Ocean Outfall at a point approximately three miles offshore. Due to improper maintenance of the facility, wastewater flows entering the plant have regularly surpassed treatment capacity resulting in excess pollutant discharges that threaten marine life and pose risks to public health. The SBIWTP also treats contaminated runoff at several canyon drainages along the border. Runoff that bypasses the canyon collector systems ultimately flows into the Tijuana River and Tijuana River Estuary, areas of significant ecological importance for rare and endangered species, as well as coastal waters of the Pacific Ocean. The cease and desist order requires the USIBWC to submit a compliance report that identifies all control measure shortcomings, inadequacies, and maintenance issues to be addressed, and includes a schedule for hiring contractors to design, install and put into operation the new or modified control measures. The cease and desist order directs USIBWC to attain compliance with the NPDES permit's effluent limitations for flow, settleable solids, and turbidity no later than January 2022.

Adoption of a Biological Objective for Perennial and Intermittent Streams. The San Diego Water Board unanimously adopted a Basin Plan Amendment (BPA) in December 2020 adding a water quality objective for biological integrity. The Biological Objective will be measured using the [California Stream Condition Index \(CSCI\)](#) to identify impaired stream habitats, gauge potential effects of pollution, and more accurately evaluate overall ecosystem health. The BPA also adds guidance for development of biological objectives for other types of waterbodies. The State Water Board released the BPA for public comment in July 2021 and anticipates consideration of the BPA at a hearing in Fall/Winter 2021.

Sizeable Supplemental Environmental Project to Settle Environmental Damages in Mission Bay. Mission Bay is a key area in the San Diego region for three key beneficial use categories: recreation, consumption of fish and shellfish, and habitats and ecosystems. From January 5, 2016 to January 10, 2016, the City of San Diego discharged nearly 7 million gallons of untreated raw sewage into Tecolote Creek and

Mission Bay, negatively impacting all three key beneficial use categories. The San Diego Water Board's prosecution team, with assistance from program subject matter experts, engaged in an extensive investigation of the sanitary sewer overflow, its environmental impacts, and the City's response. Consistent with statewide policies on enforcement and supplemental environmental projects (SEP) and two San Diego Water Board resolutions on wetlands and use of SEP funds, the prosecution team identified opportunities for a settlement that would advance interests of the Water Board and the public.

After lengthy settlement negotiations, protracted by significant turnover in City staff and the complexity of both the sanitary sewer overflow and the potential environmental projects, the San Diego Water Board adopted Settlement Order No. R9-2020-0150 in October 2020 assessing approximately \$2.5 million dollars in monetary penalties. Half of the administrative civil liability will be satisfied through the successful implementation of the Northeast Mission Bay Wetland Restoration Supplemental Environmental Project. The City's SEP will: 1) Conduct additional analysis and study of an expanded restoration alternative for the Programmatic Environmental Impact Report (PEIR) of the De Anza Cove Amendment to the Mission Bay Park Master Plan; 2) Fund additional technical studies to supplement the Mission Bay Park Improvement Plan PEIR and Rose Creek Preliminary Engineering Report; and 3) Implement native habitat enhancement and restoration in the Kendall-Frost Reserve. In doing so, the City's SEP is consistent with the San Diego Water Board's objective to "Actively promote and advance restoration projects that play an essential role in the protection, enhancement, and recovery of beneficial uses, and lead to a meaningful net gain in aquatic ecosystems" (San Diego Water Board [Resolution No. R9-2015-0041](#)). It is also consistent with the Board's support of the Mission Bay Wetlands Conceptual Plan contained in directive 16.b of the Resolution.

Chapter 2. Monitoring and Assessment

Draft Clean Water Act Sections 303d and 305b Integrated Report. San Diego Water Board staff, working in conjunction with the State Water Board, assessed over 1 million lines of data spanning over 10 years to assist in the preparation of the [draft 2020-2022 Integrated Report](#) (Draft Report). The prior Integrated Report for the San Diego Region, adopted by the San Diego Water Board in October of 2017, was restricted to data from 2010 and earlier. As a result of the use of outdated data, the prior report was of limited value to the Board and the public. The Draft Report, scheduled for consideration by the State Water Board in January 2022, will provide an informative base for San Diego Water Board planning, permitting, and other efforts for both protection and restoration. It will also facilitate more effective public participation in efforts to protect and restore surface waters by providing the public relevant information about water body conditions in the region.

Historical Dry Cleaner Mapping Project. The Board's Site Cleanup Program (SCP) team collaborated with San Diego State University's (SDSU) Sage Project to identify and map historical dry cleaner sites within the region. This effort included a focus on

underserved communities and nearby sensitive receptors, such as schools, daycares, elderly care facilities, and residential structures. These sensitive receptors have a high risk of experiencing serious health issues due to exposure to dry cleaning chemicals released into the soil and groundwater.

To identify the historical dry cleaner facilities, students from SDSU's Environmental Engineering 558 class conducted internet research and reviewed various paper documents, such as the San Diego Water Board files and historical city phone directories. The students also attempted to identify parties that owned the historical dry cleaner facilities and provided recommendations on different remediation technologies to address the soil and groundwater potentially impacted by dry cleaning chemicals. Students from SDSU's Geography 584 class compiled the historical dry cleaner locations into a Geographic Information System (GIS) layer, which was overlain on a map of underserved communities and sensitive receptor areas. The GIS layers generated by the SDSU students are being integrated into the Board's GIS database for future use in setting program priorities.

The work completed by the SDSU students will allow SCP staff to: (1) identify and prioritize high-risk dry cleaner sites within underserved communities and nearby sensitive receptor areas; (2) prioritize the issuance of investigative orders to dischargers directing them to conduct soil, soil gas, and groundwater investigations at these high-risk sites; and (3) prioritize the issuance of cleanup and abatement orders to dischargers directing them to clean up wastes at the sites in a manner that is protective of groundwater resources and human health. The success of this project will allow other Regional Boards and state agencies to use it as a model to develop partnerships with local colleges and universities to identify historical dry cleaner facilities and move forward with identifying and remediating previously unknown releases of waste that disproportionately affect vulnerable communities.

Modern Monitoring at Construction Sites. The Stormwater Management Unit completed 62 construction stormwater inspections using closed-circuit television (CCTV) camera and Drone Image technology. Use of such technology allowed the San Diego Water Board to not only meet but exceed its FY 20-21 Performance Targets. Lennar Homes, Shea Homes, and the City of San Diego voluntarily gave the San Diego Water Board access to CCTV live stream and Drone Images. Completing inspections using CCTV cameras and drones facilitated near immediate correction to best management practices (BMP) deficiencies at the sites, resulting in near immediate protection of water quality.

Chapter 3. Recovery of Stream, Wetland and Riparian Systems

General Water Quality Certification for the City of San Diego's Municipal Waterways Maintenance Plan. In May 2021, the San Diego Water Board issued a water quality certification to the City of San Diego that allows the maintenance and repair of select stormwater facilities. This proactive and comprehensive program, called the Municipal Waterways Maintenance Plan (MWMP), conducts advanced planning of

project maintenance and mitigation and establishes a streamlined permitting process that reduces the amount of time the City and the San Diego Water Board spend on the projects. Through the MWMP, the City identified and assessed all stormwater facilities that will need maintenance in the next five years. The San Diego Water Board reviewed and approved this list, and the City and the San Diego Water Board collaborated to establish consistent mitigation for each facility. Now, instead of applying for individual water quality certifications for each separate maintenance activity, the City simply notifies the San Diego Water Board when it plans to conduct pre-approved maintenance. The general certification will lead to the following key water quality benefits: advanced planning of preventative maintenance which will lead to fewer flooding emergencies, and advanced planning of regional mitigation needs which will lead to more robust advanced mitigation sites.

Core Program Accomplishments

Adaptation to Remote Workforce and Pandemic Restrictions. The San Diego Water Board remained focused on ensuring continuity of operations during the COVID-19 pandemic and committed to our mission to safeguard public health, water quality and the environment. San Diego Water Board staff worked remotely the entirety of Fiscal Year 20-21. In fact, 96% of the Water Board team effectively completed their work from home in a manner that achieved nearly all performance targets while keeping good working relationships with the regulated community via remote meeting platforms.

Additionally, timely compliance by the regulated community with Water Board orders and other requirements was generally considered to be an essential function during the COVID-19 pandemic. San Diego Water Board staff continued to respond, investigate, and – when necessary – take action on issues and complaints related to non-compliance. It was recognized that some regulated entities needed additional compliance assistance because of the challenges associated with the COVID-19 pandemic. Pursuant to statewide guidance, entities were directed to notify the San Diego Water Board if timely compliance with a specific Water Board order or requirement would not be consistent with governmental directives and guidelines related to COVID-19. The notifications were required to include specific details regarding:

- Board requirements inconsistent COVID-19 directives or guidelines;
- Reasons why the responsible entity cannot timely meet the Water Board order or requirement; and
- Actions the entity would take in lieu of complying with the specific Water Board order or requirement.

At the start of the COVID-19 pandemic, the San Diego Water Board began to receive requests from regulated entities for relief from regulatory requirements. Most notifications received a detailed response letter from San Diego Water Board acknowledging the compliance relief request and either an approval or denial of each specific compliance relief request in accordance with the statewide guidance. The

regulated entities were directed to act responsibly, document and maintain records of instances of noncompliance, and return to compliance as soon as practicable. Since that time, many State and local social distancing restrictions that potentially impeded regulatory compliance have been lifted, greatly reducing the circumstances in which compliance relief is needed and granted.

Memorandum of Understanding for the Stuart Mesa Agricultural Fields (SMAF), Marine Corps Base Camp Pendleton. In July 2019, the San Diego Water Board and the Commanding General for Marine Corps Base Camp Pendleton (collectively the Parties), entered into a Memorandum of Understanding (MOU) to conducting an Environmental Assessment of the pesticide soil and groundwater contamination at the SMAF. The MOU requires the Department of the Navy (Navy) to identify a discharge or threat of a discharge of legacy pesticides from the SMAFs affecting waters of the United States, including the Santa Margarita River Estuary and Cockleburr Creek.

The Navy completed construction of physical features at the SMAF northeast perimeter in 2019 which stopped the discharge of storm water runoff from the SMAF to Cockleburr Creek. The Navy is currently implementing the Cockleburr Creek Sediment Investigation Work Plan, which includes the collection of sediment samples from the SMAF and Cockleburr Creek, and surface water samples from Cockleburr Creek. Preliminary results from these sampling events do not indicate elevated pesticide concentrations in Cockleburr Creek due to runoff from the SMAF. The final Cockleburr Creek Sediment Investigation report is expected by the end of 2021.

The Navy installed stormwater best management practices in 2021 at the southwestern perimeter of the SMAF that included berm repairs to prevent storm water migration from the SMAF to the Santa Margarita Estuary. The Navy also installed erosion control measures at the SMAF to retain storm water flows on site and mitigate potential erosion of soil.

The Navy is currently implementing a Monitoring Assessment Work Plan for the Santa Margarita Estuary. The Work Plan proposes to:

- Install groundwater wells at the southeast and southwest perimeters of SMAF and collect 2 years of groundwater data,
- Collect sediment samples within and outside of the SMAF,
- Perform soil porewater assessment in soils within the agricultural fields adjacent to the Santa Margarita Estuary, and
- Collect surface water samples from the Santa Margarita Estuary.

The MOU represents the successful efforts between the San Diego Water Board and the Department of Defense to avoid the lengthy dispute resolution process allowed by the Camp Pendleton Federal Facilities Agreement.

San Diego Bay Shipyards Sediment Cleanup. The San Diego Water Board issued Cleanup and Abatement Order No. R9-2012-0024 (CAO) to NASSCO and BAE Systems (Dischargers) in 2012 for sediment contamination at the San Diego Bay Shipyards facility and the site was remediated between 2013 and 2015. Thus far, the Dischargers have met the CAO goals and requirements for years 2, 3, and 4.

Year 4 (2020) post-remedial benthic community recovery monitoring data indicate low levels of benthic community degradation in 2020. Although sampling stations were randomly selected for each monitoring event, one station was randomly selected two years in a row (2019 and 2020). This station showed a high degree of benthic community degradation in 2019 and a medium degree of degradation in 2020, indicating that recolonization and benthic recovery has begun following the sediment remediation activities. Year 2 (2018) post-remedial sediment chemistry, bioaccumulation, and toxicity results indicate that average 2018 concentrations of contaminants of concern in sediment were less than pre-remedial average concentrations, except for arsenic at some stations. Bioaccumulation levels were below pre-remedial levels, and all stations were classified as having low toxicity (i.e., having similar conditions to the reference stations).

Additionally, the proposed eelgrass transplant project has already met the success criteria. The most recent eelgrass monitoring reports indicate that the transplanted eelgrass is healthy over most of the restoration sites and compared to the reference site is achieving 113 to 444 percent coverage (with a goal of 100%) and 86 to 128 percent density (with a goal of 85%).

Additional sampling activities for sediment chemistry, bioaccumulation, and toxicity will occur in summer 2021 (Year 5) and the report of results is due to the San Diego Water Board in early 2022. If the Dischargers achieve the Year 5 goals, the San Diego Water Board will consider closing the case. If the Year 5 goals are not met, Year 10 post-remedial monitoring must be conducted.

Per- and Polyfluoroalkyl Substances (PFAS). PFAS is a family of over 5,000 human-made and generally unregulated chemicals produced since mid-century for the manufacture of a wide range of industrial and household products. PFAS are persistent in the environment, bio-accumulative, and very mobile in water. Within the broader PFAS classification, the perfluoroalkyl acids – perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) – were manufactured for the longest duration, are most widespread in the environment, and have been studied extensively.

The State Water Board has issued PFAS investigative orders to landfills, airports, chrome platers, publicly owned treatment works (POTWs), and bulk fuel storage terminals and refineries across the state. Within the San Diego Region, 30 landfills, two airports, 13 chrome platers, 20 POTWs, and eight bulk fuel storage terminals received investigative orders. SCP staff are overseeing investigative work at the airport, chrome plater, and bulk fuel storage terminal sites. Staff determined that the San Diego International Airport (SDIA) requires additional PFAS investigation beyond that required by the investigative order. The additional investigation will focus on collecting data to (1) further define the extent of PFAS in groundwater at the SDIA and (2) evaluate PFAS fate and transport to surface water, given the proximity of the SDIA to San Diego Bay (200 to 300 feet).