

Practical Vision and Program Accomplishments for 2019-2020

The Practical Vision is a tool to focus limited resources onto the region's highest priorities. Twenty-two projects were undertaken during 2019 to implement the Practical Vision. An Operational Plan for implementing the projects was created to assign staff, budget resources, and establish milestones and schedules for the projects.

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

This report describes some of the Practical Vision projects undertaken between January 2019 and June 2020 and describes the important program accomplishments submitted to the State Water Board for its annual report to the State Legislature.

Chapter 1. Healthy Waters

Tijuana River Border Pollution Control Efforts: Total Maximum Daily Loads Development, USMCA Project Funding Secured, and Investigative Order Issued.

The San Diego Water Board is involved in several efforts 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 human health and ecosystems. However, in 2019-2020 progress has been made on several fronts that, if sustained, could result in measurable positive human 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 ecological health of the Tijuana River Valley.

- The Board initiated development of Total Maximum Daily Loads (TMDLs) for indicator bacteria and trash from the Tijuana River Valley transboundary flows and hosted a California Environmental Quality Act (CEQA) scoping meeting to seek public input on an implementation plan for the TMDLs. In March 2020, a series of internal reviews began for the draft TMDL technical report and implementation plan which will prepare the TMDL for scientific peer review.
- The Board adopted a joint resolution in December 2019 (Resolution No. R9-2019-0246) with other State and local stakeholders to endorse U.S.-side preferred project alternatives of the Senate Bill 507 Needs and Opportunities Assessment to address pollution from transboundary flows.

- 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 border. The San Diego Water Board participates in the USEPA-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).
- The Board issued Investigative Order No. R9-2020-0030 (IO) to the U.S. Section of the International Boundary and Water Commission (USIBWC) in February 2020 to identify the extent, magnitude, durations, trends, and risks associated with pollutants discharged through USIBWC infrastructure to the Tijuana River Valley. USIBWC's petition to the State Water Board for review of the IO was denied in June 2020. The San Diego Water Board and USEPA are now collaborating with USIBWC to develop a monitoring plan in response to the IO. The USIBWC and El COLEF (El Colegio de la Frontera Norte in Mexico) have requested that the San Diego Water Board lead the Minute 320 Water Quality Group. A decision is pending.

Innovative Liability Settlement Terms Create Industry-Wide Deterrence for Construction Storm Water Program. Murrieta Creek and the Santa Margarita River are key areas for habitats and ecosystems that support several areas of special importance located downstream. Staff investigators found contractors for a United States Army Corps of Engineers (USACE) flood control construction project in Murrieta Creek continually failed to protect those habitats from sediment discharges. Sediment discharges from the construction activities had the potential to harm the WARM, COLD, and RARE beneficial uses of Murrieta Creek and the Santa Margarita River, and the EST, WILD, and RARE beneficial uses of the downstream Estuary. In March 2020, the Board adopted a \$741,466 Administrative Civil Liability Settlement Agreement with the USACE's contractor OHL, USA, Inc. (Order R9-2020-0028).

In this case, the Prosecution Team felt monetary penalties alone would not create the deterrence called for in the Enforcement Policy. So, under the terms of the Settlement, the Discharger also created a position to oversee permit compliance throughout the corporation, assigned a senior manager as the Legally Responsible Party, and discontinued the use of the Qualified SWPPP Practitioner associated with the alleged violations for a minimum of 5 years. With these terms, the Prosecution Staff targeted common industry practices that are weak points in the self-regulation compliance regime established by the statewide Construction Storm Water Permit.

Chapter 2. Monitoring and Assessment

Development and Release of Public Data Visualization Tools. The volumes of data and information collected by the Board and regulated parties is only useful to staff and the public if it can be accessed and analyzed, so in early 2020 staff released several data visualization tools for use by the public. Over the past two years, staff have developed and refined internal ArcGIS Enterprise tools to help display and analyze program data and information. The new public on-line tools use “R Shiny” applications to display and analyze data and make Board programmatic data more accessible and useful to the public.

The R Shiny applications are available on the Monitoring and Assessment webpage (https://www.waterboards.ca.gov/sandiego/water_issues/programs/mon_assess/#data_info). The applications allow users to view and download information about regulated facilities and sites, as well as data from sanitary sewer overflow (SSO) reports stored in the California Integrated Water Quality System (CIWQS) database; construction and industrial sites Notice of Intent (NOI) information stored in the Stormwater Multiple Application and Report Tracking System (SMARTS) database; and information about groundwater cleanup, landfill, and commercial agricultural cases stored in the Geotracker database. CIWQS and SMARTS datasets are linked and downloaded directly to the R Shiny apps from the California Open Data Portal, which is updated regularly.

An Investigative Order Directing Ten Public Agencies to Submit Technical and Monitoring Reports to Identify and Quantify the Sources and Transport Pathways of Human Fecal Material to the Lower San Diego River Watershed, Investigative Order No. R9-2019-0014. The San Diego Water Board issued an Investigative Order to the City of San Diego, the City of Santee, the City of El Cajon, the City of La Mesa, the County of San Diego, the San Diego County Sanitation District, the Padre Dam Municipal Water District, San Diego State University, the Metropolitan Transit System, and the California Department of Transportation that requires the agencies to investigate and quantify the relative contributions of actual and suspected sources of human fecal material discharges from their respective jurisdictions to the Lower San Diego River Watershed. The primary sources of human fecal waste material appear to be numerous and diverse and potentially include: sanitary sewer overflows from publicly-owned sanitary sewer collection systems; sewage discharges from privately-owned lateral sewer lines; sewage exfiltration from publicly-owned sanitary sewer collection system infrastructure and privately-owned lateral sewer lines, privately-owned on-site wastewater treatment systems; illicit connections and discharges to municipal separate stormwater sewer systems (MS4s); and direct or indirect discharges from homeless encampments. Investigating and quantifying actual and suspected sources of human fecal material discharges under the Investigative Order is a necessary prerequisite to strategic remedial planning for the Lower San Diego River Watershed based on fecal pollution levels in receiving waters from human sources. Under this approach, once identified and characterized, human fecal material sources can be prioritized and targeted for remediation/abatement, leading to fewer exceedances of

recreational water quality standards and associated public health advisories, and an overall improvement of water quality conditions in the Lower San Diego River Watershed and the downstream beach coastal waters. The Investigative Order requires submittal of the Final Investigative Study Report, due no later than May 2023, that will report the results of the investigation.

Reissuance of National Pollutant Discharge Elimination System (NPDES) Permits for Discharges from the Oceanside Ocean Outfall to the Pacific Ocean that Include Plume Tracking. The San Diego Water Board reissued NPDES permits applicable to several discharges to the Pacific Ocean through the City of Oceanside's Ocean Outfall (San Diego Water Board Order Nos. R9-2019-0166, R9-2019-0169 and R9-2019-0167). The outfall pipeline discharges at a depth of 100 feet and approximately 8,850 feet offshore from the City's beaches in northern San Diego County. The NPDES Permits authorize a combined discharge of up to 41.5 million gallon per day from sources including municipal wastewater treatment plants operated by the City of Oceanside, Fallbrook Public Utility District and Marine Corps Base Camp Pendleton. The NPDES Permits regulate each of the discharges under effluent limitations to ensure ocean water quality protection. The NPDES Permits continue the San Diego Water Board's work begun in 2017 to advance ocean outfall receiving water monitoring programs using new technology to better answer questions about water quality in the vicinity of the ocean outfalls, the outfall wastewater plume location, and the potential for plume migration to ocean recreational areas. The San Diego Water Board also incorporated a human-associated fecal source marker in the receiving water monitoring programs as a step towards identifying the source of bacterial exceedances occurring in the ocean waters; this information will better inform compliance and remediation decision making. The NPDES Permits are intended to be protective of the health of swimmers, surfers, and others who use ocean waters for water contact recreational activities and reflect a reasonable balance of cost considerations pertaining to the monitoring programs.

Chapter 3. Recovery of Stream, Wetland and Riparian Systems

Santa Margarita River Estuary Investigative Order, Implementation of Alternative TMDL Strategy for Reducing Eutrophication. The Santa Margarita River Estuary (Estuary) is a high priority water body because it provides significant refuge, foraging, and breeding areas for several threatened and endangered species, making it a Key Area for habitat and ecosystems. However, the Estuary's habitat-related beneficial uses are impaired due to seasonal eutrophication triggered by blooms of algae in response to nutrients from watershed sources. Instead of a traditional Total Maximum Daily Load (TMDL) to dictate restoration efforts, since 2011 Board staff have pursued an alternative, highly collaborative Water Quality Restoration Strategy (Strategy) to reduce nutrient loading to the Estuary with the public Santa Margarita River Estuary Watershed Nutrient Initiative Stakeholder Group (Stakeholder Group). A major milestone was reached in May 2019 when the Executive Officer issued Investigative Order No. R9-2017-0007 to seven Stakeholder Group local, county, and military municipal storm

water program permittees. The Investigative Order required the entities to conduct monitoring and assessment and begin implementation of the Strategy.

The Stakeholder Group has worked to calculate TMDLs for the Estuary and identify numeric targets and the reduction in pollutant loadings necessary to restore beneficial uses of the Estuary. Staff compiled the Stakeholder Group's efforts into a draft TMDL staff report. In 2019, the TMDL staff report cleared Peer Review and set the stage for the adoption of the Investigative Order. Monitoring began in April 2020 and will help parties design corrective actions and evaluate impacts of future projects.

Chapter 4. Proactive Public Outreach and Communication

Board Member Outreach. The San Diego Water Board convened four outreach events with local and state elected officials and agencies to solicit feedback and share information regarding the Water Board's priorities and efforts. Among the several key topics the Board Members discussed with the participants was the issues associated with water quality and community impacts associated with homeless persons, sustainable local water supply, environmental justice issues, and local water quality concerns.

In addition, the San Diego Water Board convened Tribal Summit on February 6, 2020 to learn from the leaders and representative of the Tribes and share potential approaches to implementing the Tribal Tradition and Culture and Subsistence Fishing Beneficial Uses (added to the San Diego Region Basin Plan in March 2020).

The Colorado River Basin and San Diego Basin Regional Water Quality Control Boards held a first ever joint meeting of both Water Boards on March 5, 2020 in Temecula, California to receive updates and information regarding the history of border area water development, ecology, communities, and goals.

Social Media Outreach. One of the projects in Chapter 4 of the Practical Vision includes the creation of a San Diego Water Board YouTube channel to share information efficiently with the public, stakeholders, dischargers, and other government agencies. In 2019, staff assessed the Board's educational video needs and created its first educational outreach video. The video focuses on the San Diego Water Board's Commercial Agricultural Regulatory Program and educates growers about their responsibility to enroll in the General Agricultural Order. Since it was posted, the video has been viewed 71 times.

Chapter 5. Strategy for Achieving a Local Sustainable Water Supply

City of San Diego North City Water Reclamation Plant and Pure Water Facility, Reservoir Augmentation Discharge to Miramar Reservoir, Order No. R9-2020-0001, NPDES No. CA0109398. The San Diego Water Board issued a National Pollutant Discharge Elimination System (NPDES) Permit to the City of San Diego (City) to augment Miramar Reservoir, a drinking water reservoir, with advanced treated

recycled water. This augmentation adds a reliable and sustainable locally controlled supplemental source to San Diego's local drinking water supplies. The NPDES Permit regulates the North City Pure Water Project; the Project is the first of several City Pure Water Program projects planned for construction in multiple phases to reduce the region's reliance on imported water and to provide one third of San Diego's water supply locally by 2035. The North City Pure Water Project is the first surface water augmentation project permitted in the State of California. The North City Project is designed to treat municipal wastewater using multiple state-of-the-art treatment processes to produce an average of 30 million gallons per day (33,060 acre feet per year) of advanced treated recycled water to augment Miramar Reservoir. The advanced treated recycled water stored in Miramar Reservoir will ultimately be withdrawn, further treated at the City's existing Miramar Drinking Water Treatment Plant (DWTP), and delivered to the drinking water distribution system that serves approximately 500,000 customers in the northern portions of the City of San Diego and the City of Del Mar. The NPDES Permit includes operation, treatment, design, and monitoring requirements to ensure the advanced treated recycled water discharge meets all applicable water quality standards, poses no significant threat to the public health, and maintains a healthy ecosystem in Miramar Reservoir.

Reissuance of the National Pollutant Discharge Elimination System Permit for the Poseidon Resources (Channelside) LP, Claude "Bud" Lewis Carlsbad

Desalination Plant. The San Diego Water Board reissued National Pollutant Discharge Elimination System (NPDES) Permit Order No. R9-2019-0003 to Poseidon Resources (Channelside) LP (Poseidon) for the discharge of brine wastewater to the Pacific Ocean from the Carlsbad Desalination Plant (Facility). The Facility is the nation's largest seawater desalination plant. The NPDES Permit advances the use of ocean water as a supplement to traditional water supplies in the San Diego Region, while protecting marine life and water quality in Agua Hedionda Lagoon and offshore coastal waters. Pursuant to the NPDES Permit, the Facility desalinates seawater that enters the Facility through an intake from the tidally influenced Agua Hedionda Lagoon to produce up to 60 million gallons per day (MGD) of potable water to augment public water supplies through the San Diego County Water Authority (SDCWA) distribution system. The brine waste by-product from this process and dilution seawater used to meet salinity requirements are discharged to the Pacific Ocean. The reissued NPDES permit and a new California Water Code section 13142.5(b) determination for operations of the Facility, implement Ocean Plan requirements to use the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life. The NPDES Permit requires construction and operation of a new source water intake structure by 2023 and requires mitigation measures to offset marine life mortality impacts associated with the Facility's construction and operation.

Core Program Accomplishments

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Memorandum of Understanding for the Stuart Mesa Agricultural Fields on Marine Corps Base, Camp Pendleton. In July 2019, the San Diego Water Board and Commanding General for Marine Corps Installation West, Marine Corps Base, Camp Pendleton (collectively the Parties), entered into a Memorandum of Understanding for Conducting an Environmental Assessment of the Stuart Mesa Agricultural Fields (MOU). The MOU expresses the Parties' intent to collaborate in conducting an environmental assessment of the Stuart Mesa Agricultural Fields to identify whether there is a discharge or threatened discharge of legacy pesticides that could affect waters of the United States, including the Santa Margarita River Estuary. The signing of this MOU signifies the successful efforts between the San Diego Water Board and the Department of the Defense to avoid the dispute resolution process included in the Camp Pendleton Federal Facilities Agreement.

Laurel Hawthorn Embayment Investigative Orders. In October 2019, the San Diego Water Board issued three investigative orders requiring the assessment of impacts to sediments within the Laurel Hawthorn Embayment area of San Diego Bay, also known as the downtown boat anchorage. The investigative orders pertain to discharges from storm water conveyance systems that received runoff from various onshore areas. The pollutants of concern include polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), metals, and pesticides. The orders require preparation of work plans that include plans to collect data to determine the lateral and vertical extents of pollutants in sediment, as well as assess impacts to beneficial uses of the Bay through

application of Sediment Quality Objectives; implementation of the work plans; and preparation of reports documenting the results of implementation. Issuance of the investigative orders represent a culmination of over ten years of work by San Diego Water Board staff to identify and engage responsible parties, analyze available data, and develop appropriate enforcement actions.