

Practical Vision and Program Accomplishments for 2015

The Practical Vision is a tool to focus our limited resources onto our region's highest priorities for the 2014 to 2020 time period. Twenty projects were undertaken in 2015 to implement the Practical Vision. An Operational Plan for implementing the projects was created to assign staff and budget resources, and establish milestones and schedules for the projects.

In concert with the work of the Practical Vision is the day-to-day programmatic work of the San Diego Water Board. This work falls into three broad categories; planning, permitting, and enforcement. Every year, San Diego Water Board staff prepare program workplans 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 workplan commitments, behind the Practical Vision is a large body of work to carry out the Board's core programmatic work.

This report describes some of the Practical Vision projects undertaken followed by a bullet list of the important project accomplishments and milestones for 2015. This report also describes the important program accomplishments submitted to the State Water Board for its annual report to the State Legislature.

Chapter 1. Healthy Waters

Biological Objectives. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Until recently, much of the emphasis has been to focus on the chemical integrity (discharge specific) of receiving waters. Although chemical integrity is an essential component in protecting and maintaining healthy systems, it alone is inadequate in protecting the ecological health of a water body. Biological assessments provide direct measures of the cumulative and integrated response of the biological community to all sources of stress as the organisms are exposed to these stresses over time. Through this long term exposure in their natural setting, biological communities provide the most comprehensive measure of the condition of the beneficial use to be protected. Biological objectives set the biological quality goal, or target, to which water quality can be managed against, rather than the maximum allowable level of a stressor (pollutant or other water quality condition) that affects the aquatic life in that water body.

- Project team established from Monitoring, Assessment & Research Unit, the Restoration and Protection Planning Unit, and the Surface Water Ambient Monitoring Program.
- Project charter developed.
- Field data on nonperennial streams acquired and analysis begun.
- Project team members met with City of San Diego in September 2015 to exchange information.

- Project leads met with and are in regular communication with State Water Board staff working on a statewide Implementation Plan for Assessing Biological Integrity in Surface Waters.
- Project team members attended the California Aquatic Bioassessment Workgroup meeting in Davis in October 2015. Chad Loflen presented regional data at the meeting.
- Project leads began calculating California Stream Condition Index scores for inclusion in the upcoming Clean Water Act 305b/303d Integrated Report.

Healthy Waters Strategy for San Diego Bay. This project developed a strategy for coordinating and prioritizing all San Diego Water Board regulatory programs in San Diego Bay to achieve the cleanup and restoration of key beneficial uses in key areas. The strategy will follow the framework and incorporate the principles of the Healthy Waters Chapter.

- Public Workshop conducted in April 2015 to introduce the Strategy to stakeholders, and get their input on the most important areas of the bay where key beneficial uses occur.
- Strategy completed in June 2015.
- Resolution supporting the implementation of the Strategy adopted by the Board in June 2015.

Chapter 2. Monitoring and Assessment

Tijuana River Valley Recovery. The Tijuana River Estuary is the largest functioning wetland in Southern California and is designated a wetland of international importance by the International Ramsar Convention on Wetlands. Reducing the discharge and cleaning up sediment and trash in the Tijuana Valley is among the highest priorities of the San Diego Water Board. Since many of the sources of sediment and trash are outside of the jurisdiction of the agencies we regulate, the Water Board has convened a collaborative, stakeholder-led approach to address these problems.

- International Boundary and Water Commission (IBWC) Minute 320¹ approved.
- Nelson Sloan Management and Operations Plan and Cost Analysis Complete.
- Demonstration Project to Recover and Recycle Waste Tires approved.
- Improved collaboration on El Niño storm preparedness.

San Diego Bay Contaminant Bioaccumulation and Risk Evaluation. This project encompasses a variety of studies on bioaccumulation of pollutants in San Diego Bay sediments, and the risks they pose to human health and aquatic dependent wildlife. This study is being undertaken with partners comprised of SCCWRP, the Port of San Diego, and the City of San Diego who are all providing additional funding and resources for the project. The purpose of the project is to provide a better understanding of the process of bioaccumulation through the complex food web systems of San Diego Bay.

¹ Minute 320 to the 1944 Treaty Relating to the Utilization of the Waters of the Colorado and Tijuana Rivers and of the Rio Grande amends the Treaty for IBWC and CILA (Comisión Internacional de Límites y Aguas) to address water quality and transborder flows of sediment and trash in the Tijuana River Valley.

The information obtained in this study will inform sediment cleanup decisions, total maximum daily load numeric targets, and provide a data set for development by SCCWRP and the State Water Board of assessment tools for the human health and aquatic dependent wildlife narrative sediment quality objectives.

- Fish consumption surveys commenced in May 2015.
- Fishing Derby conducted in June 2015 to augment sport fish collection.
- Lobster sampling completed and analysis underway.
- Laboratory analyses of sediment and tissue samples completed.
- Data analyses underway.

Chapter 3. Recovery of Stream, Wetland and Riparian Systems

Statewide Wetland Restoration Project. Wetland restoration projects play an essential role in the protection, enhancement, and recovery of beneficial uses, and increase the quantity, quality, and acreage of aquatic resources in the San Diego Region. These aquatic ecosystems provide many services that have exceptional value to society. The structure, function, and biodiversity of aquatic ecosystems in the San Diego Region are threatened and vulnerable to disruption from increasing population growth, land development, sea level rise, and climate change.

- Meetings conducted during the first half of 2015 to inform stakeholders of the San Diego Water Board's intent to take an active role in promoting the implementation of aquatic ecosystem restoration projects.
- *Resolution to Support Restoration of Aquatic Ecosystems in the San Diego Region* adopted in June 2015.

Chapter 4. Proactive Public Outreach and Communication

Drought Resources Webpages. The project was undertaken in response to the severe drought conditions in California and the State Water Resources Control Board's actions to conserve water. The project supports State and local conservation actions, and local efforts to reuse and recycle our local water supply by creating a website where visitors could quickly access hyperlinks to multi-agency information. The webpages also underscore the connection between wasting water and the potential impacts on water quality. A narrated water journey video is under development that explains the region's dependence on imported water, identifies the sources of that water by mapping its journey, and highlights the impacts from transfer of water away from those areas. A graphic format that spatially presents the content was an important goal.

- The graphic design layout and research on content was completed in June 2015.
- The webpages went live in October 2015 by adding a new link to the San Diego Water Board's home page entitled Drought – Wasting Water:
<http://www.waterboards.ca.gov/sandiego/drought - wasting water/> .
- Visitors can access hyperlinks to:
 - o Report incidents of water waste to a water provider, a city, or the State;
 - o Understand State-wide drought prohibitions and local water restrictions;
 - o Learn about the benefits of water conservation and incentives to conserve; and
 - o Obtain contacts for emergency assistance in San Diego, Orange, or Riverside County when a private drinking water well goes dry.

Chapter 5. Strategy for Achieving a Local Sustainable Water Supply

Basin Plan Amendment to Revise Nitrate Groundwater Objective. Nitrogen removal is an expensive process that adds to the cost of recycled water. Nitrogen in recycled water has the potential to degrade water quality in reuse areas. The San Diego Region had 43 groundwater basins with nitrogen water quality objectives that were more stringent than the maximum contaminant (MCL) level for drinking water. Relaxing the water quality objective in those basins to the MCL likely will reduce the cost of producing recycled water by lowering the cost of nitrate removal, and potentially open up more reuse areas in those basins.

- Basin Plan amendment adopted in April 2015.
- Basin Plan amendment approved by State Water Board in November 2015.

Over-irrigation Compliance Audits. Conduct inspections and program audits to evaluate compliance with the over-irrigation prohibition of Copermittees' municipal separate storm sewer system permit, eliminate water waste, and further the Practical Vision objective of a sustainable local water supply.

- Cities of Laguna Beach, Oceanside, and Temecula selected for inspections and audits by April 2015.
- Inspections and audits conducted May through July 2015.
- Results reported in November 2015 Executive Officer's Report.

Program Accomplishments Reported to the State Water Board

Creating a Sustainable Local Water Supply/Drought Response

The San Diego Water Board took several actions in 2015 aimed at achieving a sustainable local water supply in the Region while also protecting water quality. Master Reclamation Permits were issued for two important recycled water expansion projects, including the renewal of the Master Recycling Permit for the City of San Diego North City Reclamation Facility. That facility produces 32 million gallons per day of tertiary recycled water for non-potable uses in the region. As previously mentioned, the Basin Plan was amended to relax nitrate groundwater quality objectives to the drinking water standard to facilitate greater recycled water use in the Region, and to lower the cost of treating recycled water to meet nitrate objectives. In response to the drought and mandatory water conservation targets, the Board worked collaboratively with the Division of Drinking Water (DDW) and recycled water producers and distributors to permit recycled water fill stations across the Region. Fill stations make recycled water widely available for non-potable purposes by commercial and residential users. Rules and regulations for the fill stations were established, and eight stations were enrolled in the Statewide general WDR for recycled water. A ninth station was enrolled in January.

Mission Valley Terminal Gasoline Plume Cleaned Up

After more than 20 years of cleanup, water quality in the San Diego River alluvial aquifer beneath the Qualcomm Stadium property is no longer impaired for municipal and domestic supply uses due to gasoline pollution. The groundwater was polluted in the late 1980s when over 500,000 gallons of gasoline leaked from the Mission Valley Petroleum Terminal to the Qualcomm Stadium property and beyond. The San Diego Water Board provided regulatory oversight to Kinder Morgan Energy Partners throughout the duration of the cleanup which entailed product removal, pumping and treating groundwater, and extracting petroleum soil vapors from the unsaturated zone. Cleanup continues on the terminal property.

Local Waters Protected with Construction Storm Water Enforcement Initiative

The San Diego Water Board launched a construction storm water program compliance assurance initiative to protect coastal and inland waters. Efforts included audits of and assistance to municipal programs, targeted inspections of high priority construction sites, outreach within the community, and enforcement actions against private-sector operators and municipalities that failed to oversee effective local programs.

The Water Board's formal enforcement included assessment of \$479,569 in monetary penalties for highly negligent and/or recalcitrant operators and the City of Encinitas' ineffectual municipal program. Another complaint issued for \$848,347 is pending a board hearing for early 2016. Of the assessed penalty amounts, 43 percent was directed to a local habitat improvement project in San Elijo Lagoon.

Outreach and compliance assistance was especially important ahead of the El Nino conditions in Winter 2015/2016. To that end, the Water Board provided pre-rainy

season outreach to each municipal storm water program and participated in community and industry workshops.

Sediment from construction activities poses a large threat to local waters because so much exposed dirt can wash off during a storm. Excess sediment can alter or obstruct flows, resulting in flooding and damage to local ecosystems. Abnormally high levels of sediment in the water can smother aquatic animals and habitats, and it can reduce the clarity of water, which harms the ability of organisms to breath, find food and refuge and reproduce. Sediment can also act as a binder, carrying toxic constituents, such as metals, pesticides and other synthetic organic chemicals with it into rivers, bays and ocean.

Transition to Regional MS4 Permit Completed

The San Diego Water Board completed the process to regulate all Phase I municipal separate storm sewer system (MS4) dischargers (Copermittees) in the San Diego Region under one Regional MS4 Permit, based on watersheds instead of political boundaries. The Regional MS4 Permit jointly covers 39 municipal and county governments, and special district entities located in Southern Orange County, Southwestern Riverside County, and San Diego County. The Regional MS4 Permit implements a new paradigm in storm water management that changes the focus from a basic program of implementation on a jurisdictional basis to achieving water quality improvement outcomes on a watershed scale. The new permitting approach employs adaptive management permit provisions which allow the Copermittees to more flexibly deploy resources to achieve goals that will yield the greatest water quality improvements. Implementation will be based on decisions made by the Copermittees in accordance with what they have identified as their highest priority water quality issues. The new paradigm encourages the Copermittees to cooperate, collaborate, and innovate together with the public in a coordinated manner region-wide to utilize their resources in the most efficient manner possible. The regional outcome based approach offers the opportunity to address existing and developing challenges to reducing pollutants in storm water discharges from MS4s and restoring or protecting the beneficial uses of receiving waters in the San Diego Region.