



Regional Advisory Committee (RAC) Members

Updated April 25, 2011

Regional Water Management Group

- Kathleen Flannery, LUEG Finance and HR Director, County of San Diego (chair)
- Marsi Steirer, Deputy Director of Water Policy and Strategic Planning, City of San Diego
- Ken Weinberg, Director of Water Resources, San Diego County Water Authority

Retail Water Entities

- Michael Bardin, General Manager, Santa Fe Irrigation District
- Linden Burzell, General Manager, Yuima Municipal Water District
- Jim Smyth, General Manager, Sweetwater Authority
- Mark Weston, General Manager, Helix Water District
- Lori Vereker, Director of Utilities, City of Escondido

Water Quality

- Albert Lau, Director of Engineering and Planning, Padre Dam Municipal Water District
- Mike Thornton, General Manager, San Elijo Joint Powers Authority
- Kirk Ammerman, Principal Civil Engineer, City of Chula Vista
- Anne Bamford, Industrial Environment Association

Natural Resources and Watersheds

- Craig Adams, Executive Director, San Dieguito River Valley Conservancy
- Doug Gibson, Executive Director, San Elijo Lagoon Conservancy
- Rob Hutsel, Executive Director, San Diego River Park Foundation
- Megan Cooper, Project Manager, California Coastal Conservancy
- Judy Mitchell, District Coordinator, Mission Resource Conservation District
- Kathy Viatella, Senior Project Director, The Nature Conservancy

Members At Large

- Linda Flournoy, Sustainability Consultant, Planning & Engineering for Sustainability
- Gabriel Solmer, Legal Director, San Diego CoastKeeper
- Rob Roy, La Jolla Band of Luiseno Indians
- Dave Harvey, Rural Community Assistance Association
- Eric Larson, Executive Director, Farm Bureau of San Diego County
- Richard Pyle, San Diego Regional Chamber of Commerce
- Shelby Tucker, Regional Planner, San Diego Association of Governments
- George Loveland, Board Member, San Diego Regional Water Quality Control Board
- Jeremy Jungreis, USMC Camp Pendleton
- Iovanka Todt, Floodplain Management Association

Non-Voting RAC Members

- Laurie Walsh, San Diego Regional Water Quality Control Board
- Greg Krzys, U.S. Bureau of Reclamation
- Perry Louck, Rancho California Water District (Tri-County FACC)
- MaryAnne Skorpanich, County of Orange (Tri-County FACC)

Total Number of Voting Members – 28

Total Number with Non-Voting Members – 32

Regional Water Management Group (RWMG) Staff

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County of San Diego

- Jon Van Rhyn, Water Quality Program Manager, Watershed Protection Program
- Sheri McPherson, Environmental Health Specialist III, Watershed Protection Program

San Diego County Water Authority

- Toby Roy, Water Resources Manager, Water Resources Department
- Mark Stadler, Principal Water Resources Specialist, Water Resources Department

City of San Diego

- Jeffery Pasek, Watershed Manager, Water Resources and Planning Division
- Cathy Pieroni, Senior Water Resources Specialist, Water Resources and Planning Division

San Diego Integrated Regional Water Management Program

Proposition 50 Implementation Grant Overview

In 2007, the San Diego IRWM program submitted a grant proposal to the Department of Water Resources for Proposition 50 funds. This proposal included 19 projects that would implement four high priority programs to meet the Region's water management needs.

Conservation Program

Project 1: Implementation of Integrated Landscape and Agricultural Efficiency Program. This project aims to increase water efficiency in urban landscapes and agricultural practices, and improve water quality by reducing runoff associated with excessive irrigation. SDCWA will conduct agricultural audits, outreach and education, and retrofits to improve water efficiency without compromising crops or agricultural production. The program has the potential to achieve over 3,600 AFY of water savings.

Project 2: Irrigation Hardware Giveaway and Cash for Plants Project. This project offers customized commercial landscape and residential surveys along with state-of-the-art efficient irrigation hardware, free of charge to customers in the City of San Diego. The project is expected to conserve approximately 91 AFY of water and will reduce over-watering, thereby conserving potable water and reducing pollutant-laden dry weather runoff flows from entering receiving waters.



Project 3: Over-Irrigation Runoff/Bacteria Reduction Project. This project aims to protect water quality by reducing irrigation runoff through improved water use efficiency at eight pilot sites. The project will demonstrate the link between over-irrigation reductions and reductions in pollutant loads. This will be accomplished through water use assessment, flow monitoring and water quality monitoring at key locations in the storm drain system. This project will conserve an estimated 353 AFY of water.

Water Recycling Program

Project 4: Santee Water Reclamation Facility (WRF) Expansion Project. This project includes design and construction of facilities necessary to expand the Title 22 treatment capacity of the Santee WRF from 2 MGD to 4 MGD. This project is part of a coordinated effort to enhance local supplies through an expansion of recycled water production, coupled with increased groundwater recharge using recycled water (see Project 14 below).

Project 5: Recycled Water Retrofit Assistance Program. This project will provide direct financial assistance to facilitate conversion from potable to recycled water for landscape irrigation and other uses. The project will target approximately 40 sites throughout the SDCWA's service area which will allow approximately 2,000 AFY of additional recycled water to be used. The ultimate goal is to promote the development and use of recycled water capable of supplying 5% of the Region's water demand by 2011.



Project 6: City of San Diego Recycled Water Distribution System Expansion, Parklands Retrofit, and Indirect Potable Reuse/Reservoir Augmentation Project. This project has three parts, which together are aimed at meeting the City of San Diego's goal of beneficially reusing 50% of wastewater flows. This project includes a demonstration project that is a necessary step in ultimately implementing 12,000 AFY of indirect potable reuse. Using recycled water reduces imported water demand and increases local water supply, and results in less wastewater discharged into the ocean.

Local Supply Protection and Development Program

Project 7: San Vicente Reservoir Source Water Protection through Watershed Property Acquisition and Restoration Project. This project will acquire lands from willing sellers around San Vicente Reservoir for the purpose of creating an expanded drinking source water protection buffer. San Vicente Reservoir is being enlarged to nearly 200,000 AF as part of the SDCWA's Emergency Storage Project. The buffer will provide high quality habitat and protect associated sensitive species.

Project 8: El Capitan Reservoir Watershed Acquisition and Restoration Program. This project will acquire and restore approximately 120 acres of targeted vacant undeveloped lands upstream and in the immediate vicinity of the El Capitan Reservoir. The project will protect source water quality at the reservoir by reducing the potential for non-point source pollution, removing trash and debris from the properties, planting 800 trees, maintaining a biologically significant wildlife corridor, and preserving habitat.



Project 9: Northern San Diego County Invasive Non-Native Species Control Program. This project will aim to eradicate 374 acres of targeted invasive non-native plant species throughout Northern San Diego County. It would protect and enhance habitat; conserve water resources by increasing available groundwater; protect water delivery and storage systems by reducing flood damage; improve water quality by reducing erosion and normalizing sediment discharge processes; and reduce fire risk.

Project 10: Santa Margarita Conjunctive Use Project. This project provides for enhanced recharge and recovery from the groundwater basin to provide a water supply for both Camp Pendleton and Fallbrook as resolution of a long-standing water rights dispute. The project will provide approximately 6,800 AFY of new local supply from the Santa Margarita River by conjunctively managing the groundwater basin. Additionally, 1380 acres of sensitive habitat will be preserved along the river as a result of this project.



Project 11: Carlsbad Desalination Project Local Conveyance This project will provide 56,000 AFY of new water supply through the design and construction of pipelines and facilities to serve local desalinated water from the Carlsbad Desalination Project to SDCWA member agencies. The project provides a secure and reliable water supply for 30 years with two possible 30-year extensions.

Project 12: San Diego Region Four Reservoir Intertie Project Feasibility Study. This project will provide an initial design and work plan for a conveyance system that will increase the capability to manage and store imported water in four existing reservoirs. The project would create an enhanced and integrated reservoir system to more efficiently use existing storage, increase water supply reliability, more effectively use imported water aqueducts, and increase accessibility to ~100,000 AF of surface storage.

Project 13: South San Diego County Water Supply Strategy. This project will investigate the sustainable use of the apparently vast groundwater resources of the San Diego Formation (SDF), a natural underground aquifer that underlies the central and south San Diego Bay area. Reliable assessments currently estimate that the SDF holds upward of 1,000,000 AF of water. This extensive local water resource has the potential to significantly supplement water supplies and reduce dependence on imported water through its efficient development and use.



Project 14: El Monte Valley Groundwater Recharge and River Restoration Project, Phases 1 & 2. This project would recharge the El Monte Valley Basin using highly treated recycled water, raise the groundwater level to support habitat restoration, and subsequently withdraw up to 2,240 AFY of groundwater to supply the R.M. Levy Water Treatment Plant. Phase 1 would develop the necessary Groundwater Management Plan and institutional support, and Phase 2 includes design and construction of spreading basins, conveyance pipelines, and river restoration.

Education and Outreach Program

Project 15: San Diego Regional Pollution Prevention Project. This project will remove trash and debris and assess the water quality within San Diego County through citizen monitoring. It seeks to establish a baseline of trash and water quality data that will be transferable to the local communities that live in the Region through two web-based, publicly accessible data portals. The project will teach a minimum of 300 members of the community how to access publicly available water quality data and to analyze and interpret these data to identify water quality impacts on a watershed level.

Project 16: Biofiltration Wetland Creation and Education Program. This project will develop a biofiltration wetland within the Safari Park, formerly known as the San Diego Wild Animal Park, which will be used to improve water quality through natural biological filtration and enhance wetlands habitat. The constructed wetlands will act as biological filters to remove high biological oxygen demand, total suspended solids, organic nitrogen, and nitrates. The wetlands will also be used to educate visitors about water conservation and the importance of conserving wetlands.



Project 17: San Dieguito Watershed Management Plan Implementation – Lake Hodges Natural Treatment System Conceptual Design. The Lake Hodges Natural Treatment System Conceptual Design project will provide initial design and a work plan for reduction of pollution loads to the City of San Diego's Lake Hodges Reservoir, which is a water supply source for north county communities and planned to be intertied to the regional water supply system. Natural treatment systems, such as restored and constructed wetlands are an established cost effective and environmentally sound way for reducing pollutant loading.

Project 18: City of San Diego Green Mall Porous Paving and Infiltration. This project will retrofit storm water systems, allowing urban runoff and pollutants carried with it to infiltrate into the ground instead of discharging directly to the storm drain system and adjacent waterbodies. Existing asphalt street paving will be replaced with pervious concrete. Existing curbs and gutters will be moved into the street, and bio-retention systems of crushed rock and trees will be installed in the created space. The project will also include water quality monitoring and educational outreach.



Project 19: County of San Diego Chollas Creek Runoff Reduction and Groundwater Recharge Project. This project will demonstrate practical implementation of a range of low impact development (LID) practices to reduce runoff from three County facilities. The project will include demonstrations of porous pavements over stone reservoirs, capture/infiltration technologies and landscape elements such as rain gardens and swales.

San Diego Integrated Regional Water Management Program

Proposition 84-Round 1 Implementation Grant Overview

In 2011, the San Diego IRWM program submitted a grant proposal to the Department of Water Resources for \$8 million (of \$71 million available to the San Diego IRWM region) in Proposition 84 funds. This proposal included 11 projects that would implement four high priority programs to meet the Region's water management needs.

Water Supply/Recycled Water Program

Project 1: Sustainable Landscapes Program. This project is designed to reduce water waste and pollutant infiltration into local waterways through development and implementation of landscape standards and specifications generally consistent with the California State Model Water Efficient Landscape Ordinance and the San Diego Regional Board MS4 Permit. This project is being developed in partnership with San Diego County Water Authority, City of San Diego, County of San Diego, California American Water, and non-profit partners such as California Center for Sustainable Energy, Surfrider Foundation, and Association of Compost Producers. The *Sustainable Landscapes Program* relies on the integration of landscape standards and specifications, education and training, incentives, outreach, and technical assistance to achieve project goals.



Project 2: North San Diego County Regional Recycled Water Project. This project is an effort by North San Diego County water and wastewater agencies to regionalize recycled water systems by identifying new agency interconnections, seasonal storage opportunities, and indirect potable water use that will maximize supplies, reduce wastewater discharges to ocean, reduce energy consumption due to diminished delivery of imported water, and allow recycled water to play an even more significant role in meeting future water needs. This project will involve support from many partners including Olivenhain Municipal Water District, Carlsbad Municipal Water District, Vallecitos Water District, Santa Fe Irrigation District, City of Oceanside, Leucadia Water District, City of Vista/Buena Sanitation District, San Elijo Joint Powers Authority, City of Escondido, and Rincon del Diablo Municipal Water District.

Project 3: North San Diego County Cooperative Demineralization Project. In Southern California wastewater, brackish water, and urban runoff are high in total dissolved solids (TDS) and other impurities that require advanced treatment to allow beneficial reuse. The *North San Diego County Cooperative Demineralization Project* is focused on developing new local water supplies and managing water quality issues by constructing advanced water treatment facilities at the San Elijo Water Reclamation Facility to mitigate high TDS sources, increase beneficial reuse, and study the feasibility of brackish to potable water desalination in North San Diego County.

Project 4: Rural Disadvantaged Community (DAC) Partnership Project. This project will provide funding to address inadequate water supply and water quality affecting rural DACs, including tribal communities. The project will reduce potential for high public health risks in water and/or wastewater systems and will promote environmental justice in rural communities by providing outreach to rural DACs for available infrastructure projects. The Rural Community Assistance Corporation (RCAC) will manage the grant funds and lead a representative group of stakeholders and agencies, including a representative of the San Diego IRWM program, to solicit and select rural DACs for funding of critical infrastructure improvement projects.



Water Quality/Stormwater Program



Project 5: Lake Hodges Water Quality and Quagga Mitigation Measures. This project is intended to address two issues centered within the San Dieguito Hydrologic Unit. The first is improving low water quality within Lake Hodges. The second is mitigating against the potential long term effects of quagga mussels on Lake Hodges, San Dieguito Reservoir, Olivenhain Reservoir, and attached facilities. This project is sponsored by the San Diego County Water Authority, but is complementary to the ongoing effort by the San Dieguito Water District, Santa Fe Irrigation District, City of San Diego, San Dieguito River Valley Conservancy, and the San Dieguito Watershed Council to address long term water quality and environmental issues within the Lake Hodges watershed.

Project 6: Implementing Nutrient Management in the Santa Margarita River Watershed. This project aims to establish nutrient water quality objectives (WQOs) for the Santa Margarita River estuary (Phase I) and ultimately the entire Santa Margarita River watershed (Phase II) that will lead to the implementation of nutrient reduction and water conservation practices in the watershed. The project consists of three major activities: 1) form and facilitate discussions among a Santa Margarita River watershed stakeholder group to guide project activities, 2) conduct monitoring and special studies to address data gaps identified by stakeholders to achieve project objectives, and 3) develop nutrient WQOs for the Santa Margarita River estuary. This project will also involve coordination with an adjacent IRWM region, the Upper Santa Margarita IRWM region.



Project 7: Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection. The goal of the *Bannock Avenue Neighborhood Streetscape Enhancements for Tecolote Creek Watershed Protection* project is to reduce the pollutant load and volume of runoff entering the storm drain system in the Tecolote Creek Watershed. The load reduction goal will be achieved by diverting stormwater from the street to bioretention and treatment planters through curb cutouts. Enhanced streets will infiltrate storm flows through pervious pavement, which will reduce storm flows. These goals will also be achieved by diverting flows through a trash segregation unit and a series of AbTech (Bacterial Treatment System) units within the watershed.



Project 8: Pilot Concrete Channel Infiltration Project. The *Pilot Concrete Channel Infiltration Project* will convert a portion of the concrete channel in Woodglen Vista Creek (and other channels as budget/logistics permit) to a more porous base, facilitating infiltration of dry weather flows without compromising flood control capacity. This effort will assist the City of Santee and other MS4 Copermittees in the attainment of bacteria TMDL waste loading allocations.

Project 9: San Diego Regional Water Quality Assessment and Outreach Project. This project continues critical work conducted by San Diego Coastkeeper through 2011 as part of the Proposition 50 funding cycle. The project will engage community stakeholders to collect and analyze surface water samples in eight to nine watersheds throughout San Diego County and conduct trash removal in these

areas. Samples will be analyzed for physical, chemical, bacterial, dissolved metals and nutrient constituents, as well as toxicity and bioassessment indicators. Resultant water quality data will be publically accessible to support public involvement in water resource conservation and stewardship of watershed function and health.

Natural Resources and Watersheds Program

Project 10: Chollas Creek Integration Project. The purpose of the *Chollas Creek Integration Project* is to gather and generate scientific data and stakeholder input to form an integrated planning process that will update the Chollas Creek Enhancement Program (City of San Diego 2002) and establish implementation strategies. Further, this project will restore native habitat and reduce flooding hazards within Chollas Creek (Section 2A), which will provide baseline data for future water quality and habitat improvements. The project improves and maintains Chollas Creek as a natural urban drainage system that serves as a major conduit for stormwater runoff in the disadvantaged Encanto community.



Data Management Program



Project 11: Regional Water Data Management Program. The goal of the *Regional Water Data Management Program* is to provide a snapshot of current data management efforts and prioritize data needs and lay them out in a basic design parameters recommendations document for the future development of a regional, web-based system for sharing, disseminating and supporting the analysis of water management data and information.