

San Diego Integrated Regional Water Management Program Proposition 84 Implementation Grant Overview

In 2015, the San Diego IRWM program submitted a grant proposal to the Department of Water Resources for Proposition 84 funds. This proposal included 13 projects that would implement four high priority programs to meet the Region's water management needs.

Conservation Program

Project 1: Regional Drought Resiliency Program. San Diego County Water Authority (SDCWA) will implement this program in partnership with the California Department of Corrections and Rehabilitation and Otay Water District. There are six components to the program including: 1) Correctional Facility Retrofit Project; 2) Electrical Conductivity Mapping and Soil Moisture Sensor Systems Project; 3) WaterSmart Field Services Program; 4) Sustainable Landscapes Program; 5) WaterSmart Landscape Makeover Program; and 6) Drought Outreach and Education activities. The primary physical benefit attained from this project is 1,809



AFY of water supply, achieved through water conservation from the multiple project components. This project supports the Region's goals of water supply reliability and sustainability, water quality protection, and sustainable integrated water resources management. As a regional project, it provides benefits throughout the Region, including disadvantaged communities (DACs).

Project 2: Conservation Home Makeover in the Chollas Creek Watershed. Groundwork San Diego has partnered with the U.S. Green Building Council, San Diego Sustainable Living Institute, San Diego Unified School District, and Encanto Community Planning Group to implement this project. The project will engage low income families within the Encanto neighborhood of San Diego to mitigate drought impacts through water capture and greywater reuse for food production and landscaping. This project addresses DAC needs for water conservation, water supply, and food security and supports the Region's goals of water supply sustainability, protection of natural resources, and promotion of sustainable integrated water resources management, while also helping the Region to address urban DAC needs.



Project 3: San Diego Water Conservation Program. This project will be implemented by City of San Diego to achieve water conservation by expanding the City's successful turf replacement rebate and implementing a greywater system rebate pilot program. Total water savings of 74.8 acre-feet per year (AFY) are anticipated from the turf and greywater rebate programs. This project will support the Region's goals of water supply reliability and sustainable integrated water resources management. In addition, this project provides opportunities for DAC participation, helping to address urban DAC issues of water supply costs.



Project 4: Ms. Smarty-Plants Grows Water-Wise Schools. This project, implemented by The Water Conservation Garden (The Garden), will target Title I schools and DACs in Spring Valley and Lemon Grove to deliver the *Ms. Smarty-Plants Grows Earth Heroes* education program. The Garden will also identify twelve to fifteen K-12 schools to participate in its Water-Wise Schools effort, which will help convert landscaping to water-wise plants, upgrade irrigation systems, and adopt water-wise practices. Project partners include Helix



Water District, Otay Water District, and La Mesa-Spring Valley and Lemon Grove schools. This project supports the Region's goals of water supply reliability and sustainability, protection of water quality, and sustainable integrated water resources management.

Rural Water Infrastructure

Project 5: Rural Disadvantaged Community Partnership Program – Phase III. The Rural Community Assistance Corporation (RCAC) will implement this project to provide funding for ten sub-projects to improve water and wastewater infrastructure and address water quality concerns in underserved rural DACs, providing a primary physical benefit of improved drinking water quality. Projects will be implemented in the following DACs: Campo Kumeyaay Nation; La Jolla Band of Luiseno Indians; Nestor Community; Pauma Band of Luiseno Indians; Richardson Beardsley Park; San Pasqual Band of Mission Indians; Tijuana River Valley Community; and Willowside Terrace Water Association. RCAC has partnered with Alter Terra, Indian Health Services, Bureau of Indian Affairs, SDCWA, City of San Diego, State Water Resources Control Board, Tijuana River Valley Community, and Willowside Terrace Water Association to assist with project implementation. Without this project, the targeted DACs would face potential water shortages in the face of drought and wildfire threats, and continue to drink from contaminated supplies.

Water Reuse

Project 6: Integrated Water Resource Solutions for the Carlsbad Watershed. This project, implemented by San Elijo Joint Powers Authority (SEJPA), utilizes recycled water and low-impact development strategies to offset potable water demands, reduce urban runoff, and implement water quality monitoring at San Elijo Lagoon. Improvements provided by the project are anticipated to provide water quality benefits to San Elijo Lagoon and Cottonwood Creek/Moonlight Beach. In addition, SEJPA and its partners (City of Encinitas, City



of Solana Beach, San Dieguito Water District, Santa Fe Irrigation District, Olivenhain Municipal Water District, and San Elijo Lagoon Conservancy) will conduct community outreach targeting DACs. This project supports the Region's supply reliability and sustainability goals and protects water quality and natural resources.

Project 7: UCSD Water Conservation and Watershed Protection. This project will be implemented by University of California, San Diego (UCSD) in partnership with Coastkeeper, Urban Corps, WildCoast, and community-based organizations to improve water conservation and watershed protection. Water conservation components are anticipated to conserve 203 AFY potable water, and include: 1) expanded water reuse at the cooling tower at UCSD; 2) retrofitting HVAC systems to allow condensation water reuse; 3) turf replacement; and 4) water conservation community outreach and education. Watershed protection components include: 1) restoration of the Tijuana River Valley through trash and invasive species removal, 2) stormwater treatment landscaping, and 3) a Modular Wetland



Stormwater Treatment System. This project will reduce non-point source pollution, engage disadvantaged and underserved communities and youth in restoration work, and directly reduce pollutants discharged to local surface waters. This project supports the Region's water supply reliability and sustainability goals, provides for watershed and natural resources protection, and improves Regional water quality.

Project 8: Escondido Advanced Water Treatment for Agriculture. The City of Escondido's project will construct a new microfiltration/reverse osmosis (MFRO) advanced treatment facility with a total production capacity of 2.0 million gallons per day (mgd). Water treated at the MFRO facility will be blended with tertiary treated water from an existing recycled water plant, and distributed to agricultural customers in the northern and eastern areas of the City of Escondido. The City of Escondido has partnered with Escondido Growers for Agricultural Preservation, Vista Irrigation District, City of San Diego, and Rincon Del Diablo Municipal Water



District to implement this project. This project supports the Region's goals of supply reliability and sustainability, and protects water quality while supporting local agriculture and the economy.

Project 9: Padre Dam Advanced Water Treatment – Phase I Expansion. Padre Dam Municipal Water District's (MWD's) project is a key component of the East County Regional Water Reuse Program, a water reuse partnership with Helix Water District, County of San Diego, and City of El Cajon. The proposed project will expand the Ray Stoyer Water Reclamation Facility by 4 mgd to deliver recycled water for irrigation, and to deliver tertiary effluent to the Advanced Water Purification Facility, to allow for future



potable reuse. This project helps to move Padre Dam MWD and Helix Water District towards potable reuse, supporting the Region's goal of supply reliability and sustainability.

Project 10: Safari Park Drought Response and Outreach. The Zoological Society's project will achieve 72 AFY potable water savings through increased conservation and recycled water use. Conservation will be achieved through reduced landscape irrigation by replacing turf with water-wise landscaping and upgrading the existing wastewater treatment plant from secondary to tertiary treatment. The Zoological Society will also expand its water conservation outreach education, available at the Safari Park and online. This project promotes the Region's goals of improving supply reliability and sustainability, and protects water quality, watersheds, and natural resources.



Water Quality and Habitat

Project 11: San Diego River Healthy Headwaters Restoration. U.S. Forest Service's project implements a watershed-wide approach to invasive species removal (feral pigs, invasive weeds, and invasive aquatics), and restoration of impacted sites through decommissioning of unauthorized trails and campgrounds, installation of drainage improvements, and site rehabilitation in the San Diego River watershed. Altogether, the project components will improve 335 acres of habitat in the project area. These restoration efforts will help improve



hydrologic services that are currently negatively impacted by unauthorized recreation in the project area. Through habitat restoration and species removal, this project supports the Region's goals of protecting water quality, enhancing watersheds and natural resources, improving the reliability of regional water supplies, and supporting sustainable integrated water resource management. It also addresses key concerns in the San Diego River Watershed, including total dissolved solids, invasive species, and wildfire threats.

Project 12: Sweetwater Reservoir Wetlands Habitat Recovery. Sweetwater Authority's (SWA's) project will remove invasive species, and restore and rehabilitate approximately 112.7 acres of primarily riparian habitat near Sweetwater Reservoir, including 75 acres of Least Bell's Vireo habitat. A multi-channel design and bridge installation will spread river flow more evenly



and improve habitat quality in areas lacking sufficient hydrology. This effort will reestablish the river-floodplain connection and will enable full use of Sweetwater Reservoir to store an additional 7,873 AF water when available. Project partners include SDCWA, California Conservation Corps, and Urban Corps. This project supports the Region's goals of supply reliability, protection of natural resources, and sustainable integrated water resource management.

Project 13: Hodges Reservoir Natural Treatment System. The City of San Diego will create a biofiltration wetland at the Hodges Reservoir to treat seasonally degraded water quality in the reservoir. This project will address the water quality issues facing the reservoir that prevent full implementation of the Pumped Storage Project, which is a major element of SDCWA's Emergency Storage Project. The wetland will provide habitat,

and as water quality in the reservoir improves, additional recreational opportunities are likely to become available. Project partners include the Santa Fe Irrigation District, San Dieguito Water District, San Dieguito Valley Conservancy, and SDCWA. This project supports the Region's goals of water supply reliability, improved water quality, and sustainable integrated water resources management.