

OCWD'S GROUNDWATER REPLENISHMENT SYSTEM FINAL EXPANSION AND WATER PRODUCTION FLOW ENHANCEMENT

STATE PROGRAM: California Water Resources Control Board

ASSISTANCE RECIPIENT: Orange County Water District

ASSISTANCE AMOUNT: \$182 million



PROJECT DESCRIPTION

The Orange County Water District (OCWD) received a low-interest loan for approximately \$182 million from the CWSRF to use towards financing the construction of OCWD's Groundwater Replenishment System (GWRS) Final Expansion and Water Production Flow Enhancement projects. This important water reuse project will expand OCWD's existing 100 million gallons per day (MGD) GWRS to produce an additional 30 MGD drought-resistant water supply for its service area. The GWRS purifies wastewater from the Orange County Sanitation District (OCSD) that would otherwise have been discharged to the ocean and puts it through a three step advanced purification process consisting of microfiltration, reverse osmosis membranes and advanced oxidation process & ultraviolet light in combination with hydrogen peroxide. The project will also include constructing a pump station, two flow equalization tanks, rehabilitating pipelines, headwork modifications of incoming sources of wastewater, and expanding treatment capacities of the advanced recycled water purification facility. The result is high-quality water that's injected into a seawater intrusion control barrier and pumped to recharge basins where it naturally percolates into the Orange County Groundwater Basin managed by OCWD. It will also provide an additional 31,000 acrefeet per year drought-proof water supply at a lower cost than imported water. GWRS water accounts for up to one-third of the water that is annually put into the groundwater basin; an asset that provides up to 77 percent of the annual water needs for the region. Upon completion, the GWRS will be

The logo features a stylized white letter 'S' with a fish swimming inside it, set against a blue background with wavy lines.

Clean Water State Revolving Fund

recycling all of OCSD's reclaimable wastewater and will produce sufficient water for one million people. The anticipated date of construction completion for this project is approximately August 2023.

The total cost of the GWRS Final Expansion and Water Production Flow Enhancement projects are \$310 million. Customers will realize a total savings of nearly \$42 million over the life of the loan. In addition to the CWSRF loan, the OCSD's remaining costs will be paid for through a \$3.6 million grant from the California Department of Water Resources Integrated Regional Water Management grant program, a \$1.1 million grant from the U.S. Department of the Interior Bureau of Reclamation Title XVI Water Infrastructure Improvements for the Nation program, \$3.8 million in grant funding from Proposition 13, \$1.2 million in grant funding from Proposition 1's Water Recycling Program, and a \$135 million loan from the U.S. Environmental Protection Agency's Water Infrastructure Finance and Innovation Act program.

To read more about this case study, please visit <https://www.epa.gov/system/files/documents/2022-08/Funding%20Drought%20Resiliency%20Projects%20with%20the%20CWSRF.pdf>.