

Using Wastewater Optimization to Save Energy



Coachella Valley Water District (CVWD) was established in 1918 to protect and conserve water resources. Today, the District serves over 113,000 homes and businesses across 1,000 square miles of its service area within the Coachella Valley in Riverside County, California.

By meeting their community's water-related needs, CVWD has helped Coachella Valley become a vibrant hub for families and seasonal visitors. CVWD serves as a multifaceted agency that offers various services:



Irrigation and domestic drinking water



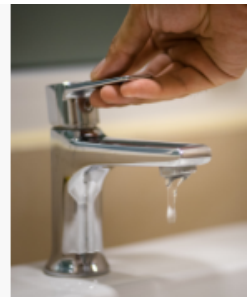
Collection and recycling of wastewater



Regional stormwater protection



Replenishment of the local groundwater basin



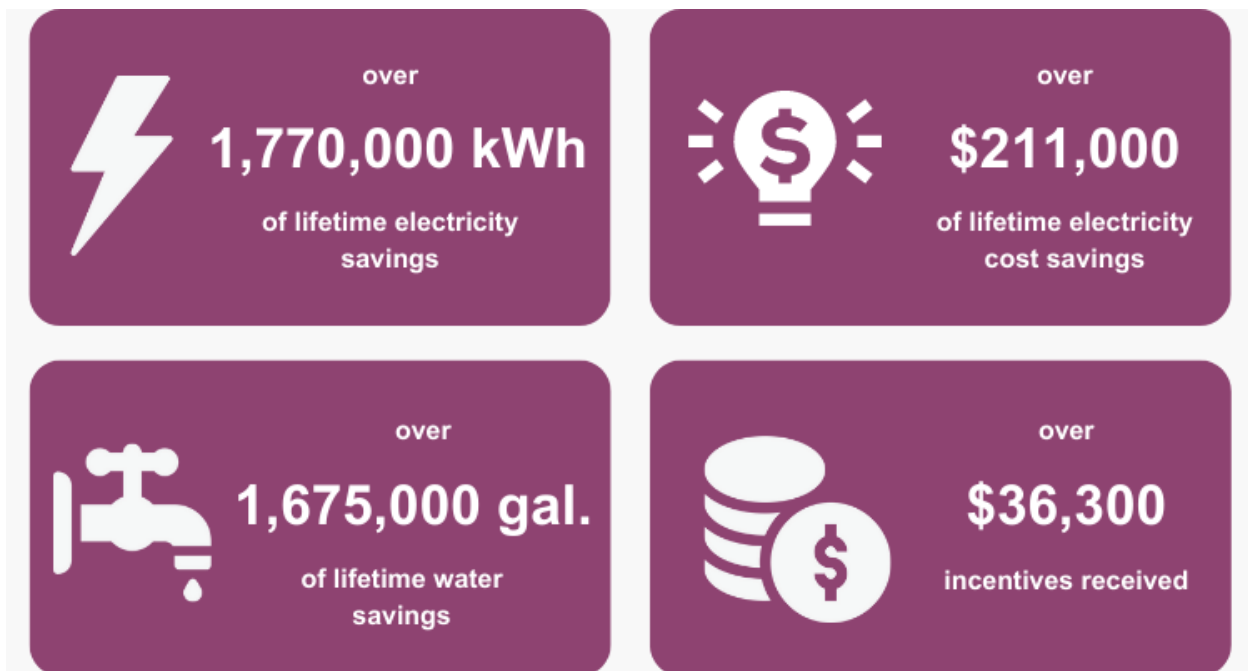
Campaigns and programs to promote water conservation

Coachella Valley Water District continually seeks to optimize its wastewater treatment system to operate efficiently. The District's Water Reclamation Plant (WRP-10) provides wastewater collection services for the businesses and residents in the Palm Desert area and has provided non-potable recycled water to several golf courses, homeowners associations (HOAs), and a high-school for decades.

Designed to speed up the natural process of filtering treated wastewater effluent, **wastewater treatment facilities** are vital resources that meet the water needs of local communities and keep water resources and the environment safe. By collaborating with SoCalREN, the District completed **ammonia based aeration controls** at their WRP-10 facility, using ammonia analyzers to prevent ammonia breakthroughs and increase staff's control of their treatment process and *ammonia effluent** levels. This measure also helped reduce dissolved oxygen levels by 36% in the aeration basins, which means aeration blowers can operate more efficiently to meet treatment operational requirements and save energy costs.

**Ammonia is a key component of the nitrogen cycle in streams. At high concentrations, it can be toxic to aquatic organisms. Ammonia effluent is a liquid waste product discharged into a natural body of water.*

Check out these impressive savings associated with the facility upgrade!



On top of the lifetime savings achieved, CVWD leveraged SoCalREN's no cost support services and expertise to **receive an incentive from Southern California Edison's Water Infrastructure and System Efficiency (WISE™) program amounting to \$36,318** to help fund this project.

SoCalREN expertise delivered:

- ✓ Navigated the facility's eligibility for energy incentives and funding opportunities
- ✓ Developed an energy audit to produce a detailed list of recommended energy efficiency measures and an in-depth financial analysis of the energy savings and project costs
- ✓ Coordinated with stakeholders and other programs to deliver streamlined, comprehensive project services
- ✓ Provided technical review and construction support to ensure energy savings were achieved

WRP-10 Chief Operator, Jose Pat Medina, was integral to achieving this project, using SoCalREN as an extension of his staff and putting his trust in our engineering analysis and project management.

Read what one of Jose's team members has to say about working with SoCalREN!

"Thank you to everyone involved in helping CVWD achieve energy savings on a great project. We stayed the course and worked hard together! I appreciate everyone's patience and determination to complete this project successfully."

- Mike Garcia, Assistant Director of Operations Sanitation

We're honored to support Coachella Valley Water District's mission to provide its customers with high-quality water services at a reasonable cost. We look forward to witnessing their progress and efforts in future projects with SoCalREN!

Are you interested in implementing a similar project? Reach out to your SoCalREN Project Manager to get started. Don't have a SoCalREN Project Manager? No worries! Fill out the registration form at socalren.org/join to get started.