

Pioneering Recycling Program Quenches California's Thirst For Agricultural Water

With its innovative Harvest Water program, the Sacramento Area Sewer District supports Central Valley growers, thereby supporting the nation.

By Christina Romano, Keith Corcoran, and Mike Crooks

In the heart of California's Central Valley, a significant project is creating a blueprint for sustainable water management and collaboration in agriculture. The Sacramento Area Sewer District (SacSewer) is implementing what may be California's most ambitious agricultural water recycling program to date: Harvest Water.

Declining groundwater levels have impacted water sustainability in the region. This program will allow the use of recycled water instead of pumped groundwater for irrigation, raise local groundwater levels by up to 35 feet over 15 years, and increase groundwater storage by approximately 370,000 acre-feet.

Turning A Vision Into Reality

The story of Harvest Water began in 2004, when SacSewer set a long-term goal to increase recycled water deliveries by up to 40 MGD. A recycled water opportunities study completed in 2007 identified an agricultural use option originally known as the South County Ag Project, which eventually evolved into the Harvest Water program.

Bringing this visionary program to life requires more than just technical expertise — it demands collaboration and financial support. SacSewer worked with Woodard and Curran and the Freshwater Trust as part of the Administrative Program Management Office to plan, permit, and fund the program. This included securing a \$291.8 million Proposition 1 grant through the Water Storage and Investment Program (WSIP) and a \$30 million grant from the U.S. Bureau of Reclamation Title XVI Water Reclamation and Reuse Program.

A Rising Tide Lifts All Boats

The benefits of Harvest Water extend across the ecosystem:

- More than 5,000 acres of riparian and wetland habitat will be enhanced.
- Threatened species, like the Swainson's hawk, sandhill crane, and giant garter snake, will find new sanctuaries.
- The Consumnes River will see an increased duration of instream flows due to restored groundwater connectivity, supporting fall-run Chinook salmon.

A Drop Of Hope In A Dry Land

When complete, this \$597 million program will supply up to 50,000 acre-feet per year — approximately 16 billion gallons of water — of drought-resistant, recycled water to local growers to irrigate more than 16,000 acres of agricultural lands.

The journey of this recycled water begins at the recently upgraded EchoWater Resource Recovery Facility, the second-largest tertiary treatment facility of its kind in the country. Thanks to the \$1.7 billion upgrade, including \$500 million in construction projects designed by Carollo, this facility now produces disinfected

tertiary recycled water suitable for unrestricted use.

In 2020, SacSewer hired a joint venture team of Carollo, and Brown and Caldwell to provide capital program management services. This team, part of SacSewer's Capital Program Management Office (C-PMO), is overseeing the design and construction of Harvest Water's capital projects, including:

- A high-capacity, 105-MGD pump station.
- 42 miles of pipelines ranging from 12 to 66 inches in diameter.
- More than 100 on-farm connection assemblies.

Building Bridges, Not Just Pipelines

What sets Harvest Water apart isn't just its scale or innovation — it's the partnerships forged along the way. More than 100 growers have already signed letters of intent to receive water from the program — a testament to SacSewer's community-focused approach.

Scott Parker, a senior vice president at Carollo and a local grower, has been instrumental in bridging the gap between the growers' needs and the engineers' recommendations. Scott has worked with public relations liaisons to meet with every grower and discuss specifics, including details such as exactly where water will enter each customer's property. This dedication to personally connecting with each grower has been critical to gaining consensus from the agricultural community. Said Parker: "We're not just managing water. We're cultivating trust."

Construction is now in full swing, with five of the eight capital projects already awarded to contractors. Pipelines are currently being laid, and the pump station construction team has mobilized on site. SacSewer anticipates that the first drop of water will be delivered in early 2027.

Further information on the Harvest Water program can be found at www.SacHarvestWater.org.

About The Authors



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