

Fresno Area Member Agencies Collaborate on Water and Climate Resiliency, Recharge and Reliability

PROJECT FACTS

Overview

The Upper Kings River Community Water and Climate Resiliency Program will provide needed community water supply and climate resiliency through the construction of 3,300 acres of basins.

Highlights

- Improves water supply reliability to an area that includes 79 disadvantaged communities
- Provides 450,000 acre-feet annually of groundwater recharge
- Includes environmental enhancement for wildlife habitat and waterfowl

Costs and Economic Benefit

- Phase 1 – \$180 million
- Phase 2 – \$150 million
- Creation of 330 jobs
- Positive economic impact of \$600 million



Multi-beneficial use describes the gold standard sought and attained by many ACWA member agency projects, and one currently taking shape in the Central Valley exemplifies the concept on several levels.

In a coordinated effort to secure water supplies amid sporadic drought conditions and groundwater declines, the Alta, Consolidated and Fresno irrigation districts launched the Upper Kings River Community Water and Climate Resiliency Program. The initiative, covering more than 650,000 acres, is designed to capture surface water in wet years and recharge critical groundwater supplies for use during dry periods — benefiting over 733,000 people in an area that also includes 79 disadvantaged communities potentially impacted by water quality and quantity challenges, including dry wells.

The program will create 3,300 acres of recharge basins across the region in two phases. Phase one, already underway, covers 1,800 acres at a projected cost of \$180 million

and is expected to provide 250,000 acre-feet of underground water storage. Phase two will add 1,500 acres of recharge basins at a cost of \$150 million, delivering an additional 200,000 acre-feet of recharge capacity. Full buildout is expected over the next 10 years, said Kassy Chauhan, Special Projects Manager at Fresno Irrigation District and Executive Officer of the North Kings Groundwater Sustainability Agency.

“Groundwater has long been our lifeline, and this project is really about ensuring we capture every drop when it’s available,” Chauhan said. “By pooling resources across district lines, we’re creating a regional solution that goes far beyond what each district could do individually.”

The Sustainable Groundwater Management Act, or SGMA, acted as a catalyst for discussions between the three districts, which happen to be among the earliest ACWA members, with Alta Irrigation District being one of ACWA’s founders.

The collaborative effort is being led by Alta Irrigation District General Manager Chad Wegley, Consolidated Irrigation District General Manager Phil Desatoff and Fresno Irrigation District General Manager Bill Stretch. Talks started in 2021, during the thick of the pandemic, with district leaders connecting with each other about how to combine and scale up their existing conjunctive use and groundwater recharge efforts into a regional effort offering multiple benefits from the planned projects.

The ongoing work to carve out recharge basins is funded through a combination of local, state and federal grants, including SGMA implementation grants. Of course, groundwater recharge is nothing new in the Central Valley, where irrigation districts have practiced it for over a century. But this collaboration has become a classic example of a sum being greater

than its parts and also maximizes optimal conditions within its area.

Desatoff described how sandy soil within his district was ideal for groundwater recharge using releases from Pine Flat Reservoir.

“We’re capable of putting hundreds of thousands of acre-feet in the ground per year,” Desatoff said, adding that the program allows them to accelerate existing recharge work.

During 2023, more than 500,000 acre-feet were recharged within the Kings Subbasin, which includes the Alta, Consolidated and Fresno irrigation districts.

The Upper Kings River Community Water and Climate Resiliency Program stands out for its size and scale within California. The exact number of similar groundwater

projects in California is unknown, but the Department of Water Resources (DWR) review of groundwater sustainability plans and management actions indicate that more than 290 recharge projects are either in progress or planned within medium and high priority basins, according to DWR SGMA Technical Assistance Manager Steven Springhorn.

“However, many are smaller, individual projects — projects of this size, scale, and level of coordination are rare,” Springhorn stated by email, adding that “This project stands out among others not only in size, scale, and expected benefits for communities in the region, but also as an example of successful regional coordination and partnerships that maximize and enhance benefits to the subbasin.” ♦

Opposite page: An aerial photograph shows a groundwater recharge basin completed within Fresno Irrigation District as part of the Upper Kings River Community Water and Climate Resiliency Program.

Left: A concrete pumper lines a new check structure and basin turnout to serve the Kenneson & Sanchez Basin located near Kerman, part of a large-scale, two-phase project that will eventually facilitate storage for nearly a half-million acre-feet of groundwater.

Right: The Upper Kings River Community Water and Climate Resiliency Program is creating an estimated 330 jobs in the Fresno area, driving a regional economic impact of \$600 million.

Photos courtesy of Provost & Pritchard Consulting Group

