

ACCELERATING GROUNDWATER RECHARGE

An affordable and practical water management tool



WHAT IT IS

Sustainable Conservation and its partners are leading a project that puts into practice an affordable and practical water management tool – onfarm groundwater recharge using floodwater and other available surface water – that can be used to move groundwater basins on the east side of the San Joaquin Valley (San Joaquin County to Kern County) toward a sustainable balance of groundwater pumping and replenishment.

The project enlists the support of farmers, industry groups, water districts, researchers, agencies, and food and beverage corporations to help ensure the continuity of our Golden State water supply for the environment and people. This work benefits agriculture, community drinking water, improved groundwater quality, and flood protection for rural communities.

WHY IT'S NEEDED

Long-term groundwater overdraft and years of drought in the San Joaquin Valley are threatening the reliability of drinking water for local communities and irrigation water for crop production.

Additionally, the new California Sustainable Groundwater Management Act (SGMA) requires local Groundwater Sustainability Agencies (GSAs) to develop plans to manage groundwater supplies to ensure long-term sustainable yields. Replenishing depleted groundwater supplies will be essential to achieving this balance.

The current default for groundwater recharge – dedicated recharge basins – is costly, and would require the purchase and retirement of many additional acres of productive land in order to capture the infrequent but large flood flows needed to achieve balance. *(continued)*

RESOURCES

groundwaterrecharge.org suscon.org/technical-resources

SUPPORTERS AND PARTNERS

- Almond Board of California
- Bank of America Foundation
- S. D. Bechtel, Jr. Foundation
- Bonneville Environmental Foundation
- California Department of Food and Agriculture
- California Department of Water Resources
- California State University Fresno - California Water Institute
- Clarence Heller Foundation
- Coca-Cola North America
- Earth Genome
- General Mills Foundation
- Miller-Coors
- Kings River Conservation District
- Laguna Irrigation District
- Madera Irrigation District
- North San Joaquin Water Conservation District
- Pacific Gas and Electric Company
- Rosedale-Rio Bravo Water Storage District
- Seaver Institute
- Tulare Irrigation District
- University of California Cooperative Extension
- University of California Davis
- Water Foundation
- Wells Fargo Foundation

LEVERAGING KNOWLEDGE AND PARTNERSHIPS FOR GROUNDWATER RECHARGE

Decision support tools

Demonstration projects and field assessment

Outreach and promotion

Policy engagement

Increased farmer acceptance of on-farm recharge

GSA inclusion of on-farm recharge in sustainability plans

State and Federal agency support

Widespread implementation of on-farm recharge

GROUNDWATER RECHARGE AT SCALE

SHORT-TERM ACTIONS

LONG-TERM ACTIONS

ABOUT SUSTAINABLE CONSERVATION

Sustainable Conservation helps California thrive by uniting people to solve the toughest challenges facing our land, air and water. Every day, we bring together business, landowners and government to steward the resources that we all depend on in ways that make economic sense. Since 1993, we've pioneered working with, not against, California industries to make clean air and water, thriving wildlife and a healthy climate business as usual.

suscon.org



On-farm recharge is an innovative solution to get water into the ground without taking agricultural land out of production. Accelerating the replenishment of groundwater supplies through on-farm recharge can also reduce the need of GSAs to restrict groundwater pumping.

Access to information and decision support tools about the feasibility of on-farm recharge will enable GSAs to consider, adopt, and justify this solution as a cost-effective and immediate option to include as part of their Groundwater Sustainability Plans.

WHAT WE'RE DOING

The project is enlisting farmers with previous experience applying available floodwater on their cropland in excess of the crop's water demand, along with farmers who are willing to use available floodwater to accelerate groundwater recharge.

Field experience and monitoring from these farmers' lands will assist in developing needed scientific information about the acceptable timing, duration and amount of water that can be recharged under different cropping systems without affecting water quality or crop health.

The project findings will be used to develop decision-support tools to guide other farmers in assessing the viability and suitability of their lands and crops for on-farm recharge, and enable Groundwater Sustainability Agencies (GSAs) to assess how on-farm recharge can contribute to achieving groundwater sustainability goals.

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