

WESTERN WATER SUPPLY RESILIENCY AQUIFER STORAGE AND RECOVERY

ISSUE: Funding is needed to support innovative Aquifer Storage and Recovery projects to improve local groundwater storage and recovery in areas where soil is not suitable for conventional groundwater recharge methods.

OVERVIEW: Aquifer Storage and Recovery (ASR) is a water management technique used to store excess surface/flood water in the aquifer for recovery during dry periods when water demand is high. Implementing ASR using agricultural wells is an innovative method that helps manage current and future groundwater use to achieve sustainability and support the resiliency of the Tulare Lake Subbasin in California's Central Valley.

HOW IT WORKS: Available surface/flood water is injected into the aquifer through the well, stored, and extracted when needed for beneficial use during dry periods. ASR is more commonly used in urban areas but has great potential as an agricultural water management strategy.

FUNDING NEEDS & REGIONAL SCALE

INDIVIDUAL AG WELL: \$124,500 - \$618,000

LOCAL GSA* PROGRAM LEVEL (8 WELLS): \$996,000 - \$4,944,000

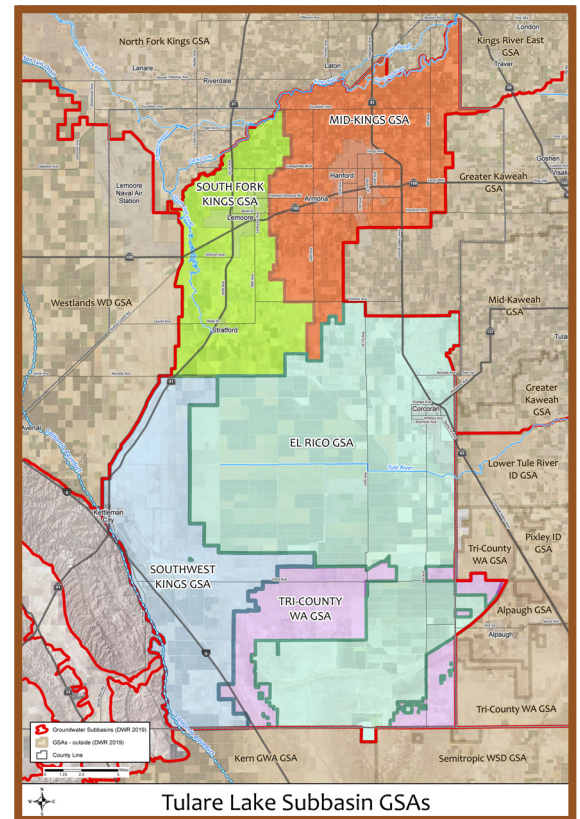
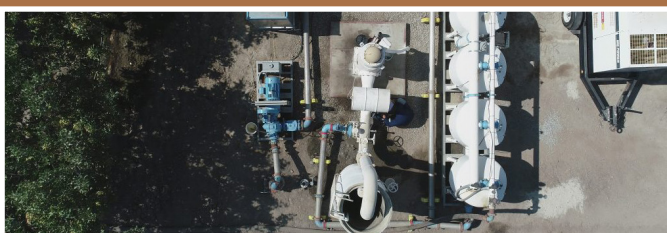
*Groundwater Sustainability Agency

Funding to implement ASR is variable, dependent on participating agricultural wells' specifications. The South Fork Kings *Groundwater Sustainability Agency (GSA) plans to scale ASR to 8 wells to help achieve sustainability under CA's Sustainable Groundwater Management Act (SGMA). Regionally, other Tulare Lake Subbasin GSAs lacking recharge-suitable soils are considering ASR as a groundwater sustainability strategy.

PILOT STUDY

The South Fork Kings GSA is conducting an ASR pilot test to evaluate the technology. Early indications are showing success. A programmatic CEQA document will be prepared by mid-2022 to present guidelines for performing full-scale ASR projects by late 2022.

[Video: www.southforkkings.org/ASR](http://www.southforkkings.org/ASR)



ASR KEY BENEFITS

- Mitigates drought impacts in Central Valley areas lacking suitable soil for traditional groundwater recharge methods
- Water injection targets specific aquifer zones ideal for storage and recovery. Maximizes every drop of water.
- Increases flood water capture for groundwater recharge, offsetting groundwater use and replenishing supplies, a priority under CA's SGMA law
- Localizes water storage in the aquifer for individual agricultural users to efficiently manage groundwater with limited to no impacted on surrounding users