FUNDING REGIONAL WATER RESILIENCE

Investing in the American River Region to Improve Statewide Water Reliability

Climate change is projected to have far-reaching implications on how California and the Sacramento region manage water supplies for both people and the environment.

In the American River watershed, modeled temperatures are projected to increase 4 to 7 degrees by 2070, precipitation will fall as rain rather than snow, and snowmelt runoff will peak earlier in season. This will have significant impacts on Folsom Reservoir and the region’s water resources as the reservoir is used more often for flood protection, and its ability to store water diminishes.

To address these challenges, local water managers have identified a comprehensive Water Resilience Portfolio that encompasses the mountain tops of the American River watershed to the valley floor that includes a suite of projects all focused on addressing increasing threats of flood, fire, and drought. Central to the region’s Water Resilience Portfolio are two projects that can significantly increase the region’s conjunctive use program and its ability to capture and store excess water when it’s available: the Sacramento Regional Water Bank (Water Bank) and RiverArc.

Investing $200 million in the Sacramento region’s conjunctive use program will provide an environmentally-friendly, drought- and climate change-resilient supply of approximately 100,000 acre-feet annually.

The Water Bank is an innovative groundwater storage and recovery program that, by 2030, will allow local water providers to store over 90,000 acre-feet of water during wet years using existing and planned facilities. During a dry year, much of that stored groundwater could be recovered, allowing more lake and river water to be available for the environment of the lower American River or other beneficial uses elsewhere in the state. This operational change would represent over 50 percent of urban groundwater use in the region being conjunctively managed. As an added benefit, facility improvements can be accomplished stepwise based on available funding because the Water Bank is scalable—the greater the investment, the greater the potential yield. In this way, every dollar invested is a guaranteed return.

Conjunctive use is the coordinated use of surface water and groundwater. In wet years, water providers use more surface water (allowing the groundwater basin to recharge), and in dry years, they use more groundwater (leaving more water in lakes, rivers, and streams for the environment).
Local water suppliers are committed to preserving water in Folsom Reservoir for habitat needs in the lower American River in the summer and fall. The RiverArc project would provide a low-impact diversion from the Sacramento River instead of the vulnerable environment of the lower American River and would expand the years when groundwater could be banked. RiverArc is planned to use an existing water supply diversion on the Sacramento River, thus no new construction along the riverbank is necessary. This project will provide flexibility for the region to meet water supply needs in the most environmentally friendly manner.

Both of these projects have a foundation in the Water Forum Agreement, the Sacramento region’s 20-year old voluntary agreement and track record for applying science and innovative management practices to balance water supply reliability with ecosystem health on the lower American River.

Now, California has the opportunity to invest in these projects through a climate resilience general obligation bond. Investing in conjunctive use here can be a win-win, providing resilience not only in the region but also statewide.

The American River watershed is a significant source of the state’s water supply system, providing on average approximately 8 percent of human water use statewide. Yet, 90 percent of the water flowing from the watershed is used beyond the watershed. That means that every drop of water produced or stored here through conjunctive use has the potential to provide multiple cascading benefits for the environment and water supplies of the Sacramento-San Joaquin Delta and communities downstream.

Investing just $200 million in bond funding to enhance the region’s conjunctive use program could provide approximately 100,000 acre-feet of water annually to serve local and statewide water supply and environmental needs.

Conjunctive use and associated projects are supported in the Governor’s Water Resilience Portfolio, which identifies moving more water into groundwater storage as a key adaptation strategy and seeks to make funding available for groundwater recharge projects with multiple benefits.