THE WATERSHEDS RESILIENCE PLAN

WATER FUTURE

Preparing the American, Bear, and Cosumnes Watersheds for a Changing Climate

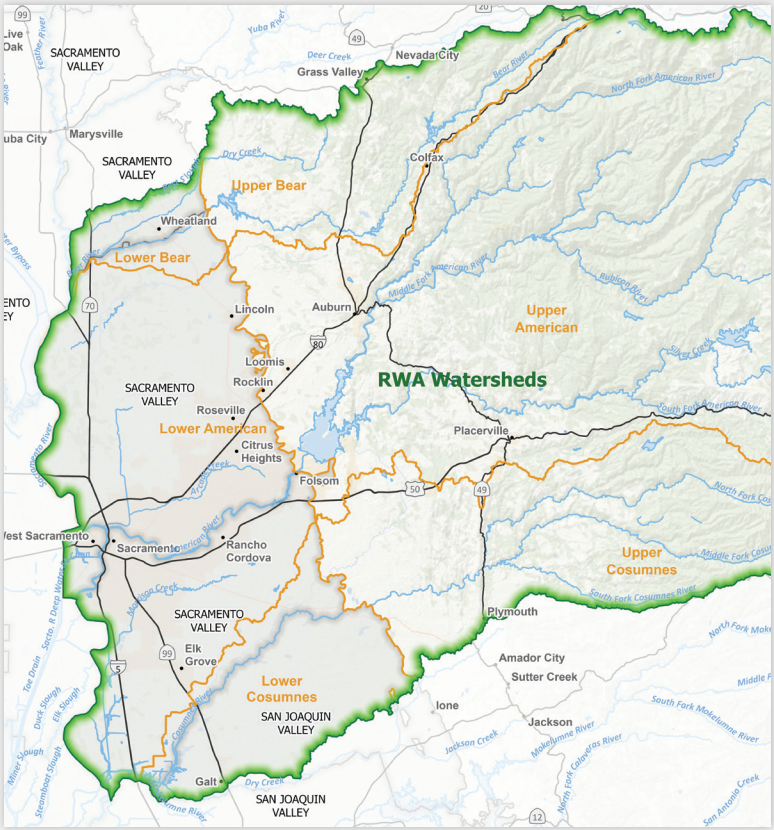
For generations, snow that falls in the Sierra Nevada has fed the American, Bear, and Cosumnes rivers—flowing through forests and foothills, filling reservoirs, recharging groundwater, sustaining fish and wildlife, and supplying communities across the Sacramento region.

This connected system, stretching from mountain forests to valley groundwater, supports farms, cities, recreation, and ecosystems throughout the region.

But the watersheds are changing.

Snowpack is declining. Wildfire is reshaping forests. Storms are becoming more intense. Summers are getting hotter. These changes are altering how water moves through forests, rivers, reservoirs, and groundwater basins.

Recognizing these risks, the California Department of Water Resources selected the Sacramento region as one of five statewide Watershed Resilience Pilot Projects.



Led by the Regional Water Authority, the project brings together water agencies, tribes, local governments, nonprofits, and community partners to better understand climate risks and identify strategies to strengthen watershed resilience.

Confronting Flood, Fire, Drought, and Extreme Heat

Across the American, Bear, and Cosumnes watersheds, climate change is already intensifying major hazards:

- **Snowpack decline and shifting runoff patterns** affecting water supply reliability
- **More intense winter storms** increasing flood exposure
- **Growing wildfire impacts in upper watershed forests** that influence water quality and storage
- **Rising temperatures and extreme heat** affecting communities and ecosystems

These changes are interconnected. Forest health affects water quality. Runoff timing affects reservoir operations. Flood systems protect communities downstream.

Taken together, the findings show a watershed system under increasing pressure—and the importance of coordinated action across the region.

Vulnerabilities Across the Watersheds

The pilot conducted a comprehensive vulnerability assessment examining how climate change is likely to affect the watershed system, including water supply, groundwater, ecosystems, flood management, recreation, hydropower, and communities.

Key findings include:

- **Water Supply:** Earlier snowmelt and shifting runoff reduce late-season water availability and increase reliance on groundwater.
- **Flood Risk:** More intense storms increase peak river flows and expand flood exposure in lower-elevation communities.
- **Water Quality and Ecosystems:** Warmer rivers and increased wildfire risk place additional stress on aquatic habitats and watershed health.
- **Communities:** Extreme heat is projected to increase across most of the region, with the greatest impacts on vulnerable communities.

These findings reinforce that climate risks extend across the entire watershed—from forests in the Sierra to rivers, reservoirs, and groundwater basins serving the Sacramento region.

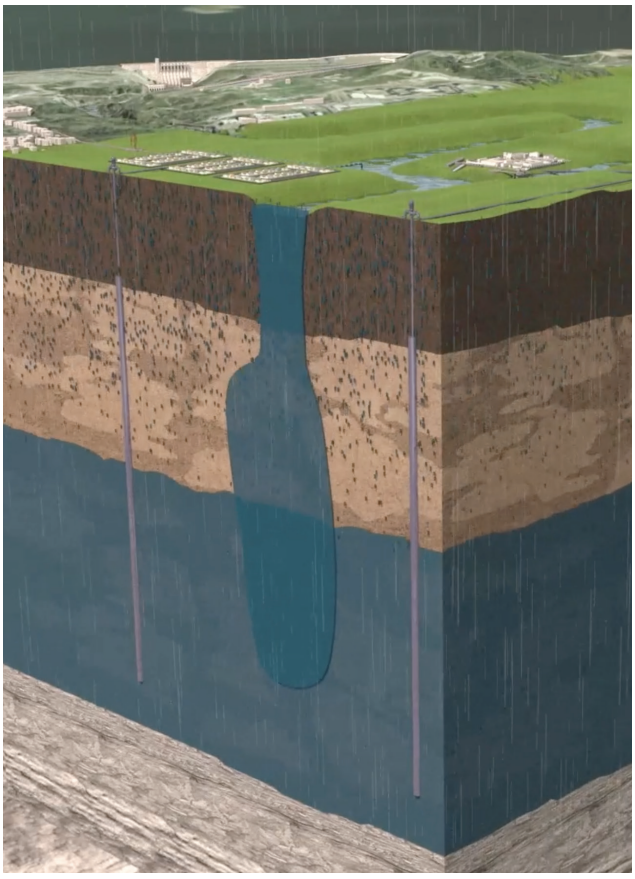
From Science to Action

The Watershed Resilience Plan translates climate science into a practical framework for action. The plan includes **19 watershed adaptation strategies, over 130 potential adaptation actions, and a decision framework** for identifying and prioritizing implementation projects.

Strategies focus on areas such as:

- Watershed and forest restoration
- Groundwater recharge and conjunctive use
- Flood risk reduction
- Water quality protection
- Climate-resilient infrastructure
- Community resilience and disaster preparedness

Together, these strategies provide a roadmap for strengthening watershed resilience over time.



Moving Forward Together

The Watersheds Resilience Plan offers a shared path for turning climate science into action by helping the region:

- Identify high-priority realistic watershed investments
- Align projects across agencies and jurisdictions
- Strengthen collaboration across the watersheds
- Compete for state and federal resilience funding

Together, these strategies provide a roadmap for strengthening watershed resilience over time.

RWA
Regional Water Authority
BUILDING ALLIANCES IN NORTHERN CALIFORNIA

LEARN MORE

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