







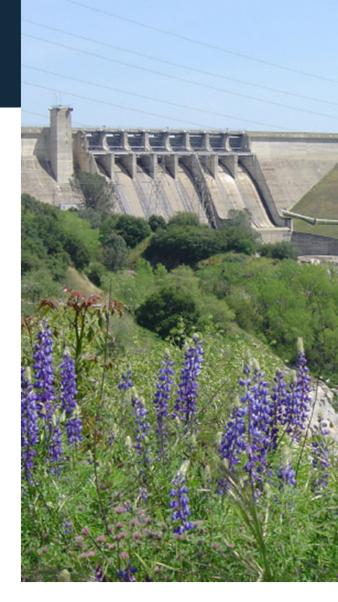




Agenda



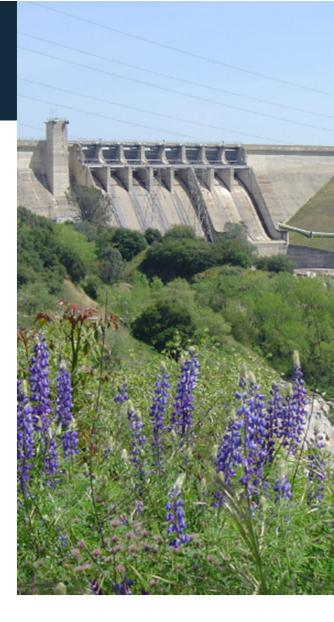
- Regional Water Authority (RWA)
 - Who we are! & What we do!
- Regional Water Landscape
- Sacramento Regional Water Bank
- Aquifer Storage & Recovery



Agenda



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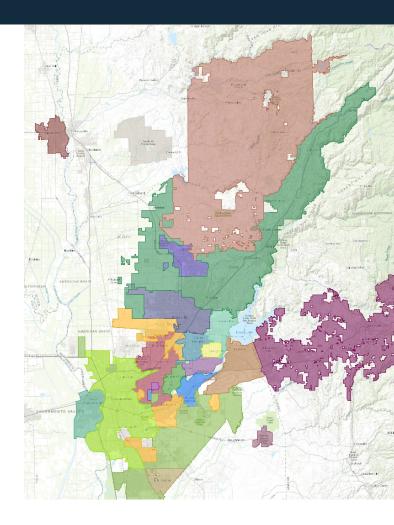
RWA - at a glance



RWA's mission

"To serve and represent the interests of regional water providers and stakeholders for the purpose of improving water supply reliability, availability, quality and affordability."

- Founded in 2001 24th year
- Joint Powers Authority of 22 water providers
- Serving 2.1 million people



What we do!



- Advocacy & Representation
- Regulatory Matters
- Leading Subscription Programs & Project Management
 - Healthy Rivers and Landscapes
 - Groundwater Bank
- Grant Management
- Groundwater Sustainability Plan



Who we are!

- Currently 9 multi-disciplinary staff
- Combined staff experience at RWA and/or within the region equals more than 85 years
- Background & experience as:
 Engineers, Lobbyist, Hydrogeologist,
 Environmental Scientist, Certificated
 Public Account, Attorney, Certified
 Board Clerk, & Water Planners
- Prior work experience in Local, State, and Federal government and private consulting



RWA Value



- Local Water Agency Advocacy policies/positions on emerging and new water law & regulations
- Special Projects (ex. joint purchasing program, etc)
- Regulatory Assurances (ex. BiOps, Heathy Rivers & Landscapes, etc)
- Grant Acquisition & Management (\$175 Million)
- Regional Water Reliability Planning
- Water Banking
- Water Use Efficiency
- Water Transfers
- Provide leadership roles in statewide & other regional advocacy groups



Agenda



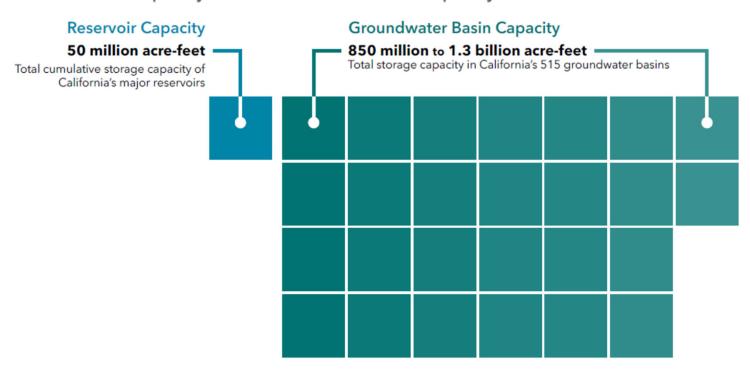
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Potential for Groundwater Storage



Figure 5 Reservoir Capacity vs. Groundwater Basin Capacity



California's 515 groundwater basins can store far more water than the state's reservoirs combined. Overall groundwater storage outstrips surface storage even after taking into account that less than half the groundwater is available for use by people because it is either too deep to be pumped economically or of poor quality.

Optimizing our regions water resources





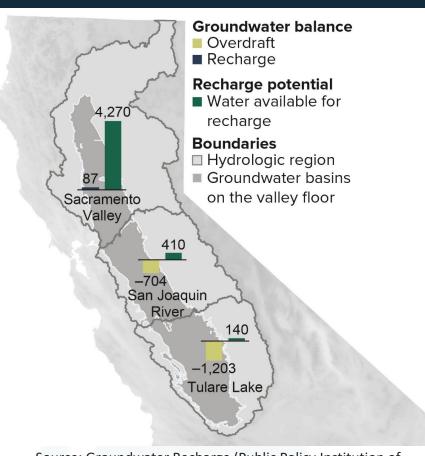
Our current water system is not equipped to handle loss of snow pack

Potential for Storage



 "...we recognize that more smart storage is important. By smart storage, certainly we mean underground storage. We know we have a lot of capacity in our underground aquifers. We need to do more to get these winter rains, these winter storms, flows underground..."

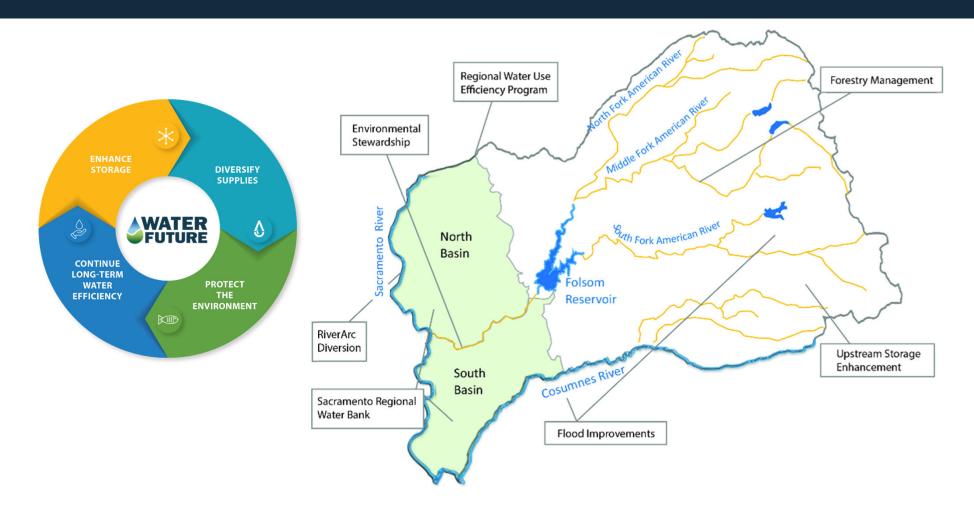
Wade Crowfoot, Ca.
Natural Resources Agency Secretary



Source: Groundwater Recharge (Public Policy Institution of California) August 2021, Escriva-Bou, Sencan, Hanak

A 21st-Century Water System

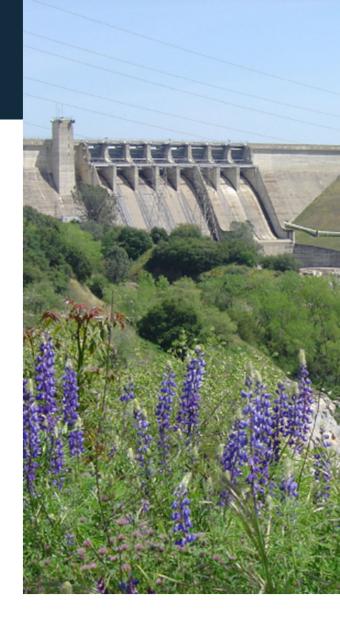




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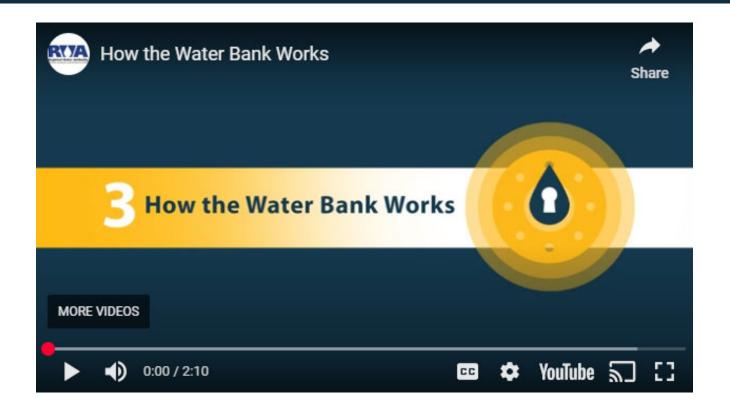


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Sacramento Regional Water Bank





https://youtu.be/qhBjD1x7bX0

Groundwater Recharge

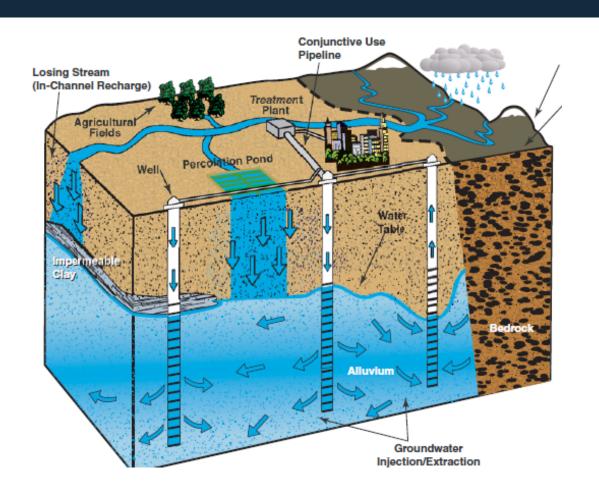


Natural Recharge

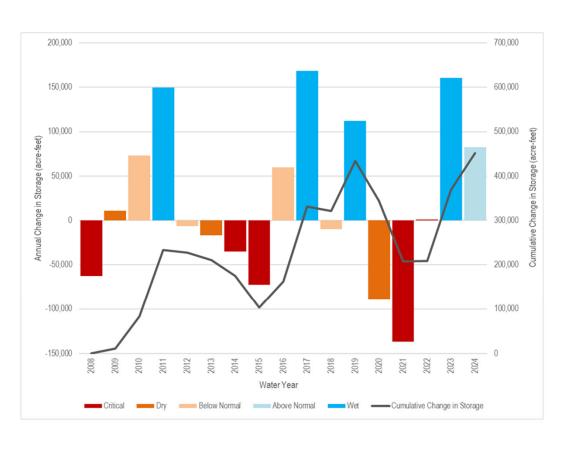
- Stream and Creeks
- Mountain Front
- Rain Direct Percolation

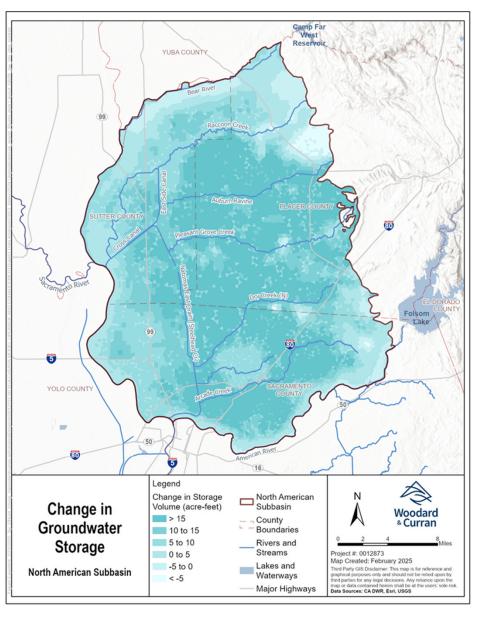
Artificial Recharge

- Direct Recharge
 - Injection Wells
 - Percolation Ponds
- In-Lieu Recharge
 - Storing water by utilizing surface water "in-lieu" of pumping



Annual & Cumulative Change in Groundwater Storage





Conjunctive Water Management

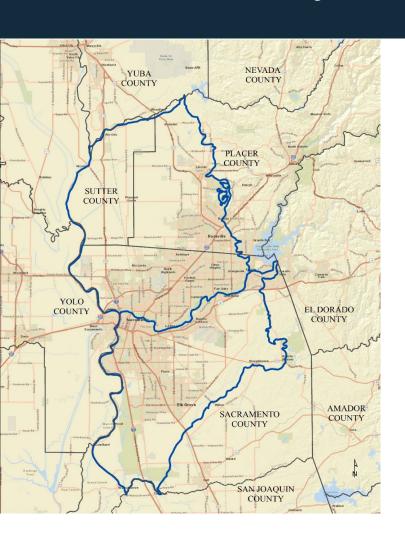




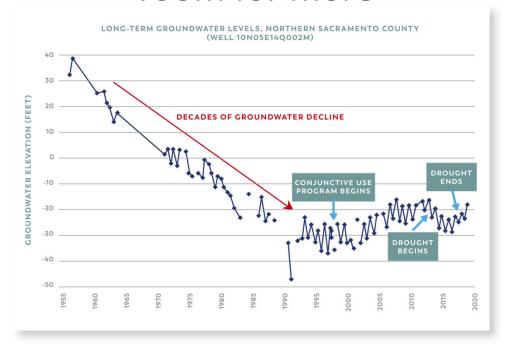


Results of Conjunctive Water Mgt.



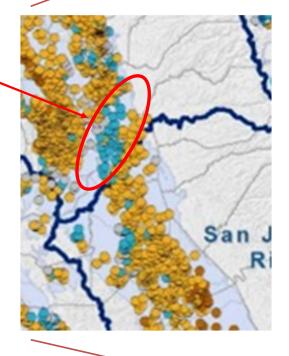


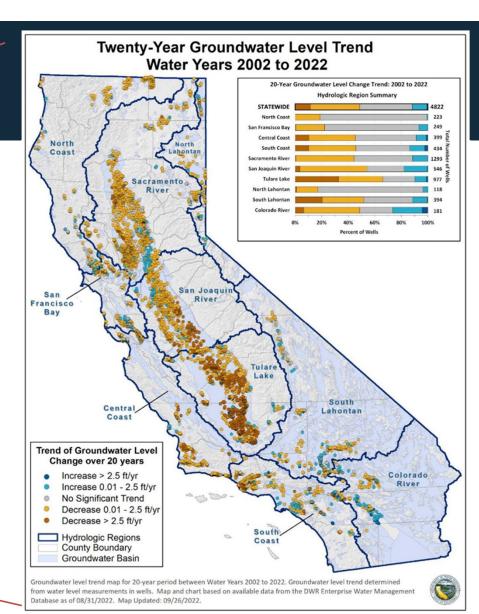
We have already seen success through conjunctive use, and there is plenty of room for more



Statewide Groundwater Level Trends

RWA Region



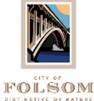


Sacramento Regional Water Bank Participating Agencies





























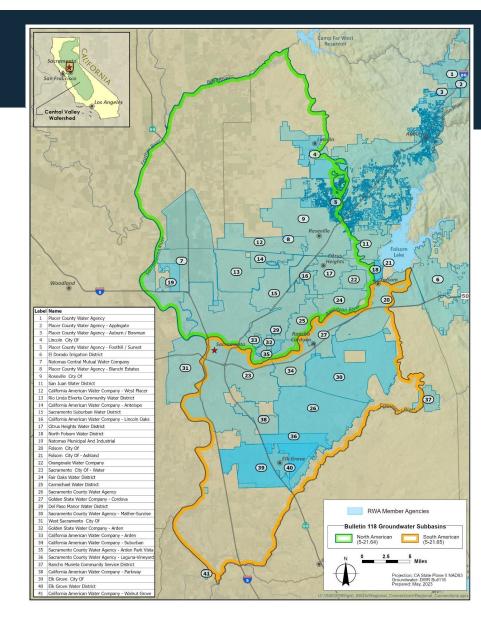








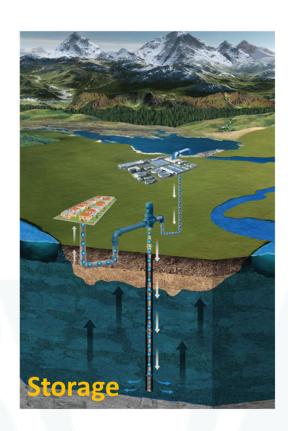


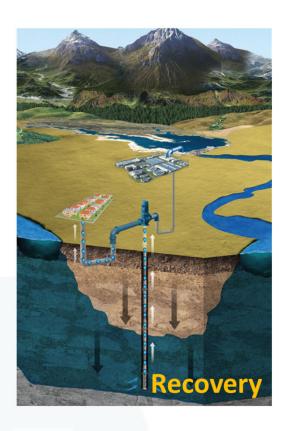


What is a Water Bank?



- Water banks recharge and store water underground on behalf of specific parties
- Water banks require formal accounting systems to keep track of balances
 - Balances are drawn down during dry times, as water is withdrawn
 - Balances increase during wet times, as water is deposited





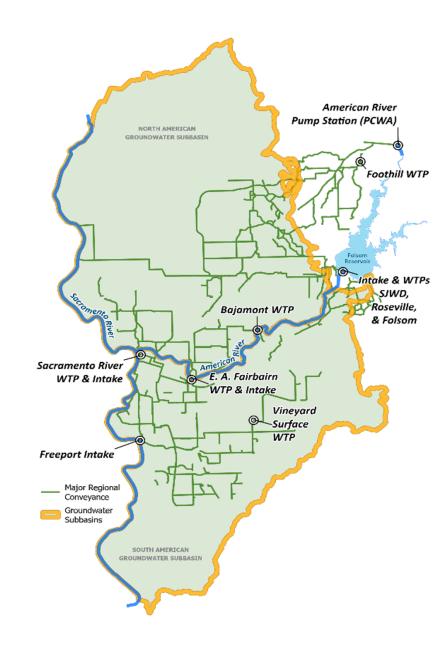
https://youtu.be/qhBjD1x7bX0

Water Bank – Existing Facilities

Existing facilities would be used to:

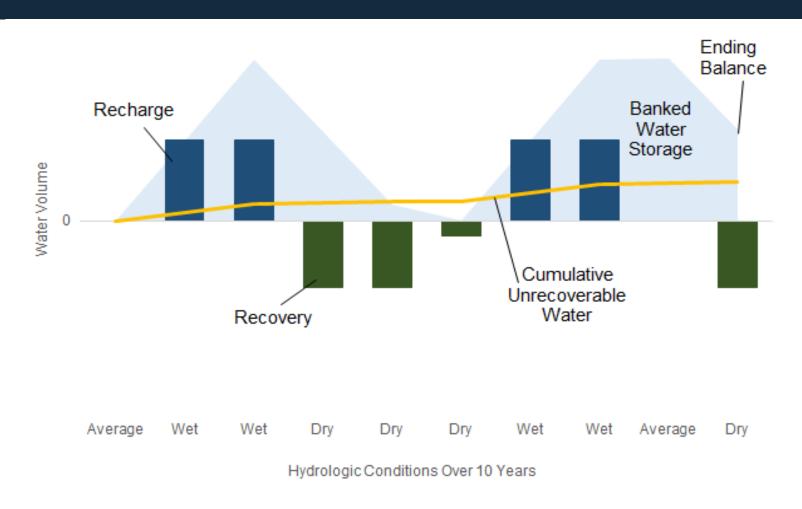
- Recharge/Storage:
 - Divert surface water
 - Treat surface water for use by participating agencies and/or injection into aquifer, using aquifer storage and recover wells
- <u>Recovery:</u> Pump previously banked groundwater for use by Participating Agencies, to serve their customers

Note: facilities shown are subject to change



Recharging, Storing, and Extracting Banked Water

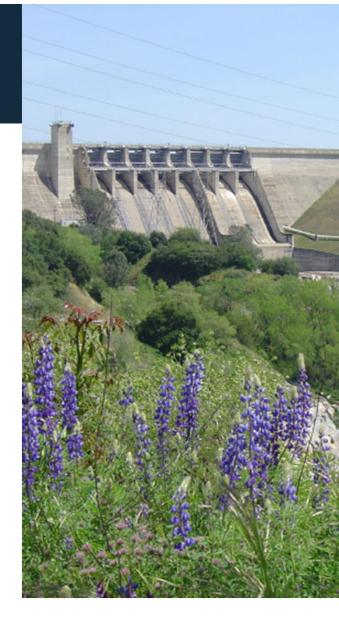




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Aquifer Storage & Recovery – City of Roseville Reporting and Accounting





Recharged

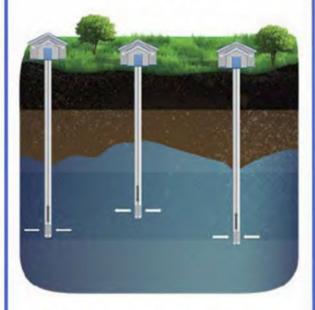


Approximately 3,933 Acre Feet

From January 1, 2019 Through December 31, 2024

ASR

Stored Water



Total: Approximately <u>1,717</u> Acre-Feet in Storage

Extracted

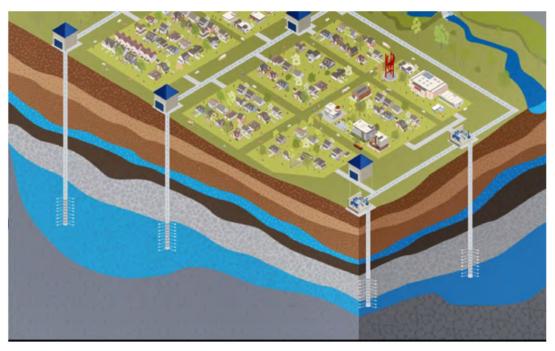
Recovered

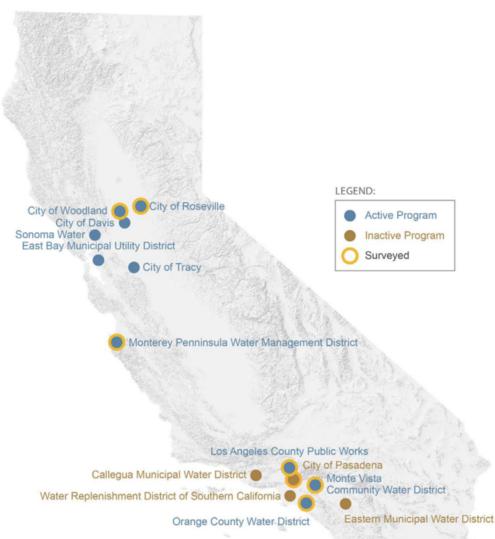


Approximately 2,216 Acre Feet

From January 1, 2019
approximately 280 acre-feet has been extracted to the City's stormwater system for ASR maintenance and approximately 1,936 acre-feet has been extracted and served to the City's distribution system

Aquifer Storage & Recovery – Statewide Programs





CHWD ASR Well Updates

Well #7:



Contractor is mobilizing for construction on all above-ground facilities (completion in early 2026)

Well #8:

Drilling underway for a 20-inch diameter ASR well (approx. depth of 445 feet)



