

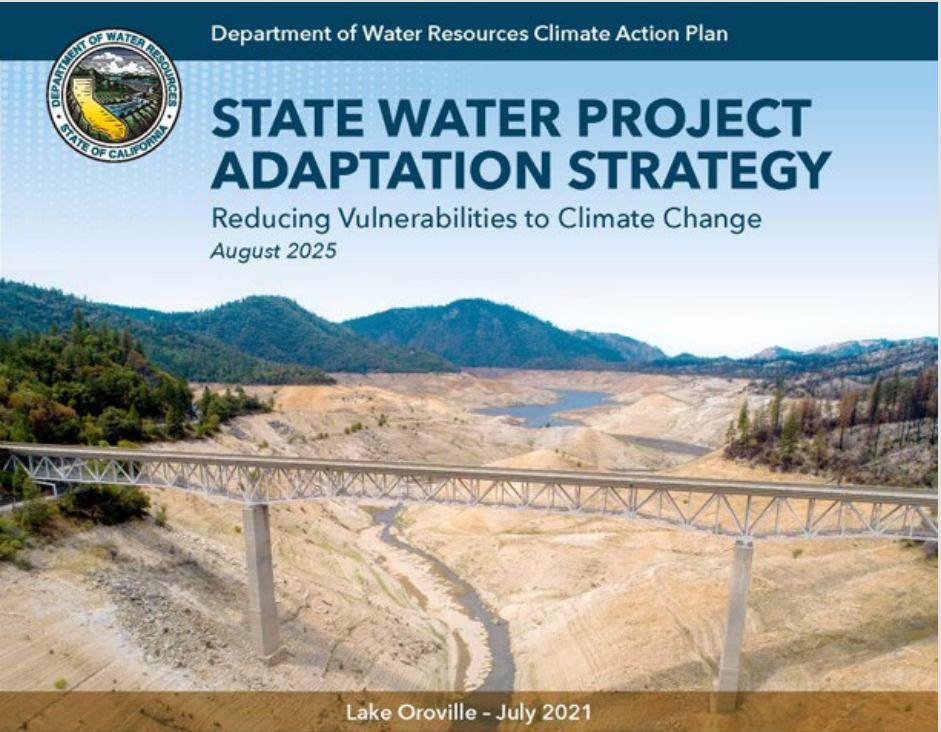
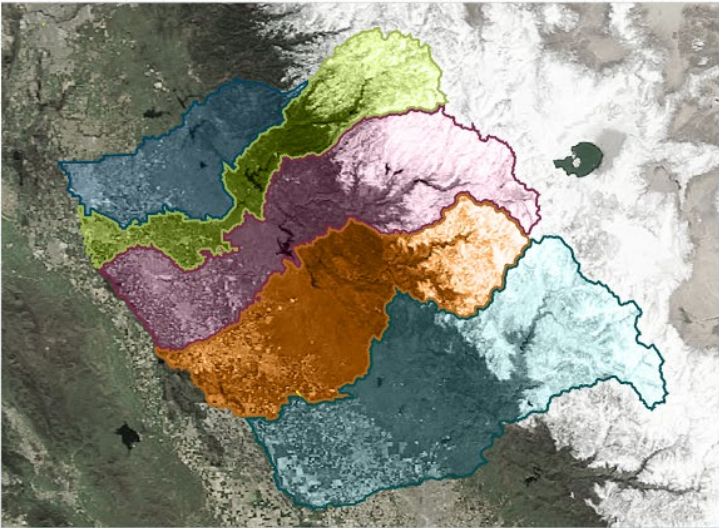
A Vision for the San Joaquin Valley:

The Realm of the Possible for Surface Water and Groundwater

JOEL METZGER AND ERIC TSAI
AUGUST 19, 2026

San Joaquin Basin Flood-MAR
Watershed Studies
BASINWIDE SUMMARY AND NEXT STEPS
December 2025

CALIFORNIA DEPARTMENT OF WATER RESOURCES

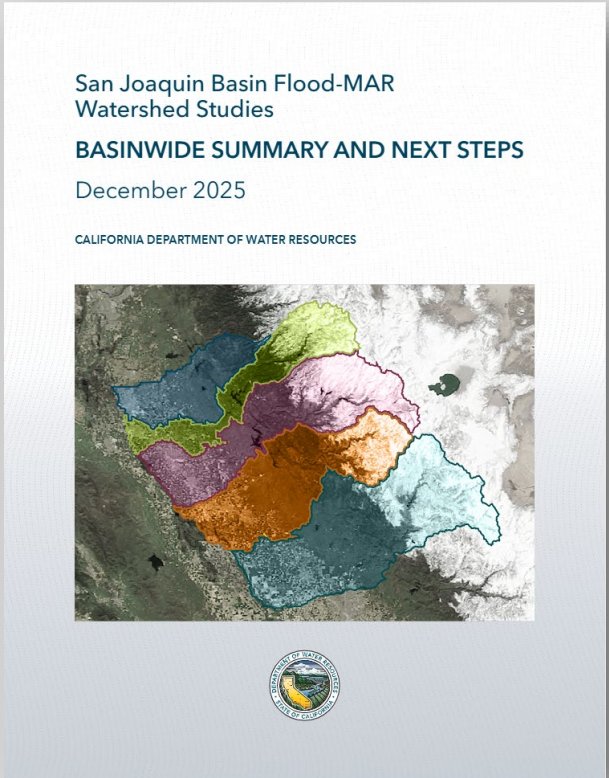


The San Joaquin Valley



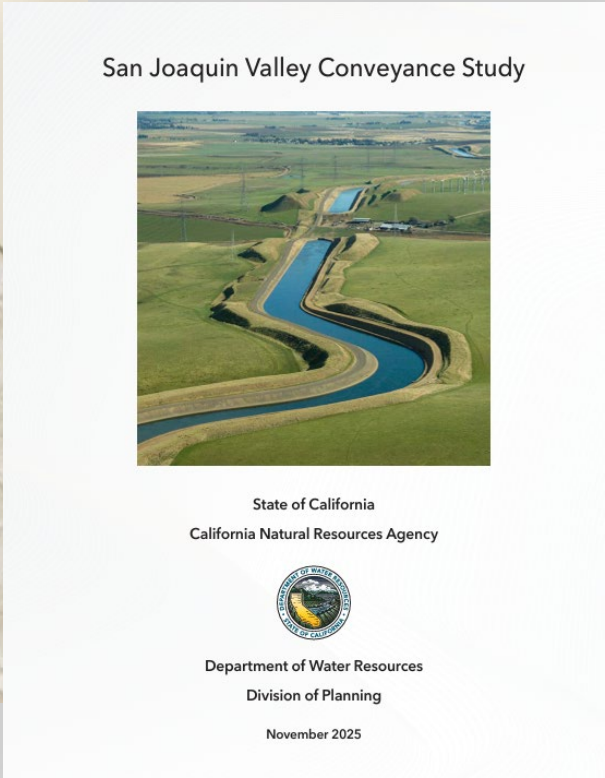
San Joaquin Valley Related Studies

East Side

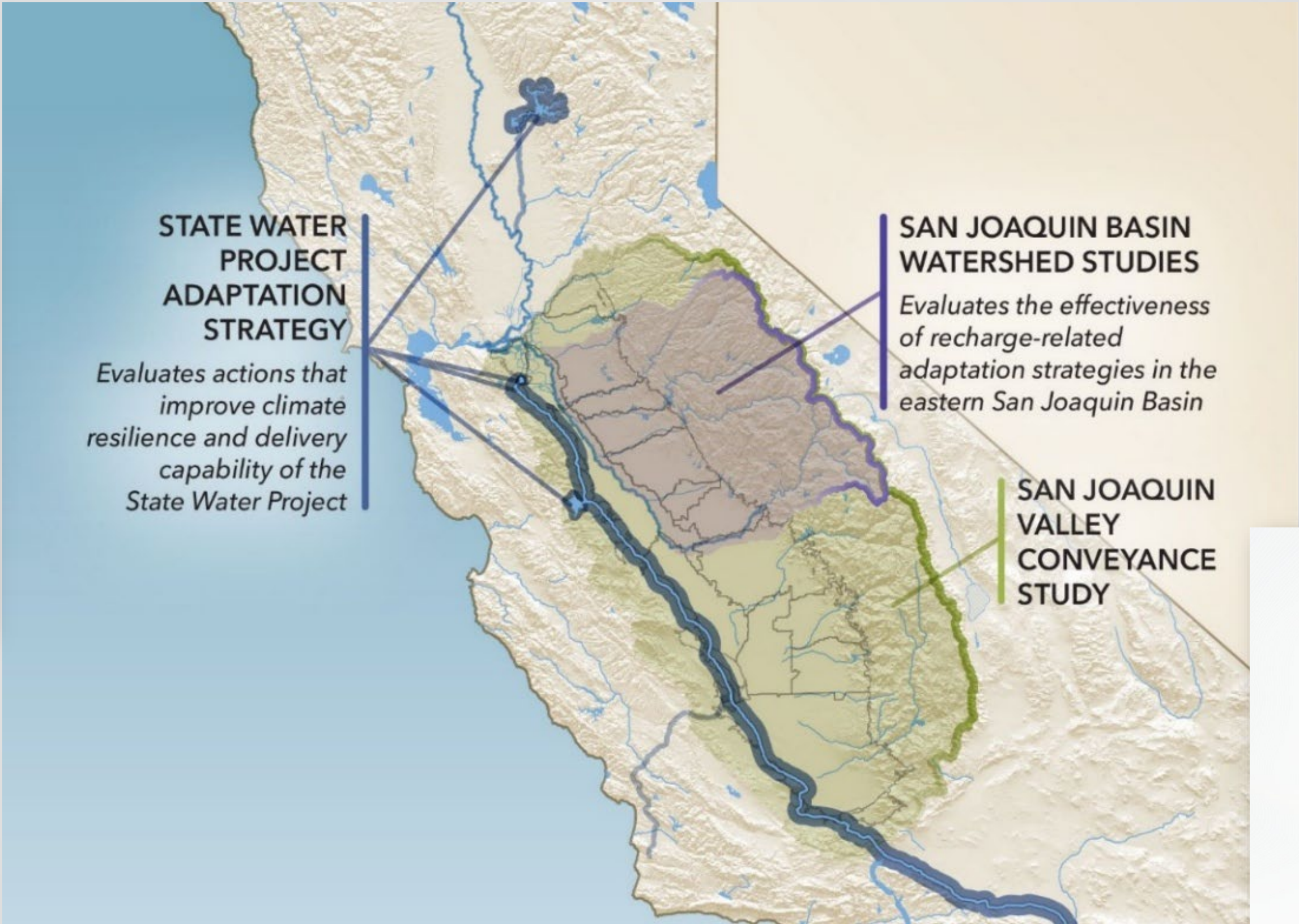


December 2025

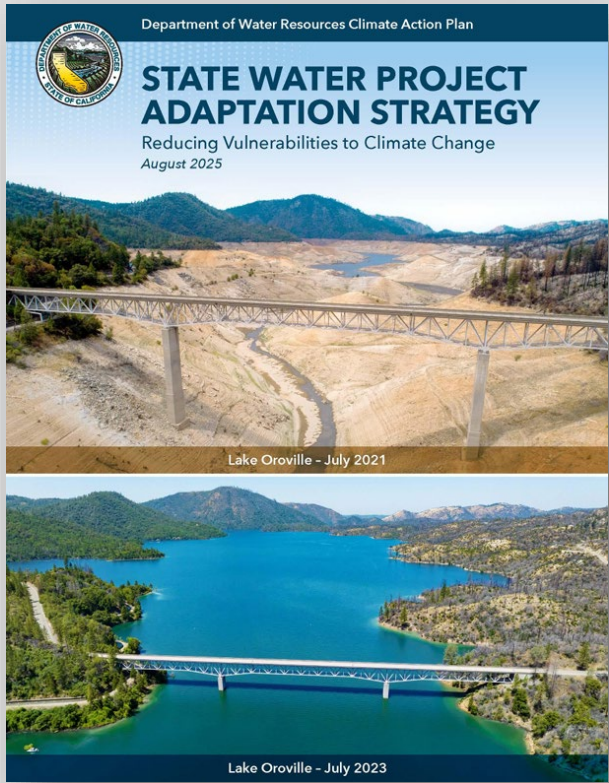
Valley Floor



November 2025



West Side



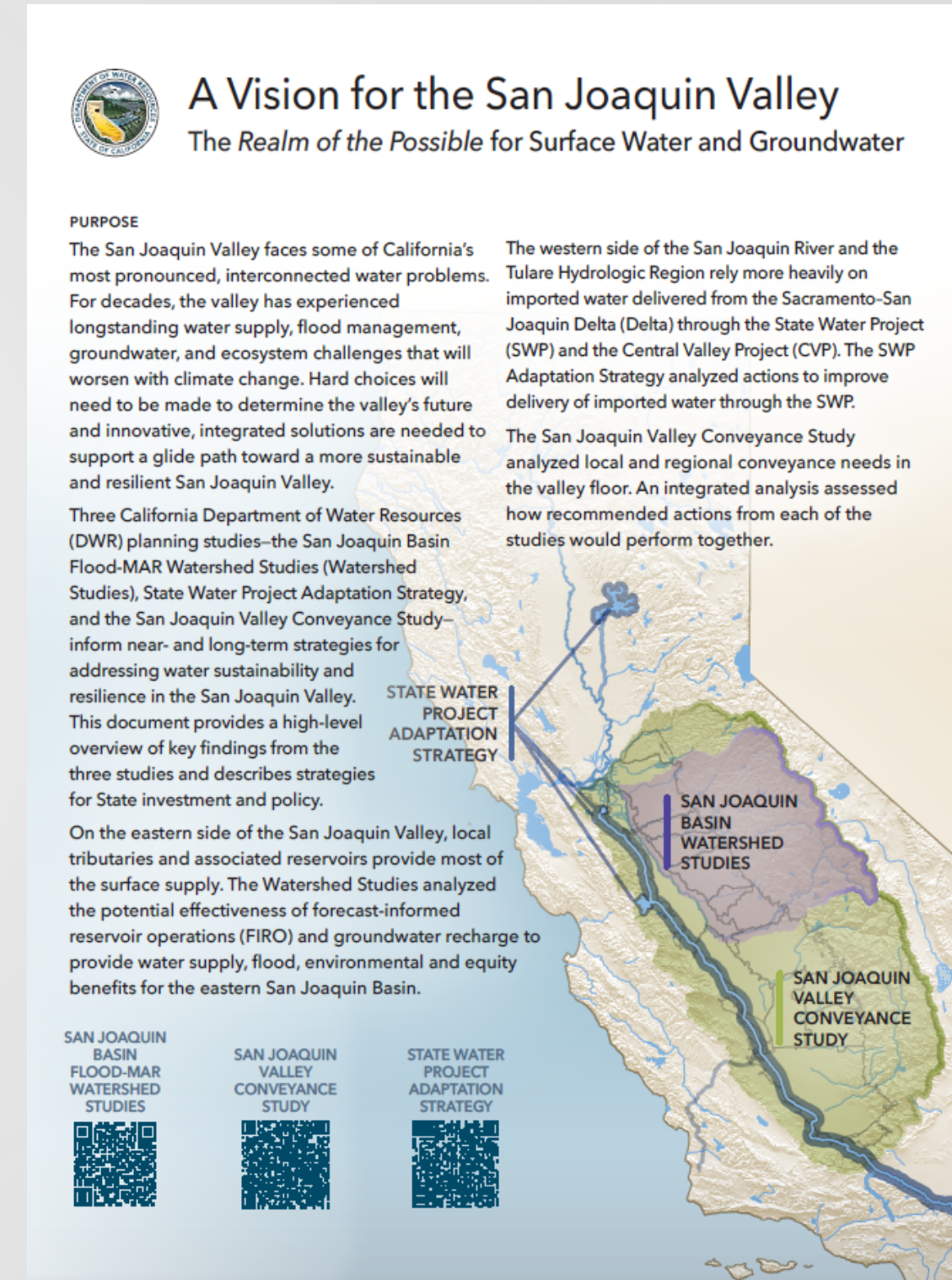
August 2025



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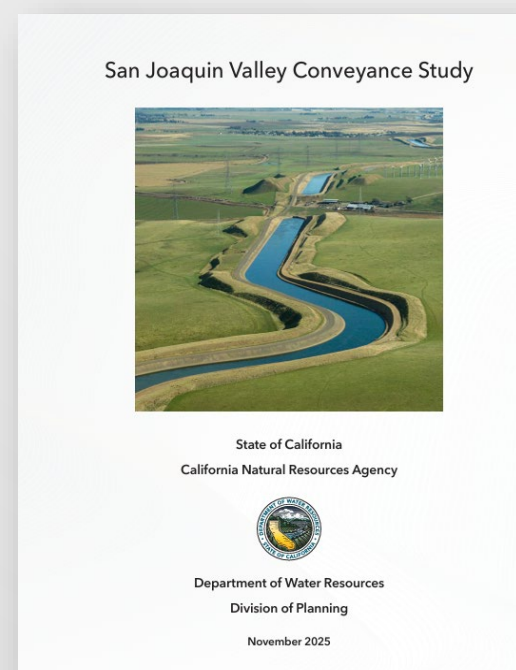
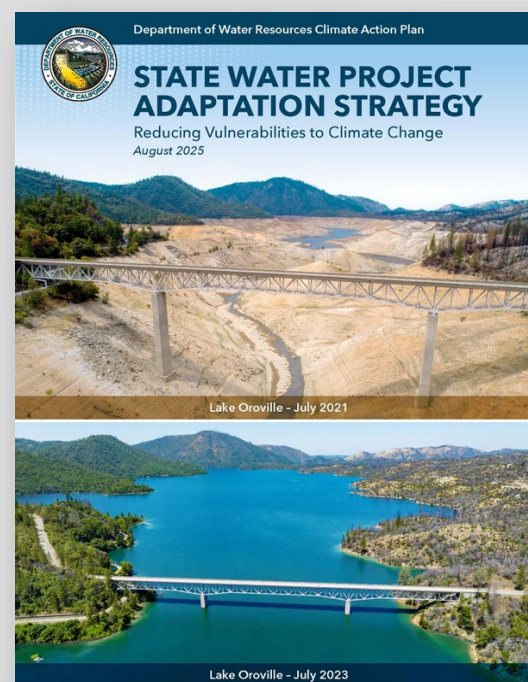
A Vision for the San Joaquin Valley

- Integrated plan with near-term and long-term strategies for State investment and policy
- Supports federal, State, and local alignment



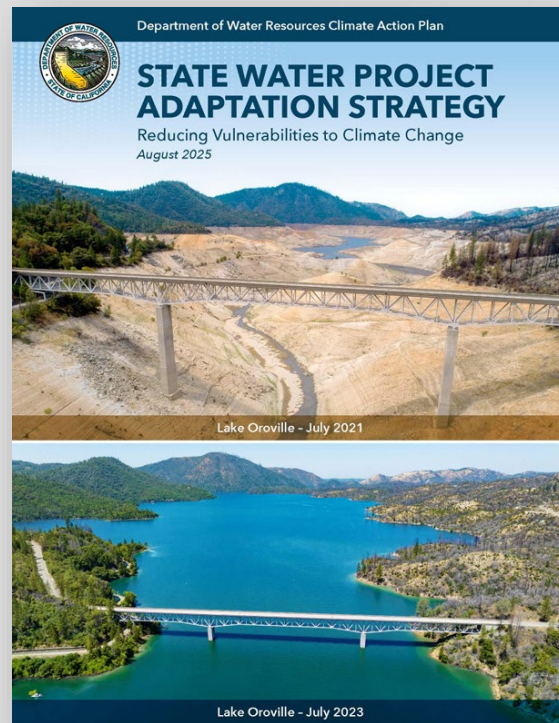
Risks and Opportunities

- The San Joaquin Valley is on an unsustainable path and climate change will make it worse
- Flood risk and depleted groundwater aquifers presents unique opportunities to recharge floodwaters for dry year supply



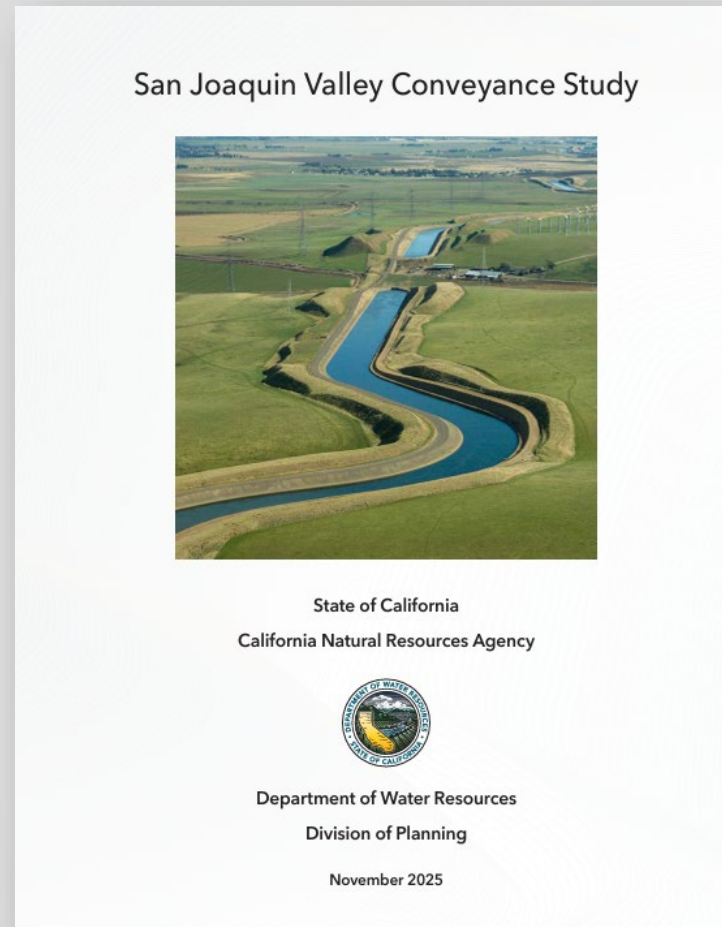
SWP Adaptation Strategy Findings

- Restoring California Aqueduct and San Luis Canal capacity degraded by subsidence is a key investment priority
- Delta Conveyance Project is a promising solution to increase diversions of floodwater within existing regulatory constraints
- Forecast-informed Reservoir Operations (FIRO) at Oroville provides drought resilience by allowing greater storage of water in Lake Oroville under more variable hydrology.
- Additional south-of-Delta storage can provide an effective strategic water reserve for dry years



San Joaquin Conveyance Study Findings

- Restoring capacity caused by subsidence in SWP and CVP conveyance facilities is a priority.
- Restoring groundwater levels above critical head is needed to stop or minimize subsidence and preserve value of subsidence repairs.
- Majority of the San Joaquin valley is limited by inadequate water supply availability relative to demand and not by conveyance capacity during most years.

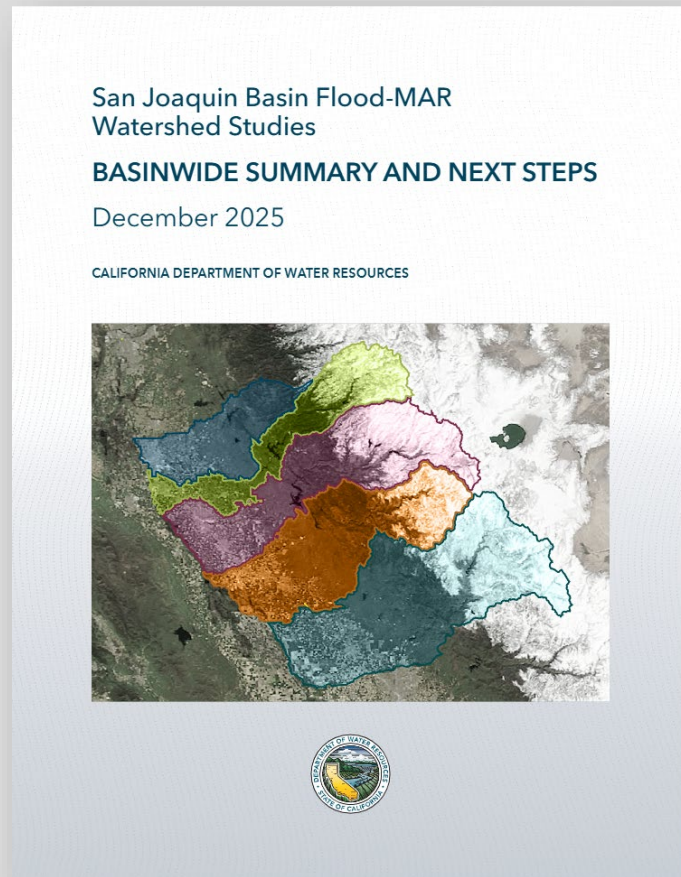


[San Joaquin Valley Conveyance Study](#)



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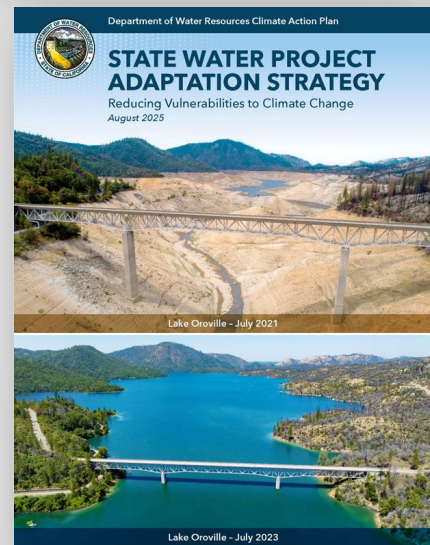
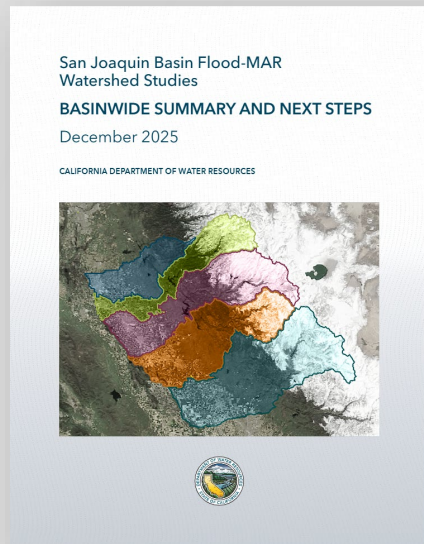
San Joaquin Basin Flood-MAR Watershed Studies Findings



- Integrating FIRO and groundwater recharge (FIRO-MAR) in the eastern San Joaquin Basin can offer significant public benefits :
 - Flood management
 - Water supply
 - Groundwater sustainability
 - Ecosystems
 - Equity
- Strategically located recharge sites can create localized benefits
- FIRO-MAR can result in SWP export reductions
- Implementation of FIRO-MAR will require changes to existing regulations and water rights



Integrated Analysis Findings

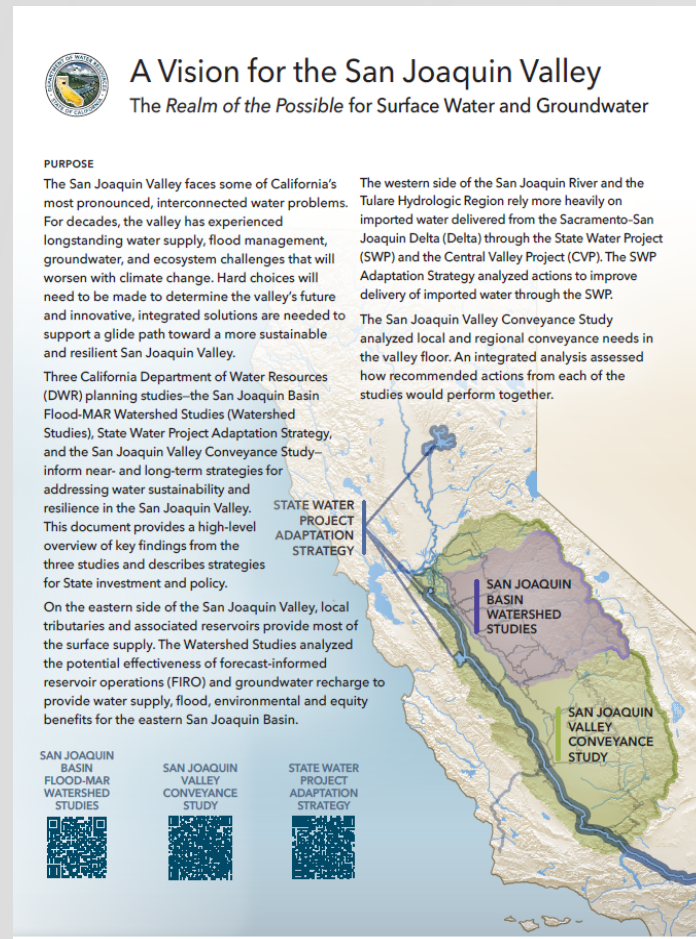


- Recommended SWP Adaptation Strategy actions have the potential to significantly reduce net long-term average reduction in SWP exports caused by FIRO-MAR.
- Integrated strategies can provide a broad range of robust benefits and should be explored together
- Additional modeling, pilot projects, and partnerships are needed to better understand potential downstream impacts

Explored how major infrastructure improvements perform together to avoid double counting and understand potential impacts and synergies.



Findings



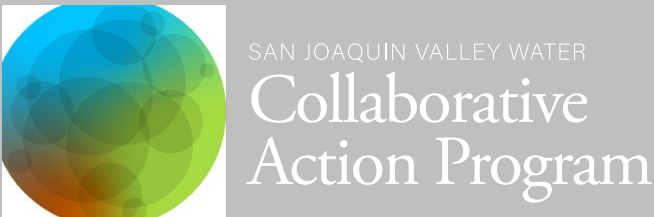
- Effective implementation will require unprecedented levels of collaboration/coordination across local, State, and federal agencies
- Significant demand management will still be needed in the San Joaquin Valley to bring groundwater basins into sustainability



Informed by Engagement with Key Partners



Water Blueprint
for the San Joaquin Valley



SAN JOAQUIN VALLEY WATER
**Collaborative
Action Program**



FRESNOSTATE
California Water Institute



SWC
STATE WATER
CONTRACTORS
FOUNDED 1982



— BUREAU OF —
RECLAMATION





CALIFORNIA
Water Boards



**State Water
Resources
Control Board**



California
Department of Conservation



PPIC



**California Water
Data Consortium**

Recommended Strategies

Near-Term

- Pilot-test FIRO-MAR in SJ Basin watersheds
- Implement SGMA and address critical subsidence impacts
- California Aqueduct Subsidence Program interim action projects
- Empower local water district to better capture high flows to recharge groundwater:
 - Identify recharge opportunities
 - Groundwater Accounting
 - Groundwater recharge regulatory reforms
 - Support identification of local flood thresholds



Recommended Strategies

Near-Term (continued)

- DCP permitting
- Additional FIRO-MAR watershed studies
- Investigate South-of-Delta groundwater or surface storage

Long-Term

- Long-term subsidence improvement projects
- Construct DCP
- Construct Sites Reservoir



San Joaquin Valley WATER RESILIENCE SUMMIT

From Reports to Results

- May 20-21: Two-day leadership convening on building a shared 2025–2030 resilience roadmap for the San Joaquin Valley
 - Synthesized findings across three major DWR studies
 - Presented Unified Water Plan findings
 - Examined tradeoffs across interconnected systems
 - Aligned state and local efforts
 - Identified near-term priorities
 - Started development of an action roadmap

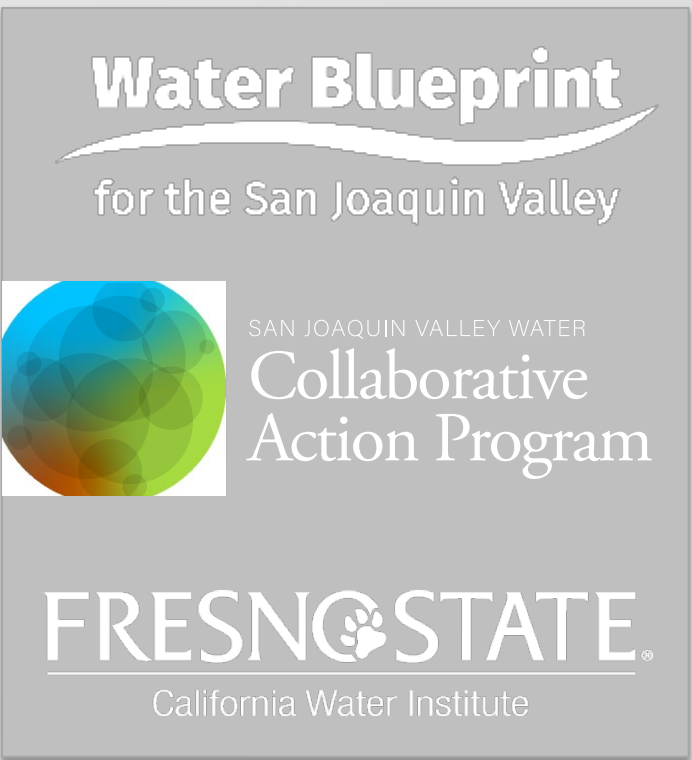
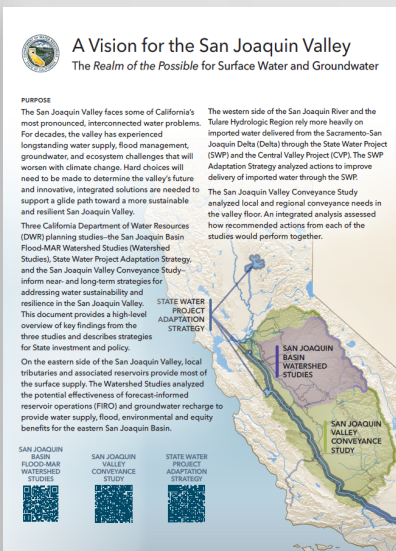
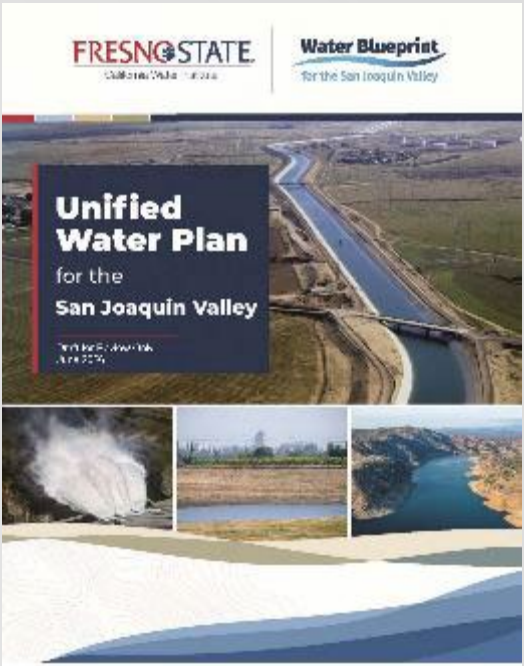
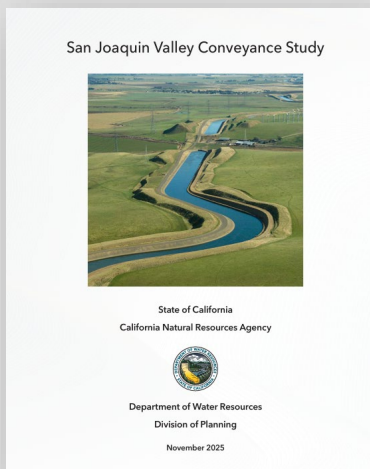
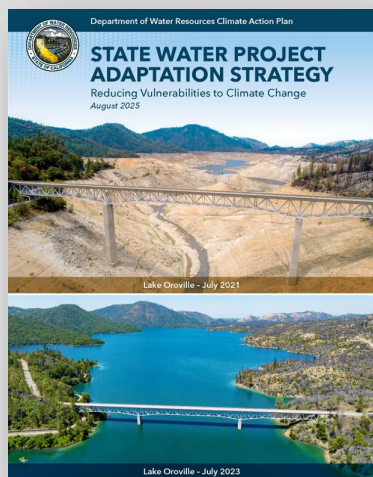


Next Steps

- Public Comments
 - Cost and effectiveness of regulations
 - Tulare Lake Basin Watershed Study
 - Clarify South of Delta Storage and engage SJ stakeholders
 - Support for groundwater recharge and water right permitting modernization
 - Align Proposition 4 funding with Vision recommendations
 - Include drinking water and environmental needs
 - Include Through-Delta conveyance needs
 - More clearly quantify water supply benefits to San Joaquin Valley
- Final draft anticipated in September



California Water Plan Alignment



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Thank You for the Opportunity



Questions?



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