

SACRAMENTO REGIONAL
WATER BANK



A Sustainable Storage & Recovery Program



ACWA Spring Conference 2026: Groundwater Banking 101

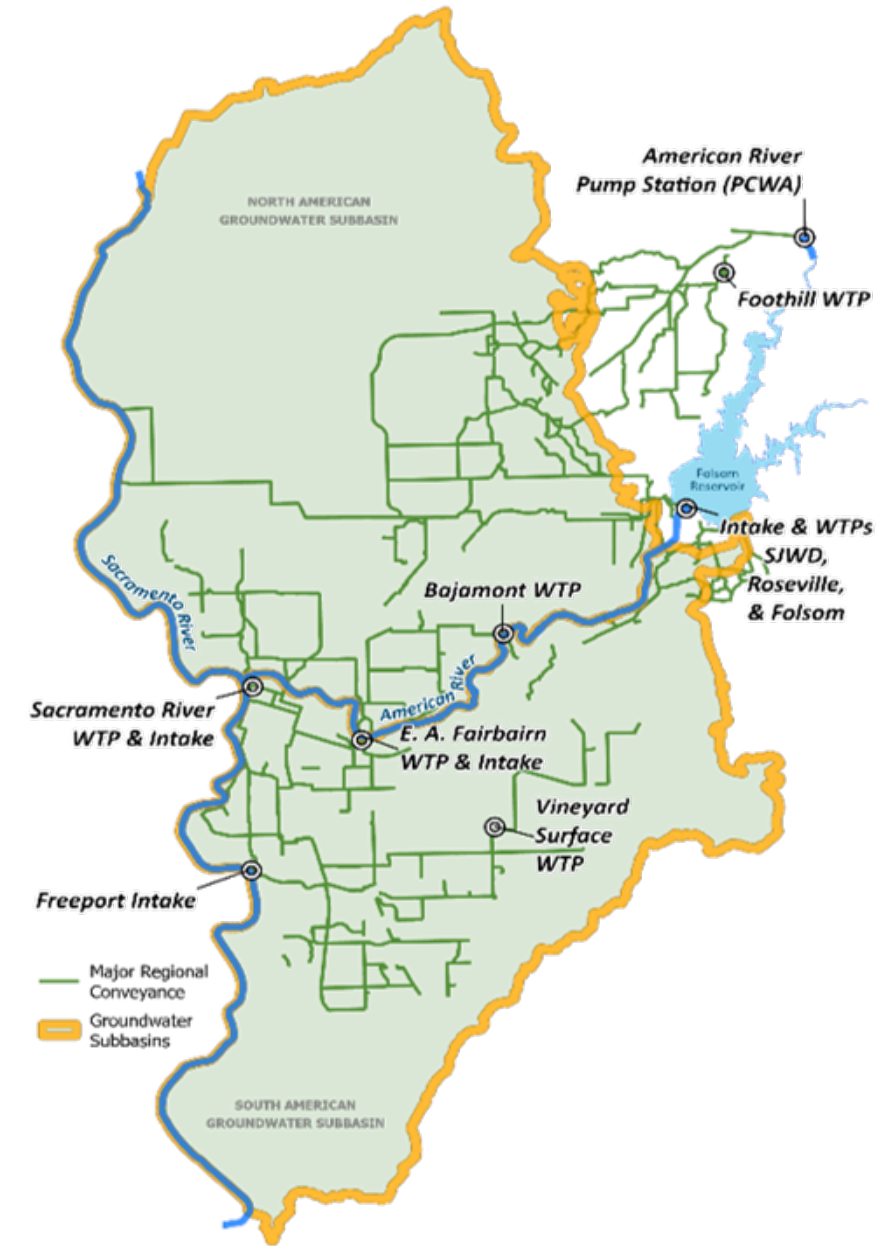
May 5, 2026



Water Bank Overview

Expand conjunctive use in the region to:

1. Improve long-term regional reliability and provide statewide water supply opportunities when possible; and
 2. Support healthy ecosystem function on the lower American River.
-
- With existing infrastructure:
 - recharge up to 65,000-acre feet per year during wet periods
 - recover up to 55,000-acre feet per year during dry periods.
 - Up to 35,000-acre feet per year of banked water supplies year may be transferred out of the basin.

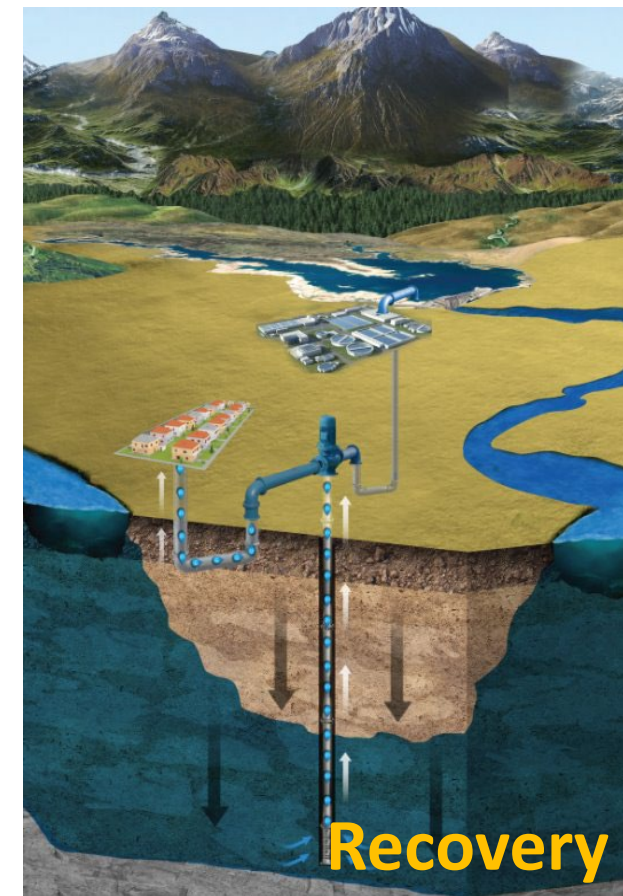
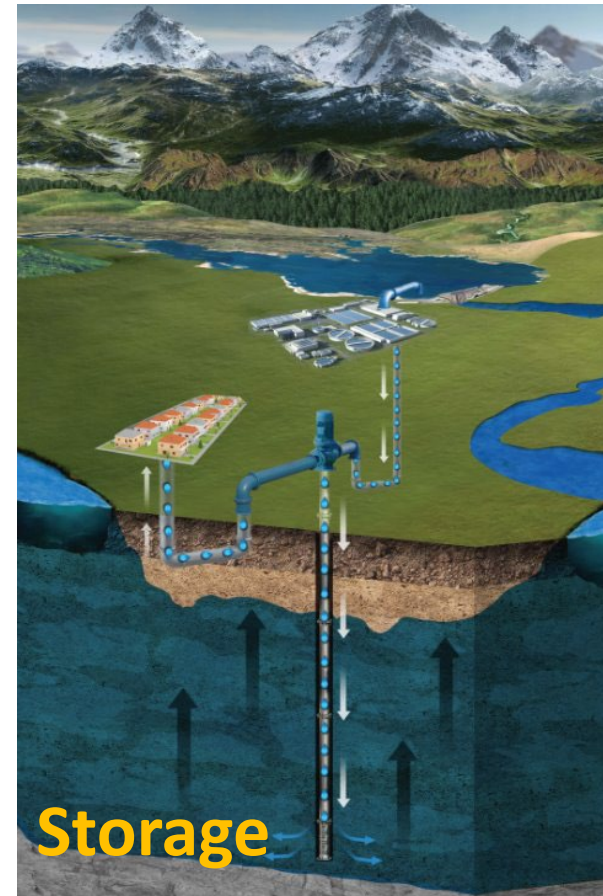


Water Bank Objectives

Specific Objectives include:

- Water supply reliability
- Groundwater sustainability
- Regional/State water transfers (offsets agency costs and further incentivizes conjunctive use)
- Supports Healthy Rivers & Landscapes Program
- Provided ecosystem benefits
- Aids in delta outflow
- Provides pumping energy savings
- Advances regional water management

Advances, modernizes, and institutionalizes existing regional conjunctive use activities



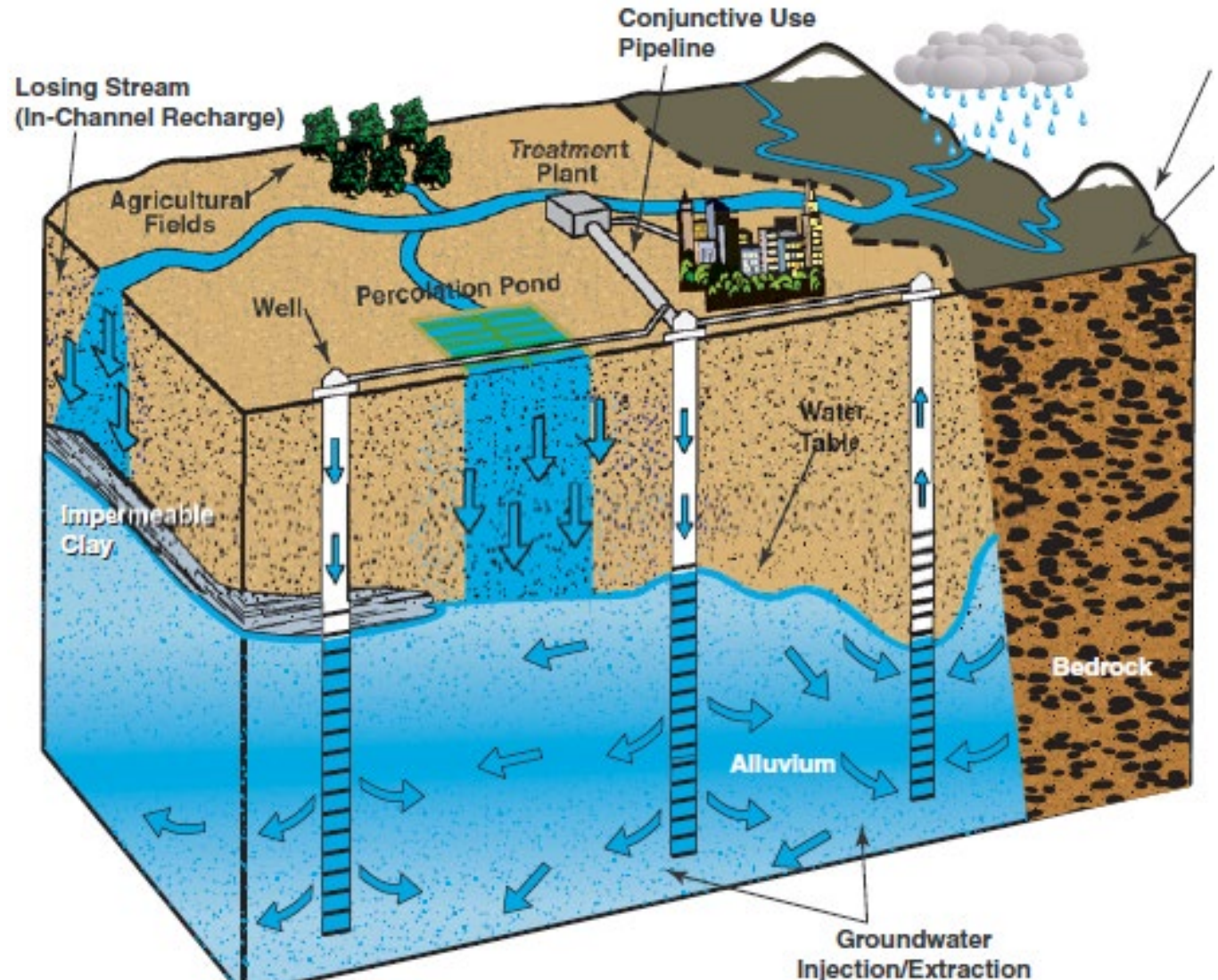
Groundwater and Recharge Methods

Natural Recharge

- Stream and Creeks
- Mountain Front
- Rain – Direct Percolation

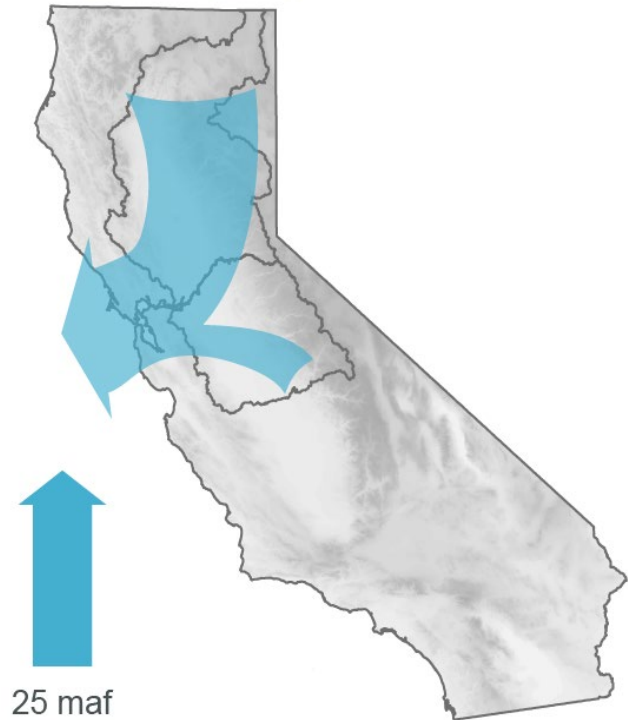
Artificial Recharge

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



Water sources and outflows from the Delta

Wet year (2017)



- In very wet years,
 - upstream and in-Delta uses consume less than 20% of runoff
 - exports account for 10%
 - leaving the remainder (70%) as outflow.

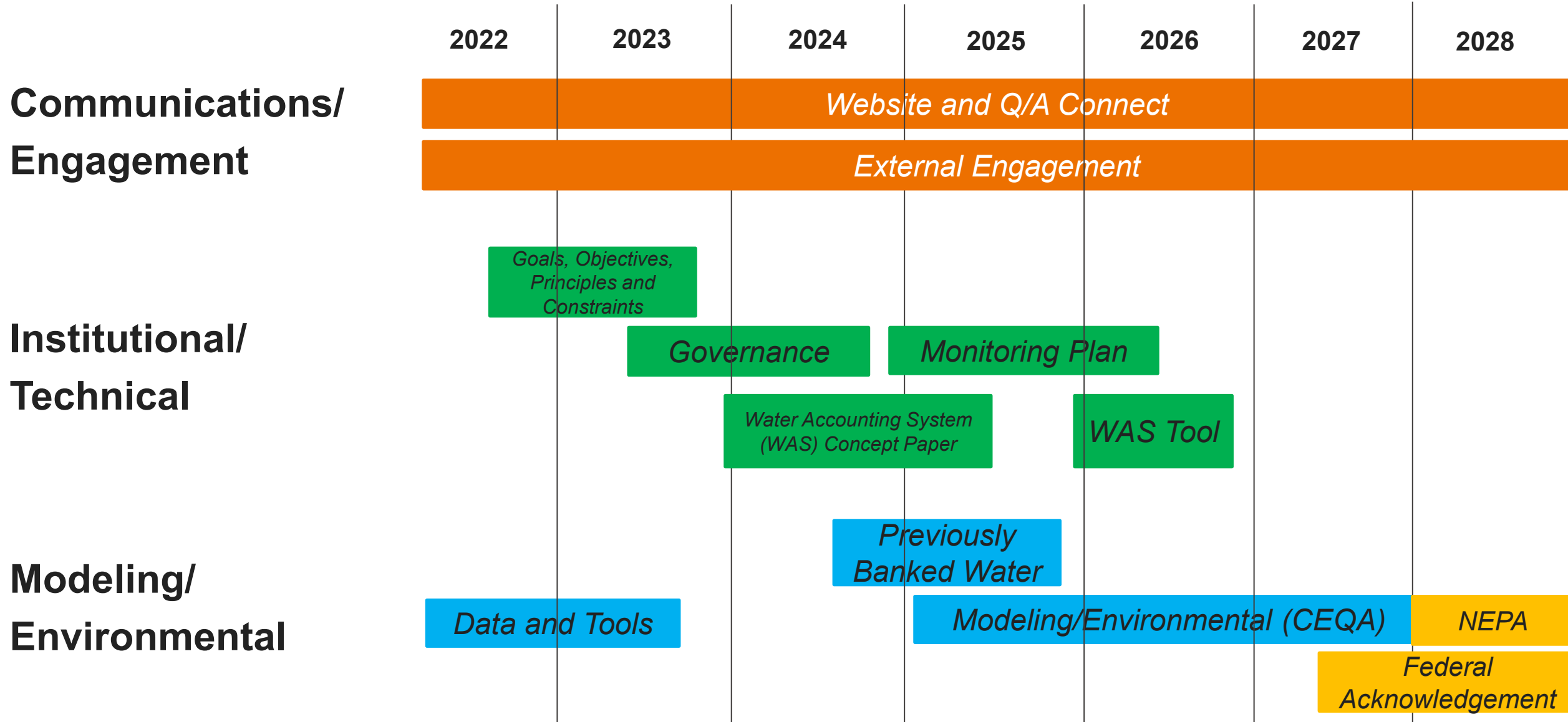
Dry year (2021)



- In very dry years,
 - upstream and in-Delta uses consume most of the water in the watershed
 - in 2021, all available runoff, leaving water stored in reservoirs to meet export demands and water quality and flow standards.

Source: PPIC

Water Bank Project — Tasks/Activities



Federally Acknowledged Water Banks



— BUREAU OF —
RECLAMATION

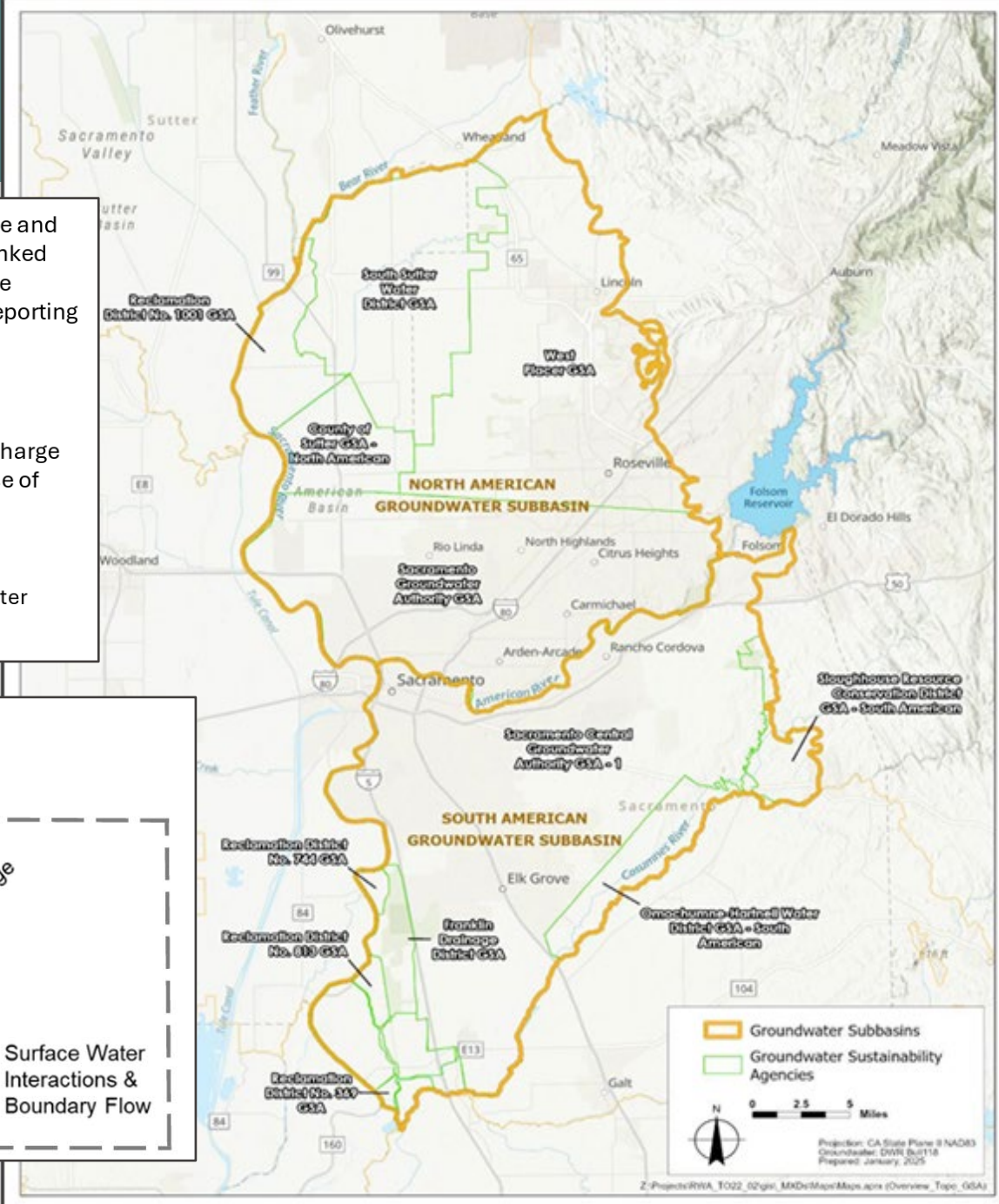
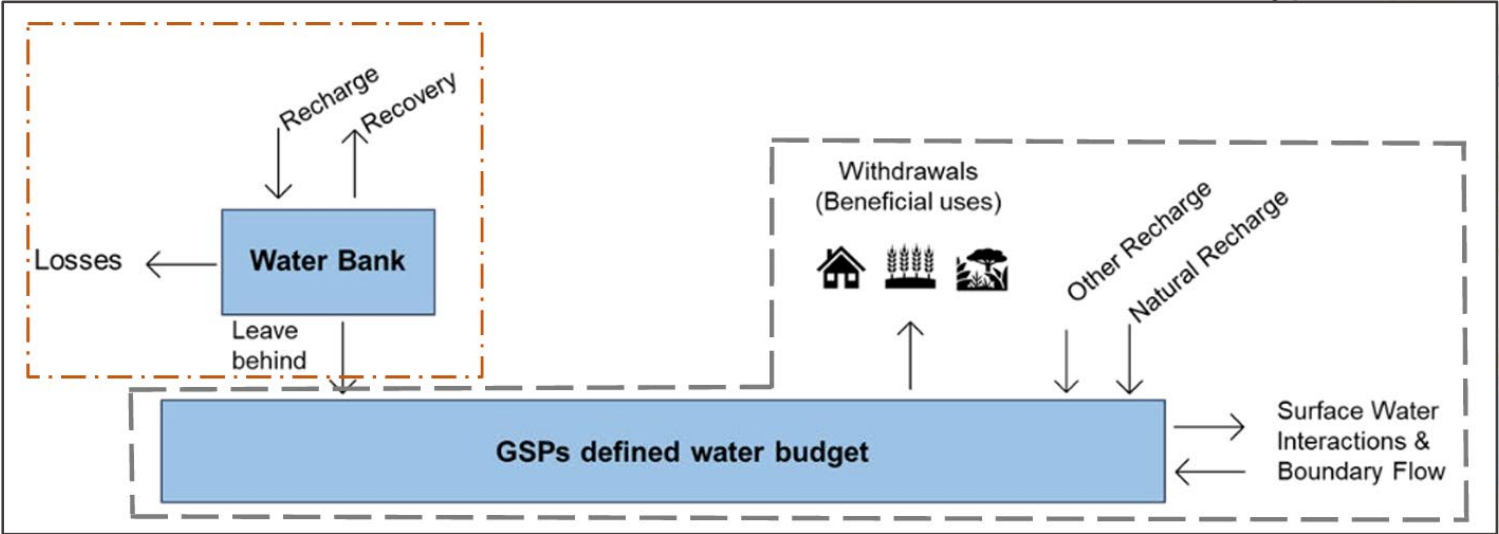
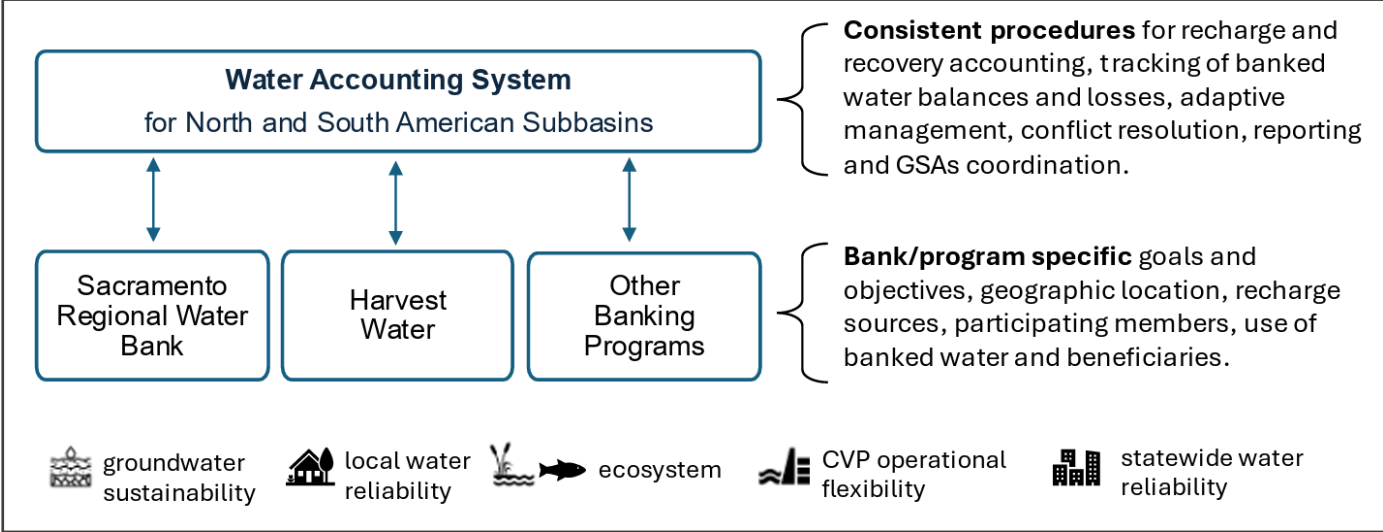
Groundwater Banking Guidelines for Central Valley Project Water

Effective Date: November 12, 2014
Updated October 4, 2019

	Acknowledged Water Banks	Identifier Number
1	North Kern Water Storage District	05-WC-20-3256
2	Rosedale-Rio Bravo Water Storage District	05-WC-20-3257
3	Semitropic Water Storage District	05-WC-20-3258
4	Tulare Lake Basin Water Storage District	05-WC-20-3259
5	Cawelo Water District	05-WC-20-3260
6	Lakeside Irrigation District	05-WC-20-3261
7	Kaweah Delta Water Conservation District	05-WC-20-3266
8	Kern Water Bank Authority	18-WC-20-5263
9	Meyers Farms Family Trust	N/A
10	Pixley Water Bank Project	18-WC-20-5264
11	West Kern Water District Groundwater Bank	18-WC-20-5255

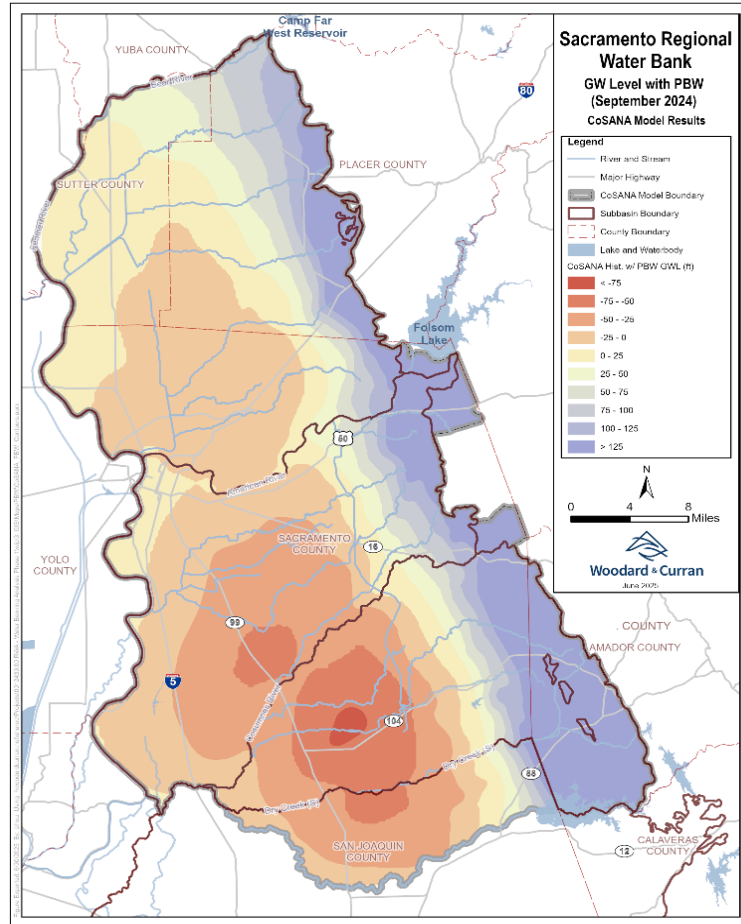


Water Accounting System

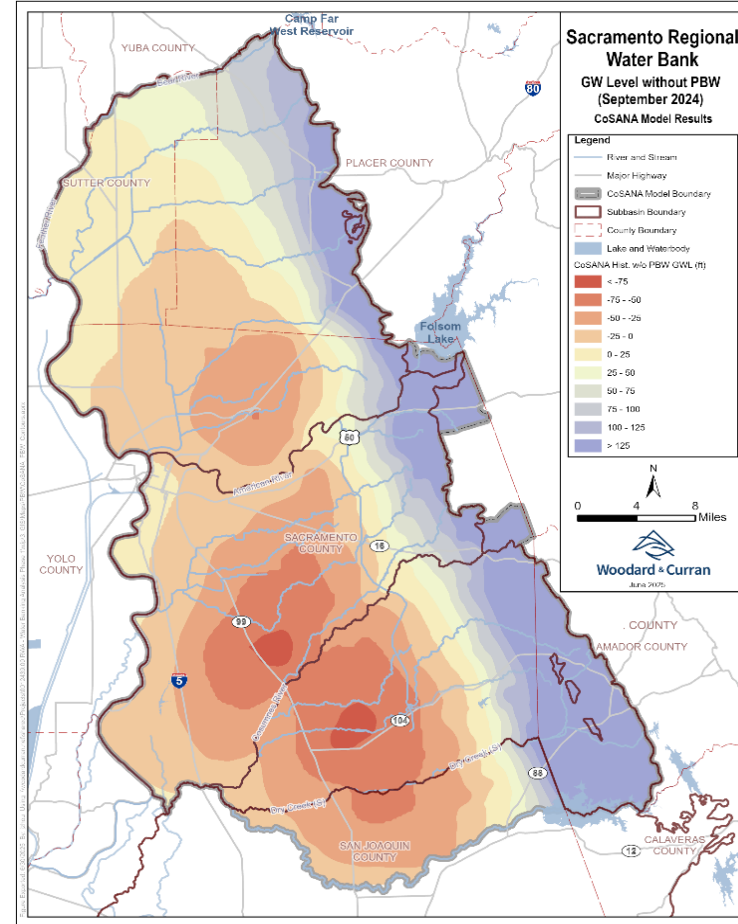


Groundwater Modeling of Previously Banked Water (PBW)

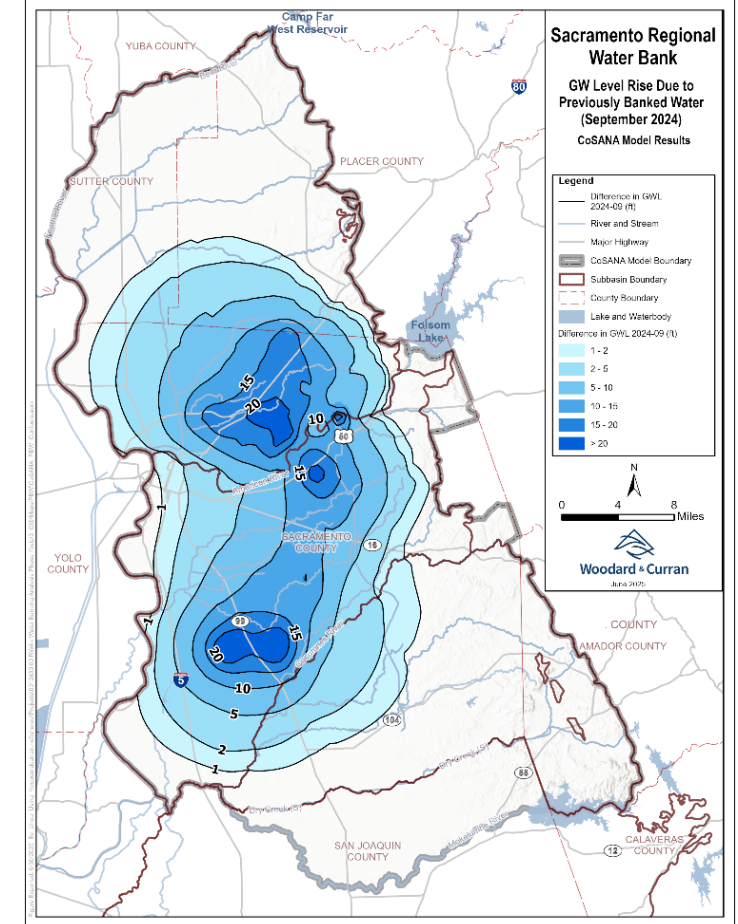
Groundwater level (GWL) contours at end of simulation period (Sep 2024)



Scenario 1: Historical Conditions with PBW

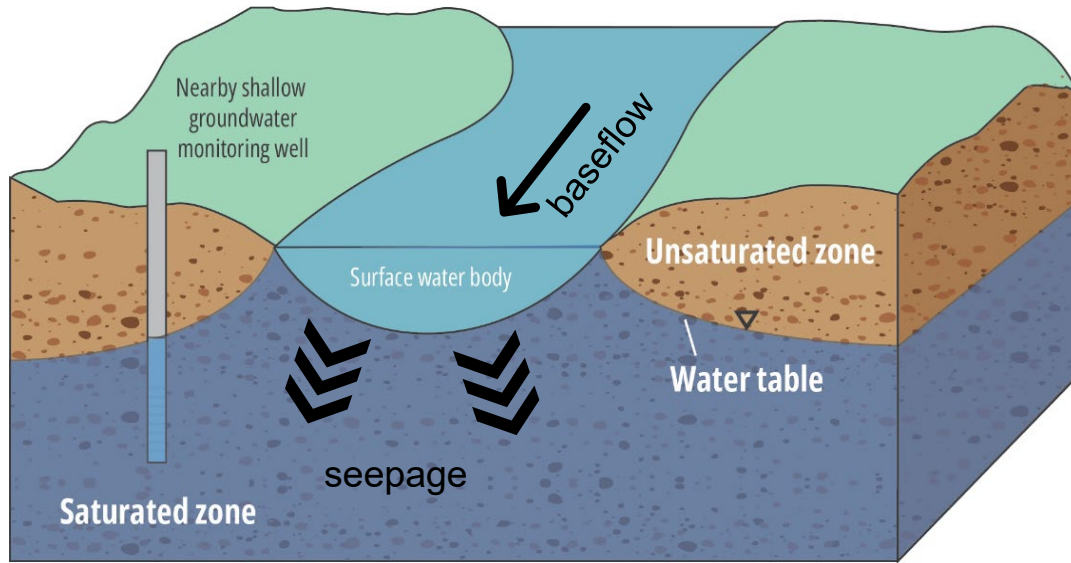


Scenario 2: Historical Conditions without PBW



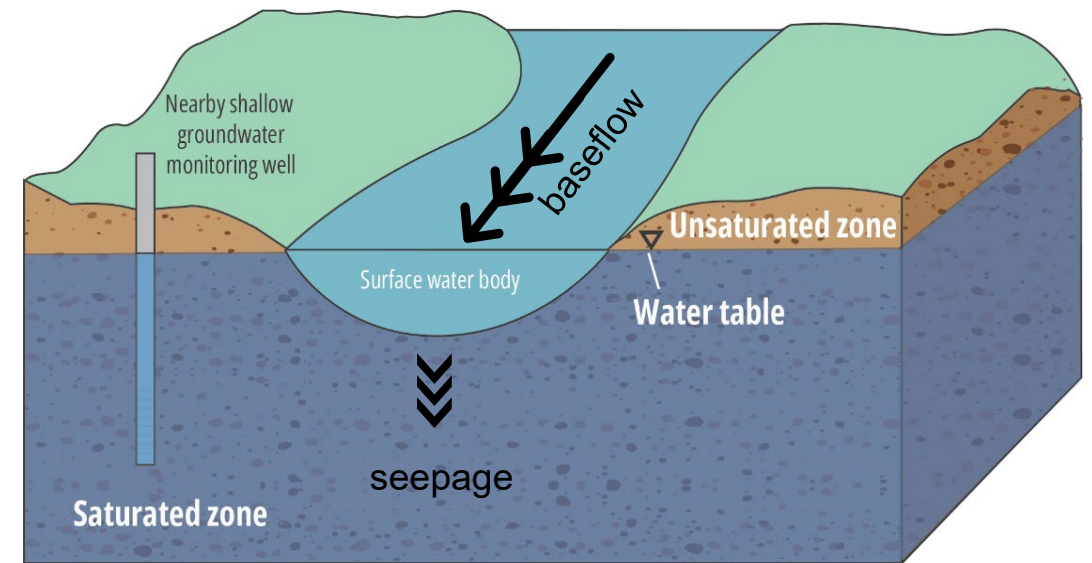
Δ GWL (Scenario 1 – Scenario 2)
Effect of PBW on GWL

Higher Groundwater Levels Affect Seepage Conditions with the Interconnected Streams



Conditions without Previously Banked Water (PBW)

- Higher groundwater pumping
- Lower groundwater elevations
- More stream seepage
- Less baseflow in the streams



Conditions with Previously Banked Water (PBW)

- Lower groundwater pumping
- Higher groundwater level
- Less stream seepage
- More baseflow in the streams

Banked Water Provides Multiple Benefits

- Ecosystem benefits
- Delta outflow
- Downstream
- Support Healthy Rivers & Landscapes
- Groundwater sustainability
- Water supply reliability

Contribution to
Streams
(~37%)

Subsurface Flow
(Adjacent Basins)
(~10%)

Remaining
“In-basin”
Banked Water
(~53%)



Chronic Lowering
of Groundwater
Levels



Reduction of
Groundwater In
Storage



Degraded Water
Quality



Inelastic Land
Subsidence



Depletions of
Interconnected
Surface Waters



- Groundwater sustainability
- Water supply reliability
- Pumping energy savings
- Regional/State Water Transfers to offset Participating Agency costs and incentivize conjunctive use
- Support Healthy Rivers & Landscapes, American River Climate Adaptation Plan, etc.