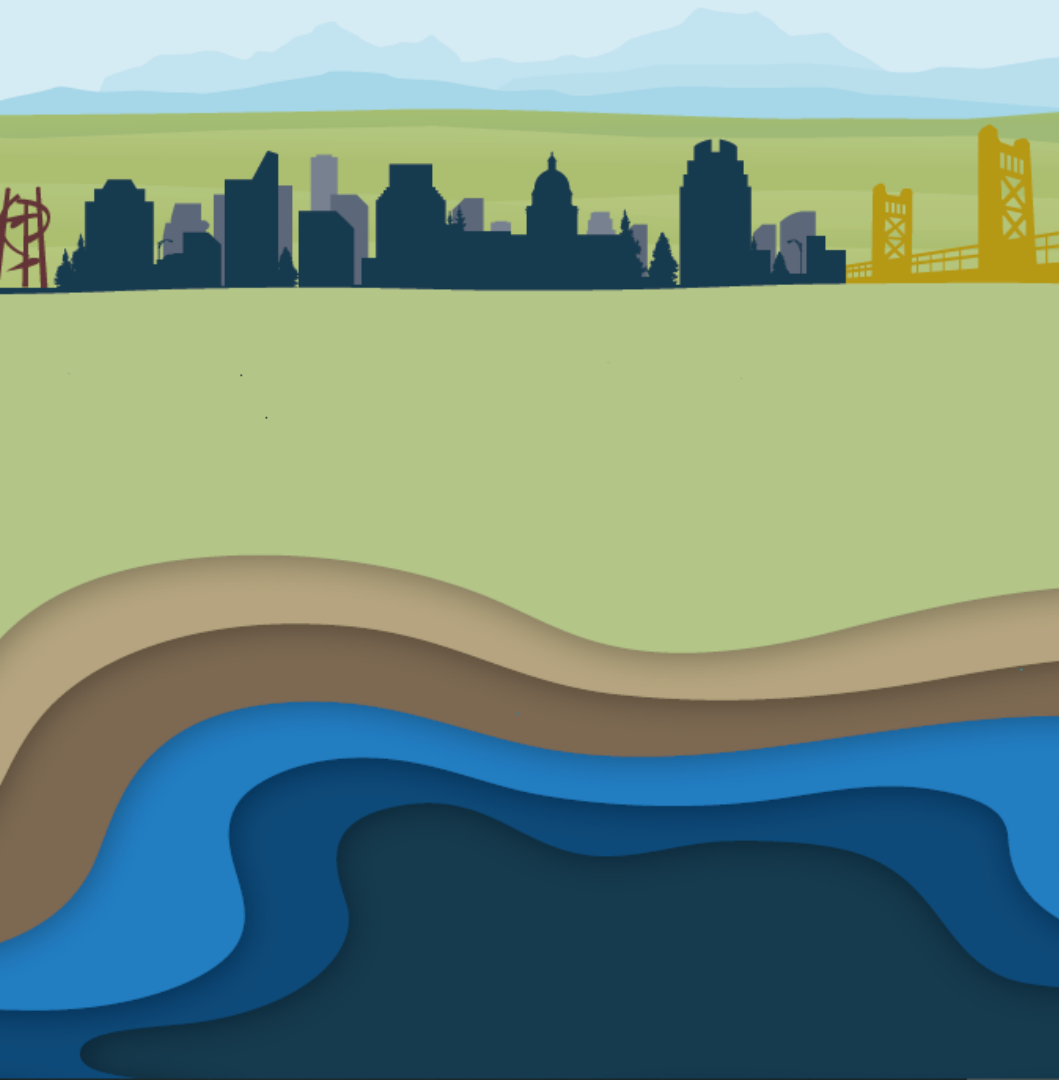


SACRAMENTO REGIONAL
WATER BANK



A Sustainable Storage & Recovery Program



Stakeholder Forum Winter 2023

December 12, 2023



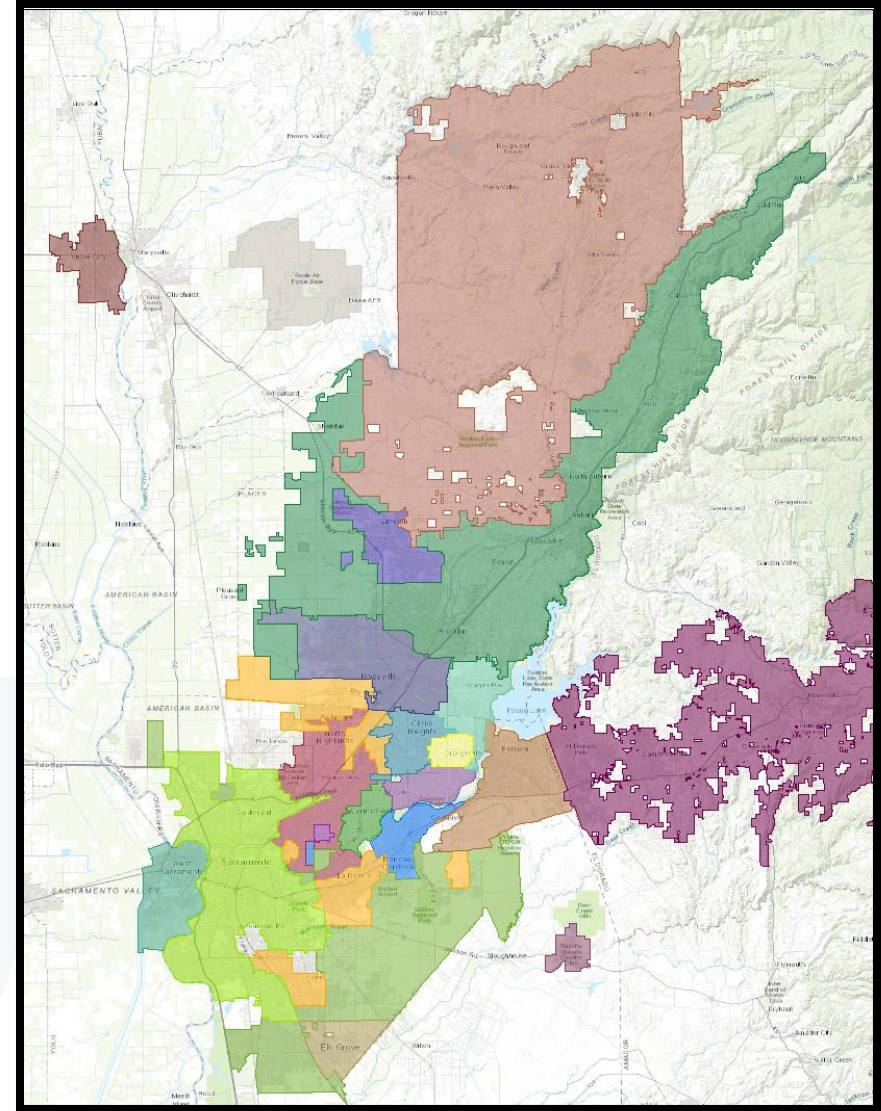
— BUREAU OF —
RECLAMATION



Introduction to the Regional Water Authority

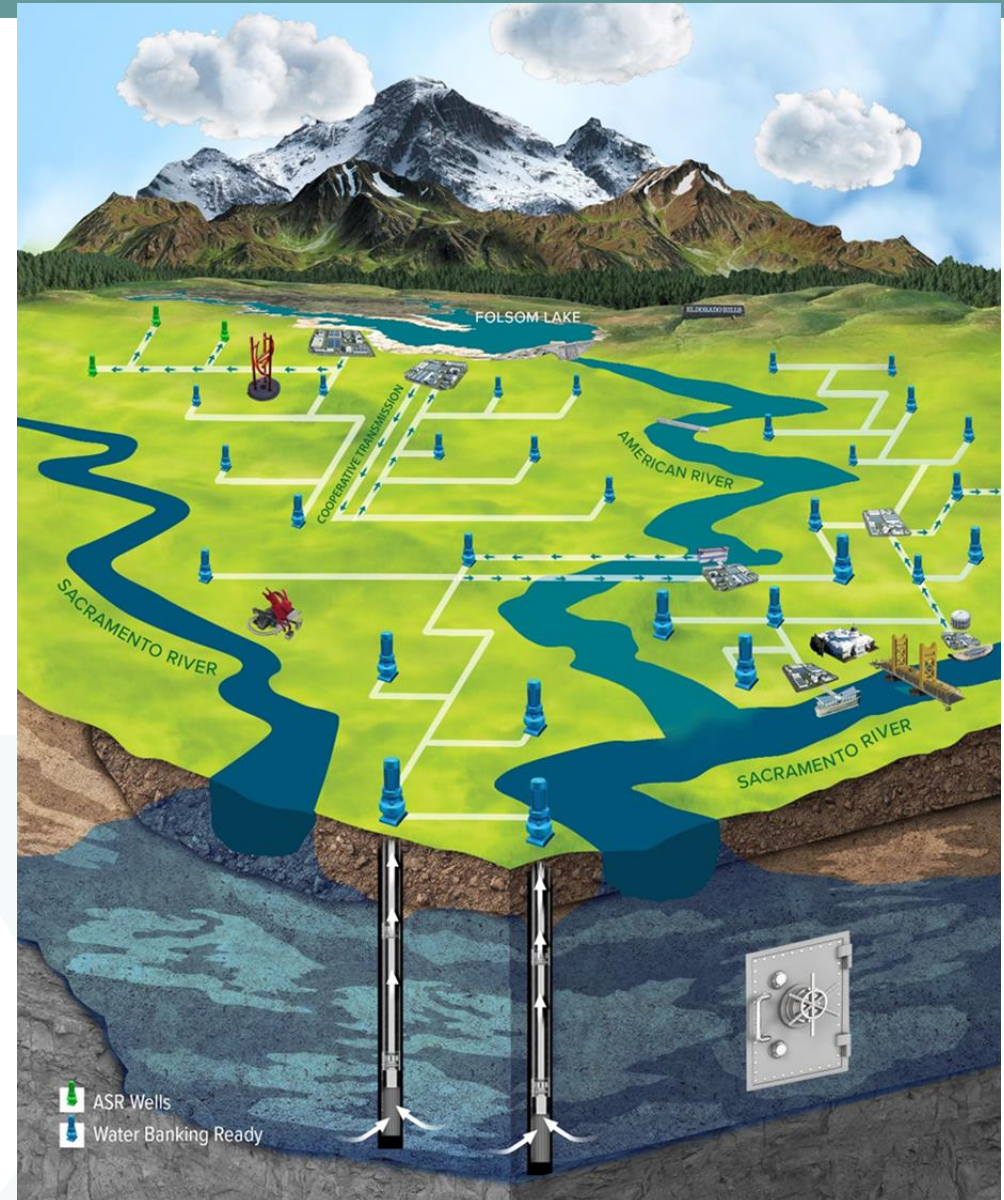
RWA's Mission

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



Welcome and Ground Rules

- **Participation.** If you have a question or comment, please use the **Q&A** box.
- **Conversational courtesy.** Allow many voices to be heard, be respectful, and try to be concise.
- **Be specific.** When asking questions or making comments, be concise so that others can respond. Please proofread comments before sending.
- **Technical issues.** If you are having technical difficulties, please direct message **Atley Keller** or email her at atley.keller@stantec.com



Tonight's Agenda

1. Welcome and Introductions
2. Water Bank Basics and Background
3. Sacramento Regional Water Bank Overview
4. Regional Coordination, Governance, and Planning
5. Environmental Compliance
6. Preview of What's Ahead
7. Additional Questions and Answers
8. Adjourn at 7:30 p.m.



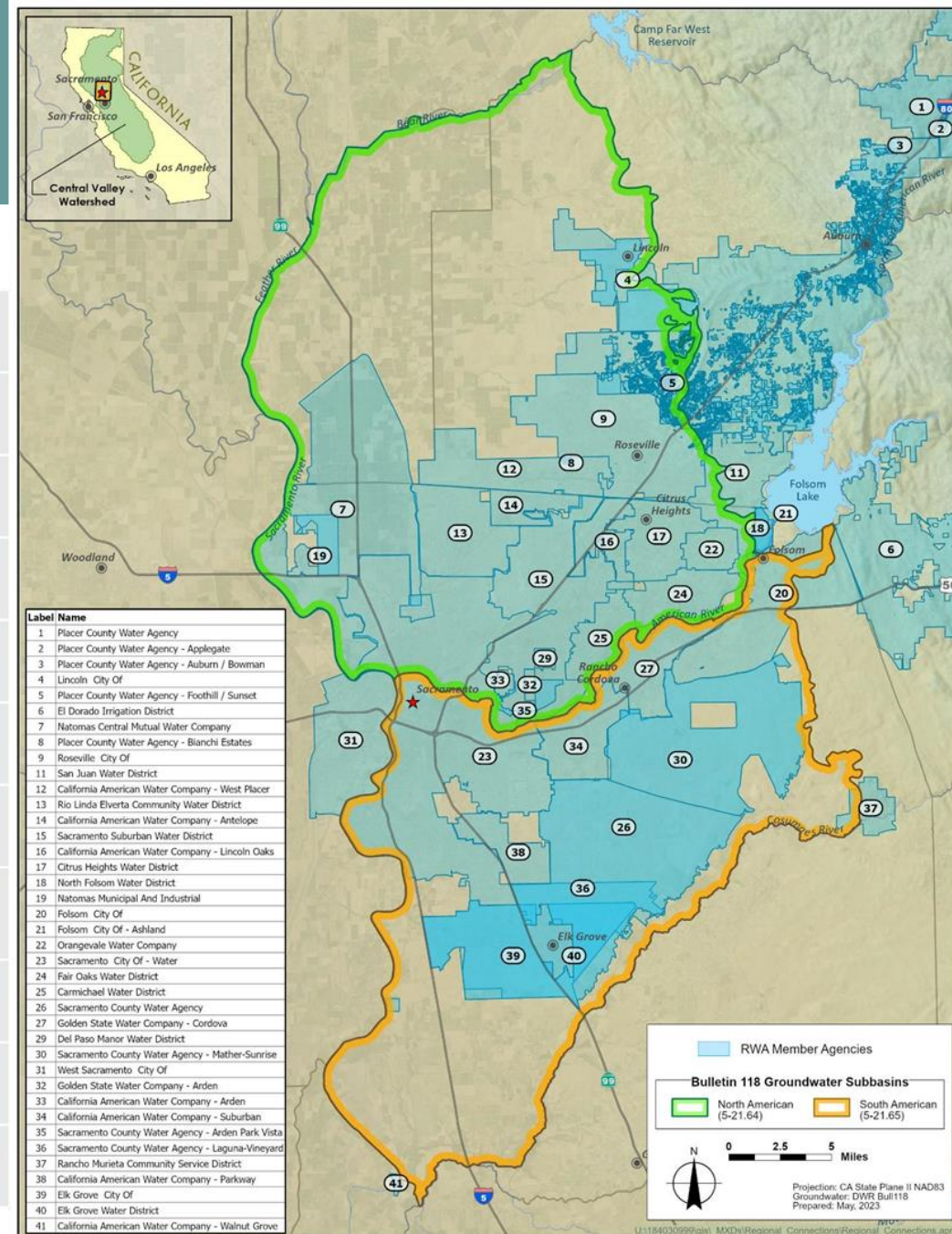
Introductions



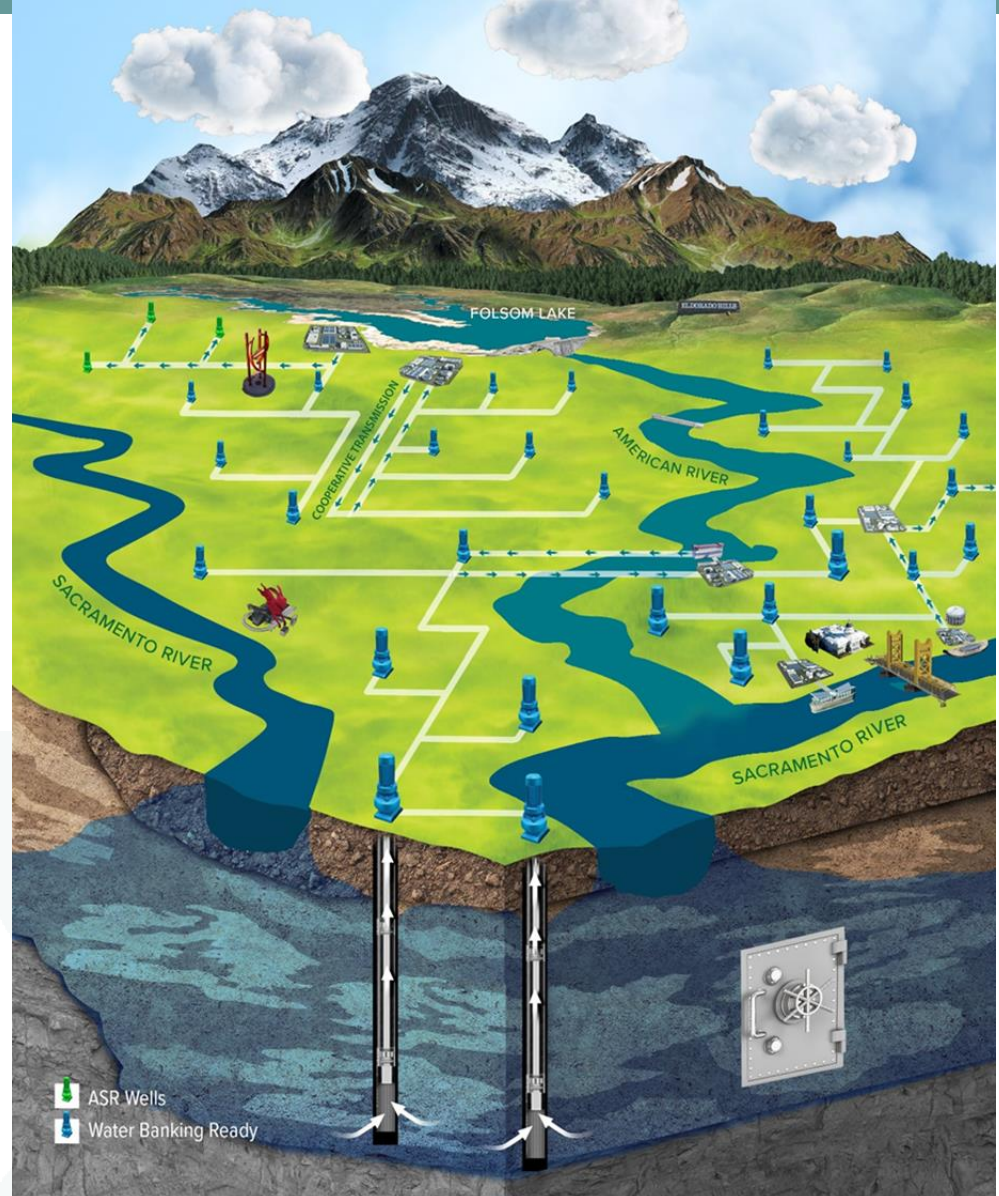
Contributing Water Bank Partners

WATER BANK STAKEHOLDER FORUM - Winter 2023

California American Water	Fair Oaks Water District
Carmichael Water District	Golden State Water Company
Citrus Heights Water District	Orange Vale Water Company
City of Folsom	Placer County
City of Lincoln	Placer County Water Agency
City of Roseville	Rio Linda/Elverta Community Water District
City of Sacramento	Sacramento County Water Agency
Del Paso Manor Water District	Sacramento Regional County Sanitation District
El Dorado County Water Agency	Sacramento Suburban Water District
El Dorado Irrigation District	Sacramento Area Flood Control Agency
Elk Grove Water District	San Juan Water District



Water Bank Basics and Background



Groundwater and Recharge Methods

Natural Recharge

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

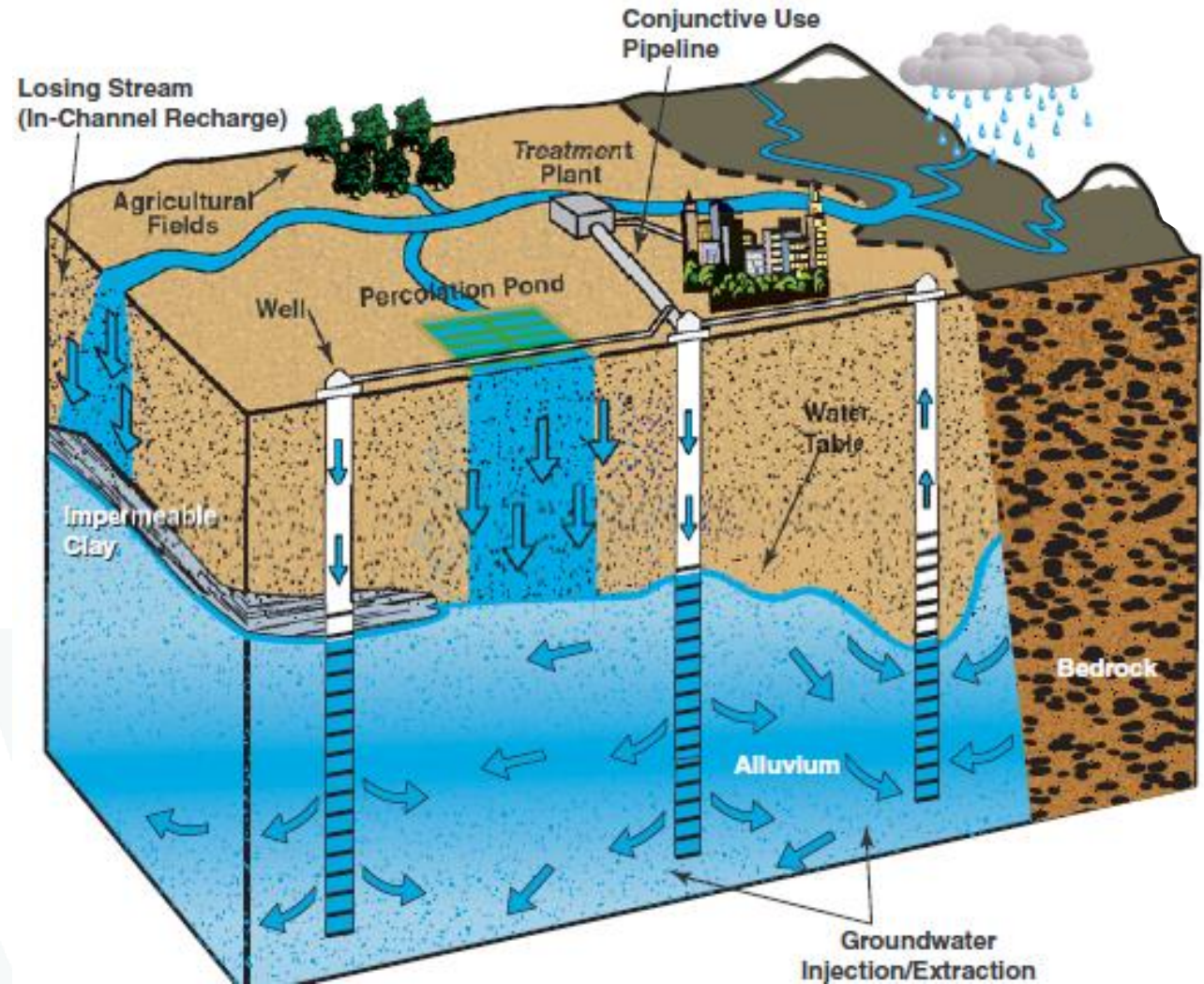
Artificial Recharge

▪ Direct Recharge

- Injection Wells
- Percolation Ponds

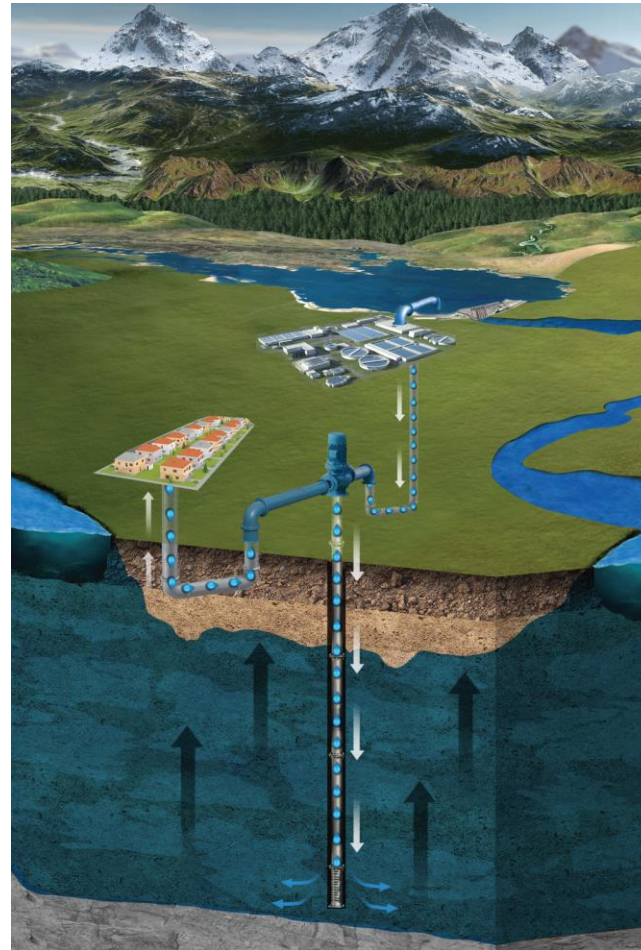
▪ In-Lieu Recharge

- *Storing water by utilizing surface water “in-lieu” of pumping*

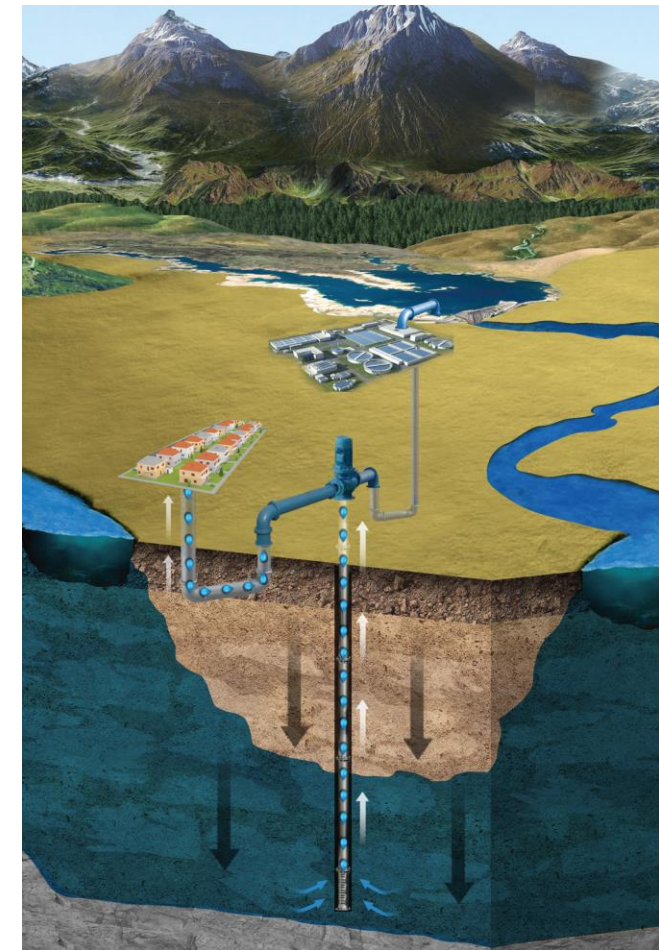


What is a Water Bank?

- 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



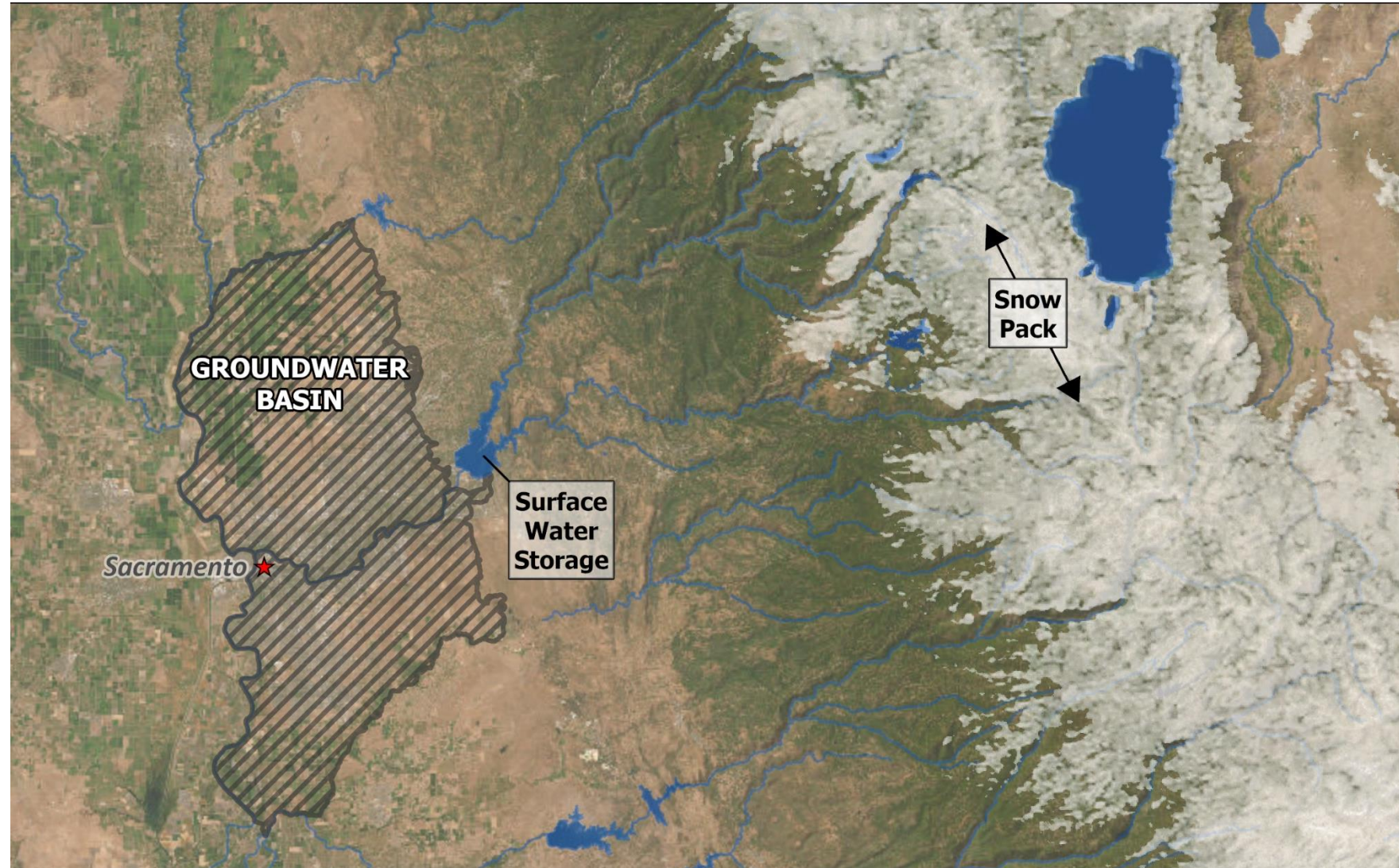
Recharge/Storage



Recovery

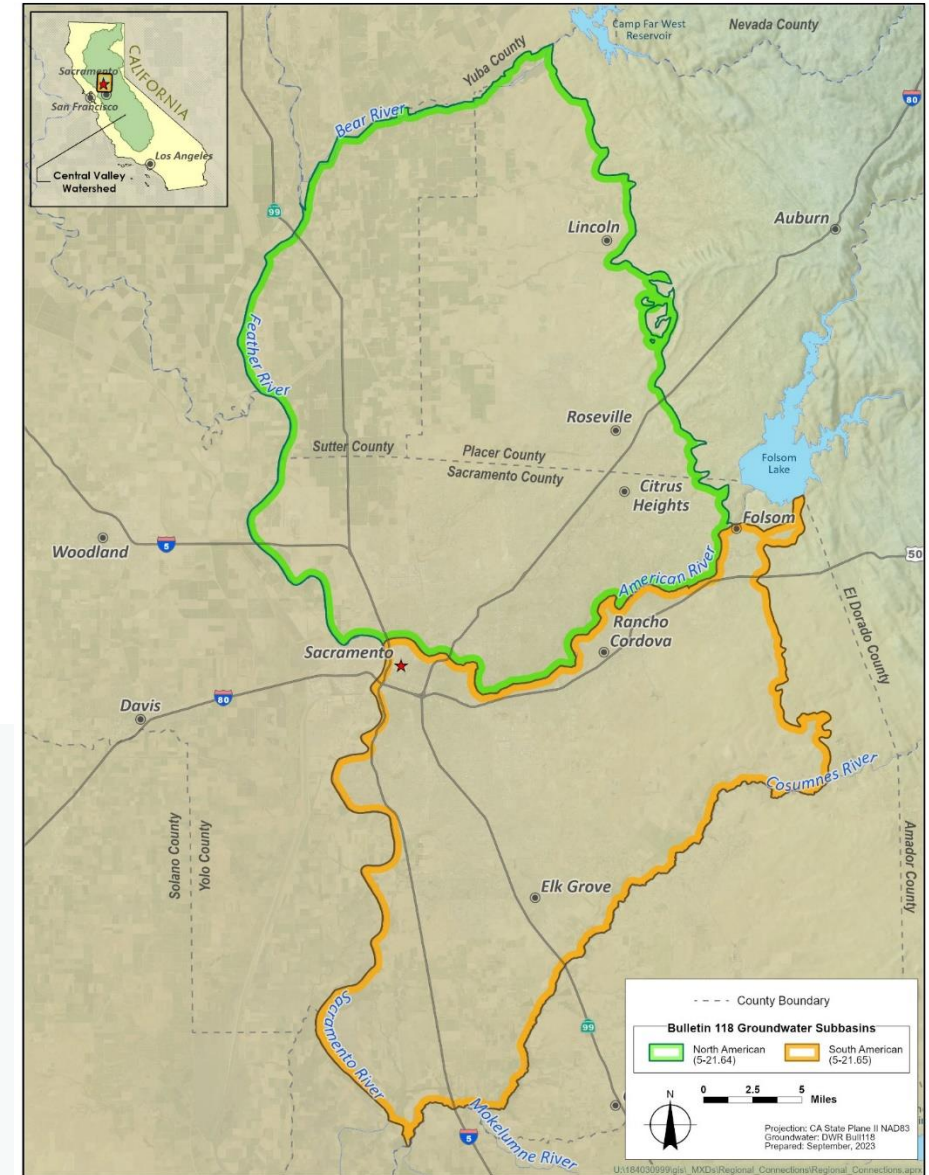
Scale of Groundwater Storage

- Historical reliance on **snowpack**, **surface water**, and **groundwater**
- Going forward, **groundwater storage** and **recovery** needs to be a more prominent part of our vision



Sacramento Regional Water Bank Area

- Located in the **North American Subbasin** and **South American Subbasin**
- **Sutter, Placer, and Sacramento** Counties
- Includes cities of **Sacramento, Elk Grove, Rancho Cordova, Roseville, Citrus Heights, and Lincoln**
- Includes the **American River**
- Bounded by **Feather River, Bear River, Sacramento River, Cosumnes River, and Sierra Nevada foothills**



Relevant Entities

Regional Water Authority

- Leading and coordinating the Water Bank development effort.

Water Bank Program Committee

- RWA agencies supporting the Water Bank development effort by providing funding, guidance, and direction.

External WB Partners

- Entities external to RWA with which RWA engages on behalf of the WB Participating Agencies.

State and Federal Agencies

- Agencies with regulatory, permitting, and/or funding roles (DWR, SWB, Reclamation, etc.)

Stakeholders

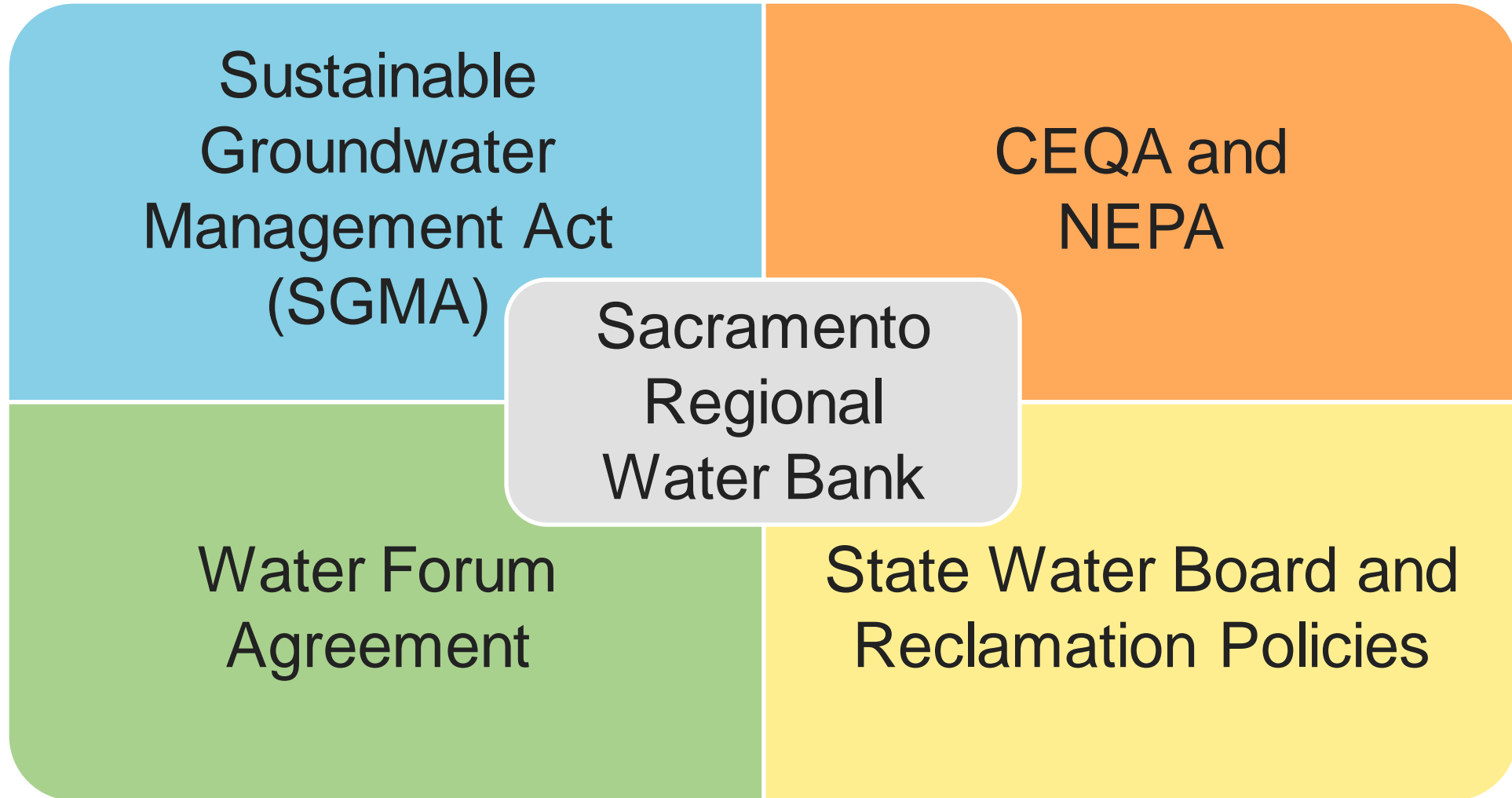
- Non-governmental organizations, other entities, and individuals with an interest in the WB.



— BUREAU OF —
RECLAMATION



Sacramento Regional Water Bank Complies with Federal and State Requirements



Federally Acknowledged Water Banks



— BUREAU OF —
RECLAMATION

Groundwater Banking Guidelines for Central Valley Project Water

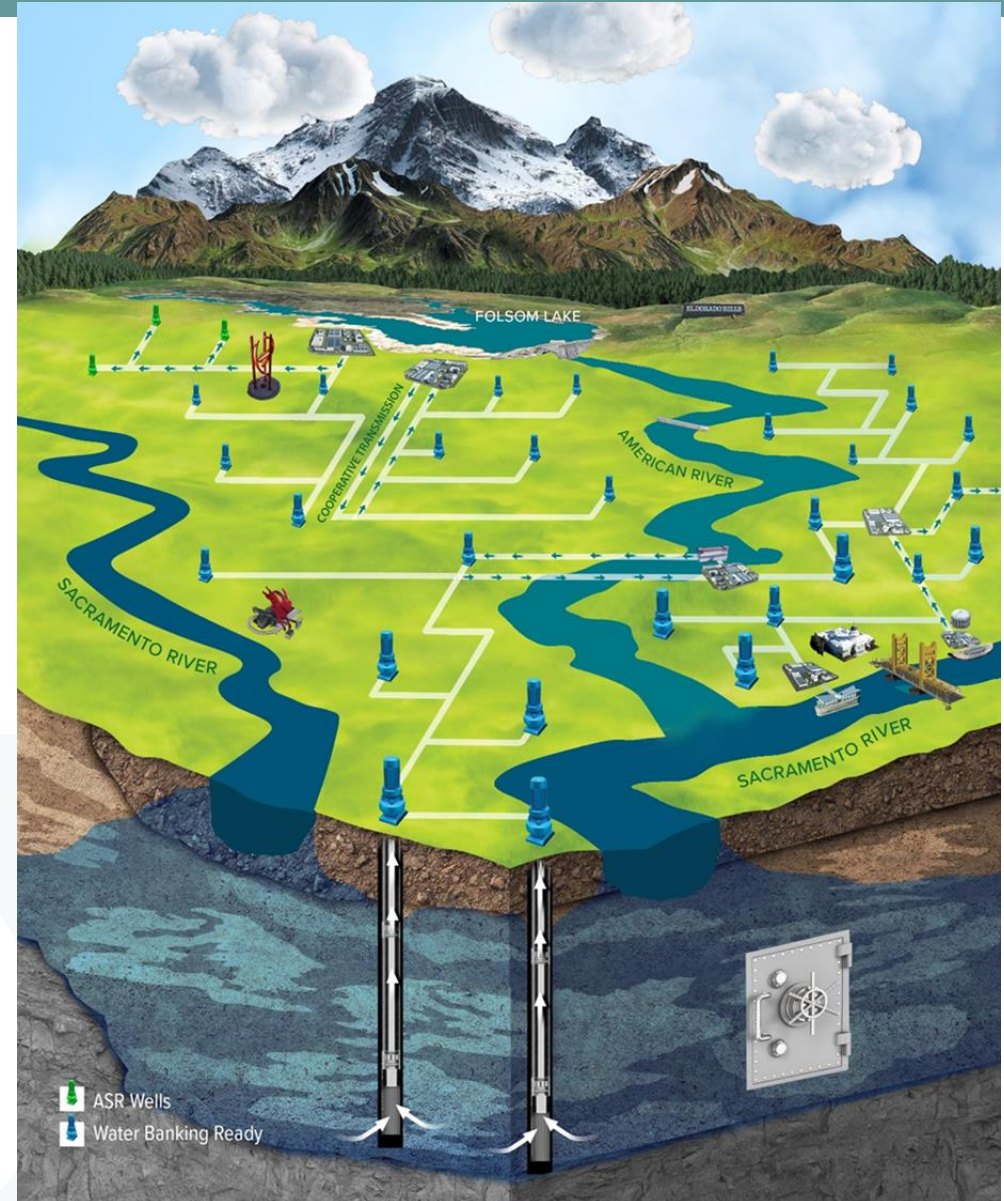
Effective Date: November 12, 2014
Updated October 4, 2019

	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



Sacramento
Regional
Water Bank

Sacramento Regional Water Bank Overview

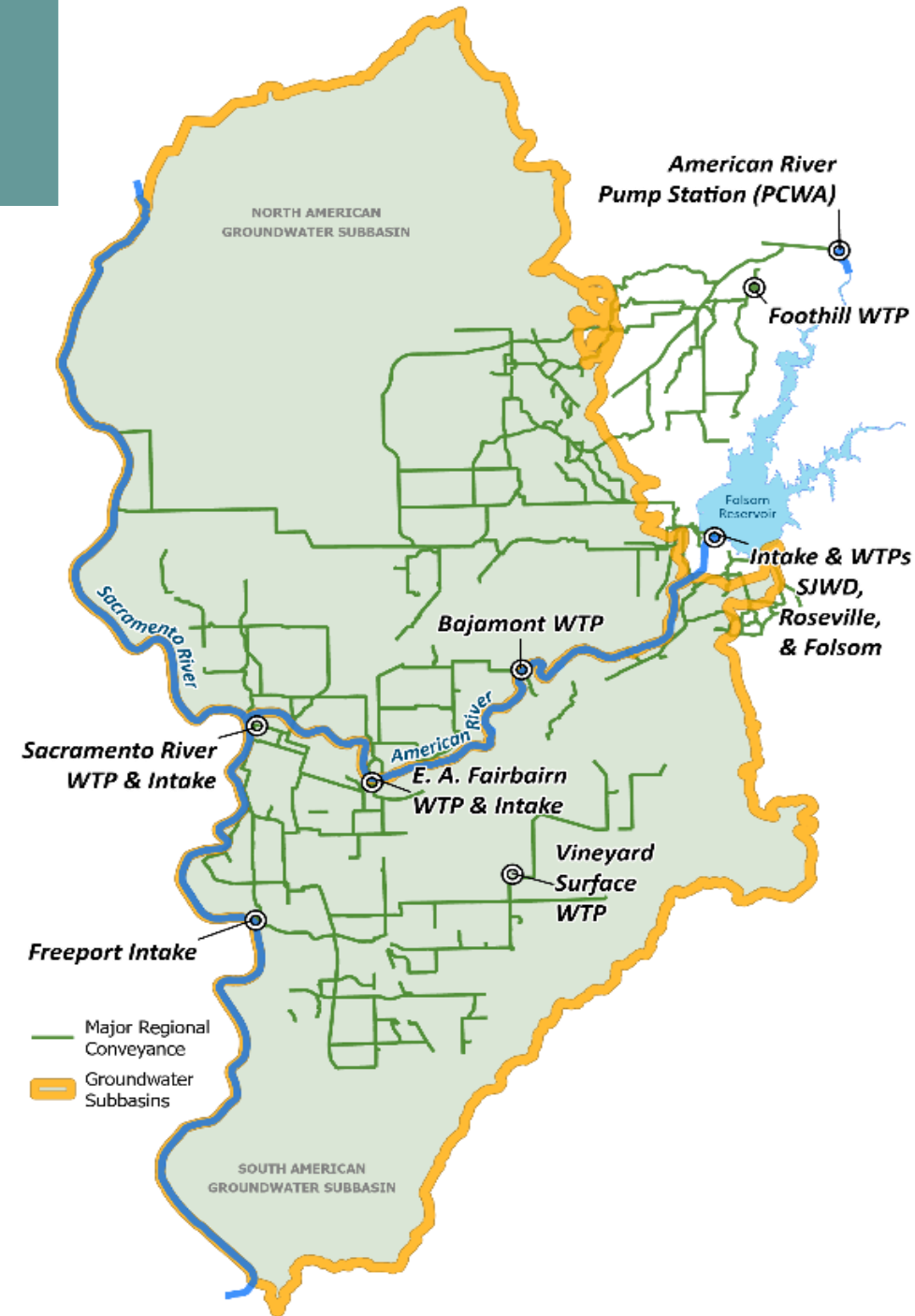


Water Bank – Existing Facilities

Existing facilities would be used to:

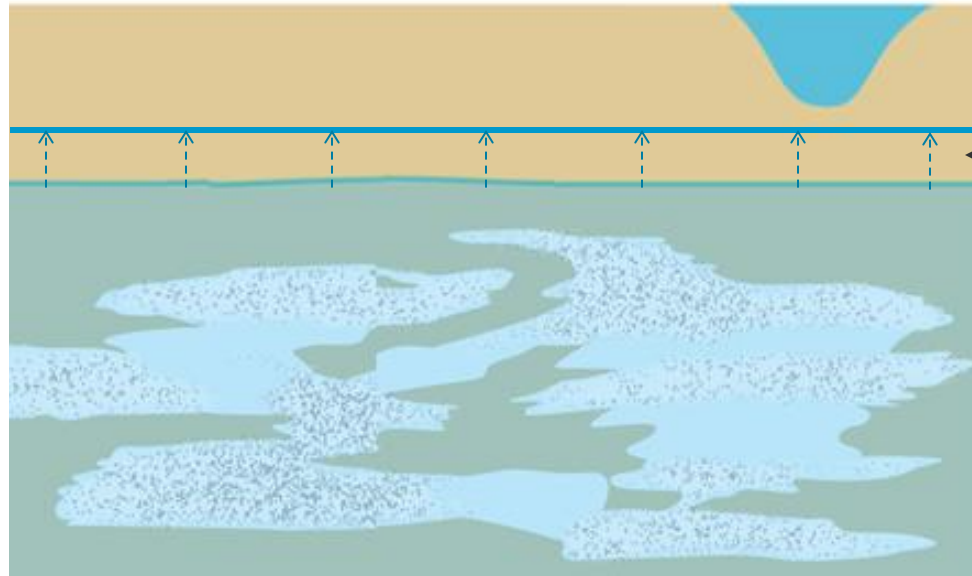
- **Recharge/Storage:**
 - Divert surface water
 - Treat surface water for use by participating agencies and/or injection into aquifer, using aquifer storage and recover wells
- **Recovery:** Pump previously banked groundwater for use by Participating Agencies, to serve their customers

Note: facilities shown are subject to change



Water Bank – Recharge

- Use available surface water during hydrologically preferential periods to:
 - Reduce groundwater use (in-lieu recharge)
 - Direct recharge using aquifer storage and recovery wells
- Groundwater use would decrease and surface water use would increase
- Up to 65,000 acre-feet per year of water would be banked in the groundwater basin



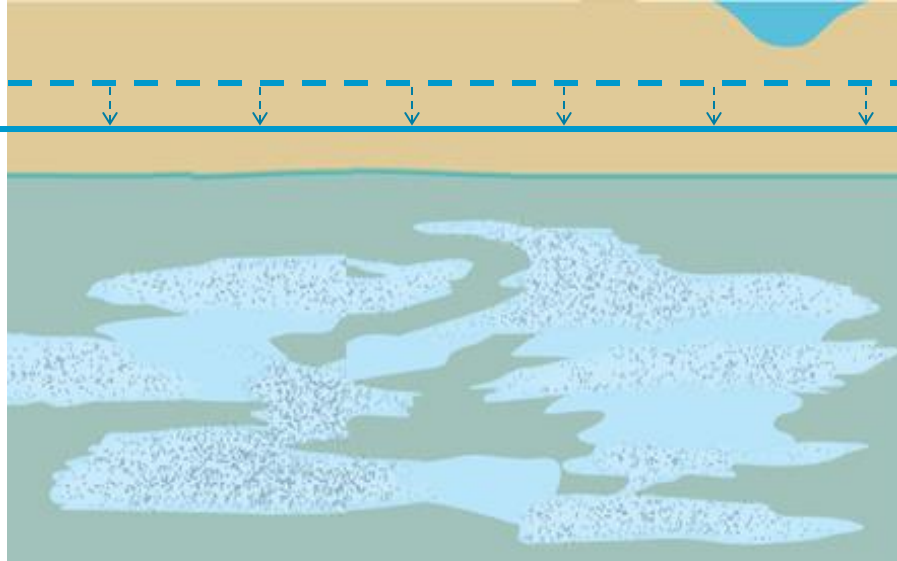
Groundwater storage increases by using excess surface water



Folsom Reservoir Spilling

Water Bank – Recovery

- Up to 55,000 acre-feet of groundwater would be banked for future use to reduce reliance on surface water supplies
- Recharge before recovery
- Surface water could then be stored in Folsom Reservoir, or could be used for other purposes: ecosystem, local agencies, other partners



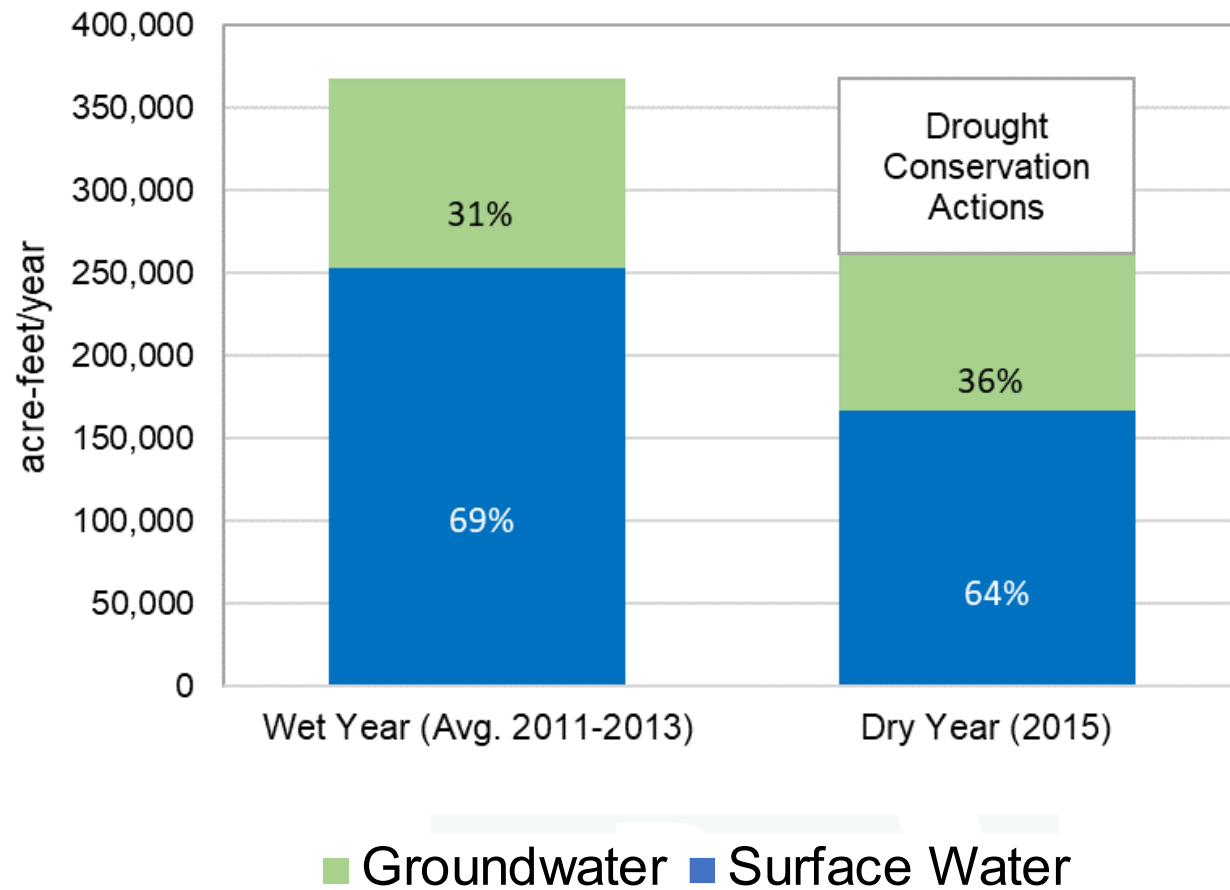
Portion of the previously banked groundwater is recovered and used in-lieu of surface water



Folsom Reservoir during 2015 drought

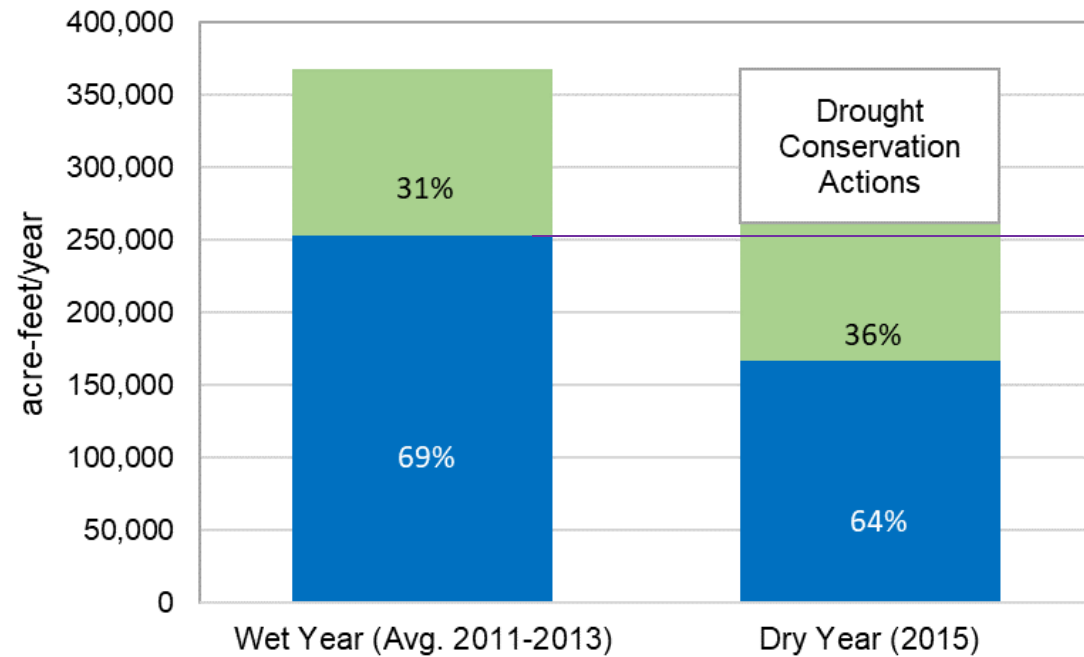
Water Bank – Shifting Water Sources

Current Conditions

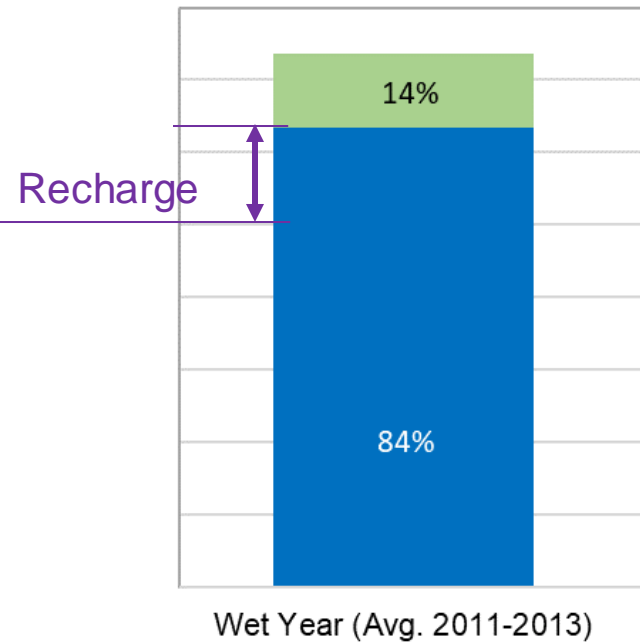


Water Bank – Shifting Water Sources (cont.)

Current Conditions



Conditions With the Water Bank

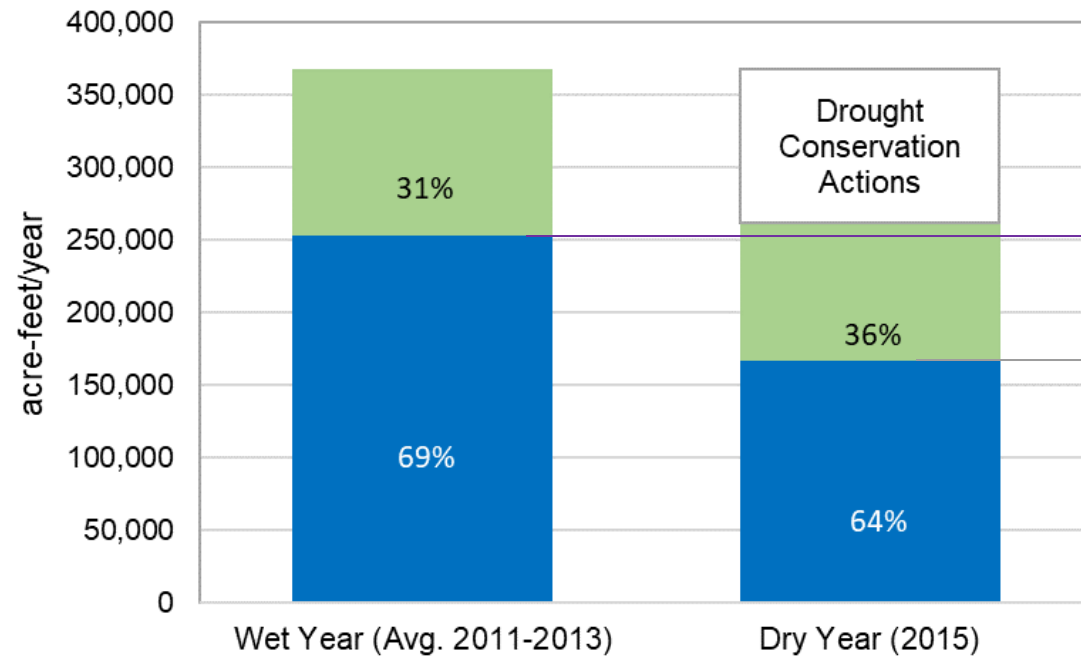


■ Groundwater ■ Surface Water

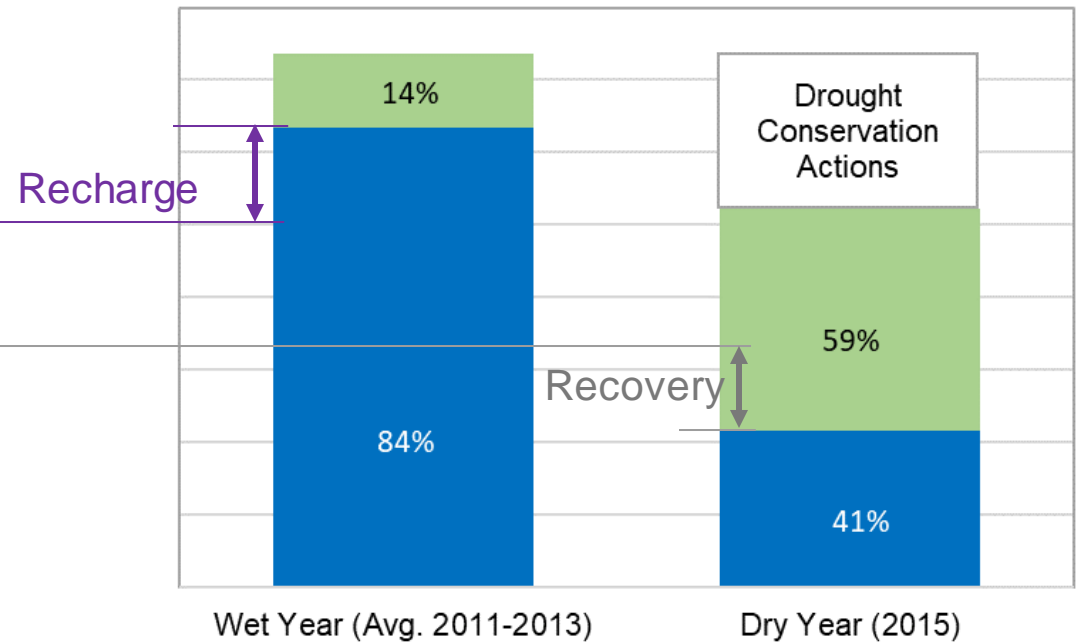
Water Bank – Shifting Water Sources (cont.)



Current Conditions



Conditions With the Water Bank



■ Groundwater ■ Surface Water

Water Bank – Project Benefits

- **Local & Regional Water Supply Reliability**
- **Ecosystem, Fish, & Wildlife**
- **Water Quality**
- **Economic**

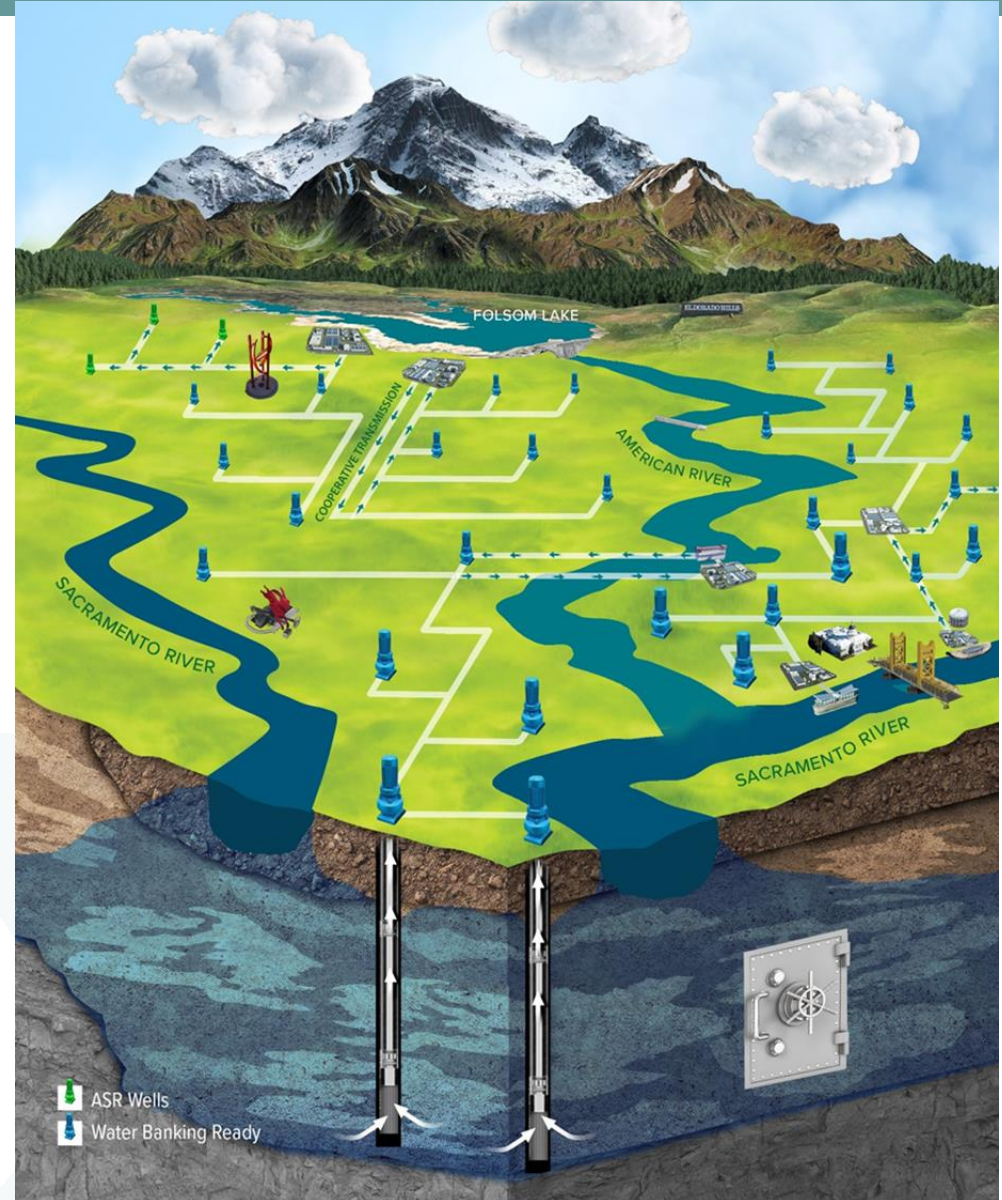


Project Exclusions

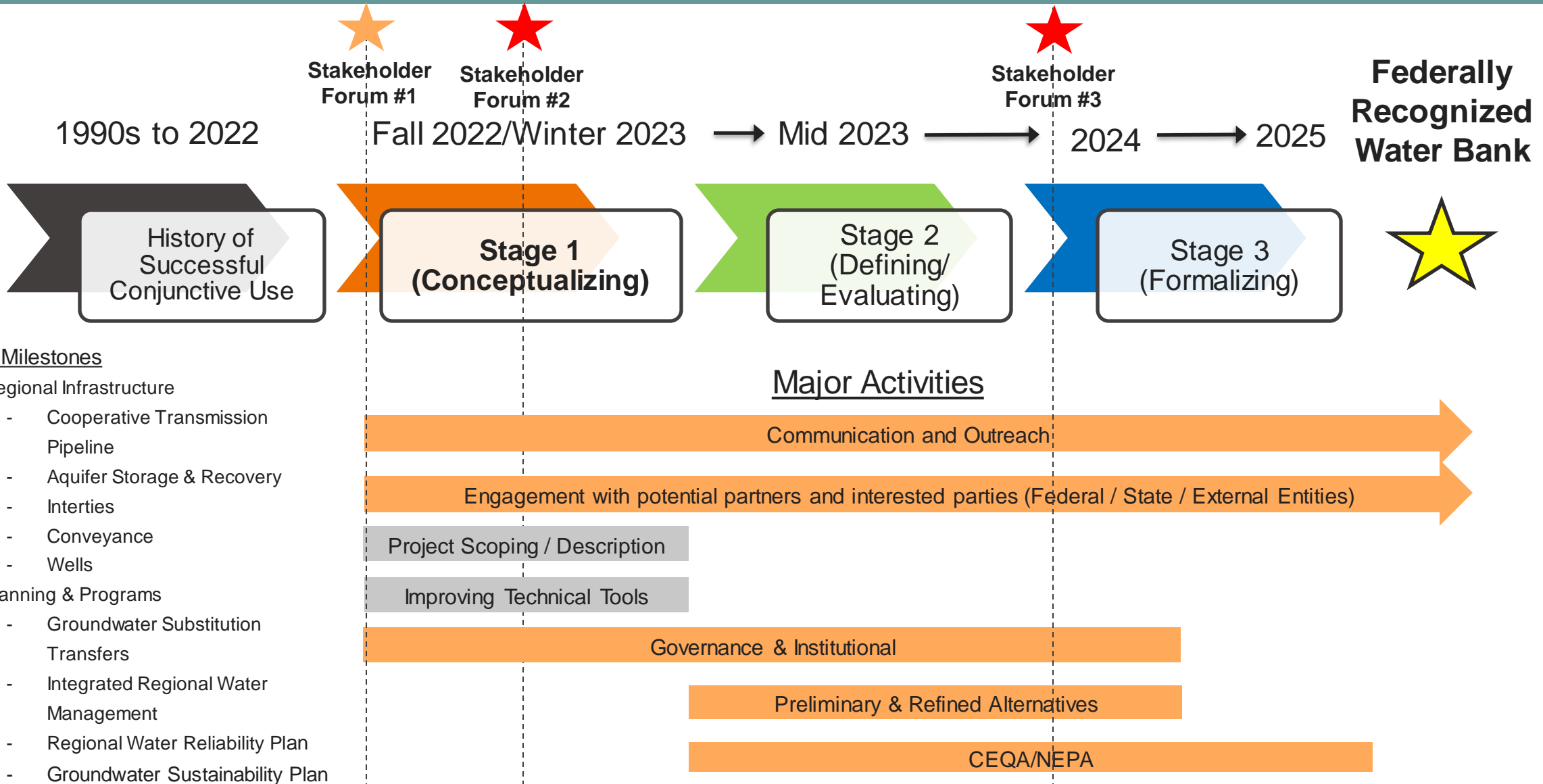
- New facilities are **not** being proposed, nor would any new facilities be authorized as part of this Project.
- Changes in surface water rights/contract supplies are **not** being proposed, nor would they be authorized as part of this Project.
- Out of basin transfers are **not** currently being proposed.



Regional Coordination, Governance, and Planning



Stages of Sacramento Regional Water Bank



Water Bank Organization, Management, and Operations

Institutional Components:

- Goals, Objectives, Principles, and Constraints
- Roles and Responsibilities
- Organizational Structure
- Water Accounting System (WAS) Concept Paper, Monitoring, Reporting
- Contractual, Financial, and Legal

Project Description/Scoping:

- Proposed Project Preview
- Water Bank Project Benefits and Outcomes
- Project Description

CEQA/NEPA:

- Compliance Process
- NOP
- Scoping
- Document Preparation
- Noticing, Consultation, Coordination
- Other Requirements

Water Bank Development:

- Budgets
- Grants and Funding
- Contractors

Communication and Engagement:

- Stakeholder Forums
- Water Bank website and content

Goal, Objectives, Principles, and Constraints Overview

- A water supply that is reliable, resilient, and sustainable is crucial to the long-term viability of the Sacramento region’s community, environment, businesses, and families.
- This document was produced with input from the public, stakeholder groups, and Water Bank Participating Agencies.

SACRAMENTO REGIONAL WATER BANK Goal, Objectives, Principles, and Constraints

Purpose and Use of This Document

This is the first of a series of papers that will introduce and describe the process and considerations related to the development and implementation of the Sacramento Regional Water Bank (Water Bank).

This document defines the Water Bank goal, objectives, principles, and constraints that provide the framework to: (1) set the direction for subsequent Water Bank activities (overall strategy, alternatives formulation, analyses, environmental documentation, governance, etc.); and (2) focus development of options and the overall project description.

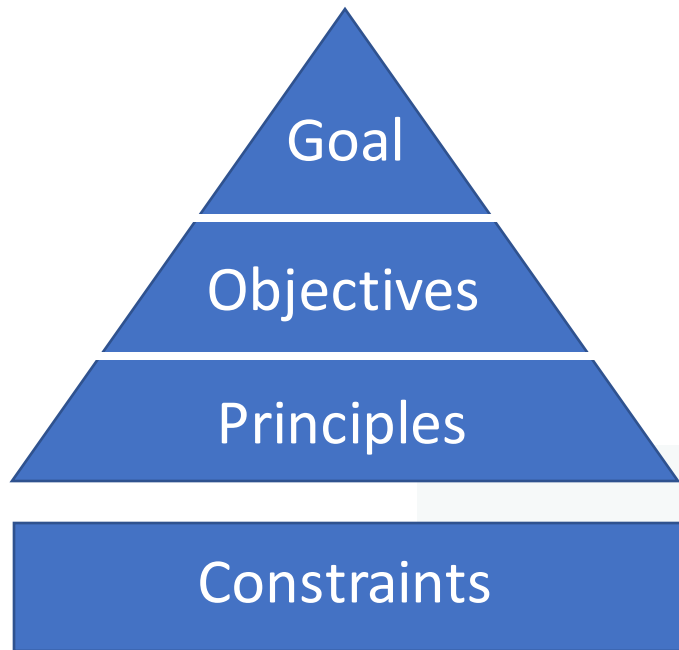
- The **GOAL** represents the desired “end state” of activities. The goal captures the intent—the “why”—of the Water Bank and serves as the foundation of the entire development and implementation process.
- **OBJECTIVES** establish the intent of the Water Bank to address related aspects of the region’s water management challenges to the maximum extent possible. Objectives provide additional details as to how the goal will be achieved and serve as a means of measuring success in achieving that goal.
- **PRINCIPLES** are overarching, foundational statements of shared values informing Water Bank development, implementation, and decision making.
- **CONSTRAINTS** are factors that shape or limit development, evaluation, and implementation of the Water Bank.

Purpose	1
Background	1
Goal	3
Objectives	3
Principles	3
Constraints	5

Background

Water management in the North and South American subbasins (hereafter called the American River Basin) is facing the combined climate pressures of warming air temperatures, shrinking snowpack, shorter and more intense wet seasons, more volatile precipitation, and rising sea levels affecting the Sacramento-San Joaquin Delta (Delta). These climate pressures will make it more challenging to simultaneously store and maintain water for droughts, manage flood risk, and protect freshwater ecosystems. Warming air temperature has complex adverse effects on water supply—it reduces the share of precipitation falling as snow, causes early snowpack melting and higher than usual winter runoff, raises water temperatures, and amplifies the severity of droughts and floods. Warmer, more intense droughts increase pressure to draw down groundwater resources. Over-reliance on groundwater for supply can lead to long-term declines in groundwater levels. Warmer, more intense storms add stress to managing surface reservoirs, making it harder to meet often competing objectives of storing water, safeguarding communities from harmful floods, and protecting freshwater ecosystems. Sea level rise threatens the Delta and puts more pressure on Folsom Reservoir to contribute flows to help meet Delta water quality requirements.

Goal, Objectives, Principles, and Constraints Overview



The **GOAL** represents the desired “end state” of activities. The goal captures the intent—the “why”—of the Water Bank and serves as the foundation of the entire development and implementation process.

OBJECTIVES represent the current and best intent to address various aspects of the region’s water management issues to the maximum extent possible. Objectives provide additional details on how the goal will be achieved and serve as a means of measuring success in achieving that goal.

PRINCIPLES are overarching statements on shared values for Water Bank development and implementation, and they serve as a basis for decision making. They are foundational and provide overall guidance to project development and implementation.

CONSTRAINTS are factors that shape or limit the Water Bank in terms of how it is developed, evaluated, and implemented.

Water Bank – Goals/Objectives and Governance

Goal

The **GOAL** of the Water Bank is to expand conjunctive use, thereby increase water banking operations throughout 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.

Objectives

The Water Bank **OBJECTIVES** are to:

- Increase groundwater recharge during wet conditions using available surface and recycled water supplies.
- Reduce reliance on surface water during dry conditions by using previously banked groundwater.
- Contribute to water reliability of water agencies in the region with no or limited access to groundwater.
- Contribute to water reliability of water agencies in the region with no or limited access to surface water.
- Maintain the quality of surface water and groundwater.
- Contribute to CVP operational flexibility by reducing reliance on Folsom Reservoir during dry conditions.
- Contribute to healthy ecosystem function, including on the lower American River.
- Consider and advance mutually beneficial opportunities to partner with entities outside the region on operational collaboration and/or investment in the Water Bank.
- Generate revenue for investment in infrastructure and other projects/programs to improve regional water supply reliability, resiliency, and affordability for participating agencies.
- Generate revenue to reduce financial barriers to conjunctive use for participating agencies.



Governance: Organizational Framework, Functions, and Associated Roles and Responsibilities

- Delineates the essential functions and activities vital for successful implementation of the Water Bank.
- Introduces an organizational framework, outlining roles and responsibilities.
- This document was produced with Participating Agencies.

SACRAMENTO REGIONAL WATER BANK

Governance: Organizational Framework, Functions, and Associated Roles and Responsibilities

Purpose

This paper is one of a series of papers that introduce and describe the process and considerations related to the implementation of the Sacramento Regional Water Bank (Water Bank). These processes are aspects of Water Bank governance functions.

Background

Governance can be described as “the conceptual model for how an entity is managed, its interactions with and relationship to partners and affiliates, and identification of the operations and systems it oversees.” Water Bank governance components include:

- **Vision and Strategy:** Goals, objectives, principles, and constraints
- **Structure:** Organizational framework, functions, and associated roles and responsibilities
- **Operations Support Tools:** Water accounting, monitoring, and reporting
- **Agreements and Finance:** Framework to incentivize water banking and codify roles and responsibilities for water banking

This paper focuses on the **structure** component of Water Bank governance. It outlines the required functions and activities to support successful implementation of the Water Bank, illustrates a general organizational framework to conduct these functions, and describes the associated rules and possibilities. This paper is intended to:

- (1) Establish shared understanding and common terminology among the Water Bank Program Committee members and the Water Bank Development Team, and
- (2) Help the Program Committee and the technical team maintain consistency in their ongoing engagements with other entities and stakeholders as part of the Water Bank development process.

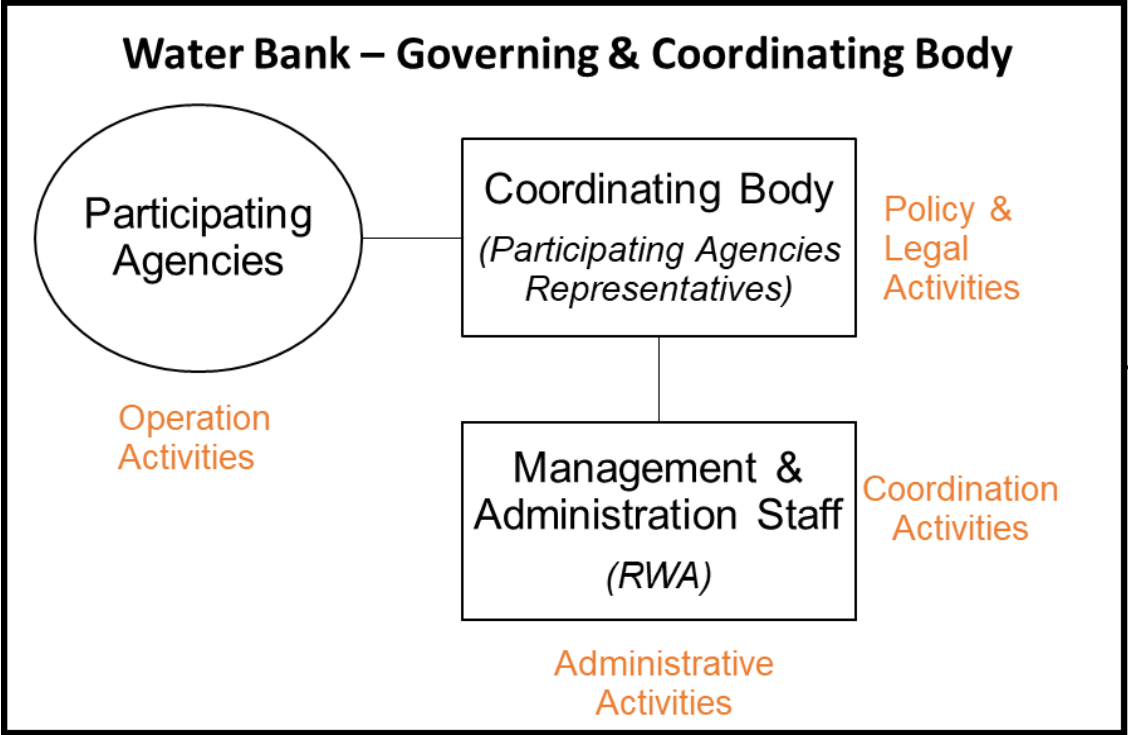
This paper reflects feedback from the Program Committee on the draft *Governance: Roles and Responsibilities White Paper* (dated March 3, 2023). It also reflects additional input and feedback received during the Program Committee meetings on April 6 and April 10, 2023.

Required Functions and Activities

The required activities to support a successful Water Bank can be grouped into four functional areas:

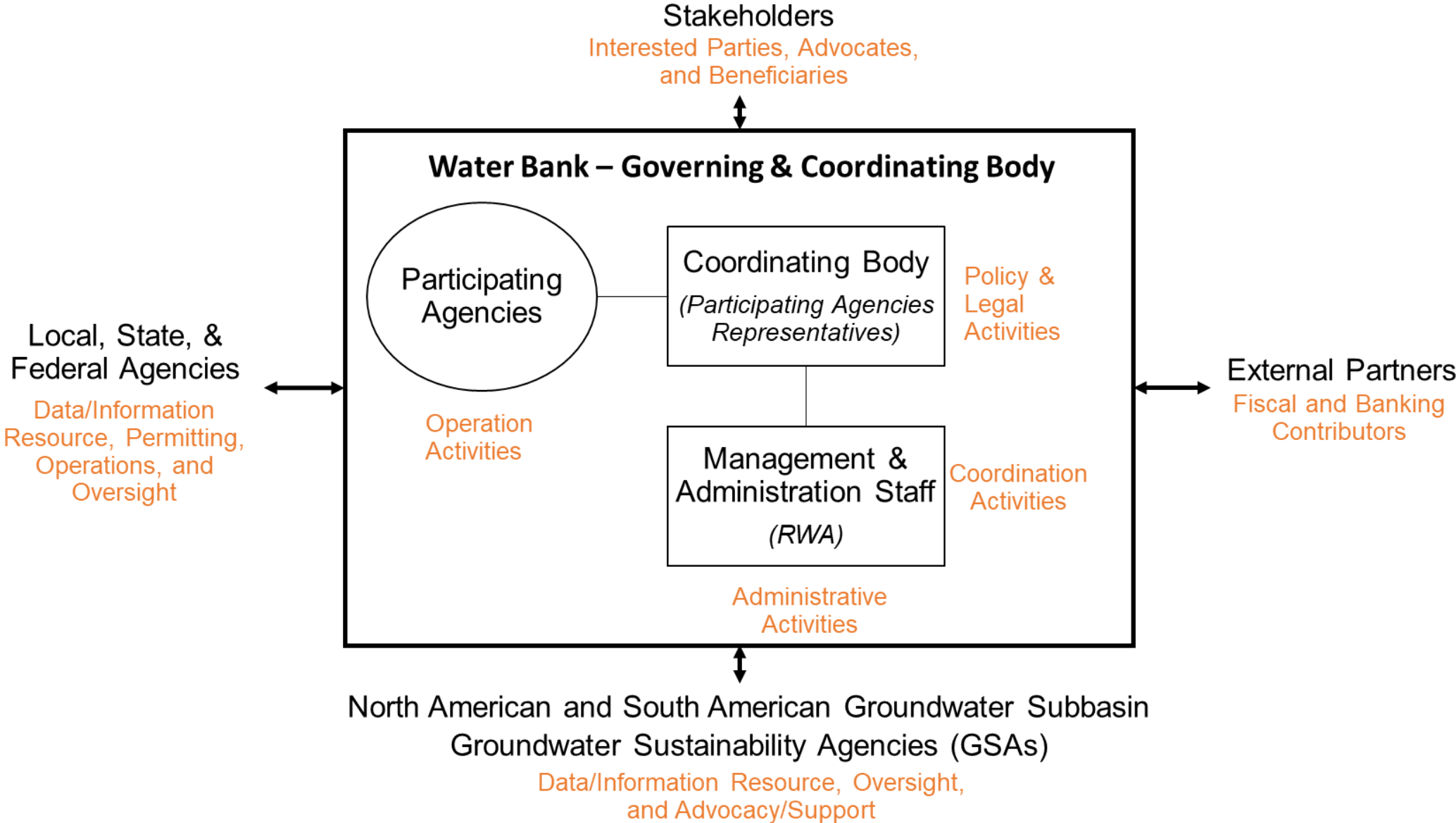
- (1) Policy and legal activities
- (2) Operations activities
- (3) Administrative activities

Water Bank Organization, Management, and Operations



Water Bank Organization, Management, and Operations

WATER BANK STAKEHOLDER FORUM – Winter 2023



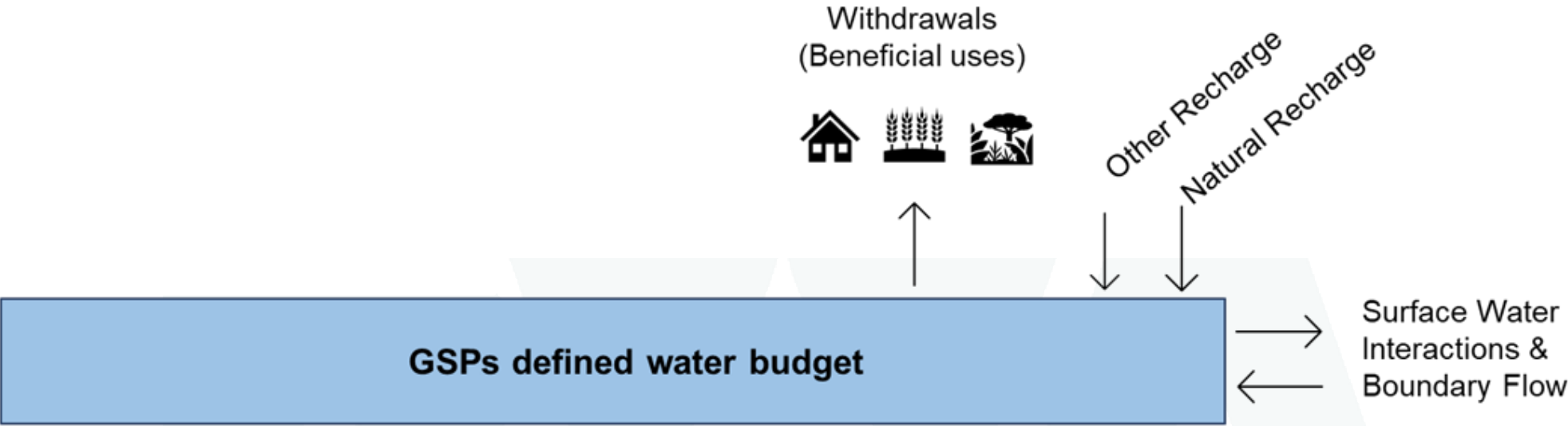
Water Accounting System

✓ WAS Module #1	✓ WAS Module #2	WAS Module #3	WAS Module #4	WAS Module #5
<ul style="list-style-type: none"> • Recap • Concepts • Overview: Elements and Process • Schedule 	<ul style="list-style-type: none"> • Functional Element 1: Accounting Rules • Functional Element 2: Data Collection, Management, Transparency, and Reporting 	<ul style="list-style-type: none"> • Functional Element 3: Adaptive Management • Functional Element 4: Administration • Initial Evaluation of Accounting Components (Functional Element 1): <ul style="list-style-type: none"> –Basin “Leave Behind” –Basin Losses 	<ul style="list-style-type: none"> • Initial Evaluation of Accounting Components (Functional Element 1): <ul style="list-style-type: none"> –Baseline Conditions –In-Basin and Out-of-Basin Transfers –Banked Water 	<ul style="list-style-type: none"> • Development of: <ul style="list-style-type: none"> –Data Collection, Management, Transparency, and Reporting (Functional Element 2) –Adaptive Management (Functional Element 3) –Administration (Functional Element 4) • Framing the Tracker Tool

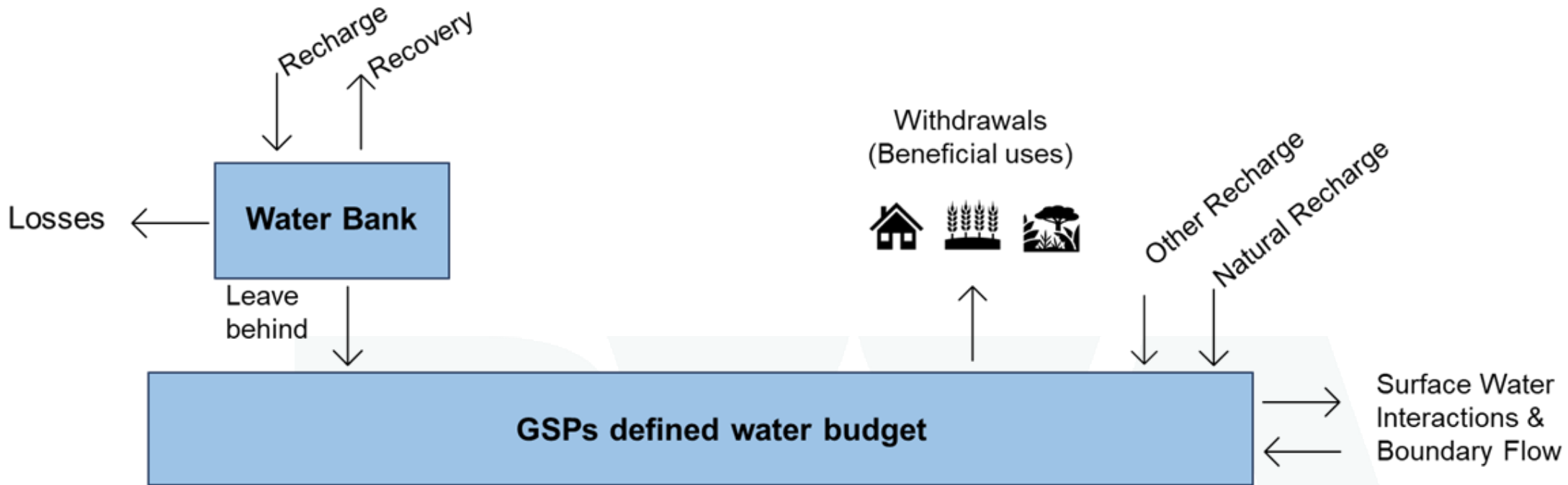
Coordination with overlying GSAs, potential participants, other interested parties

Proposed Schedule – Subject to Change

Water Accounting Concept

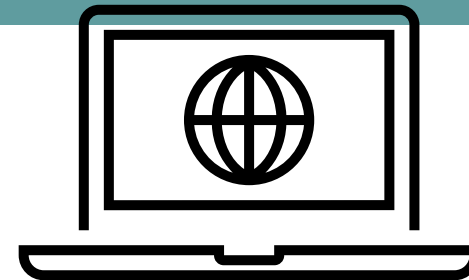
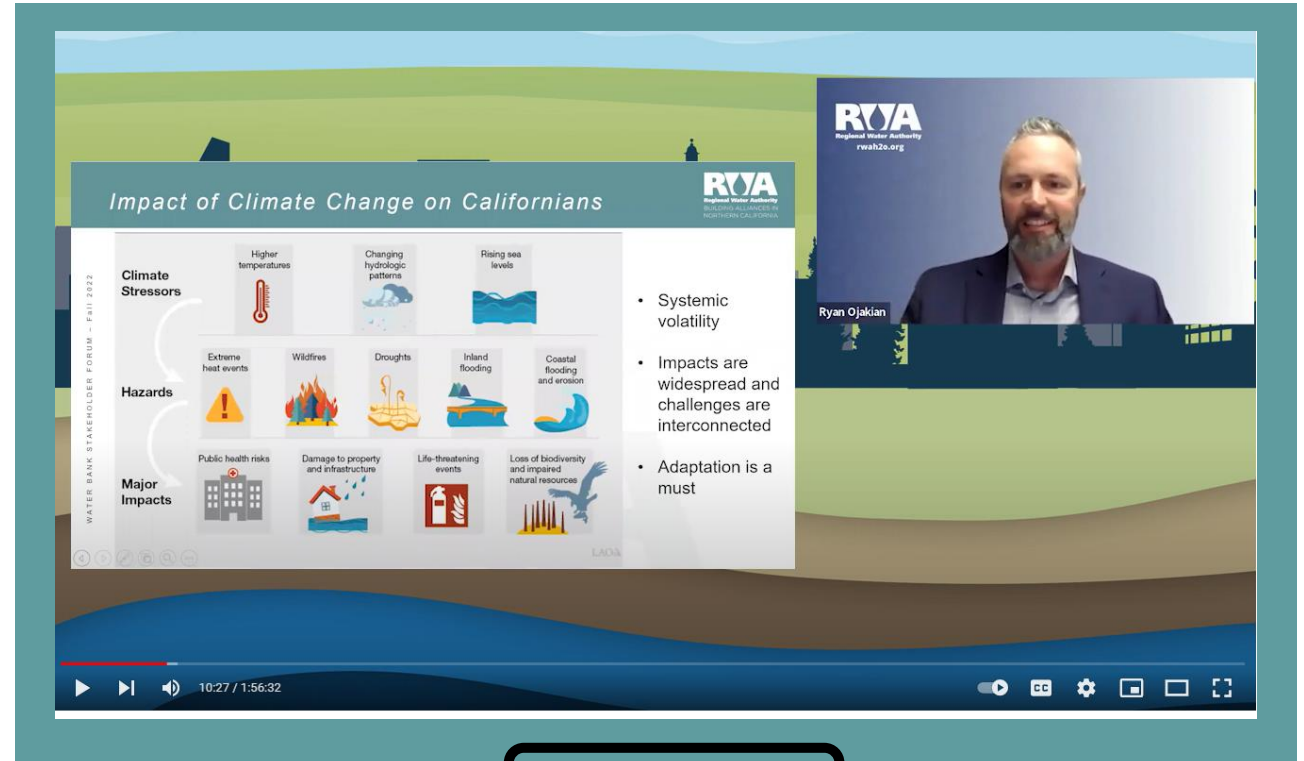


Water Accounting Concept

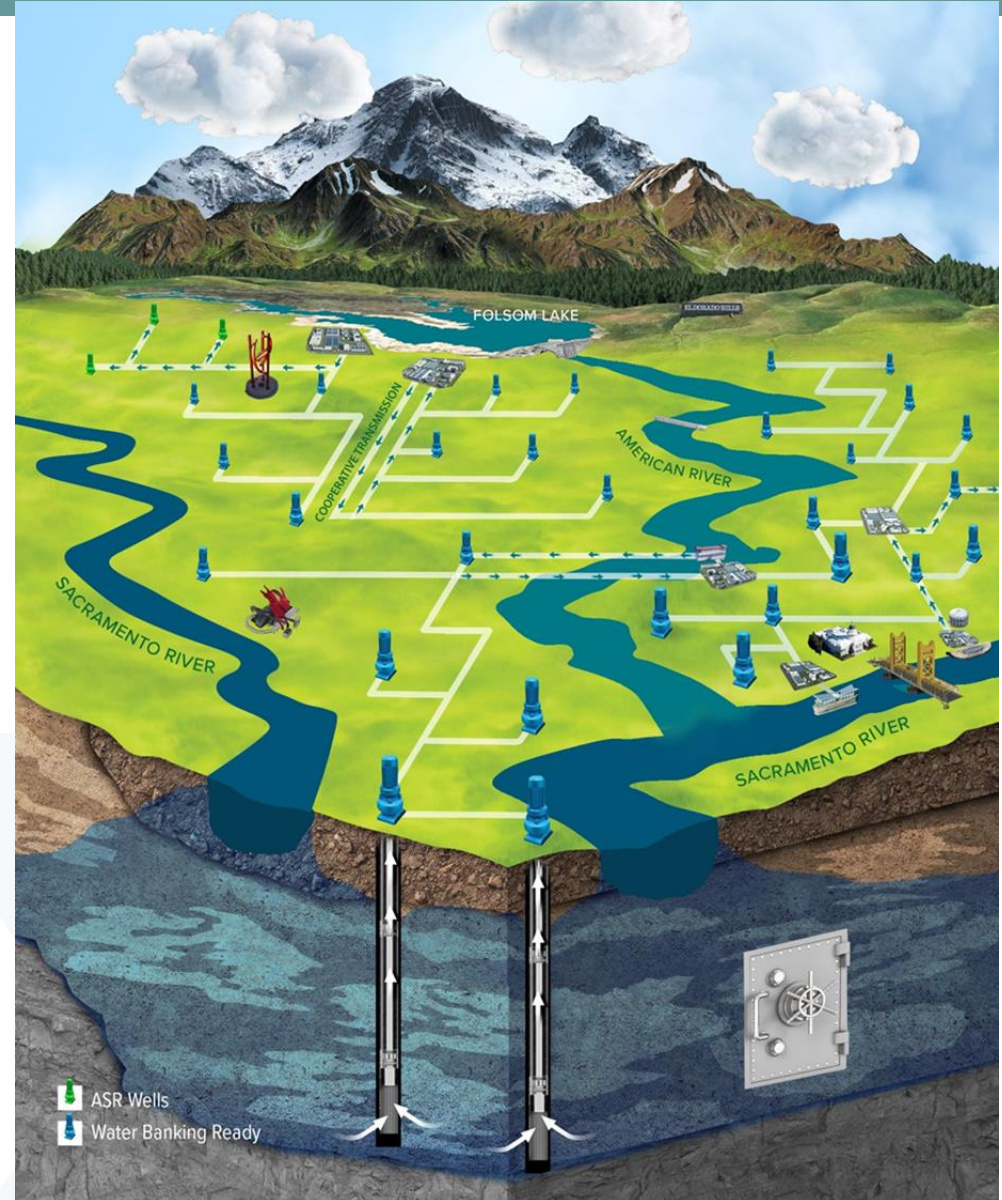


Recap of Engagement Efforts

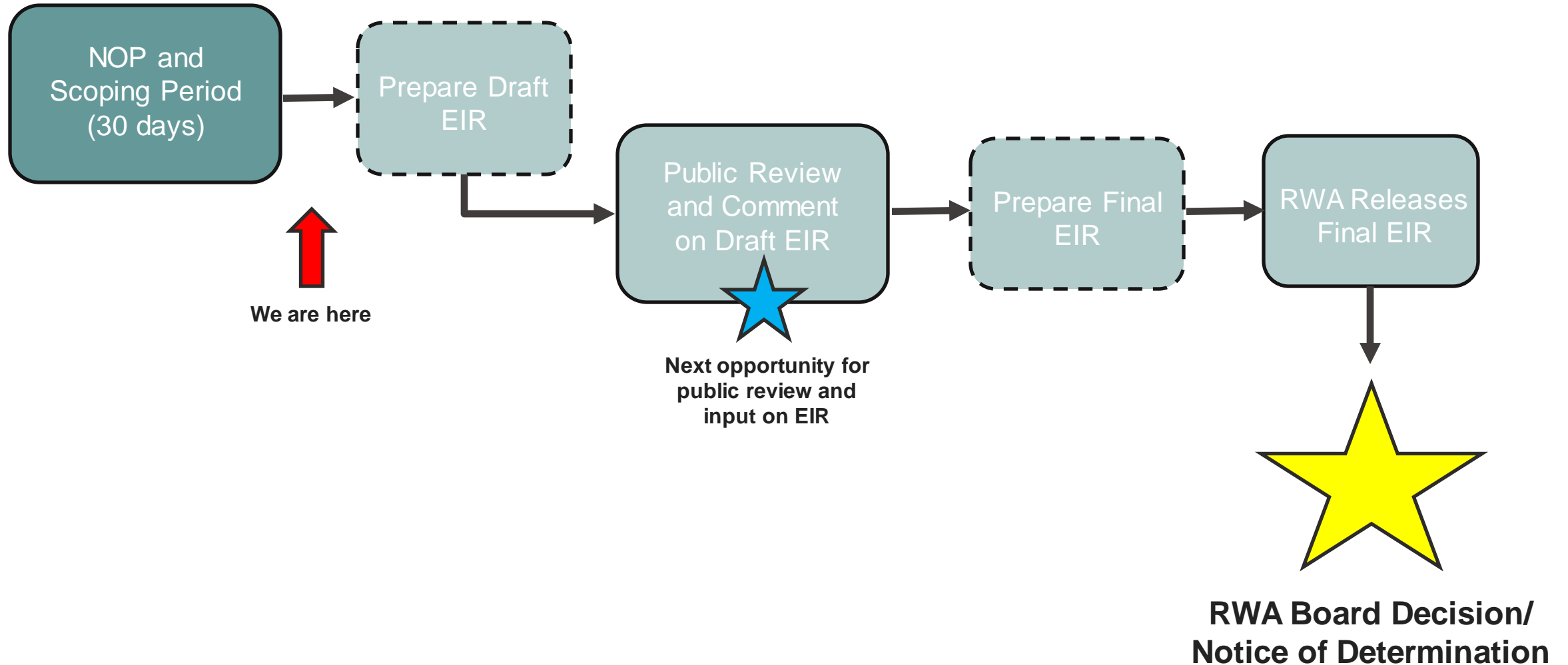
- Previous Stakeholder Forums
 - October 2022
 - February 2023
- Public Scoping Meetings
 - October 2023
- New Website



Environmental Compliance



Environmental Review Process



- Required as part of the environmental compliance process under CEQA
- Provided an overview of the Project schedule and information on public input opportunities
- Described the Water Bank and provide details about its proposed operations and outcomes
- Gather public and agency input to assist with analysis and focus of the EIR

Recording of scoping presentation available at: www.sacwaterbank.com

Preliminary Environmental Review

- RWA is the Lead Agency under the California Environmental Quality Act (*CEQA Guidelines, § 15051 (d)*).
- RWA has determined the need to prepare an Environmental Impact Report (EIR).
- Notice of Preparation was issued September 25, 2023 (*CEQA Guidelines, § 15051 (a)*), scoping ended on October 25, 2023.
- Consultation with California Native American Tribes has been initiated (*Public Resources Code § 21080.3.1*).

Preliminary Environmental Review

CEQA Guidelines recommend the following resources be considered as part of an environmental review:

- Aesthetics
- Agricultural/Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gases
- Hazards & Hazardous Materials
- Hydrology and Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire



Preliminary Environmental Review

CEQA Guidelines recommend the following resources be considered as part of an environmental review:

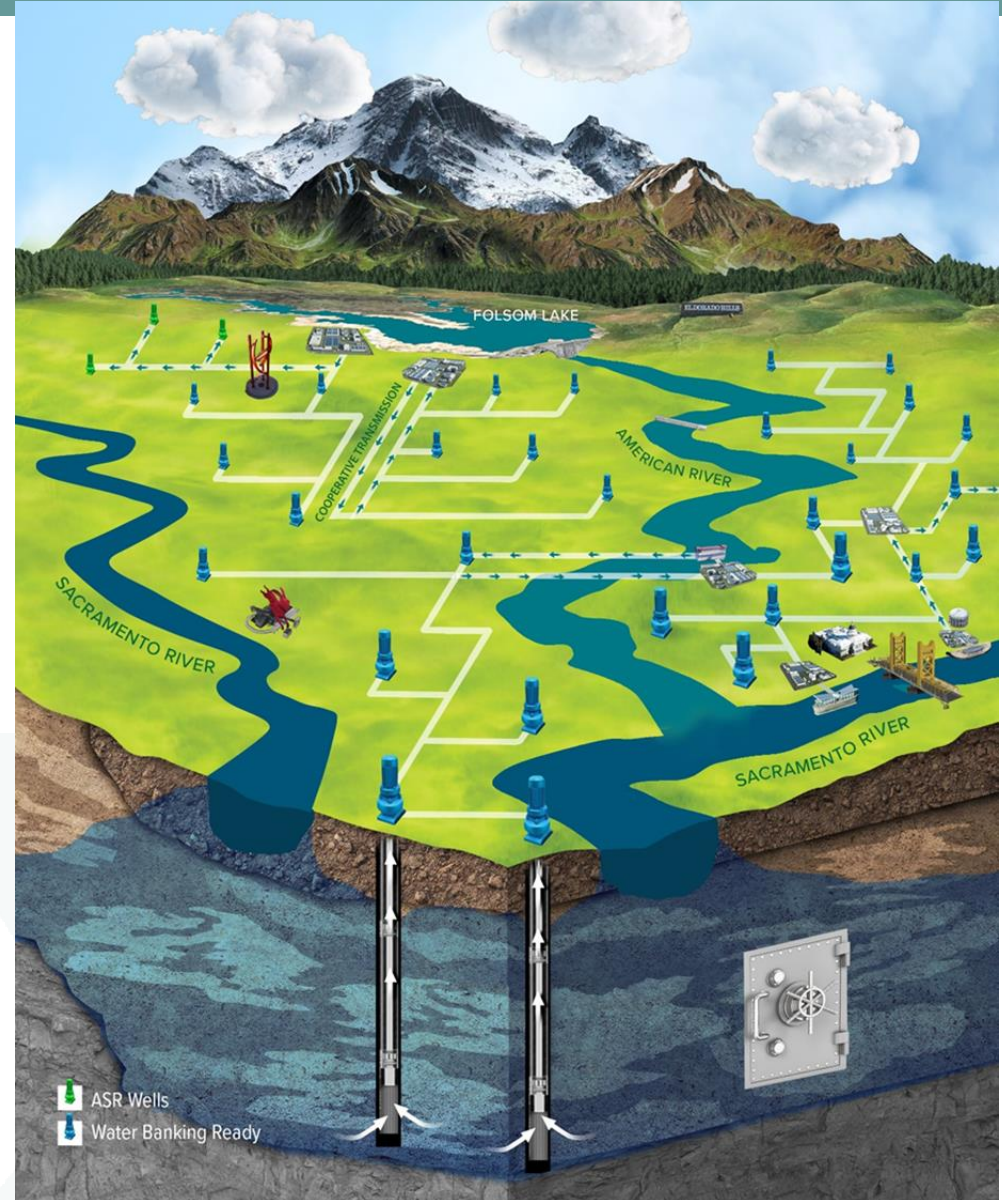
- Aesthetics
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- **Tribal Cultural Resources**
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- Wildfire



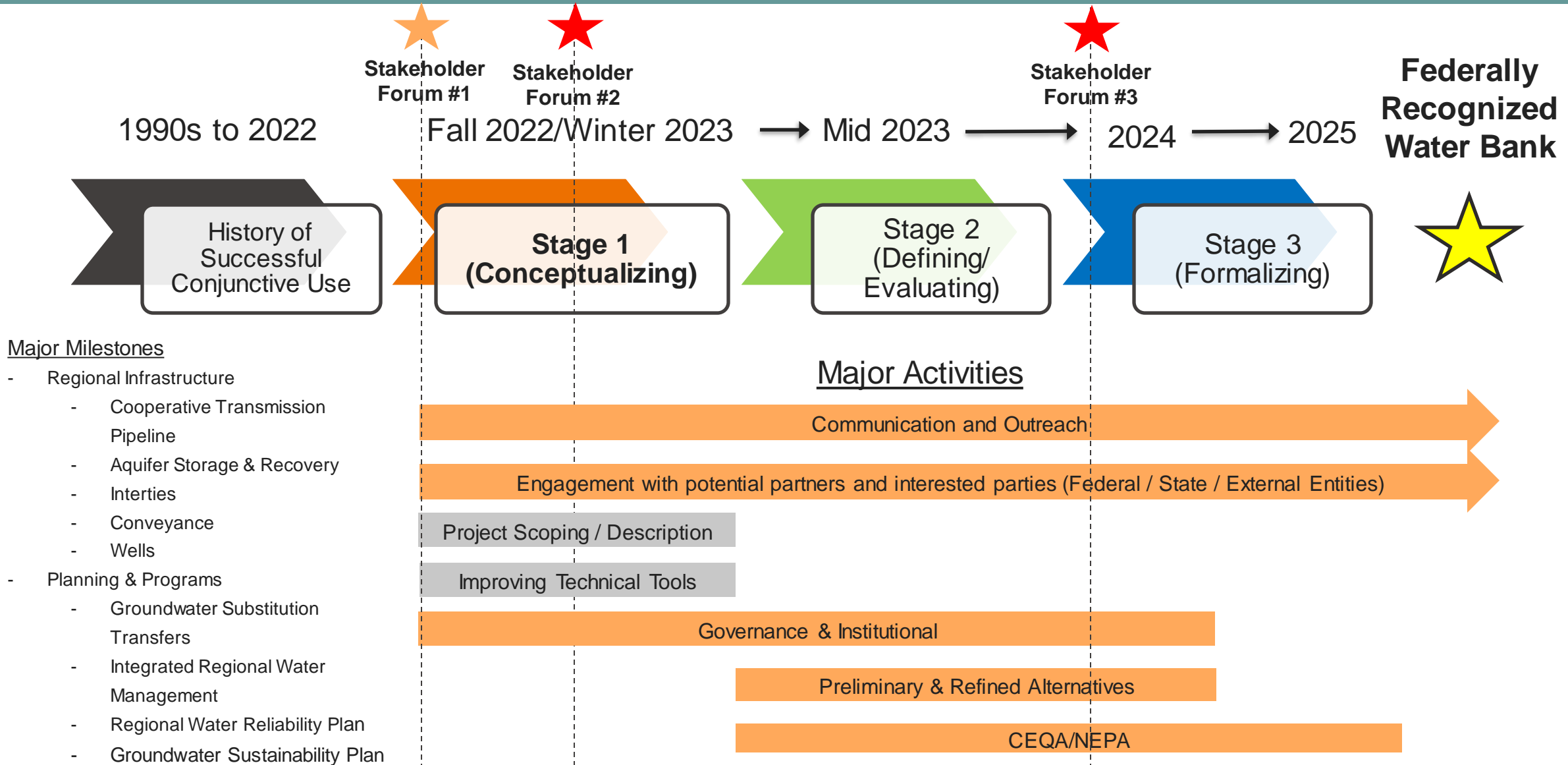
Why Public Involvement is Important

- Key purpose of CEQA is to engage the public
- Early public consultation is useful for discovering overlooked resources
- Helps identify the range of actions, alternatives, mitigation measures, and significant effects to be analyzed in depth in an EIR
- Helps eliminate issues that are found to not be important
- Is an effective way to bring together and resolve the concerns of affected federal, state, and local agencies, the proponent of the action, and other interested persons

Preview of What's Ahead



Stages of Sacramento Regional Water Bank



Environmental Review Schedule and Public Engagement Opportunities



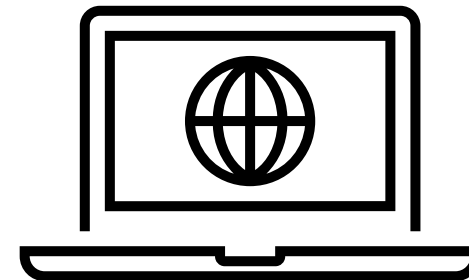
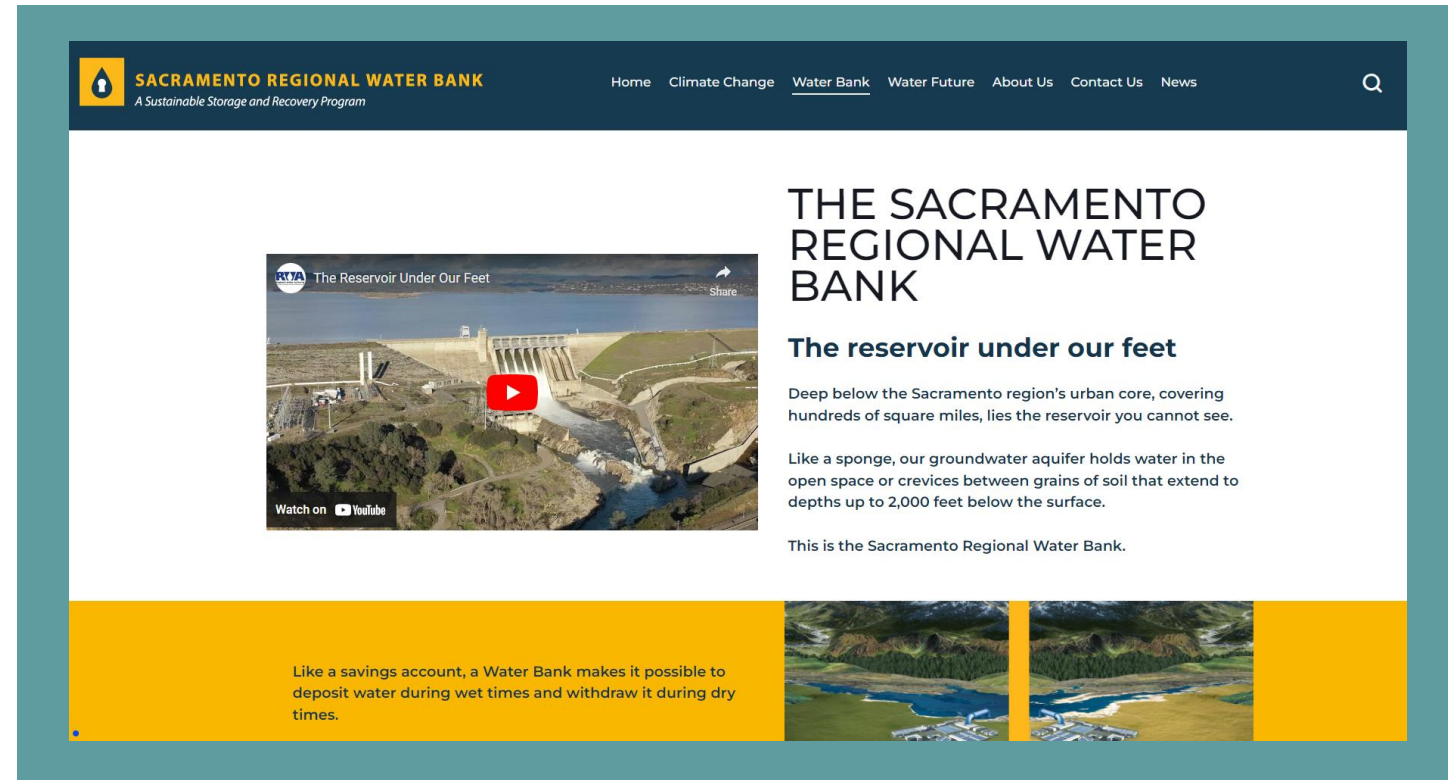
*Opportunities for public input on Environmental Process

Schedule subject to change and does not reflect NEPA/Federal Acknowledgement process

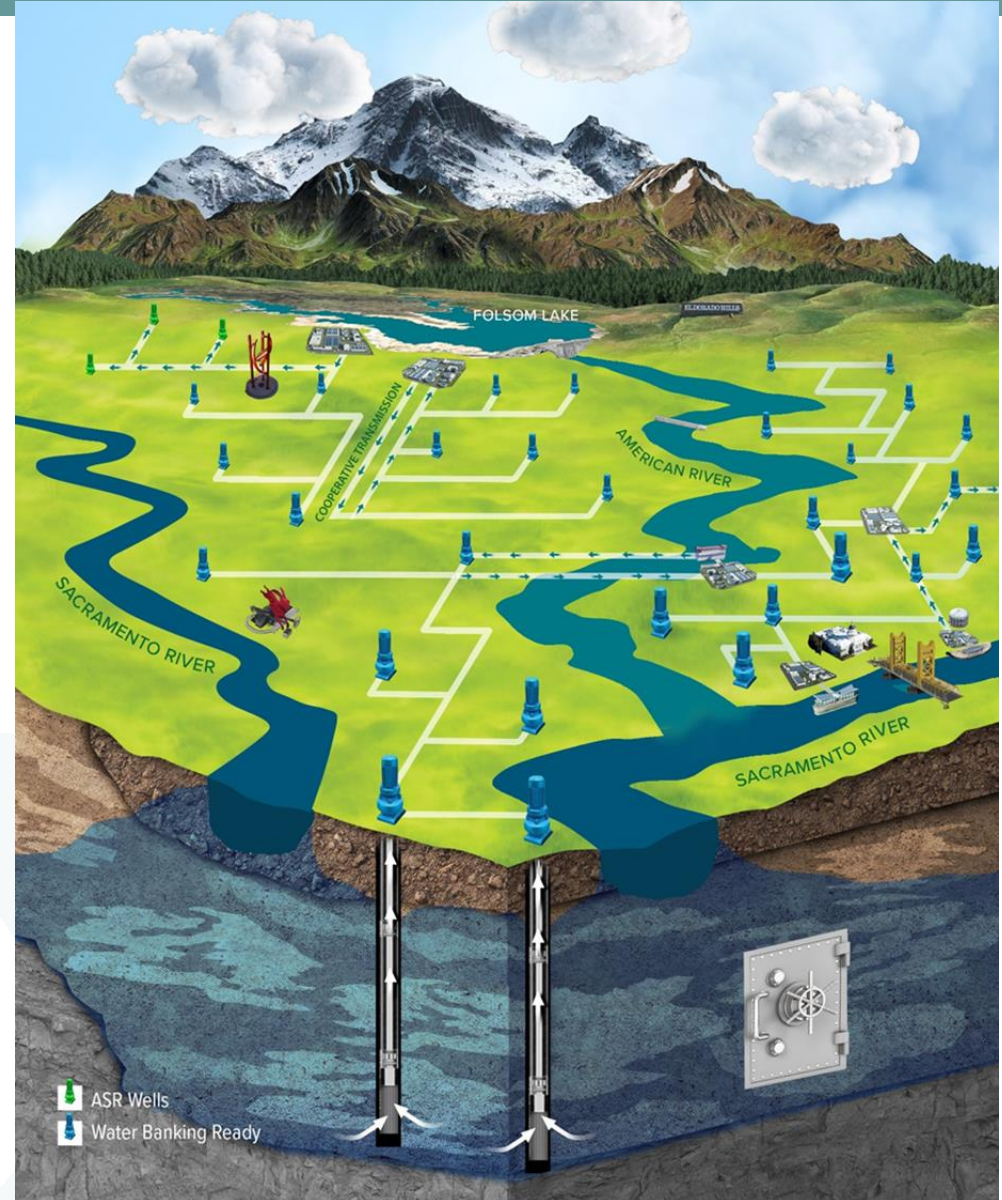
Storage Period
Groundwater Level

Ongoing Engagement

- Opt in for eblasts and updates
- Join us for future Stakeholder Forums
- Environmental Review meetings
- Check the website for new features



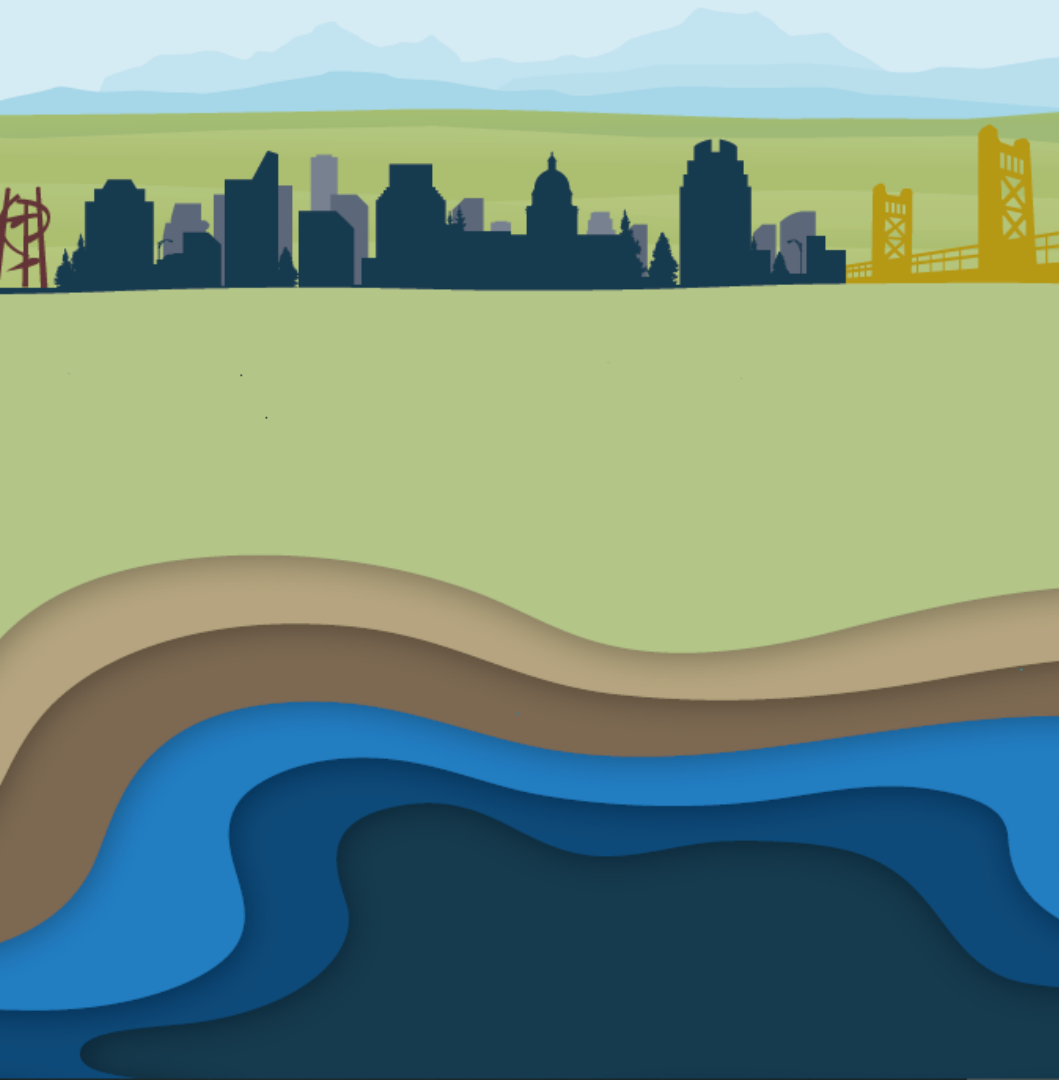
Additional Questions and Answers



SACRAMENTO REGIONAL
WATER BANK



A Sustainable Storage & Recovery Program



**Sacramento Regional Water Bank
contact information:**

waterbankinfo@rwah2o.org

**Sacramento Regional Water Bank
website:**

sacwaterbank.com



— BUREAU OF —
RECLAMATION



Thank You!

The presentation portion of this event is over.

We will be online until 7:30 to answer your questions. Please use the Q&A feature in the webinar.

