



# Update on Sites Reservoir Project Planning

Bay Delta Committee

Item 6b

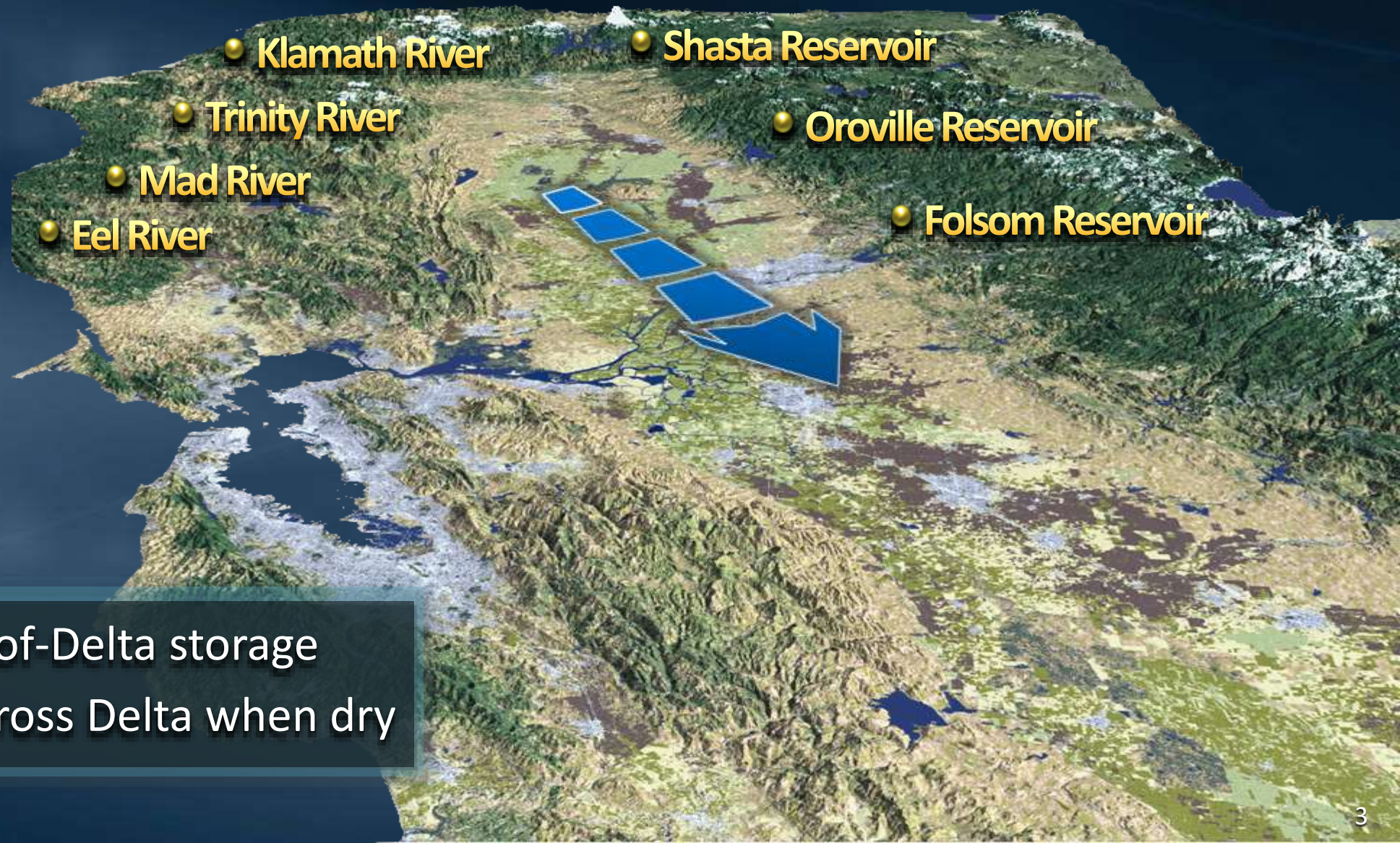
October 26, 2021



# Topics

- California's Reservoir System  
Original Vision & Changing Priorities
- Storage Investigations  
Statewide Analyses
- Sites Reservoir Planning  
Key Progress & 2022-2024 Workplan
- Board Review & Consideration  
Previous & Upcoming Decisions
- Summary & Next Steps

# The Original Vision 1950s



- Large North-of-Delta storage
- Deliveries across Delta when dry

# Environmental Priorities 1970s



- Wild & Scenic Rivers Act (Fed & State)
- SWP plan loses key North Coast storage

# Integrated Operations

## 1990s

- Integrate surface reservoir and groundwater recharge operations
- Develop groundwater banking and off-stream storage



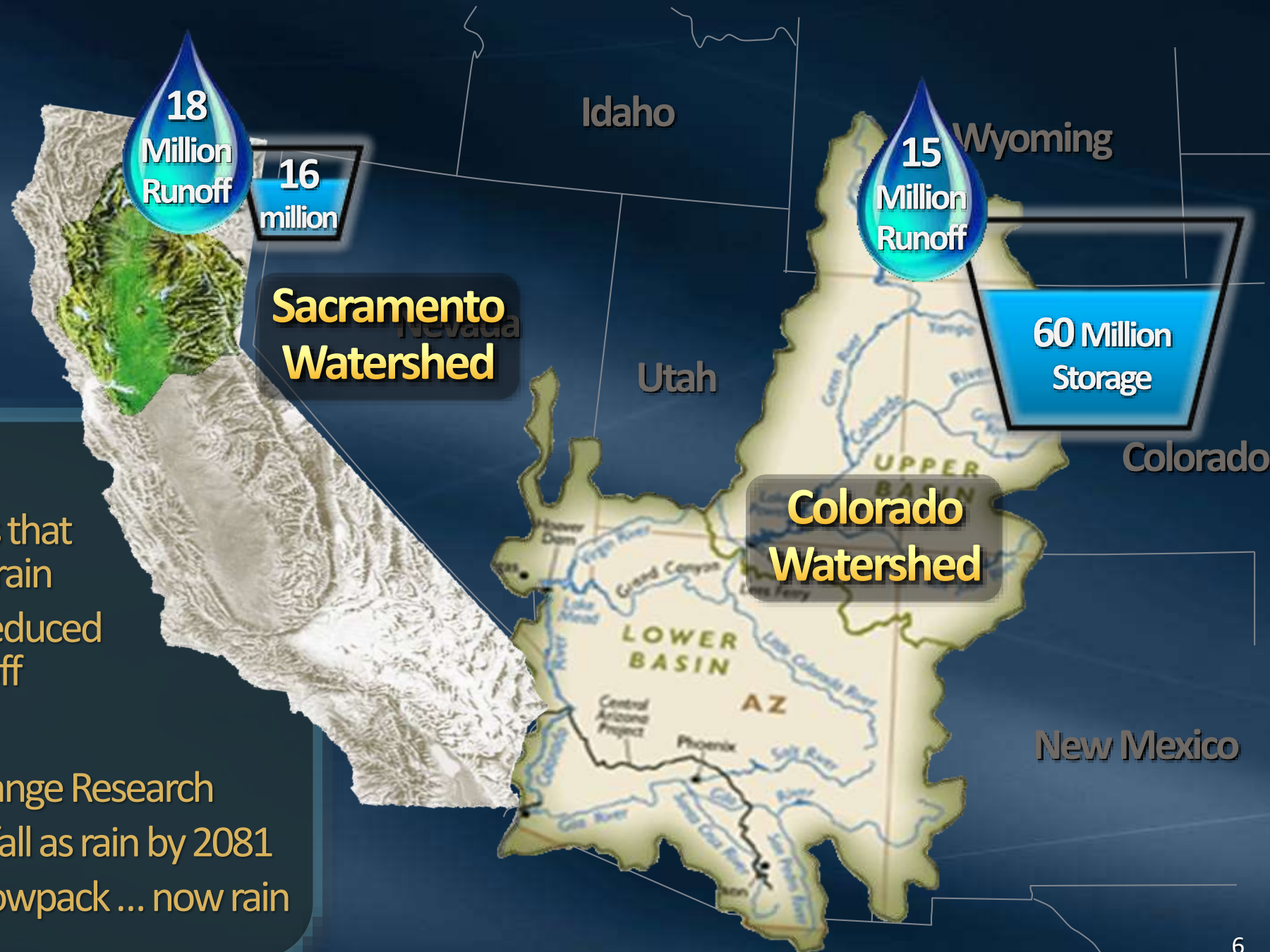
# Climate Resiliency 2010s

## The Challenge

- How to mitigate the impacts that snow will increasingly fall as rain
- Increased winter flooding, reduced critical Spring/Summer runoff

## Climate Research

- UCLA Center for Climate Change Research
- 30 to 64% of snowpack will fall as rain by 2081
- 4 to 9 million AF of Sierra snowpack ... now rain

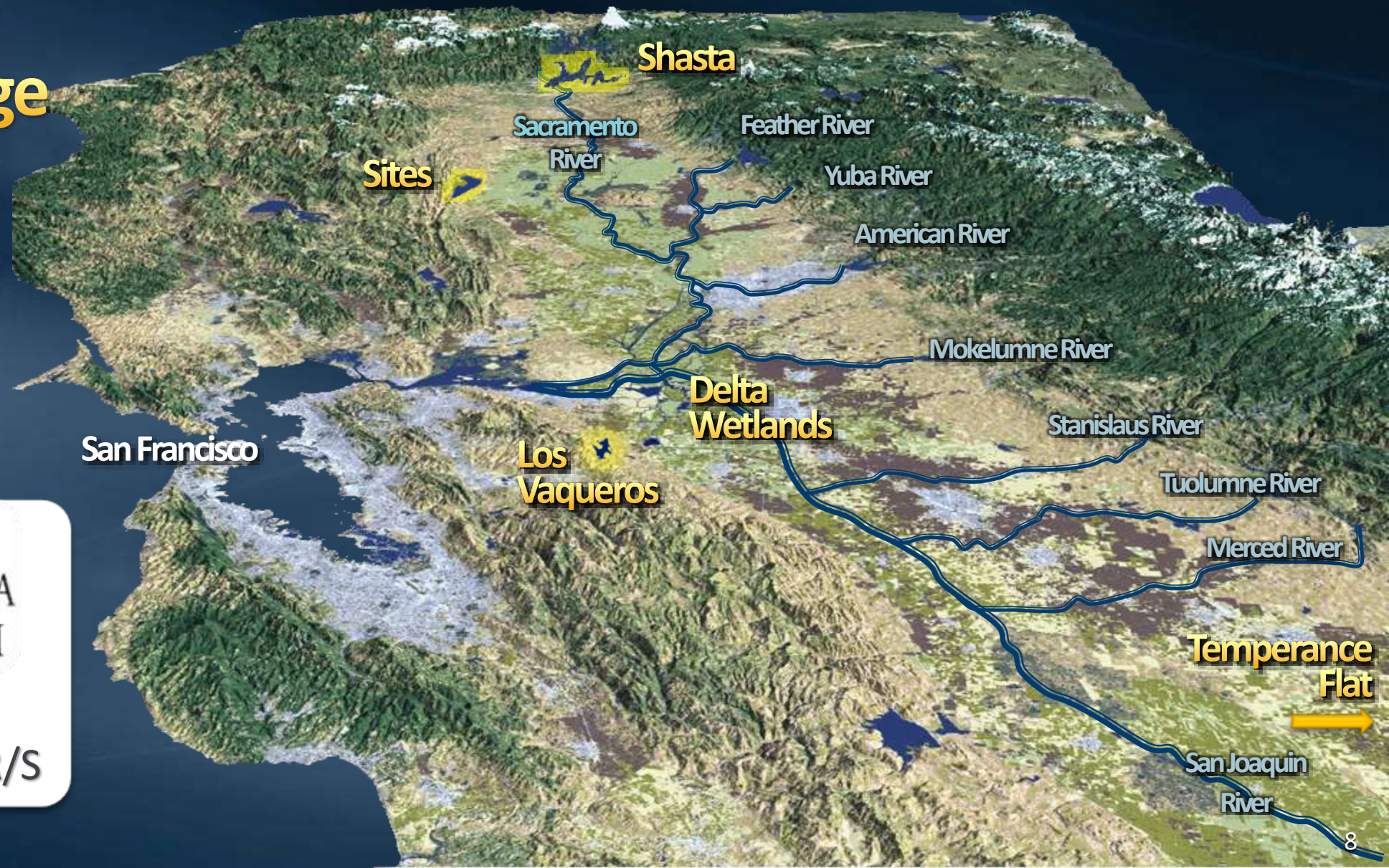




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# CALFED Surface Storage Screening 2000



CALFED  
BAY-DELTA  
PROGRAM

- 52 sites analyzed
- 5 sites in final EIR/S

# California Proposition 1 Water Storage Investment Program 2014

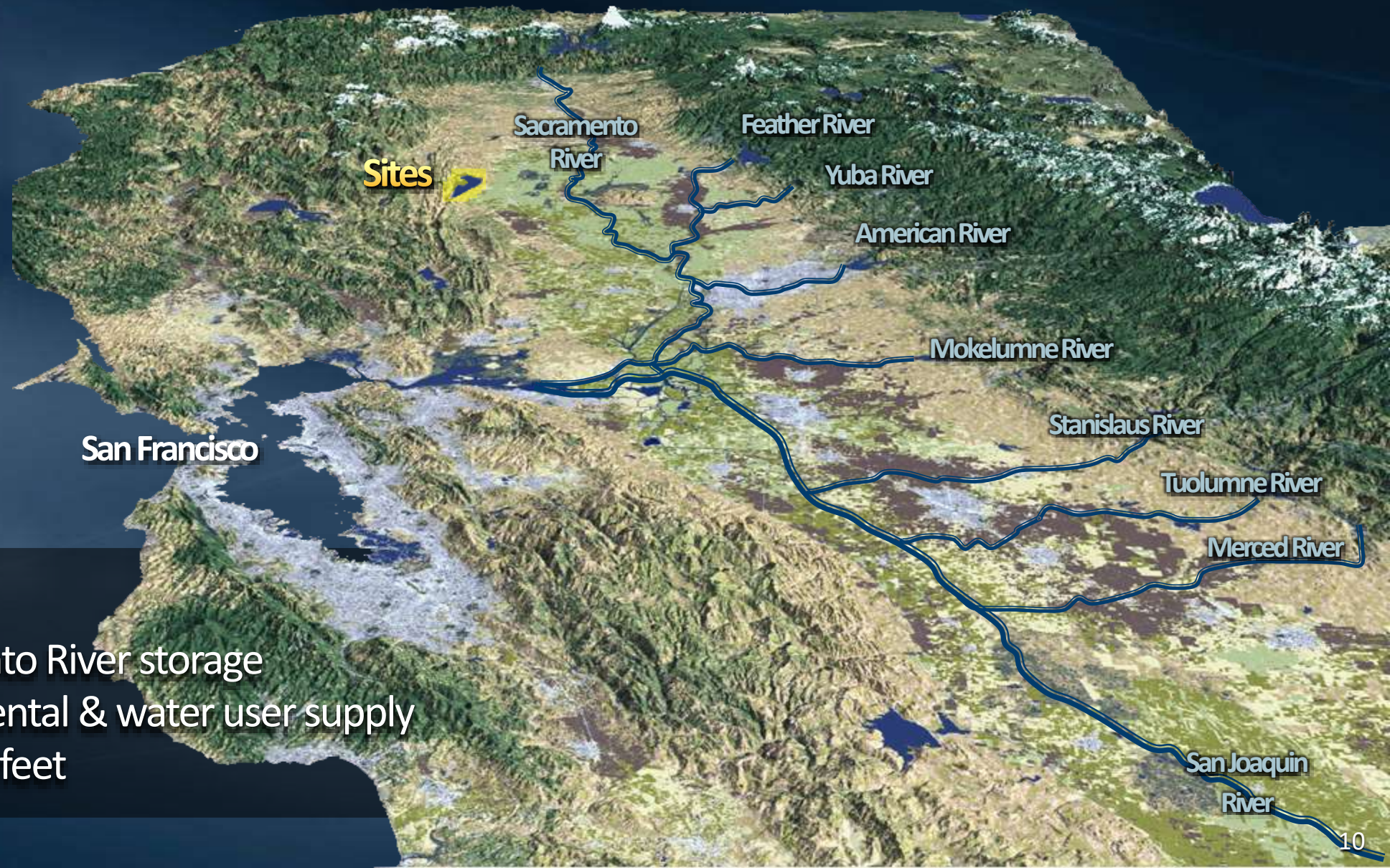
- 11 agency projects
  - 6 surface water projects
  - 5 groundwater projects
- 7 Northern California
- 4 Southern California
- \$2.7 billion Prop 1 fund



- |   |           |
|---|-----------|
| <b>Sites Project</b><br>Off-stream reservoir   Sac River      | <b>1</b>  |
| <b>Centennial Project</b><br>New reservoir   Bear River       | <b>2</b>  |
| <b>South Sacramento</b><br>Treated wastewater conjunctive use | <b>3</b>  |
| <b>Los Vaqueros</b><br>Off-stream reservoir enlargement       | <b>4</b>  |
| <b>Pacheco</b><br>Reservoir expansion                         | <b>5</b>  |
| <b>Temperance Flat</b><br>New reservoir   San Joaquin River   | <b>6</b>  |
| <b>Tulare Lake</b><br>Kings River water bank                  | <b>7</b>  |
| <b>Kern Fan</b><br>Groundwater bank                           | <b>8</b>  |
| <b>Willow Springs</b><br>Groundwater bank                     | <b>9</b>  |
| <b>Chino Basin</b><br>Bank treated wastewater                 | <b>10</b> |
| <b>San Diego</b><br>Treat & store wastewater                  | <b>11</b> |

# Sites Reservoir

## Overview



### Proposed

- Off-stream Sacramento River storage
- Dedicated environmental & water user supply
- 1.3 – 1.5 million acre-feet


# Sites Reservoir

## Overview



- Large un-controlled runoff area below rim dams
- Can produce significant flood & surplus outflows

**Largely undeveloped, agricultural grazing land**

A wide-angle photograph of a large, straight irrigation canal filled with water. The water's surface is bright blue and reflects the sunlight, creating a shimmering effect. The canal is bordered by dark, gravelly or earthen banks. In the background, several high-voltage electrical transmission towers are visible against a clear blue sky, with power lines stretching across the horizon. The landscape beyond the canal is dry and hilly, with sparse, brownish vegetation.

**Takes advantage of existing facilities, including the  
Tehama-Colusa & Glen-Colusa Irrigation District canals**



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# Key Progress

## ✓ Technical Analyses

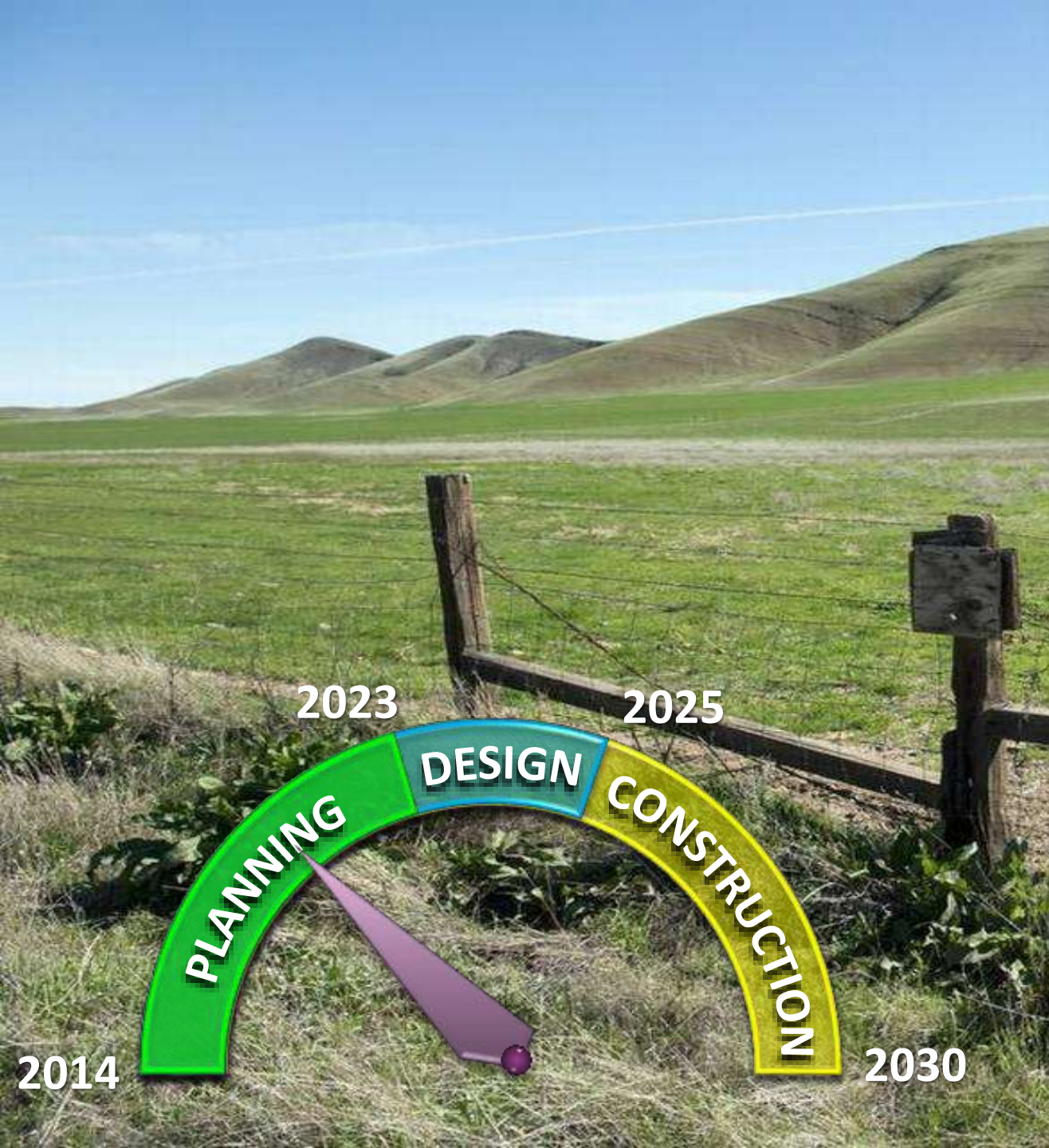
- Initial water supply modeling & operations
- Initial engineering design & cost estimates
- Value Planning project improvements

## ✓ Regulatory/Environmental

- Revised Draft Environmental Impact Report/Statement
- Regulatory agency consultation & initial permit application development

## ✓ State/Federal Funding

- \$836 million State Proposition 1 grant
- \$24 million federal WIIN Act grant
- \$449 million US Dept. of Agriculture loan

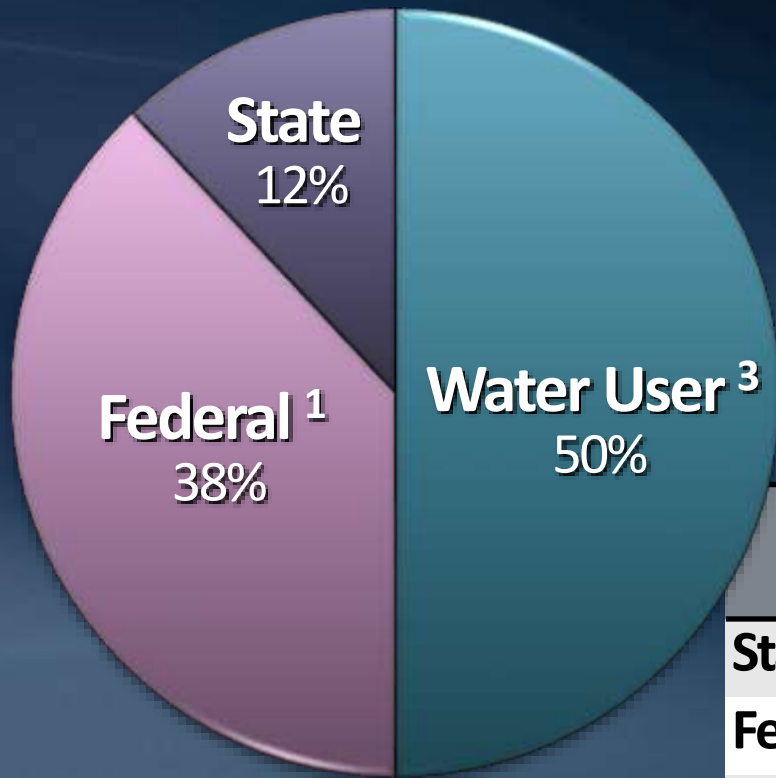




# 2022-24 Workplan

## Focus & Key Deliverables

- Environmental
  - Final EIR/EIS & Record of Decision
- Permits/Agreements
  - Water rights permit
  - Environmental permits
  - Local agency agreements
- Project Operations
  - Final coordinated operations agreement with DWR/USBR
- Engineering
  - Advance 30% design & geotechnical investigations
- Develop mitigation & land acquisition master plan



## 2022-24 Workplan 3-Year Budget<sup>1</sup>

Source	2022	2023	2024	Total
State (Prop 1 Grant)	\$ 18,300,000	--	--	\$ 18,300,000
Federal (WIIN Act) <sup>2</sup>	\$ 10,000,000	\$ 20,000,000	\$ 20,000,000	\$ 50,000,000
Water Users <sup>3</sup>	\$ 17,267,000	\$ 23,972,000	\$ 27,324,000	\$ 68,563,000
Carryover Funds	\$ 6,000,000			\$ 6,000,000
<b>TOTAL<sup>3</sup></b>	<b>\$ 51,567,000</b>	<b>\$ 43,972,000</b>	<b>\$ 47,324,000</b>	<b>\$ 142,863,000</b>
<b>MWD Share <sup>4</sup></b>	<b>\$ 5,000,000</b>	<b>\$ 7,000,000</b>	<b>\$ 8,000,000</b>	<b>\$20,000,000</b>

1. 2022-24 Workplan, also referred to as the Amendment 3 Workplan, is for the period of Jan. 1, 2022, through Dec. 31, 2024.

2. Subject to federal appropriation

3. Subject to individual participating agency Board approval

4. Assumes participation by Metropolitan based a 311,700 acre-ft of storage (also defined as an average yield of 50,000 AF/year)

# Broad Statewide Involvement

## ● Bay Area

- Santa Clara Valley WD
- Zone 7 Water Agency

## ● San Joaquin Valley

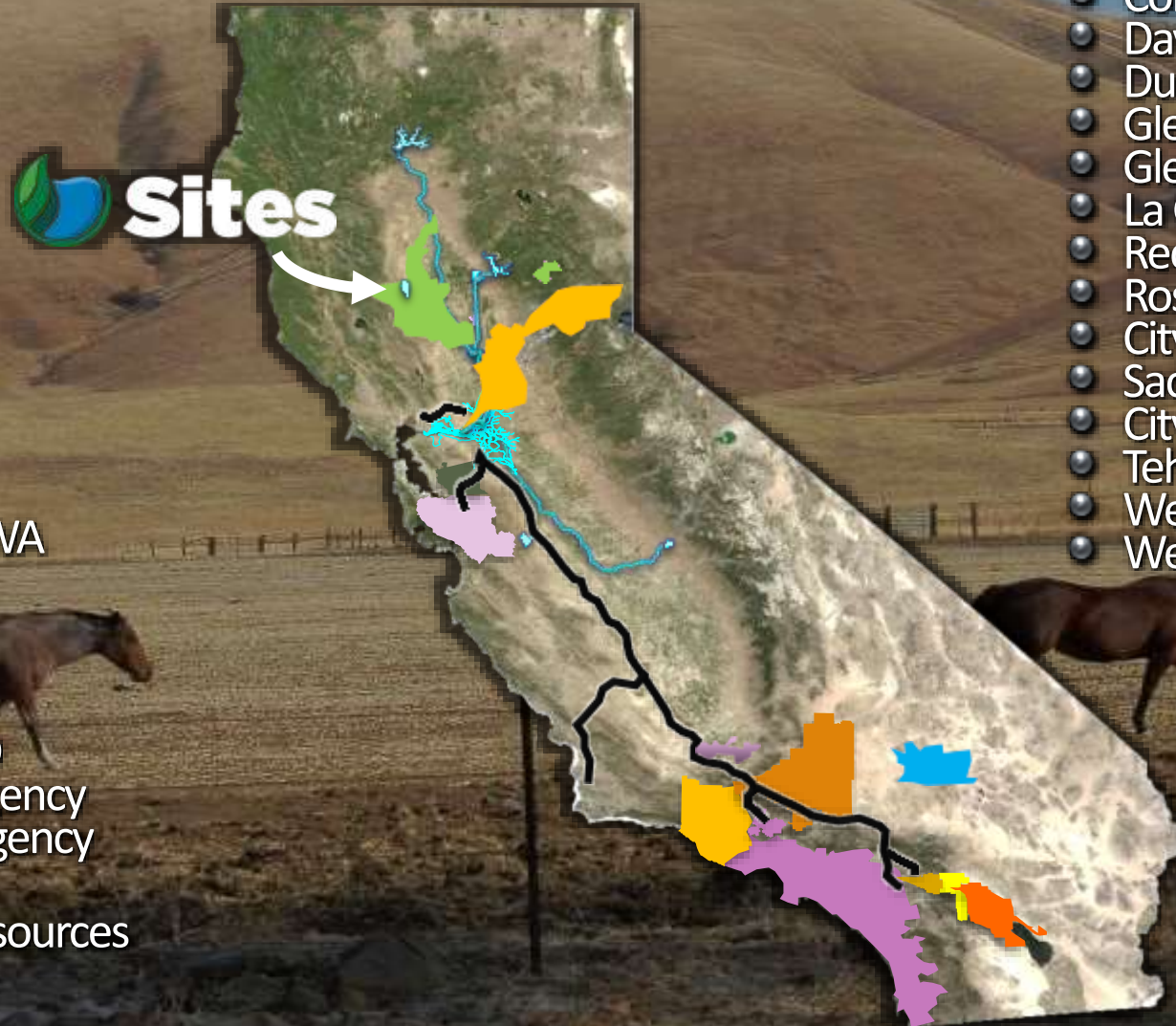
- Wheeler Ridge - Maricopa

## ● Southern California

- Antelope Valley - East Kern WA
- Coachella Valley WD
- Desert Water Agency
- Irvine Ranch Water District
- Metropolitan Water District
- San Bernardino Valley MWD
- San Geronio Pass Water Agency
- Santa Clarita Valley Water Agency

## ● State/Federal

- California Dept. of Water Resources
- U.S. Bureau of Reclamation



## ● Sacramento Valley

- Carter Municipal Water Co.
- City of American Canyon
- Colusa County
- Colusa County Water District
- Cortina Water District
- Davis Water District
- Dunnigan Water District
- Glenn County
- Glenn-Colusa Irrigation District
- La Grande Water District
- Reclamation District 108
- Rosedale-Rio Bravo WSD
- City of Roseville
- Sacramento County WA
- City of Sacramento
- Tehama Colusa Canal Authority
- Westside Water District
- Western Canal Water District

# Sites Reservoir

Project Storage (1.5 million AF)

## Metropolitan Share

● Storage – 311,700 AF (22.6%)



**North-of-Delta  
Participants**  
~ 257,000 AF (18%)

**South-of-Delta  
Participants**  
~ 788,000 AF (57%)

**Bureau of  
Reclamation**  
~ 91,000 AF (7%)

**State of  
California**  
~ 244,000 AF (18%)

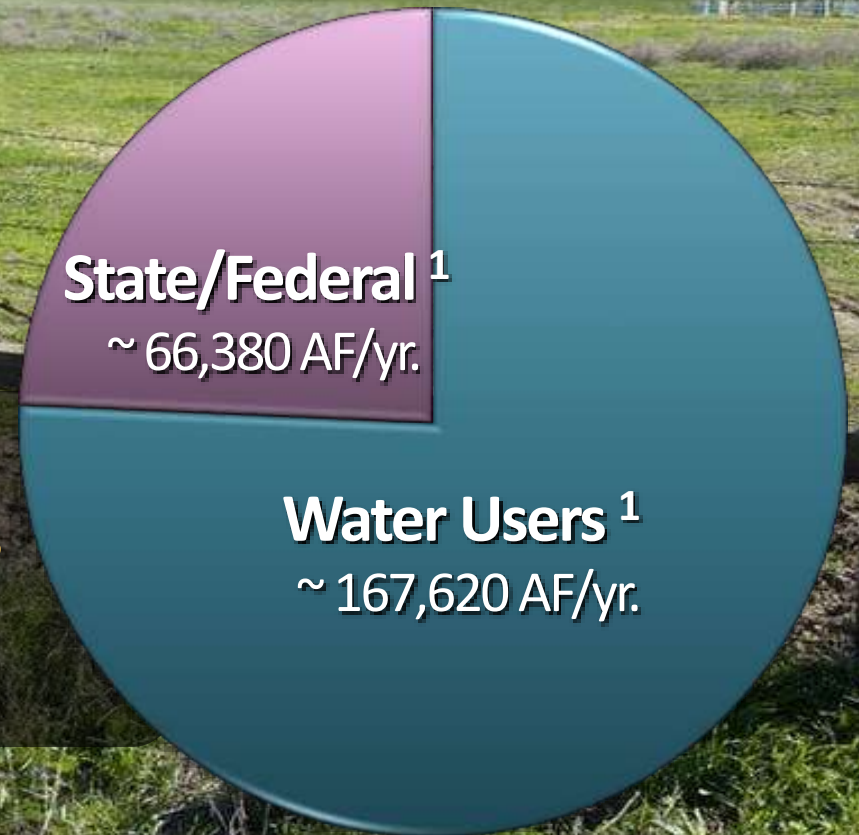
**Deadpool (non active)** ~ 120,000 AF

# Sites Reservoir

## Project Yield Estimate

### Annual Reservoir Release Estimate

- Average – 225,000 to 234,000 AF/yr. all participants (50,000 AF/yr. MWD's share)
- Dry/Critical – 348,000 to 427,000 AF/yr.



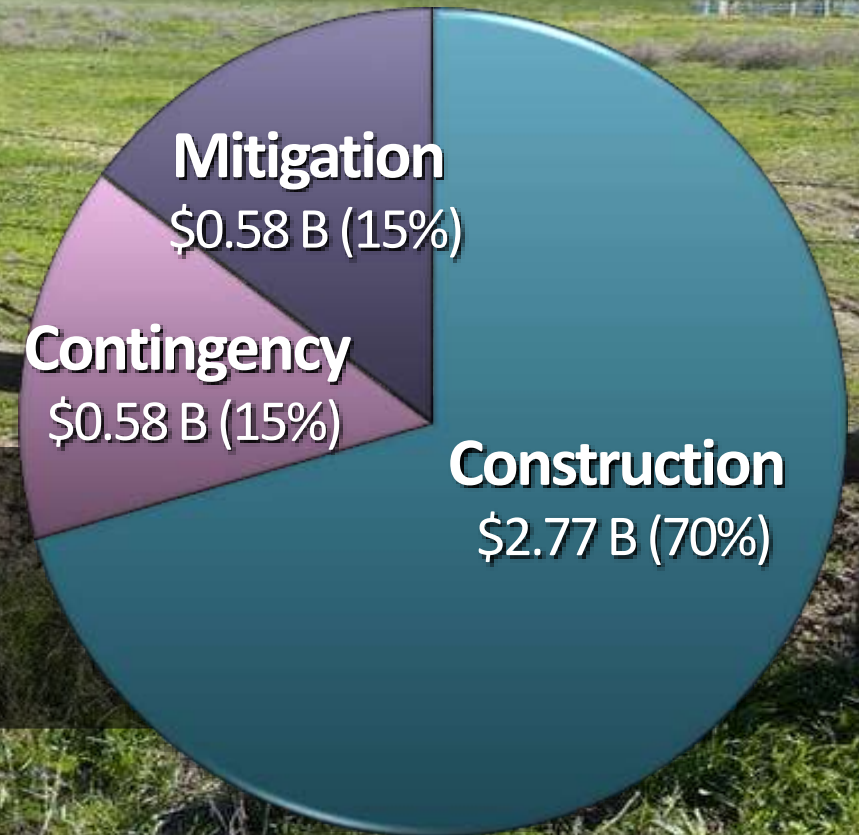
<sup>1</sup> Federal share subject to appropriation; User share subject to Board authorization; State share subject to final approval by California Water Commission

# Sites Reservoir

## Project Cost Estimate

### Cost Estimate (2021\$)<sup>1</sup>

- Total Project Cost Estimate ~ \$3.93 billion
- Reservoir Release Estimate ~ \$800/acre-ft.



<sup>1</sup> Construction costs are based on a Class 4 cost estimate;

## Key Benefits

- Improves ability in meeting future climate change challenges
- Mitigates for decreased snowpack and increased rainfall
- Dedicates portion of new storage for environmental use only
- Important collaborative approach among northern & southern California water agencies

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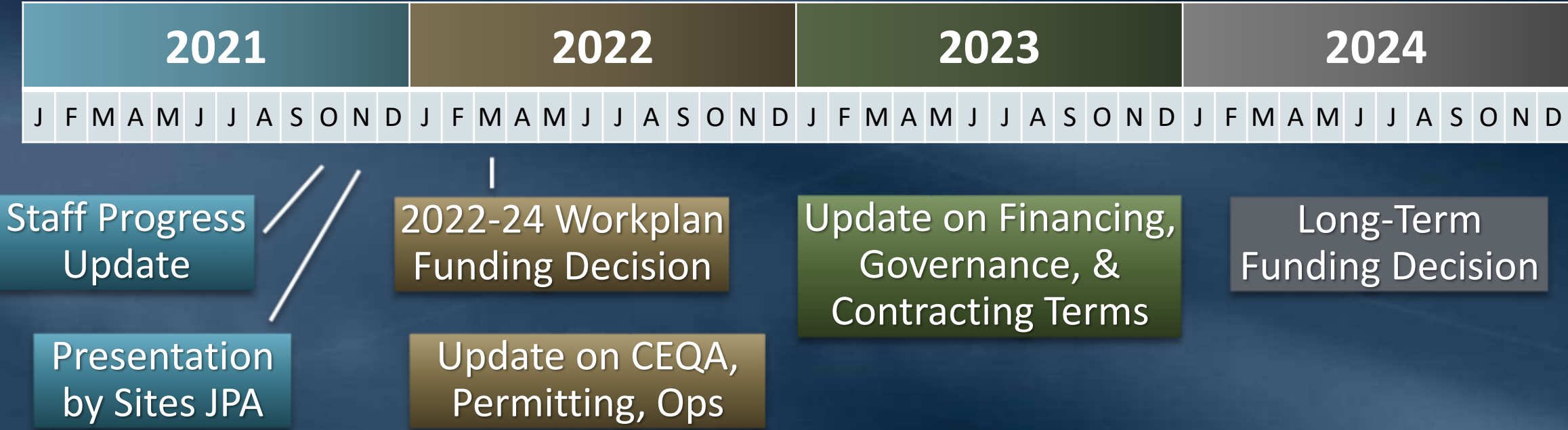
The background of the slide is a photograph of a large, circular meeting room. Numerous people are seated around a large, dark wooden conference table. In the center of the room, a large circular seal is visible on the wall. To the right, a large screen displays a colorful image. The room has a high ceiling with recessed lighting. The title "Metropolitan Board Funding Considerations" is overlaid on the top half of the image in a large, bold, yellow and white font.

# Metropolitan Board Funding Considerations

- 2017
  - \$1.5 million cost-share for 2017-18 Sites Reservoir workplan
- 2019
  - \$4,212,500 cost-share for 2019-20 Sites Reservoir workplan
- 2020
  - \$5 million cost-share for 2020-21 Sites Reservoir workplan
- 2022 (Proposed Action)
  - \$20 million cost-share for 2022-24 Sites Reservoir workplan

# Metropolitan Board

## Proposed Timeline <sup>1</sup>



1. Subject to change



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# Summary & Next Steps

- Incremental funding approach used to inform Board's decision on future participation
- Complete permits & revised environmental documents (EIR/EIS) by mid-2022
- Decision of project implementation in 2024

