One Water and Stewardship Committee

Overview of Sites Reservoir Project

Item 6a
February 10, 2025

Item 6a

Overview of Sites Reservoir Project

Subject

Overview of Sites Reservoir Project

Purpose

Provide an overview of the Sites Project, its progress, and proposed Board informational & feedback sessions

Next Steps

Board feedback and schedule

SITES RESERVOIR PROJECT

Overview & Executive Summary

Overview

Annual Runoff vs. Ability to Store

Overview

Unregulated Delta Outflow [1]

Shasta, Oroville, Folsom Reservoirs

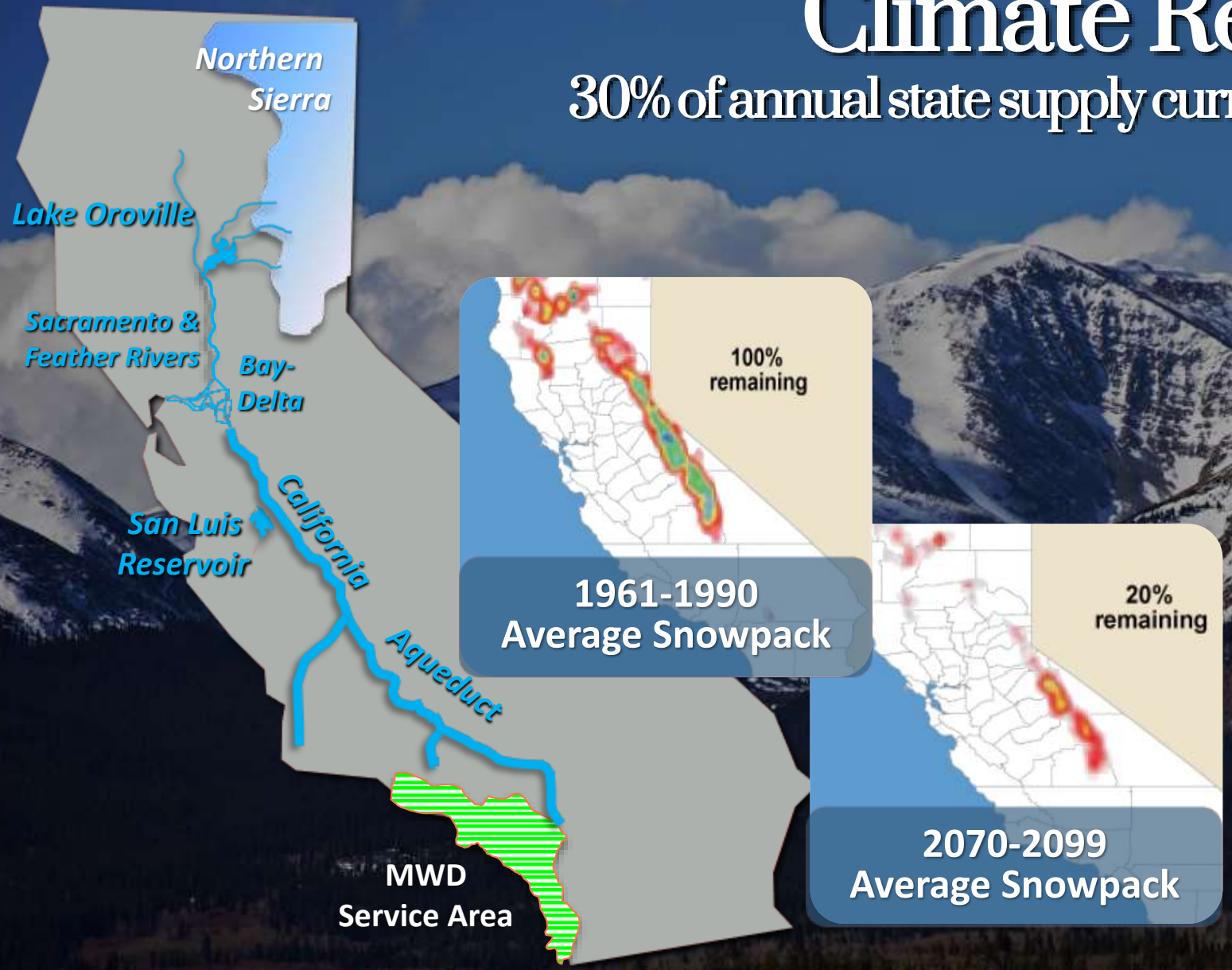
Average Unregulated Delta Outflow

10.4 million acre-feet/year

1. *Unregulated or surplus outflow is defined as water above what is needed to meet Delta regulations , in-basin needs, and exports*
2. *Based on the DWR modeling of the SWP long-term operations (Proposed Project plus Cumulative)*
3. *Data modeled over a 100-yr hydrologic sequence. Average annual Delta surplus outflow = 10,400,000 acre-feet / year.*

Climate Research

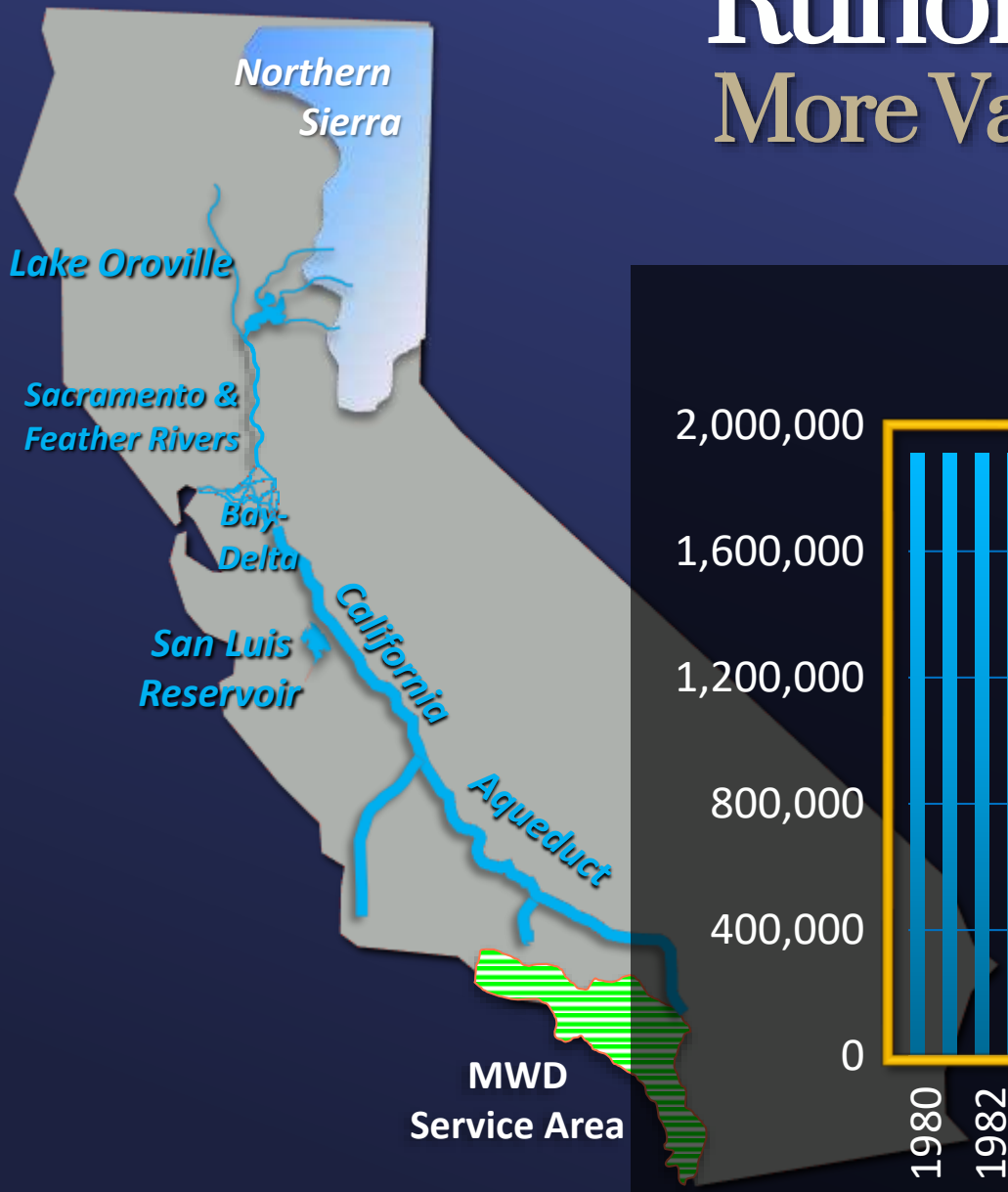
30% of annual state supply currently stored in snowpack

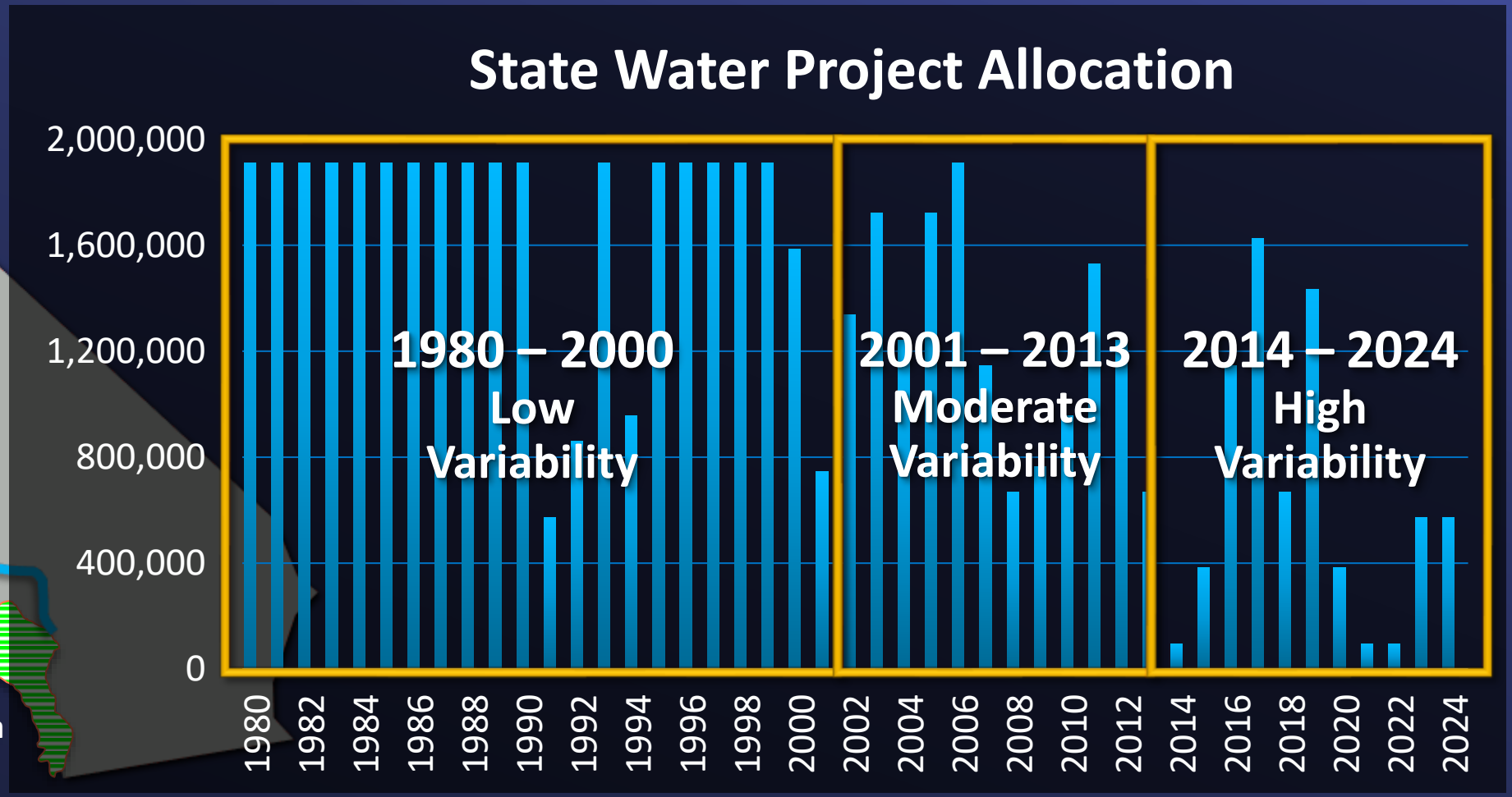


- Future snowpack … smaller
- Overall precipitation similar
- Higher peak winter storm flow

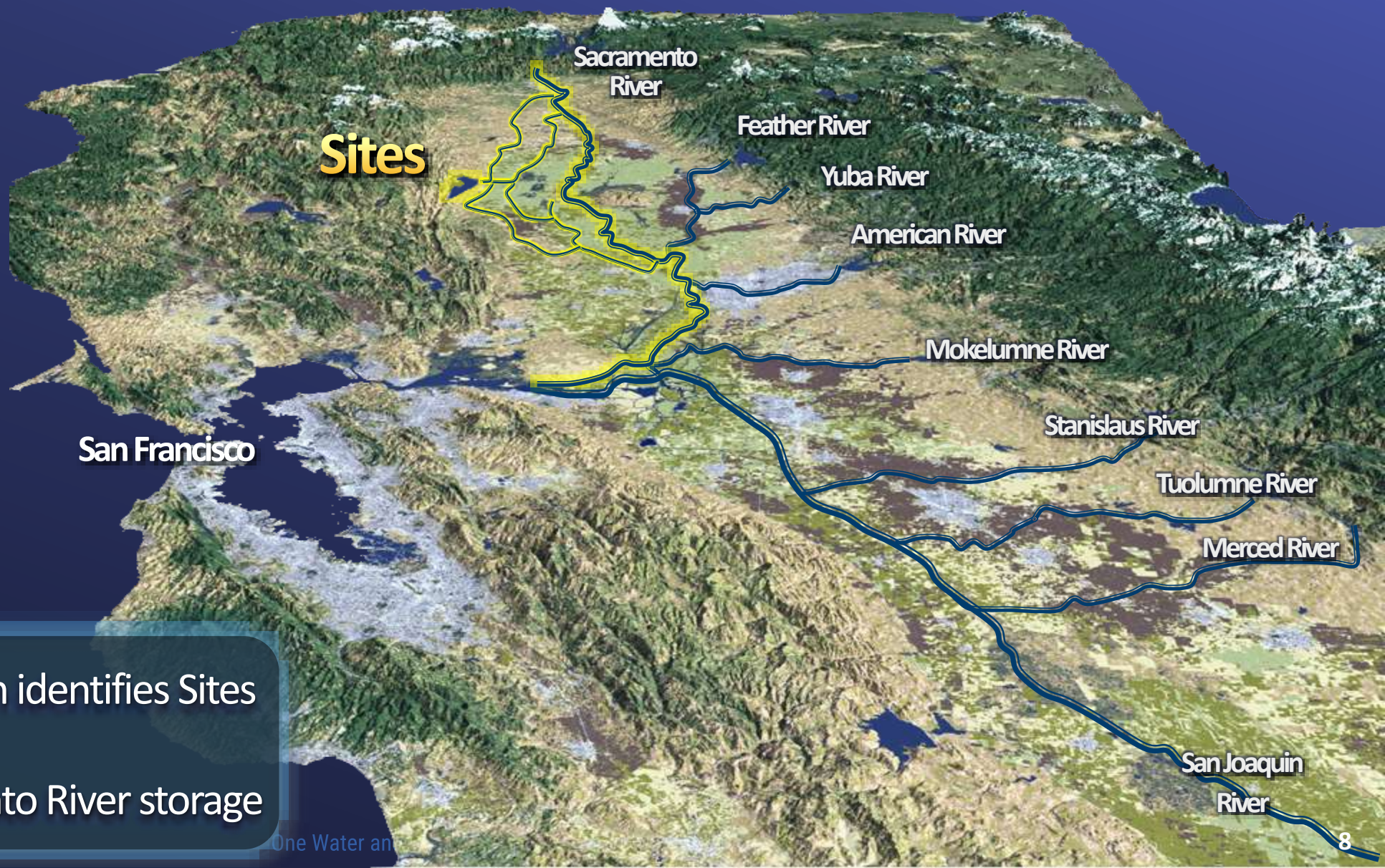
Runoff Variability Increasing

More Variability Requires More Storage





Sites Project
Proposed



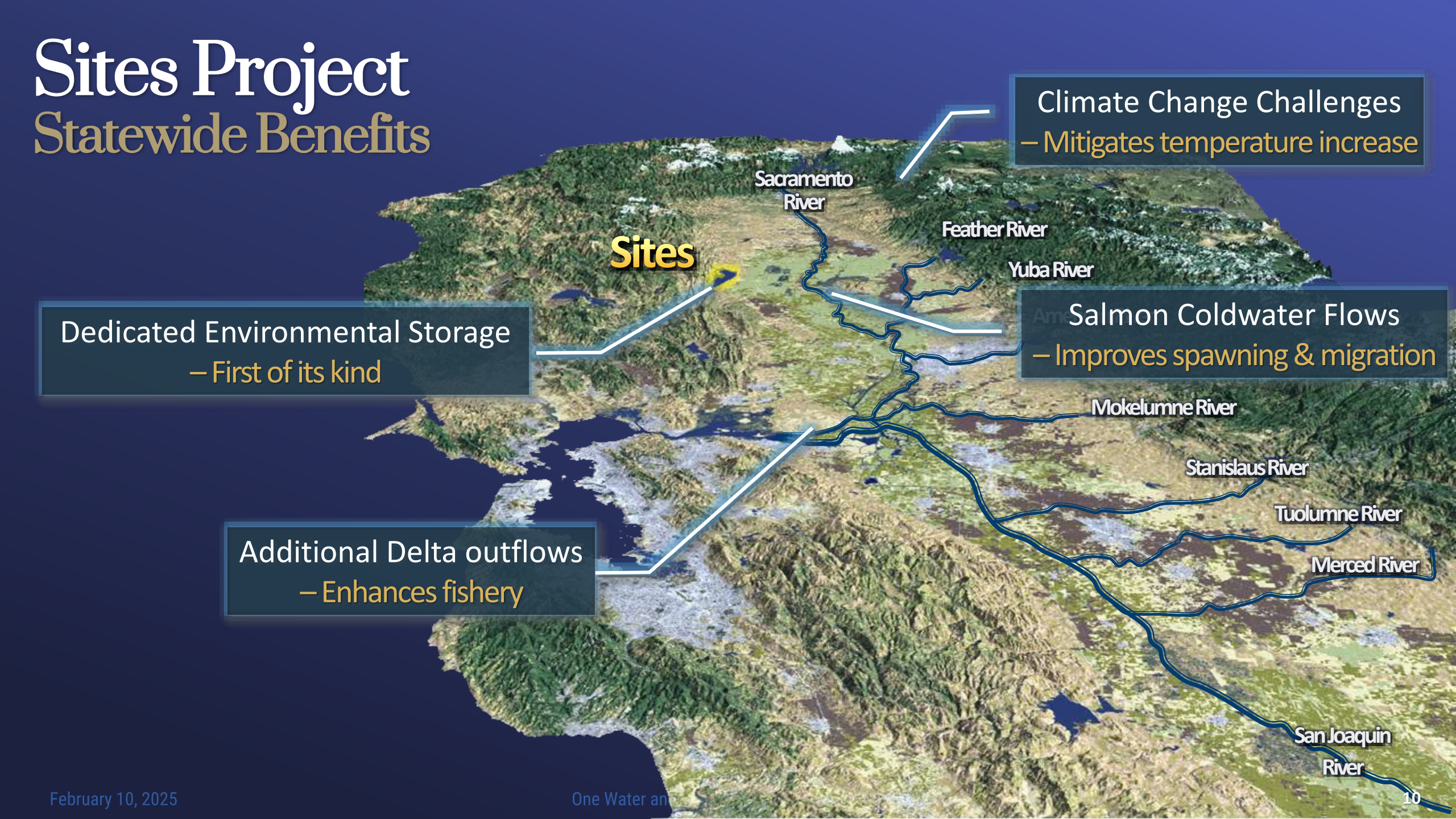
- 1957 – CA Water Plan identifies Sites
- 1.5 million acre-feet
- Off-stream Sacramento River storage

Sites Project

Proposed

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

Sites Project
Statewide Benefits



Broad Statewide Involvement

Sites

- **Bay Area**
  - Santa Clara Valley WD
  - Zone 7 Water Agency
- **San Joaquin Valley**
  - Rosedale-Rio Bravo WSD
  - 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 Gorgonio 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

(1.5 million acre-ft. storage)

North-of-Delta Participants
~ 272,000 AF (19%)

South-of-Delta Participants
~ 766,000 AF (54%)

Bureau of Reclamation
~ 128,000 AF (9%)

State of California
~ 244,000 AF (17%)

Metropolitan – 311,700 AF (22%)

Deadpool (non active) ~ 60,000 AF

Metropolitan Board

Policies & Funding

- Bay-Delta Policy Framework
  - Policy 2A – Protect water supply reliability and quality
  - Policy 2B – Invest in actions that provide climate resiliency
  - Policy 2C – Seek flexible operations, water management actions, and infrastructure solutions
  - Policy 3B – Foster broad and inclusive engagement of Delta interests and beneficiaries
- Sites Authorized Funding (2017 – 2025)
  - $30.7 million MWD cost-share
  - $224.6 million overall Sites budget for all participants

Key Risks & Questions

- If we don't need the water in a certain year type, can we sell it and generate revenue? No stranded assets
- Is there available SWP capacity to pump Sites water? If Delta regulations increase, what is the impact on Sites?
- Why not just build storage in our service area? Benefit?
- How does climate change effect this project compared to other alternative supplies?
- How will the Sustainable Groundwater Management Act and the SWRCB's Delta Water Quality Control Plan influence this project?
- Does Sites Reservoir need new Delta conveyance?
- What assurances are there that Sites will not harm the SWP?
- How does the cost compare to other alternative supplies?
- Does this project come with new water rights (i.e. a new water supply) and individual storage rights?

Other Key Interests to Evaluate

- Not Just a Reservoir … A New Water Right
  … for urban, agriculture, and environment
  … adds enviro flows, Prop 1 funded
- Investor Decides
  … investor controls storage space and releases
  … take water, sell water, lease storage, etc.
- Already Half Built
  … intake & conveyance facilities already exist
- Gets Better with Age
  … climate change enhances project storage
  … consistent with MWD's resource targets

Other Key Interests to Evaluate

- New Approach – State Funded Environmental Flows
  - … implements new approach to improve Delta estuary flows with state funds
  - … costs not imposed on water users
- Stabilizes Future Water Transfer Prices
  - … Sustainable Groundwater Management Act & proposed Delta Plan (HRL) will impact future water markets
  - … allows exclusive participation in new transfer and exchange market with multiple agencies
- Bipartisan State & Nationwide Support
  - … large coalition of interests & participants
  - … waiting list to join the project

Notes: Sustainable Groundwater Management Act (SGMA) requires the preparation of plans to achieve sustainable groundwater management. California's Healthy Rivers and Landscapes Program aims to implement environmental improvements across key rivers and the Bay-Delta estuary

Resource Targets

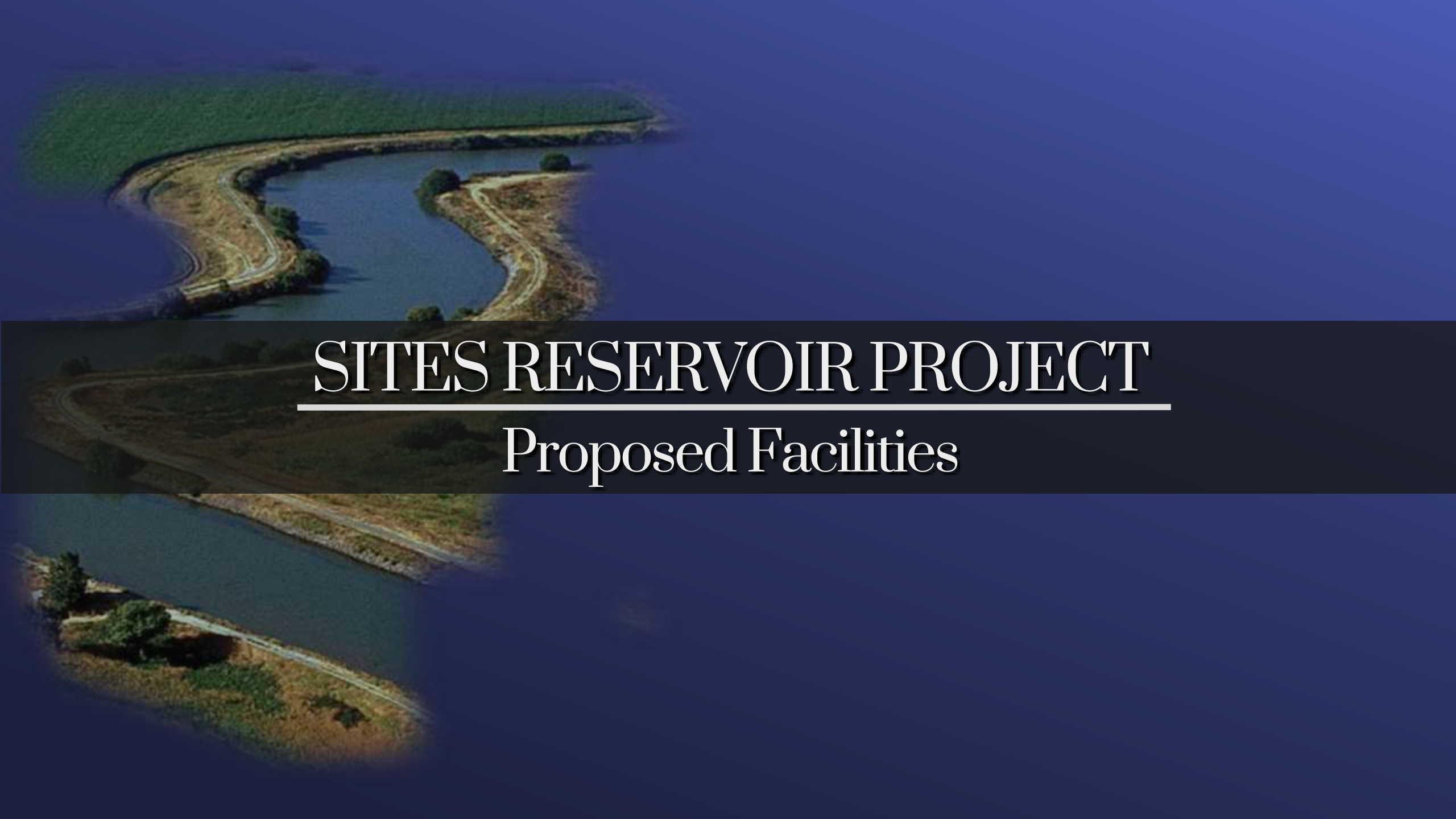
Metropolitan Resource Targets	
Category	MWD Resource Targets
Flexible Supply (Dry-Yr. Equivalent)	100,000 AF
New Storage	500,000 AF (by 2035)
Core Supply	300 – 650,000 AF/yr.

- *Data: From CAMP4Water Annual Report, time bound targets, presented to MWD Board in January 2025*
- *MWD Resource target range: Year 2035 (mid-term) thru Year 2045 (long-term)*
- *Sites Reservoir: Online operational date year 2033*

Next Steps

- Board informational updates & feedback sessions throughout 2025
  - Robust analysis - risks, value, financial, governance, environmental impact, system integration, CAMP4 water, comparison with other proposed alternatives
- Decision on participation and funding in early 2026


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928



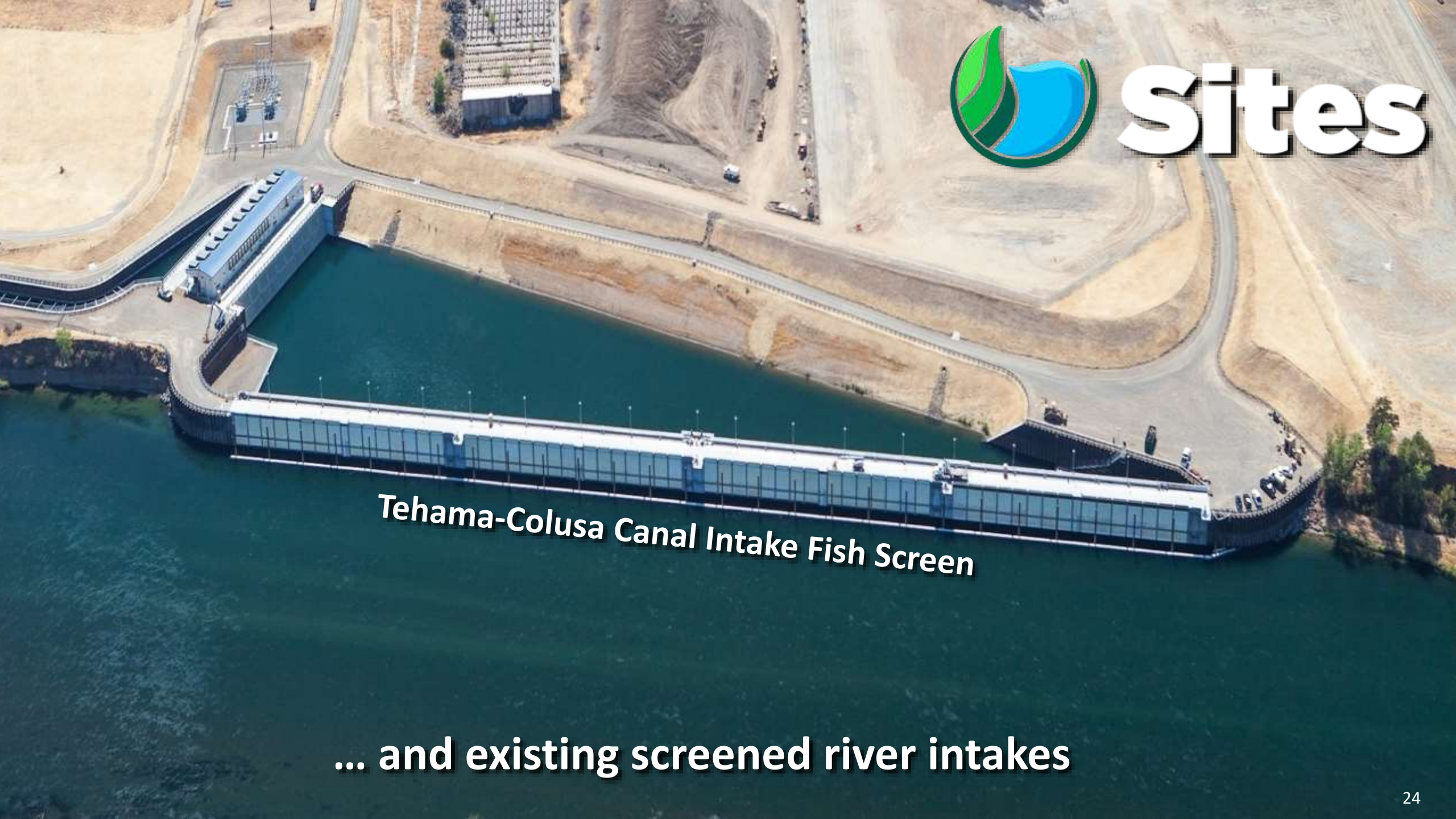
SITES RESERVOIR PROJECT

Proposed Facilities


Sites
Reservoir & Dams


Sites
Largely undeveloped, agricultural grazing land


Sites
Takes advantage of existing facilities
Tehama-Colusa & Glen-Colusa Irrigation District canals



… and existing screened river intakes

Virtual Tour of Sites Reservoir

Online Video

Sites Reservoir Operations

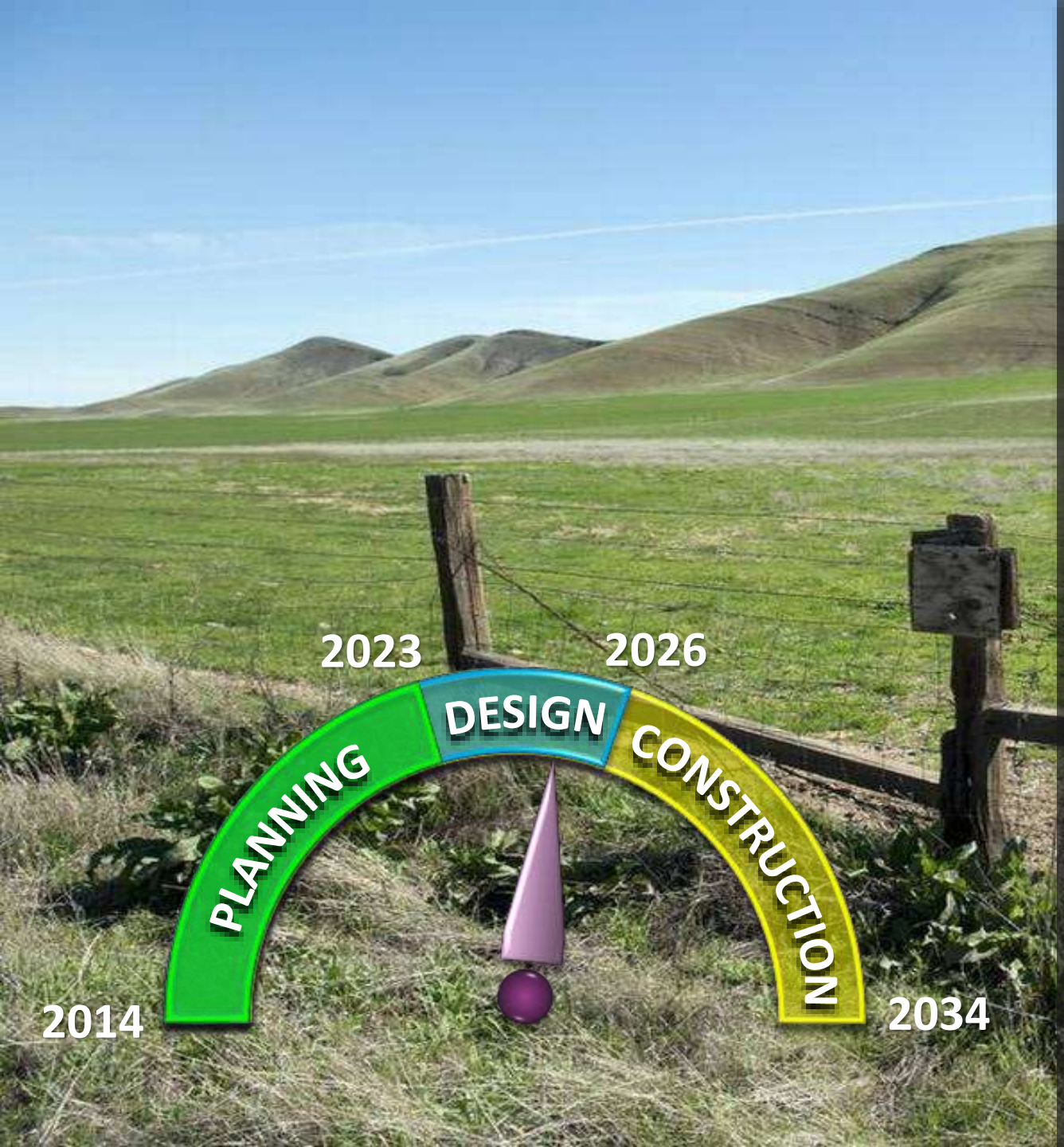
Online Video

Gov Newsom Discusses Sites Reservoir Jan 2025

Online Video

SITES RESERVOIR PROJECT

Key Progress



Key Progress

☑ Technical Analyses

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

☑ Regulatory/Environmental

- Final Environmental Impact Report/Statement
- Incidental Take Permits received
- Water Right hearings ongoing

☑ State/Federal Funding

- $875 million State Proposition 1 grant
- $104 million federal WIIN Act grant
- $449 million US Dept. of Agriculture loan
- $2.2 billion federal WIFIA loan (application)

Sites Workplan

2022-25 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

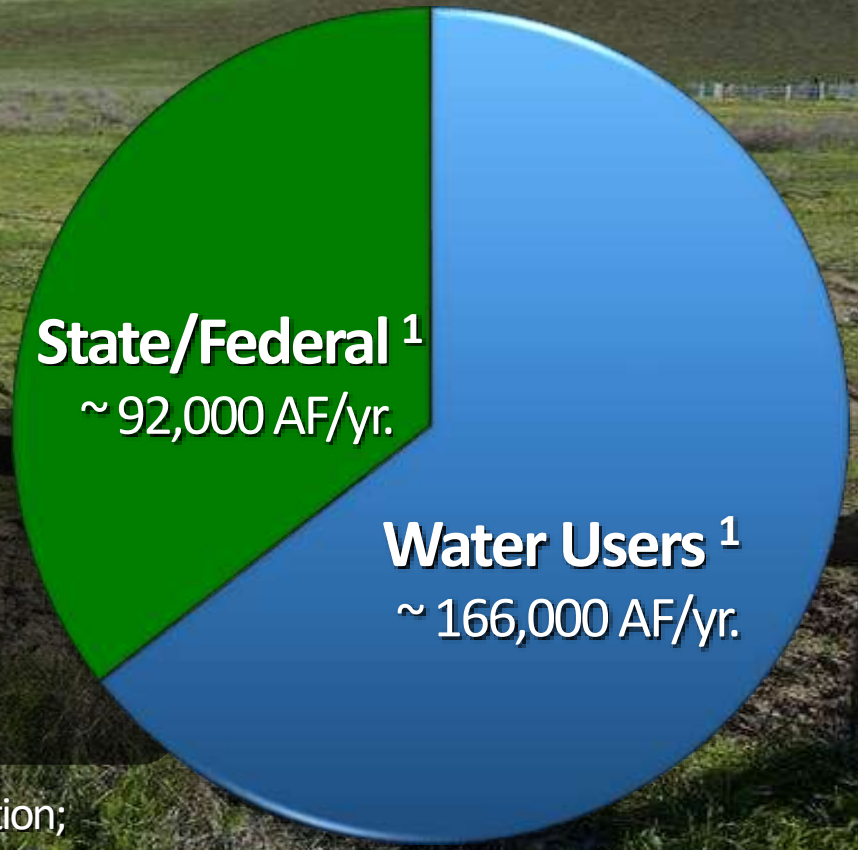
1. 2022-25 Workplan, also referred to as the Amendment 3 Workplan

Native American Tribes Coordination

- USBR & Sites Authority Coordination
  - Yoche Dehe Wintun Nation[1,2]
  - Colusa Indian Community Council (Cachil Dehe Band of Wintun Indians)[1,2]
  - Cortina Indian Rancheria of Wintun Indians[2]
  - Grindstone Indian Rancheria of Wintun-Wailaki[2]
  - Paskenta Band of Nomlaki Indians
  - Round Valley Indian Tribe of Round Valley (only Reclamation)[2]
  - Wintun Tribe in Redding (only Reclamation)
  - Estom Yumeka Maidu Tribe of the Enterprise Rancheria (only Authority)[2]
  - Mechoopda Indian Tribe (only Authority)[2]
  - United Auburn Indian Community of the Auburn Rancheria[2]
- Other Tribes contacted by Sites Authority
  - Ione Band of Miwok Indians[2]
  - Konkow Valley Band of Maidu
  - Redding Rancheria[2]
  - Shingle Springs Band of Miwok Indians[2]
  - United Auburn Indian Community of the Auburn Rancheria[2]
  - Wilton Rancheria[2]
  - Wintu Tribe of Northern California

1. *Tribes requesting consultation under AB 52*
2. *Federally-recognized tribes*

Sites Reservoir Project
Project Yield Estimate



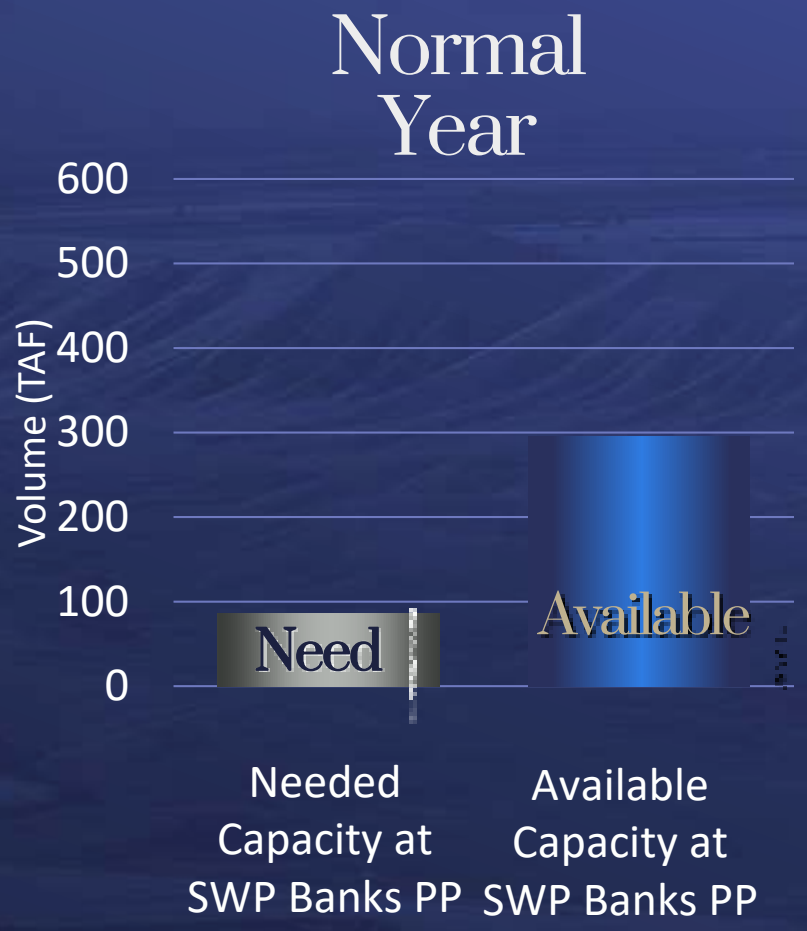
Annual Reservoir Release Estimate

- Average – 207,000 to 260,000 AF/yr. all participants
  (40,000 – 50,000 AF/yr. MWD's share)
- Dry/Critical – 308,000 to 429,000 AF/yr.

1. Federal share subject to appropriation; User share subject to Board authorization; State share subject to final approval by California Water Commission

Board Question

Is there available SWP capacity to pump Sites water? … No stranded assets



Sources: Sites Project Authority CalSim Modeling for Interim Take Permit

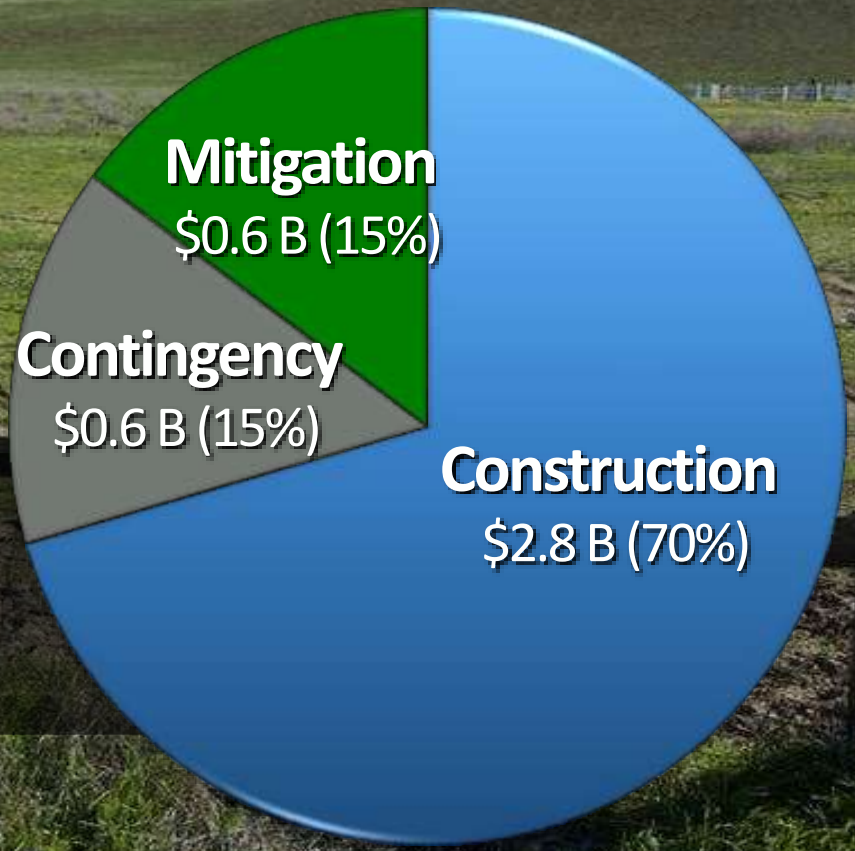
Sites Diversions

If Already Built

- *Forecasted diversions include Bend Bridge pulse flow protection, Wilkins Slough bypass flow requirements, and the Delta in excess conditions*
- *Metropolitan Service Area usage = 100-150 gallons per capita per day*

Sites Reservoir Project

Project Cost Estimate



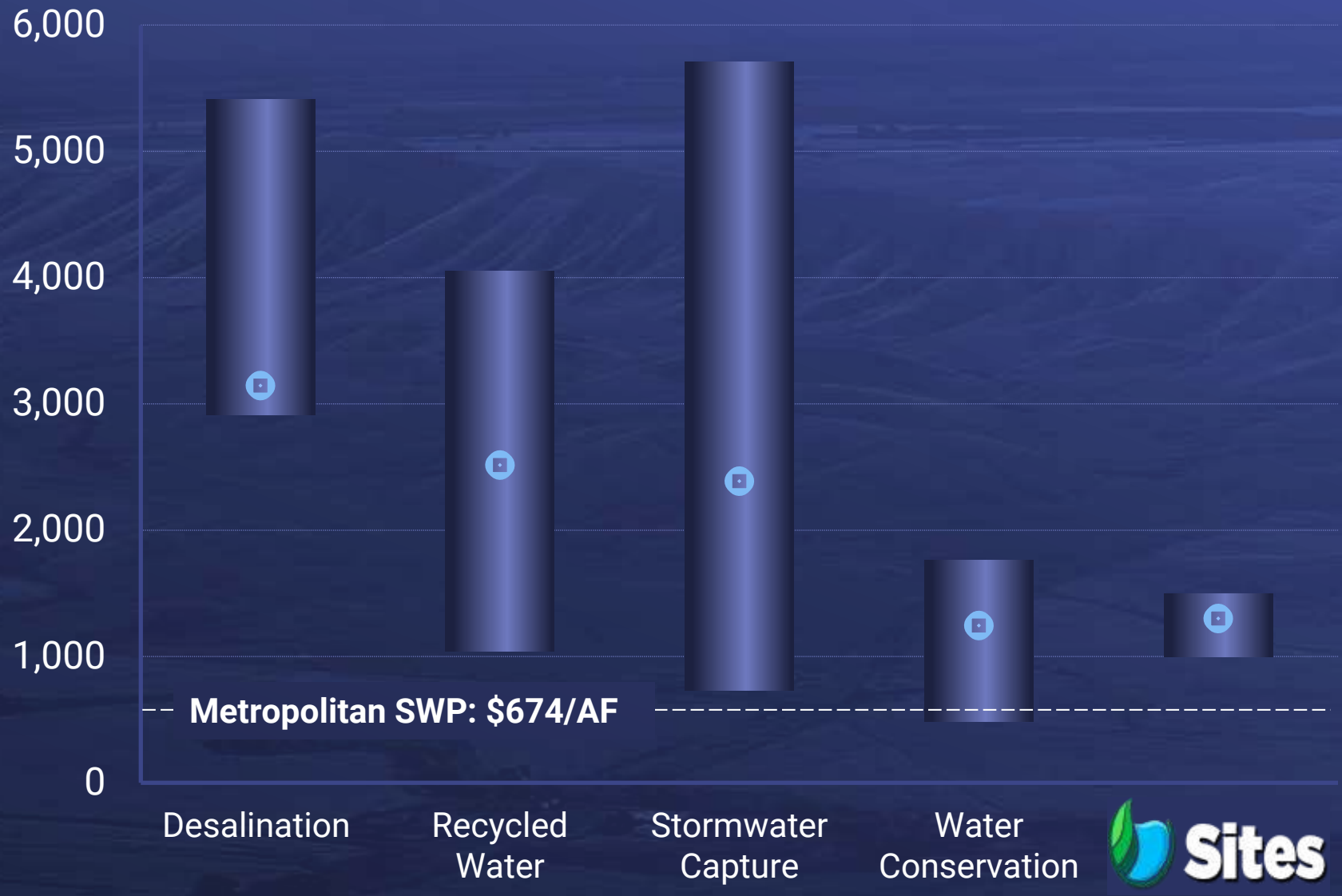
Cost Estimate (2021$)[1]

- Total Project Cost Estimate ~ $4 billion
- Reservoir Release Estimate ~ $700 - 1,000/acre-ft.

1. Construction costs are based on a Class 4 cost estimate
2. Total marginal cost in MWD Service Area ~ $1,000 - $1,500 / AF

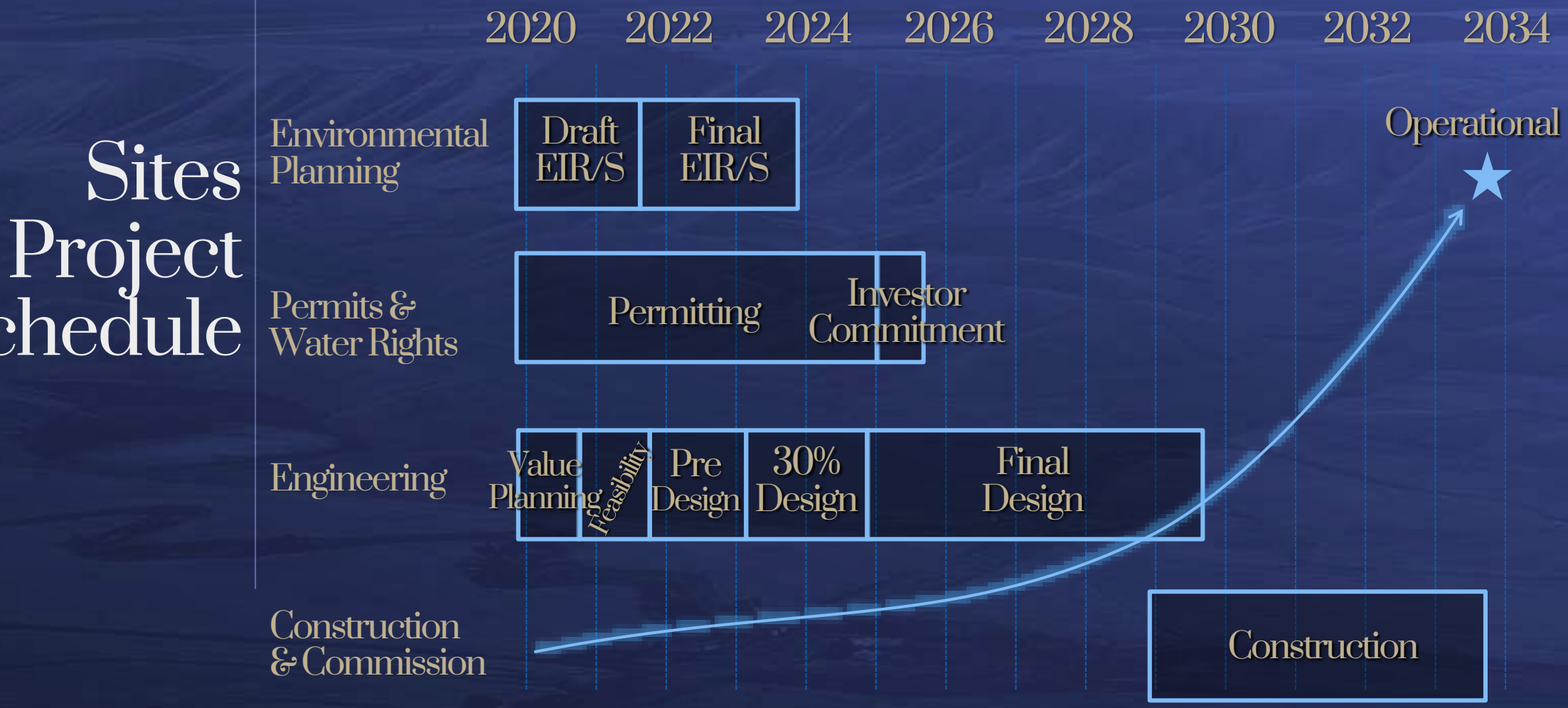
Supply Cost Comparisons $ 2023

to be updated Spring 2025



Data: Information on supply comparisons presented to MWD Board OWS Committee in September 2024, not including Sites Project
Sources: Metropolitan SWP costs calculated from DWR Bulletin-132 and adjusted to 2023 dollars. Other values from previous studies by the Pacific Institute, PPIC, and CPUC and adjusted to 2023 dollars as published in "Facts About the Economic Value of the Delta Conveyance Project"
Sites Project costs include construction, mitigation, contingency, Delta transportation losses, SWP conveyance, power and water treatment

Sites Project Schedule



Sites Project

Questions & Answers

- **What assurances are there that Sites will not harm the SWP, and that the SWP will have priority to move water through the Delta and priority to pump SWP when conditions permit?** The Sites Authority has signed and completed a settlement agreement with the Department of Water Resources and the State Water Contractors dated June 7, 2024, that provides numerous protections for State Water Project supplies. The agreement includes real-time protections for exports, stored water, contains provisions for payback, and clearly states that SWP water rights are senior to Sites.
- **What are the effects, if any, of member agencies or others within Metropolitan's service area investing in Sites?** There are agencies in the MWD service area that have developed their own SWP-conveyed supplies independent from Metropolitan. MWDOC retail agency, Irvine Ranch Water District, independently stores water supplies in the Central Valley. This can provide a net benefit, as IRWD can call upon their stored supplies and Metropolitan can even borrow IRWD's stored supplies for use within the region during dry years. Metropolitan member agency owned storage in Sites would further enhance our region's dry year water supply reliability.

Sites Project

Questions & Answers (Continued)

- <u>What assurances will Metropolitan have that water stored in Sites will be conveyed into the service area?</u> On October 24, 2024, the California Department of Fish and Wildlife issued an Incidental Take Permit for the operations of Sites Reservoir through 2039. The ITP specifies that Sites releases for South of Delta participants for export at state and federal facilities would occur from July l to November 30. This period is known as the transfer window and during this time the State Water Project and Central Valley Project are permitted to move non-project water like Sites, Yuba Accord supplies, and other transfers.
  - During the transfer window, regulations in the Delta are less restrictive and the main limiting factor is the actual capacity of the export facilities.
  - In wetter years, and as a general rule, during State Water Project Allocations of 40% or above, there is limited capacity for transfers. This is because the pumps are prioritizing the movement of project supplies.
  - The SWP and CVP can move up to 650,000 AF of transfer supplies during Dry and Critically Dry years. In all other year types, the projects can move up to 300,000 AF of transfers.
- Very generally, when conditions are dry and Metropolitan needs to take delivery of Sites supplies, there will be ample capacity to move this water into Metropolitan's service area. The most challenging situations will arise when the SWP allocation is greater than 35% and transfer capacity is limited. In such cases Metropolitan will need to take delivery of Sites.

Sites Project

Questions & Answers (Continued)

- **Is Sites Reservoir a private reservoir?** No. Sites Reservoir is funded 100% by local, state, and federal public dollars. There are environmental, recreational and flood control benefits – as well new dry year water supplies secured for public agency ratepayers throughout California. Participation in Sites is broad and diverse, including the Bureau of Reclamation, State of California, urban areas of Southern California and the Bay Area, as well as public irrigation districts in the Sacramento and San Joaquin Valley's.
- **Does Sites Reservoir need new Delta conveyance?** No. The project is not dependent on the construction of Delta tunnels. Sites Reservoir will function independently, with or without a new Delta conveyance system. The Draft Environmental Impact Report/Statement evaluates Sites Reservoir as a standalone project.
- **Has the Sites Project Authority consulted with Native American tribes during this process?** Yes. Both the Sites Project Authority and the Bureau of Reclamation have consulted and will continue to consult with recognized Native American tribes regarding impacts to Tribal people and resources. The Authority has reached out to over a dozen tribes under Assembly Bill 52 and is in ongoing consultation under AB 52 with several tribes.

Sites Project

Questions & Answers (Continued)

- **Will the project harm fish species in the Sacramento-San Joaquin Delta?** No. Sites Reservoir does not threaten salmon and other fish. In fact, there are highly protective operating conditions in place that must be in place before diversions into Sites Reservoir can proceed, including adapting to evolving conditions. In addition, the intakes being used for diverting water into Sites Reservoir include state of-the-art fish screens that are proven to be highly effective at protecting fish. And, the current proposed project includes more cold water for salmon in the driest years when it is needed most. Not only is no harm done, but 1/18/22 there is also a net benefit from this project to Sacramento River salmon, Delta smelt, and the Sacramento-San Joaquin Delta estuary.

- **Will Sites Reservoir harm the environment?** Transformational projects of the magnitude and importance of Sites are not without tradeoffs. There are specific elements of the Project that are critical to enhancing environmental conditions. First, the State has made a large investment, through the 2014 passage of Proposition 1, to enhance their ability to support critical aquatic needs. Second, there are opportunities to partner with the state and federal water projects in coordinated operations that will enhance fishery protections associated with their operations. Beyond these enhancements, the Project itself is being designed to avoid and lessen any environmental concerns and, when necessary, provide appropriate mitigation.

Sites Project

Questions & Answers (Continued)

- <u>Will Sites Reservoir help increase water supplies in future droughts?</u> Yes. Sites Reservoir is an insurance policy for future droughts. Sites Reservoir does not rely on snowpack and if the scientific projections are correct about the impacts of climate change (i.e. California is expected to receive about the same annual precipitation that it currently does but more will come as rain instead of snow), then having Sites Reservoir will mean we can safely collect more water in the reservoir for use during future droughts.
- <u>Will Sites Reservoir divert water from the Sacramento River even during critically dry years?</u> It depends. Even during drier years there can be significant precipitation events that present conditions where water can be diverted safely from the river and placed in Sites Reservoir. All diversions will be subject to the highly protective operating conditions that are currently being proposed and will ultimately be permitted by state and federal regulatory agencies for the Sites Reservoir Project.

Sites Project

Questions & Answers (Continued)

- <u>Does Sites Reservoir guarantee water to participants?</u> Sites Reservoir is a beneficiary pays project, which means that the benefits of the project go to those paying. Each participant (including environmental users) has control over their portion of the storage space and a proportionate share of the water diverted into Sites Reservoir. There is flexibility in the timing and uses of the water, including for the environment. The assurance of water being in the reservoir is largely the result of the individual participant decisions in their operations of their portion of the facility. This way, each member is assured to receive what they pay for in a way that works within and complements that member's water supply portfolio.
- <u>Is water from the project too expensive?</u> The Sites Project Authority will continue to look at all options as to ensure that the project is affordable to all participants. Affordability is essential, and the Project will only move forward if participants decide that it is affordable.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