

Sites Reservoir Project Overview

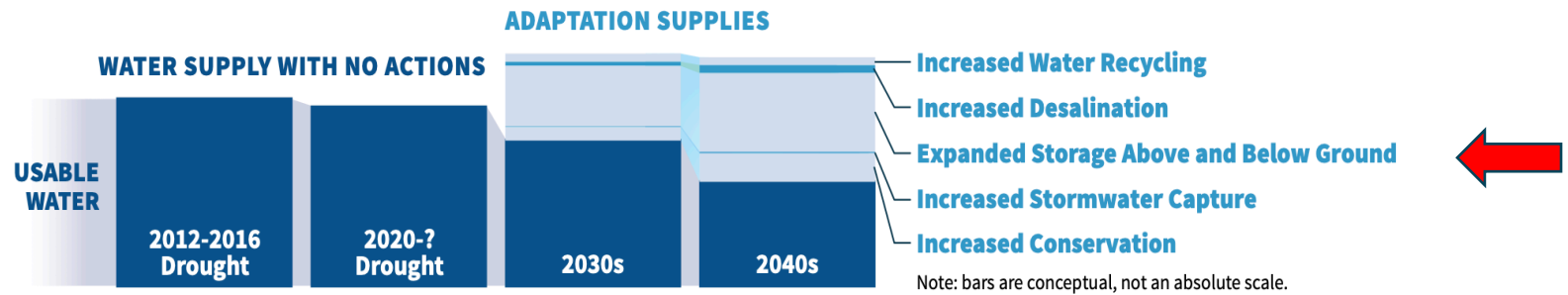
Yolo County Board Tour
Sites Reservoir

October 31, 2023

What Problem Does the Sites Project Help Solve?

Over the next 20 years, California could lose 10 percent¹ of its water supplies.

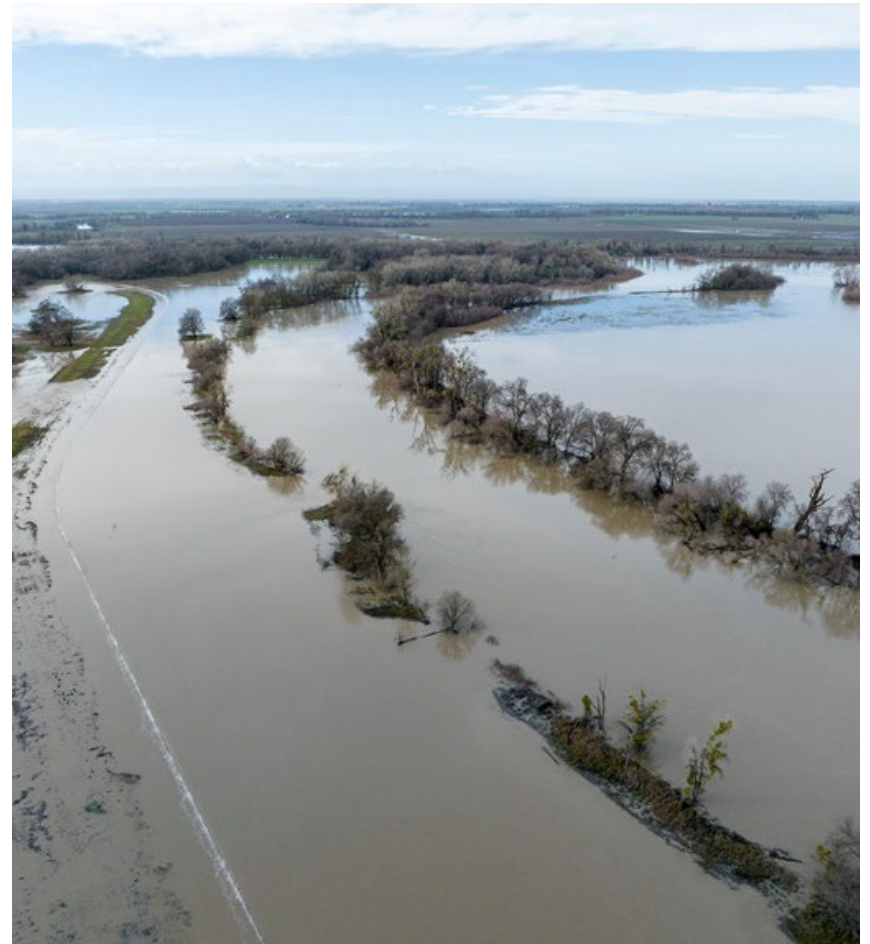
Our climate has changed, and the West continues to get hotter and drier. As it does, we will see on average less snowfall, more evaporation, and greater consumption of water by vegetation, soil, and the atmosphere itself.



In previous droughts the ratio of precipitation to evaporation to runoff has been similar. However, as temperatures rise, evaporation increases, with the consequence of a fall in runoff. As average temperatures continue to increase, the increase in evaporation will continue, with a concurrent drop in runoff.

‘What if we had Sites?’ – most recent storms update

- Estimate for January 2023 storms - ~250,000af
- Estimate for March-April 2023 ~250,000af
- Forecasted for May-June 2023. ~200,000af
- Total for 22/23 Season – **700,000af** (almost ½ of the reservoir)
- Estimates are based on operations simulation tool that monitors actual and forecasted river/Delta conditions
- This real-time analysis shows that the Project is capable of delivering the expected diversion performance



Sites Project Authority

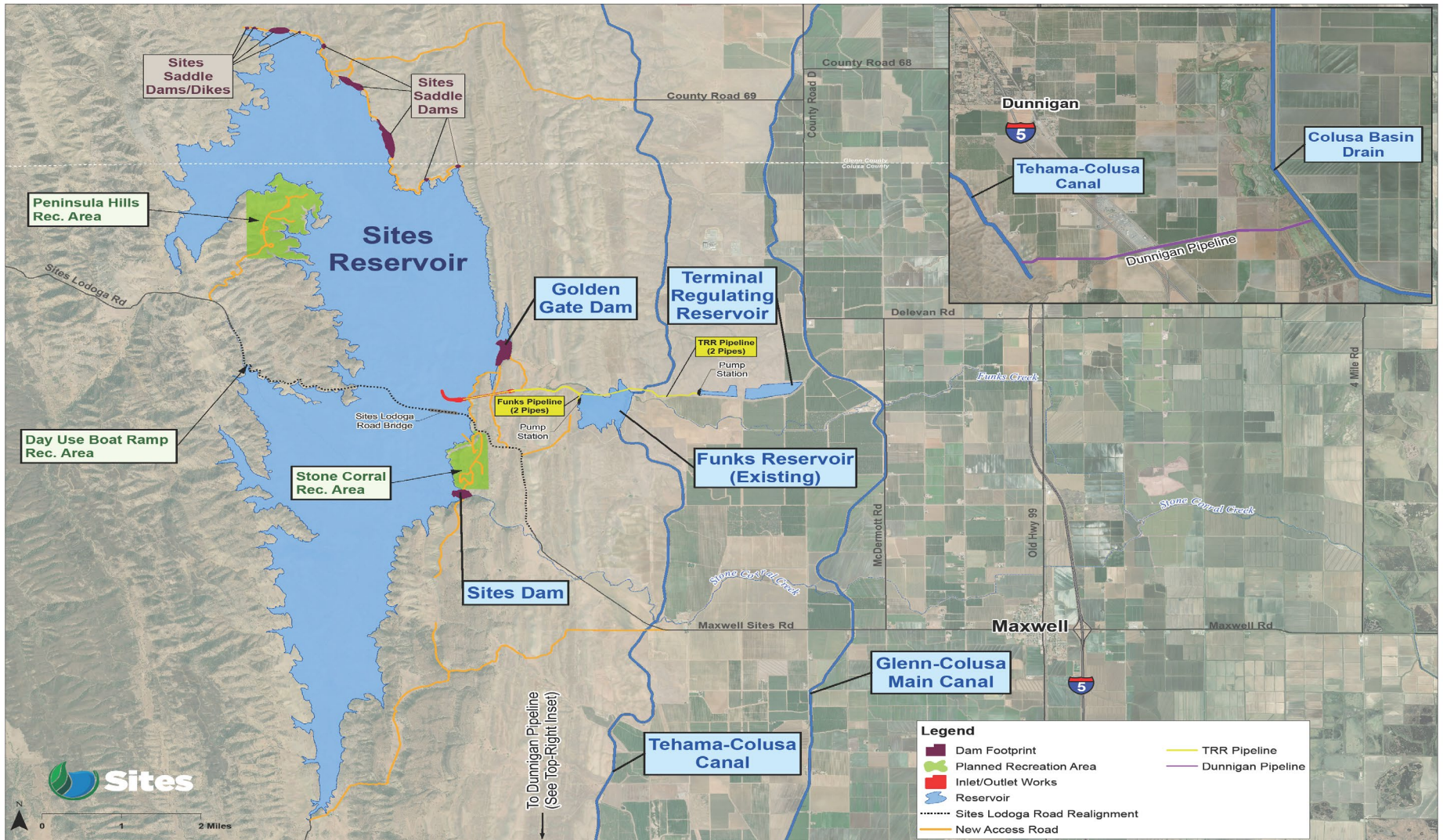
'the Sites Project is a local led project'

- Joint Powers Authority established under California law
- Authority member agencies located in the Sacramento Valley
- Reservoir Committee made up statewide agencies investing in the Sites Project
- The Sites Project Authority will own and operate Sites Reservoir

Board of Directors:

Colusa County
Colusa County Water District
Glenn County
Glenn-Colusa Irrigation District
Placer County Water
Agency/City of Roseville
Reclamation District 108
Sacramento/Sac County Water
Agency
Tehama-Colusa Canal
Authority
Westside Water District

Project Facilities



Our Strength is in Our Broad Statewide Participation *'the Sites Project is Beneficiary Pays'*

Sacramento Valley

City of American Canyon
Colusa County
Colusa County Water Agency
Cortina Water District
Davis Water District
Dunnigan Water District
Glenn County
Glenn-Colusa Irrigation District
LaGrande Water District
Placer County Water Agency
Reclamation District 108
City of Roseville
Sacramento County Water Agency
City of Sacramento
Tehama-Colusa Canal Authority
Westside Water District
Western Canal Water District

Bay Area

Santa Clara Valley Water District
Zone 7 Water Agency

San Joaquin Valley

Wheeler Ridge-Maricopa Water Storage
District
Rosedale-Rio Bravo Water Storage District

Southern California

Antelope Valley – East Kern Water Agency
Coachella Valley Water District
Desert Water Agency
Irvine Ranch Water District

Metropolitan Water District

San Bernardino Valley Municipal Water District
San Geronio Pass Water Agency
Santa Clarita Valley Water Agency

Waiting List

Cal-Am Sacramento
City of Napa
Delta View WUA
Glenn County
La Cumbre MWC
Madera County
Pacific Resources MWC
Palmdale WD
Santa Clara Valley WD
Western Municipal WD
Westlands WD
Wheeler Ridge Maricopa WSD
Woodland Davis CWA



What Do You Get With Your Investment in Sites Reservoir?



Hold Water



Lease Storage



Take Water

Sell Water



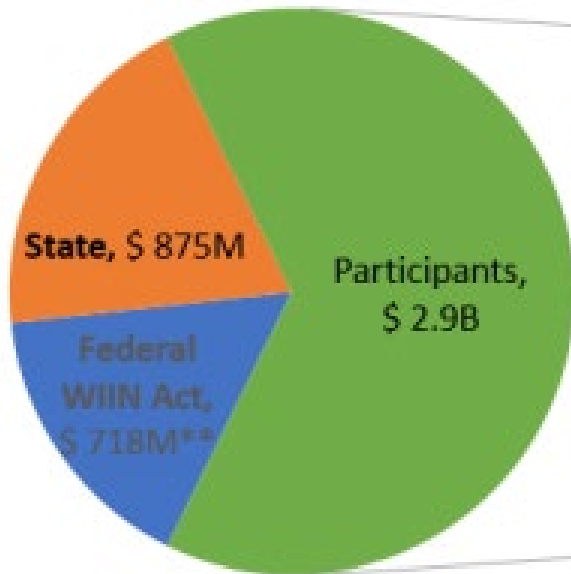
1. Share of Storage Space – your own bucket
2. Access to Proportionate Share of Water Diverted to Storage - X% of 300 TAF annual average (estimated)

Investor Decides - Local control of storage space and stored water

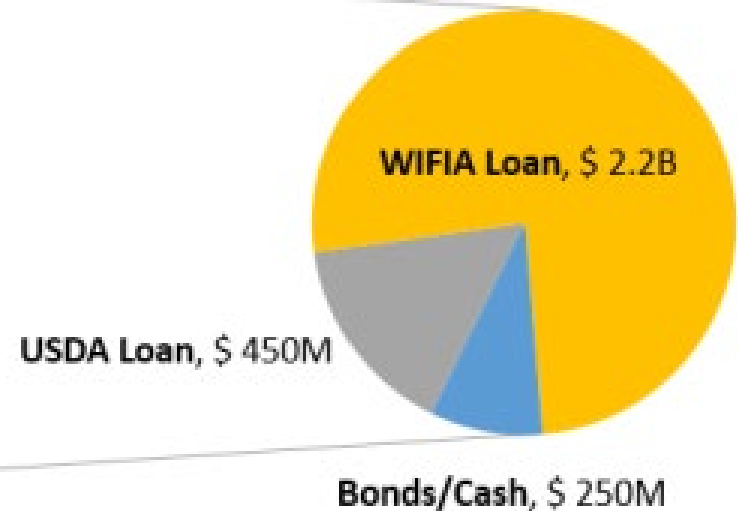
Project Funding Sources

A Local, State, and Federal Partnership

Project Investors



Participant Funding Sources



**WIIN Act funding is based on 16% Reclamation investment under Alternative 3 (Preferred Project) and is reported in future dollars.

Environmental Planning & Permitting Update

- Environmental Impact Report
 - 2017 Draft Document
 - 2021 Revised Draft document
 - Released for public review in November 2021
 - Comment period closed in January 2022
 - 2023 Final document
 - Expected in November 2023
 - All concerns evaluated
 - Revisions to 2021 draft included
 - Response to comments
- Water Right Permit
 - Submitted application to State Board in May 2022
 - 15 formal protests received – small number

Sites Water Rights Protestants – 15 Total

(as of 9/5/23)

Environmental Organizations:

1. San Francisco Baykeeper, The Bay Institute, Defenders of Wildlife, Golden State Salmon Association
2. CalWild
3. Center for Biological Diversity
4. California Sportfishing Protection Alliance, Friends of the River, Winnemem Wintu Tribe, AquAlliance, California Water Impact Network, CalWild, Fly Fishers of Davis, Friends of Swainson's Hawk, Northern California Council of Fly Fishers International, Restore the Delta, Save California Salmon, Sierra Club California, Water Climate Trust
5. North Coast Rivers Alliance, Pacific Coast Federation of Fisherman's Association, The Institute for Fisheries Resources, San Francisco Crab Boat Owners Association, Winnemem Wintu Tribe
6. Trout Unlimited
7. Water Climate Trust, Waterkeeper Alliance, Winnemem Wintu Tribe, International Rivers

Water and Local Agencies:

1. Central Delta Water Agency, South Delta Water Agency, Zuckerman-Mandeville, Inc, Delta Farms Reclamation District No. 2030 (McDonald Island), Randy Mussi Investment LP
2. Contra Costa Water District
3. County of San Joaquin
4. Bureau of Reclamation
5. State Water Contractors

Individuals:

1. Ben King
2. Richard Morat
3. Steve Owens
4. Clarke Ornbaun

Engineering Update

- **2021** – Completed the Feasibility Analysis
 - The California Water Commission Determined the Project is Feasible
- **2022-2024** – Conducting Field Studies
 - Survey Mapping & Geotechnical Investigations to Inform Preliminary Engineering Analysis and Design
- **2024** – Complete 30% Design
 - Update Project Cost Estimate
- **2024** and Beyond – Key Agency Reviews and Approvals
- **2025** - Begin Construction



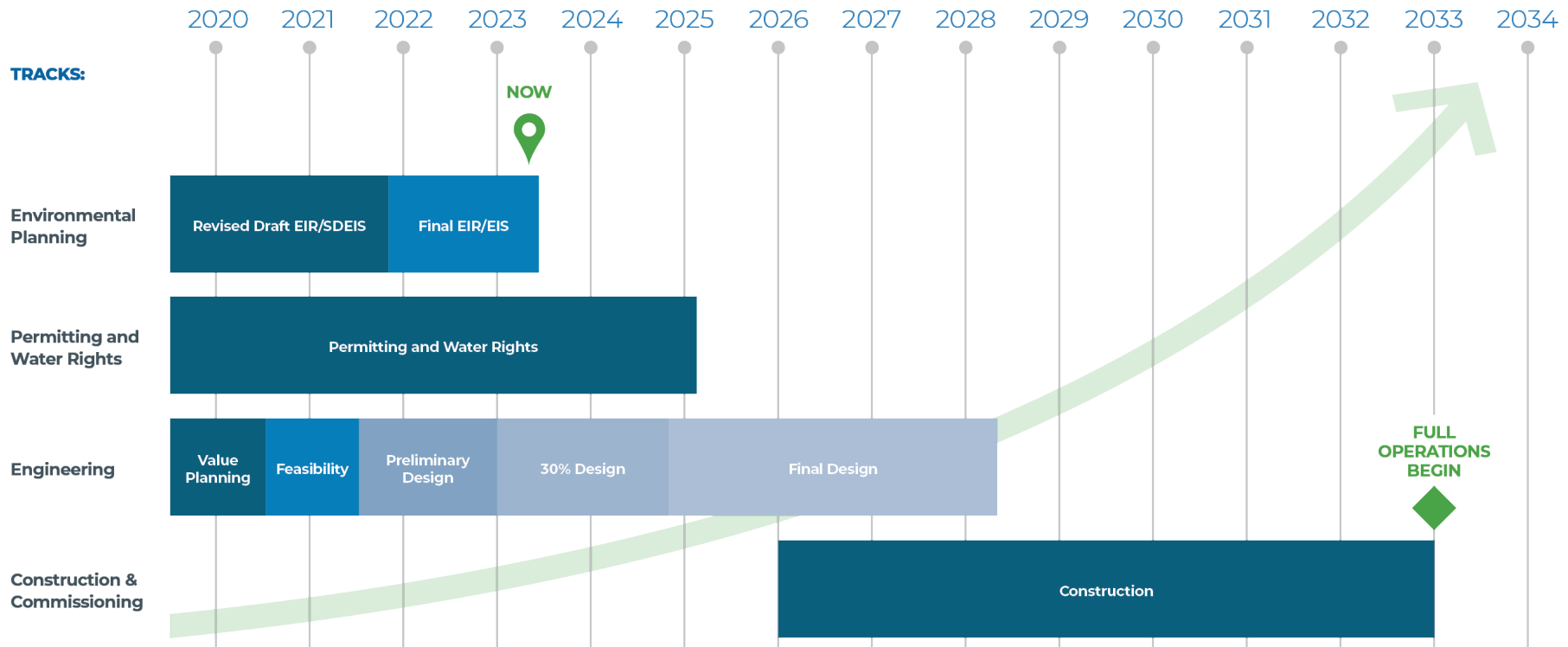
Real Estate Update

- Coordinating with Landowners on project design. Two most frequently asked questions:
 - anticipated land needs and
 - timing for acquisition
- Securing Temporary Rights of Entry (TROE) and other agreements to conduct necessary technical field activities
- Having acquisition discussions on key project parcels or parcels associated with major project infrastructure
- Land Acquisition anticipated to start in 2024.



Project Schedule

Sites Reservoir Project Schedule



Questions

Current Allocation of Active Sites Storage Space

(planning level estimates, subject to change)

Participant Name	Amendment 3 Participation Level	Amendment 3 Storage Allocation	% Available Storage ^{1, 2, 3}
Antelope Valley-East Kern WA	500	3,117	0.2%
City of American Canyon	4,000	24,936	1.8%
Coachella Valley WD	10,000	62,340	4.4%
Colusa County	10,000	62,340	4.4%
Colusa County WD	9,256	57,702	4.1%
Cortina WD	450	2,805	0.2%
Davis WD	2,000	12,468	0.9%
Desert WA	6,500	40,521	2.9%
Dunnigan WD	2,972	18,527	1.3%
Glenn-Colusa ID	5,000	31,170	2.2%
Irvine Ranch WD	1,000	6,234	0.4%
LaGrande WD	1,000	6,234	0.4%
Metropolitan Water District of SC	50,000	311,700	22.1%
Reclamation District 108	4,000	24,936	1.8%
Rosedale-Rio Bravo WD	500	3,117	0.2%
San Bernardino Valley Municipal WD	21,400	133,408	9.5%
San Geronio Pass WA	14,000	87,276	6.2%
Santa Clara Valley WD	500	3,117	0.2%
Santa Clarita Valley WA	5,000	31,170	2.2%
Westside WD	5,375	33,508	2.4%
Wheeler Ridge - Maricopa WSD	3,050	19,014	1.3%
Zone 7 WA	10,000	62,340	4.4%
State of California - Total	n/a	244,000	17.3%
Reclamation	n/a	128,020	9.1%
Available Storage Total	166,503	1,410,000	100.0%

General Comparison of Sites to Alternative Water Supply System Costs

TABLE 5-9. ALTERNATIVE WATER SUPPLY SYSTEM COSTS (\$/AF; \$2021)

	Supply Cost (\$/AF; \$2021)			Integration (\$/AF; \$2021)	Total Cost (\$/AF; \$2021)		
	Low	Medium	High		Low	Medium	High
Stormwater Capture							
Small (<1.5 TAF)	\$653	\$1,293	\$1,415	\$381	\$1,061	\$1,674	\$1,796
Large (6.5 TAF - 8.1 TAF)	\$259	\$272	\$286		\$626	\$653	\$667
Recycled Water - Non-Potable Reuse							
Small (< 9.7 TAF)	\$599	\$653	\$1,265	\$1,048	\$1,646	\$1,701	\$2,313
Recycled Water - Indirect Potable Reuse							
Small (< 9.7 TAF)	\$1,646	\$2,041	\$2,449	\$503	\$2,163	\$2,558	\$2,953
Large (> 9.7 TAF)	\$1,238	\$1,442	\$1,742		\$1,742	\$1,946	\$2,259
Brackish Water Desalination							
Small (< 16.2 TAF)	\$993	\$1,660	\$1,905	\$122	\$1,129	\$1,782	\$2,027
Large (> 9.73 TAF)	\$925	\$1,116	\$1,347		\$1,048	\$1,238	\$1,469
Seawater Desalination							
Small (< 16.2 TAF)	\$2,735	\$2,898	\$4,504	\$218	\$2,953	\$3,116	\$4,721
Large (> 9.73 TAF)	\$2,082	\$2,136	\$2,585		\$2,299	\$2,340	\$2,803

Source: Cooley H., The Cost of Alternative Urban Water Supply and Efficiency Options in California 2019. **AF** (acre feet) **TAF** (thousand acre-feet)

Sites Reservoir

\$850

\$450*

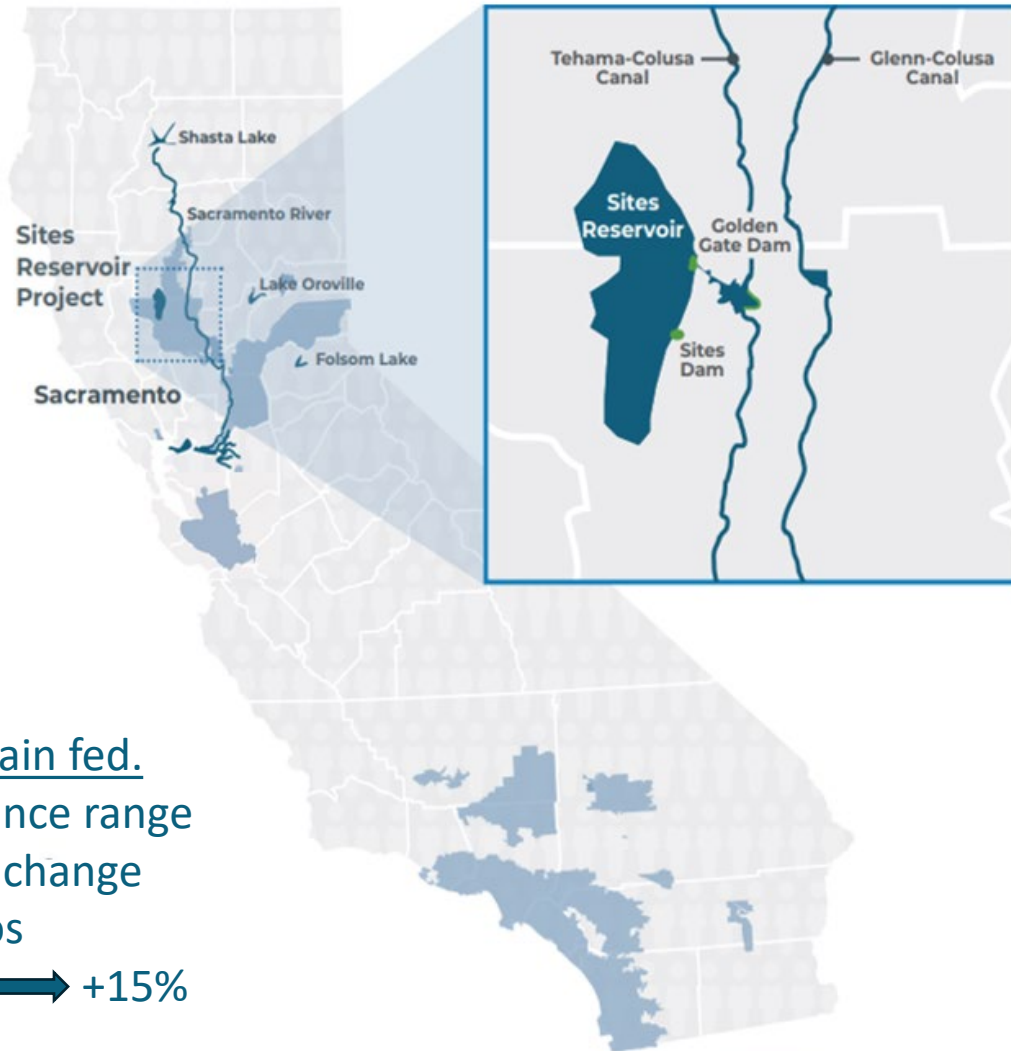
\$1,300

Supply costs are FOB out of the reservoir. Integration is estimated cost of transmission plus Through - Delta and other conveyance losses. Total cost is delivered through the state water project system to the Los Angeles region.

Priority System For Project Participants – How the Two Guarantees Work

- Each Storage Partner has sole decision making over the use of their space and water
- Example: With 22/23 Sites Filling, MWD would have rights to ~155TAF of water, (22.1% of 700TAF). They could
 - Store this water in their 311TAF of storage space, if space available
 - Lease space from another Participant to store this water
 - Forego their rights to this water, allowing another to acquire a larger share
 - All water deliveries from Sites are "Through Delta" as non project water during transfer window (~Jul-~Nov)
- Other Considerations:
 - Modeling shows that "yield" improves with annual turnover
 - Storage Partners + waiting list = "Sites Marketplace"
 - Potential partnering with State and Federal uses

Sites is a Climate Change Adaptation that Compliments California's Water Management



Sites is 100% rain fed.

Project performance range
under climate change
scenarios

No Change \longleftrightarrow +15%

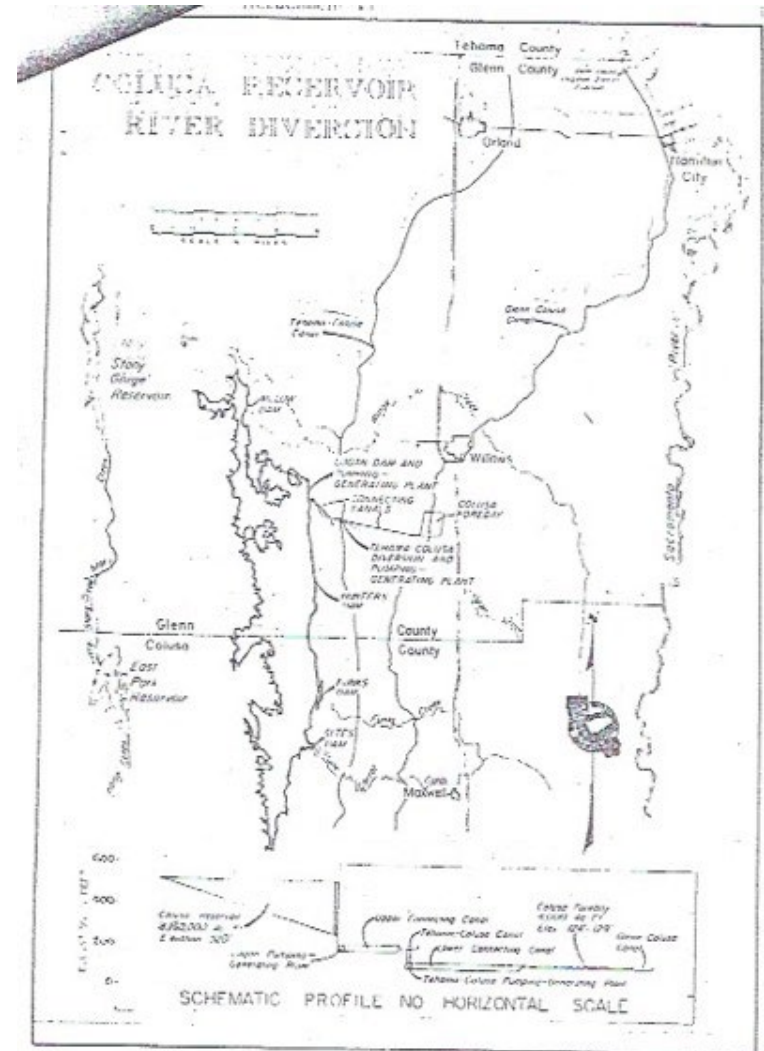
Blue shading represents participant service areas; does not account for State and Federal participation.

Most Frequently Asked Question

Why is it taking so long to build Sites Reservoir?

A Walk Down Memory Lane

- **1957** - DWR Bulletin 3 identifies Sites Reservoir “like” in the 1957 California Water Plan
- **1977** – DWR files several applications for water rights related to the Colusa Reservoir River Diversion
- **1997 through 2010** – Reclamation/DWR evaluate “NODOS”, part of CALFED program, locals not happy
- **2010** – Sites Joint Powers Authority is formed to serve as the lead local agency to advance the project



Sites Project History

- **2014** – California passes Proposition 1 that provides \$2.7 billion for water storage projects, dams and reservoirs.
- **2016/17** – Sites Project Reservoir Committee formed. Draft EIR/EIS released
- **2018** – Project is awarded \$816 million from Proposition 1 and a \$449 million construction loan from USDA
- **2019** – The Sites Project goes through an extensive value planning process to make the project affordable, permittable, and buildable.
- **2020/21** – Authority establishes its Strategic Plan, Federal and State feasibility certified, Authority releases revised Draft EIR/EIS, (i.e. Sites 2.0)
- **2022** – The Sites Project is invited to apply for a \$2.2 billion EPA WIFIA loan (3X larger than any previous loan amount) and submits its Water Rights Application.
- **2023** – Sites water application complete and publicly noticed.

Overview of Sites Reservoir Project

- The Project is a multi-benefit, beneficiary pays off-stream surface storage project that will help provide needed flexibility, reliability and resiliency to California's water supply.
- **The Project will capture and store stormwater flows from the Sacramento River (after all other water rights and regulatory requirements are met) for release primarily in dry and critical years for California communities, farms, and ecosystems.**
- The Project will use existing intakes with state-of-the-art fish screens. Diversions would only occur when permitted river flows exist that are protective of river and Delta aquatic species.
- The Sites Authority has applied for a new water right to divert water from the Sacramento River at Red Bluff and Hamilton City.
- The Project includes about 180 miles of conveyance. Only about 20 miles is new facilities. The remainder is shared existing infrastructure.
- **Sites water is to be conveyed "through Delta" to southern California participants - not reliant upon the proposed Delta Conveyance Project.**
- The Project is climate resilient; it does not rely on snowmelt but will capture winter river runoff from uncontrolled streams below existing reservoirs in the Sacramento Valley.
 - As such, it will inherently adapt to future climate conditions and will be operated to improve water supply resilience to predicted changes in weather

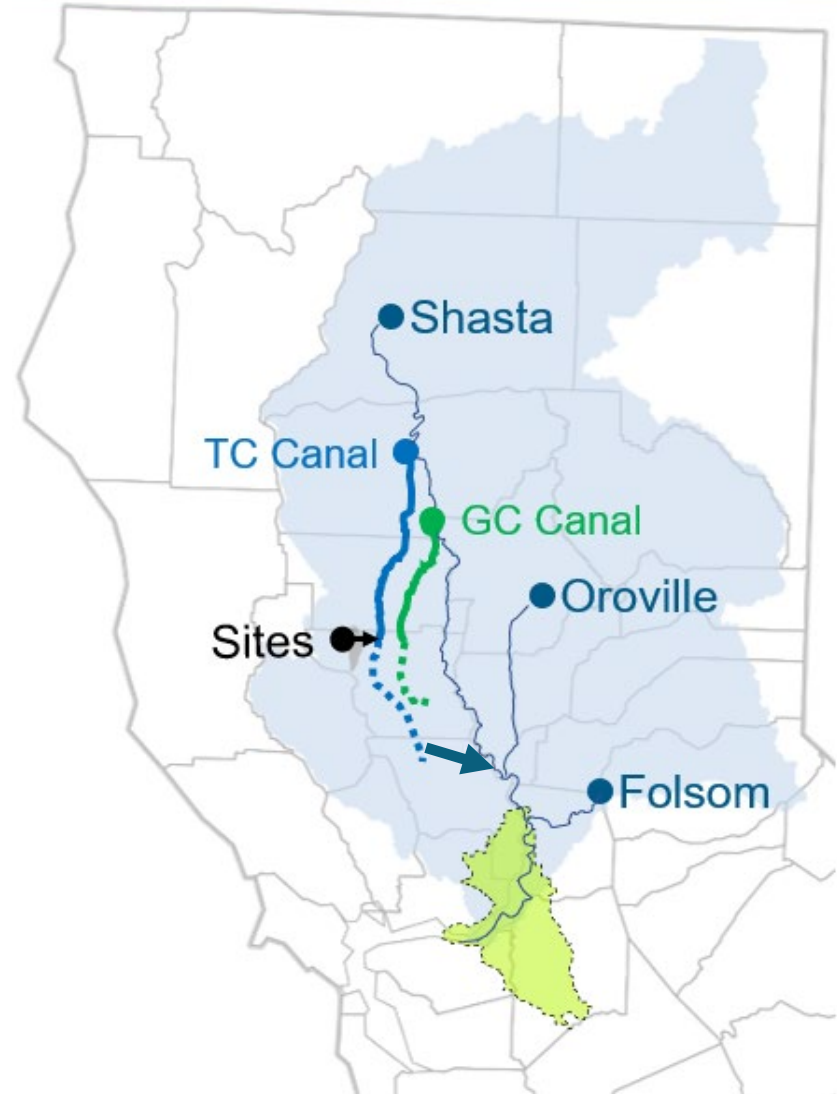
State Participation Overview

- Prop 1 WSIP – California Water Commission
- 244,000 af of storage and 17.3% of divertable water
- ~\$875M committed to date
- Public Benefits
 - Flood Control ~\$50M
 - Recreation \$225M
 - Ecosystem ~\$600M
- Opportunity to advance Environmental Water Manager concept



Federal Participation (in progress)

- WIIN/BIL - Bureau of Reclamation
- Has expressed interest in 16% capacity share, currently only 9% available
- ~\$200M committed to date
- Federal Benefits
 - Anadromous Fish temperature control,
 - Refuges,
 - CVP water supply
- WRLCM results demonstrate positive effects for winter run salmon



Governor Permit Reform Proposal

- Sites will be a requesting certification
- Three areas of primary interest in the package:
 - Executive Order – directive to expedite state permits and approvals, continuing the Strike Team
 - CEQA Trailer Bills – Court resolution of CEQA lawsuits within 270 days, streamlining the admin record
 - Species Designations Trailer Bill – Some of the species changing status possibly occur within the Sites valley.
- Overall Effect – Positive; reduces uncertainty
- Specific – may reduce water rights process by ~6 months and overall schedule duration by ~12 to 18 months

Other Items of Potential Interest

Overview of Amendment 3 Participants

- Participants generally include large urban water wholesalers downstream (“South of Delta”) and small agricultural districts primarily located in the Sacramento Valley (“North of Delta”)
 - South of Delta participants comprise 59% of Participants and 76% of total Project subscriptions
 - North of Delta participants comprise 41% of Participants and 24% of total Project subscriptions
 - 65% of total Project subscriptions are rated A or higher by S&P
 - Four Participants (Metropolitan Water District of Southern California, San Bernardino Valley Municipal Water District, Zone 7 Water Agency, and Coachella Valley Water District) are rated AAA/AA+ by S&P and account for 55% of total Project subscriptions
 - The single largest user of water from Sites is the ecosystem portion of the State’s Prop 1 investment.

Sites Amendment 3 Participants	Acre Foot Participation
Antelope Valley-East Kern WA	500
City of American Canyon	4,000
Coachella Valley WD	10,000
Colusa County*	10,000
Colusa County WD*	9,256
Cortina WD*	450
Davis WD*	2000
Desert WA	6,500
Dunnigan WD*	2972
Glenn-Colusa ID*	5000
Irvine Ranch WD	1,000
La Grande WD*	1000
Metropolitan Water District of SC	50,000
Reclamation District 108*	4000
Rosedale-Rio Bravo WD	500
San Bernardino Valley Municipal WD	21,400
San Geronio Pass WA	14,000
Santa Clara Valley WD	500
Santa Clarita Valley WA	5,000
Westside WD*	5375
Wheeler Ridge - Maricopa WSD	3050
Zone 7 WA	10,000
Total	166,503

*Denotes North of Delta participant

Denotes agricultural participant

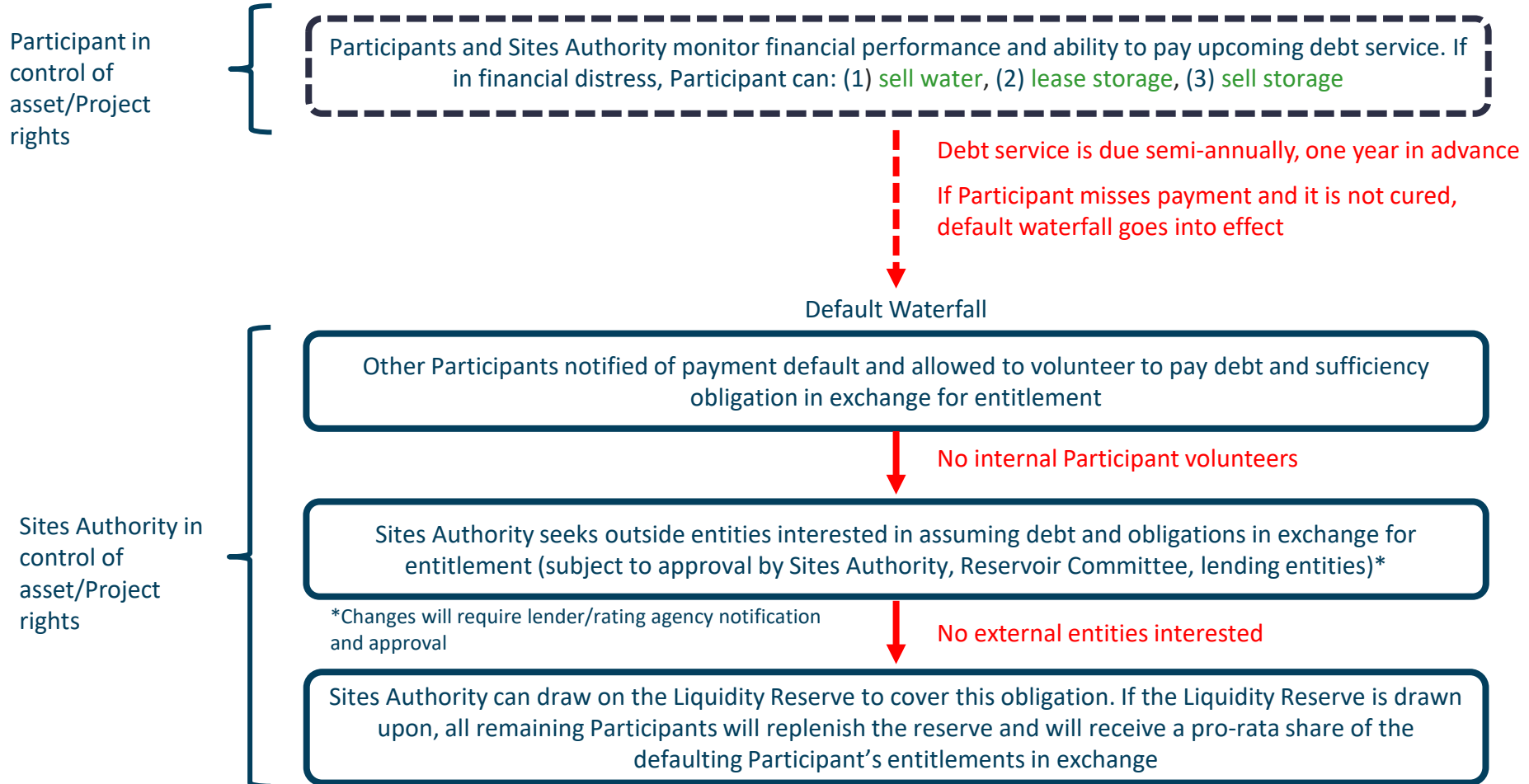
Securing Revenue to Meet WIFIA Loan Debt Service

- Prior to execution of the WIFIA loan, Sites Authority will enter into a Sites Reservoir Benefits and Obligations Contract (Contract) with Participants that will require Participants to collect revenue sufficient to fund their share of pooled debt service
- Participants have several potential sources of funds that can be used to meet Project financial obligations: (1) include costs on Participant’s DWR State Water Project Annual Statement of Charges; (2) levy benefit assessments or other land-based charges; (3) incorporate costs into water rates and charges; or (4) pay-go their share of costs

Rates and Charges or Benefit Assessment (with or without Prop 218)	Land-Based Charges	State Water Project Statement of Charges (through property taxes)
City of American Canyon	Colusa County ⁴	Antelope Valley-East Kern
Glenn Colusa Irrigation District	Colusa County WD	Coachella Valley WD
Irvine Ranch Water District ³	Cortina WD	Desert WA
MWD of Southern California	Davis WD	San Bernardino Valley MWD
Santa Clara Valley WD	Dunnigan WD	San Geronio Pass WA
Santa Clarita Valley WA	La Grande WD	
Reclamation District 108 ¹	Reclamation District 108 ¹	
Rosedale-Rio Bravo WSD	Westside WD	
Zone 7 WA	Wheeler Ridge Maricopa WSD ²	
Notes:		
1. Still to be determined whether using Rates and Charges or District-wide land-based charges		
2. Land-based charges imposed via recorded Benefits and Obligations Contracts on Certain Lands		
3. Irvine Ranch Water District is exploring funding its share of capital costs separately from the group participating in the pooled Loan borrowing, but is currently included in the group financing for purposes of the pro forma		
4. Colusa County is exploring funding its share of capital costs as a General Fund obligation		

Summary of Key Security Covenants/Terms

- Contract will also include a default “waterfall” process that will be utilized if a Participant fails to pay by the due date. If Participant efforts outlined below are not successful, the Authority will have the right to suspend or terminate the Contract, including selling water and storage



Summary of WRLCM Results

- The Project has a slightly positive effect on winter-run with the potential to increase the overall population
- Benefits to winter-run are associated with periodic reductions in late summer water temperatures that decreases salmon egg mortality
 - Likely driven mostly by Reclamation’s investment and exchanges with Reclamation
- Model runs included Alternative 3 with Reclamation investment at both a 25% (Alt 3A) and 16% (Alt 3B)
 - Alt 3A has slightly greater benefits than Alt 3B

Summary of Water Availability Results

Approach	Result Take-away	Annual Average Available (AFY)	Max Water Available (AF)
Historical	Water available in all year types* and 18 of 22 years	748,000	3,879,000
CalSim II			
Historical hydrology	Water available in all year types and 74 of 82 years	1,448,000	5,249,000
Climate change – 2035 Central Tendency	Water available in all year types and 73 of 82 years	1,518,000	5,330,000
Climate change – 2070 Central Tendency	Water available in all year types and 70 of 82 years	1,455,000	5,176,000
Unimpaired Flow – Based on Reclamation’s Alternative 4 in their 2019 Reconsultation EIS	Water available in all year types and 73 of 82 years	1,518,000	5,330,000
Face Value	Water available mainly in wet and above normal years and 55 of 93 years	1,118,000	8,681,000

*Based on the Sacramento Valley Water Year Index (40-30-30 Index)

Project Next Steps/Goals: 2022 – 2024

- ✓ Secure Final Prop 1 Funding award with CWC
- ✓ Execute Final Operations Agreement
- ✓ Secure WIIN and BIL Federal Funding
- ✓ Complete WIFIA/USDA Loan Agreements
- ✓ Execute Benefits and Obligations Contracts
- ✓ Complete Final EIR/EIS
- ✓ Obtain Critical Environmental Permits (BO, ITP, 404)
- ✓ Receive Water Right Order and Permit
- ✓ Obtain Local Agency Agreements and Permits
- ✓ Execute Benefits Contracts with DWR and CDFW

Project Next Steps/Goals: 2022 – 2024

- ✓ Develop Mitigation Acquisition Master Plan
- ✓ Initiate Application for DSOD Permit to Construct
- ✓ Advance Engineering Design to achieve Level 3 cost estimate
- ✓ Determine Procurement and Delivery Strategy
- ✓ Determine Overall Project Schedule
- ✓ Develop and Implement Land Acquisition Master Plan
- ✓ Conduct Geotech Investigations and Evaluations
- ✓ Perform Geotech Evaluation of all “Willing Seller” Properties
- ✓ Determine Organization Structure and Governance