



Meeting: **Reservoir Committee & Authority Board Agenda
Item 3.2**

August 21, 2026

Subject: **Sites Project Baseline Report – August 2026 Draft**

Requested Action:

Receive a status update and provide feedback on revised August 2026 draft of the Sites Project Baseline Report.

Detailed Description/Background:

The Sites Project Baseline Report (PBR) is being drafted to reflect the most current Project cost and schedule information and to provide Storage Partners a consistent, comprehensive, and transparent basis for the upcoming participation level and financial commitment decisions. This report is the second and final review prior to the adoption of the PBR which is scheduled for next month.

Cost and schedule revisions have been incorporated into the PBR, and the information is being covered in two agenda items this month: Item 2.1 addressing the updated schedule and Item 3.3 addressing the updated Plan of Finance. In addition, the new cost management terminology recommended through the Operations & Engagement (O&E) work group has been integrated into the PBR. The August 2026 draft of the PBR is attached to this staff report. Board feedback from the July 2026 meeting has been incorporated and revisions based on this feedback are outlined in Attachment B. No additional participant feedback was received outside of the July board meeting.

In addition to the cost and schedule updates, the O&E work group recommended that the PBR include:

- A discussion of the Resolution to Construct by the RMB to occur at the \$500 million Participant spend threshold during the B&O period, including how the action may trigger wind-down provisions. As a reminder, Bylaws Section 10.2.3 states the following:

Approval of contracts for consulting services, construction contractors, vendors, and other service providers related to Project implementation; provided, however, that notwithstanding any term or condition of these Bylaws to the contrary, if the vote against a Construction Contract referenced in Section 3.2.1 of the Benefits & Obligations Contract that causes the value of all construction contracts to exceed \$500 million includes two (2) or more Reservoir Management Board representatives and the disapproving Reservoir Management Board representatives combined represent more than fifteen percent (15%) of the Reservoir Management Board's weighted vote, the Construction Contract shall not be approved.

- A review of the basis for the Governance Contingency portion of the project cost estimate and the risk analysis completed to support the amount determined.

To support finalizing the PBR in September, staff is working to incorporate the following two primary inputs:

1. **Affirm Participation levels for individual Participants.** To support this effort—and to inform preparation of the Resolution to Offer Capacity and the opening of the investor commitment period—Participants are requested to provide Authority staff the participation level that is planned to be your Staff recommendation to your governing board prior to the September 18 Board meeting. According to the process established by the Board last year in terms of initiating the waitlist, should there be any shortfalls in participation, this would be the trigger for the first round of waiting list opportunity as related to the investor commitment period.
2. **Updated water supply benefits.** Following issuance of the Revised Draft Water Right (anticipated September 3), staff will assess any water-supply effects from the proposed terms and these analyses will be incorporated into the PBR for the September 18 Board meeting.

Over the next several weeks, staff will continue refining PBR chapters and appendices (including the schedule and Plan of Finance update) and will incorporate Board feedback so that the PBR can be finalized on the targeted timeline and support upcoming Board actions regarding capacity offers and investor commitments. Participant comments on the PBR need to be provided by August 28th for their potential incorporation into the Final PBR.

Prior Action:

July 2026 - Receive a status update and provide feedback on the early draft of the Sites Project Baseline Report.

Fiscal Impact/Funding Source:

The development of the Project Baseline Report is within the approved FY26 Budget. Although, the Board needs to keep in mind and will need to intervene if there are excessive individual agency requests that do not serve the needs of multiple agencies. There is insufficient budget to customize the PBR to meet every need of every agency. The PBR and other prior records of the Sites Authority are intended to be inclusive of all the Authority provided documentation to agencies in making their investment decision.

Staff Contact:

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Primary Service Provider

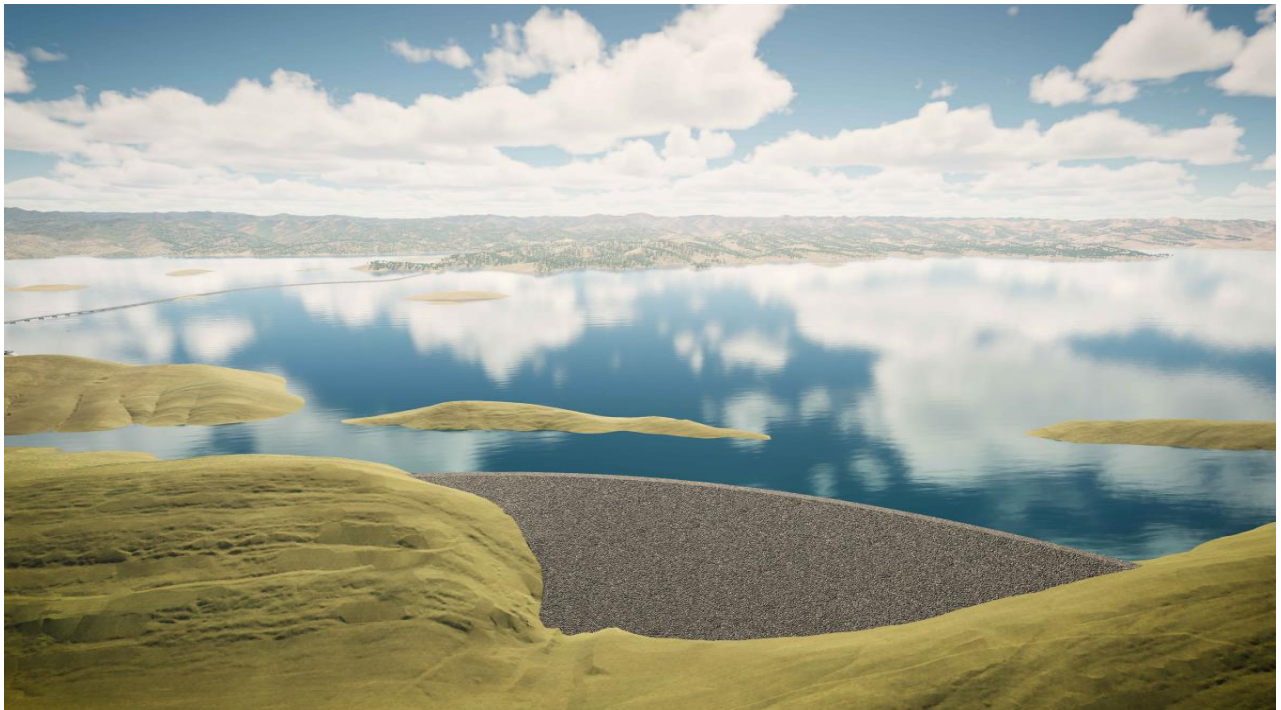
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Attachments:

Attachment A – August 2026 Draft Sites Project Baseline Report

Attachment B – Sites Project Baseline Report Comment Response Matrix

Sites Reservoir Project Baseline Report



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[Reviewer note: Comments intended for the reviewer are shown in red italics and enclosed in brackets and indicate areas where further development is occurring or feedback is requested]

August 2026

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Version Record

Version	Date	Description of Change
1.0	September 1, 2026	Initial version created

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Attachments

- A 30% Design Total Project Cost Estimate Summary
- B Baseline Schedule
- C Value Engineering Technical Memorandum
- D Conveyance Capacity Summary
- E Real Estate Summary *[next draft]*
- F Loss Assumptions Summary

A note from the Chairperson of the Sites Authority Board

[To be populated in a future draft]

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Executive Summary

Sites Reservoir is a proposed multi-benefit water storage project located approximately 10 miles west of the Colusa County town of Maxwell. It will provide a reliable water supply for communities, farms, and the environment throughout California, especially during dry periods. The Sites Reservoir Project (Project) is supported by a coalition of local, state, and federal Storage Partners, bringing diverse experience and a solid financial backing as well as a marketplace of willing and able buyers and sellers. Together, these Storage Partners serve over 24 million Californians and 500,000 acres of farmland.

Terminology note: In this report, the term “Participants” refers to all the agencies who are participating in the Sites Project in return for a proportionate share of space in the reservoir, excluding federal and state government entities. The term “Partners” includes, collectively, the Storage Partners, the U.S. Department of the Interior, Bureau of Reclamation and the California Department of Fish and Wildlife.

This Baseline Report provides background information to support a shared understanding of the Project benefits, costs, and risks and should be viewed as establishing metrics for reporting to the Reservoir Management Board and the Authority Board as the Project evolves. Table 1 below establishes the Baseline Report Metrics.

Table E-1. Baseline Report Metrics

Baseline Report Metric	Baseline Report Value	Notes
New Water Storage	1.43 million acre-ft	accounts for deadpool
Top Speed Average Diversions	<i>[TBD]</i> af/year	<i>[pending water right]</i>
Dry Year Prioritization Ave Diversions	<i>[TBD]</i> af/year	<i>[pending water right]</i>
Top Speed Average Releases	<i>[TBD]</i> af/year	<i>[pending water right]</i>
Dry Year Prioritization Ave Releases	<i>[TBD]</i> af/year	<i>[pending water right]</i>
Management Estimate	\$6.6B, 2024\$	
Management Forecast	Set later	at construction resolution
Governance Estimate	\$7.5B, 2024\$	
Governance Forecast	\$9.9B	used for annual cost analysis
Level Debt Service	\$405M	interest-only during construction
Annual Fixed O&M Year 1 Ops	\$17.6M, 2035\$	subject to escalation
Project Operational Date	End 2034	begin filling

This Baseline Report answers questions of primary concern to Storage Partners at this time:

- Why is Sites Reservoir the right solution for today’s water management challenges? (Chapter 2.0)
- How much water will Sites Reservoir provide? (Chapter 3.0)
- What facilities comprise the Project? (Chapter 4.0)
- How and when will Sites Water be diverted into, stored, and released from Sites Reservoir? (Chapter 5.0)
- How will Storage Allocation and Capacity Interest be managed? (Chapter 6.0)
- How much will the Project cost? (Chapter 7.0)

- How will the Project be funded and financed? (Chapter 7.0)
- What is the Project baseline schedule? (Chapter 8.0)
- What are the primary risks to the Project, and how will they be mitigated? (Chapter 9.0)

This Baseline Report provides the best information available as of the date of its publication to support Storage Partner decision making regarding participation in the Project. (Note: capitalized terms are defined in Section 10.0 of this report.)

E1. How much water will Sites Reservoir deliver to Storage Partners?

Sites Reservoir will hold approximately 1.5 million acre-feet. It will capture water from the Sacramento River when flows are high, store it for when it is needed, and return it to the Sacramento River during dry times for use by homes, businesses, farms, and the environment. This Baseline Report presents two operations scenarios: the “Dry Year Prioritization” scenario and the “Top Speed” scenario. These scenarios are described in Section *[to be developed]*. Table E-2 *[to be developed]* shows (1) the long-term average annual releases and transfers and (2) average releases and transfers in dry and critical years under the Dry Year Prioritization scenario and under the Top Speed scenario.

Table E-2. Long-term Average Annual Releases and Transfers and Dry and Critical Year Average Annual Releases under the Dry Year Prioritization Scenario and the Top Speed Scenario

Recipient or Purpose	Releases and Transfers (TAF/year)					
	Dry Year Prioritization Operation			Top Speed Operation		
	Average	Dry	Critical	Average	Dry	Critical
NOD Participants (includes American Canyon)						
Transfer release to NOD Demand						
Transfer release to SOD Demand						
SOD Participants						
CVP Operational Flexibility						
Wildlife Refuge Water Supply						
Total Releases and Transfers	XXX	XXX	XXX	XXX	XXX	XXX

Key:

NOD: North of Delta

SOD: South of Delta

CVP: Central Valley Project

E2. How much will it cost to construct and operate the Project?

The Project has advanced to approximately 30% design, supported by an Association for the Advancement of Cost Engineering (AACE) Class 3 cost estimate of approximately \$7.5 billion in constant 2024 dollars (2024\$); this is the “Governance Estimate” for the Project. This estimate reflects the best available design, technical, market, and construction information and includes contingencies appropriate for the Project’s current maturity and inherent uncertainties and represents the total project cost estimate. It does not include the potential effects of prolonged external delays, inefficient stop-and-go design or construction, or significant future changes in scope or design.

The \$7.5 billion (2024\$) Governance Estimate includes a “Governance Contingency” of approximately \$900 million (2024\$). Contingencies were estimated by subject-matter experts analyzing potential risks and probability of occurrence for unknowns in the areas of: Geotechnical, Construction, Noncontract Costs, Real Estate, and Compensatory Mitigation. The Governance Contingency is a board-managed contingency that is reserved for governance-level cost control. The “Management Estimate” excludes the Governance Contingency, and currently sits at \$6.6 billion (2024\$). The Management Estimate includes a Management Contingency of approximately \$500 million (2024\$) to address unknowns related to design development and geotechnical risks.

The Project’s Plan of Finance is a summary of key credit and financing structure components needed to support Project funding and delivery. As part of the Plan of Finance, the \$7.5 billion in 2024 dollars Governance Estimate is escalated over the current Project schedule resulting in an estimated forecasted funding requirement of approximately \$9.9 billion in year-of-expenditure dollars. This value represents the Governance Forecast.

[Additional discussion to be included on fixed and variable O&M cost components included in the Plan of Finance]

Additional information regarding cost-estimate development and cost management is provided in Chapter 7. The 30% Design Total Project Cost Estimate Summary, that includes Contract and Non-Contract cost components, is provided in Attachment A to this report.

E3. How will the Project be funded and financed?

The Project will be funded with a combination of direct federal funding, state funding, borrowing by the Sites Project Authority, and Participant self-funding (pay-as-you-go or PAYGO). Participants are all the agencies who are providing funding for the Sites Project in return for a proportionate share of space in the reservoir, excluding federal and state government entities. Participant costs will initially be funded with interim financing such as short-term notes (although some Participants may elect to self-fund their share of construction). WIFIA loans and tax-exempt revenue bonds will then be used to pay off the notes and other short-term borrowings. The estimated timing of funding commitments is included in the Plan of Finance.

The Project is a beneficiary-pays project:

- Participants and Reclamation are paying for storage space and water supply.
- The State is paying for flood management, environmental, recreation, and emergency water supply benefits.

Participants’ and Reclamation’s shares of Fixed Project Costs, Fixed O&M Costs and annual debt service (if any), are based on each party’s Capacity Interest in the Benefits & Obligations Contract. Participants’ and Reclamation’s shares of variable O&M costs will be based on the actual costs incurred for moving water into and out of Sites Reservoir.

All Partners contribute to the costs of the Base Facilities. Only downstream users contribute to the costs of facilities required to deliver water downstream of the Base Facilities. Annual variable O&M costs will be based on the actual costs incurred for moving water into and out of Sites Reservoir.

The Plan of Finance evaluates three financing scenarios to estimate Participants' annual fixed obligations: interest-only during construction, capitalized interest through construction, and full pay-as-you-go. It outlines anticipated annual debt service obligations, cash flow requirements, and operating costs under each scenario. See the Plan of Finance for details.

The main cost drivers for borrowed funds are interest rates and construction schedule:

- **Interest Rates.** The cost of financing is an important driver of annual costs (as well as the total Project cost). The Sites Authority expects to issue debt with an investment grade rating and should be able to borrow at competitive interest rates. Further, Water Infrastructure Finance and Innovation Act (WIFIA) interest rates are set at the time the loan is executed and are based on U. S. Treasury rates, which are also cost-effective long-term rates. The assumed interest rates for short-term notes, long-term revenue bonds, WIFIA loans, and investment earnings are provided in the Plan of Finance.
- **Construction Schedule.** The estimated construction schedule is included in the Baseline Schedule (Attachment B to this report). If the estimated duration is reduced, costs of capitalized interest would be reduced. Conversely, if the estimated duration is increased, costs of capitalized interest would be increased.

E4. What is the Project baseline schedule?

The baseline schedule represents staff's best current understanding of the time required to complete final design (Phase 3), construct and commission the facilities (Phase 4), and place the Project into operation (Phase 5). Based on current assumptions, the Project is forecast to reach substantial completion in late 2034 with the first season reservoir filling and project commissioning occurring during the 2034 / 2035 water year. The schedule is a credible planning forecast rather than a commitment to a precise date and will become more reliable as financing, land access, field investigations, design, agency authorizations, and construction work packages advance. Additional information regarding the baseline schedule, including its assumptions, critical path, key risks, and governance oversight, is provided in Chapter 8. The Baseline Schedule is included in Attachment B to this report.

E5. What are the primary Project risks and how will they be mitigated?

Section 9.0 of this report identifies the primary cost, schedule, and benefit risks of the project along with the mitigation strategies that have been identified or implemented to date to mitigate these risks.

Risk management will be a significant and ongoing component of Project delivery and will require a proactive approach throughout design and construction. Risks will be identified, evaluated, monitored, and mitigated as the Project advances, with risk management integrated into cost, schedule, design, and construction planning. The CMAR delivery approach will support this effort by bringing contractor input into the process early, allowing construction risks, mitigation measures, cost and schedule impacts, and appropriate risk allocation to be evaluated before individual work packages advance into construction.

The specific framework for managing risk, including the use of contingency and associated levels of authority, will continue to be developed and implemented consistent with Board-approved policies and the applicable Delegation of Authority.

1.0 What is the purpose of this document?

This Baseline Report answers the following questions about the Sites Reservoir Project (Project):

- Why is Sites Reservoir the right solution for today's water management challenges? (Chapter 2.0)
- How much water will Sites Reservoir provide? (Chapter 3.0)
- What facilities comprise the Project? (Chapter 4.0)
- How and when will Sites Water be diverted into, stored, and released from Sites Reservoir? (Chapter 5.0)
- How will Storage Allocation and Capacity Interest be managed? (Chapter 6.0)
- How much will the Project cost? (Chapter 7.0)
- How will the Project be funded and financed? (Chapter 7.0)
- What is the Project baseline schedule? (Chapter 8.0)
- What are the primary Project risks and how will they be mitigated? (Chapter 9.0)

Terminology note: In this report, the term “Participants” refers to all the agencies who are participating in the Sites Project in return for a proportionate share of space in the reservoir, excluding federal and state government entities. The term “Partners” includes, collectively, the Storage Partners, the U.S. Department of the Interior, Bureau of Reclamation and the California Department of Fish and Wildlife.

This Baseline Report describes the current “state of the Project” and gives Partners information they need to make the financial commitment to build and operate the Project.

2.0 Why is Sites Reservoir the right solution for today's water management challenges?

2.1 What is the problem that the Project helps address?

The Project's Partners are on the front lines of California's water supply challenges:

- **A changing climate.** For several years, climate modeling has predicted that the future will be characterized by increasing variability, making for drier dry years and wetter wet years (see, e.g., PPIC 2018). Dry spells will last longer, and wet periods will be flashier. The timing of runoff will change, as well, with less snowfall and more rain. These changes result in the increased need to store water when it is available (DWR 2023).
- **Shortage of storage in the system.** Existing infrastructure does not capture the immense volume of runoff from atmospheric rivers. For example, a 2025 study by the Public Policy Institute of California (PPIC) found that existing reservoirs and conveyance facilities in Northern California were able to capture and export only 4 percent of the runoff during a three-week period of storms in February 2025 (PPIC Blog Post, 2/24/2025). This is a recurring pattern: during atmospheric river events in December 2025 through January 2026, water supply modeling shows that Sites Reservoir could have safely captured more than 168,000 acre-feet of water. If snowfall and snowpack reductions

continue as predicted by climate modeling, the criticality of capturing runoff when it is available increases significantly.

- **Reduced deliveries.** The majority of Storage Participants are Central Valley Project (CVP) or State Water Project (SWP) contractors. In recent years, these agencies have received less water under their contracts as compared to the long-term average. For example, the California Department of Water Resources' (DWR's) historical Table A allocations for State Water Project (SWP) Contractors shows a long-term average allocation is about 59 percent of contract amounts; in dry years this amount is much less. A congressional report on the Central Valley Project (CVP) (March 26, 2026) noted that the U.S. Department of the Interior, Bureau of Reclamation (Reclamation) has been unable to provide any water supplies to a majority of CVP agricultural water contractors in 4 of the past 12 years. These reduced allocations make it challenging to maintain existing levels of service or provide additional service, particularly in dry years and during droughts.
- **Increasing regulatory requirements.** Water managers are facing increased regulatory pressure, including the need to reach groundwater sustainability under California's Sustainable Groundwater Management Act (SGMA). Management actions such as increased managed aquifer recharge may create greater competition for surface water as well as demand for storage (PPIC 2024).
- **The need for diversified and adaptable water supply portfolios.** California water agencies are working hard to develop projects and programs to enhance local supplies, such as the Local Supply Exchange Framework in Southern California, the Watershed Connect regional infrastructure program in the Upper Santa Ana River watershed, and the Pure Water Silicon Valley program in Santa Clara County. Yet more is needed to meet the changing needs of urban, rural, disadvantaged and agricultural communities (CNRA, et al 2023).

[The final Project Baseline Report will include language referencing SB 72 / Goal 1 (9 million acre-feet of new supply/capacity) and the forthcoming California Water Plan, including how Sites Reservoir supports meeting that target.]

2.2 Why should the Project be part of the solution?

The Project helps meet our water supply challenges now and in the future because it:

- Is the first large storage facility to be built for the benefit of statewide beneficiaries in almost 50 years.
- Is a multi-benefit off-stream surface water storage project.
- Is a "dry year" project—water from Sites Reservoir will be available when other sources do not exist or are curtailed, and Sites Water can be moved through the Delta during dry years.
- Enhances the effectiveness of adaptation strategies that Partners are implementing, such as increased water recycling, increased desalination, expanded below-ground storage, and increased conservation.
- Will capture and store stormwater flows from the Sacramento River only when protective of river and Delta aquatic species.
- Provides water specifically dedicated for environmental purposes.
- Is climate-resilient and does not rely on the proposed Delta Conveyance Project.

Sites is the right project at the right time because it:

- Is supported by a coalition of Partners, bringing diverse experience and solid financial backing as well creating an easily accessible marketplace of water buyers and sellers.

- Is a collaborative effort led and supported by local Sacramento Valley agencies.
 - Is new infrastructure with a long useful life, based on proven technology without the need to dam any major rivers.
 - Allows Partners to get more value out of past and ongoing water infrastructure projects.
 - Helps keep agricultural lands in production.
 - Gets more affordable with time, particularly after repayment of debt.
- 
- A map of the Sacramento River region in California. The Sacramento River is shown flowing north from the bottom right towards the top left. Shasta Lake is located at the northern end of the river. A blue shaded area along the river is labeled 'Sites Reservoir Project' in blue text. The map also shows surrounding counties and the state boundary with Oregon.

A coalition of Partners supports the Project because it is based on the equitable “beneficiary pays” principle:

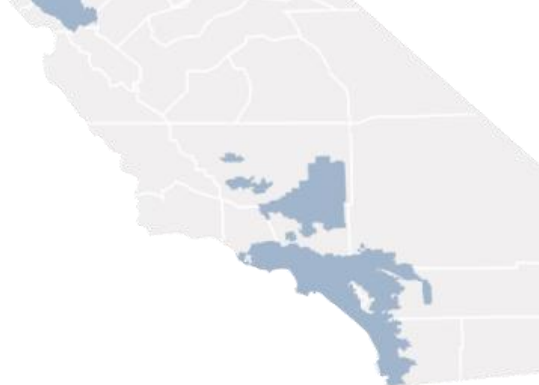
- The amount of space each Partner gets is determined by the proportional share of its investment in the Project.
 - Storage space can be leased or sold.
 - Partners receive a proportional amount of the water diverted from the Sacramento River.
 - Partners choose when and how to use some or all the water they have stored in their dedicated storage space in the reservoir. They can move it out each year in advance of winter, they can sell it, or they can store it until needed (subject to their contract with the Authority).
 - Each Partner receives its proportional share of the water based on what is available in the Sites Reservoir and no Partner takes priority over another.
- 
- The map shows the state of California with its county boundaries. A specific region in the central-eastern part of the state, corresponding to the Sacramento-San Joaquin River Delta, is highlighted in a solid blue color. This area represents the Sites Reservoir and the local participants involved in the project.
- Figure 2-1. Sites Reservoir is supported by Californians from the north and the south. Local Participants are shown in blue on the map.**



Figure 2-1. Sites Reservoir is supported by Californians in the north and the south. Local Participants are shown in blue on the map.

2.3 Why is the Sites Reservoir location particularly well suited for large-scale water storage?

The Sites Reservoir location offers a rare combination of natural and infrastructural advantages that make it highly efficient for large-scale water storage. The reservoir area is underlain by fine-grained soils derived from sedimentary rock and basin clays, which indicates low permeability (Sites Project Authority and Reclamation 2023). In addition, the site consists of a natural valley “bowl” formation that allows for substantial storage capacity with relatively modest embankment needs, resulting in a favorable construction efficiency measured by the required cubic yards of embankment per acre-foot of storage. Table 2-1 shows the Project requires only 11 cubic yards (CY) of embankment material per acre-foot (AF) of storage volume, which compares favorably to many existing and proposed reservoirs—particularly modern projects that often require significantly more embankment material per unit of storage. This

efficiency translates directly into reduced construction effort, and therefore cost, relative to the storage benefit delivered. Furthermore, the Project benefits from proximity to and integration with existing water conveyance infrastructure, reducing the need for entirely new large-scale conveyance systems.

Table 2-1. How Sites Reservoir Compares to Other Existing and Proposed Reservoirs in Terms of Embankment per Acre-Foot of Storage

Facility	Reservoir Storage Volume (AF)	Embankment Material Volume (CY)	Embankment / Storage (CY / AF)
New Melones Lake	2,400,000	16,000,000	7
Don Pedro Reservoir	2,000,000	16,750,000	8
Sites Reservoir*	1,500,000	17,200,000	11
Trinity Lake	2,447,000	29,251,000	12
Lake Oroville	3,500,000	80,000,000	23
Los Vaqueros Reservoir – 2012 Expansion	160,000	3,600,000	23
Calaveras Reservoir	97,000	3,478,000	36
San Luis Reservoir	2,000,000	77,656,000	39
Anderson Lake	89,000	4,339,000	49
Proposed Pacheco Reservoir Expansion*	140,000	14,000,000	100
Glade Reservoir* (Colorado)	170,000	18,069,000	106
Chimney Hollow Reservoir (Colorado)	90,000	12,000,000	133
Diamond Valley Lake	810,000	110,000,000	136

* Planned project

Equally important, because Sites Reservoir is an off-stream reservoir located in a predominantly rural setting, the Project has substantially less environmental and community impacts compared to traditional on-stream dam projects. By avoiding the need to dam a major river, the Project minimizes disruptions to natural flow regimes and aquatic ecosystems, contributing to a more defined and mitigable impact footprint. This is reflected in the successful completion of the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) processes, which have established a clear pathway for implementation. More broadly, many of California’s most favorable on-stream reservoir sites have already been developed, and remaining opportunities tend to involve either greater environmental challenges or lower storage efficiency. In this context, Sites Reservoir stands out as a uniquely balanced solution—offering large-scale storage with a combination of construction efficiency, manageable impacts, and permitting viability that is difficult to replicate elsewhere.

2.4 Who are the current Partners?

The 24 current Partners are as follows:

- Antelope Valley-East Kern WA
- City of American Canyon
- Coachella Valley WD
- Colusa County
- Colusa County WD
- Cortina WD
- Davis WD
- Desert WA
- Dunnigan WD
- Metropolitan Water District of Southern California
- Reclamation District 108
- Rosedale-Rio Bravo WSD
- San Bernardino Valley Municipal WD
- San Geronio Pass WA
- Santa Clara Valley WD
- Santa Clarita Valley WA
- Westside WD
- Wheeler Ridge – Maricopa WSD

- Glenn-Colusa ID
- Irvine Ranch WD
- LaGrande WD
- Zone 7 WA
- State of California
- Bureau of Reclamation

Agencies that have expressed interest in becoming Participants should capacity become available are identified on a waiting list. They are:

- California American Water (Sacramento)
- City of Fairfield
- City of Mountain House
- City of Napa
- Dudley Ridge Water District
- Eastern Municipal Water District
- Glenn County
- La Cumbre Mutual Water Company
- Madera County Groundwater Sustainability Agency
- Pacific Resources Mutual Water Company
- Palmdale Water District
- Santa Clara Valley Water District
- Wheeler Ridge Maricopa Water Storage District
- Western Municipal Water District
- Westlands Water District
- Woodland Davis Clean Water Agency

The waiting list and interest in additional storage allocation by current Participants demonstrate a strong demand for Sites Reservoir storage capacity and provide a backstop should levels of participation change.

Reclamation is participating in the Project to realize additional water supply for agriculture and municipal and industrial purposes, CVP operational flexibility, benefits to anadromous fish, Incremental Level 4 water supply for Central Valley Project Improvement Act (CVPIA) refuges (and, potentially, other wetland benefits), and Delta ecosystem enhancement.

The State of California is providing Water Storage Investment Program (WSIP) funding through the California Water Commission (CWC) in exchange for ecosystem, recreation, emergency response, and flood control benefits. It is anticipated that DWR will administer the benefit agreements for flood reduction, recreation, and emergency response water supply, and that the California Department of Fish and Wildlife (CDFW) will administer the benefit agreement for ecosystem improvements. The State's Base Facilities Capacity Interest is sized to provide benefits proportional to the State's participation.

2.5 How is the Project governed?

[To be populated in a future draft. This section will be expanded upon to describe the various agreements and entities that govern the Project, but will not provide interpretation.]

[The language below describes the \$500M Participant share/spend threshold in the B&O Contract, including the decision framework to construct vs. wind-up.]

The Benefits & Obligations (B&O) Contract establishes a decision point once cumulative Participant payments made after the B&O Contract effective date exceed \$500 million. At that threshold, the Reservoir Management Board must adopt a one-time certified resolution authorizing the Project to continue. This milestone functions as a formal "go/no-go" checkpoint, confirming that Participants, through the Reservoir Management Board and Authority Board, have an opportunity to reassess the Project's feasibility, permitting status, costs, risks, and overall practicality before committing funding beyond the initial \$500 million.

The decision made at this \$500 million checkpoint is closely tied to the construct versus wind-up framework in the termination provisions of the B&O Contract. If the Reservoir Management Board determines that the Project remains feasible and practical, they may continue directing expenditures and proceed with construction in accordance with the conditions precedent to construction described in B&O Contract. Conversely, if they determine that the Project is infeasible, impractical, unable to proceed, or inadequately funded by Participants, the Authority Board and the Reservoir Management Board would decide, as a shared decision, to adopt a resolution to wind-up the Project and begin an orderly termination process. Subject to compliance with facility partners and state partners and federal partners, that process includes offering project assets first to Storage Partners, appointing a winding-up agent, liquidating or disposing of remaining assets, satisfying outstanding obligations, returning eligible unexpended funds, and distributing remaining proceeds based on participants' pro-rata cost shares.

3.0 How much water will the Project provide?

3.1 How much water will the Project deliver?

Sites Reservoir will capture water from the Sacramento River when it is plentiful and deliver it to Partner agencies when it is needed. Table 3-1 *[to be developed]* shows the long-term average annual deliveries to Partners, and average deliveries by year type.

Table 3-1. Long-Term Average Annual Deliveries to Project Partners by Water Year Type

Recipient or Purpose		Long-term average annual deliveries, all year types (acre-feet)	Long-term average annual deliveries (acre-feet) by year type				
			Critical	Dry	Below Normal	Above Normal	Wet
Dry Year Prioritization							
Sites Authority PWA Deliveries							
	North of Delta						
	South of Delta						
	North Bay Aqueduct						
CVP Operational Flexibility							
Wildlife Refuge Water Supply							
	North of Delta						
	South of Delta						
Total Dry Year Prioritization Deliveries		XX0,000		XX0,000	XX0,000	XX0,000	XX0,000
Top Speed							
Sites Authority PWA Deliveries							
	North of Delta						
	South of Delta						
	North Bay Aqueduct						
CVP Operational Flexibility							
Wildlife Refuge Water Supply							
	North of Delta						
	South of Delta						

Total Top Speed Deliveries	XX0,000		XX0,000	XX0,000	XX0,000	XX0,000
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The range of benefits depends on how storage capacity and water are managed through the diversion-and-release cycle, as described in Section 6.7 of this report [to be developed]. This range is represented in Table 3-1 through inclusion of two modeling scenarios – one that prioritizes the use of Sites Water in dry years (Dry Year Prioritization) and one that seeks to use as much Sites Water as possible each year (Top Speed).

3.2 How does water from the Project enhance statewide water system flexibility?

The water transfer market created by Sites Reservoir is a significant Project benefit to Participants. “Zooming out” and looking at California’s water system holistically, the Project will also enhance statewide water management flexibility because it:

- Adds long-term storage to California’s integrated, interdependent water systems.
- Provides an opportunity for coordination with other reservoirs in the Central Valley to hold and release water.
- Provides opportunities for in-lieu surface water benefiting groundwater levels.
- Is adaptable operationally, i.e., it will be able to shift the timing of diversions, reservoir storage, and release operations to provide sustained benefits under both dry and wet year scenarios and variable climate conditions.

For example, the Project presents the potential to increase Folsom Lake storage levels to preserve additional cold water pool to achieve temperatures that are more suitable for juvenile steelhead and fall-run Chinook salmon spawning in the lower American River during dry and critical water-year types. The additional Folsom Lake storage is achieved by releasing Sites Reservoir water to assist with meeting CVP Delta objectives that are currently met through releases from Folsom Lake. Allowing more water to remain in Folsom Lake benefits water customers in the Sacramento Valley who receive their water from Folsom and the cold-water fishery on the lower American River. (Achieving these benefits will depend on the ability to exchange water per agreements to be developed with Reclamation.)

[The final Project Baseline Report will include language referencing SB 72 / Goal 1 (9 million acre-feet of new supply/capacity) and the forthcoming California Water Plan, including how Sites Reservoir supports meeting that target.]

3.3 What State and Federal benefits will the Project provide?

3.3.1 Federal ecosystem benefits

The Project will benefit anadromous fish, including endangered winter-run Chinook salmon, and other aquatic species by improving the temperatures in the Sacramento River. Water temperature maintenance would be accomplished by exchanging water dedicated to Reclamation’s storage in Sites Reservoir for water conserved in Shasta Lake for the benefit of anadromous fish. This ecosystem benefit is a federal benefit paid for by Reclamation.

3.3.2 Water Storage Investment Program (WSIP) benefits

Wetland habitat enhancement

The Project is receiving funding under the State's Water Storage Investment Program (WSIP) due to the Project providing public benefits commensurate with State funding. To that end, the Project will enhance seasonal wetlands, permanent wetlands, and/or riparian habitat for aquatic and terrestrial species. The benefit can be achieved through delivery of Incremental Level 4 water under CVPIA or through delivery of water to enhance other seasonal wetlands, permanent wetlands, and riparian habitat under specific, measurable criteria.

Recreational opportunities

The Project will include two primary recreation areas and a day-use boat ramp, attracting recreational visitors yearly. Operation of recreational areas at the reservoir will result in an influx of dollars associated with seasonal recreation use. In the long term, the infusion of economic activity from the Project may build a foundation for economic diversification in the Colusa County-Glenn County region.

Emergency water supplies

The Project is receiving funding under the State's Water Storage Investment Program (WSIP) due to the Project providing public benefits commensurate with State funding. One of the public benefits identified for Sites Reservoir is the provision of supplemental water supplies for municipal and industrial (M&I) water agencies experiencing drought emergency conditions. For this benefit, Participants that are not experiencing emergency conditions may voluntarily dedicate a portion of their stored Sites Water for transfer to M&I Participants facing emergency shortages.

Flood Risk Reduction

The Project provides flood damage reduction benefits to Maxwell and surrounding areas. The Project will build new dams on Stone Corral Creek and Funks Creek that will capture flood flows from these creeks. This will help reduce the flood risk in Maxwell, surrounding agricultural lands, and sections of Interstate 5. The value of this flood risk reduction will increase over time as the value of the protected property increases and the likelihood and magnitude of large storms increases with climate change.

3.4 What other benefits will Sites Reservoir provide?

The regional economic benefits associated with construction of the Project will coincide with the estimated 8-year construction period. The annual workforce serving the project is estimated to range between 30 and 330 workers annually, with an average of approximately 160 jobs supported over the construction period. Long-term increases in regional employment are anticipated to come from jobs needed for project operations and maintenance (O&M) and related goods and services, and recreational opportunities.

Additional transportation improvements in Maxwell are anticipated to include lighted pedestrian crossings, stop signs, and other traffic calming features. The Project will also bring new and improved local access roads and a new bridge across the reservoir that will provide permanent reliable infrastructure for the traveling public; these roads will be crucial to supporting the economic activity resulting from the Project.

Other benefits from the Project include:

- **Increased agricultural output.** Future agricultural output statewide attributable to the Project is expected to be several million dollars per year.
- **Incidental power generation.** Project operations will generate power when water is released from Sites Reservoir at the Funks and Terminal Regulating Reservoir pumping generating plants. The power generated during the time of the year is when California typically needs more power to satisfy demand because of higher temperatures and thus it is expected Project-generated power would be sold on the market to a willing buyer.

4.0 What facilities comprise the Project?

4.1 What facilities comprise the Base Facilities and Downstream Facilities?

Sites Reservoir will be located approximately 10 miles west of the Colusa County town of Maxwell. Its location and main features are shown in Figure 4-1.

The Project facilities are characterized as either “Base Facilities” or “Downstream Facilities.” Base Facilities are used by all users. Downstream Facilities are used to convey water released from Sites Reservoir to downstream areas, such as back to the Sacramento River. (Please see Section 9 of this report for definitions of capitalized terms.)

The Project Base Facilities and Downstream Facilities are listed in Table 4-1.

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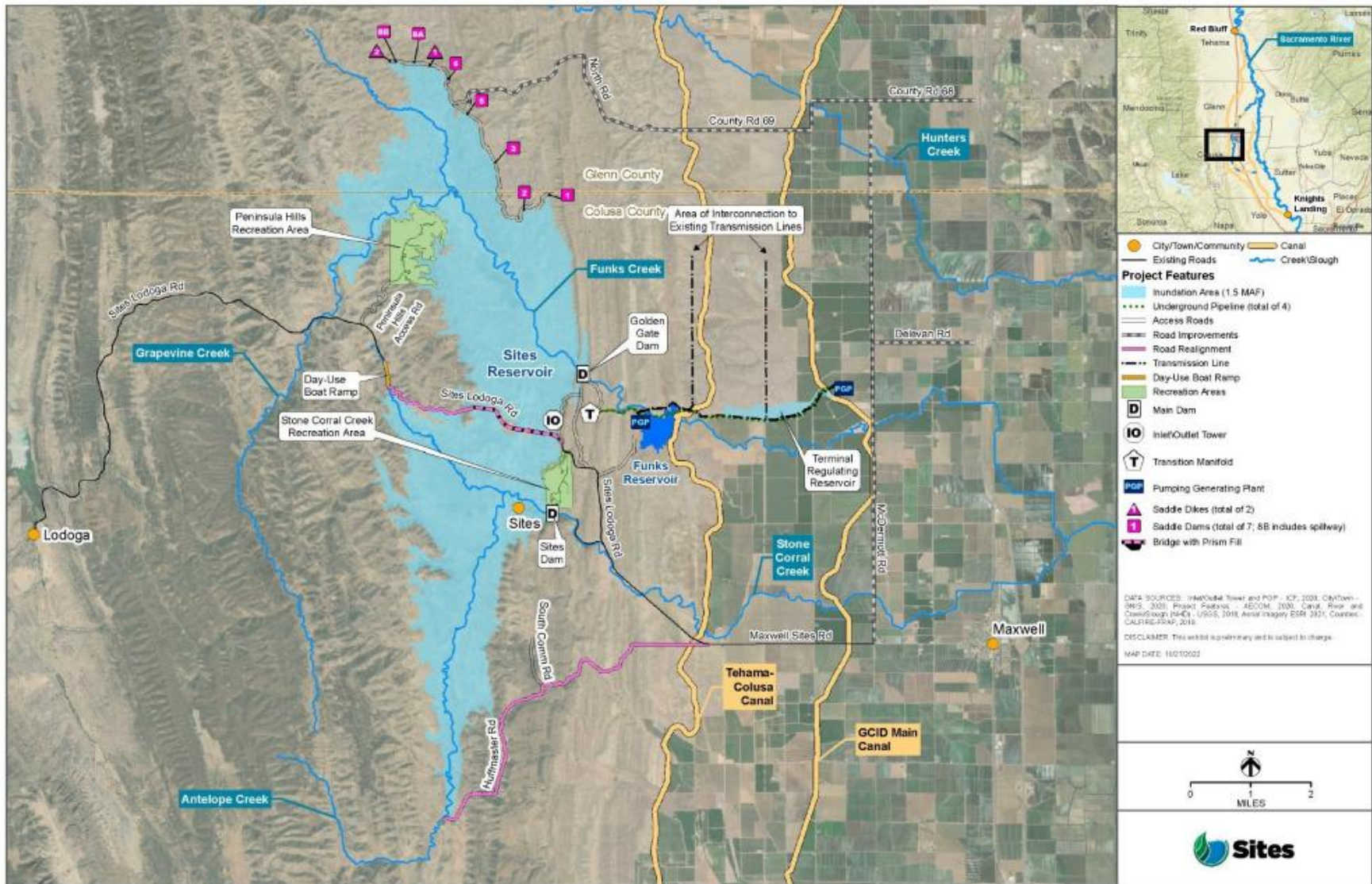


Figure 4-1. Location and Main Features of the Sites Reservoir Project (from the EIR/EIS)

Table 4-1. Base Facilities and Downstream Facilities

Facility Category	Sites Owned Facilities	Federal Facilities	Partner Facilities
Base Facilities	• Sites Reservoir • Sites Dam • Golden Gate Dam • Saddle dams/dikes • Terminal Regulating Reservoir • Terminal Regulating Reservoir Pumping Generating Plant • Funks Pumping Generating Plant • Power transmission lines • Electrical substations • Sites Lodoga Bridge • Other support facilities: • Pipelines (Terminal Regulating Reservoir, Funks Reservoir) • Spillway • Inlet/outlet tower • Transition manifold • Maintenance and storage building • Administration and operations building • Access and O&M roads • Recreation areas including day use boat ramp	• Red Bluff Pumping Plant • Portion of Tehama-Colusa Canal from Red Bluff Diversion to Funks Reservoir • Funks Reservoir	• Portion of Glenn Colusa Irrigation District Main Canal from the Hamilton • City Pump Station to the Terminal Regulating Reservoir • Hamilton City Pumping Plant
Downstream Facilities	• Dunnigan Pipeline and associated facilities	• Portion of Tehama-Colusa Canal from Funks Reservoir to the terminus of the Tehama-Colusa Canal	• Colusa Basin Drain south of Balsdon Weir • Knights Landing Outfall Gates

4.2 What value do Participants receive from the Project's use of existing infrastructure?

In 2019, the Project undertook a “value planning” process to identify and evaluate alternatives that could make the Project more affordable for participants. This effort culminated in recommendations for updates to project components including leveraging use of existing infrastructure, which was documented in the April 2020 Sites Project Value Planning Alternatives Appraisal Report. An important consideration for the recommendation was the cost difference between the original project (Alternative D) at \$5.2 billion versus the value planning recommended project estimated at \$3.0 billion, in constant 2018 dollars. The value planning analyses showed use of existing infrastructure brings significant opportunities – approximately \$1 billion (2018\$) in capital cost savings, reduced permit approval dependencies, and overall reduced schedule risks. The value of using existing infrastructure to meet Project objectives is likely understated due to recent unprecedented market changes and permit conditions, which could increase the Project's cost savings over previous estimates.

5.0 How and when will Sites Water be diverted into, stored, and released from the Reservoir?

5.1 How does water get conveyed into the reservoir?

Figure 5-1 is a facility schematic illustrating how water will flow into and out of Sites Reservoir. On the right side of the diagram is the Sacramento River, represented by the double blue line. Diversions from the Sacramento River and conveyance to Sites Reservoir will occur via (1) the existing Red Bluff Pumping Plant and fish screen, the Tehama-Colusa Canal, and Funks Reservoir and/or (2) Hamilton City Pump Station and fish screen, Glenn-Colusa Irrigation District (GCID) Main Canal, and Terminal Regulating Reservoir. Releases from the Sites Reservoir will occur primarily via (1) Funk Reservoir, the Tehama-Colusa Canal, Dunnigan Pipeline, Colusa Basin Drain and Knights Landing Outfall Gates where flows re-enter the Sacramento River for conveyance to Participants downstream the Knights Landing Outfall Gates and secondarily via (2) the Terminal Regulating Reservoir and GCID Main Canal to GCID Sites Storage Partners.

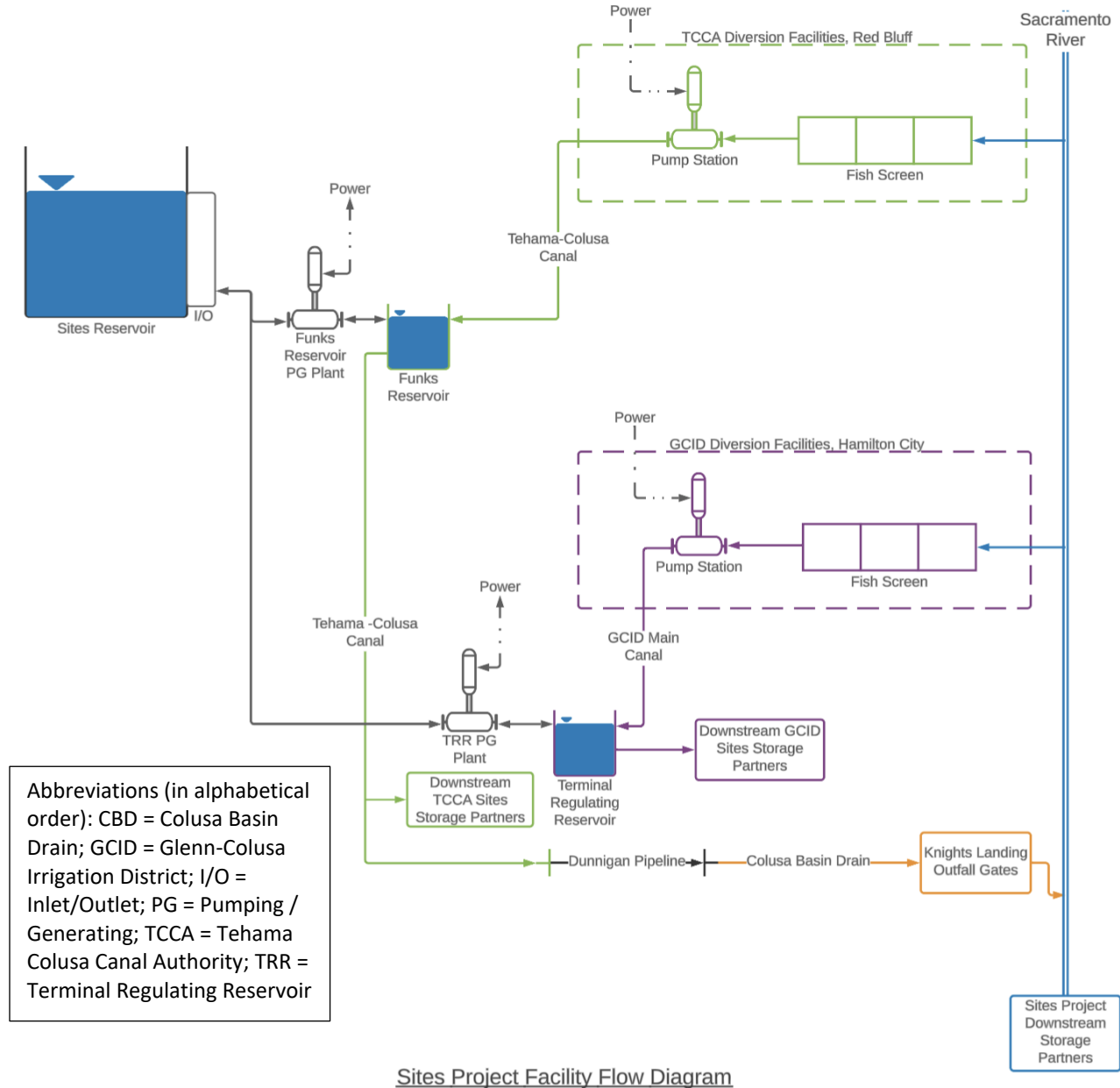


Figure 5-1. Sites Project Facility Flow Diagram

5.2 When can water be diverted into storage?

Project diversions from the Sacramento River to Sites Reservoir will generally occur in the winter and early spring but could occur any time Sacramento River flows meet the diversion criteria described in the Sites Reservoir Operations Plan (Operations Plan). Water from Funks and Stone Corral creeks can also be impounded in Sites Reservoir when conditions meet the diversion criteria described in the Operations Plan. Forecasting will be used to predict when Project diversions to storage are expected.

[A link to the adopted Operations Plan will be included in the final report.]

5.3 How much water will be diverted into the reservoir?

[To be developed: Figure 5-2 will show total long-term average diversions from the Sacramento River to Sites Reservoir.]

[Figure will be inserted here.]

Figure 5-2. Long-term average diversions from the Sacramento River to Sites Reservoir

5.4 How much water will Sites Reservoir hold?

The current estimate for Sites Reservoir storage capacity is 1,470,000 acre-feet based on the most recent survey data. Sites Reservoir storage space available to Storage Partners is 1,410,000 acre-feet after considering an operational inactive pool volume of 60,000 acre-feet. (Operational inactive pool is the portion of the water in the reservoir that the Authority is planning to retain to ensure water quality and environmental considerations are addressed at low reservoir elevations.)

5.5 How does water get conveyed from the reservoir to points of delivery?

Sites Water will reach Storage Partners' points of deliveries as follows:

- **Releases for Storage Partners along the Tehama-Colusa Canal and GCID Main Canal:** Releases would be made to Funks Reservoir or the TRR and conveyed to the respective Storage Partner via the existing Tehama-Colusa Canal and GCID facilities.
- **Releases for Storage Partners along the Sacramento River north of Knights Landing:** Releases for Storage Partners along the Sacramento River north of Knights Landing would generally be made via exchange, as water from Sites Reservoir cannot be physically conveyed to any Storage Partner on the Sacramento River between Hamilton City Pump Station and Knights Landing. Real-time exchanges, primarily with GCID but also with Reclamation, would be used for these Storage Partners.
- **Releases for Storage Partners along the CBD and for those who will receive water downstream of Knights Landing:** Releases for these Storage Partners would be made to Funks Reservoir. This water would then be conveyed down the Tehama-Colusa Canal to the new Dunnigan Pipeline and released into the Colusa Basin Drain. The water would subsequently be conveyed down the CBD. Water destined for Storage Partners who receive water from the Sacramento River downstream of Knights Landing would be conveyed down the Tehama-Colusa Canal to the new Dunnigan Pipeline and released into the Colusa Basin Drain for release through the Knights Landing Outfall Gates back into the Sacramento River.
- **Releases for South-of-Delta Partners and for those who will receive water via the North Bay Aqueduct:** Releases for Storage Partners who are located south of the Delta, including water for Incremental Level 4 Refuge water supply benefits under WSIP, would be made to Funks Reservoir, conveyed down the TC Canal to the new Dunnigan Pipeline, and released into the CBD. This water would then be conveyed to the Sacramento River via the Knights Landing Outfall Gates. Once in the Delta, this water could be diverted at any of the South Delta pumping facilities (SWP's Banks

Pumping Plant, Reclamation's Jones Pumping Plant, the North Bay Aqueduct, or Contra Costa Water District's pumping plants) and conveyed to the respective Storage Partner using existing conveyance facilities and mechanisms. Releases for Storage Partners who are located south of the Delta, including water for Incremental Level 4 Refuge water benefits under WSIP, may also be made through exchanges with Reclamation and DWR.

Environmental releases will be made from Sites Reservoir into Funks and Stone Corral creeks. Releases into Funks Creek will be made through a new pipeline that terminates at Funks Creek below Golden Gate Dam; releases into Stone Corral Creek will be made through the permanent outlet at Sites Dam.

Figure 5-3 shows a schematic of the Project with the various delivery reports identified in the Benefits and Obligations Contract with Participants and the associated agreements to convey water.

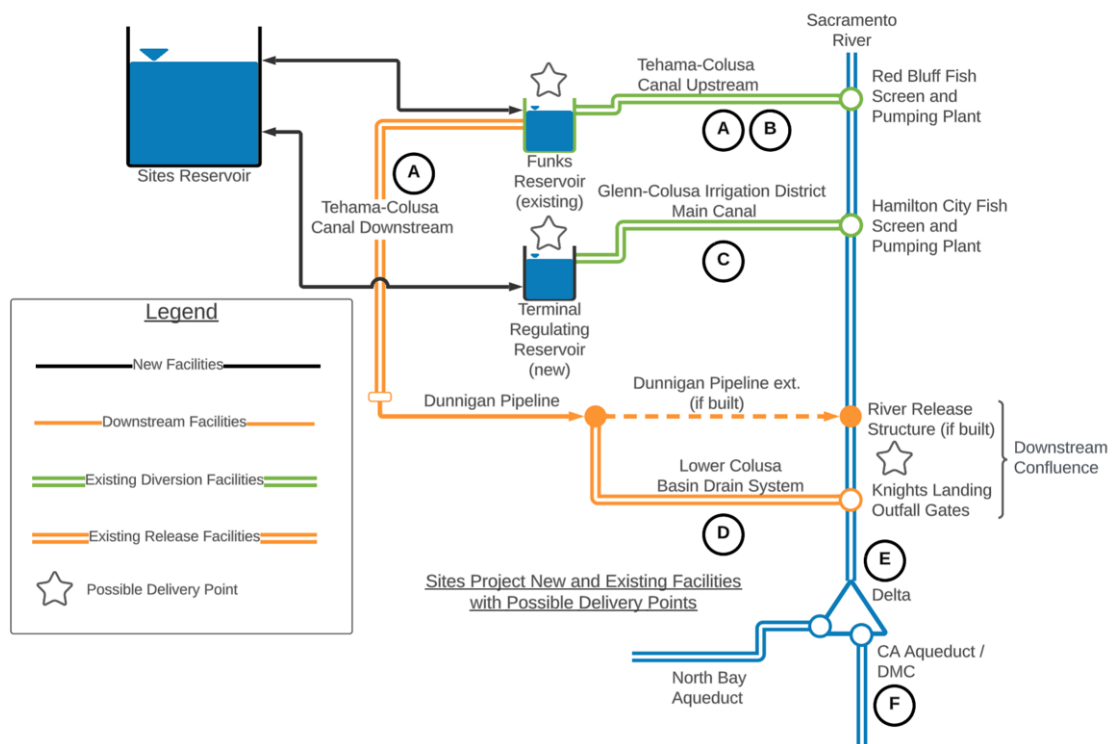


Figure 5-3. Delivery Points schematic with agreement labels

5.6 When can stored water be released?

Releases of Sites Water for uses south of the Delta will be exported through Delta Export Facilities consistent with the requirements for transfer of non-CVP/SWP project water. Currently, non-CVP/SWP project water can only be conveyed through the Delta Export facilities during July through November (often referred to as the “transfer window”) consistent with the Record of Decision for the Long-Term Operation of the Central Valley Project and State Water Project. Sites Water will be exported during this July through November transfer window.

Sites Water releases and deliveries to Storage Partners in the Delta (including for rediversion at the Barker Slough Pumping Plant) and north of the Delta, including Reclamation (as an exchange partner or a Storage Partner) and DWR (as the acquirer or an exchange partner), can occur outside the transfer window but will be limited to periods when the Delta is in a Balanced Condition.

5.7 What are the ranges of transfer and delivery capabilities for North of Delta and South of Delta Participants?

5.7.1 What are the two scenarios under which transfer and delivery capabilities were modeled?

[To be developed: This section will elaborate on the two scenarios modeled to evaluate transfer and delivery capabilities—the Dry Year Prioritization scenario and the Top Speed Scenario.]

5.7.2 What are the ranges of releases and transfers under the two scenarios?

[To be developed: Table 5-1 will show the estimated project releases and transfers under the B Dry Year Prioritization Scenario and the Top Speed Scenario.]

Table 5-1. Long-term Average Annual Releases and Transfers and Dry and Critical Year Annual Releases and Transfers under the *Dry Year Prioritization* Scenario and the Top Speed Scenario

Recipient or Purpose	Releases and Transfers (TAF/year)					
	Dry Year Prioritization Operation			Top Speed Operation		
	Average	Dry	Critical	Average	Dry	Critical
NOD Members (includes American Canyon)						
Transfer release to NOD Demand						
Transfer release to SOD Demand						
SOD Members						
CVP Operational Flexibility						
Refuge Water Supply						
Total Releases and Transfers	XXX	XXX	XXX	XXX	XXX	XXX

[To be developed: Results of the comparison between Dry Year Prioritization and Top Speed will be described here.]

5.7.3 What are the ranges of deliveries and transfers under the Baseline Operations Scenario and the Top Speed Operations Scenario?

[To be developed: Table 5-2 shows the estimated project deliveries and transfers under the Dry Year Prioritization Scenario and the Top Speed Scenario.]

Table 5-2. Long-term Average Annual Deliveries and Transfers and Dry and Critical Year Annual Deliveries and Transfers under the Dry Year Prioritization Scenario and the Top Speed Scenario

Recipient or Purpose	Deliveries and Transfers (TAF/year)					
	Dry Year Prioritization Operation			Top Speed Operation		
	Average	Dry	Critical	Average	Dry	Critical
NOD Members (includes American Canyon)						
Total NOD Transfer (end-point delivery)						
Transfer to NOD Demand (end-point delivery)						
Transfer to SOD Demand (end-point delivery)						
SOD Members						
CVP Operational Flexibility						
Refuge Water Supply						
NOD (Level 4)						
SOD (Level 4)						
Total Deliveries and Transfers	XXX	XXX	XXX	XXX	XXX	

[To be developed: Results of the comparison between Dry Year Prioritization and Top Speed will be described here.]

5.7.4 Is the Delta a constraint, and are there other south-of-Delta limitations?

Sites Reservoir has been evaluated as a stand-alone project; it will function independently, with or without a new Delta conveyance system. [Text to be added.] *[To be developed: Table 5-3 shows the percentages of months in July – November that release and delivery constraints control SOD deliveries.]*

Table 5-3. South-of-Delta delivery limitations under the Dry Year Prioritization Scenario and the Top Speed Operations Scenario – percentage of months that constraints control SOD deliveries

Delivery Control*	Dry Year Prioritization Operations	Top Speed Operations
High SWP allocation	XX%	X%
Sites storage supply for SOD Participants	XX%	XX%
Banks Pumping Plant at capacity	X%	XX%
California Aqueduct at capacity	XX%	XX%
Dunnigan Pipeline at physical capacity and real-time exchanges with GCID are “maxed out”	XX%	XX%
Limited conveyance availability through the Delta	X%	XX%
Long-term delivery	XX TAF	XX TAF

* Although it is possible that multiple controls may limit deliveries in the same month, only one control is identified per month.

[Content to be developed: analysis of controlling factors for deliveries.]

[Figure will be inserted here]

Figure 5-4. Remaining Transfer Amount, Banks Capacity, and Dunnigan Capacity

6.0 How will Storage Allocation and Capacity Interest be managed among Participants?

6.1 How is water in the reservoir allocated among Storage Partners?

Sites Water (water that is appropriated under the Sites Water Right) diverted from the Sacramento River is first used to fill the reservoir's inactive storage pool. After the inactive storage pool volume is filled, each Storage Partner will be allocated Sites Water based on its respective Base Facilities Capacity Interest or other Storage Allocation leased or acquired. If a Partner's Storage Allocation is not available or is full, then Sites Water from the Sacramento River will be allocated proportional to the Storage Allocation of all Storage Partners who have available Storage Allocation remaining. Sites Water will be allocated to Storage Partners after losses during diversions have been accounted for.

Important terms:

- **Base Facilities Capacity Interest:** The Capacity Interest of each Storage Partner in the Base Facilities specified in the Project Specific Information of the Storage Participant's respective contract.
- **Storage Allocation:** The maximum actual capacity allocated to a Storage Partner for storing Sites Water in the Project Facilities, measured and determined from time to time in accordance with the Sites Reservoir Operations Plan.

Regular losses of water held in storage in Sites Reservoir are expected to result from evaporation and seepage, facility testing and releases during testing, and unusual occurrences such as emergency releases and firefighting needs. These losses will be allocated to each Storage Partner in proportion to the amount of water in storage that day.

[A reference to the operations plan and a link to be included in this section as that document is finalized.]

6.2 How much control does each Storage Participant have over its storage space and water?

[To be populated in a future draft, Reference and links to the Benefits and Obligations Contracts, the Water Right, and the Operations Plan to be included in this section.]

6.3 How do Storage Participants track real-time operations and accounting?

[To be populated in a future draft.]

6.4 How do Participants make requests for storage opportunities or releases?

Each Participant and Reclamation will provide the Sites Authority with a request for Sites Water that the Participant or Reclamation seeks to have stored in the Project. Using seasonal forecasts of storage estimates and the information available on the dashboard, each Participant and Reclamation will also provide the Sites Authority with a requested schedule for releases of the Participant's or Reclamation's stored water. The details of this process are provided in the Operations Plan along with example forms (Attachment XX).

6.5 How will exchanges among Storage Partners work?

[To be populated in a future draft.]

6.6 How will lease and sell transactions work?

[To be populated in a future draft, will include references to the Benefits and Obligations Contract and will not provide interpretation.]

6.7 How do various management approaches influence the range of benefits available?

[To be developed: this section will describe the quantification of benefit resulting from various operational approaches, e.g., the computation and comparison of storage-to-release ratios for relatively more active vs relatively less active release/fill cycling.]

7.0 How much will the Project cost and how will it be funded?

7.1 What is the estimated cost of the Project?

The Project has advanced to approximately 30% design, supported by an Association for the Advancement of Cost Engineering (AACE) Class 3 cost estimate of approximately \$7.5 billion in constant 2024 dollars, this is the "Governance Estimate" for the Project. This estimate reflects the best available design, technical, market, and construction information and includes contingencies appropriate for the Project's current maturity and inherent uncertainties and represents the total project cost estimate. It does not include the potential effects of prolonged external delays, inefficient stop-and-go design or construction, or significant future changes in scope or design.

The cost estimate has not changed since the last update in mid-2025.

The \$7.5 billion Governance Estimate includes a “Governance Contingency” of approximately \$900 million in constant 2024 dollars. This value was estimated by subject-matter experts analyzing potential risks and probability of occurrence for unknowns in the areas of: Geotechnical, Construction, Noncontract Costs, Real Estate, and Compensatory Mitigation. The Governance Contingency is a board-managed contingency that is reserved for governance-level cost control. The “Management Estimate” is established by excluding the Governance Contingency from the total Project cost estimate, resulting in a Management Estimate of \$6.6 billion in constant 2024 dollars. The estimate was developed using the best information available at the time, with input from subject-matter experts. Its credibility has subsequently been supported through comparison with pricing and technical information received during the Reservoir CMAR procurement process.

7.2 What is the difference between the “Management Estimate” and the “Governance Estimate”?

For purposes of managing Project costs, two estimates have been established: a Management Estimate and a Governance Estimate. Both are expressed in constant 2024 dollars and are based on the 30% design cost estimate. Both estimates also represent the total Project cost estimates that include costs for construction and non-contract costs. The basis for the total Project costs are:

- Cost Estimate for Noncontract Costs Technical Memorandum (Jeff Herrin, Dated May 9th, 2025)
- 30 Percent Construction Cost Estimate for Sites Reservoir Facilities TM (AECOM, dated March 10, 2025) Sites Reservoir HC Conveyance Facilities – Revised 30% Design Basis of Estimate (Jacobs, dated May 2, 2025)

The Management Estimate is \$6.6 billion (2024\$) and represents the funding level that Staff will manage toward. It includes contingencies within the estimate to address expected risks and uncertainties associated with design development and Project delivery, but excludes the Governance Contingency.

The Governance Estimate is \$7.5 billion (2024\$) and consists of the \$6.6 billion (2024\$) Management Estimate plus the \$900 million (2024\$) Governance Contingency described above. The Governance Contingency provides an additional level of cost protection and is controlled by the Board. A graphical representation is shown in Figure 7-1. Together, the two estimates provide a framework for managing Project costs toward the Management Estimate while maintaining additional contingency at the governance level to address broader Project cost exposure.

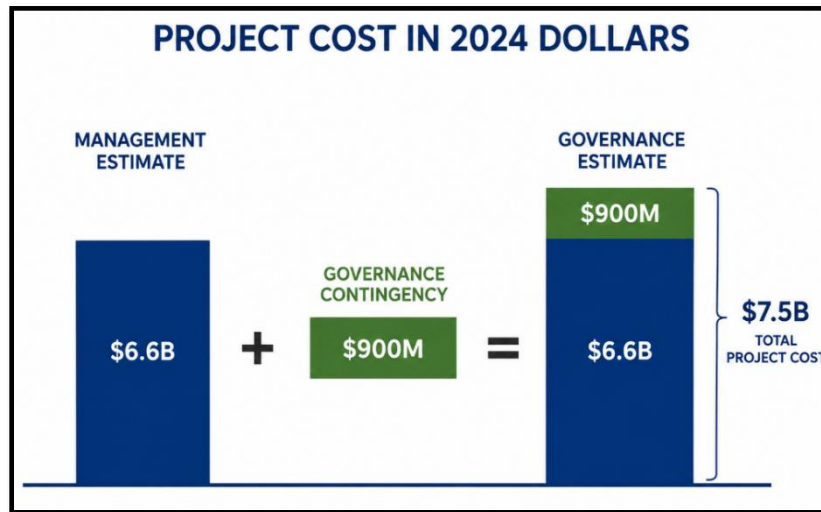


Figure 7-1. A graphical representation of Project costs (2024\$)

7.3 How were the Management Estimate and Governance Estimate established?

The Management and Governance Estimates were established through multiple Value Planning Ad-hoc committee meetings in 2025. As part of those committee meetings, three cost scenarios were evaluated that reflected different assumptions regarding future cost savings and reductions in design contingency as the Project advances. The scenarios ranged from \$6.1 billion to \$6.6 billion in 2024 dollars for the Management Estimate, with each including an additional \$900 million of Governance Contingency to establish the corresponding Governance Estimate.

The Project ultimately selected the more conservative \$6.6 billion Management Estimate, providing a cost-management target that does not rely on achieving future cost savings to the same extent as the other scenarios. With the addition of the \$900 million Governance Contingency, the resulting Governance Estimate is \$7.5 billion in 2024 dollars.

7.4 What is contingency and how is it incorporated into the Project Costs?

Contingency is included within the Project cost estimates to account for risks and uncertainties that may affect costs as design and construction progress. Contingency values were estimated by subject-matter experts analyzing potential risks and probability of occurrence to quantify risk costs in the areas of: Geotechnical, Design, Construction, Noncontract Costs, Real Estate, and Compensatory Mitigation. The amount of that contingency recommended by subject-matter-experts was split between the Management Estimate and Governance Estimate.

The \$6.6 billion Management Estimate includes approximately \$518 million of contingency to address design development and identified geotechnical risks, such as greater quantities of excavation or more difficult excavation conditions. Whereas the \$7.5B Governance Estimate includes an additional \$900 million of Governance Contingency above the Management Estimate. This provides an additional level of cost protection for the Project, including potential geotechnical risks beyond those accounted for in the Management Estimate and other Project cost risks not otherwise accounted for within the Management Estimate. The Governance Contingency would remain under Board control and maintained separately from the Management Estimate until it is released for incorporation into the Management Estimate or an established Management Contingency via a Board action.

As the Project advances into construction, it is anticipated that a Management Contingency will also be established to address risks or costs that arise. This Management Contingency is envisioned to be managed within a Board directed delegated authority. The specific framework for establishing and managing this contingency will be developed as the Project advances.

7.5 How will Contingency be administered during the project?

Each GMP, or major discrete construction action, is expected to include a contingency amount based on the collective assessment of the risks applicable to that work package and their potential cost and schedule effects. This is expected to be a part of the Management Contingency. During construction, use of the Management Contingency will be governed by defined contractual and change-control procedures as the work progresses under the guidance of the approved policies and Delegation of Authority.

Separate from Management Contingency, Governance Contingency would remain under Board control and will only be made available for use with Board approval.

7.6 What is the Difference Between a Project “Estimate” and “Forecast”

The terms Estimate and Forecast are used to distinguish between two different ways of presenting Project costs. An Estimate represents the total estimated cost of the Project in constant, base-year dollars. The current Project cost estimates are expressed in constant 2024 dollars, which allows Project costs to be evaluated on a consistent basis without the effects of future escalation.

A Forecast represents those same Project costs in year-of-expenditure (YOE) dollars, meaning costs are escalated to the year they are expected to be incurred. The Forecast is influenced by both the cost estimate and the Project Schedule, which establishes the anticipated timing of expenditures.



This distinction allows the Project to evaluate and manage changes in the underlying cost of the work separately from changes resulting from the timing of expenditures and escalation.

7.7 What are the Management Forecast and Governance Forecast?

Similar to the Management and Governance Estimates, the Project maintains both a Management Forecast and a Governance Forecast. The difference is that the Forecasts express Project costs in year-of-expenditure dollars, incorporating escalation based on when costs are expected to occur.

The Management Forecast represents the year-of-expenditure equivalent of the Management Estimate and excludes the separately established Governance Contingency. It provides the working forecast of Project expenditures that the Project will manage toward. **The Management Forecast will be set at the Resolution to Construct the Project.**

The Governance Forecast includes the Management Forecast plus the year-of-expenditure value of the Governance Contingency. It therefore represents the broader forecast of total Project cost, including the additional cost protection provided through Governance Contingency. **The Governance Forecast is \$9.9 Billion.**

Both forecasts will continue to be refined as the Project Schedule, design, delivery approach, and other Project information mature.

7.8 How will cost changes be measured?

Project cost performance will be measured against the Management Forecast and Governance Forecasts. As actual costs are incurred and individual work packages are developed, changes in the Project schedule and cost estimates will be reflected in updated forecasts and compared against the established Management and Governance Forecasts.

7.9 How will cost certainty improve as the Project advances?

As the Project progresses, cost estimates will be refined to reflect design advancement, improved understanding of site conditions, updated market information, and increasing contractor input. Under the CMAR delivery approach, the CMAR contractors will develop increasingly detailed cost estimates as design and construction planning advance, providing a more current understanding of anticipated construction costs.

For the CMAR delivery portions of the Project, which includes are major Project facilities (excluding the Dunnigan Pipeline), as work packages are advanced to 60%, the engineers cost estimates will be replaced by Contractor Guaranteed Maximum Prices (GMPs) which are refined and updated at the 90% and final design levels. This transition to Contractor provided GMPs as a basis of cost estimation represents a significant improvement in cost certainty.

Ultimately, actual construction costs will provide the final measure of cost. The progression from engineering estimates, to increasingly detailed CMAR GMP estimates, to contractual pricing and actual costs will provide increasing cost certainty as the Project advances.

7.10 What opportunities for cost reduction have been identified to date?

Opportunities exist for reducing costs, as shown in the Value Engineering Technical Memorandum (Attachment C to this report). Cost optimization will remain an ongoing focus throughout final design and preconstruction as additional engineering information, geotechnical data, land access, and contractor pricing become available.

7.11 What are the estimates for operations, maintenance, repair, and replacement costs?

Operations and maintenance (O&M) costs and repair and replacement (R&R) costs are described in the Plan of Finance. O&M costs will be allocated to Participants and Reclamation as either fixed O&M charges or variable O&M charges. Fixed O&M costs include labor, materials, , repair and replacements, in-lieu of property taxes, franchise fees, insurance, and legal and administrative costs.

The annual fixed O&M costs (excluding replacement costs) are estimated to be \$12.3 million in 2024 dollars, and these are escalated per year for the period 2034 through 2075. For the first planned year of operation, it is estimated that fixed O&M will be approximately \$17.6 million in 2035 dollars.

Variable O&M costs are costs that change with the amount of water conveyed into and out of the reservoir. These costs include the cost of power and wheeling fees paid to others for use of the Colusa Basin Drain and facilities operated by GCID and TCCA. Variable costs are offset by power revenues that result from power generated as water is released from the reservoir. The current forecast assumes that the Project will be able to purchase power at wholesale rates and sell power into the wholesale market.

Since variable costs are based on the actual amount of water moved on behalf of a given entity, the total variable cost paid by that entity will depend on how the entity uses the Project. For instance, some entities might use the Project for dry year supply, whereas others may move water into and out of the reservoir each year to enhance yield. Variable cost in a given year will also reflect different water-year types as that affects the amount of water that is available for diversion and release. Overall, total average fixed and variable O&M remains consistent with prior work using wholesale power rates at approximately 15% of total annual costs.

Repair and replacement (R&R) costs under \$35 million are assumed to be funded on a pay-as-you-go basis in the year incurred and will be billed one year in advance as a Fixed Project Cost to Participants (net of Reclamation and State payments for their share of such costs). Major replacement costs greater than \$35 million are assumed to be financed and recovered over the life of the 30-year debt. The Plan of Finance provides more information on OM&R costs and how they will be paid.

7.12 How will the Project be funded and financed?

7.12.1 What are the main considerations and assumptions of the 2026 Plan of Finance?

The Project's Plan of Finance describes where the borrowed funds needed to construct the Project will be obtained and how they will be repaid. The Plan of Finance considers that:

- A broad diversity of Participants comprises the financing credit pool.
- Financing requirements and sources will vary throughout the life of the Project.
- Some Participants will use the pay-go (self-funding) approach and others will participate in group financing.
- Participants will meet the anticipated future financial obligations related to the Project in one of the following ways: include the costs of the Project on the Participant's DWR State Water Project Annual Statement of Charges; levy benefit assessments or other land-based charges on land located within a Participant's boundaries; or incorporate the costs into current water rates, charges and assessments.
- Banks or external agencies that lend to the Sites Authority, the credit rating agencies, and bond investors will all require strong security pledges from the Sites Authority before agreeing to lend or buy bonds to finance the Project.
- Project agreements will be based on a "take-or-pay" basis, meaning that each Storage Partner has the contractual obligation to pay for its predetermined share of the Project costs (including their share of annual debt service) regardless of the amount of water actually stored or delivered.

The Project's Plan of Finance assumes that:

- The Cost Estimate is as shown in Section 7.2 of this report, and includes all costs, e.g., construction, planning and design, land and right-of-way, environmental and permitting, and other activities such as project management, legal, and contingencies.
- The funding sources described in Section 7.5.2 are available to the Project.
- Escalation factors for the years [2027 through final completion] are as shown in the Plan of Finance.
- The Participant, State, and Reclamation base facilities capacity interests and downstream facilities capacity interests are as shown in the Plan of Finance.
- The Project baseline schedule is as shown in Attachment B to this report, including substantial completion of construction in [2034]; significant changes to the Project schedule will necessitate updates to the cost forecasts.

7.12.2 What is the mix of funding sources?

The Project will be funded with a combination of direct federal funding through the Bureau of Reclamation, state funding, borrowing by the Sites Authority, and Participant self-funding. Participant costs will initially be funded with interim financing such as short-term notes (although some Participants may elect to self-fund their share of construction). WIFIA loans and tax-exempt revenue bonds will then be used to pay off the notes and other short-term borrowings. The estimated mix of sources of funding is provided in Table 4 in the Plan of Finance.

7.12.3 What is the cash flow forecast over the construction period?

Annual expenditures are forecast to peak at approximately \$1.9 billion (2026 dollars)/\$2.2 billion (escalated dollars) in calendar years 2031 with a second significant period of expenditures occurring in 2033. See Figure 1 in the Plan of Finance for more information.

7.12.4 How are Project costs allocated among Storage Partners?

Sites is a beneficiary-pays project; this defines how costs are allocated among Storage Partners:

- Participants and Reclamation are paying for storage space and water supply.
- The State is paying for flood management, environmental and recreation benefits identified in the WSIP application.

Participants' and Reclamation's shares of the Project's construction costs are based on each party's Base and Downstream Capacity Interests. Participants' and Reclamation's shares of Variable O&M costs will be based on the actual costs incurred for moving water into and out of Sites Reservoir.

7.12.5 What will Participants' annual fixed obligations be?

The Plan of Finance evaluates three financing scenarios: interest-only during construction, capitalized interest through construction, and full pay-as-you-go to estimate Participants' annual fixed obligations. It outlines anticipated annual debt service obligations, cash flow requirements, and operating costs under each scenario. See the Plan of Finance for details.

7.12.6 How do Project costs differ for "Upstream Users" compared to "Downstream Users"?

[To be populated in a future draft.]

8.0 What is the Project baseline schedule?

8.1 What is the baseline schedule?

The current Project schedule (Attachment B) represents staff's best understanding of the time required to complete Phase 3 readiness activities, construct and commission the Project facilities, and operate the. The current Project Schedule assumes that operations and initial commissioning would start in the 2034 / 2035 water year.

The schedule represents the project's current best planning forecast and provides a credible basis for planning and decision-making. Its precision will continue to improve as land access is secured, field investigations are completed, design advances, agency authorizations are obtained, and construction packages and Guaranteed Maximum Prices (GMPs) are developed.

8.2 What are some of the key assumptions driving the schedule?

Below is a list of some of the key assumptions used for the schedule:

- Project funding is available as of March 2027 and Phase 3 activities in 2027 are not constrained by funding, particularly land acquisitions, environmental baseline surveys and geotechnical investigations.
- Landowners are willing to provide access agreements concurrent with the land purchase being finalized, which decouples the finalization of the purchase from starting the key schedule driving activities, particularly environmental baseline surveys and geotechnical investigations.
- Starting long lead early works projects, specifically the development of key access and haul roads, occurs early in the schedule.
- Once land access is secured, there is a two-year timeframe to complete the required environmental baseline surveys and obtain the various permit authorizations to allow construction in that area to begin.
- The majority of critical lands for construction are purchased by the end of 2027.
- Securing agency-approved mitigation lands or credit starts early in the schedule and does not pose a constraint on construction.
- Construction can occur efficiently on multiple fronts simultaneously, without being constrained.

8.3 What is the critical path of the schedule?

The critical path represents the longest sequence of dependent activities that determines the Project's forecasted operational date. The current schedule contains several near-critical paths because the Project comprises approximately 20 large, long-duration, and largely discrete subprojects that must be delivered within the same overall construction window. The top critical path and near-critical path packages include:

1. Sites Dam
2. Golden Gate Dam
3. Funk PGP
4. TRR PGP
5. Saddle Dams and Dikes
6. Sites Lodoga Bridge

These critical path package, as well as other near critical path packages, are sensitive to enabling activity progression. Delays in packages enabling activities, including packages not listed here, could add it to the critical path.

In general, these subprojects share common predecessor activities (referred to as construction-enabling activities). These include project financing, land acquisition or access, environmental field surveys, environmental and cultural compliance, agency authorizations, design advancement, and early works. Delays to these shared enabling activities have the potential to affect multiple downstream subprojects and, collectively, the Project's operational date. At the current stage of the Project, the advancement of these construction-enabling activities is the most critical activity to maintaining the Project schedule. .

As the Project progresses, it is expected that multiple near-critical paths will continue to exist due to the highly concurrent nature of the work. As design advances, construction sequencing is refined, and contractor input is incorporated, the schedule will become increasingly detailed and precise, providing greater visibility into the relationships among these near-critical paths and the activities that ultimately govern the Project's operational date.

8.4 Will Phase 3 (Final Design) include construction?

Yes. The Schedule assumes that some critical early-works construction activities occur during Phase 3, and Phase 3 and Phase 4 will overlap as the Project transitions into full construction.

During Phase 3, certain early construction activities will be needed to prepare the Project for the larger-scale construction planned for Phase 4. These early work activities are expected to include construction-enabling improvements, such as developing access roads, haul roads and detour roads, needed to prior to starting subsequent major construction. For example, one of the Project's major access roads will connect the project site to Interstate 5 and is a predecessor to much of the Project's construction. This road will likely take one to two years to complete and advancing this work during Phase 3 will help position the Project for major construction activities in Phase 4. Another similar example is working with Utility in performing upgrades so the Project can receive construction grade power or moving utility lines within the construction areas.

8.5 Will there be an overlap between Phase 3 (Final Design) and Phase 4 (Construction)?

Yes. Transitioning from final design to construction is expected to occur progressively rather than at a single point in time. Under the CMAR delivery approach, individual facilities and work packages will advance through design and construction on different schedules. This allows construction to begin on portions of the Project where design, permitting, land access, and other prerequisites are sufficiently advanced, while final design continues on other portions of the Project. As a result, final design activities will continue into Phase 4 as construction expands across the Project.

8.6 When is the right time to begin Phase 4 (Construction)?

Phase 4 (Construction) should begin when the Project has reached a state of readiness that will allow for continuous, uninterrupted efficient construction. This would involve the purchasing of critical lands, completion of environmental baseline surveys of those lands, agency approvals and completion of cultural compliance activities for the beginning phases of work, significant design progression supported by geotechnical investigations, DSOD approvals of the design (where needed) and securing agency-approved compensatory mitigation lands. The objective is not necessarily to wait until every element of the Project is fully designed and authorized before beginning Phase 4. Rather, the work should be strategically phased to maintain a sufficient runway of executable construction packages.

Starting Phase 4 prematurely could expose the Project to interruptions, inefficient sequencing, contractor standby, repeated mobilization, and an extended construction duration. Conversely, delaying construction after sufficient readiness and financing have been established could unnecessarily increase escalation and defer Project benefits. The appropriate start is therefore the earliest point at which construction can be supported by an adequate and sustainable pipeline of construction-ready work.

8.7 How should Project delays be understood?

The schedule and cost consequences of a delay depend on both its cause and when it occurs. During Phase 3, a delay may primarily shift the start of construction and the operational date, with escalation and extended readiness costs as the principal financial effects. However, once major construction is underway, delays can have substantially greater financial consequences. During Phase 4, multiple contractors and large equipment fleets will be mobilized, extensive temporary facilities will be operating, and substantial labor, design, environmental-compliance, quality, construction-management, and other support resources will be in place. In addition to escalation costs increases, a constraint encountered during Phase 4 could also cause impacts to the direct costs resulting from: reduced productivity, standby, resequencing, extended overhead, contractual impacts, and lost opportunities to perform work concurrently.

Accordingly, a month of delay does not have a constant cost throughout the Project. Early delays will primarily affect the schedule, while delays during construction will affect the schedule and may also carry significant construction costs from delays (i.e. standby time, delay claims, etc.). Phase 3 is intended to identify and resolve constraints and build the runway for efficient construction.

8.8 How will the schedule be updated, and what oversight will the Sites Authority Board retain?

The Project Schedule will be actively managed and updated as the Project advances. During Phase 3, the Project's schedule management approach will evolve as individual project and work-package schedules are developed and integrated into the overall Program Schedule. This integrated scheduling framework will support management of the complex and multi-faceted nature of the Project and provide increasing detail and visibility into schedule performance, interfaces, and key milestones. Schedule performance will continue to be communicated to the Sites Authority Board through the Project's established reporting and governance processes.

9.0 What are the primary Project risks and how will they be mitigated?

A project of this magnitude, complexity, and duration presents cost, schedule, and benefit risks that will need to be carefully managed and mitigated. The following sections outline the risks and the mitigation strategies that will be implemented to mitigate the risks.

9.1 What are the primary cost risks?

The primary cost risks are:

- Potential increases in the Project's design scope and complexity.
- Differences in actual escalation and/or interest rates compared to assumed rates in the Plan of Finance.
- Schedule slippage, with its associated increased escalation costs and extension of other time dependent cost factors such as additional overhead costs to manage the construction.

- Schedule delays that cause impacts to the cost of direct work.
- Unforeseen conditions that result in additional construction effort, including geotechnical, subsurface risk.
- Abnormal material price escalation, such as supply chain related shortages, beyond normal market inflation

9.2 What engineering and construction mitigation actions will be taken?

Engineering and construction related opportunities to enhance cost performance include the following:

- Integrate CMAR Contractor input early for value engineering, constructability, cost and schedule verifications.
- Develop and negotiate GMPs proactively, starting at the 60% design levels with the support of an Independent Cost Estimator.
- Analyze the identified opportunities for reducing costs that are shown in the Value Engineering Technical Memorandum (Attachment C to the PBR).
- Perform Geotechnical investigations as soon as possible to assess subsurface conditions and the refine the contingency assumptions included in the Value Planning TM (available via weblink)
- Actively manage and optimize the overall project schedule to minimize duration and avoid delays, which often result in direct-cost impacts in addition to increased escalation exposure.
- Utilize early procurement of long-lead items to improve schedule performance and lock in pricing on major-cost items earlier (pumps, electrical equipment, tunnel liners, etc.).
- Use strategic contract provisions to address escalation and not pay upfront for a worst-case escalation scenario. Potentially, include indexed escalation provisions for diesel, steel, cement, fly ash, etc. Alternatively, where appropriate, lock in pricing and transfer the escalation risk to the contractor or supplier.
- Advance construction through early work packages rather than waiting for fully developed designs before beginning construction.

9.3 What finance and funding mitigation actions will be taken?

Funding & Financing related opportunities to enhance cost performance include the following:

- Complete detailed Budget and Cash Flow Management – Align Participant contributions with actual Project cash needs to minimize over-drawing Participant funds and avoid holding Participant dollars unnecessarily.
- Bring State funding in as early as possible – Maximize the use of State funds during construction to reduce and defer Participant cash requirements.
- Manage short-term financing strategically – Use lower-cost short-term financing where advantageous and consider rolling it rather than locking into higher long-term rates, while managing refinancing risk.
- Optimize WIFIA financing – Monitor WIFIA rates and draw timing and use WIFIA strategically to replace higher-cost debt when beneficial.
- Match borrowing to construction expenditures – Avoid borrowing significantly ahead of need and paying unnecessary interest or carrying costs.

- Continuously monitor escalation and affordability – Regularly update the Plan of Finance and stress-test escalation, interest rates, and construction timing so adjustments can be made before they materially affect Participant contributions.

9.4 What are the primary risks to schedule?

The principal risks to the baseline schedule are the following:

- Completion of Construction Enabling Activities in line with the schedule assumptions used in the Project Baseline Schedule, specifically:
 - Completion of Land Acquisitions and Access
 - Completion of Biological and Cultural surveys once Land access is granted
 - Obtaining permit authorizations
 - Securing Compensation Mitigation
- High degree of concurrency among the construction subprojects, which increases execution complexity and resource demands.
- The significant ramp in workload as phase 3 begins. Ramping up the Sites Owner team to align with CMAR and Designers, require onboarding and expanding the new standards, clarity, communication and resources.
- Onboarding a significant number of new resources while ramping into the next phase of work. Major new Resources will include:
 - Owner Delivery Support
 - Conveyance CMAR
 - Mitigation Contractor
 - Independent Cost Estimation

9.5 How will schedule risks be managed and mitigated?

To manage and mitigate schedule risk, the Sites Authority will:

- **Scale the Sites Authority's organization appropriately.** Once full Project funding is available, the Sites Authority will scale its organization proportional to the need to manage construction oversight, contract administration, regulatory compliance, and coordination across multiple active work fronts. A limited number of permanent staff will be augmented with task-specific contractors as needed.
- **Stay ahead of construction.** To allow for unencumbered and efficient construction, the Sites Authority will work to stay ahead of planned construction on several fronts, including land acquisition and access, biological and cultural surveys, permit authorizations, tribal consultations, amendments to the EIR/EIS, fulfillment of commitments required by the EIR/EIS, securing compensatory mitigation lands, and design.
- **Facilitate efficient regulatory reviews.** The Sites Authority will systematically organize data and information, develop templates, and standardize processes for providing complete packages of information to regulatory agencies.
- **Accelerated design development** will enable rapid advancement of design, which will, in turn, inform construction sequencing and cost development and support continued permit authorizations that require design maturity to assess impacts.
- **Continue to pursue early land acquisition and access to conduct biological and cultural surveys** through the Contingency acquisitions and continued landowner outreach.

- **Procurement and onboarding of Reservoir and Conveyance CMARs**, which allows for enhanced coordination and communication; early constructability reviews, cost estimates, and schedule input; and contractual incentives that encourage proactive project management.

9.6 What are the benefit risks and how will they be mitigated?

[To be included in future draft.]

10.0 Abbreviations and definitions

	<i>[Under development]</i>
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
DWR	California Department of Water Resources
Project	Sites Reservoir Project
Reclamation	The Bureau of Reclamation, an entity within the U.S. Department of the Interior
Sites Authority	Sites Project Authority

[Note: Capitalized terms used in the definitions below are defined in the Sites Reservoir Operations Plan, v2.3, dated June 15, 2026.] *[Under development]*

Acre-foot: 43,560 cubic feet of water.

Applicable Laws: Applicable federal, state, and local laws, ordinances, rules, regulations, orders, and policies relating to the Project.

Acquirer: DWR, acting as acquirer of Sites Water from the Project in accordance with California Water Code Section 11575 and/or other Applicable Law on behalf of the SWP Storage Partners, as described in the draft Benefits & Obligations Contract.

Balanced Conditions in the Delta: When releases from upstream reservoirs plus unregulated flow approximately equals the water supply needed to meet Sacramento Valley in-basin uses plus exports. Balanced Conditions are determined by DWR and Reclamation.

Base Facilities: The Sites-Owned Facilities or other facilities available to all Partners.

Base Facilities Capacity Interest: (1) The undivided capacity right of each Storage Partner to store, convey and divert Water in each of the Sites Owned Facilities specified in the Project Specific Information of the Storage Partner's respective contract, and (2) the ability to utilize Partner facilities through the Sites Authority to convey and divert Water for the Project, in the pro-rata share set out for each Storage Partner in the Storage Partner's respective contract and subject to the Sites Water Right, Applicable Law, and Governmental Approvals.

Beneficiary Pays Principle: The principle for allocating all costs associated with delivering certain Project benefits, including public and non-public benefits, to the party receiving such benefits.

Benefits & Obligations Contract: The contract entered into by and between the Sites Authority and each Storage Partner (with the exception of Reclamation and the State) governing each Storage Partner's right to water service and Project water, storage capacity, and conveyance capacity, and related rights, duties, and obligations.

California Department of Fish and Wildlife (CDFW): CDFW is a state agency within the California Department of Natural Resources. It is responsible for managing fish, wildlife, and plant resources and habitats. CDFW is the state agency that administers the contract setting forth the terms for the Project to deliver Proposition 1 Water Storage Investment Program (WSIP) ecosystem benefits.

California Department of Water Resources (DWR): DWR is a state agency within the California Department of Natural Resources. It is responsible for owning, constructing, operating, and maintaining the SWP facilities and oversees these storage and conveyance facilities located throughout California. DWR is the state agency that administers the contract setting forth the terms for the Project to deliver Proposition 1 Water Storage Investment Program (WSIP) recreation and flood risk management benefits. DWR will be an ex-officio member of the Sites Authority per Water Code Section 79759.

Capacity Interest: (1) In the case of the Base Facilities, the Base Facilities Capacity Interest; and (2) in the case of the Downstream Facilities, the Downstream Facilities Capacity Interest, or either of them as the context applies.

Capital Costs: One-time expenditures that will benefit the Project for more than one financial year; the money necessary to move the Project from concept to implementation.

Carriage Water: The additional water needed for Delta outflow to compensate for the additional export of Sites Water to assure compliance with the water quality requirements of the CVP and SWP.

Completion: Determination by the Sites Authority Board and the Reservoir Management Board that the Project Facilities are complete for the purposes of providing water service, including water storage, intake, outlet, and conveyance, to Storage Partners.

Constant Dollars: The "apples to apples" view; a base year is selected, and all costs are expressed in that year's purchasing power (i.e., inflation is not considered).

Construction: All work to build or construct, rehabilitate, upgrade, make, form, manufacture, furnish, install, supply, deliver, landscape, equip, test, and commission any structure, building, or other improvement to real property included in the Project.

Delivery Point: With respect to each Storage Partner, the delivery point specified in the Project Specific Information in their respective contract.

Delta Export Facilities: The Harvey O. Banks Delta Pumping Plant, including Clifton Court Forebay, which is owned and operated by DWR, and the C.W. "Bill" Jones Pumping Plant, which is owned and operated by Reclamation.

Diversion Season: The period from September 1 through June 14, inclusive, when the Sites Authority would divert water into Sites Reservoir. No diversions can occur from June 15 to August 31, inclusive, regardless of river conditions or flow.

Downstream Facilities: The Sites-Owned Facilities or other facilities that are utilized by selected Storage Partners listed in the Project Specific Information of each Storage Partner's respective contract, as modified from time to time.

Downstream Facilities Capacity Interest: The undivided capacity right to convey Water in each of the Downstream Facilities granted by the Sites Authority and owned by the Storage Partners in accordance with their respective contract, in the pro-rata share set out for each Storage Partner specified in the Project Specific Information of each Storage Partner's respective contract, subject to the Sites Water Right, Applicable Law, and Governmental Approvals.

Financing Agreement: Any indenture, trust agreement, loan agreement, installment purchase agreement, or other financing document entered into by the Sites Authority in connection with any Project Obligations.

Financing Obligations: The obligations of a Financing Storage Partner to pay a percentage of the total Sites Financing Costs in accordance with the Benefits & Obligations Contract.

Financing Storage Partner: With respect and to the extent a Storage Partner participates in a Sites Financing, all Storage Partners other than Self-Funding Storage Partners.

Financing Participation Percentage: With respect to each Sites Financing, the applicable percentage determined in accordance with the formula provided in the Benefits & Obligations Contract.

Fixed O&M Costs: Any and all costs and expenses that are incurred irrespective of the amount of Sites Water diverted, stored, or released to the Storage Partners; any and all costs and expenses that are not Fixed Project Costs, Sites Financing Costs, or Variable O&M Costs.

Fixed Project Costs: (1) Development, design, construction, and capital costs of the Project, and (2) individual repair, replacement, rehabilitation, improvement, or regulatory compliance activities incurred after Completion to the extent not covered by Fixed O&M Costs.

Generally Accepted Accounting Principles: Such accepted accounting practice as conforms at the time to generally accepted accounting principles to public agencies in the United States of America, consistently applied.

Governmental Approvals: Any permit, license, consent, concession, court order, grant, franchise, authorization, waiver, certification, exemption, filing, lease, registration or ruling, variance or other approval, guidance, protocol, mitigation agreement, settlement agreement, agreement or memorandum of agreement/understanding, and any revision, modification, amendment, supplement, renewal, or extension of any of the foregoing, required by or with any Governmental Entity in order to perform the purposes of the Sites Operations Plan.

Governmental Entity: Any federal, state, local, or foreign government and any political subdivision or any governmental, quasi-governmental, judicial, public, or statutory instrumentality, administrative agency, authority, body, or entity other than the Sites Authority.

JPA Agreement: The Amended and Restated Joint Exercise of Powers Agreement, effective [DATE], by and among the parties set forth on the execution page thereof, as amended and supplemented from time to time.

Lender: Any lender, bondholder, noteholder, lessee, or other holder of any Project Obligations (including the State of California, Reclamation, or any department, bureau, or other affiliated entity thereof), as applicable, incurred in connection with a Sites Financing of the Project.

O&M Costs: Fixed O&M Costs and Variable O&M Costs, or either of them, as context requires.

Other Water: Water other than Sites Water that a Storage Partner may request the Sites Authority to store in and/or convey through Project facilities consistent with Governmental Approvals and Applicable Law.

Partner Agreement: Any agreement entered into between the Sites Authority and another entity in accordance with which the Sites Authority has the right to divert, release, and convey Water to or from the Project, as amended from time to time.

Partner Facilities: Any facilities used by the Sites Authority to convey Water to or from the Sites Owned Facilities in accordance with the Partner Agreements.

Primary Benefits: Water supply and water supply related environmental benefits, including water quality.

Project: The entire physical infrastructure and capital improvements to be designed, constructed, commissioned, and completed or contracted for use by the Sites Authority, including the Sites Owned Facilities and Partner Facilities, as reflected in the Project Specific Information, for the purpose of providing storage and conveyance of water for use by Storage Partners in accordance with their Capacity Interest, as such project may be modified from time to time.

Project Costs: The sum of Fixed O&M Costs, Fixed Project Costs, Variable O&M Costs, and Sites Financing Costs payable by the Storage Partners under the Benefits & Obligations Contract, or each of them, as the context requires.

Project Facilities: Collectively the Sites Owned Facilities and the Partner Facilities, or any of them as the context requires.

Project Obligations: Any bonds, notes, loans, or other evidences of indebtedness issued or incurred by or on behalf of the Sites Authority with respect to the Project.

Proposition 1 Water Storage Investment Program (WSIP): The \$2.7 billion program administered by the California Water Commission to carry out the mandate of Proposition 1, passed in 2014, to fund water storage projects.

Proposition 1 Water Storage Investment Program (WSIP) Contract: The agreement between the Sites Authority and the State through the California Water Commission setting forth the terms of processes for realizing the benefits intended, reporting requirements, and so forth.

Reclamation Partnership Agreement: The agreement between the Sites Authority and the U.S. Bureau of Reclamation.

Reservoir Management Board: A committee of the Sites Authority Board composed of representatives of signatories to the Benefits & Obligations Contract. The Reservoir Management Board functions to

exercise the “Delegated Authorities” more specifically identified in Section 10 of the Bylaws, which are all such powers to operate the Project as are not Reserved Powers defined in the JPA Agreement.

Secondary Benefits: Flood control, recreation, and power generation benefits.

Secondary Delivery Point: A location beyond the Delivery Point, which, at the request of each Storage Partner, and subject to Applicable Laws and Governmental Approvals, the Sites Authority may take actions reasonably practicable to assist Storage Partners in conveying Water.

Self-Funding Storage Partner: A Storage Partner that satisfies all or a portion of its obligation to pay Fixed Project Costs through Self-Funding Storage Partner Cash Payments in accordance with the Benefits & Obligations Contract.

Sites-Owned Facilities: The new physical infrastructure and capital improvements for the Project to be designed, constructed, commissioned, completed, and owned by the Sites Authority, including dams, reservoir(s), pipelines, pump stations, and other facilities necessary or appropriate for providing new water supply and storage including the facilities listed in the Project Specific Information, but excluding facilities designed and built by parties to Partner Agreements that will be used for the Project in accordance with such Partner Agreements, Partner Facilities, and the real property required for the Project.

Sites Project Authority (Sites Authority): A California Joint Powers Authority operating under and by virtue of Section 6500 et seq. of the California Government Code and formed in accordance with the Sites Project Authority Joint Exercise of Powers Agreement, as such agreement may be modified from time to time, established for the purpose of designing, constructing, owning, operating, and maintaining the Sites Reservoir Project.

Sites Reservoir Operations Plan: The Sites Reservoir Operations Plan, including all attachments, as may be modified from time to time. Contents include operations planning, forecasting, and accounting; diversions and conveyance to Sites Reservoir; storage in Sites Reservoir; releases from Sites Reservoir; Sites Water sales and exchanges; coordination with CVP and SWP; and other considerations.

Sites Reservoir Project (Project): Dams, reservoirs, certain associated diversion and conveyance facilities, and other associated facilities, mitigation lands, and Sites Water Right owned and operated by the Sites Authority.

Sites Water: Water that is appropriated under the Sites Water Right.

Sites Water Right: The water right obtained and owned by the Sites Authority for the Project.

Storage Allocation: The maximum actual capacity allocated to a Storage Partner for storing Water in the Project Facilities, measured and determined from time to time in accordance with the Sites Reservoir Operations Plan.

Storage Partners: The governmental agencies, water organizations, and others who have funded and received a Storage Allocation in Sites Reservoir and the resulting water supply or water supply related benefits from the Project. Storage Partners include local agencies, the California Department of Fish and Wildlife, and the U.S. Department of the Interior, Bureau of Reclamation.

Stored Water: The amount of Water that a Storage Partner has stored in the Project Facilities at any given time, as measured from time to time by the Sites Authority in accordance with the Sites Operations Plan.

SWP Storage Partners: Those Storage Partners listed in the Project Specific Information which have elected to pay Project Costs through the Acquirer in connection with the California State Water Project.

Water: When capitalized [Water], Sites Water or Other Water conveyed through, or stored by, Storage Partners in Project Facilities.

Water Year: The period from October 1 through September 30.

Year of Expenditure: Also known as nominal dollars; the actual dollars based on the project schedule. Each cost element is escalating to the year it is spent (i.e., inflation is included in the calculation). This monetary value is often considered in cash flow, financing, and budget authority decisions.

11.0 References

- California Department of Water Resources. 2023. California Water Plan, Update 2023. December. <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2023/Final/California-Water-Plan-Update-2023.pdf>. Accessed May 1, 2026.
- California Department of Fish and Wildlife, North Central Region. 2024. California Endangered Species Act Incidental Take Permit No. 2081-2022-006-02 [Construction ITP]. October 22.
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- California Natural Resources Agency (CNRA), California Environmental Protection Agency, and California Department of Food and Agriculture. 2023. California Water Resilience Portfolio: Progress Update 2023. Sacramento, CA. https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/WRP_PR23_Progress_Report_2023.pdf. Accessed May 6, 2026.
- Public Policy Institute of California (PPIC). 2018. "Climate Change and Water." November. <https://www.ppic.org/wp-content/uploads/californias-water-climate-change-and-water-november-2018.pdf>. Accessed May 1, 2026.
- Public Policy Institute of California (PPIC). 2024. Replenishing Groundwater in the San Joaquin Valley: 2024 Update. June. <https://www.ppic.org/?show-pdf=true&docraptor=true&url=https%3A%2F%2Fwww.ppic.org%2Fpublication%2Freplenishing-groundwater-in-the-san-joaquin-valley-2024-update%2F>. Accessed May 6, 2026.
- Sites Project Authority. 2025. Draft Reservoir Operations Plan, Version 2.1, May 7.
- Sites Project Authority and U.S. Department of the Interior, Bureau of Reclamation. 2023. Sites Reservoir Project Final Environmental Impact Report/Final Environmental Impact Statement (SCH No. 2001112009)., Maxwell, CA, and Sacramento, CA. November.
- Sites Project Authority. 2025. Draft Reservoir Operations Plan, Version 2.1, May 7.
- Sites Project Authority. 2026. Board Report Draft Sites Reservoir Benefits & Obligations Contract among Participants, Acquirer, and Sites Authority, June 15.
- [Under development]*

Resources available on the Sites Reservoir public website [will link each one]

Executed Resolution to Offer Capacity
Participant, State, and Reclamation base facilities capacity interests and downstream facilities capacity interests, as of June 2026
Plan of Finance
WIFIA Loan Master Agreement
Sites Water Right Permit Order
Operations Plan
Final Benefits & Obligations Contract
State Prop 1 Contracts for Administration of Public Benefits – CDFW and DWR
Reclamation Partnership Agreement
Facility Use Agreements with GCID & TCCA
RD 108 Operation Agreement
SPA-DWR-Reclamation Operations Agreement
Conveyance Capacity Technical Memorandum
30% Design Total Project Cost Estimate TM for Reservoir Package
30% Design Total Project Cost Estimate TM for Conveyance Package
Noncontract Cost TM
Value Planning TM
Conditions Precedent Status

Attachments follow this page:

- A 30% Design Total Project Cost Estimate Summary
- B Baseline Schedule
- C Value Engineering Technical Memorandum
- D Conveyance Capacity Summary *[next draft]*
- E Real Estate Summary *[next draft]*
- F Loss Assumptions Summary

Attachment A: 30% Design Total Project Cost Estimate Summary

Attachment A, the 30% Design Total Project Cost Estimate Summary, follows this page.

30% Design Total Project Cost Estimate Summary

Cost Estimate Components	Management Estimate (2024\$)	Governance Estimate (2024\$)	Reference
Reservoir	\$2,435,000,000	\$2,435,000,000	AECOM. 30 Percent Construction Cost Estimate Sites Reservoir Facilities Technical Memorandum, March 2025
Conveyance	\$1,444,000,000	\$1,444,000,000	Jacobs. Sites Reservoir Project HC Conveyance Facilities – Revised 30% Design Basis of Estimate, May 2025
Non-Contract	\$1,244,000,000	\$1,244,000,000	AECOM. Cost Estimate for Noncontract Costs Technical Memorandum, May 2025
Real Estate	\$122,500,000	\$122,500,000	Value Planning Ad Hoc Sub-Committee, March 2025
Compensatory Mitigation	\$789,000,000	\$789,000,000	Value Planning Ad Hoc Sub-Committee, March 2025
Contingency	\$518,000,000	\$1,428,000,000	Contingency Summary
Total	\$6,600,000,000	\$7,500,000,000	

Contingency Summary

Cost Estimate Components	Management Contingency (A)	Governance Contingency (B)
Reservoir & Conveyance <i>Geotechnical</i> <i>Design/Regulatory</i> <i>Construction</i>	\$517,900,000 <i>\$141,500,000 (50%)</i> <i>\$376,400,000 (100%)</i> <i>\$0 (0%)</i>	\$612,800,000 <i>\$141,500,000 (50%)</i> <i>\$0 (0%)</i> <i>\$471,300,000 (100%)</i>
Noncontract Cost	\$0	\$186,700,000
Real Estate	\$0	\$24,500,000
Compensatory Mitigation	\$0	\$85,800,000
Subtotal	\$518,000,000	\$910,000,000
Total Contingency*	\$1,428,000,000	

*Total Contingency = Management Contingency + Governance Contingency = (A) + (B)

Attachment B: Baseline Schedule

Attachment B, the Sites Project Baseline Schedule, follows this page.



Sites Reservoir Project

Pre-Construction & Construction Summary Schedule

#	Facility	Start	Substantial Completion	2026				2027				2028				2029				2030				2031				2032				2033				2034				2035				2036				2037				2038			
				Q2	Q3	Q4	Q	Q2	Q3	Q4	Q1	Q	Q3	Q4	Q1	Q	Q3	Q4	Q1	Q2	Q3	Q	Q1	Q2	Q3	Q4	Q	Q2	Q3	Q4	Q1	Q	Q3	Q4	Q1	Q2	Q3	Q4	Q	Q2	Q3	Q4	Q	Q2	Q3	Q4	Q1	Q	Q3	Q4					
1	Sites Reservoir: July 31, 2026 Update		20.Nov.23 A	06.Jul.35																																																			
2	Pre-Construction		20.Nov.23 A	16.Sep.31																																																			
3	Land Acquisitions		20.Nov.23 A	10.Jan.29			Land Acquisitions																																																
4	Permit Authorizations & Consultations		13.Jan.25 A	20.May.30			Permit Authorizations & Consultations																																																
5	60% Design		01.Jun.26 A	03.May.29			60% Design																																																
6	100% Design		04.Jan.27	21.Aug.30			100% Design																																																
7	Mitigation Land		30.Sep.27	16.Sep.31			Mitigation Land																																																
8	Construction		31.Dec.27	20.Dec.34																																																			
9	Golden Gate Dam Construction		31.Dec.27	29.Mar.34			Golden Gate Dam Construction																																																
10	Sites Dam Construction		15.Sep.28	16.Jun.34			Sites Dam Construction																																																
11	Inlet/Outlet Construction		04.May.29	09.Feb.32			Inlet/Outlet Construction																																																
12	Red Bluff Pumping Plant Construction		01.Nov.29	14.Oct.30			Red Bluff Pumping Plant Construction																																																
13	Saddle Dams, Dikes, Spillway Construction		03.Jun.30	17.Nov.34			Saddle Dams, Dikes, Spillway Construction																																																
14	Funks Site Construction		11.Jul.30	23.Mar.34			Funks Site Construction																																																
15	Individual Facilities' Commissioning		15.Oct.30	22.Nov.34			Individual Facilities' Commissioning																																																
16	Point of Interconnection Substation Construction		06.Nov.30	01.Dec.32			Point of Interconnection Substation Construction																																																
17	TRR Site Construction		13.Feb.31	10.Jan.34			TRR Site Construction																																																
18	Dunnigan Pipeline Construction		04.Jun.31	20.May.33			Dunnigan Pipeline Construction																																																
19	Sites Lodoga Road & Bridge Construction		24.Sep.31	25.Jul.34			Sites Lodoga Road & Bridge Construction																																																
20	GCID Improvements Construction		11.Nov.31	28.Dec.33			GCID Improvements Construction																																																
21	Huffmaster Road Construction		18.Dec.31	06.Dec.33			Huffmaster Road Construction																																																
22	Recreation Areas Construction		11.Jan.33	20.Dec.34			Recreation Areas Construction																																																
23	Operations		20.Nov.34	06.Jul.35																																																			
24	Construction Substantially Complete / Ready for Filling			20.Nov.34			◆ Construction Substantially Complete / Ready for Filling																																																
25	Initiate Reservoir Commissioning & First Season of Filling		21.Nov.34	06.Jul.35			■ Initiate Reservoir Commissioning & First Season of Filling																																																
26	Construction Final Completion (Start of Phase 5 Operations)			06.Jul.35			◆ Construction Final Completion (Start of Phase 5 Operations)																																																

Attachment C: Value Engineering Technical Memorandum

The Value Engineering Technical Memorandum, dated June 15, 2026, follows this page.

Value Engineering Concepts

Technical Memorandum



To:	J.P. Robinette, P.E. (Sites Project Authority)
CC:	-
Date:	June 15, 2026
From:	Kyle Hughes, P.E. (Sites Project Authority), Henry Luu, P.E. (HDR)
Quality Review:	-
Authority Agent Review:	Rob Natoli, P.E. (Sites Project Authority)
Subject:	30% Design Value Engineering Concepts

This document outlines value engineering (VE) concepts that have been identified by the Conveyance and Reservoir design teams (Jacobs and AECOM, respectively) as well as the Reservoir CMAR (Barnard). These concepts have been limited to items that have the potential to reduce project costs while maintaining the function and level of service as depicted within the Project's 30% design. The concepts identified in the table below have not been incorporated into the 30% cost estimate, which forms the basis of the project budget, because additional investigations and/or design development is required to determine their viability and quantify their cost savings. As the design and CMAR teams continue to advance project planning and design, it is anticipated that VE opportunities will continue to be identified, evaluated, and presented to the Sites Project Authority for approval prior to incorporating into the Project.

A few items to note:

1. The concepts identified in the tables below are not additive. The estimated savings associated with each concept are presented independently and should not be aggregated, as implementation of one concept may influence the applicability or savings potential of another.
2. Value engineering concepts for the Conveyance CMAR packages will be solicited as a part of the Conveyance CMAR procurement process. The list of potential Conveyance CMAR related valuing engineering concepts is anticipated to increase as the procurement process advances.

Table 1 – Items with Quantified Potential Savings

Concept (Potential Cost Savings)	Description and Notes
1. Golden Gate Dam Realignment (\$100M - \$200M)	Sites Reservoir is comprised of two large dams, several smaller saddle dams, and dikes. The largest of these structures is Golden Gate Dam. The current alignment of Golden Gate Dam could potentially be refined to reduce the embankment length and fill quantities. If a revised alignment were determined to be feasible and selected for implementation, embankment quantities could be reduced by approximately 35%, resulting in substantial cost savings. Additional geotechnical investigations are required to evaluate the feasibility of the revised alignment, along with coordination and approval from DSOD. This concept is planned to be evaluated early in Phase 3 (Final Design) of the project.
2. Raise reservoir physical dead pool from elevation 300 to 327 (\$10M - \$20M)	Raising the physical dead pool elevation to 327 feet from the current design elevation of 300 feet would result in a smaller inlet/outlet (I/O) structure and reduced excavation for the I/O approach channel. Although this change would reduce potential usable storage capacity of the reservoir by approximately 45 TAF, the impact would likely be negligible considering this elevation is within the reservoir operation dead pool and water quality restrictions would apply if the reservoir were ever drawn down to such a low level.
3. Optimize freeboard for saddle dam embankments (\$10M - \$50M)	DSOD criteria for establishing reservoir freeboard are based on the greater of: (1) five feet plus five percent of the retained height of the dam, or (2) an analysis of PMF surcharge and wind-wave runup. Due to the limited amount of natural runoff from the two creeks located within the reservoir area and the large reservoir area, the governing criterion for the project is the five feet plus five percent of retained height requirement, resulting in approximately 19 feet of required freeboard for both Golden Gate Dam and Sites Dam. This 19-foot freeboard requirement has also been applied to the saddle dams to maintain consistency and provide a uniform crest elevation across all embankments. However, the saddle dams could be viewed as unique structures warranting independent freeboard evaluations that may result in lower freeboard requirements. If DSOD were to accept a reduced

	freeboard for the saddle dams, the required embankment quantities could be reduced, resulting in lower construction costs.
4. Reduced grout cap thickness (\$5M - \$10M)	The current design assumes a 3-foot-thick concrete grout cap will be constructed along the current alignment of Golden Gate Dam and Sites Dam. The purpose of the grout cap is to provide a working surface for grouting drill rigs. It may be feasible to reduce the thickness of the grout cap to 2 feet, which would reduce concrete quantities and associated costs.
5. Produce aggregate base from onsite materials (\$20M - \$35M)	Due to the extensive roadwork required, a significant quantity of aggregate base material will be needed. The current estimate assumes this material will be purchased from an offsite source and trucked to the project. However, it may be possible to produce this material onsite from project rock borrows, resulting in monetary savings from reduced hauling costs, as well as non-monetary benefits from reduced community impacts and reduced air pollution. Additional geotechnical investigations of native rock will be necessary to determine whether this option is feasible. The stated savings is based on an assumed quantity of rock being produced onsite, quantity adjustments will have an impact on the stated savings.
6. Produce dam embankment drain materials onsite (\$30M - \$60M)	Modern embankment dam designs with clay cores typically incorporate filter and drain zones downstream of the core to protect against internal erosion and control seepage. These materials must meet stringent gradation and quality requirements to ensure long-term performance. This value engineering (VE) concept proposes producing the drain zone material from onsite rock borrows, provided that rock with adequate durability and other required engineering properties is found within the onsite rock borrows. If the native rock is determined to be suitable, substantial cost savings could be realized due to the large quantities required and the reduction in material hauling costs. Additional non-monetary benefits would include reduced truck traffic, lower community impacts, and decreased air pollutant emissions. If this VE is determined to be technically feasible, the resulting cost savings would depend on the total volume of rock quarried from the project borrow sources. Further geotechnical investigations and material testing of the native rock

	will be necessary to determine whether this option is feasible.
7. Alternative dynamic movement joints along proposed Funks Pipeline (\$50M - \$60M)	The Funks Pipeline 30% design considered use of Victaulic Dynamic Movement Joints to mitigate deformation along potential fault locations. Other manufacturer provide similar functions such as NW Pipeline Infrashield System. Replacing the currently assumed Victaulic Dynamic Movement Joints with NW Pipe Infrashield System could result in cost savings, however DSOD review and acceptance of the Infrashield System is required.
8. Remove fire water tank at Funks PGP (\$1M - \$3M)	The proposed fire water tank is required for fire suppression in event of an emergency. A potential alternative is to supply fire suppression water from Funks Reservoir. This would result in eliminating the need for a fire water tank (currently sized for 250,000 gallons). This concept is a policy decision to be considered in Phase 3.
9. Reduce TRR capacity from 600 AF to 450 AF (\$30M - \$40M)	This concept would reduce the TRR storage volume from 600 acre-foot to 450 acre-foot thereby saving approximately 25% in assumed excavation cost. The risk is reduced operational flexibility, particularly in an emergency scenario where peak diversion flow of 1,800 cfs for 4 hours must be stored within the GCID Main Canal system. This VE concept requires further coordination and approval from GCID.
10. Remove TRR Check Structure #2 and reduce inlet/outlet channel length (\$10M - \$12M)	It is possible to operate the TRR without Check Structure #2 (as proposed in the 30% design) with minor impacts to future operation flexibility. This concept would have no impact on current project operation assumptions. Removal of Check Structure #2 would also allow for a reduced U-channel length that connects GCID Canal to TRR by about 600 feet.

Table 2 – Items without Quantified Potential Savings

1. Replace Sites-Lodoga Bridge with a road around the southern tip of Sites Reservoir	The current project design includes rerouting public roads, two bridge spans and a causeway to cross the reservoir and maintaining public access connectivity following project construction. While the bridge provides the most direct route, it is also a major project feature with an estimated cost of approximately \$500 million. This VE concept would evaluate eliminating the bridge crossing and instead utilizing a roadway alignment around the south side of the reservoir rim. This alternative would leverage the planned Huffmaster Road improvements and continue around the south and eastern sides of the reservoir. Preliminary evaluations indicate this approach could reduce risk and costs relative to the bridge alternative. In addition, eliminating the bridge crossing could provide greater flexibility for future reservoir expansion by removing a major infrastructure constraint within the inundation area, a limitation that has constrained expansion opportunities at other reservoirs. A key consideration associated with this concept is the potential increase in travel distance and travel time for local residents and other roadway users. Any evaluation of this alternative would need to carefully consider community impacts, emergency access requirements, operational considerations, and stakeholder input, in addition to potential cost savings and future flexibility. Based on the high dollar value nature of constructing the approach roads, causeway and bridge (around \$500M) and the ability to leverage the planned Huffmaster Road, this VE concept has the ability to reduce risk and present significant savings. Further engineering studies, traffic analyses, environmental evaluations, and stakeholder coordination would be required to determine whether this alternative is feasible and appropriate for implementation.
2. I/O Structure Reconfiguration	The inlet-outlet structure conveys water into and out of the reservoir, enabling reservoir filling and operational releases. The current design utilizes a sloping intake structure with multiple ports and associated valves

	located at different elevations. This is a complex and costly structure that requires thorough constructability reviews. The baseline estimate assumes a total installed cost of approximately \$720M. As of the preparation of this document, a thorough constructability review of the I/O structure has not been completed; however, preliminary evaluations indicate at least two possible significant cost saving scenarios: 1. Changing the structure to a shaft-and-tower design has the potential to be simpler to and less expensive to construct, pending additional design progression and constructability reviews. 2. Moving the I/O structure closer to Golden Gate Dam to reduce the large diameter I/O tunnel length. This would necessitate shifting the alignment of Golden Gate Dam and would also necessitate extending the Funks and TRR pipelines to the new locations, offsetting some of the costs. The Reservoir CMAR, working in collaboration with AECOM and Jacobs, will continue to evaluate opportunities to optimize the design and reduce construction costs while maintaining the required functionality and performance objectives.
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Attachment D: Conveyance Capacity Summary

[To be provided in the next draft.]

Attachment E: Real Estate Summary

[To be provided in the next draft.]

Attachment F: Loss Assumptions Summary

Attachment F, the Loss Assumptions Summary Table from the 2023 Staff Report, follows this page.

Loss Assumptions Summary Table

Facility Use	Facility	Modeled Loss	Applied Loss
Diversion Conveyance	TC Canal	1% year-round	Difference of measured diversions and total pumped into Reservoir through I/O Tower
	GCID Main Canal	2% or 13% seasonally	
Reservoir	Evaporation	10% of diversions long-term average	Refined with future measurements
	Seepage/other	~1-2% for 1.8 MAF reservoir	
Delivery Conveyance	CBD and Knights Landing Ridge Cut	None modeled	Difference of measurements at Dunnigan Pipeline and KLOG or Wallace Weir
	NOD Deliveries	None modeled	Pending wheeling agreements
	Yolo Bypass	13% loss April – October	n/a
	North Bay Aqueduct	13% via Yolo Bypass	Consistent with State Water Contract or DWR Wheeling Agreement
		23% long-term average Carriage Water (CW) via Delta	Consistent with State Water Contract
	Delta Export Facilities	23% long-term average CW	Consistent with current practices for calculating CW

**Sites Project Baseline Report
July 24, 2026 Board Direction – Comment Response Matrix**

	Location	Comment	Action
1.		Recognize that emergency supplies for drought from the project area non-public benefit because the Participants control this water. State cannot tell them not to use it as has occurred in previous state declared droughts.	Added a comment in Section 3.3.2.
2.		Add that the water transfer market created by Sites is a significant project benefit to Participants	Added sentence to Section 3.2.
3.		Broaden the narrative on the limitations and constraints on diversions and release. Write this more from the perspective of the Participant than the Authority.	Added a placeholder for text in Section 5.7.4.
4.		Add an attachment to the PBR of the tech memo describing all the loss assumptions throughout the system and the potential for the actual values to be more or less.	Added “Loss Assumptions Summary” to list of attachments.
5.		Add a reference to the location of the detailed model runs output for “top speed” and “dry year prioritization”.	Added a placeholder in the Executive Summary and in Section 5.7.1.
6.	Section 4	In Section 4 identify the approximate dollar savings that Participants are getting from the use of existing infrastructure. This is meant to identify the value of past investments by north state water districts that are helping to make this project feasible.	Added a placeholder for a possible new Section 4.2.
7.		Consider incorporating a section called “Risk Management”, not project risk.	A new Section 9 is under development.