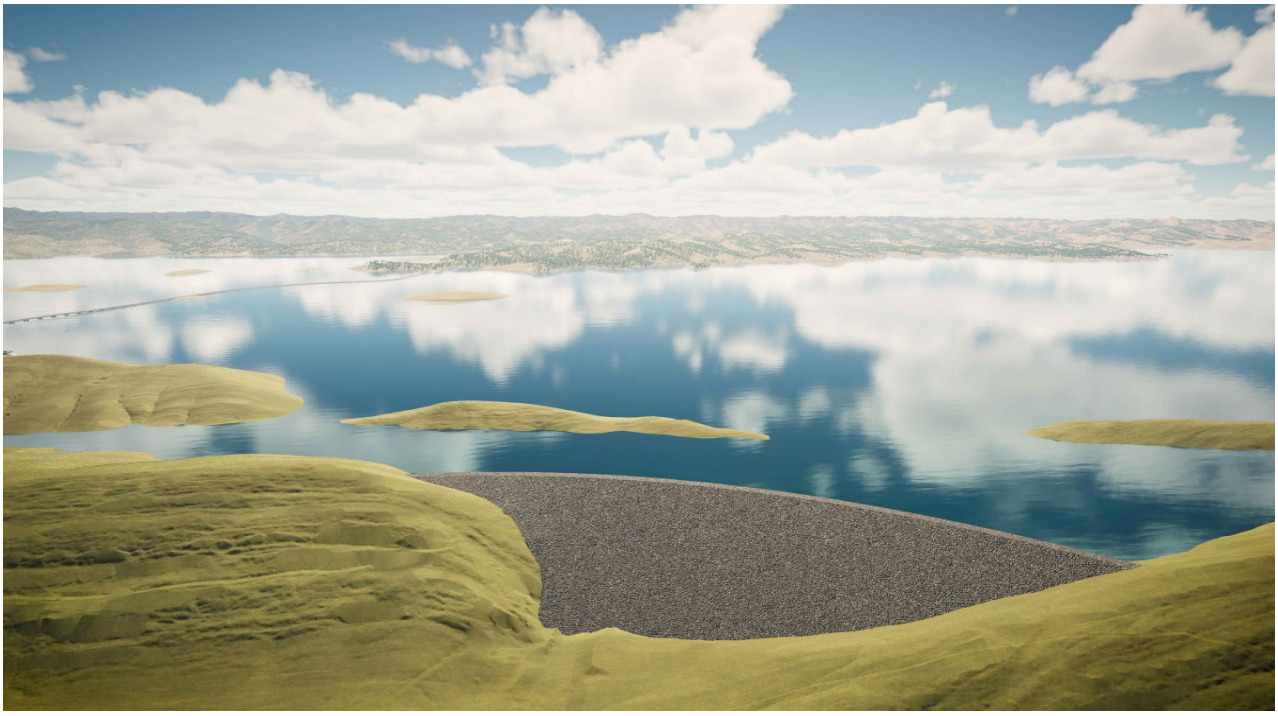
Sites Reservoir Project
Baseline Report



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E Real Estate Summary
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A Note from the Chairperson of the Sites Authority Board

As a long-time rice farmer in the northern Sacramento Valley, I have seen the whiplash effects of too much water one year, and not enough water the next. This pattern of increasing weather extremes is already posing challenges to water users throughout our state, and it will become more severe in the future. The storage space in Sites Reservoir will act as a savings account for water, allowing us to save water when it's plentiful, and have it available for agriculture, city dwellers, and the environment when we otherwise wouldn't have it.

Wise use of our natural resources includes recognizing opportunities that nature provides. For several generations, Californians have observed that the topography of the Sites Valley west of Maxwell is a natural bowl with surrounding ridges and impermeable geology perfectly suited for storing water. It's also strategically located to be compatible with our existing water conveyance systems.

What past generations could not have imagined is the way this powerful coalition of agencies, representing north and south, rural and urban, small and large, have come together to design a 21st century solution to our shared water supply challenges. Sites Reservoir would not be possible without the partnership we have created together.

It's hard to overstate how different Sites is from all the other water projects in the history of California water management. As a beneficiary-pays project, local agencies individually and collectively govern the construction and operations of the project, fund the project, and receive the water supply generated from our share of the project. In addition to having control over the water in our individual storage allocations, the reservoir creates an efficient marketplace for water exchanges that has not existed before.

The State and Federal governments have also committed to being participants in the project. The Federal investment, through the WIIN Act, will provide ecosystem benefits and operational flexibility. The State is investing Proposition 1 Water Storage Investment Program Bonds to secure ecosystem benefits, recreational opportunities, emergency water supplies and flood risk reduction benefits that will have an impact across California.

The Sites Project is smart, straightforward, and in tune with how we think about the needs of people and the environment today and for the next century. It will bring reliability and efficiency to California's water management, potentially allowing farmers like me to avoid fallowing land during droughts. It will also be an important component of urban water supply portfolios, buffering the affordability impacts of prolonged dry periods.

Over our years of working together to bring this vision to reality, we have overcome differences and built a community of trust. Part of that trust is respecting that each agency has different needs, resources, and constituents. This Baseline Report provides information to help each Participant agency weigh the benefits and costs of the Project and decide the best path forward for the community it serves.

I believe strongly that we must build Sites Reservoir. We are on the cusp of doing something that past generations could not accomplish and future generations will be proud of. We will get this done together.

Sincerely,

Frederick "Fritz" Durst
Chair, Sites Project Authority Board
Vice President, Reclamation District No. 108

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 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 that 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 "Storage Partners" includes the Participants, 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 Project benefits, costs, schedule, and risks. It also establishes metrics for reporting to the Reservoir Management Board and the Joint Powers Authority Board of Directors (Authority Board) as the Project evolves. Table E-1 below establishes the Baseline Report metrics.

Table E-1. Baseline report metrics

Baseline Report Metric	Baseline Report Value	Notes
New Operational Water Storage	1.41 MAF	Excludes Inactive Storage Pool
Dry Year Prioritization Average Annual Releases and Transfers	217,000 AF/year	
Top Speed Average Annual Releases and Transfers	238,000 AF/year	
Dry Year Prioritization Average Annual Deliveries and Transfers	171,000 AF/year	Includes carriage water losses for South-of-Delta deliveries
Top Speed Average Annual Deliveries and Transfers	192,000 AF/year	Includes carriage water losses for South-of-Delta deliveries
Management Estimate	$6.6 billion, 2024$	
Management Forecast	--	To be set at resolution to construct
Governance Estimate	$7.5 billion, 2024$	
Governance Forecast	$9.9 billion	Used for annual cost analysis
Level Debt Service	$405 million	Interest-only during construction
Annual Fixed O&M for Year 1 of Operations Costs	$17.6 million, 2035$	Subject to escalation
Variable O&M Costs	--	Variable O&M costs are provided in Appendix Table 3 of the Plan of Finance
Project Operational Date	November 20, 2034	Reservoir filling begins

Key: AF = acre-feet; MAF = million acre-feet; O&M = operations and maintenance
Note: Releases and deliveries based on the Sept 2026 Revised Draft Water Right Term 23 Conditions

For definitions of terms in this table, see the following Sections: Top Speed (Section 5.8), Dry Year Prioritization (Section 5.8), Management Estimate (Section 7.2), Management Forecast (Section 7.7), Governance Estimate (Section 7.2) Governance Forecast (Section 7.7), and Fixed and Variable Operations and Maintenance (O&M) (Section 7.11).

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? (Section 2.0)
- How much water will the Project provide? (Section 3.0)
- What facilities comprise the Project? (Section 4.0)
- How and when will Sites Water be diverted into, stored, and released from Sites Reservoir? (Section 5.0)
- How will Storage Allocation and Capacity Interest be managed? (Section 6.0)
- How much will the Project cost and how will it be funded? (Section 7.0)
- What is the Project baseline schedule? (Section 8.0)
- What are the primary Project risks, and how will they be mitigated? (Section 9.0)
- What is the status of the Conditions Precedent items and related documents? (Section 10.0)
- What are the next steps? (Section 11.0)

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 13.0 of this report.)

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

Sites Reservoir will hold approximately 1.5 million acre-feet of water, including 1.41 million acre-feet of operational water storage. 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 to bracket possible Storage Partner operations: the "Dry Year Prioritization" scenario and the "Top Speed" scenario. The Dry Year Prioritization scenario prioritizes releases from Sites Reservoir in the drier water year types. The Top Speed scenario seeks to move water out of Sites Reservoir each year. These scenarios are described in Section 5.8. Table E-2 shows (1) the long-term average annual deliveries and transfers and (2) average deliveries and transfers in dry and critical years under the Dry Year Prioritization scenario and Top Speed scenario. The values in Table E-2 are approximations—each Storage Partner has the flexibility to manage its account as it sees best within its water supply portfolio.

Table E-2. Long-term average annual deliveries and transfers and dry and critical year average annual deliveries under the Dry Year Prioritization scenario and 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 Participants (includes American Canyon)	10	11	11	6
Total NOD Transfer (end-point delivery)	23	14	32	4
Transfer to NOD Demand (end-point delivery)	12	0	29	0
Transfer to SOD Demand (end-point delivery)	11	14	3	4

Recipient or Purpose	Deliveries and Transfers (TAF/year)			
	Dry Year Prioritization Operation		Top Speed Operation	
	Average	Dry / Critical	Average	Dry / Critical
SOD Participants	76	139	85	120
CVP Operational Flexibility	**28**	**77**	**31**	**78**
Refuge Water Supply	**34**	**33**	**33**	**32**
NOD	8	9	8	8
SOD	26	25	26	24
Total Deliveries and Transfers	**171**	**275**	**192**	**240**

Key: CVP = Central Valley Project; NOD = North of Delta; SOD = South of Delta; TAF = thousand acre-feet

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

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 $7.5 billion in constant 2024 dollars (2024$) over the projected construction schedule of 2027 through 2035. 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 $910 million (2024$). 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 Management Estimate will be used as the budget target for Sites administration to measure progress. The Governance Estimate represents the total project cost estimate, including the full Governance Contingency. Attachment A summarizes the cost components and contingencies included in the Management Estimate and Governance Estimate.

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 $7.5 billion (2024$) Governance Estimate is escalated over the Project baseline schedule resulting in an estimated forecasted funding requirement of approximately $9.9 billion in year-of-expenditure dollars over the projected construction period ending in 2035. This value represents the Governance Forecast.

The Plan of Finance for the Sites Project also includes fixed O&M, variable O&M, and repair and replacement (R&R) costs. Fixed O&M costs, which are incurred regardless of reservoir operations, include labor, materials, consulting services, administrative expenses, in-lieu property tax payments, franchise fees, insurance, legal costs, and periodic major maintenance of dams, inlet/outlet (I/O) facilities, roads, and bridges. These costs are estimated at $17.6 million (2035$) and are escalated at 3.5 percent annually. R&R costs under $35 million are assumed to be funded on a pay-as-you-go basis and billed to Participants 1 year in advance, net of any State and Reclamation contributions, while major replacement projects exceeding $35 million are assumed to be financed and recovered through 30-year

debt service. Details are available in Appendix Table 3 of the Plan of Finance. Variable O&M costs fluctuate based on the amount of water conveyed into and out of the reservoir and consist primarily of power, wheeling, and conveyance fees, offset by revenues from power generation during reservoir releases. As a result, variable O&M costs will vary among Participants depending on how they use the Project, such as for dry year supply (e.g., the Dry Year Prioritization scenario) or to enhance yield through regular reservoir operations (e.g., the Top Speed scenario), as well as by annual hydrologic conditions. Variable O&M cost details are provided in Appendix Table 3 of the Plan of Finance.

Additional information regarding cost-estimate development and cost management is provided in Section 7.0. The 30% Design Total Project Cost Estimate Summary, which includes contract and noncontract cost components, is provided as 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 (Sites Authority), and Participant self-funding (i.e., pay-as-you-go). Participants are all the agencies who are providing funding for the 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). Water Infrastructure Finance and Innovation Act (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 U.S. Department of the Interior, Bureau of Reclamation (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 as reflected in the Benefits and Obligations (B&O) 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.

Per the Proposition 1 bond language, the State is paying for public benefits. Therefore, the State share of all Project costs is determined by the value of benefits which then gets translated to the final funding award made in dollars at the time of the award. Currently the Project has a maximum conditional eligibility determination (MCED) of $1.363B. All State-paid funds will be paid on a cost reimbursement basis and must be used to cover direct and certain construction expenses. State bond funds are not allowed to pay operations, maintenance, and replacement (OM&R) costs. Looking at the bigger picture, State-paid construction expenses in excess of the Capacity Interest needed to deliver public benefits would serve to reduce construction expense paid by Participants. However, these construction expense reductions would not result in reduced life-cycle costs to Participants because Participants will be responsible to pay the OM&R not paid by the State but expended to deliver the public benefits. Finally, the State can make inflationary adjustments after the final award but is not obligated to make such adjustments. Participants and Reclamation will be responsible for any escalation effects or cost increases associated with the State Capacity Interest. At the end of the contract for administration of public benefits (CAPB) term of 70 years from executing the contract or when all of the contracted public

benefits have been delivered, whichever occurs first, the State Capacity will be available to the Sites Authority to reallocate as it determines. Also, if the Capacity Interest is able to generate additional benefits, those benefits could be used to either shorten the term for delivering public benefits or could be provided for offsetting other commitments or revenue generating purposes.

All Storage 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 includes 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, 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 increase.

E4. What is the Project baseline schedule?

The Project's 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 Section 8.0 of this report. The Project baseline schedule is included in Attachment B.

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

Section 9.0 of this report identifies the Project's primary cost, schedule, and benefit risks 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 Construction Manager at Risk (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.

E6. What is the status of the Conditions Precedent items?

The status of Conditions Precedent items is provided as Attachment G of the Baseline Report and includes links to the documents that are currently available.

Additional linked documents, which provide detailed information about the Project, are listed in Section 10.0 of this Baseline Report. They are available on the Baseline Report webpage (https://sitesproject.org/project-baseline-report/) and listed below for convenience:

- Conveyance Capacity Technical Memorandum
- 30% Design Total Project Cost Estimate Technical Memorandum (TM) for Reservoir Package
- 30% Design Total Project Cost Estimate TM for Conveyance Package
- Noncontract Cost TM
- Value Planning TM
- Plan of Finance
- Irvine Ranch WD - Risk and Uncertainty Analysis of 30% Design Capital Cost Estimate TM
- Sites Reservoir Project Proposition 1 WSIP Final Hearing Report

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? (Section 2.0)
- How much water will the Sites Project provide? (Section 3.0)
- What facilities comprise the Project? (Section 4.0)
- How and when will Sites Water be diverted into, stored, and released from Sites Reservoir? (Section 5.0)
- How will Storage Allocation and Capacity Interest be managed? (Section 6.0)
- How much will the Project cost and how will it be funded? (Section 7.0)
- What is the Project baseline schedule? (Section 8.0)
- What are the primary risks to the Project and how will they be mitigated? (Section 9.0)
- What is the status of the Conditions Precedent items and related items? (Section 10.0)
- What are the next steps? (Section 11.0)

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 "Storage Partners" includes the Participants, U.S. Department of the Interior, Bureau of Reclamation, and the California Department of Fish and Wildlife.

Section 12.0 provides the Baseline Report reference documents and Section 13.0 provides definitions of capitalized terms.

This Baseline Report describes the current shared understanding of the Project and gives Storage Partners the information they need to make the financial commitment to advance to Phases 3/4/5. It is not intended to introduce new content, decisions, or actions, or lock in the Project direction. The Project will continue to be developed, optimized, and analyzed as Phases 3/4/5 are advanced.

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

2.1 What is the problem the Project helps address?

The Project will help address the following California water supply challenges:

- **A changing climate.** Long-term climate modeling has continued to predict that future hydrologic and climatic conditions will be characterized by increasing variability, making for drier dry years and wetter wet years (see PPIC 2018, for example). Dry spells will last longer, and wet periods will be flashier. The timing and magnitude of runoff will change as less precipitation falls as snow and more as rain. These changes will result in the increased need to store water when it is available (DWR 2023).
- **State water supply goals.** As required in Senate Bill (SB) 72, the California Water Plan 2028 has an interim planning target of 9,000,000 acre-feet (AF) of additional water supply, water conservation, or water storage capacity. Sites Reservoir, with approximately 1.5 million AF of new storage capacity, could make a significant contribution toward meeting that target.
- **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 3-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 diverted approximately 235,000 AF of water. Additionally, over the past four years, water supply modeling shows that Sites Reservoir could have safely diverted more than 1,800,000 AF – more than enough to completely fill the reservoir from empty. Although these last four years have all been relatively wet, above normal temperatures and intermittent wet and dry periods continue to demonstrate how historical climatic and hydrologic patterns are shifting. If snowpack reductions and hydrologic changes continue as predicted by climate modeling, Sites Reservoir's ability to capture runoff when it is available becomes even more critical.
- **Reduced deliveries.** The majority of Participants are Central Valley Project (CVP) or State Water Project (SWP) contractors. In recent years, these agencies have received less water under their contracts compared to the long-term average. For example, the California Department of Water Resources' (DWR) historical Table A allocations for SWP Contractors shows a long-term average allocation of about 60 percent of contract amounts; in dry years this amount is much less (DWR 2026b). A recent congressional report on the CVP 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 service contractors in 4 of the past 12 years (Stern et al.

2026). 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 and 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).

2.2 Why should the Project be part of the solution?

The Project advances the goals of SB 72 and the California Water Plan:

Driven by urgent concerns over California's long-term water security, SB 72 was passed unanimously by the California Legislature and signed into law by the Governor on October 1, 2025. SB 72 directs DWR to identify 9 million AF of additional water supply by 2040. SB 72 is also driving the modernization of the California Water Plan, which DWR updates every 5 years. The California Water Plan Update 2028 is using a collaborative approach to identifying strategies to achieve a number of the State's water supply sustainability goals, including the addition of 9 million AF of water to the water supply by 2040 (DWR 2026a). Sites Reservoir would advance this objective by increasing California's capacity to capture and store high Sacramento River flows during wet periods for use during droughts and other dry conditions.

The Project helps meet California's water supply challenges now, and in the future, because it:

- Is the first large surface 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 generally be available when other sources do not exist or are curtailed, and Sites Water can be moved through the Sacramento-San Joaquin Delta (Delta) during dry years.
- Enhances the effectiveness of adaptation strategies that Participants 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 diverse coalition of Storage Partners, bringing diverse experience and solid financial backing as well as 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 Storage 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.

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

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

- The amount of space each Storage Partner gets is determined by the proportional share of its participation in the Project.
- Storage space can be leased or sold.
- Storage Partners receive a proportional amount of the water diverted from the Sacramento River.
- Storage Partners choose when and how to use 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.
- Each Storage Partner receives its proportional share of the water and the facilities needed to move water into and out of the reservoir, and no Storage Partner takes priority over another.

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 (CY) of embankment per AF of storage. Table 2-1 shows the Project requires only 11 CY of embankment material per 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 to 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

Key: AF = acre-feet; CY = cubic yards; CY/AF = cubic yards per acre-foot

The physical efficiency shown in Table 2-1 is also reflected in a comparison with the cost of constructing other large reservoirs. Metropolitan Water District of Southern California performed a high-level analysis of the cost of Diamond Valley Lake, which was completed in 2000 with approximately 800,000 AF of storage capacity at a reported actual construction cost of approximately $1.9 billion. Metropolitan estimated that scaling the Diamond Valley actual construction cost to a 1.5 MAF reservoir and expressing that cost in 2025 dollars would result in an approximate cost of $6.65 billion using actual CPI growth, or $7.46 billion using a 3 percent annual escalation factor. While these values are not directly comparable to the Project's 30-percent-design cost estimate due to differences in project scope, facilities, location, construction requirements, and estimating methodologies, they provide useful context for evaluating the cost of constructing approximately 1.5 MAF of new surface storage today.

Equally important, because Sites Reservoir is an off-stream reservoir located in a predominantly rural setting, the Project has substantially fewer 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 Storage Partners?

The 24 current Storage Partners are as follows. The Plan of Finance Appendix Table 1 provides the percentage allocations of available storage for the Storage Partners. The Plan of Finance is available via link on the Baseline Report webpage:

- Antelope Valley-East Kern Water Agency (WA)
- Bureau of Reclamation
- City of American Canyon
- Coachella Valley Water District (WD)
- Colusa County
- Colusa County WD
- Cortina WD
- Davis WD
- Desert WA
- Dunnigan WD
- Glenn-Colusa Irrigation District (GCID)
- Irvine Ranch WD
- LaGrande WD
- Metropolitan WD of Southern California
- Reclamation District 108 (RD108)
- Rosedale-Rio Bravo Water Storage District (WSD)
- San Bernardino Valley Municipal WD
- San Gorgonio Pass WA
- Santa Clara Valley WD
- Santa Clarita Valley WA
- State of California
- Westside WD
- Wheeler Ridge – Maricopa WSD
- Zone 7 WA

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 WD
- Eastern Municipal WD
- Glenn County
- La Cumbre Mutual Water Company
- Madera County Groundwater Sustainability Agency (GSA)
- Pacific Resources Mutual Water Company
- Palmdale WD
- Santa Clara Valley WD
- Wheeler Ridge Maricopa WSD
- Western Municipal WD
- Westlands WD
- 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 agricultural, 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, drought emergency response, and flood control benefits. It is anticipated that DWR will administer the benefit agreements for flood control, recreation, and drought 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?

Project governance is defined by a "three-legged stool" comprising (1) purpose and local control, (2) delegation and shared decision-making, and (3) Storage Partner benefits and obligations. These project documents are available via links in Section 10.0. The Project's key governance documents are:

- **Joint Powers Authority (JPA) Agreement.** This agreement among public entities located and operating in the Sacramento Valley established the Sites Authority in 2010. Subsequent amendments have further defined the Sites Authority's governance role, reserved powers of the Sites Authority, and certain obligations to facility partners.
- **Final Design, Construction, and Operations Phases (Phases 3/4/5) Bylaws.** The bylaws assign delegated authority from the Sites Authority to the Reservoir Management Board, define areas where shared decision-making is required and processes for dispute resolution; assign roles and responsibilities for the Authority Board and Reservoir Management Board; define membership types; and support cost management.
- **Benefits and Obligations (B&O) Contract.** The B&O Contract defines the rights and obligations of the Participants, Sites Authority, and DWR as the acquirer of Sites Water on behalf of SWP Participants.

Together, these documents form the contractual basis for decision-making and governance on the Project.

All members of the Authority Board are agencies located in the Sacramento Valley and currently include:

- Colusa County
- Colusa County WD
- Glenn County (associate member)
- GCID
- Placer County WA/City of Roseville
- RD108
- Sacramento/Sacramento County WA
- Tehama-Colusa Canal Authority (TCCA)
- Westside WD

The State of California and the Bureau of Reclamation are non-voting members of the Authority Board. All Participants have the option to be a non-voting member of the Authority Board. The Reservoir Management Board currently comprises representatives from the 22 local investor agencies. As such, the Reservoir Management Board is diverse and includes small agricultural districts (primarily in the Sacramento Valley) as well as large urban water wholesalers (located mainly south of the Delta). The Reservoir Management Board's role is to manage design and construction of the Project, manage commitments in federal and State agreements, and develop operations plans. It makes all decisions unless such decision is a reserved power of the Authority Board or a special voting situation. The Reservoir Management Board's decision-making capacity is described in the Bylaws, which cannot be amended without approval of the Reservoir Management Board.

The 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 tied closely 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, it may continue directing expenditures and proceed with construction in accordance with the conditions precedent to construction described in the B&O Contract. Conversely, if it determines 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, 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 Sites Project provide?

3.1 How much water will the Sites Project deliver?

Sites Reservoir will capture water from the Sacramento River when it is plentiful and deliver it to Storage Partner agencies when requested. Table 3-1 shows the modelled long-term average annual deliveries to Storage Partners and average deliveries by year type.

The values in Table 3-1 were developed using the CalSim 3 model. CalSim 3 is California's primary computer modeling tool for evaluating how the SWP and CVP may operate under different water supply, regulatory, infrastructure, and management conditions. Developed by DWR and Reclamation, the model simulates California's complex interconnected water system—including reservoirs, rivers, canals, water deliveries, and environmental requirements—over a range of hydrologic conditions. CalSim 3 is not intended to predict exactly what will happen in a particular year; rather, it allows decision-makers to compare alternative policies or projects on a consistent basis and understand how they may affect water supplies, reservoir storage, river flows, Delta conditions, and other system operations across wet, dry, and critically dry conditions. In this way, CalSim 3 serves as an important planning tool for understanding tradeoffs and evaluating the potential long-term effects of major water management decisions. The assumptions used in the Sites Project CalSim 3 modeling effort are provided in Attachment H.

Based on feedback from Participants, the Sites Authority developed two modeling scenarios, Dry Year Prioritization and Top Speed. The Dry Year Prioritization scenario prioritizes releases from Sites Reservoir to occur in the drier water year types. The Top Speed scenario seeks to maximize releases from Sites Reservoir each year, subject to available water supplies, capacity constraints, demands, and other limitations. Each scenario was implemented in the CalSim 3 model to understand the range of possible deliveries under the different operating conditions. Recall that each Storage Partner has the discretion to manage its own account, so actual deliveries will be controlled by Storage Partner decisions, but they will likely fall within the range of outcomes presented in Table 3-1.

Table 3-1. Long-term average annual deliveries to Storage Partners by water year type

Recipient or Purpose	Long-term average annual, all year types (AF)	Long-term average annual deliveries (AF) by year type				
		Critical	Dry	Below Normal	Above Normal	Wet
Dry Year Prioritization						
Sites Authority PWA Deliveries & Transfers	109,438	119,227	205,652	129,969	52,277	42,022
NOD Direct Deliveries*	7,483	7,373	4,919	4,774	8,891	10,417
Total NOD Transfers	23,239	5,542	22,531	31,326	28,471	29,354
Transfer to NOD Demand	12,050	0	0	0	28,471	29,354
Transfer to SOD Demand	11,189	5,542	22,531	31,326	0	0
North Bay Aqueduct	2,980	3,814	6,436	4,825	0	0
SOD	75,735	102,497	171,766	89,045	14,915	2,250
CVP Operational Flexibility	27,924	58,986	90,520	-12,554	-8,412	-3,615
Wildlife Refuge Water Supply	33,848	19,564	46,381	41,380	49,926	23,381
NOD	7,528	5,916	11,215	9,673	18,719	29
SOD	26,319	13,648	35,166	31,707	31,207	23,352
Total Dry Year Prioritization Deliveries	**147,970**	192,234	320,021	127,469	65,320	32,433
Total Dry Year Prioritization Deliveries & Transfers	**171,209**	197,777	342,552	158,795	93,791	61,787
Top Speed						
Sites Authority PWA Deliveries & Transfers	127,848	79,121	176,119	116,346	142,938	124,936
NOD Direct Deliveries*	5,514	2,089	2,179	5,092	8,071	9,582
Total NOD Transfers	32,355	678	6,756	10,351	54,847	76,453
Transfer to NOD Demand	29,043	0	0	0	54,847	76,453
Transfer to SOD Demand	3,311	678	6,756	10,351	0	0
North Bay Aqueduct	5,326	2,442	5,123	4,420	6,769	7,373
SOD	84,653	73,911	162,060	96,484	73,252	31,528
CVP Operational Flexibility	30,620	54,978	95,593	631	-1,316	-5,709
Wildlife Refuge Water Supply	33,275	18,871	44,302	42,946	48,489	23,212
NOD	7,535	5,914	10,902	10,849	17,833	7
SOD	25,740	12,957	33,400	32,097	30,656	23,204
Total Top Speed Deliveries	**159,388**	152,292	309,258	149,573	135,265	65,985
Total Top Speed Deliveries & Transfers	**191,743**	152,970	316,014	159,924	190,112	142,438

Key: AF = acre-feet; CVP = Central Valley Project; NOD = North of Delta; PWA = Public Water Agency; SOD = South of Delta
*NOD Direct Deliveries excludes deliveries to the City of American Canyon

The CalSim 3 modeling effort includes carriage water losses through the Delta for delivery to south-of-Delta Storage Partners. The model also includes current SWP and CVP operations and regulatory requirements and considers Delta conditions, climate change, and similar opportunities and challenges that may occur in Sites Project operations and delivery of Sites Water. The modeled deliveries include all of these opportunities and challenges, including constraints and limitations of moving water through the Delta.

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

"Zooming out" and looking at California's water system holistically, the Project will enhance statewide water management flexibility by adding a new source of long-term storage and creating additional options for managing water across California's highly integrated and interdependent water system. In particular, the Project:

- **Adds long-term storage to California's integrated water system.** Sites Reservoir will provide substantial new storage capacity that can capture water when it is available during wetter conditions and retain that water for use in subsequent months or years. This provides an additional tool for managing the increasing variability between wet and dry conditions and allows water to be carried over for use when it has greater water supply, environmental, or drought-response value. This new storage also directly supports California's broader water supply and climate resilience goals, including the direction established by SB 72 to plan for approximately 9 million AF of additional water supply by 2040 through a portfolio that includes new and expanded surface and groundwater storage, water recycling, stormwater capture, desalination, conservation, and other strategies. With up to approximately 1.5 million AF of storage capacity, the Project represents a major investment toward building the physical infrastructure needed to help California capture and manage water during increasingly variable hydrologic conditions.
- **Creates opportunities to coordinate operations with other Central Valley reservoirs.** Because Sites Reservoir is an off-stream reservoir, the timing of storage and releases can be coordinated with other reservoirs and water management facilities throughout the Central Valley. This creates opportunities to manage the overall system more efficiently—for example, by allowing water to remain stored in other reservoirs when Sites Water can meet a particular need or by coordinating releases and storage decisions to respond to changing hydrologic, environmental, and water supply conditions. In this way, the Project adds another operational tool rather than functioning as an isolated reservoir.
- **Provides opportunities for in-lieu surface water use that can benefit groundwater conditions.** Sites Water can provide an additional surface water supply during periods when water users might otherwise rely more heavily on groundwater. Where Sites Water is used in lieu of groundwater pumping, it can help reduce demands on groundwater basins and support groundwater management objectives. This creates an important connection between new surface storage and California's broader efforts to improve the long-term sustainability and resilience of its groundwater resources. Sites Reservoir also has the ability to capture water when it is available during wetter conditions and retain that water for future groundwater recharge.
- **Provides operational flexibility to respond to changing conditions.** Sites Reservoir is designed to operate flexibly rather than according to a single, fixed pattern of storage and releases. Operations can adjust the timing of diversions, storage, and releases in response to water availability, hydrologic conditions, environmental needs, and changing demands. That flexibility is particularly valuable as climate change increases the variability of California's water supplies, including more intense wet periods, longer dry periods, and greater uncertainty regarding the timing and form of precipitation.

Taken together, these attributes mean that the statewide value of Sites Reservoir extends beyond the volume of water stored in the reservoir or delivered directly to Storage Partners. The Project adds another tool to California's water management toolbox—one that increases the ability of the broader

system to move, store, exchange, and strategically use water across different locations and times. That additional flexibility can help California make better use of water when it is available and improve the resilience of the statewide water system during droughts, extreme weather, and increasingly variable climate conditions.

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 water temperature management in the upper Sacramento River. Water temperature improvements would be accomplished by exchanging water dedicated to Reclamation's storage in Sites Reservoir for water conserved in Shasta Lake, thereby enhancing cold-water pool management for the benefit of anadromous fish. This ecosystem benefit is a federal benefit paid for by Reclamation.

3.3.2 Water Storage Investment Program benefits

The Project is receiving funding under the State's WSIP to provide ecosystem (wetland habitat enhancement) benefits, recreational opportunities, drought emergency water supplies, and flood risk reduction benefits. Each of these is discussed below.

Wetland habitat enhancement

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 to federal wildlife refuges, state wildlife areas, and private lands that are identified in and receive water under the CVPIA or through delivery of water to enhance other seasonal wetlands, permanent wetlands, and riparian habitat under specific, measurable criteria. The State of California, through CDFW, is a Storage Partner in the Project, and the ecosystem account has been sized to provide the benefits the Sites Authority is contracting for in the Contact for Administration of Public Benefits with CDFW. The Sites Authority will actively manage the ecosystem account to achieve the benefits.

Recreational opportunities

The Project will include two primary recreation areas and a day-use boat ramp, attracting recreational visitors yearly and providing a new recreational resource for the people of California. Planned recreation facilities and public access will provide opportunities for boating, fishing, camping, hiking, wildlife viewing, and other outdoor activities. These opportunities will provide a new regional amenity for residents and visitors while supporting tourism and recreation-related businesses in nearby communities. 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.

Drought Emergency water supplies

The Project will provide supplemental water supplies for municipal and industrial (M&I) water agencies experiencing drought emergency conditions. This provides California with an additional tool for responding to extreme events when traditional water supplies may be constrained. 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. This provides public

benefits to the State in addressing critical drought emergencies and water supplies for essential human health and safety needs, as well as providing benefits to the Participant experiencing drought conditions by having access to additional water supplies. The Sites Authority is working with DWR to recognize the benefit when a Participant has moved its Sites Water to a groundwater recharge facility south of Delta (SOD) prior to the emergency shortage situation occurring.

Flood risk reduction

The Project provides flood damage reduction benefits to the community of Maxwell in Colusa County 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?

In addition to its water supply and statewide water management benefits, Sites Reservoir will provide substantial regional economic, infrastructure, environmental, recreational, and other public benefits.

- **Regional economic benefits.** Construction of the Project will generate significant economic activity during the approximately 8-year construction period. The annual construction workforce is expected to vary as different Project components are built, supporting approximately 160 jobs, on average, over the construction period. Construction spending will also generate indirect and induced economic activity through purchases of goods and services, spending by workers, and increased demand for businesses serving the Project and its workforce. Longer-term economic benefits will continue after construction through employment associated with Project operations and maintenance (O&M), recreation, and related goods and services. These are important benefits that work to diversify the jobs base in the Project area.
- **Local and regional infrastructure improvements.** The Project will result in substantial investments in transportation and other infrastructure in and around the communities near the reservoir. Anticipated improvements in Maxwell include lighted pedestrian crossings, stop signs, and other traffic-calming features. The Project will also construct and improve local access roads and provide a new bridge across the reservoir, creating permanent transportation infrastructure that is an important connection for the rural communities to the west of the reservoir. These investments will improve access, safety, and connectivity and help support the additional economic and recreational activity associated with the Project.
- **Environmental and ecosystem benefits.** The Project also includes substantial investments in habitat conservation, restoration, and long-term land management associated with its environmental commitments. These investments will provide opportunities to protect and enhance habitat at a landscape scale while contributing to the long-term recovery and resilience of native species.
- **Groundwater benefits.** Sites Reservoir can complement California's efforts to achieve sustainable groundwater management. Where Project water is used in lieu of groundwater pumping, the availability of additional surface water can reduce pressure on groundwater basins and help preserve groundwater storage. This is particularly valuable during and following droughts when groundwater basins may need time to recover from increased pumping.
- **Increased agricultural output and economic stability.** More reliable access to surface water can help sustain agricultural production and the communities and businesses that depend on

agriculture. Future agricultural output attributable to the Project is expected to provide several million dollars in additional economic activity annually. Beyond the value of increased production, improved water reliability can help reduce the economic disruption associated with severe water shortages and provide greater stability for agricultural operations and rural communities.

- **Incidental renewable power generation.** Project operations will generate hydroelectric power when water is released from Sites Reservoir through the Funks and Terminal Regulating Reservoir (TRR) pumping-generating plants (PGP). Importantly, much of this generation is expected to occur during periods when water is being released from storage, which can coincide with warmer months when California's electricity demand is relatively high. Power generated by Project operations can be sold into the electricity market, providing an additional beneficial use of water as it moves through the Project's facilities.

Taken together, these benefits demonstrate that Sites Reservoir is more than a water storage facility. It is a multi-benefit investment in California's long-term resilience, providing a variety of local, regional, and statewide benefits while supporting the communities and industries that depend on a reliable and adaptable water system.

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.

The Project Base Facilities and Downstream Facilities are listed in Table 4-1. The Project design, costs, schedule, and risk assumptions in the Baseline Report are all based on this current Project direction.

The path for Project releases to the Sacramento River will be confirmed in the next Phase of the Project. Releases in the baseline Project are currently via the Lower Colusa Basin Drain (CBD). The comparison of extending the Dunnigan Pipeline to the River and use of the Lower CBD will be performed with additional flow and stage monitoring and modeling analysis in the next phase of the Project. The latest analysis and comparison between these two alternatives is included in the Conveyance Capacity Technical Memorandum (TM) that is available via link in Section 10.0.

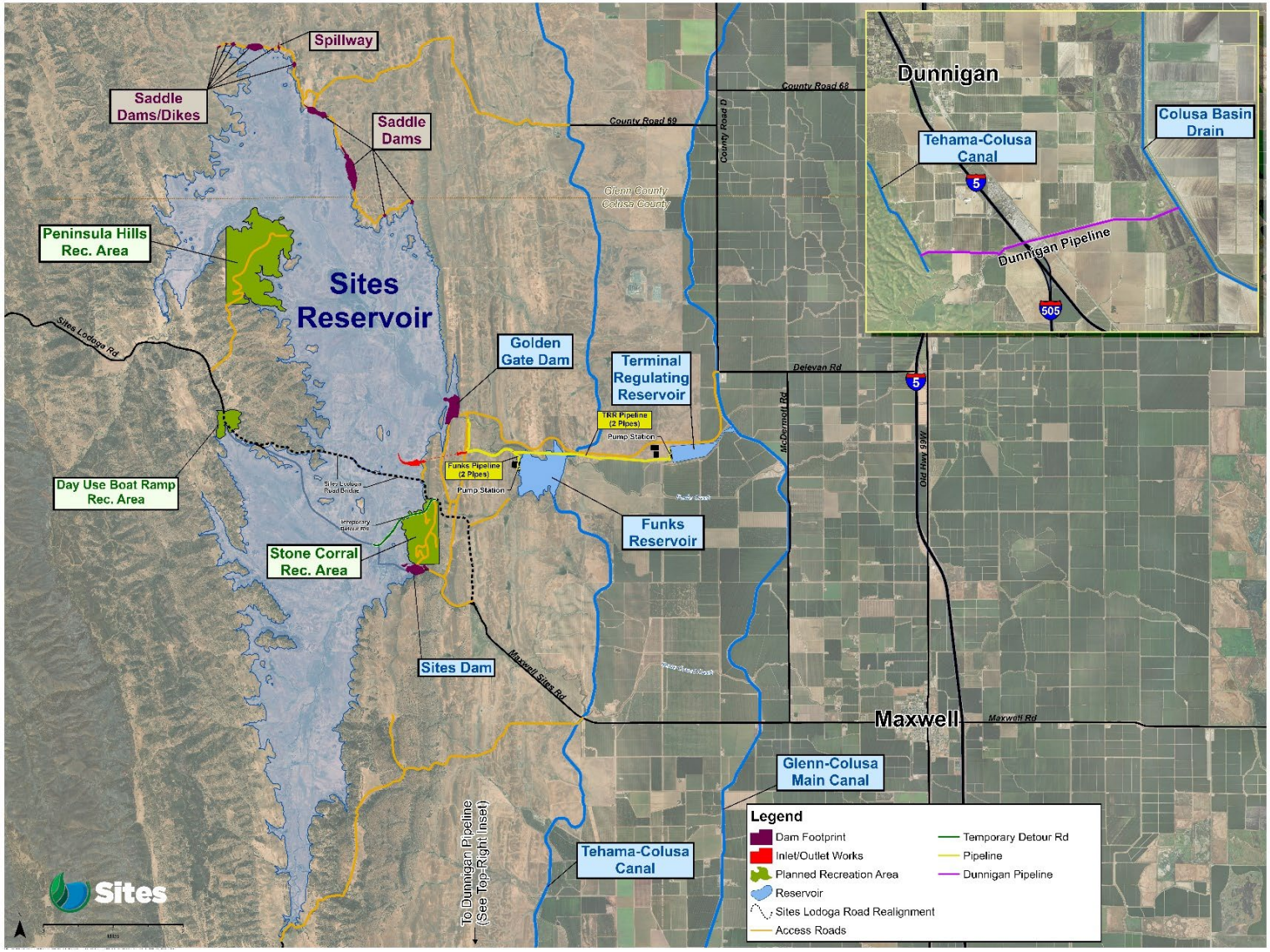


Figure 4-1. Location and main features of the Sites Reservoir Project

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
	• TRR
	• TRR Pumping Generating Plant
	• Funks Pumping Generating Plant
	• Power transmission lines
	• Electrical substations
	• Sites Lodoga Bridge
	• Other support facilities:
	  ○ Pipelines (TRR, Funks Reservoir)
	  ○ Spillway
	  ○ I/O 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 GCID Main Canal from the Hamilton City Pump Station to the TRR
			• Hamilton City Pump Station

Downstream Facilities	• Dunnigan Pipeline and associated facilities	• Portion of Tehama-Colusa Canal from Funks Reservoir to the terminus of the Tehama-Colusa Canal	• CBD south of Balsdon Weir • Knights Landing Outfall Gates

Key: CBD = Colusa Basin Drain; GCID = Glenn Colusa Irrigation District; I/O = Inlet/Outlet; O&M = Operations and Maintenance; TRR = Terminal Regulating Reservoir

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. 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 Project as envisioned in 2017 at $5.2 billion versus the value planning recommended Project estimated at $3.0 billion, in constant 2018 dollars. The value planning analysis showed use of existing infrastructure resulted in capital cost savings of approximately $1 billion in constant 2018 dollars, reduced permit approval requirements, improved overall project permittability, and reduced schedule risks.

4.3 What are the costs of using existing infrastructure and are these costs reasonable?

Compensation for use of the federal and partner facilities in Table 4-1 will occur in the form of wheeling rates. These wheeling rates are intended to cover the Project's portion of operations and maintenance, capital and replacement costs for these facilities. The rates are based on established or negotiated rate methodologies and are intended to reflect the Project's proportional use of the applicable facilities. Based on the information available, the rates included in the Program Baseline are considered reasonable for planning and financial-analysis purposes. The rates will be refined, as appropriate, as the applicable agreements are finalized and supporting cost components are confirmed. The assumed rates included in the analysis of Project variable costs are shown in Table 4 of the Plan of Finance. The Plan of Finance is available via link at: https://sitesproject.org/project-baseline-report/

4.4 Is there available capacity for the Project in the existing infrastructure proposed for use?

There is available capacity for the Project in the existing infrastructure proposed for use. Optimizing the Project's use of existing infrastructure will take proactive coordination and a few system improvements. These system improvements are included in the 30% Project cost estimate TMs that are available via link in Section 10.0 of the Baseline Report. The detailed analysis of the GCID, TCCA, and Lower CBD system capacities is provided in the Conveyance Capacity TM that is available via link in Attachment G and Section 10.0 of the Baseline Report. Additionally, Attachment D provides a capacity summary that includes existing infrastructure capacity.

4.5 What is the status of design?

The project design is currently at a 30% design level. This design level has been confirmed by the design engineers from Jacobs and AECOM for all major facilities. The publicly available 30% design documents are available here: https://sitesproject.org/30-design-drawings/

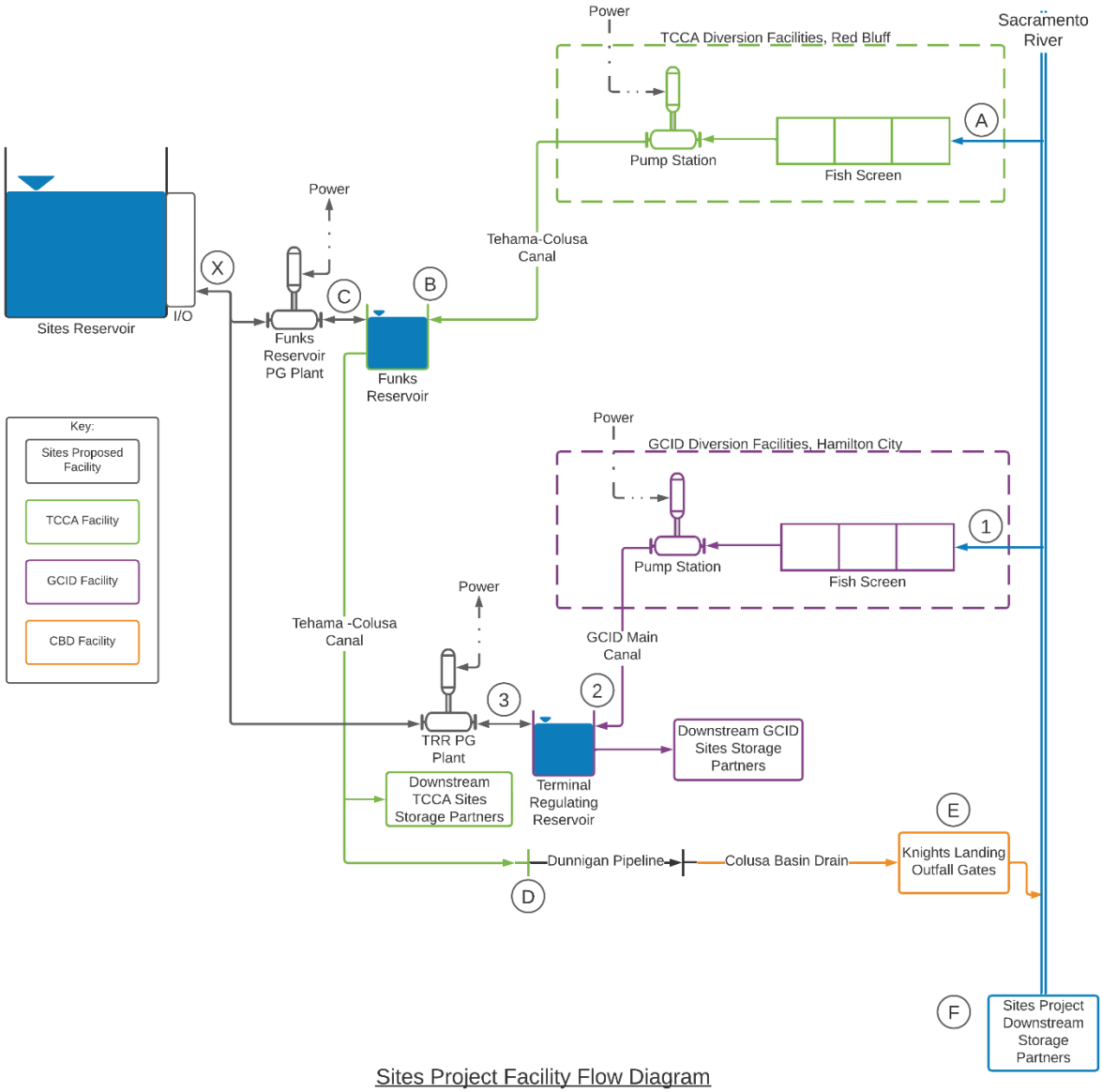
4.6 What is the status of real estate for the Project?

Attachment E provides a summary of the status of land acquisitions and priorities for the Project. The Sites Authority is proactively pursuing and prioritizing land acquisitions for completion in Phase 3/4/5 of the Project. The Authority is nearing completion of the Early Acquisition Plan that focuses on acquiring land associated with the Project's key infrastructure sites and has, to date, acquired four properties covering over 2,000 acres of land under this program. The Authority is currently implementing the AB/RC approved Contingency Land Acquisition Program that focuses on acquiring an additional 10 key properties located inside the reservoir footprint, including parcels located in the town of Sites that are necessary to advance early construction activities. The Authority will implement a full programmatic land acquisition program for the Project at the start of Phase 3.

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 (pathway A, B, C, and into Sites Reservoir on Figure 5-1) and/or (2) Hamilton City Pump Station and fish screen, GCID Main Canal, and TRR (pathway 1, 2, 3, and into Sites Reservoir on Figure 5-1). Releases from Sites Reservoir will occur primarily via (1) Funks Reservoir, the Tehama-Colusa Canal, Dunnigan Pipeline, CBD, and Knights Landing Outfall Gates where flows re-enter the Sacramento River for conveyance to Participants downstream of the Knights Landing Outfall Gates (pathway C, B, D, E, and F on Figure 5-1) and secondarily via (2) the TRR and GCID Main Canal to GCID Sites Storage Partners (pathway 3 and 2 on Figure 5-1).



Sites Project Facility Flow Diagram

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 during the winter and early spring, when Sacramento River flows are typically higher and sufficient water is available to satisfy the Project's diversion criteria. Although the Project's authorized diversion season extends from November 1 through June 14, the Project is designed to operate opportunistically, diverting water when hydrologic and regulatory conditions allow rather than relying on a continuous diversion throughout that period. Diversions may occur only when the Delta is in an Excess or certain Excess with Restrictions condition, Term 91 is not in effect, senior water rights—including CVP and SWP supplies—are protected,

and applicable Delta water quality and flow requirements are being met. The Project will also coordinate in real time with DWR and Reclamation so that Sites diversions do not adversely affect CVP or SWP operations or water rights. A summary of the Project's diversion criteria for diversions from the Sacramento River is provided in Table 5-1.

Importantly, the Project also includes flow-dependent diversion criteria that limit both when diversions can begin and how much water can be diverted as Sacramento River flows increase. For example, diversions at the Red Bluff Pumping Plant generally cannot begin until Sacramento River flows at Bend Bridge exceed approximately 6,300 cubic feet per second (cfs), while diversions at Hamilton City cannot begin until Sacramento River flows exceed 10,500 cfs after accounting for other diversions. Diversion rates then progressively increase as river flows increase, rather than immediately operating at full capacity. The Project must also abstain from diversions during qualified precipitation-generated pulse flows for the Sacramento River at Bend Bridge, maintain minimum bypass flows at key locations—including 10,930 cfs or 14,125 cfs, depending on time of year, for the Sacramento River at Wilkins Slough—and may divert only when the existing fish screens at the Red Bluff and Hamilton City facilities are installed, maintained, and fully operational.

Taken together, these criteria are intended to focus Sites diversions on periods when water is available in the Sacramento River above the amounts needed to satisfy senior water rights, existing water supply obligations, environmental and water quality requirements, and other applicable protections. The specific requirements governing Sacramento River diversions—including seasonal limitations, Delta conditions, senior water-right protections, flow-dependent diversion rates, bypass flows and conditions, fish-screen requirements, and coordination with CVP and SWP operations—are described in detail in the Sites Reservoir Operations Plan (Operations Plan). Forecasting will be used to predict when Project diversions to storage are expected.

The link to the Operations Plan is provided in Attachment G of the Baseline Report.

Table 5-1. Summary of Project's Sacramento River diversion criteria

Criteria	Description
System-wide Criteria and Regulations	
Diversion Season	Limited to November 1 to June 14
Delta Conditions	No diversion is authorized at any time from the Sacramento River when DWR and Reclamation have declared the Delta to be in certain Excess with Restrictions Conditions.
Close Coordination	DWR, Reclamation, and the Authority have agreed to closely coordinate to avoid adverse effects on SWP and CVP operations and water rights.
Senior Water Rights	Existing water rights with a priority date prior to May 11, 2022, are senior.
Term 91	Diversions are only allowed when Term 91 is not in effect.
Temporary Urgency Change Order for Delta Water Quality Objectives	No diversions when certain Bay-Delta Water Quality Control Plan requirements are modified by a Temporary Urgency Change Petition/Order and the CVP or SWP are operating to the modified conditions.
Temporary Restrictions	Comply with any temporary restrictions on diversions put into place by SWRCB, such as water right curtailments.

Criteria	Description
2026 Bay-Delta Plan (Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta)	No diversion is authorized when certain numeric objectives of the 2026 Bay-Delta Plan and any future amendments thereto, are not being met. No diversion is authorized until the State Water Board implements the regulatory actions to effectuate the 2026 Bay-Delta Plan that are applicable to the Sites Project.
Sacramento River Mainstem Healthy Rivers and Landscapes (HRL) Restrictions	No diversions on any day in which flows provided pursuant to the Sacramento River Mainstem HRL are contributing to Delta outflow, according to the accounting provisions in the 2026 Bay-Delta Plan.
Project-Specific Sacramento River Diversion Criteria	
Flow Dependent Diversions	Red Bluff Pumping Plant: No diversion until flows in the Sacramento River at Bend Bridge exceeds 6,300 cfs. Diversions ramp up as flows increase in the Sacramento River until full diversion amount is reached at flows of 17,500 cfs or higher in the Sacramento River at Bend Bridge. Hamilton City Pump Station: No diversion until flows in the Sacramento River at Hamilton City exceed 10,500 cfs after any Project and non-Project diversions at HCPS. Diversions ramp up as flows increase in the Sacramento River until full diversion amount is reached at flows of 24,500 cfs or higher in the Sacramento River at Hamilton City after any Project and non-Project diversions at HCPS.
Bend Bridge Pulse Protection	Pulses are to be protected based on specific criteria from March 1 – May 31.
Wilkins Slough Bypass Criteria	Diversions may not cause flow in the Sacramento River at Wilkins Slough to decline below 10,930 cfs from November 1 to November 30 and from March 1 to June 14. Diversions may not cause flow in the Sacramento River at Wilkins Slough to decline below 14,125 cfs from December 1 to February 28.
Operable Fish Screens	Diversions may only occur when the fish screen panels at the RBPP and HCPS are installed, maintained, and fully operational
Water Quality Portfolio	Development of the Water Quality Portfolio must occur prior to initiating diversions. Water Quality Portfolio must be implemented for diversions to continue.
Groundwater Monitoring Program	Preparation and approval of a groundwater monitoring program must occur prior to commencing diversions.

5.3 How much water will be diverted into the reservoir?

The Sites Authority has completed extensive modeling of the Project diversions using the CalSim 3 model. See Section 3.1 for a description of the CalSim 3 model and Attachment H for information on the model assumptions used.

Based on feedback from Participants, the Sites Authority developed two modeling scenarios: Dry Year Prioritization and Top Speed. The Dry Year Prioritization scenario prioritizes releases from Sites Reservoir during drier water year types, whereas the Top Speed scenario seeks to maximize releases

from Sites Reservoir each year, subject to available water supplies, capacity constraints, demands, and other limitations. These scenarios, which are described in detail in Section 5.8.1 below, were implemented in the CalSim 3 model to understand the range of possible diversions, releases, and deliveries under the different operating conditions. Recall that each Storage Partner has the discretion to manage its own account, so actual diversions will be controlled by Storage Partner decisions but will likely fall within the range of outcomes presented in Table 5-3 (in Section 5.8, below). Figure 5-2 shows the long-term average monthly diversions from the Sacramento River under both scenarios. Figure 5-3 shows the long-term annual average diversions by water year type under both scenarios.

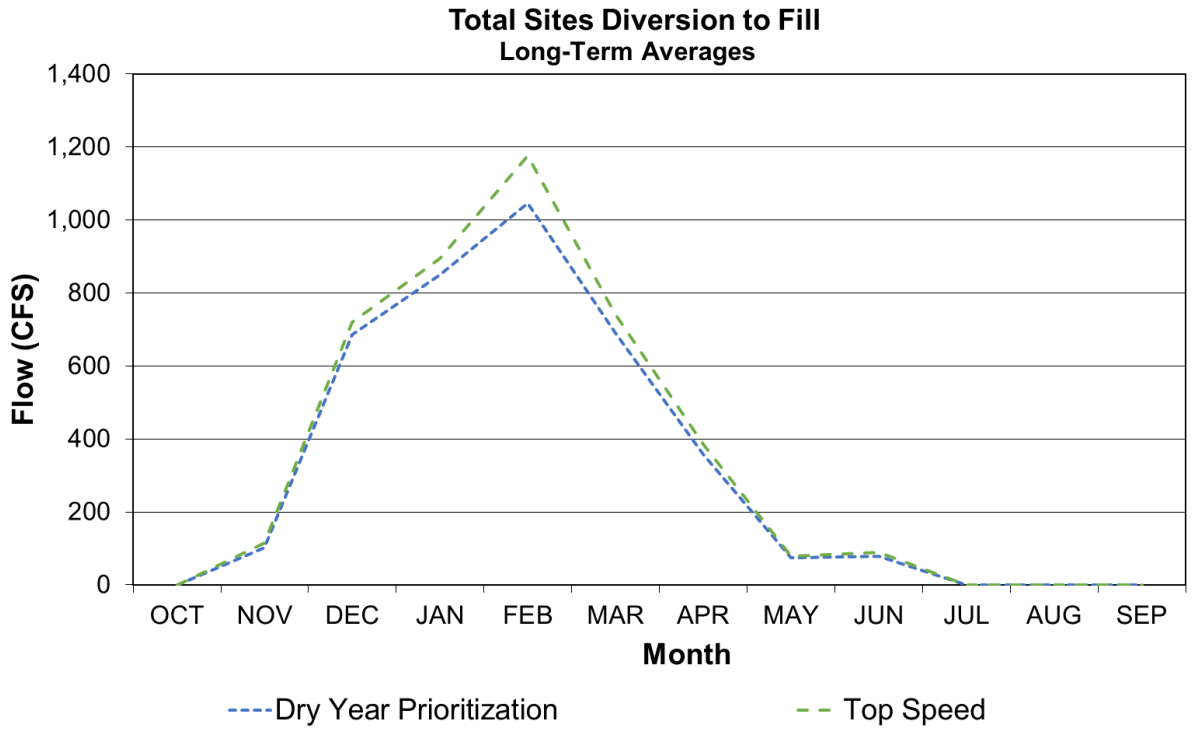


Figure 5-2. Long-term average monthly diversions from the Sacramento River to Sites Reservoir

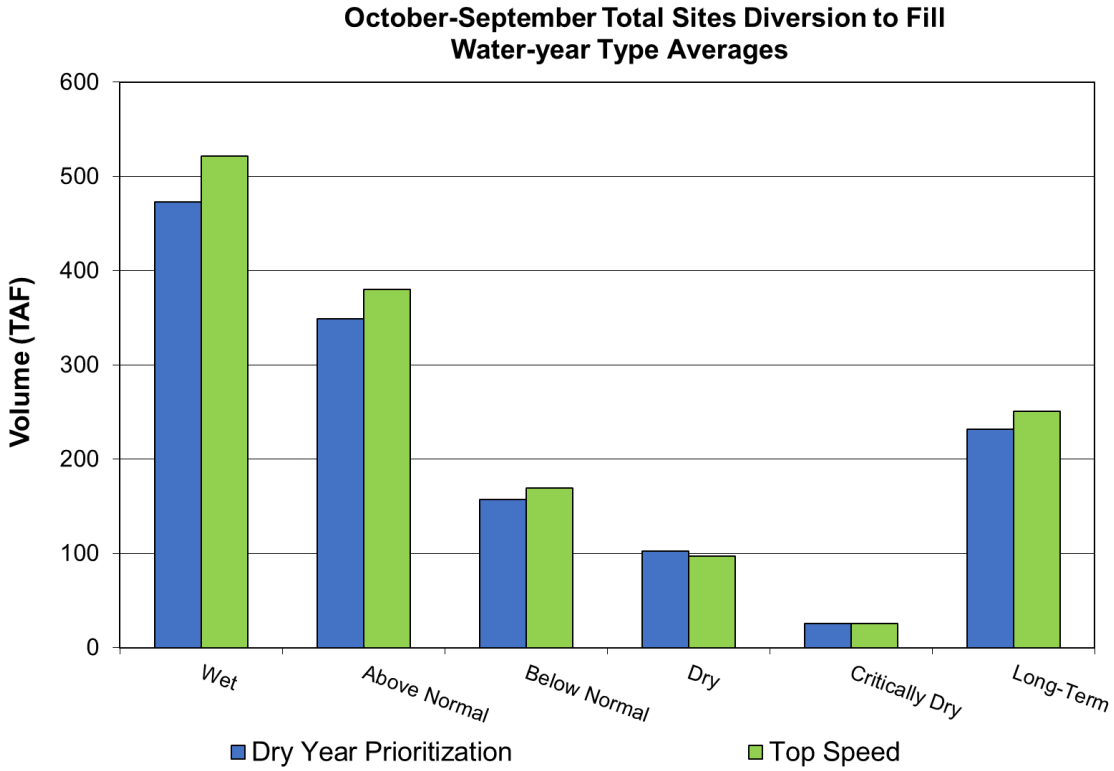


Figure 5-3. Long-term average diversions from the Sacramento River to Sites Reservoir by water year type

5.4 How much water will Sites Reservoir hold?

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

5.5 How does Sites 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 wildlife refuge water supply benefits under WSIP for those refuges receiving water via the GCID canal system would also be made to the TRR and exchanged with GCID.
- **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, because water from Sites Reservoir cannot be physically conveyed to any

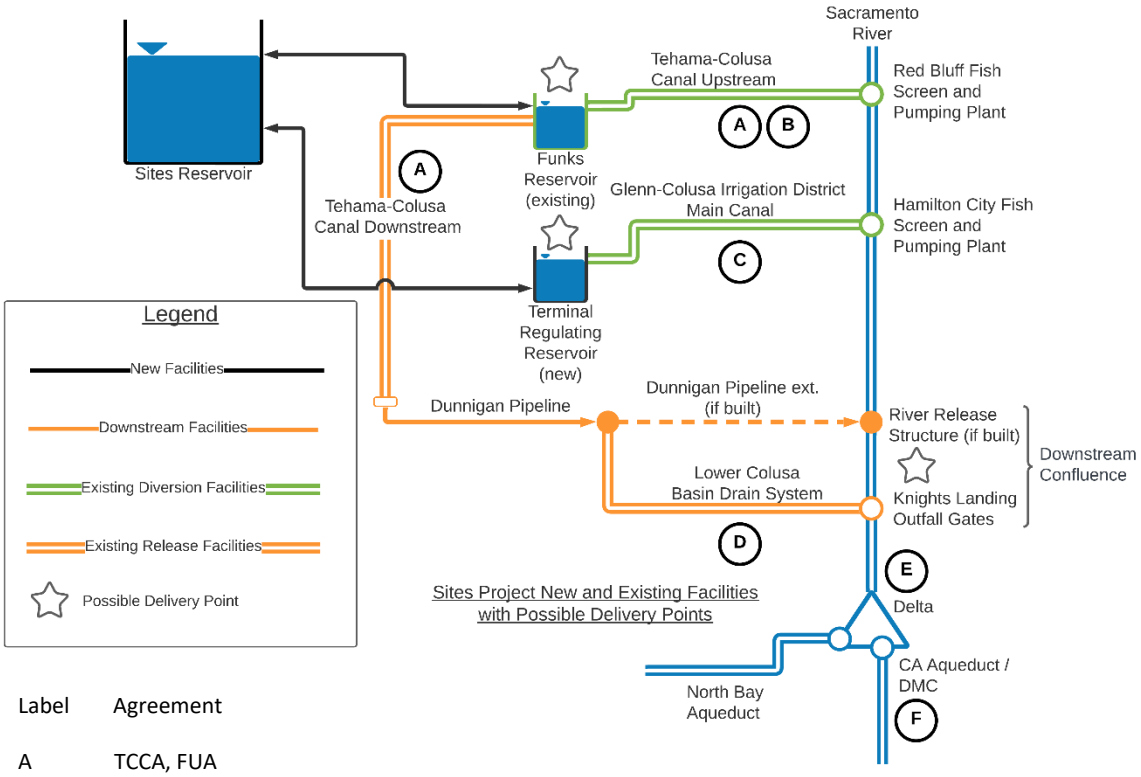
Storage Partner on the Sacramento River between Hamilton City Pump Station and Knights Landing. Real-time exchanges, primarily with GCID but also with Reclamation, would be used for these Storage Partners.

- **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 CBD. 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 continue down the CBD for release through the Knights Landing Outfall Gates back into the Sacramento River. Although less common, releases for Storage Partners downstream of Knights Landing could also use a real-time exchange with GCID and/or Reclamation. The exchanged water would remain in the Sacramento River at Hamilton City and flow downstream for diversion by the Storage Partner.
- **Releases for SOD Storage Partners and for those who will receive water via the North Bay Aqueduct:** Releases for Storage Partners who are located SOD, including water for wildlife refuge water supply benefits under WSIP for those SOD areas, would be made to Funks Reservoir, conveyed down the Tehama-Colusa 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, or Contra Costa Water District's pumping plants [1]) and conveyed to the respective Storage Partner using existing conveyance facilities and mechanisms. Releases for Storage Partners who are located SOD, including water for wildlife refuge water benefits under WSIP, may also be made through exchanges with Reclamation and DWR.
- **Releases for wildlife areas along the Feather River:** These releases would follow the same pathway as those for SOD Storage Partners and refuges above, but would be exchanged with DWR for water in the Feather River system. This would allow entities in the Feather River system to divert this exchanged water and deliver it to the applicable wildlife area.

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 5-4 shows a schematic of the Project with the various delivery points identified in the B&O Contract with Participants and the associated agreements to convey water.

[1] The CalSim 3 modeling completed for the Project assumes all Sites Water is exported at the Banks Pumping Plant. However, the Sites Water Right is anticipated to have a number of points of rediversion that may be used by Storage Partners in the future.



Label	Agreement
A	TCCA, FUA
B	Recl., Excess Capacity
C	GCID, FUA
D	Various, incl. RD 108 Ops
E	DWR/Recl. Ops
F	Recl., Excess Capacity, DWR Conveyance, SLDMWA, Non-Federal OE

Figure 5-4. Delivery Points schematic with agreement labels

5.6 When can stored water be released?

Each Storage Partner has the discretion to manage its own account and will provide the Sites Authority with a projected release request each year. The Sites Authority has developed a simple form for this request, which is attached to the Operations Plan. Prior to operations, the Sites Authority intends to create an electronic member portal so each Storage Partner can access real time data on diversions, storage, and releases and complete release request forms electronically. The Operations Plan also allows for release order adjustments with a 1- to 2-week notice, depending on whether the request is an increase or decrease in release or if the release is intended for rediversion at the Delta Export Facilities (which requires a 2-week notice to ensure coordination with all necessary entities). The Sites Authority will assist each Storage Partner in conveying their released Sites Water to a Second Delivery Point.

Stored water can be released as follows:

- **Releases for Storage Partners along the Tehama-Colusa Canal and GCID Main Canal:** Releases can be made at any time of year when the Project is not diverting water into the reservoir. Note that only diversions or releases can occur at one time. Diversions of Sites Water into the reservoir take priority over releases because these diversions benefit all Storage Partners.

- **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, and thus, would follow the terms of any exchange agreement. These releases are expected to occur only in Balanced Water Conditions.
- **Releases for Storage Partners along the CBD:** Releases can be made at any time of year when the Project is not diverting water into the reservoir.
- **Releases for Storage Partners along the Sacramento River downstream of Knights Landing:** These releases can be made at any time of year when the Project is not diverting water into the reservoir. These releases must also be made under Balanced Water Conditions and consistent with the terms and conditions of the Project's Operations Incidental Take Permit (ITP) and water right, both of which have requirements for release of water into the Sacramento River.
- **Releases for Storage Partners who will receive water via the North Bay Aqueduct:** These releases can be made at any time of year when the Project is not diverting water into the reservoir. These releases must also be made under Balanced Water Conditions and consistent with the terms and conditions of the Project's Operations ITP and water right, both of which have requirements for release of water into the Sacramento River. These releases would be coordinated with DWR to ensure they can be rediverted into the North Bay Aqueduct.
- **Releases for SOD Storage Partners:** Releases of Sites Water for uses SOD 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 CVP and SWP. Sites Water will be exported during this July through November transfer window. These releases must also be made under Balanced Water Conditions and consistent with the terms and conditions of the Project's Operations ITP and water right, both of which have requirements for release of water into the Sacramento River. These releases would be coordinated with DWR and Reclamation to ensure they can be rediverted at the Delta Export Facilities.
- **Releases for wildlife areas along the Feather River:** These releases can be made at any time of year when the Project is not diverting water into the reservoir. These releases must also be made under Balanced Water Conditions and consistent with the terms and conditions of the Project's Operations ITP and water right, both of which have requirements for release of water into the Sacramento River. These releases would be coordinated with DWR to ensure an exchange with Oroville Reservoir is possible and the facility use partners in the Feather River system to ensure they can be conveyed to the respective wildlife areas.

Releases intended for exchanges with Reclamation and DWR can occur outside the transfer window but will be limited to periods when the Delta is in a Balanced Condition. If the released water is intended to enter the Sacramento River, it would also be subject to the terms and conditions of the Project's Operations ITP and water right, both of which have requirements for release of water into the Sacramento River (releases for deliveries along the Tehama-Colusa Canal, GCID Main Canal, or CBD do not have these same limitations).

5.7 What are exchanges and how do they occur?

Exchanges are an important component of Sites Reservoir operations because they allow the Project to use California's existing water infrastructure more efficiently to increase the flexibility of Sites Water to be delivered without requiring every AF to be physically conveyed directly from the reservoir to its

ultimate user. The Operations Plan contemplates exchanges with the SWP, CVP, and local Storage Partners. In each case, the exchange changes the timing or location of water use in a way that can improve deliverability, reduce conveyance constraints, or better coordinate Sites operations with the broader Central Valley water system. Exchanges are voluntary and may occur only when they are neutral or beneficial to CVP and SWP operations and do not interfere with existing regulatory, environmental, contractual, or legal obligations.

- **Lake Oroville exchanges.** These exchanges are intended primarily to increase the operational flexibility and yield of Sites Reservoir and facilitate deliveries to Storage Partners. Under the Operations Plan, Sites Water may be released into the Sacramento River primarily during June and July to meet SWP purposes, thereby allowing DWR to reduce releases that otherwise would have been made from Lake Oroville. The equivalent amount of water is then preserved in Oroville for later release, generally during August through November, for the benefit of Sites Storage Partners. This arrangement can improve the timing and location of deliveries and may also provide benefits to Lake Oroville cold-water pool management.
- **Real-time exchanges with local Storage Partners.** Real-time exchanges can be used to support deliveries to both north of Delta (NOD) and SOD Storage Partners and to work around physical conveyance limitations. For example, the Operations Plan describes an exchange with GCID in which GCID could receive Sites Water in lieu of diverting an equivalent amount of its own CVP supply from the Sacramento River. The water that GCID does not divert would remain in the river and could then serve as the Sites release for another Storage Partner. These exchanges can help minimize capacity constraints in the Dunnigan Pipeline and facilitate deliveries to Storage Partners located upstream of the Project's primary release facilities.
- **CVP exchanges and transactions.** The Operations Plan also provides for potential exchanges involving CVP. These would generally involve a portion of another Sites Participant's water, occur within a single year, be voluntarily purchased by Reclamation, and be coordinated between Reclamation and the Sites Authority. The current Operations Plan does not include a Shasta Lake exchange, although it notes that such an exchange could potentially be considered in the future, subject to Reclamation's requirements.

Taken together, these exchanges increase the utility and efficiency of Sites Reservoir by providing flexibility not only in how much water is stored, but also in where and when that water can be used most effectively. They can help preserve storage in other reservoirs, better align releases with downstream conveyance capacity, facilitate deliveries to Storage Partners, and improve coordination with the SWP, CVP, and local water agencies. At the same time, the exchanges remain subject to important safeguards, including consistency with the Project's Operations ITP, protection of DWR's regulatory obligations, and development and CDFW approval of a Water Exchange and Temperature Management Plan before exchanges are implemented.

The Sites Project CalSim 3 modeling included assumptions for Lake Oroville exchanges and real-time exchanges. These assumptions are described in Attachment H and generally resulted in a conservative approach (the modeling likely under-estimates exchanges). With these assumptions, the CalSim 3 model estimated 13 to 17 TAF/yr of Lake Oroville exchanges and 14 TAF/yr of real-time exchanges for delivery to south-of-Delta Storage Partners, as illustrated in Figure 5-5.

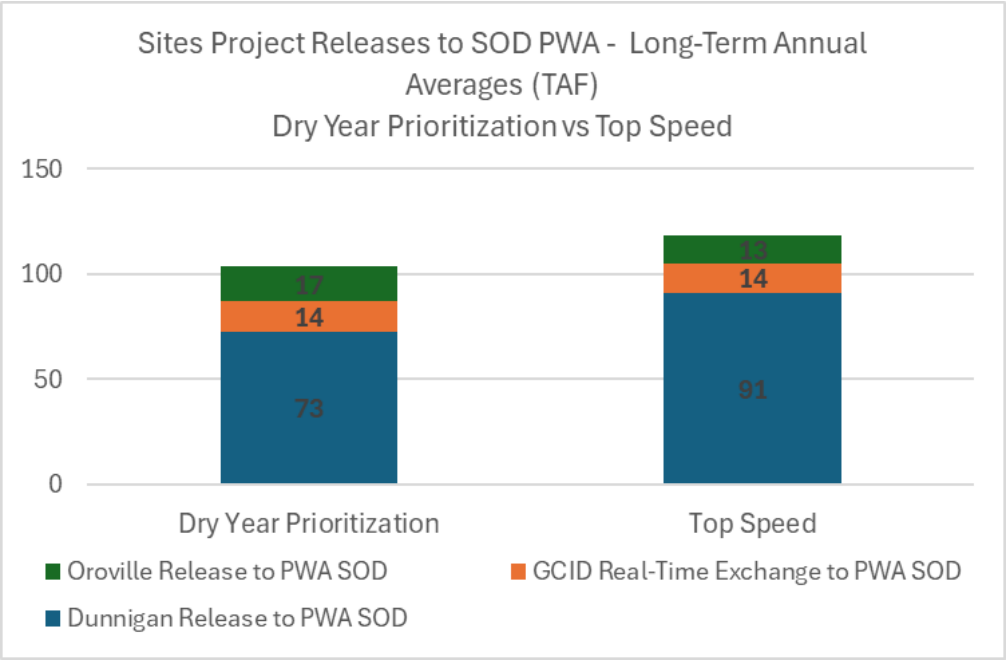


Figure 5-5. Sites Reservoir Releases and Exchanges for South-of-Delta PWA Participants

5.8 What are the ranges of transfer and delivery capabilities for north of Delta and south of Delta Participants?

5.8.1 What are the two operational scenarios under which the Project was modeled?

The Sites Authority has completed extensive modeling of the Project diversions using the CalSim 3 model. See Section 3.1 for a description of the CalSim 3 model and Attachment H for information on the model assumptions used. As noted in Section 5.3, above, the Sites Authority developed two modeling scenarios – Dry Year Prioritization and Top Speed:

- **Dry Year Prioritization.** The Dry Year Prioritization scenario prioritizes releases from Sites Reservoir in the drier water year types. This scenario results in slightly lower overall diversions to storage, but slightly higher availability of water in dry and critical water year types. In essence, water is retained in Sites Reservoir for longer periods, increasing the likelihood that it will be available during drought conditions. However, maintaining higher carryover storage for these drier year scenarios reduces the amount of available storage space during the winter to fill with more water; thus, overall diversions are slightly lower in this scenario.
- **Top Speed.** The Top Speed scenario seeks to maximize releases from Sites Reservoir each year, subject to available water supplies, capacity constraints, demands, and other limitations. This scenario results in slightly more overall diversions to storage, but slightly lower availability of water in dry and critical water year types. In essence, by moving water out of storage as quickly as possible, this scenario creates additional reservoir capacity that can be refilled during subsequent winter periods. However, this approach leaves less storage available to support deliveries during potential future dry or critical year; thus, overall diversions and long-term

deliveries are slightly higher in this scenario, but there is generally less water available for delivery in dry or critical years.

These scenarios were then run through the CalSim 3 model to understand the range of possible diversions, releases, and deliveries under the different operating conditions. Recall that each Storage Partner has the discretion to manage its own account, so actual operations will be controlled by each Storage Partner. Table 5-2 provides a summary of the key assumptions for the Dry Year Prioritization and Top Speed scenarios.

Table 5-2. Key modeling assumptions for the Dry Year Prioritization and Top Speed scenarios

	Dry Year Prioritization	**Top Speed**
General Assumptions		
Period of Simulation	100 years (1922–2021)	Same as **Dry Year Prioritization**
Climate Condition	2040±15 Median	Same as **Dry Year Prioritization**
Regulatory Conditions	2024 BiOps without Fall X2 and without HRL, and with revised OMR criteria associated with Action 5: • Smelt Salvage action offramps are based on Jersey Point Flow rather than Qwest flow (removes diversions made by CCWD) • Excludes X2 requirement for stormflex • Adjustments to the proportion of each month in the OMR management season that is constrained to -3,500 cfs	Same as **Dry Year Prioritization**
Sites Project Assumptions		
Sites Reservoir Storage Capacity	1.47 MAF	Same as **Dry Year Prioritization**
Diversion Criteria	ITP and Sept 2026 Revised Draft Water Right	Same as **Dry Year Prioritization**
Sites Storage Allocations		
NOD Members	177 TAF	Same as **Dry Year Prioritization**
SOD Members	764 TAF	Same as **Dry Year Prioritization**
State Wetland Habitat	244 TAF	Same as **Dry Year Prioritization**
Reclamation CVP OpFlex	226 TAF	Same as **Dry Year Prioritization**
Inactive Storage	60 TAF	Same as **Dry Year Prioritization**
North of Delta Member Deliveries and Transfers		
NOD to NOD Transfers	TCCA, GCID, and RD108 members may transfer their water supply to NOD contractors in March–May of Wet and Above Normal years when the Delta is in Balanced Conditions and Fremont Weir is not spilling.	TCCA, GCID, and RD108 members may transfer their water supply to NOD contractors in March–November of Wet and Above Normal years when the Delta is in Balanced Conditions and Fremont Weir is not spilling.
NOD to SOD Transfers	TCCA, GCID, and RD108 members may transfer their water supply to SOD contractors in July–November of Below Normal, Dry, and Critically	Same as **Dry Year Prioritization**

	Dry Year Prioritization	Top Speed
	dry years when the Delta is in Balanced conditions and Fremont Weir is not spilling.	
Releases for Delivery to NOD members	Releases for delivery to the TCCA, GCID, and RD108 members are prioritized below water transfers.	Same as **Dry Year Prioritization**
City of American Canyon Deliveries		
Delivery Targets	Annual delivery target of 10 TAF in May–August of BN, D, and C years when there is capacity in the North Bay Aqueduct.	Annual delivery target of 10 TAF in May–August of all years when there is capacity in the North Bay Aqueduct.
South of Delta Member Deliveries		
WYT limitations	Delivery targets for SOD members are highly limited in Wet and Above Normal years and moderately limited in Below Normal years	Delivery targets for SOD members are **not** limited by Sites-specific WYT rules
Delivery targets	Delivery targets for SOD members are adjusted based on forecasted SWP allocations. Delivery targets are higher when SWP allocations are lower. • When SWP Table A Allocation is less than 65%, delivery target is equal to 100% of SOD members' available storage supply • When SWP Table A Allocation is between 65% and 85%, the delivery target is equal to 50% of SOD members' available storage supply • When SWP Table A Allocation is greater than 85%, the delivery target is set to zero	Delivery targets for SOD members are **not** adjusted based on forecasted SWP allocations
On-pattern/Off-pattern deliveries	Off-pattern deliveries (October–November) to SOD members are limited to incentivize greater on-pattern deliveries (July–September).	Sites-specific limitations on off-pattern deliveries are **not** included.

Key: BiOps = Biological Opinions; CCWD = Contra Costa Water District; cfs = cubic feet per second; GCID = Glenn Colusa Irrigation District; HRL = Healthy Rivers and Landscapes; ITP = Incidental Take Permit; MAF = million acre-feet; NOD = north of Delta; OMR = Old and Middle River; RD108 = Reclamation District 108; SOD = south of Delta; SWP = State Water Project; TAF = thousand acre-feet; TCCA = Tehama-Colusa Canal Authority; WYT = Water Year Type;

5.8.2 What diversion and release losses are included in the Project's CalSim 3 modeling effort? What is the difference between releases and deliveries?

Losses included in the Project's CalSim 3 modeling are provided below. It is important to note that these are estimates and may change in real-time operations. Releases are the direct releases from Sites Reservoir to either Funks Reservoir or the TRR. Releases do not account for any conveyance losses and are used as a metric for comparison purposes. Deliveries include some losses to represent what a Storage Partner may expect to actually receive. The key loss assumptions in the CalSim 3 modeling between releases and deliveries are as follows:

Diversion Losses

- Along the Tehama-Colusa Canal – 1 %
  - The Tehama-Colusa Canal is concrete lined, so losses are expected to be relatively low.
- Along the GCID Canal 2% (Nov- Mar), 13% (April-June)
  - The GCID canal is unlined. Winter losses are lower due to relatively saturated soil conditions.

Release Losses

- Along the Tehama-Colusa Canal – 1 %
  - The Tehama-Colusa Canal is concrete lined, so losses are expected to be relatively low.
- In the Dunnigan Pipeline – 0 %
  - The Dunnigan Pipeline is an enclosed concrete pipeline, so losses are expected to be minimal.
- Down the CBD – 0%
  - No losses are assumed in the CalSim 3 modeling for the CBD. In actual operations and consistent with the Sites Authority's Operations Agreement with DWR and Reclamation, the Sites Authority will be credited for the lesser of the amount of (1) releases from the Dunnigan Pipeline or (2) measured water released from the CBD at the Knights Landing Outfall Gates.
  - While these losses are excluded from the CalSim3 model, the financial impacts of potential losses (and opportunity losses) are discussed in the Plan of Finance.
- Carriage Water Losses through the Delta – Range of 27 to 28%
  - CalSim 3 estimates the amount of Sites Water that can be conveyed through the Delta by modeling the additional Delta outflow needed to maintain applicable Delta water quality and operational requirements as Sites Water is exported. This "carriage water" represents the portion of Project releases that must remain in the Delta rather than being exported for delivery. The amount varies with hydrologic, salinity, export, and regulatory conditions, and therefore, is not simply a fixed percentage of Project releases. In actual operations and consistent with the Sites Authority's Operations Agreement with DWR and Reclamation, carriage water losses will be applied to Sites Water moving through the Delta consistent with DWR/Reclamation's "Draft Carriage Water Overview for Non-Project Water Transfers," which explains specifically how DWR and Reclamation calculate and apply carriage water to non-CVP/SWP project water transfers through the Delta.

Reservoir Losses

- Sites Reservoir Losses – 12-14%
  - Sites Reservoir evaporation and seepage allocated losses. Long term evaporation losses are estimated to be about 10 to 12% and the screening value upper bound for seepage losses is estimated to be 2%. Both are accounted for in the CalSim 3 model, with evaporative losses calculated by the model using local meteorological data.

Additional minor losses are expected for SOD Participants to convey water down the California Aqueduct to their specific turnout(s). These losses are also summarized in table format in Attachment F.

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

Table 5-3 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. The values in Table 5-3 are approximations because each Storage Partner has the flexibility to manage its account as it sees best within its water supply portfolio.

Table 5-3. 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 Participants (includes American Canyon)	10	11	11	6
Transfer release to NOD Demand	*12*	*0*	*29*	*0*
Transfer release to SOD Demand	*15*	*18*	*5*	*5*
SOD Participants	104	187	120	162
CVP Operational Flexibility	30	71	30	70
Refuge Water Supply	45	42	44	40
NOD	8	9	8	8
SOD	38	34	36	32
Total Releases and Transfers	**217**	**329**	**238**	**283**

Key: CVP = Central Valley Project; NOD = north of Delta; SOD = south of Delta; TAF = thousand acre-feet

Table 5-4 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 for each Storage Partner. The values in Table 5-4 are approximations – each Storage Partner has the flexibility to manage its account as it sees best within its water supply portfolio.

Table 5-4. 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 for each Storage Partner

Releases & Transfers (AF/year)	Dry Year Prioritization		Top Speed	
	Average	Dry and Critical	Average	Dry and Critical
Colusa County WD	993	2,054	386	628
Cortina WD	49	102	19	31
Davis WD	220	455	85	139
Dunnigan WD	327	676	127	207
LaGrande WD	110	228	43	70
Westside W.D.	591	1,223	230	374
GCID	3	6	3	6
RD 108	0	0	0	0
County of Colusa	5,191	1,343	4,622	681
NOD to NOD Transfer	12,050	0	29,043	0
NOD to SOD Transfer	15,441	18,373	4,540	4,833
American Canyon	2,980	5,187	5,326	3,847
AVEK	426	762	488	660
Coachella Valley WD	8,527	15,234	9,768	13,201
Desert WA	5,542	9,902	6,349	8,581
Irvine Ranch WD	853	1,523	977	1,320
Metropolitan WD of Southern California	42,634	76,171	48,842	66,006
Rosedale-Rio Bravo	426	762	488	660
SBVMWD	18,247	32,601	20,904	28,251
San Gorgonio Pass WA	11,938	21,328	13,676	18,482
Valley Water	1,279	2,285	1,465	1,980
SCVWA	4,263	7,617	4,884	6,601
Wheeler-Ridge	1,748	3,123	2,003	2,706
Zone 7 WA	8,527	15,234	9,768	13,201
Reclamation	29,927	70,543	29,561	69,679
State NOD	7,528	8,692	7,528	8,527
State SOD	37,517	33,710	36,462	32,039
Total	**217,338**	**329,136**	**237,589**	**282,711**

5.8.4 What are the ranges of deliveries and transfers under the two operational scenarios?

Table 5-5 shows (1) the long-term average annual deliveries and transfers and (2) average deliveries and transfers in dry and critical years under the Dry Year Prioritization scenario and under the Top Speed scenario. The values in Table 5-5 are approximations – each Storage Partner has the flexibility to manage its account as it sees best within its water supply portfolio. No losses are assumed in the CalSim 3 model for NOD users that use their water NOD and thus, release and delivery numbers are the same for these Participants.

Table 5-5. 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 Participants (includes American Canyon)	10	11	11	6
Total NOD Transfer (end-point delivery)	23	14	32	4
Transfer to NOD Demand (end-point delivery)	12	0	29	0
Transfer to SOD Demand (end-point delivery)	11	14	3	4
SOD Participants	76	139	85	120
CVP Operational Flexibility	**28**	**77**	**31**	**78**
Refuge Water Supply	**34**	**33**	**33**	**32**
NOD	8	9	8	8
SOD	26	25	26	24
Total Deliveries and Transfers	**171**	**275**	**192**	**240**

Key: CVP = Central Valley Project; NOD = north of Delta; SOD = south of Delta; TAF = thousand acre-feet

Table 5-6 shows (1) the long-term average annual deliveries and transfers and (2) average deliveries and transfers in dry and critical years under the Dry Year Prioritization scenario and under the Top Speed scenario *for each Storage Partner*. The values in Table 5-6 are approximations – each Storage Partner has the flexibility to manage its account as it sees best within its water supply portfolio.

Table 5-6. 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 by Storage Partner

Deliveries & Transfers (AF/year)	Dry Year Prioritization		Top Speed	
	Average	Dry and Critical	Average	Dry and Critical
Colusa County WD	993	2,054	386	628
Cortina WD	49	102	19	31
Davis WD	220	455	85	139
Dunnigan WD	327	676	127	207
LaGrande WD	110	228	43	70
Westside W.D.	591	1,223	230	374
GCID	3	6	3	6
RD 108	0	0	0	0

Deliveries & Transfers (AF/year)	Dry Year Prioritization		Top Speed	
	Average	Dry and Critical	Average	Dry and Critical
County of Colusa	5,191	1,343	4,622	681
NOD to NOD Transfer	12,050	0	29,043	0
NOD to SOD Transfer	11,189	14,441	3,311	3,862
American Canyon	2,980	5,187	5,326	3,847
AVEK	309	567	346	490
Coachella Valley WD	6,185	11,334	6,913	9,807
Desert WA	4,020	7,367	4,494	6,374
Irvine Ranch WD	618	1,133	691	981
Metropolitan WD of Southern California	30,925	56,668	34,566	49,034
Rosedale-Rio Bravo	309	567	346	490
SBVMWD	13,236	24,254	14,794	20,987
San Gorgonio Pass WA	8,659	15,867	9,679	13,730
Valley Water	928	1,700	1,037	1,471
SCVWA	3,092	5,667	3,457	4,903
Wheeler-Ridge	1,268	2,323	1,417	2,010
Zone 7 WA	6,185	11,334	6,913	9,807
Reclamation	27,924	75,504	30,620	76,253
State NOD	7,528	8,692	7,535	8,527
State SOD	26,319	24,919	25,740	23,665
Total	**171,209**	**273,612**	**191,743**	**238,374**

5.8.5 What are the constraints to delivering Sites Water to Storage Partners?

Deliveries of Sites Water depend on the interaction of Project operations with existing conveyance facilities, Delta conditions, CVP and SWP operations, regulatory requirements, and the physical location of each Storage Partner. These constraints are particularly important because much of the Project relies on existing regional and statewide infrastructure to move Sites Water from the reservoir to its ultimate place of use. A few key constraints to delivering Sites Water are as follows:

- **Sites cannot simultaneously fill and release through the main inlet/outlet (I/O) facilities.** When Sites Reservoir is being filled with Sacramento River water, the same I/O works cannot simultaneously release water back to Funks Reservoir or the TRR. The Operations Plan gives diversion of Sites Water from the Sacramento River priority over releases through the I/O works. As a result, there may be periods when otherwise desirable deliveries must be delayed to take advantage of an opportunity to divert and store water.
- **Deliveries are constrained by available conveyance capacity.** The Project relies on existing facilities—including the Tehama-Colusa Canal and GCID Main Canal—as well as new Project facilities, such as the Dunnigan Pipeline. Releases are therefore limited by whatever capacity is available after accounting for existing users and other operations. For water moving toward the Sacramento River, available capacity in the Tehama-Colusa Canal, the 1,000-cfs Dunnigan

Pipeline, the lower CBD, and ultimately downstream points of rediversion (such as the Delta Export Facilities) can each constrain how quickly Sites Water can be delivered.

- **SOD deliveries are limited to the transfer window.** Sites is not part of the CVP or SWP, so Sites Water conveyed through the Delta Export Facilities is treated as non-CVP/SWP project water. Sites Water intended for rediversion at the Delta Export Facilities for SOD Sites Participants can currently be exported only during the July through November transfer window. SOD releases also require the Delta to be in Balanced Conditions, and an opportunity must exist to move non-CVP/SWP water through the Delta Export Facilities. SOD exports require concurrence from both DWR and Reclamation.
- **North Bay Aqueduct deliveries are limited by Balanced Conditions.** Deliveries through the North Bay Aqueduct depend on the Delta being in Balanced Conditions and available opportunities to move water through that facility. North Bay Aqueduct deliveries require DWR concurrence.
- **Environmental and water-quality requirements can constrain release pathways and timing.** Although not expected to be a substantial constraint based on the extensive water temperature and water quality modeling conducted for the Project, Project releases are subject to the Operations ITP and other environmental requirements.

Constraints to Sites Water delivery to SOD Participants were analyzed by evaluating the results of the CalSim 3 model. Table 5-7 provides a summary of the results of this analysis and shows the percent time a delivery limitation controlled SOD Participants' deliveries. It is important to note that the analysis in Table 5-7 should be viewed as a relative magnitude of delivery constraints—indications of potential risk areas—not as absolutes. Additionally, there may be times when more than one constraint is limiting or preventing deliveries.

Table 5-7. SOD delivery limitations under the Dry Year Prioritization scenario and the Top Speed scenario – percentage of months that constraints control SOD deliveries

Delivery Control*	Dry Year Prioritization Scenario	Top Speed Scenario
High SWP allocation. Modeling assumption in the Dry Year Prioritization Scenario whereby deliveries for SOD Participants are limited when SWP Table A Allocations are more than 65%.	44%	0%
Sites Storage Supply for SOD Participants. SOD Participants' accounts were limited in supply or had no water.	27%	35%
Banks Pumping Plant at Capacity. No available capacity at the Banks Pumping Plant during the July through November transfer window. This is more likely to be a limiting factor in wetter years.	4%	25%
California Aqueduct at Capacity. No available capacity in the California Aqueduct during the July through November transfer window. This is more likely to be a limiting factor in wetter years.	10%	17%
Dunnigan Pipeline at Physical Capacity and Real-Time Exchanges with GCID are "Maxed Out"	11%	11%
Conveyance Limited by Delta Conditions	2%	10%

* Although it is possible that multiple controls may limit deliveries in the same month, only one control is identified per month.
Key: GCID = Glenn Colusa Irrigation District; SOD = south of Delta; SWP = State Water Project; TAF = thousand acre-feet

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

6.1 How is water in Sites Reservoir allocated among Storage Partners?

Sites Water (water that is appropriated under the Sites Water Right) diverted from the Sacramento River will first be 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 Storage 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 Partner'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 periodically 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 the Storage Partner has in storage that day.

The Operations Plan is available via link in Attachment G of the Baseline Report.

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

Each Storage Partner has substantial control over its allocated storage space and the water assigned to it, but that control operates within the shared physical, contractual, and regulatory framework of the Project. A Storage Partner's Storage Allocation is based on its Base Facilities Capacity Interest, and the water allocated to that account is tracked separately. Once Sites Water has been diverted, placed into storage, and allocated to a Storage Partner, that Storage Partner generally decides whether to hold the water in storage, request its release for use, or pursue a sale or exchange, subject to the terms of its contract and applicable Project requirements.

- **Control over storage space.** Each Storage Partner receives a defined Storage Allocation tied to its contractual Base Facilities Capacity Interest. A Storage Partner can request that its available space be filled and can also elect not to receive additional diversions into that space. Under the current Operations Plan, if a Storage Partner opts out of receiving additional Sites Water, the

unused portion of its Storage Allocation remains empty rather than being reassigned to another Storage Partner.

- **Control over when to use stored water.** Storage Partners have discretion over how much water held in their Storage Allocation they want scheduled for release. They submit release requests to the Sites Authority, and the Sites Authority then works to schedule and implement those deliveries. Thus, the Storage Partner makes the fundamental decision about whether to retain its water in storage or request that it be released. This also allows a Storage Partner to carry over water in Sites Reservoir for future use.
- **Ability to sell or exchange stored water.** Storage Partners may sell or exchange their Sites Water to another Storage Partner or another entity. The commercial terms of those transactions are generally at the discretion of the participating entities, although the transaction cannot impair other Storage Partners, the Sites Water Right, or applicable regulatory requirements. The Operations Plan also contemplates voluntary leasing or sale of Capacity Interest, providing another mechanism for Participants to manage the value of their Project participation.
- **Ability to participate voluntarily in exchanges.** A Storage Partner can choose whether to participate in real-time, Lake Oroville, or other contemplated exchanges. Exchange participation is expressly voluntary; neither a Storage Partner, DWR, Reclamation, nor another exchange partner is required to participate. This provides Participants another tool for improving the timing or location of their water deliveries without surrendering control of the underlying water.

Individual Storage Partners do not independently operate the reservoir or dictate when Sacramento River diversions occur. The Sites Authority controls Project diversion and release operations and must coordinate releases around available conveyance capacity, Delta conditions, environmental requirements, other Storage Partners' contractual rights, and applicable laws and permits.

The Project is structured to give each Storage Partner substantial autonomy over the economic and water-supply value of its individual Storage Allocation, while the Sites Authority retains centralized control over operation of the shared reservoir and conveyance system. Participants decide whether to store, hold, release, sell, lease, or exchange their water and capacity interests, but exercising those choices must fit within the physical capacity of the Project, the rights of other Storage Partners, and the regulatory and operational requirements that apply to the system as a whole.

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

Storage Partners are expected to have direct visibility into both Project-wide operations and the accounting for their individual water through a real-time Project dashboard. The Operations Plan envisions a shared information system that allows the Sites Authority and Storage Partners to see how much water is being diverted, how much has been placed into each Participant's Storage Allocation, how much has been released or delivered, and how operational losses affect those balances.

- **Real-time operational dashboard.** The Sites Authority plans to develop a dashboard accessible to Storage Partners that tracks key Project operations as they occur. The dashboard is expected to show diversions from the Sacramento River, pumping into Sites Reservoir, local inflows, requested and actual fills, reservoir levels, releases, deliveries, exchanges, and power operations.

- **Individual Storage Allocation accounting.** The dashboard is expected to show the amount of water held in each Storage Partner's Storage Allocation, allowing Participants to monitor their current account balance as Project operations change. Storage Allocation accounting will also reflect estimated reservoir losses, such as evaporation and seepage.
- **Tracking requested versus actual operations.** Storage Partners will be able to compare what they requested with what actually occurred, including requested versus actual fills and requested versus actual releases. This provides transparency where hydrologic conditions, facility constraints, or other operational considerations cause actual operations to differ from a Storage Partner's request.
- **Tracking losses and exchanges.** The accounting system is also expected to identify estimated conveyance losses, carriage water, and exchanged water and its location. This is particularly important for Participants whose water is conveyed through multiple facilities or through the Delta because the amount ultimately delivered may differ from the volume initially released from Sites Reservoir.
- **Information at multiple time scales.** The dashboard is intended to provide information ranging from near-real-time conditions to summaries for the prior week, prior month, and year-to-date. The Operations Plan also states that the dashboard will be developed with input from Storage Partners, allowing the information presented to reflect their operational and planning needs.
- **Year-end reconciliation and true-up.** Real-time accounting will ultimately be reconciled against final operational data after deliveries are completed each year. The Sites Authority will prepare a year-end true-up covering diversions, storage, releases, deliveries, losses, and exchange-related accounting. Any discrepancies will be resolved with the affected Storage Partner and relevant Downstream Facility operators, and the final accounting will help inform Participants' water requests for the following year.

The Project will operate with transparent, participant-specific water accounting rather than as a single undifferentiated pool of water. Storage Partners will be able to see both what is happening across the Project and how those operations affect their individual Storage Allocation in near real time, while the year-end true-up provides a formal reconciliation of the final water balance. This combination of real-time visibility and annual reconciliation is intended to give Storage Partners the information needed to make informed decisions about storage, releases, exchanges, and future-year operations.

6.4 How do Storage Partners make requests for storage opportunities or releases?

Each Storage Partner will provide the Sites Authority with a request for Sites Water that the Storage Partner seeks to have stored in the Project. Using seasonal forecasts of storage estimates and the information available on the real-time Project Dashboard (discussed in Section 6.3 above), each Partner will also provide the Sites Authority with a requested schedule for releases of the Storage Partner's stored water. The details of this process are provided in the Operations Plan along with example forms. The only exception to this is the Storage Allocation held for ecosystem benefits. This account will be actively managed by the Authority consistent with the Contract for Administration of Public Benefits.

6.5 How will lease and sell transactions work?

The Project, including the B&O Contract and Partnership Agreement, is intended to give Storage Partners flexibility to lease or sell both water and capacity interests, but transactions involving

ownership or use of Project capacity are subject to safeguards designed to protect the other Storage Partners, Project financing, the Sites Water Right, and ongoing Project operations.

- **Sale or exchange of Sites Water.** A Storage Partner may sell or exchange water already associated with its Storage Allocation to another Storage Partner or another entity. The commercial terms of that transaction—such as price, quantity, and other negotiated conditions—are generally left to the participating entities. The Sites Authority's role is not to set those commercial terms, but to ensure that the transaction can be implemented consistently with the Sites Water Right, applicable laws, governmental approvals, and the contractual rights of other Storage Partners. Once two entities agree to a sale or exchange, they must notify the Sites Authority so that storage balances, releases, deliveries, and Project accounting can be updated.
- **Lease of Capacity Interest.** Storage Partners may lease all or a portion of their Base Facilities Capacity Interest and, where applicable, their Downstream Facilities Capacity Interest to another Storage Partner or other entity, allowing temporarily unused storage or conveyance capacity to be put to productive use without permanently transferring ownership. The Storage Partner generally retains discretion to negotiate the commercial terms of the lease, but the lease must be consistent with the Sites Water Right, applicable laws, and approvals and cannot adversely affect other Storage Partners' rights or Project financing. Leases are generally limited to 10 years, unless approved under the more rigorous procedures that apply to a permanent sale. Importantly, the leasing Storage Partner remains a party to the B&O Contract and continues to be responsible for the obligations associated with the leased Capacity Interest, while the Sites Authority confirms that the transaction can be properly accounted for and implemented without adversely affecting Project operations.
- **Sale of Capacity Interest.** Storage Partners may sell all or a portion of their Base Facilities Capacity Interest and, where applicable, their Downstream Facilities Capacity Interest to another Storage Partner or other entity, allowing a Storage Partners to permanently transfer part of its participation in the Project. The selling Storage Partner generally retains discretion to negotiate the commercial terms of the transaction, but the sale must be consistent with the Sites Water Right, applicable laws, and governmental approvals; must not adversely affect other Storage Partners' rights; and must preserve the Project's financing and tax-exempt status. Sales are also subject to applicable Sites Authority and Reservoir Management Board approvals, as well as a right of first refusal for existing Storage Partners when the proposed purchaser is a non-Storage Partner. The seller remains responsible for obligations associated with the transferred Capacity Interest until the purchaser enters into the B&O Contract and assumes the applicable responsibilities.
- **Sites Authority-facilitated marketplace.** The Sites Authority intends to maintain a voluntary database where Storage Partners can identify whether they are interested in buying, selling, or leasing Sites Water, Base Facilities Capacity Interest, or Downstream Facilities Capacity Interest. The database is intended as a matchmaking tool—it connects interested parties, but the actual transaction remains voluntary and is negotiated by the parties themselves.
- **The Sites Authority must be notified so the transaction can be accounted for operationally.** Once two entities agree to a sale, lease, or exchange (of Sites Water or of Capacity Interest), they must notify the Sites Authority so that storage balances, releases, deliveries, and Project accounting can be updated. This is particularly important because Sites Water and individual Storage Allocations are intended to be tracked on a Storage Partner-specific basis.

Together, these provisions are intended to give Participants meaningful flexibility to optimize the value of their Sites Project participation while protecting the financial and operational integrity of the Project as a whole.

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

A simple approach to estimating the overall performance of a Storage Partner's account is through the storage to delivery ratio. This ratio is developed by dividing a Storage Partner's total storage account share by their annual average delivery. For example, if a Storage Partner's Storage Allocation is 100,000 AF and their annual average delivery is estimated to be 10,000 AF, then their storage to release ratio would be 10:1. Generally speaking, a lower storage to delivery ratio between two different accounts or two different operational scenarios indicates a more effective and efficient operation, thus indicating a higher "yield" of water supply for the Storage Partner.

The Project-wide storage to delivery ratio for the Dry-Year Optimization and Top Speed scenarios are 8.2 and 7.4, respectively. Given the more aggressive Storage Partner operations under the Top Speed scenario, it is not surprising that the ratio is lower for the Top Speed scenario because while the Storage Allocations are the same between the two scenarios, the annual average deliveries are higher under the Top Speed scenario. Since operational objectives and release/delivery constraints differ among the Storage Partners and Reclamation, storage to delivery ratios differ by participant. Table 6-1 provides a summary of the storage to delivery ratio for each Storage Partner Account and for Sites Reservoir as a whole, for both the Dry Year Prioritization and Top Speed scenarios, respectively. Most accounts have a lower storage to delivery ratio under the Top Speed scenario. The Colusa County, CVP, and WSIP accounts show nominal increases under the Top Speed scenario as those accounts have the same operational objectives under both scenarios. The increased utilization of the other accounts under the Top Speed scenario results in fewer foregone diversions that benefited these accounts under the Dry Year Prioritization scenario. This benefit results in a slight reduction to these accounts' deliveries, which creates a slight increase to the storage to delivery ratio.

Table 6-1. Storage-to-delivery ratio by account

Storage to Delivery Ratio by Account [2]	Dry Year Prioritization Scenario	Top Speed Scenario
TCCA	5.3	4.0
GCID	6.4	5.2
RD 108	8.3	7.4
Colusa County	3.1	3.5
American Canyon	8.3	4.7
SOD PWA [3]	10.2	9.1
CVP	7.6	7.7
WSIP	7.3	7.4
Total	8.2	7.4

[2] TCCA, GCID, and RD 108 accounts include delivery to themselves and transfer deliveries to non-Sites storage partners.

[3] If the SOD PWA ratio used releases rather than deliveries, the ratios would be 7.4 and 6.5, respectively.

While a lower storage to release ratio indicates a higher overall yield, a Storage Partner may highly value deliveries under certain circumstances or hydrologic conditions. Under this circumstance, the Storage Partner may use their deliveries under those specific conditions to evaluate yield performance rather than the annual average delivery.

Storage Partners can lower their storage to delivery ratio by pursuing more frequent and/or aggressive release operations. For Storage Partners that may not necessarily always have a demand to be met by more aggressive release operations, this could include storage of their Sites Water in a groundwater bank or for SOD Storage Partners' storage in other SOD reservoirs. Storage Partners could also lower their storage to delivery ratio by selling their water supply, increase their utilization of exchanges, and/or lease their storage capacity to a Storage Partner with a more aggressive release operation. A mix of different operational objectives could also be assembled that seek to lower the storage to delivery ratio but that maintain deliveries under certain circumstances or hydrologic conditions. However, Storage Partner deliveries are ultimately also constrained by available diversions (reservoir inflows), storage and conveyance capacities, and regulatory conditions. While a Storage Partner's storage to delivery ratio is sensitive to their operational strategies, these other factors collectively bound how low a Storage Partner's storage to delivery ratio can go.

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 $7.5 billion in constant 2024 dollars (2024$), 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 cost estimate has not changed since the last update in mid-2025.

The $7.5 billion Governance Estimate includes a "Governance Contingency" of approximately $910 million (2024$). This value was estimated by subject-matter experts analyzing potential risks and probability of occurrence for unknowns in the following areas: 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 $6.6 billion (2024$). The estimate was developed using the best information available at the time, with input from subject-matter experts, and was peer reviewed by Metropolitan WD of Southern California. Its credibility has subsequently been supported through comparison with pricing and technical information received during the Reservoir Construction Manager at Risk (CMAR) procurement process.

The capital cost per acre foot of new water supply released at the Funks Reservoir point of delivery for varying terms and interest rates is provided in Table 7-1 and Table 7-2 below. Table 7-1 provides the

projected capital cost per acre-foot of yield for the Dry Year Prioritization scenario. Table 7-2 provides the projected capital cost per acre-foot of yield for the Top Speed scenario. The new water supply releases used for this analysis are the annual average total releases of all Storage Partners. Individual Participants would need to evaluate their releases from the reservoir to determine their $/AF.

Table 7-1. Dry Year Prioritization Scenario Capital Costs per Acre-Foot of Yield ($/AF)

Term	Interest Rate		
(years)	4.0%	5.0%	6.0%
30	2,846	3,201	3,575
40	2,486	2,868	3,270
50	2,291	2,695	3,122
100	2,008	2,479	2,961

Table 7-2. Top Speed Scenario Capital Costs per Acre-Foot of Yield ($/AF)

Term	Interest Rate		
(years)	4.0%	5.0%	6.0%
30	2,486	2,797	3,124
40	2,172	2,506	2,858
50	2,001	2,355	2,728
100	1,755	2,166	2,587

In addition, the Prop 1 Final Funding Award Report referenced in Section 7.12.2 includes a benefits and costs analysis performed in conformance with the California Water Commission technical requirements and may be informative as to an analysis of feasibility.

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 2024$ and are based on the 30% design cost estimate. Both estimates also represent the total Project cost estimates that include costs for construction and noncontract costs. The basis for the total Project costs are:

- Cost Estimate for Noncontract Costs Technical Memorandum (Jeff Herrin, Dated May 9, 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 $910 million (2024$) 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.

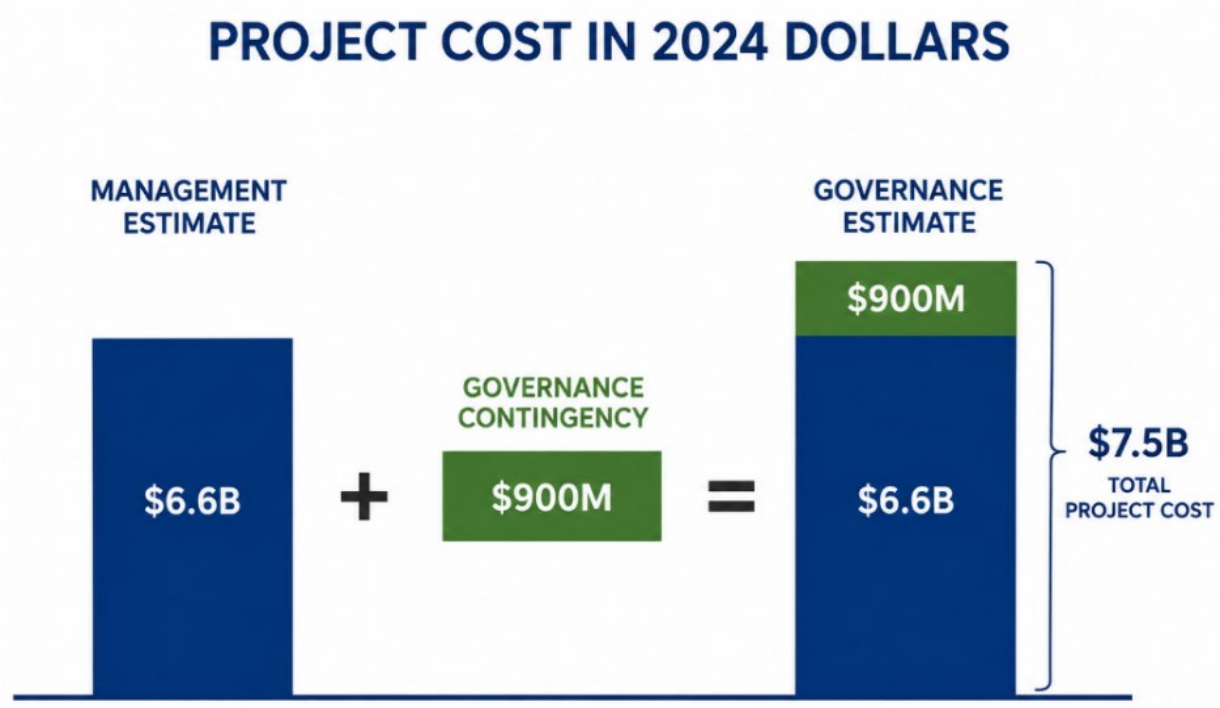


Figure 7-1. A graphical representation of Project costs (2024$)

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 $6.6 billion (2024$) for the Management Estimate, with each including an additional $910 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 $910 million Governance Contingency, the resulting Governance Estimate is $7.5 billion (2024$).

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, regulatory, and identified geotechnical risks, such as greater quantities of excavation or more difficult excavation conditions. Whereas the $7.5B Governance Estimate includes an additional $910 million of Governance Contingency above the Management Estimate. This provides an additional level of cost protection for the Project, including additional geotechnical and construction risks beyond those accounted for in the Management Estimate and noncontract cost, real estate and compensation mitigation risks not otherwise accounted for within the Management Estimate. The Governance Contingency would remain under Authority 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 an Authority Board action. Attachment A includes a summary of the Management and Governance Contingency components and dollar values that are included for each component.

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 an Authority 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 guaranteed maximum price (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 will remain under Authority Board control and will only be made available for use with Authority Board approval.

7.6 What is the difference between a Project “estimate” and a Project “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 2024$, 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 (i.e., estimate) separately from changes resulting from the timing of expenditures and escalation (i.e., forecast).

Figure 7-2. Difference between “estimate” and “forecast”

7.7 What are the Management Forecast and Governance Forecast?

Similar to the Management Estimate and Governance Estimate, the Project maintains both a Management Forecast and a Governance Forecast. The difference is that the forecasts express Project costs in YOE dollars, incorporating escalation based on when costs are expected to occur.

The Management Forecast represents the YOE 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 YOE 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 Forecast and Governance Forecast.

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 major Project facilities (excluding the Dunnigan Pipeline), as work packages are advanced to 60%, the engineers' cost estimates will be replaced by contractor 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?

Several iterations of value engineering (VE) and project refinement have occurred to drive down costs and optimize the Project to what is currently shown in the 30% design. A VE TM was developed to summarize the current VE ideas that will actively be pursued in the next phase of the Project. The VE TM is included as Attachment C of the Baseline Report. The ideas with estimated potential savings in the VE TM are summarized in Table 7-3. Descriptions of these VE concepts are included in Attachment C.

Table 7-3. Value Engineering Concepts Summary

Concept	Potential Cost Savings Range
Golden Gate Dam Realignment	$100m–$200m
Raise Reservoir Physical Deadpool	$10m–$20m
Optimize Saddle Dams Freeboard	$10m–$50m
Reduce Grout Cap Thickness	$5m–$10m
Produce Aggregate Onsite	$20m–$35m
Produce Dam Drain Material Onsite	$30m–$60m
Use Alternative Dynamic Movement Joints	$50m–$60m
Remove fire water tank at Funks PGP	$1m–$3m
Reduce TRR Capacity from 600 AF to 450 AF	$30m–$40m
Remove TRR Check Structure	$10m–$12m

Key: AF = acre-feet; PGP = Pumping-Generating Plant; TRR = Terminal Regulating Reservoir

Recognition and implementation of each of these VE concepts in Table 7-3 will take one or more of the following:

- Additional geotechnical exploration and analysis
- Design analysis and advancement
- Regulatory coordination
- Partner Facility coordination

In addition to the VE TM concepts, VE ideas will also be solicited during the Conveyance CMAR procurement in the fall/winter of 2026.

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

Consistent with the current draft of the B&O Contract, O&M costs are expected to be allocated as either Fixed O&M charges or Variable O&M charges. Fixed O&M Costs include labor, materials, chemicals, repair, and replacements, as well as payments for in-lieu of property taxes, franchise fees, insurance, and legal and administrative costs. Variable O&M costs include the cost of power to pump water into and out of the reservoir, as well as conveyance (wheeling) through existing facilities operated by partners, such as GCID and the TCCA. Fixed O&M and Variable O&M costs, other than power, are escalated at 3.5 percent per year. This reflects recent trends in labor, materials supplies, and other non-labor costs. Power costs are assumed to increase 3.0 percent per year on average, while the increase in power sold from the Project is assumed to increase at 2.0 percent per year. Power costs are recovered through the Variable O&M charge and will depend on the water year and expected use of the reservoir (both for filling and withdrawals). It is anticipated that normalized power cost will be determined to avoid subjecting Participants to large annual swings in the billed O&M for this component. In addition, the model accounts for power sales, which help offset variable costs. Power cost and revenues are allocated in proportion to the quantity of water diverted and released by each agency. Reclamation will pay its share of actual fixed and variable O&M costs associated with its Capacity Interest in the project. The State is paying for delivery of public benefits and does not directly pay for O&M costs.

7.11.1 Fixed O&M

Fixed O&M costs include items such as labor, materials, consulting costs, and other administrative costs that must be incurred regardless of the quantities of water diverted or released from the reservoir. In addition to these typical O&M costs, the Sites Authority will encounter other fixed costs, such as payments for in-lieu of property taxes, franchise fees, insurance, and legal costs. Figure 7-3 shows the total projected Fixed O&M costs forecast for the Project. Fixed O&M costs are estimated to be $12.3 million (2024$) and are escalated at 3.5 percent per year, as shown in the figure below.

The forecast includes major maintenance and repairs on the dams, I/O works, and roads and bridges at approximately 5-year intervals. Fixed O&M costs billed to Participants are reduced by interest earnings on available funds and contributions by Reclamation and increased by required contributions to reserve funds, such as the Liquidity Reserve.

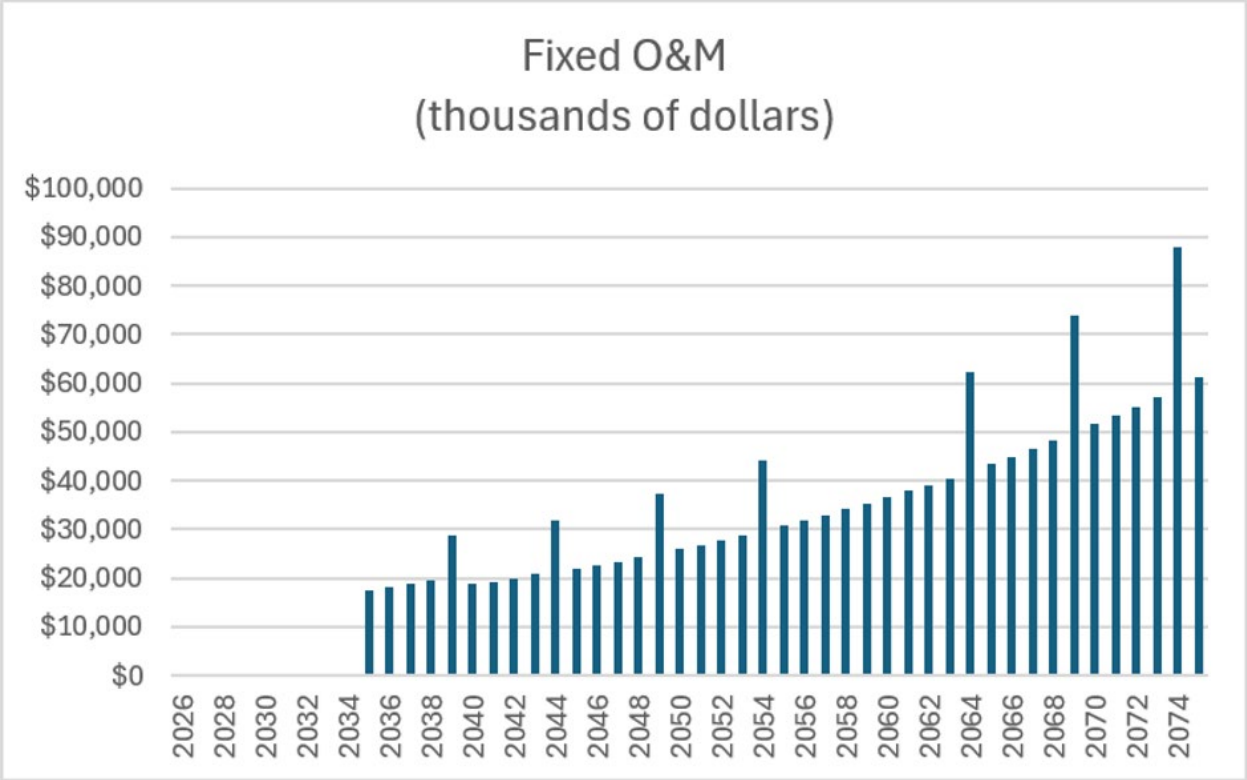


Figure 7-3. Annual Fixed O&M forecast for the Project

7.11.2 Variable O&M

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/conveyance, fees paid to others for use of the CBD, 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 Sites will be able to purchase power at wholesale rates and sell power into the wholesale market.

Because 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 Sites Project. For instance, some entities might operate under the Dry Year Prioritization scenario, while others may move water into and out of the reservoir each year under the Top Speed scenario. Variable cost in a given year will also reflect different water-year types because that affects the amount of water that is available for diversion and release.

7.11.3 Repair and Replacement 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 1 year in advance as a Fixed Project Cost to the Participants (net of any payments received by the State and Reclamation). Major replacement costs greater than $35 million are assumed to be financed and recovered over the life of the 30-year debt. Figure 7-4 shows projected debt service on major replacements beginning in 2054.

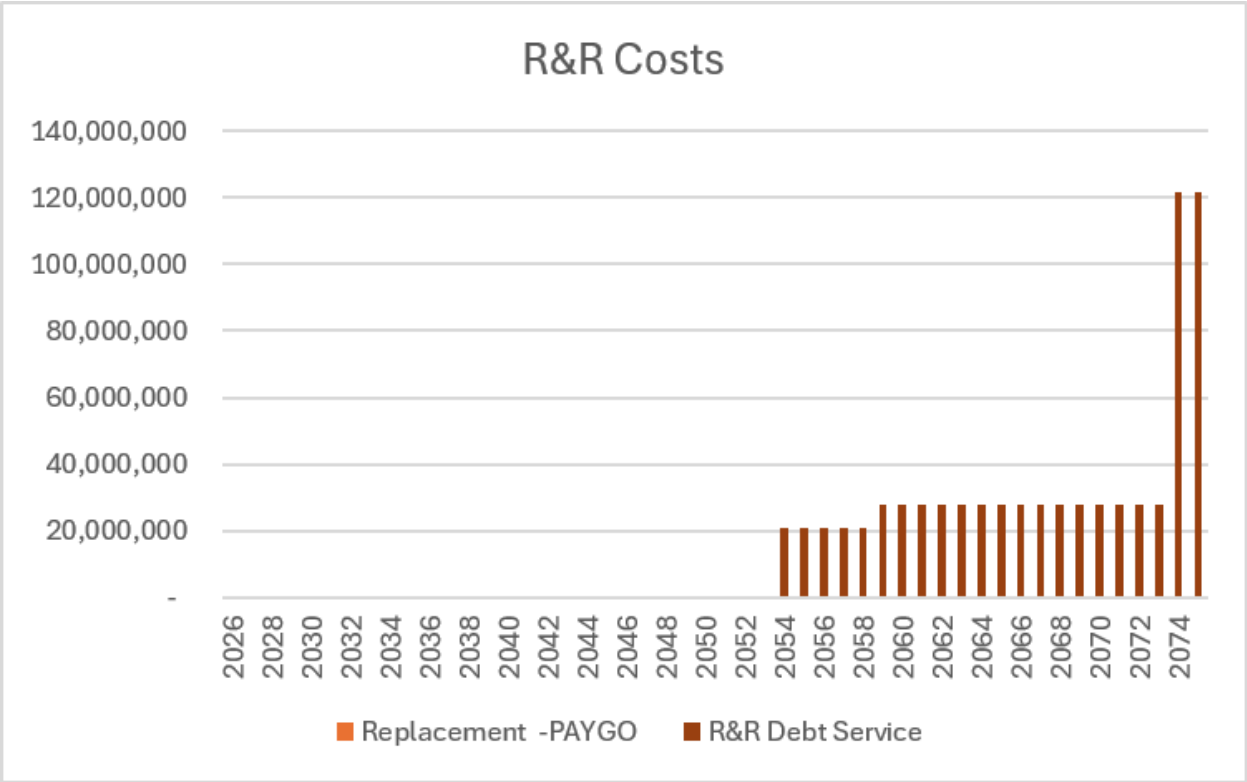


Figure 7-4. Project debt service on major replacements

7.12 How will the Project be funded and financed?

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

The Project's Plan of Finance identifies the anticipated funding and financing sources needed to construct the Project and evaluates how borrowed funds will be repaid. The Plan of Finance is based on the following considerations and assumptions:

- Funding and financing requirements will vary throughout the planning, design, construction, and operating phases of the Project.
- The B&O Contract allows each Participant to fund its allocated share of Project costs through Sites Authority-arranged financing, on a pay-as-you-go (self-funding) basis, or through a combination of the two. Participants using Sites Authority-arranged financing are responsible for their allocated financing costs, including debt service, while self-funding Participants pay their share of Project costs as required under the Contract. These payment obligations apply regardless of the amount of water stored or delivered.
- Sites Authority-arranged financing is expected to include interim borrowing during construction, followed by long-term financing through Water Infrastructure Finance and Innovation Act (WIFIA) loans, tax-exempt revenue bonds, or other available financing programs.
- The Project Cost Estimate is as presented in Section 7.2 and includes construction, planning and design, land and rights-of-way, environmental and permitting activities, project management, legal costs, contingencies, and other Project costs.

- State, federal, Participant, and financing sources are assumed to be available in the amounts and at the times reflected in the financial forecast. Actual funding and financing will depend on applicable approvals, appropriations, market conditions, and financing terms.
- Project costs are escalated through final completion using the escalation assumptions presented in the Plan of Finance.
- Participant, State, and Reclamation Capacity Interests in the Base Facilities and Downstream Facilities are assumed to be consistent with those presented in the Plan of Finance.
- The financial forecast is based on the Project baseline schedule presented in Attachment B. Significant schedule changes may require corresponding updates to Project cost estimates, cash-flow forecasts, and financing assumptions.

7.12.2 What is the mix of funding sources?

The Plan of Finance identifies three principal sources of construction funding: State funding through the WSIP, federal funding provided through Reclamation, and Participant funding. Each Participant may fund its allocated share of construction costs by participating in financing arranged by the Sites Authority, self-funding with available cash or separately arranged financing, or using a combination of these approaches. Sites Authority-arranged financing is expected to consist of interim borrowing through short-term notes, commercial paper, or bank loans, followed by long-term financing through WIFIA loans and tax-exempt revenue bonds. The long-term debt would be used to refinance the interim borrowing. The table below shows the mix of funding sources. Table 7-4 provides a summary of the Construction Funding by Source.

Table 7-4. Construction Funding by Source (2027-2035)

	Dollars (billions)	Percent
State of California	$1.3	13%
Bureau of Reclamation	$1.6	16%
Participants	$7.0	71%
Total	**$9.9**	**100%**

The Sites Reservoir Project Proposition 1 WSIP Final Hearing Report that documents the Sites Reservoir Project's Proposition 1 WSIP funding eligibility, projected public benefits, regulatory compliance, and implementation framework to inform a final funding decision under California's Proposition 1 Water Storage Investment Program will be available in the Fall of 2026 and provided via link (when available) at https://sitesproject.org/project-baseline-report/.

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

As noted above, the estimated cost of the Project from 2027 through 2035, including planning, design and construction, is approximately $8.1 billion in 2026 dollars (2026$) and $9.9 billion in escalated dollars. Figure 7-5 shows annual expenditures in 2026$ and escalated dollars. Annual expenditures are forecast to peak in 2031 at approximately $1.9 billion in 2026$ and $2.2 billion in escalated dollars, with a second significant period of expenditures occurring in 2033. Project expenditures then decline

substantially in 2034 and 2035 as construction moves toward substantial completion and start-up, testing, and punch list activities are completed.

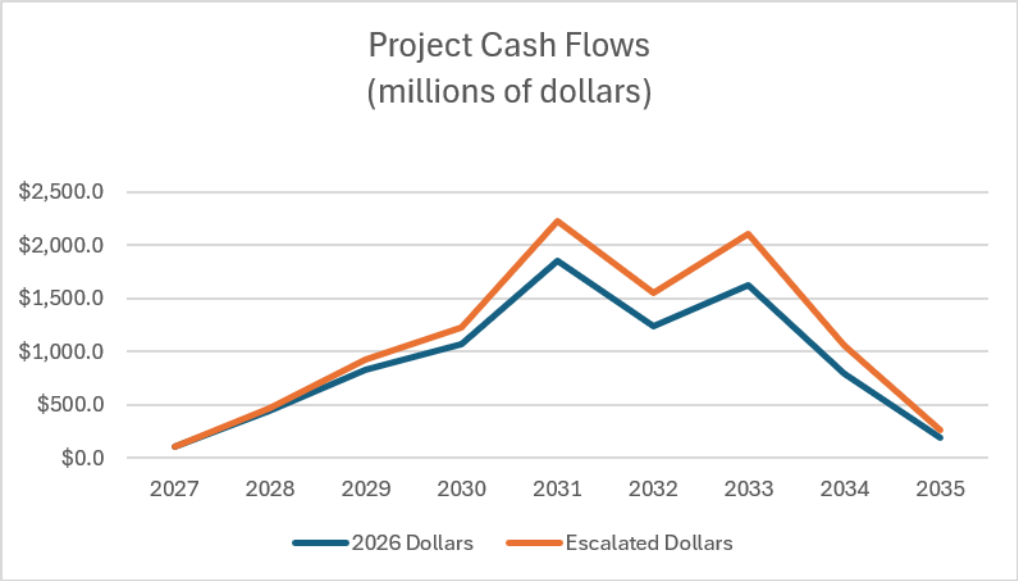


Figure 7-5. Project cash flow: 2027-2035

7.12.4 How are Project costs allocated among Storage Partners?

The Project follows a beneficiary-pays approach, under which costs are allocated based on the facilities and Project benefits attributable to each party—Participants and Reclamation are allocated Base Facilities costs based on their respective Base Facilities Capacity Interests. Costs of the Downstream Facilities are allocated only to the parties that require or benefit from those facilities, based on their respective Downstream Facilities Capacity Interests.

The State's contribution is provided through the Prop 1 WSIP. The Authority will contract with state agencies to deliver public benefits identified in the Project's Contracts for Administration of Public Benefits with CDFW and DWR, including ecosystem improvements, flood-damage reduction, emergency drought response, and recreation benefits. Under Proposition 1, the State's funding contribution may be used only to reimburse eligible construction costs as those costs are incurred during construction, in accordance with the WSIP Funding Agreement. Because this contribution is provided on a reimbursement basis and is not financed through Sites Authority borrowing, the State will not have an annual debt-service obligation. Costs attributable to public benefit deliveries and arising from the ongoing operation of the Project are not allowed to be paid with Prop 1 funds . These costs are addressed through the cost allocation of ongoing operating costs among Participants and Reclamation based on their applicable capacity interests and contractual obligations.

Variable O&M costs, including power and conveyance costs, are allocated based on the quantity of water diverted, conveyed, or released on behalf of each party, net of applicable power revenues.

7.12.5 What will Participants' annual fixed obligations be?

A Participant's annual fixed obligations will depend on its Base Facilities and Downstream Facilities Capacity Interests and its selected funding approach. The Plan of Finance evaluates three scenarios: interest-only financing during construction, capitalized interest through construction, and pay-as-you-go self-funding.

Participants using debt financing will be responsible for their allocated share of debt service and Fixed O&M costs. Self-funding Participants will pay their share of construction costs as incurred and will not have Sites Authority debt-service obligations for the portion they self-fund; however, they will remain responsible for Fixed O&M costs and other required fixed obligations. Variable O&M costs are separate and will depend on each Participant's actual use of the Project. The Plan of Finance presents the estimated annual fixed obligations for each Participant under the applicable funding approach.

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

All Participants are allocated Base Facilities costs based on their respective Base Facilities Capacity Interests. Participants with Downstream Facilities Capacity Interests are also allocated their respective shares of Downstream Facilities costs. NOD users that do not have Downstream Facilities Capacity Interests will not pay any Downstream Facilities costs.

Variable O&M costs are allocated based on each Participant's actual use of the Project. Accordingly, SOD Users will also pay for the applicable power, conveyance, and wheeling costs necessary to deliver their water downstream.

8.0 What is the Project baseline schedule?

8.1 What is the baseline schedule?

The Project baseline schedule (Attachment B) represents staff's current best understanding of the time required to complete Phase 3 readiness activities, construct and commission the Project facilities, and operate the Project. The Project baseline 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 GMPs are developed.

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

Below is a list of some of the key assumptions used for the baseline 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 2-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 baseline 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. Funks Pumping-Generating Plant
4. TRR PGP
5. Saddle Dams and Dikes
6. Sites Lodoga Bridge

These critical path packages, as well as other near-critical path packages, are sensitive to construction enabling activity progression. Delays in construction enabling activities, including activities packages not listed here, could add time 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 How do Phase 3 (Final Design) and Phase 4 (Construction) Overlap?

The Project baseline 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 (i.e., access roads, haul roads, and detour roads) needed to start 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. These roads will likely take 1 to 2 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 power utilities in performing upgrades so the Project can receive construction grade power or move utility lines within the construction areas.

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.

8.5 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, DWR's Division of Safety of Dams (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.

8.6 Are there seasonal restrictions to the work?

Seasonal conditions and operational constraints affect the timing of certain construction activities in several ways. Below are a few relevant examples:

- **Inclement weather.** Some activities, such as earthwork, are generally more sensitive to inclement weather, particularly when working with fine-grained or clayey materials. Other activities, such as structural concrete work, are generally less affected by wet-weather conditions.
- **Creek flows.** Creek diversion work must be planned around seasonal flow conditions and applicable environmental work windows.
- **Existing facilities.** Work within existing facilities, such as GCID and TCCA canals, must be coordinated with facility operations and, in many cases, performed during the non-irrigation season or other planned operational outages.
- **County right-of-way (ROW) work.** Work affecting existing roads and bridges must be coordinated with the applicable roadway agencies and may be subject to seasonal or other timing constraints.
- **Environmental windows.** Depending on work specifics and the terms of the permits and mitigation plans, certain activities may be constrained by seasonal biological work windows, such as only being allowed to occur in the non-breading season.

In general, typical and reasonably anticipated seasonal constraints have been incorporated into the baseline schedule, including allowances for normal inclement weather and known operational windows. The baseline schedule does not, however, attempt to account for unusually severe or abnormal conditions, such as major flooding, wildfires, or precipitation beyond normal historical conditions.

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 on 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 (e.g., standby time, delay claims). 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 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 Project 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 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 mitigation strategies that will be implemented to mitigate the risks.

In addition to the cost, schedule, and benefit risks and mitigation analysis presented in the sections below, Irvine Ranch WD (a Storage Partner on the Project) completed a risk and uncertainty analysis and developed a cost risk model based on the Project's 30% design capital cost estimates. This analysis is provided for reference at: https://sitesproject.org/project-baseline-report/

9.1 What are the primary cost risks and how will they be managed and mitigated?

The primary cost risks can be broken down in the following categories.

Design changes. Cost risks associated with design changes could occur from (1) increases in the Project's design scope and complexity that are realized as the design and analysis is advanced; (2) unforeseen conditions are identified that result in additional construction effort, including geotechnical and subsurface risks; or (3) increases in scope related to regulatory comments and coordination that impact design requirements. The Project design teams have developed a detailed list of risks and likelihood percentages as a part of the 30% design. The results of these analyses were included in the contingency development on the 30% design cost estimates. This analysis is included as a part of the 30% Total Project Cost Estimate TMs for the Reservoir and Conveyance Packages via link in Section 10.0. In additional to Sites analysis, Irvine Ranch WD independently reviewed the projects risks and contingencies using their own methodologies that validated the governance estimate.

High escalation/interest rates. Costs risks associated with high escalation and/or interest rates compared to assumed rates in the Plan of Finance can have a significant impact on project costs. Additionally, abnormal material price escalation, such as supply chain related shortages, beyond normal market inflation is a risk to the project costs.

Schedule-related cost impacts. Schedule slippage can impact costs via (1) increased escalation associated with work being performed further in the future, (2) extending overhead costs to manage the design and construction, and (3) potentially adding standby costs for crews and equipment.

Environmental/mitigation-related changes. Mitigation costs can be impacted by the availability and timing of mitigation needs. Mitigation requirements are dependent on environmental surveys that define the types and extent of mitigation required. Listing of new species by the wildlife agencies will impact mitigation requirements, mitigated by early engagement and stacking mitigation lands.

The following engineering and construction related activities will be/are being implemented to help mitigate and manage these cost risks:

- Develop contingencies with detailed risk-analysis-related support from engineering experts.
- 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 VE TM (Attachment C to this Baseline Report).
- Perform geotechnical investigations as soon as possible to assess subsurface conditions and refine the contingency assumptions included in the 30% Total Project Cost Estimate TMs for the Reservoir and Conveyance Packages via link in Section 10.0
- 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.
- Procure and select a mitigation contractor early, and coordinate construction needs with the mitigation available via an early mitigation strategic planning process.

In addition to the engineering and construction related activities, the following funding and finance related activities will be/are being implemented to help mitigate and manage these cost risks:

- Complete detailed budget and cash flow management.
- Align Participant contributions with actual Project cash needs to minimize over-drawing Participant funds.
- 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. Update the Plan of Finance regularly and stress-test escalation, interest rates, and construction timing so adjustments can be made before they materially affect Participant contributions.

9.2 What are the primary schedule risks and how will they be managed and mitigated?

For 2027 and 2028, the primary risks to the Project baseline schedule are associated with completing key construction-enabling activities, managing a significant increase in project execution complexity, and scaling organizational resources to support a major transition into Phase 3.

The key construction-enabling activities include acquiring necessary lands and access rights, completing biological and cultural resource surveys, obtaining permit authorizations, and securing required compensatory mitigation. Delays in any of these areas could affect the start or progression of construction activities.

As the Project advances into construction (2028 and beyond), the high degree of concurrency among multiple major subprojects will increase coordination requirements and place greater demands on project management resources. This concurrency demands ongoing coordination as design, permitting, construction, land, and mitigation activities for multiple packages progress. It also introduces the risk that dependent tasks and packages can experience delays from a predecessor package or task. Additionally, this challenge will be compounded by the significant ramp-up in workload that will require the Sites Authority to expand its organization while maintaining alignment among project teams, designers, construction managers, and other delivery partners. Successfully onboarding a substantial number of new resources, including owner's delivery support consultants, the Conveyance CMAR, mitigation contractors, and independent cost estimators, will be essential to maintaining schedule performance.

To mitigate these risks, the Sites Authority is focused on advancing critical path activities in advance of construction needs and ensuring the organization grows in-step with Project demands. Upon receipt of full Project funding, the Sites Authority will scale its staffing and support resources to provide the level of coordination, management, expertise, and leadership required across the multiple active work fronts. The core team of Sites Authority Agents will need to be supplemented with specialized consultants and contractors.

The Sites Authority will also work proactively to stay ahead of construction by advancing key enabling activities, including:

- Land acquisition and access
- Biological and cultural resource surveys
- Permit authorizations
- Tribal consultations
- Environmental Impact Report/Environmental Impact Statement amendments and environmental compliance commitments
- Acquisition of compensatory mitigation lands
- Geotechnical investigations and analyses
- VE analysis
- Design development

To support timely regulatory decisions, the Sites Authority will continue to improve the efficiency of agency reviews through standardized processes, complete and well-organized submittals, and proactive coordination with regulatory agencies.

In parallel, accelerated design development will provide the level of design maturity needed to support construction sequencing, cost development, constructability reviews, and permit reviews and approvals. Continued pursuit of early land acquisition and access opportunities will further reduce schedule risk by enabling the construction-enabling activities to proceed to build a runway for construction.

Finally, early procurement and onboarding of the Reservoir and Conveyance CMARs will strengthen coordination across the Project and provide valuable constructability, cost estimating, and schedule input during design. Their early involvement, coupled with performance-based contractual incentives, will support proactive issue resolution and help maintain alignment with the baseline schedule. CMAR delivery will also allow for early procurement of major equipment and materials to avoid construction delays.

9.3 What are the primary benefit risks and how will they be managed and mitigated?

The primary risks affecting Participants' ability to receive Project benefits are largely associated with reliance on the availability and capacity of partner facilities, SWP facilities, the Delta, and other non-Sites facilities, together with uncertainties in future hydrologic and climate conditions.

The Project's dependence on facilities owned and operated by others results in Participants not having direct control over operations, maintenance, and replacement (OM&R) activities that could affect the availability and performance of key conveyance infrastructure. In addition, Facility Use Agreements do not guarantee conveyance capacity when needed, and Project deliveries may be constrained by available capacity within the Tehama-Colusa Canal, GCID Main Canal, Dunnigan Pipeline, lower CBD, Delta export facilities, and other downstream conveyance systems.

Project operations are also subject to physical, hydrological, and operational limitations. These limitations are included in the operational modeling and project performance projections included in the Baseline Report:

- The main I/O facilities cannot simultaneously support reservoir filling and releases; during periods when Sacramento River diversions are available, reservoir filling is prioritized, which may delay otherwise desirable deliveries.
- Conveyance availability may be affected when the Dunnigan Pipeline reaches its physical capacity and real-time exchanges with GCID are fully utilized.
- SOD delivery constraints, including the July through November transfer window, Delta conditions, and the concurrence of both DWR and Reclamation.
- Under the Dry Year Prioritization Scenario, deliveries for SOD Participants may be limited when SWP Table A allocations are above 65 percent.
- SOD deliveries can be limited when the Banks Pumping Plant is operating at capacity, or when no capacity is available in the California Aqueduct during the transfer window. Both the Banks Pumping Plant and California Aqueduct are more likely to be limiting factors during wetter years when statewide conveyance demands are elevated. Deliveries through the North Bay Aqueduct similarly depend on Balanced Conditions within the Delta and DWR concurrence.

- Future climate conditions, hydrologic variability, and potential water and opportunity losses within the lower CBD system may affect the timing, quantity, and reliability of deliveries and other Project benefits available to Participants.

The Sites Authority is undertaking several efforts to evaluate, manage, and mitigate these risks. These measures include completing coordination with RD 108 and developing the associated Operations Agreement scope; preparing OM&R technical memoranda for the TCCA and GCID systems, including documentation of operating practices, maintenance responsibilities, and available monthly capacities; and conducting detailed hydraulic modeling of the Tehama-Colusa Canal, GCID Main Canal, and CBD to assess available conveyance capacity under a range of operational scenarios.

Collectively, these efforts are intended to improve certainty regarding Project performance, identify and address delivery constraints, and support the reliable delivery of Participant benefits over the long term.

10.0 What is the status of Conditions Precedent items and related documents?

Attachment G summarizes the conditions precedent activities that were completed prior to Resolution of Offer of Capacity or that will be completed during Investment Commitment Escrow. Links are provided to these documents locations in Attachment G.

In addition to the items in the Conditions Precedent table in Attachment G, the following supporting documents are available on the Baseline Report web page (https://sitesproject.org/project-baseline-report/):

- Conveyance Capacity TM
- 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
- Plan of Finance
- Irvine Ranch WD - Risk and Uncertainty Analysis of 30% Design Capital Cost Estimate TM
- Sites Reservoir Project Proposition 1 WSIP Final Hearing Report

Any non-publicly available linked documents will be accessible through the participant portal.

11.0 What are the next steps?

11.1 What are next steps for Participants?

The Authority Board passed a resolution to offer capacity interest on September 18, 2026. The acceptance and issuance of this Baseline Report was deferred until remaining items were resolved. When the remaining items are resolved, each Participant will receive a final B&O Contract for consideration with their home boards. The terms in the contract will reflect the Authority Board's understanding of each Storage Partner's requested capacity interest.

Each home board has the opportunity from receipt of the draft B&O Contract to review it and decide two things:

- Whether it's a "go" or a "no go."
- Whether to maintain their current storage capacity interest or request a change.

The Project's success depends on its Storage Partners. This means:

- Continue to ask the "hard questions" of the Reservoir Committee and the Authority Board.
- Engage with fellow Storage Partners and keep communication open.

Sites Authority Staff will be available to address Participant questions and comments during the investor commitment period and to help direct investors to the resources that provide answers to the Participant questions. Submitting questions to admin@sitesproject.org will facilitate expedited and documented responses that will be tracked and communicated out in monthly Board meetings, as appropriate, to other Participants. Submitting questions via email will also support Sites Authority Staff providing efficient, consistent, and effective answers to Participant questions.

11.2 What are next steps for the Sites Project?

Sites Authority Staff is and will continue to shift focus on the development and refinement of Phase 3/4/5 priorities. Development of the Phase 3/4/5 strategic plan, key goals, and optimal timing of the Resolution to Construct will be discussed in the fall of 2026 and into 2027. Additionally, the Sites Authority will continue to advance procurements for the Conveyance CMAR Contractor, Mitigation Contractor, and Owner Delivery Support. These critical resources are key parts of the Sites Authority organization ramping needed for the Final Design and construction Phases of the Project.

12.0 References

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13.0 Abbreviations and Terms

Abbreviation	Definition
2024$	Constant 2024 dollars
AACE	Association for the Advancement of Cost Engineering
AF	acre-foot/acre-feet
Authority Board	Joint Powers Authority (JPA) Board of Directors
B&O	Benefits and Obligations
CBD	Colusa Basin Drain
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CMAR	Construction Manager at Risk
CVP	Central Valley Project
CVPIA	Central Valley Project Improvement Act
CWC	California Water Commission
CY	cubic yards
Delta	Sacramento-San Joaquin Delta
DSOD	Division of Safety of Dams
DWR	California Department of Water Resources
GCID	Glenn-Colusa Irrigation District
GMP	guaranteed maximum price
GSA	groundwater sustainability agency
I/O	inlet/outlet
ITP	Incidental Take Permit
JPA	Joint Powers Authority
M&I	Municipal and industrial
MCED	Maximum Conditional Eligibility Determination
NEPA	National Environmental Policy Act
NOD	north of Delta
O&M	operations and maintenance
OM&R	Operations, maintenance, and replacement
Operations Plan	Sites Reservoir Operations Plan
PGP	pumping-generating plant
PPIC	Public Policy Institute of California
Project	Sites Reservoir Project
R&R	repair and replacement
RD108	Reclamation District 108
Reclamation	Bureau of Reclamation, an entity within the U.S. Department of the Interior
ROW	Right-of-way
SB	Senate Bill
SGMA	Sustainable Groundwater Management Act
Sites Authority	Sites Project Authority
SOD	south of Delta
SWP	State Water Project
TAF	thousand acre-feet

Abbreviation	Definition
TCCA	Tehama-Colusa Canal Authority
TM	Technical Memorandum
TRR	Terminal Regulating Reservoir
WA	Water Agency
WD	Water District
WIFIA	Water Infrastructure Finance and Innovation Act
WSD	Water Storage District
WSIP	Water Storage Investment Program
WYT	Water Year Type
U.S.	United States
VE	Value engineering
YOE	year of expenditure

[Note: Capitalized terms used in the definitions below are defined in the Sites Reservoir Operations Plan, v3.0, dated September 15, 2026.]

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 Condition 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 Condition is determined by DWR and Reclamation.

Base Facilities: The Sites owned facilities or other facilities available to all Storage Partners including those listed in the Project Specific Information of each Storage Partner's respective contract, as modified from time to time.

Base Facilities Capacity Interest: The undivided capacity right of each Storage Partner to (i) 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 (ii) 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 Natural Resources Agency. 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 Natural Resources Agency. 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 the Participants and the Bureau of Reclamation, this term means Funks Reservoir, the Terminal Regulating Reservoir, or the downstream confluence with the Sacramento River Knights Landing Outfall Gates, and shall be specified by each Storage Partner in its Release Request. The Delivery Point under the Contracts for Administration of Public Benefits are specified in those contracts.

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 November 1 through June 14 when the Sites Authority is authorized to divert up to 984,000 acre-feet annually.

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.

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.

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 this 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, by and among the parties set forth on the execution page thereof, as amended and supplemented from time to time.

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.

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.

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.

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, 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): The entire physical infrastructure and capital improvements to be designed, constructed, commissioned and completed or contracted for use by the Authority, including the facilities owned by the Authority and the facilities utilized under Partner Agreements, as reflected in the Project Specific Information of each Storage Partner's respective contract, for the purpose of providing storage and conveyance of water for use by Storage Partners, and other benefits, in accordance with their Capacity Interest, as such project may be modified from time to time.

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.

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.

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	$1,442,000,000	$1,442,000,000	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	

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Contingency Summary

Cost Estimate Components	Management Contingency (A)	Governance Contingency (B)
Reservoir & Conveyance *Geotechnical* *Design/Regulatory* *Construction*	$517,900,000 *$141,500,000 (50%)* *$376,400,000 (100%)* *$0 (0%)*	$612,800,000 *$141,500,000 (50%)* *$0 (0%)* *$471,300,000 (100%)*
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)

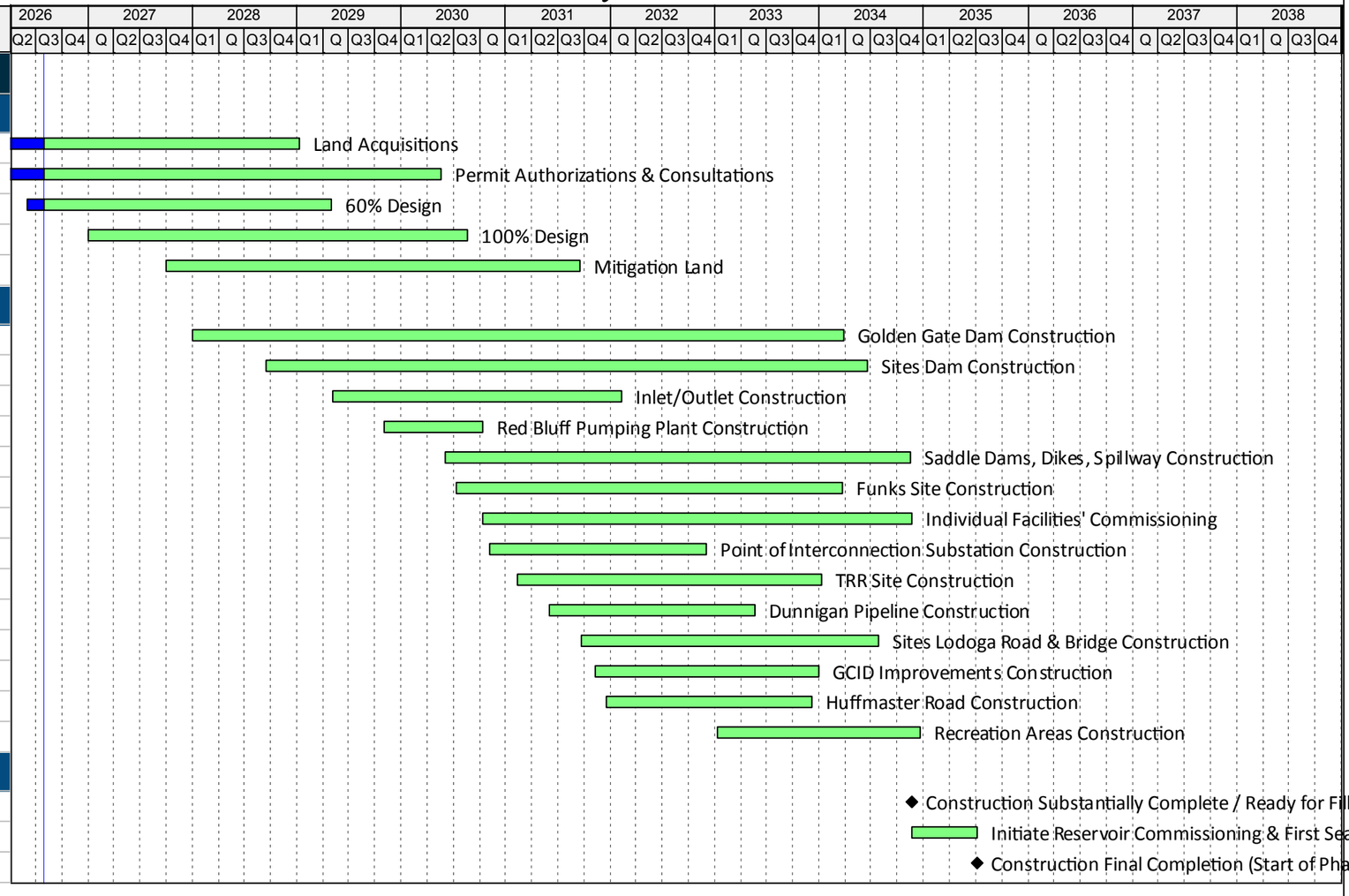
Attachment B: Baseline Schedule

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

Sites Reservoir Project

Pre-Construction & Construction Summary Schedule

#	Facility	Start	Substantial Completion
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
4	Permit Authorizations & Consultations	13.Jan.25 A	20.May.30
5	60% Design	01.Jun.26 A	03.May.29
6	100% Design	04.Jan.27	21.Aug.30
7	Mitigation Land	30.Sep.27	16.Sep.31
8	**Construction**	31.Dec.27	20.Dec.34
9	Golden Gate Dam Construction	31.Dec.27	29.Mar.34
10	Sites Dam Construction	15.Sep.28	16.Jun.34
11	Inlet/Outlet Construction	04.May.29	09.Feb.32
12	Red Bluff Pumping Plant Construction	01.Nov.29	14.Oct.30
13	Saddle Dams, Dikes, Spillway Construction	03.Jun.30	17.Nov.34
14	Funks Site Construction	11.Jul.30	23.Mar.34
15	Individual Facilities' Commissioning	15.Oct.30	22.Nov.34
16	Point of Interconnection Substation Construction	06.Nov.30	01.Dec.32
17	TRR Site Construction	13.Feb.31	10.Jan.34
18	Dunnigan Pipeline Construction	04.Jun.31	20.May.33
19	Sites Lodoga Road & Bridge Construction	24.Sep.31	25.Jul.34
20	GCID Improvements Construction	11.Nov.31	28.Dec.33
21	Huffmaster Road Construction	18.Dec.31	06.Dec.33
22	Recreation Areas Construction	11.Jan.33	20.Dec.34
23	**Operations**	20.Nov.34	06.Jul.35
24	Construction Substantially Complete / Ready for Filling		20.Nov.34
25	Initiate Reservoir Commissioning & First Season of Filling	21.Nov.34	06.Jul.35
26	Construction Final Completion (Start of Phase 5 Operations)		06.Jul.35



Project ID: SRP / Project Name: Sites Reservoir: July 31, 2026 Update
Layout Name: Sites Summary / TASK filters: Less than 100%, New Activity, WBS Starts With_1.
Data Date: 31.Jul.26 / Print Date: 17.Aug.26

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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.

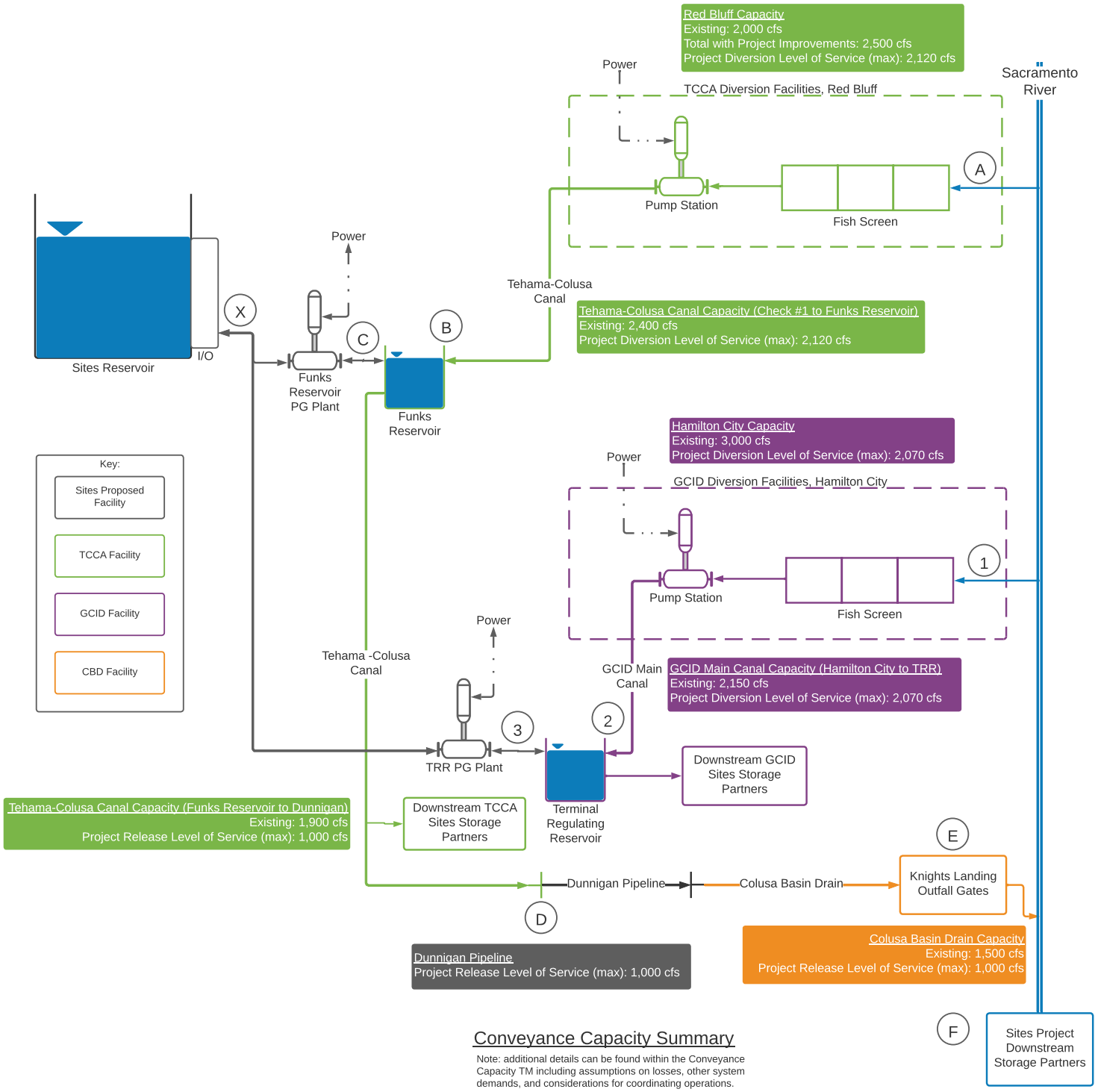
Table 2 – Items without Quantified Potential Savings

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.

Attachment D: Conveyance Capacity Summary

Attachment D, a summary of conveyance capacity, follows this page.



Conveyance Capacity Summary

Note: additional details can be found within the Conveyance Capacity TM including assumptions on losses, other system demands, and considerations for coordinating operations.

Attachment E: Real Estate Summary

Attachment E, a real estate summary, follows this page.

Sites Reservoir Project - Real Estate

Preliminary Draft - Subject To Change

Legend

- Sites Authority Real Estate
- Proposed Early Priority Lands
- Sites Reservoir

Sites Authority Real Estate: 2,171ac
Proposed Early Priority Lands: 9,834ac

Sites

N

0 0.5 1
Miles

This map depicts the current Sites Authority Real Estate Lands, and the Proposed Early Priority Lands, which would be needed to support the currently contemplated construction activities. The Real Estate Process for these Proposed Early Priority Lands is expected to begin in 2026 / 2027, pending funding availability. In addition to the depicted lands, the Authority also contemplates the purchase of lands from Willing Sellers, if applicable to project necessity, and such lands may, or may not, be identified in the depicted area.

USER: MGALBRAITH - DATE: 9/4/2026 - LAYOUT: PROJECT_OVERVIEW_11X17_P

Attachment F: Loss Assumptions Summary

Attachment F, the Loss Assumptions Summary Table follows this page.

Loss Assumptions Summary Table

Facility Use	Facility	Modeled Loss
Diversion Conveyance	TC Canal	1%
	GCID Main Canal (November-March)	2%
	GCID Main Canal (April-June)	13%
Reservoir	Reservoir Evaporation*	~ 10 to 12%
	Seepage/other	1 to 2%
Delivery Conveyance	Dunnigan Pipeline	None modeled
	Lower CBD	None modeled
	NOD Deliveries	None modeled
	TC Canal	1%
	Delta Carriage Water Losses	27-28%

See Baseline Report Section 5.8.2 for additional details related to loss assumptions and how they are incorporated into the Project.
*Calculated in CalSim 3

Attachment G: Conditions Precedent Document Links Summary

The table below provides link locations of the condition precedent documents.

Attachment G: Condition Precedent Documents Links Summary *The documents listed below will be added to the linked locations as completed.*	
Document	**Link to Document Location**
Contract and Supporting Documents:	
Benefits and Obligations Contract	https://sitesproject.org/agreements/
Phase 3, 4, 5 Bylaws	https://sitesproject.org/agreements/
Amended Joint Exercise of Powers Agreement	https://sitesproject.org/agreements/
Sites Reservoir Operations Plan (Version 3)	https://sitesproject.org/agreements/
Actions:	
CEQA Notice of Determination	https://sitesproject.org/environmental-review/
NEPA Record of Decision	https://sitesproject.org/environmental-review/
Class 3 Cost Estimates	https://sitesproject.org/project-baseline-report/
Updated Plan of Finance Forecast Tables	https://sitesproject.org/project-baseline-report/
Resolution to Offer Capacity & Service	https://sitesproject.org/agreements/
Permits and Approvals:	
Water Right decision by SWRCB	https://sitesproject.org/permitting/
State Construction and Operations Incidental Take Permits	https://sitesproject.org/permitting/
Federal Project Construction Biological Opinion	https://sitesproject.org/permitting/
Federal Programmatic Operations Biological Opinion (Step one)	
National Historic Preservation Act – Section 106 Programmatic Agreement	https://sitesproject.org/permitting/

DSOD Confirmation of Dam Design Criteria	https://sitesproject.org/permitting/
County Developer Agreements (Colusa, Glenn, and Yolo)	https://sitesproject.org/agreements/
Clean Water Act – Section 401	https://sitesproject.org/permitting/
Clean Water Act – Section 404	https://sitesproject.org/permitting/
Memoranda of Understanding related to CEQA Compliance and Air Board permits	https://sitesproject.org/permitting/
Master Lake and Streambed Alteration Agreement	https://sitesproject.org/permitting/
Executed Agreements:	
Facilities Use Agreements – TC Canal System	https://sitesproject.org/agreements/
Facilities Use Agreements – GCID System	https://sitesproject.org/agreements/
RD 108 Operations Agreement for Lower Colusa Basin Drain Operations	https://sitesproject.org/agreements/
Excess Capacity Agreement with Reclamation	https://sitesproject.org/agreements/
Lower Colusa Basin Drain System Term Sheets	https://sitesproject.org/agreements/
Operating Agreement with DWR and Reclamation	https://sitesproject.org/agreements/
Lower Colusa Basin Drain - Additional Information for Investor Commitment	The Conveyance Capacity TM that covers the technical Lower CBD items is posted here: https://sitesproject.org/project-baseline-report/ The Letter of Mutual Understanding was completed in spring of 2026 and can be provided if requested.
○ Letter of Mutual Understanding	
○ Technical Memorandum – Use of Lower Colusa Basin Drain vs. extending the Dunnigan Pipeline to the Sacramento River	
○ Add assumption for losses in CBD to operations model	
○ Develop itemized cost estimate for CBD improvements rather than using a contingency (refined)	
○ Verify that modeled local facility capacity is adequate and understand opportunities for increased capacity at times to accommodate planned Sites releases	
Conditions To Occur During Investor Commitment Escrow:	

B&O Contract executed by all parties	https://sitesproject.org/agreements/
Final Public Benefit Agreements with CDFW and DWR	https://sitesproject.org/agreements/
Donation Agreement with Reclamation for Pumping and Conveyance of Incremental Level 4 Refuge Water	
Exchange Agreement with DWR	
MOU with Water Agencies conveying NOD Refuge water	
Prop 1 Resolution of Final Award by CWC	https://sitesproject.org/agreements/
Final Prop 1 Funding Agreement executed by CWC Staff	https://sitesproject.org/agreements/
Partnership Agreement with Reclamation	https://sitesproject.org/agreements/
Reimbursement Agreement within the CVP for Sites Project costs	Reclamation has determined this to be not necessary at this time
Execution of Loan Agreements for Project Financing	https://sitesproject.org/agreements/

Attachment H: Summary of CalSim 3 Modeling Assumptions

A summary of CalSim 3 modeling assumptions follows this page.

Sites Project – CalSim 3 Modeling for the Program Baseline Report

September 2026

This package includes CalSim 3 models and materials that were used for the Program Baseline Report in September 2026.

Two Sites Project operating scenarios were developed: Dry Year Prioritization and Top Speed. The Dry Year Prioritization scenario prioritizes deliveries to participants during drier years, when water supplies are typically most constrained. In contrast, the Top Speed scenario seeks to maximize deliveries each year, subject to available water supplies, conveyance capacity, participant demands, and other operational constraints.

Together, these scenarios are intended to illustrate a range of potential Sites Project water supply outcomes under different operating strategies. While individual participants have discretion in managing their own water accounts, actual Project operations are expected to fall within the range of conditions represented by these two scenarios.

The package includes the following files:

1. No Action Alternative CalSim 3 Model
    a. Sites_PBR_CalSim3_NOACTION_DraftWR_Term23_061026_2040MED.7z
        i. Full CalSim 3 study package. Includes inputs, outputs, and model code files.
2. Sites Project Dry Year Prioritization CalSim 3 Model
    a. Sites_PRB_CalSim3_RevWR_Term23_090926_2040MED_DYPri.7z
        i. Full CalSim 3 study package. Includes inputs, outputs, and model code files.
3. Sites Project Top Speed CalSim 3 Model
    a. Sites_PRB_CalSim3_RevWR_Term23_090926_2040MED_TopSpd.7z
        i. Full CalSim 3 study package. Includes inputs, outputs, and model code files.
4. Trend Report
    a. Sites_TrendReport_CS3_rev11e_RevisedTerm23_090926_DryYearPrioritization_vs_Top_Speed.xlsx
        i. Includes results for key parameters from CalSim 3. Results can be viewed using hydrographs, monthly pattern charts, probability of exceedance charts, etc. for different water year types, months, seasons, and long-term averages.
5. Documentation

a. Sites_PBR_CalSim3_Modeling_Assumptions_091626.docx
    i. Summarizes the operations modeling approach and key assumptions used in the Program Baseline Report.
    ii. Includes a callouts table comparing assumptions between the No Action Alternative, Dry Year Prioritization, and Top Speed models.