



Meeting: **Reservoir Committee & Authority Board Agenda
Item 2.2**

October 16, 2026

Subject: **Authorize Submittal of Water Storage Investment Program Final Funding
Award Hearing Request**

Requested Action:

Reservoir Committee and Authority Board consider authorizing the Executive Director to submit the Water Storage Investment Program Final Funding Award Hearing Request to initiate the process toward final funding award by the California Water Commission.

Detailed Description/Background:

In addition to executing the Contracts for Administration of Public Benefits with CDFW and DWR to secure the State Prop 1 funding, the Authority needs to request a final award of funds by the California Water Commission. Such an action by the commission would remove the conditionality of the awarded funds. There are specific requirements and certifications that are necessary to fulfill all of the requirements for the Commission to consider final award. Board action will authorize Staff to make the required submittals, certifications and disclosures and initiate the final award process which is expected to take no less than two months before an action can be taken by the commission.

The Draft WSIP Final Funding Award Hearing Request (Attachment A) documents the Project's current benefits and costs and demonstrates that the Authority has satisfied the statutory and regulatory requirements for final funding. The submittal will include the executed agreements (upon their completion) committing Project beneficiaries to their respective cost shares (Participants and Reclamation) and the contracts for administering the State's public benefits (CAPBs); updated information and a description of the evolution regarding Project costs, benefits and feasibility since the 2018 conditional award by the CWC; completed environmental documentation; and the federal, State and local approvals, certifications and agreements required for the Project. The Authority will also provide the certifications and disclosures required by the Commission regarding these matters and other material obligations or actions that could affect Project implementation.

As part of the Final Funding Award hearing request, the Authority will be required to certify or disclose that:

- Non-public benefit commitments are secured.
- Public benefit contracts are executed.
- Feasibility requirements have been satisfied.

- The Project remains consistent with prior CWC determinations.
- Environmental documentation is complete.
- Required permits, approvals, certifications and agreements have been obtained, or explain any that remain outstanding, and disclose whether any are subject to pending litigation or other legal challenge.
- Material obligations or events affecting the Project
- The information submitted must be true and correct. An authorized representative must certify under penalty of perjury that the information provided is true and correct, acknowledging that the Commission will rely on these representations in approving funding and that false or inaccurate representations may result in loss or withholding of funding or other legal remedies.

Subsequent to the final award of funds by the commission, there will be an approximately 3-month process to finalize and execute the final funding agreement.

Prior Action:

August 2026: Review and provide input on guiding principles and priority areas for negotiations with the California Water Commission (CWC) on the Water Storage Investment Program (WSIP) Final Funding Agreement.

Fiscal Impact/Funding Source:

Negotiation of the WSIP Final Funding Agreement is to be conducted within the budgeted funds currently authorized by the Board.

Staff Contact:

Jerry Brown

Primary Service Provider:

AECOM

Attachments:

Attachment A – Draft WSIP Final Funding Award Hearing Request



Final Hearing Report and Updated Feasibility Determinations

October 2026

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Appendix B	Modeling Documentation
Appendix C	Economics Appendix
Appendix D	Cost Summary
Appendix E	Sites Reservoir Plan of Finance
Appendix F	Contracts, Permits, and Agreements

Acronyms and Abbreviations

\$B	billions of dollars
\$M	millions of dollars
AACE	Advancement of Cost Engineering International
Anticipated Lake Oroville Exchange Agreement	Agreement for Exchanges of Water Between the Sites Reservoir Project and State Water Project
Anticipated Refuge Donation Agreement with Reclamation	Agreement Between the United States and the Sites Authority Providing for Refuge Water Supplies
Anticipated Sites/Reclamation/DWR Operations Agreement	Operations Agreement between the Sites Authority, Reclamation, and California Department of Water Resources
Anticipated SOD Refuge Wheeling Agreement	Agreement Between DWR and the Sites Authority for Conveyance of Sites Water for South of Delta Central Valley Project Project Improvement Act Refuges
B&O Contract	Benefits and Obligations Contract
BCA	benefit-cost analysis
CAPB-DWR	Contract for Administration for Public Benefits with the Department of Water Resources
CCR	California Code of Regulations
CCWD	Contra Costa Water District
CCWD Agreement	Sites Authority and Contra Costa Water District to Coordinate in the Operations of the Sites Reservoir Project, dated December 20, 2023
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
Colusa County MOU	Colusa County and the Sites Authority Regarding Area of Origin Water Rights Claims to Funks and Stone Corral Creeks, and Related Matters, dated November 22, 2021
Colusa Drain MWC; Anticipated Colusa Drain MWC Agreement	Sites Authority and the Colusa Drain Mutual Water Company
Commission	California Water Commission
CVP	Central Valley Project
Delta	Sacramento San Joaquin Delta
DERP	Drought Emergency Response Program
DSOD	Division of Safety of Dams
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPP	Environmental Protection Program
GCID	Glenn-Colusa Irrigation District
HC	Conveyance Facilities

HR	Reservoir Facilities
JPA	Joint Powers Authority
LCBD	Lower Colusa Basin Drain
LCRBWQM	Lower Colorado River Basin Water Quality Model
M&I	municipal and industrial
MAF	million acres feet
Maxwell ID Agreement	Sites Authority and Maxwell Irrigation District to Avoid Impacts of Sites Reservoir Project to Maxwell Irrigation District Water Rights, dated April 9, 2024
MCED	maximum conditional eligibility determination
MOU	Memorandum of Understanding
MWC	Mutual Water Company
MWD	Metropolitan Water District
N/A	not applicable
NDWA	North Delta Water Agency
NDWA MOU	Memorandum of Understanding Between the North Delta Water Agency and the Sites Authority, dated August 30, 2023
NGOs	non-governmental organizations
NOD	north of the Delta
OM&R	Operations, maintenance, and replacement
Operations Plan	Sites Reservoir Operations Plan
PGP	pumping and generating plants
Project	Sites Reservoir Project
PV	present value
Reclamation	Bureau of Reclamation
Sites Authority	Sites Project Authority
SOD	south of the Delta
SWC	State Water Contractors
SWP	State Water Project
SWRCB	State Water Resources Control Board
TAF	thousand acre feet
TCCA	Tehama Colusa Canal Authority
TRR	Terminal Regulating Reservoir
WHE	Wetland Habitat Enhancement
WSIP	Water Storage Investment Program

Executive Summary

Sites Reservoir is a proposed 1.5-million-acre foot offstream reservoir to be developed and constructed by the Sites Project Authority (Sites Authority). It is designed to adapt to changing climate conditions, providing a more flexible water supply for California. As a rain-fed storage solution, Sites Reservoir will be able to capture water from extreme storm events, which can be used by communities, farms, and the environment during periods of water scarcity. Once operational, Sites Reservoir will also be integrated with the State Water Project (SWP) and Central Valley Project (CVP), improving management of California's water supply during extremes such as flooding or drought.

The California Water Commission (Commission) is administering the Water Storage Investment Program (WSIP) to fund the public benefits associated with water storage projects using funds from Proposition 1 Water Quality, Supply, and Infrastructure Improvement Act of 2014. The Commission determined final application scores and made determinations for each of the projects seeking funding through WSIP at its June 2018 meeting. This was followed by a feasibility determination on January 1, 2022. Since that time, the Sites Project Authority (Sites Authority) has worked to complete Proposition 1 requirements, which include obtaining permits and final environmental documents, contracts for the administration of WSIP public benefits, and contracts for non-WSIP cost share participants.

This report supports the WSIP Final Funding Award Hearing process conducted by the Commission. A Self-Certification Form accompanies the report.

The report has been organized to correspond to *WSIP Final Funding Hearing Request Instructions and Self Certification Form* (Commission, 2026). Table ES-1 provides the location of the information in the report.

Table ES-1. Location of Required Information

Certification Form #	Required Information	Sections and Appendices
1	Applicant information	1
2.1	Statement of changes to the project (23 California Code of Regulations [CCR] 6013(f)(3))	2, A
2.1	WSIP benefits and changes to these benefits	2.1, 3.5.1, 3.5.2
2.1	Present value of monetized benefits	3, C
2.1	CALSIM model documentation	B
2.2	Cost summary	4, D
3.1	Financial responsibility for non-WSIP cost share (Section 79755(a)(2))	5, E, F.1
3.2	Administration of WSIP public benefits (Section 79755(a)(3))	6, F.2
3.3	Feasibility study (Section 79755(a)(5)(a))	7, A
3.4	Information regarding Commission determinations (Section 79755(a)(5)(b); 23 Code of Federal Regulations [CFR] 6013(f)(2))	8
3.5	Environmental documentation (Section 79755(a)(5)(c))	9, F.3
3.6	Federal, State, and Local approvals, certifications, and agreements (Section 79755(a)(5)(c))	10, F.4
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1.0 Introduction

This report provides documentation in support of the Final Award Hearing for Sites Reservoir. Sites Reservoir is a proposed 1.5-million-acre foot offstream reservoir. It is designed to adapt to changing climate conditions, providing a more flexible water supply for California. As a rain-fed storage solution, Sites Reservoir will be able to capture water from extreme storm events, which can be used by communities, farms, and the environment when water becomes scarce. Once operational, Sites Reservoir will also be integrated with the SWP and CVP, improving management of California's water supply during periods of flooding or drought.

The Commission is administering the WSIP to fund the public benefits associated with water storage projects using funds from Proposition 1 Water Quality, Supply, and Infrastructure Improvement Act of 2014(Proposition 1) . The Commission determined final application scores and made determinations for each of the projects seeking funding through WSIP at its June 2018 meeting. This was followed by a feasibility determination on January 1, 2022. Since that time, the Sites Project Authority (Sites Authority) has worked to complete Proposition 1 requirements, which include obtaining permits and final environmental documents, contracts for the administration of WSIP public benefits, and contracts for non-WSIP cost share participants. This report provides the Commission with the information required for a final award hearing.

The Sites Reservoir Project is led by the Sites Authority, a joint powers authority made up of irrigation agencies, water districts, cities, and counties in the Sacramento Valley. Since 2010, the Sites Authority has led the planning and development of Sites Reservoir in collaboration with the federal government, state government, and local public agencies. Participation in Sites Reservoir is broad and diverse including the United States Bureau of Reclamation, the State of California, public irrigation districts in the Sacramento and San Joaquin Valleys, as well as urban areas in Southern California and the Bay Area. The participants represent millions of Californians, thousands of acres of food-producing farmland, and natural resource areas that will receive the benefits provided by Sites Reservoir.

2.0 Description of Changes to Project

Sites Reservoir Feasibility Report (Sites Authority, November 2021) includes a description of the project, including changes from the description found in the 2017 application for WSIP funding. *Sites Feasibility Report* is attached in Appendix A to this report.

Although the design has advanced since 2021, the project facilities are consistent with the project described in the *Sites Reservoir Feasibility Report*. More significant changes have been made to project operations through the environmental permitting process and through the development of interagency agreements. Changes to the project from 2021 to the present are documented in this section and supersede the description provided in *Sites Feasibility Report*.

2.1 Refinement of Project Objectives

The original application and subsequent *Sites Reservoir Feasibility Report* (Sites Authority, 2021) proposed four project objectives to achieve WSIP project benefits.

- Deliveries to the Yolo Bypass for Sacramento-San Joaquin Delta (Delta) enhancement (WSIP ecosystem benefits)
- Incremental Level 4 refuge water supply deliveries (WSIP ecosystem benefits)
- Recreation
- Flood damage reduction

The recreation and flood damage reduction objectives are unchanged. The two WSIP ecosystem benefit objectives have been merged and modified in consultation with the California Department of Fish and Wildlife. A drought emergency response benefit has also been added. The revised objectives to provide WSIP project benefits are:

- Wetland habitat enhancement benefits (WSIP ecosystem benefits)
- Recreation
- Flood damage reduction
- Drought emergency response

Changes to ecosystem water supply were made to target water deliveries in ways that will increase the benefits to California's ecosystems. Deliveries to the Yolo Bypass for Delta enhancement and Incremental Level 4 refuge water supply deliveries have been replaced with Wetland Habitat Enhancement Benefits.

Wetland Habitat Enhancement Benefits would devote WSIP water supply to enhance seasonal wetlands, permanent wetlands, and riparian habitat for aquatic and terrestrial species on State and Federal wildlife refuges and on other public and private lands. Through the Contract for Administration of Public Ecosystem Benefits, the Sites Authority would dedicate a portion of Sites Reservoir's water, storage, and conveyance capability to provide supplemental water to state and federal wildlife refuges, the Upper Butte Basin Wildlife Area, and potentially other eligible wetland habitats under specific criteria. Water

released from Sites Reservoir may be conveyed to wetlands areas through exchanges with the State Water Project and local water districts for areas located north of the Delta (NOD or picked up by the Delta pumping facilities and delivered to wetland areas south of the Delta (SOD). Over the term of the Contract, the Sites Authority is to deliver 447,000 acre-feet to wetland areas NOD and 1,563,000 acre-feet to wetland areas SOD, for a total delivery of 2,010,000 acre-feet.

The Sites Authority Contract for Administration for Public Benefits with the Department of Water Resources (CAPB-DWR) includes the use of State Proposition 1 funds relating to the Sites Project delivering public benefits associated with drought emergency response and associated adaptive management requirements. The CAPB-DWR requires the Sites Authority to prepare a Drought Emergency Response Program (DERP). As described in the draft CAPB-DWR, the DERP will need to consider hydrological conditions, system-wide and Sites facilities operations constraints, Sites Participants anticipated use of their capacity interest, and an examination of drought conditions throughout the State. The DERP is to be developed and adopted within 7 years from the execution of the Funding Agreement with the Commission and reevaluated every 5 years after implementation based on best available science and the most current forecast informed reservoir operation approach.

Non-WSIP benefits have been modified thru the addition of Anadromous Fish benefits that are being funded by the U.S. Bureau of Reclamation (Reclamation).

2.2 Overview of Project Facilities

Although the design has advanced since completion of the *Sites Reservoir Feasibility Report* (Sites Authority, 2021, November), the description of the major facilities is generally consistent with the latest advances, although more details are now available. An updated and more detailed Project Description can be found in Chapter 2 of *Sites Reservoir Project Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS)* (Sites Authority, 2023). See Appendix A for a link to the updated Project Description. The major facilities still include:

- Tehama-Colusa Canal Diversion and Conveyance
- Glenn-Colusa Irrigation District (GCID) Main Canal Diversion and Conveyance
- Terminal Regulating Reservoir (TRR)
- TRR Pumping Generating Plant, Substation, and Pipelines
- Funks Reservoir Pumping Generating Plant and Pipelines
- New Electrical Transmission Facilities
- Sites Reservoir including two main dams, saddle dams, and inlet/outlet facilities
- Diversion Tunnel
- Tehama-Colusa Canal Intake for Releases
- Dunnigan Pipeline
- Recreation Facilities

- Modified Local Roads (e.g., Sites Lodoga Road and Bridge) and Construction Access Roads

2.3 Changes to Project Facilities

Some modifications have been made to project facilities through the planning and design process. Planning in 2020 included an evaluation to right-size the project in response to input from state and federal agencies, non-governmental organizations (NGOs), elected officials, landowners, stakeholders, and local communities. This feedback was critical to developing a reservoir that is the right size for both people and the environment, and better meets the needs of all Californians. This resulted in a smaller reservoir footprint (now 1.5 million acre feet [MAF]) and a lower diversion capacity from the Sacramento River. The Sites Authority listened to stakeholder and participant feedback and eliminated undesirable components. The recommended Project reduced impacts to the environment while providing future flexibility to manage the Project for the greatest overall benefit to California. These changes were incorporated into *Sites Reservoir Feasibility Report* (Sites Project Authority, 2021) which presents a Project with significantly reduced diversions that nevertheless maintains the public benefits determined through the WSIP application review and maximum conditional eligibility determination (MCED) process.

Major changes from the 2017 application that were previously presented in *Sites Reservoir Feasibility Report* (Sites Authority, 2021, November) include:

- Reservoir size reduced from 1.8 MAF to 1.5 MAF
- Pumped storage hydropower generation is eliminated (the Project can still generate power on release)
- 13.5-mile Delevan pipeline (bordering Delevan wildlife refuge) is eliminated and replaced with use of the existing Tehama-Colusa Canal and a new four-mile Dunnigan Pipeline (reduced impact to wetlands) to deliver water into the Colusa Basin Drain
- Elimination of the new Delevan Intake Pumping Plant on the Sacramento River. All diversions would be from the existing Red Bluff and Hamilton City pumping facilities

The resulting Project is smaller, less expensive, has fewer environmental impacts, is easier to permit, will have less construction impacts, and will be less expensive to operate and maintain. These changes are described in the updated Project Description (link provided in Appendix A).

2.4 Changes in Project Operations

Project operations have advanced significantly since the publication of *Sites Reservoir Feasibility Report* (Sites Authority, 2021) with the development of permits and operational agreements. The most significant change in operations is a reduction in diversions to fill Sites Reservoir, with an associated reduction in deliveries.

Sites Reservoir Operations Plan (Operations Plan) (Sites Authority, 2026a, September) establishes the procedures to be used in managing the water operations of the Sites Reservoir Project. The Operations Plan reflects the Sites Authority's permits, approvals, and commitments which are specified in other documents. A link to the Operations Plan is available in Appendix A.

Project operations will be consistent with the following (in no particular order):

- All Applicable Laws and Governmental Approvals – a few of which are currently in progress and not yet completed or obtained for the purposes of the Project’s operations;
- Sites Reservoir Benefits and Obligations Contract (B&O Contract) – a final contract has been made available but has not yet been executed;
- Proposition 1 Water Storage Investment Program Contract for Administration of Public Ecosystem Benefits with the California Department of Fish and Wildlife (CDFW) – which is in final draft form but has not yet been executed;
- Proposition 1 Water Storage Investment Program Contract for Administration of Public Recreation, Flood Control, and Emergency Response Benefits with the California Department of Water Resources (DWR) – which is in final draft form but has not yet been executed;
- Partnership Agreement with the Bureau of Reclamation (Reclamation) – which is in final draft form but has not yet been executed;
- Partner Agreement with GCID – which is in final draft form but has not yet been executed which has not yet been finalized or executed;
- Partner Agreement with Tehama Colusa Canal Authority (TCCA) and Excess Capacity Contract with Reclamation – which are in final draft form but have not yet been finalized or executed;
- Any relevant water operations agreement – the following which have been executed by the Sites Authority:
 - Memorandum of Understanding (MOU) Between Colusa County and the Sites Authority Regarding Area of Origin Water Rights Claims to Funks and Stone Corral Creeks, and Related Matters, dated November 22, 2021 (Colusa County MOU);
 - Agreement between the Sites Authority and Contra Costa Water District (CCWD) to Coordinate in the Operations of the Sites Reservoir Project, dated December 20, 2023 (CCWD Agreement);
 - Agreement between the Sites Authority and Maxwell Irrigation District to Avoid Impacts of Sites Reservoir Project to Maxwell Irrigation District Water Rights, dated April 9, 2024 (Maxwell ID Agreement);
 - Memorandum of Understanding Between the North Delta Water Agency (NDWA) and the Sites Authority, dated August 30, 2023 (NDWA MOU); and ○ Settlement Agreement between the Authority, the State Water Contractors (SWC), and DWR, dated June 7, 2024 (Sites/SWC/DWR Settlement Agreement).
- Any relevant water operations agreement – the following which are in final form but have not yet been executed:
 - Agreement between the Sites Authority and the Colusa Drain Mutual Water Company (Colusa Drain MWC; Anticipated Colusa Drain MWC Agreement);
 - Operations Agreement between the Sites Authority, Reclamation, and DWR (Anticipated Sites/Reclamation/DWR Operations Agreement);

- Agreement for Exchanges of Water Between the Sites Reservoir Project and State Water Project (Anticipated Lake Oroville Exchange Agreement);
- Agreement Between DWR and the Sites Authority for Conveyance of Sites Water for South of Delta (SOD) Central Valley Project (CVP) Project Improvement Act Refuges (Anticipated SOD Refuge Wheeling Agreement); and,
- Agreement Between the United States and the Sites Authority Providing for Refuge Water Supplies (Anticipated Refuge Donation Agreement with Reclamation).

On September 3, 2026, the Administrative Hearings Office of the State Water Resources Control Board (SWRCB) issued a Revised Draft Decision 1653 and Revised Draft Water Right Permit for the Project. In addition, on September 3, 2026, the Administrative Hearings Office issued a Procedural Ruling bifurcating the Sites Authority's water right application into two parts – one part that addresses diversions from the Sacramento River (which was the subject of the Revised Draft Decision 1653 and Revised Draft Water Right Permit¹) and one part addressing diversions from Funks and Stone Corral Creeks. The Administrative Hearings Office also issued notice of a continued hearing to receive additional evidence in support of demonstrating water is available for diversions by the Sites Authority from Funks and Stone Corral Creeks in January 2027.

Proposed operations are based on the terms and conditions in the SWRCB's Administrative Hearings Office September 3, 2026 Revised Draft Water Right and Order with respect to diversions and releases to the Sacramento River. Project operations with respect to diversions from Funks and Stone Corral Creeks are based on the terms proposed in the Sites Authority's water right application and through the water right hearing process. The Operations Plan will be adjusted and revised to reflect the Project's Final Water Right(s) and Order(s) once adopted by the SWRCB. The Operations Plan will continue to be updated as details surrounding Project operations permits, including the water right, are finalized.

¹ State Water Resources Control Board, September 3, 2026.

3.0 Benefits Summary

This section describes the analytical approaches, data, and calculations used to update the prior economic analysis performed in *Sites Reservoir Feasibility Report* (Sites Authority, 2021). The section also reports the findings of the benefit-cost analysis (BCA) performed to determine the project's economic feasibility in accordance with the WSIP program guidance and requirements.

3.1 CALSIM Modeled Water Deliveries

The economic benefit analysis for Project-provided water supply relies on updated CALSIM III modeling to quantify the Project's expected future water deliveries under different water-year conditions. Documentation for the modeling effort is provided in Appendix B. The CALSIM III operational studies determined future water deliveries for 2030 conditions.

Table 3-1 provides updated modeling results for project deliveries consistent with current permits and agreements (see Section 2.4).

Table 3-1. Water Supply Accomplishments

Objectives and Accomplishments (above No Project Alternative Conditions)	Average (TAF)
Non-WSIP Water Supply to California Water Suppliers and Transfers	
Non-WSIP Water Supply to California Water Suppliers	86
NOD	11
SOD Ag	1
SOD M&I ¹	75
Reallocated water – Post CAPB ² (not in total above)	34
Transfer Total	23
NOD Transfer	12
SOD Transfer	11
Non-WSIP Benefits to Reclamation	
Total Water Supply for CVP Operational Flexibility	28
NOD	6
SOD	22
Deliveries Supporting WSIP Public Benefits	
Total Deliveries for Wetland Habitat Enhancement²	34
NOD	8
SOD	26
Drought Emergency Response¹	59¹
Total Deliveries	171

Note:

¹ Drought emergency response deliveries during emergency drought events are included in SOD M&I deliveries.

² Post CAPB supplies to WHE are reallocated for non-WSIP supply use by the Sites Authority.

CAPB = Contract for Administration for Public Benefits

CVP = Central Valley Project

M&I = municipal and industrial

NOD = north of the Delta

SOD = south of the Delta

TAF = thousand acre feet

WHE = wetland habitat enhancement

WSIP = Water Storage Investment Program

3.2 Monetized Economic Benefits

No new benefit valuation methodologies have been used for the majority of the 2026 economic feasibility analysis update. Consequently, the prior methodological explanations provided in the 2017 and 2018 WSIP applications (e.g., Attachment A5) are incorporated by reference for those benefit analyses. Benefit valuation methodologies used to estimate the project’s municipal and industrial (M&I) water quality benefits and the Participant specific SOD M&I water supply benefits for the Metropolitan and Zone 7 water districts are described in this section. Benefit methods for WSIP Drought Emergency Response and non-WSIP Anadromous Fish are also described below. Additional supporting information regarding project benefits is provided in Appendix C.

3.3 MCED Benefits Summary

The Commission developed an MCED based on the monetized amount of public benefits to determine the amount of Proposition 1 funding the Project would be eligible for. The most recent MCED determination by the Commission was for \$1.363B (June 17, 2026). Table 3-2 provides an updated summation of WSIP-eligible public benefits using the most recent draft water right. Based on the most recent analysis, the MCED could be increased to \$1.596B.

Table 3-2. Updated Summary of WSIP Benefits for MCED Determination (2026\$)

WSIP-Eligible Public Benefit		Monetized Benefit ¹ – (PV \$millions)	
		CWC June 2026	Update
Wetland Habitat Enhancement (2038 to 2107)	\$806 ²	\$848 ²	
Drought Emergency Response (2035 to 2069)	\$199	\$362 ²	
Recreation (2034 to 2108)	\$291	\$319 ³	
Flood Damage Reduction (2034 to 2108)	\$67	\$67	
Total WSIP Eligible Benefits	\$1,363	\$1,596	

Note:

¹ Benefits shown for applicable MCED terms.

² Benefits includes SOD conveyance cost adjustment.

³ Benefits do not include any recreational use ramp up adjustments.

MCED = maximum conditional eligibility determination

PV = present value

WSIP = Water Storage Investment Program

The methodologies for estimating individual benefits are further described in Section 3.5.

3.4 Summary of Benefits to Support Benefit Cost Analysis

Monetization of economic benefits is summarized in Table 3-3. The total benefits from the Project over the 92-year analysis period are estimated have an \$11.1 billion present value. The water supply benefits for California Water Suppliers are estimated to total \$7.4 billion with another \$678 million in expected water quality benefits for M&I water suppliers and their customers. The water supply benefit for Reclamation is expected to total more than \$1.2 billion. The project is also estimated to result in \$508 million in future benefits for Anadromous Fish.

Table 3-3. Summary of Monetized Benefits Supporting Benefit Cost Analysis (2026\$)

Benefit	Monetized Benefit¹ (PV \$millions)
WSIP-Eligible Public Benefit	
Wetland Habitat Enhancement (2034 to 2107) ²	\$953
Recreation	\$331
Flood Damage Reduction	\$69
Total WSIP Eligible Benefits included in BCA	\$1,353
Non-WSIP Benefit to California Water Suppliers	
Water Supply	\$7,383
Water Quality	\$678
Non-WSIP Benefit to Reclamation	
Operational Flexibility Water Supply	\$1,224
Anadromous Fish	\$508
Total Non-WSIP Eligible Benefits	\$9,794
Total Benefits	\$11,168

Note:

¹ Benefits shown for the 92-year analysis period (2034 to 2125) unless otherwise indicated.

² Include wetland habitat supply benefits pre-MCED (2034 to 2037).

³ The project 2125 Residual value (present value of \$21 million) is included as a benefit by the BCA.

BCA = benefit-cost analysis

MCED = maximum conditional eligibility determination

PV = present value

WSIP = Water Storage Investment Program

As shown in Table 3-1, the Project can be expected to deliver 34 TAF per year for wetland habitat enhancement. For the BCA, that water is valued as wetland habitat enhancement over the 2034 to 2037 period and is conservatively estimated to have a \$94 million present value. As discussed in Section 3.2.1, after the end of the CAPB term in 2108, that water will be unobligated and available for reallocation. As such, for the purposes of the BCA, the wetland habitat enhancement supply quantities are valued and attributed as additional deliveries for California water suppliers between 2108 and the end of the BCA analysis period in 2125.

The project's expected recreation and flood damage reduction benefits over the full 92-year analysis period are attributed to the total benefits. The additional post-CAPB for recreation and flood damage reduction are estimated to have a present value of \$15 million. This assumption is used so that the societal benefits from the Project are recognized but that does not imply any post CAPB obligations to the Joint Powers Authority (JPA). WSIP drought emergency benefits are excluded from the benefit summation since the benefit value of those deliveries water are in the non-WSIP water supply benefit.

3.5 Description of Benefit Estimation Methods

WSIP water supply benefits have been monetized as follows:

3.5.1 WSIP Water Supply Benefits for Wetland Habitat Enhancement

The Incremental Level 4 refuge water supply and Yolo Bypass releases for ecosystem benefit have been merged during the process of developing CAPB contract with California Department of Fish and Wildlife. All ecosystem benefits will be delivered through the Wetland Habitat Enhancement purpose. The WSIP

unit values (with applicable conveyance cost adjustments) were applied to the updated delivery estimates (by water year) to monetize the project's wetland habitat enhancement benefits. The monetized BCA benefits for wetland habitat enhancement over the 2035 to 2107 analysis period are shown in their present value and 2026-dollar terms in Table 3-3.

3.5.2 WSIP Water Supply Benefits for Drought Emergency Response

There are two ways that Sites Project can accomplish the drought emergency supplies public benefits:

1. To the degree that one or more Sites Participants experience drought emergency conditions within their own service areas, their Sites water can be delivered to assist in meeting their own agency's health and safety needs. This can be accommodated within the existing operations plan for the Project. The decision for such use of Sites water is solely within the purview of the Sites Participant. Sites water is a new water supply that would not be available but for the construction of the reservoir and investment in the Project by the Participants.
2. In addition, supplemental supplies from Sites storage may be made available from within the stored water accounts in Sites whereby certain Sites participants experiencing local or state declared emergency conditions may receive Sites water from other Sites participants not experiencing emergency conditions. Sites water can be transferred from a willing Sites participant to an affected Sites participant within the Sites Reservoir without requiring complex negotiated wheeling arrangements and instead being facilitated through routine water accounting within the Reservoir. The supplemental supplies would then be delivered to the affected Sites participant's service area. The Benefits and Obligations Contract that each Sites Participant will execute can accommodate these types of "within" Sites water sales between willing Sites participants.

For the purposes of monetizing MCED benefits, water supplies for Drought Emergency Response were valued using the WSIP unit values for SOD deliveries during critical dry years with a \$119 per acre foot conveyance cost adjustment.

As such, this is a conservative valuation of the project's during emergency drought events since it does not fully represent: (1) the recipient agencies' own valuation of that water based on its alternative supply costs which are substantially higher than the WSIP Technical Reference unit values (Commission, 2016); and (2) end-users' willingness to pay and consumer surplus benefits of supplied water during periods of scarcity and shortages.

WSIP drought emergency response benefits attributed to project M&I deliveries during critical drought events are not included in the BCA's benefit summation since that delivered water is also recognized as a non-WSIP water supply benefit. As such, the BCA excludes WSIP emergency drought response benefits to avoid double-counting critical drought event deliveries in its evaluation of the project's cost-effectiveness.

3.5.3 WSIP Recreation Benefits

WSIP Recreation benefits have been escalated to 2026 dollars using the Reclamation Construction Cost Index. No other changes to Recreation benefits have been made. For the BCA, recreation benefits are attributed to the full 92-year period of analysis (2034 to 2125). This assumption more fully recognizes the project's expected future societal benefits, but it does not imply any post CAPB obligations to the Sites Authority.

However, for the purposes of the MCED determination, the benefit period for the Project's future recreation benefits was limited to the 75-year period specified in the provisional MCED determination from 2034 until the end 2108. The monetized BCA benefits for recreation over the entire analysis period are shown in their present value and 2026-dollar terms in Table 3-3.

3.5.4 WSIP Flood Damage Reduction Benefits

WSIP Flood Damage Reduction benefits have been escalated to 2026 dollars using the Reclamation Construction Cost Index. No other changes to Flood Damage Reduction benefits have been made. For the BCA, flood damage reduction benefits are attributed for the full 92-year period of analysis (2034 to 2125). This assumption more fully recognizes the project's expected future societal benefits but that does not imply any post CAPB obligations to the Sites Authority. The monetized BCA benefits for the project's flood damage reduction over the entire analysis period are shown in their present value and 2026-dollar terms in Table 3-3.

However, for the purposes of the MCED determination, the benefit period for the Project's future flood damage reduction benefits is limited to the 75-year period specified in the provisional MCED determination from 2034 until the end 2108.

3.5.5 Non-WSIP Water Supply Benefits to California Water Suppliers

Non-WSIP supply benefits for the project's NOD and SOD agricultural deliveries are estimated using the WSIP Unit Water Valuation approach. Consistent with that approach, when applicable, the WSIP unit water values were adjusted by applicable conveyance costs to estimate the benefit value of project water deliveries to those water users.

For the SOD deliveries to M&I users, the agency-specific benefit value determinations developed for Metropolitan Water District (MWD) and Zone 7 Water by Sites Reservoir Feasibility Report the 2021 were updated to better represent their current circumstances. In consultation with Metropolitan Water District and Zone 7 Water Agencies, analysis of their demand, planned project water use and supply alternatives was performed to identify their agency-specific water supply benefits based on their alternative supply costs for replacement supplies to substitute for their expected future Sites Reservoir deliveries. MWD and Zone 7 identified alternative supply projects from their current water supply development portfolio to represent their water supply alternatives that could provide sufficient supply quantities to replace future Sites Reservoir deliveries.

The water supply benefits to California water supplies also includes estimated benefits for reallocated use of the Water Habitat Enhancement deliveries after the end of the CAPB in 2107 until 2125. The monetized benefits for non-WSIP water supply to California water suppliers are shown in their present value and 2026-dollar terms in Table 3-3.

3.5.6 Non-WSIP Water Quality Benefits to California Water Suppliers

Consistent with the Sites Reservoir Feasibility Report (Sites Authority, 2021), the Lower Colorado River Basin Water Quality Model (LCRBWQM) was used to estimate the benefits of salinity reduction in terms of avoided costs and damages from water quality improvements for water users within the MWD service area. The previous analysis has been updated based on the revised deliveries of non-WSIP water supplies for SOD M&I use. The monetized non-WSIP water quality benefits to California water suppliers are shown in their present value and 2026-dollar terms in Table 3-3.

3.5.7 Non-WSIP Water Supply Benefits to Reclamation

Reclamation will operate a storage account in Sites Reservoir to obtain Operational Flexibility for the CVP. The CVP is operated to meet a variety of authorized CVP purposes, including providing water for irrigation and M&I uses; fish and wildlife mitigation; fish and wildlife enhancement; and water quality. Operational flexibility is defined as the benefit accruing to the Federal government from an increased ability to allocate additional water supplies for authorized CVP purposes through investment in Sites Reservoir. Reclamation would deliver water for beneficial use and better meet authorized CVP purposes by increasing the efficiency, reuse, or multiple use of existing supplies; or by reducing impacts of regulatory or capacity constraints on the CVP. Additionally, Operational Flexibility facilitates delivery of CVP water supplies that would otherwise be undeliverable due to operational and demand constraints. The WSIP unit values (with applicable conveyance cost adjustments) were applied to the updated delivery estimates (by water year) to monetize the project's water supply benefits to Reclamation. The monetized non-WSIP water supply benefits to Reclamation are shown in their present value and 2026-dollar terms in Table 3-3.

3.5.8 Non-WSIP Anadromous Fish Benefits to Reclamation

Reclamation is funding benefits for anadromous fish in the upper Sacramento River watershed. Benefits were estimated using the methodology adopted by Reclamation (*Feasibility Report Addendum: North-of-the-Delta Storage Investigation*, Reclamation, 2023). Salmon production increases for all runs were compared to the No Action Alternative for the full simulation period using Alternative 3 results in Appendix 11H from *Final EIR/EIS* (Sites Authority, 2023, November). SALMOD modeling results estimate 171 habitat units per year. The cost per habitat unit was estimated to be \$66,117 per habitat unit (in 2023 dollars) based on the alternative project cost for raising Shasta Dam. Consistent with the WSIPs Final Award Hearing guidance, this unit habitat cost was converted into its corresponding 2026-dollar value of \$104,816 per habitat unit using the Reclamation Construction Cost Index. The monetized non-WSIP benefits to Anadromous Fish are shown in their present value and 2026-dollar terms in Table 3-3.

4.0 Cost Summary

The Sites Authority developed a 30% design in 2024. The estimate based on the 30% design is a Class 3 cost estimate, as defined by the Association for the Advancement of Cost Engineering International (AACE). The cost estimates developed in March 2024 dollars have been escalated using the construction cost trends published by the U.S. Bureau of Reclamation to develop the costs in 2026 dollars presented in this report.

4.1 Capital Costs

The cost estimate for Sites Reservoir includes the following cost categories.

- Reservoir Facilities – costs associated with dams, saddle dams, inlet/outlet works, roads, and bridges.
- Conveyance Facilities – costs associated with upgrades to diversion structures, regulating reservoirs, pumping plants, and the Dunnigan Pipeline for releases.
- Noncontract Costs – non-contract costs are Owner’s costs that are excluded from the construction contracts. Examples include legal services, investigations, final design and specifications, construction management, environmental compliance, archeological considerations, and start-up/commissioning.
- Real Estate – property acquisition costs.
- Compensatory Mitigation - costs required to comply with permit requirements.

The total capital cost estimate in 2026 dollars is provided in Table 4-1. Supporting information is provided in Appendix D.

Table 4-1. Capital Cost Estimate Based on 30% Design

Cost Estimate Component	Cost (2026\$)
Reservoir Facilities	\$2,654,000,000
Conveyance Facilities	\$1,593,000,000
Noncontract Costs	\$1,325,000,000
Real Estate	\$132,000,000
Compensatory Mitigation	\$864,000,000
Contingency	\$1,555,000,000
Total	\$8,123,000,000

4.2 Operations, Maintenance, and Replacement Costs

Operations and maintenance costs will be annually incurred to operate the reservoir and conveyance facilities. Replacement costs are periodically incurred as various project facilities require significant repairs and/or replacement. Operations, maintenance, and replacement (OM&R) costs were developed for the facilities included in the 30% design effort. Costs are presented in 2026 dollars in Table 4-2. This table includes the wheeling charges necessary for fill and NOD conveyance. The conveyance cost of deliveries for SOD Wetland Habitat Enhancement is also shown in Table 4-2.

Table 4-2. OM&R Costs for Sites Reservoir in 2026 Dollars

Facility	Operations	Maintenance	Replacement	Total
<i>Funks PGP - PG&E Wholesale Rates</i>	<i>1,361,548</i>	<i>50,419</i>	<i>5,563,505</i>	<i>6,975,472</i>
<i>TRR PGP - PG&E Wholesale Rates</i>	<i>1,161,614</i>	<i>50,419</i>	<i>5,193,296</i>	<i>6,405,329</i>
TCCA Pumping Station	128,957	N/A	N/A	128,957
GCID Main Pumping Station	included in wheeling	N/A	N/A	-
Generation on Release	(2,936,000)			(2,936,000)
TRR - West Reservoir	-	86,071	3,051,891	3,137,962
Pipelines (all)	38,369	16,592	8,723,244	8,778,205
Substations (two)	-	111,996	2,878,712	2,990,708
Transmission Lines	-	26,547	631,533	658,080
HC Subtotal - PG&E Wholesale	(245,512)	342,044	26,042,181	26,138,713
Dams	-	277,916	-	277,916
Reservoir Rim and Spillway	-	95,404	-	95,404
Inlet/Outlet Works, Sites Dam Outlet	-	48,739	-	48,739
Roads	-	89,182	-	89,182
Bridges	-	42,517	-	42,517
General	-	405,467	-	405,467
Unlisted items allowance	-	144,143	-	144,143
Periodic Costs	-	-	1,950,597	1,950,597
HR Subtotal	-	1,103,368	1,950,597	3,053,965
Agency Operational Cost	5,361,746			5,361,746
Contractual O&M Cost	2,737,327			2,737,327
Wheeling Fill TCCA	2,115,000			2,115,000
Wheeling Fill Reclamation	564,000			564,000
Wheeling Fill GCID	2,184,000			2,184,000
Wheeling Release TCCA	1,270,000			1,270,000
Wheeling Release Reclamation	508,000			508,000
Wheeling LCBBD Operation	1,905,000			1,905,000
Wheeling SOD Habitat	2,015,000			2,015,000
Wheeling NOD Habitat				
Oroville Exchange	457,810			457,810
Wheeling Western Canal Richvale	407,320			407,320
Wheeling GCID West Side Habitat	84,836			84,836
Owners Cost Subtotal	19,610,039	-	-	19,610,039
O&M related to EPP	1,037,000			1,037,000
Science Program Subtotal	1,037,000			1,037,000
Total OM&R - PG&E Wholesale	20,401,527	1,445,412	27,992,778	49,839,717

Notes:

EPP = Environmental Protection Program
GCID = Glenn-Colusa Irrigation District
HC = Conveyance Facilities
HR = Reservoir Facilities

LCBD = Lower Colusa Basin Drain
NOD = north of the Delta
O&M = operations and maintenance
OM&R = Operations, maintenance, and replacement

PG&E = Pacific Gas & Electric Company
PGP = pumping and generating plants
SOD = south of the Delta
TCCA = Tehama Colusa Canal Authority
TRR = Terminal Regulating Reservoir

Consistent with WSIP BCA guidance and prior Project economic analyses, estimated variable OM&R and off-aqueduct charges for Sites Authority SOD deliveries are also included in the Project's total lifecycle

cost and analysis of its cost-effectiveness. The estimated annual SOD conveyance cost for non-WSIP supplies to California water supplies are estimated to be approximately \$7.1 million per year.

4.3 Cost Summary

A cost summary for the project in both current year (2026) dollar and present value terms is provided in Table 4-3. Annual and present value costs are provided in Appendix D. The current MCED and recommended supplemental funding amount is provided in Table 3-2.

Table 4-3. Cost Summary (2026\$ Millions)

Cost Item	Undiscounted	Present Value
Construction Cost	\$8,123	\$8,120 ³
Interest During Construction ¹	\$162	\$162
OM&R ²	\$5,242	\$1,614
<i>Residual Value (2125)</i>	<i>(\$487)</i>	<i>(\$21)⁴</i>
Total	\$13,041	\$9,896

Notes:

¹ IDC based on an assumed Authority construction cost share of \$5,529 million at a 0.63% real interest rate.

² Based on \$57.1 million annual cost that includes applicable non-WSIP SOD conveyance costs.

³ Includes 2035 construction cost expenditures discounted into 2034 present value terms.

⁴ Residual value is recognized as a benefit increase not a cost reduction in BCR.

4.4 Cost Allocation

Table 4-4 provides a cost allocation for all key project participants. Estimated benefits are also provided for each project participant. Storage allocation for individual water districts will be developed through the upcoming Benefits and Obligations contracts. After which point, future cost allocation between individual water districts will be assigned proportional to their respective storage allocations.

Table 4-4. Construction Cost Allocation (2026\$ Millions)

Participant	Cost Assigned	% of Cost	Estimated Benefit	% of Benefits	Deliveries	% of Deliveries
Authority	\$5,529	68.0%	\$8,053	72.3%	109	64.0%
Reclamation	\$1,288	16.1%	\$1,732	15.6%	28	16.3%
WSIP	\$1,308 ¹	15.9%	\$1,594 ²	14.3% ²	34	19.7%
Total	\$8,123	100%	\$11,135³	102.2%³	171	100%

Note:

¹ WSIP construction cost reduced from \$1,363 million funding due to \$55 million in pre-construction spending

² WSIP benefit total includes \$363 million in Emergency Drought benefits.

³ BCA benefits exclude WSIP Emergency Drought benefits.

BCA = benefit-cost analysis

WSIP = Water Storage Investment Program

A cost assignment for OM&R is provided in Appendix D.

5.0 Financial Responsibility for Non-WSIP Cost Share

The cost share and responsibility for non-WSIP project participants are described in the *Plan of Finance* (Sites Authority, 2026b). A cost allocation is provided in Section 4 of this report. The *Plan of Finance* is attached as Appendix E.

Final Benefits and Obligation Contracts are currently in development for local agency participation. A link to the partnership agreement with Reclamation is included in Section F.1 of Appendix F.

6.0 Administration of WSIP Public Benefits

Appendix F, Section F.2 provides links to CAPB contracts with the California Department of Fish and Wildlife for ecosystem benefits and with the California Department of Water Resources for recreation, flood damage reduction, and drought emergency response benefits.

7.0 Feasibility Study

Sites Reservoir Feasibility Report (Sites Authority, 2021) is attached in Appendix A to this report. This report provides updates to several components of the Sites Feasibility Study, as follows:

- Section 2 (Project Description) describes changes to the project description and includes links to material that supersedes the relevant portions of *Sites Reservoir Feasibility Report*.
- Section 3 (Benefits Summary) provides updated modeling for deliveries and updates the monetization of economic benefits. It supersedes the relevant portions of *Sites Reservoir Feasibility Report*.
- Section 4 (Cost Summary) provides an updated cost estimate for the project. It supersedes the relevant portions of *Sites Reservoir Feasibility Report*.
- Section 5 (Financial Responsibility for Non-WSIP Cost Share) references the Sites Authority's Plan of Finance and supersedes the relevant portions of *Sites Reservoir Feasibility Report*.

8.0 Information Regarding Commission Determinations

The Commission made nine determinations pursuant to Water Code section 79757 and 23 CCR 6011 for the Project based on the application in 2018 and then again in 2021 based on *Sites Reservoir Feasibility Report* (Sites Authority, 2021).

8.1 Feasibility

Design completed to date confirms that it is technically feasible to construct all project facilities. It is also technically feasible to operate the project in accordance with permits and the draft water right.

The project is considered economically feasible. The benefit to cost ratio exceeds 1.0 and is currently estimated at 1.13.

The environmental review and permitting process identify an environmentally feasible manner to construct and operate the project.

The Plan of Finance identifies a financially feasible approach to obtain funding to construct and operate the project.

The project is deemed constructable.

8.2 Consistency with Applicable Laws and Regulations

Environmental documentation is further discussed in Section 9 of this report. The environmental review and permitting process has identified project requirements that are achievable. Consistency with local requirements is further described in Section 10 of this report.

8.3 Long-Term Delta Objectives

Sites Reservoir is designed as an off-stream water storage facility in the Sacramento Valley that will capture water during wet years and release it when needed, directly supporting both ecological restoration and water management objectives for the Delta.

1. Improving Water Supply Reliability: By storing up to 1.5 million acre-feet of water diverted from the Sacramento River during high-flow periods, Sites Reservoir will significantly increase the State's water storage capacity. This allows more consistent deliveries to agriculture, municipalities, and environmental uses during droughts, reducing the need for costly water treatment and improving resilience to climate variability.

2. Supporting Ecological Health: The project is explicitly planned to allocate a portion of stored water for environmental needs. WSIP benefits include water supply for Wetland Habitat Enhancement, including water for habitat on Delta tributaries. Non-WSIP benefits under the management of the Bureau of Reclamation include improvements to temperature and flow conditions in the Upper Sacramento River that will benefit Chinook Salmon and other aquatic species. By preserving more cold water in Shasta and improving river temperatures, it will enhance habitat conditions for anadromous species and improve water quality in dry years.

3. Enhancing Delta Ecosystem Functions: Through flexible operations, the reservoir can time and deliver water to improve habitat quality during critical dry periods, supporting both aquatic and terrestrial habitats. This aligns with CALFED Bay-Delta goals for ecosystem enhancement and biodiversity conservation.

4. Integration into Long-Term Water Management: Sites Reservoir is recognized by the State of California and the U.S. Bureau of Reclamation as a key component of integrated water management in the Sacramento Valley. It will operate in coordination with the CVP and other facilities, providing operational flexibility to balance water supply, environmental flows, and flood damage reduction.

9.0 Environmental Documentation

Water Code section 79755(a)(5)(C) requires completed State and Federal environmental documents. Environmental documentation provided with this report include the Final EIR/EIS (Sites Authority, 2023), Notice of Determination (Sites Authority, 2022), Record of Decision from the Bureau of Reclamation (2026), and Record of Decision from the U.S. Army Corps of Engineers (2026).

A California Environmental Quality Act (CEQA) addendum is currently in the preliminary stages of preparation.

Documentation is provided in Appendix F, Section F.3.

10.0 Federal, State, and Local Approvals, Certifications, and Agreements

Appendix F, Section F.4 provides the following documentation (either as attachments or publicly available links).

- Water Right Order and Permit from State Water Resources Control Board
- Construction Biological Opinion from United States Fish and Wildlife Service and National Marine Fisheries Service
- Clean Water Act Section 401 Water Quality Certification from State Water Resources Control Board
- Section 106 of the National Historic Preservation Act - Programmatic Agreement from State Historic Preservation Officer
- California Endangered Species Act Incidental Take Permit for Operations from California Department of Fish and Wildlife
- California Endangered Species Act Incidental Take Permit for Construction from California Department of Fish and Wildlife
- Conceptual Acceptance Document from Department of Water Resources' Division of Safety of Dams
- Memorandum of Understanding with Colusa County Air District
- County Developer Agreement with Yolo County
- County Developer Agreement with Glenn County
- County Developer Agreement with Colusa County

The following documents are still in development and will be provided upon completion:

- Operations Biological Opinion from United States Fish and Wildlife Service and National Marine Fisheries Service
- Clean Water Act Section 404 Permit from United States Army Corps of Engineers
- Memorandum of Understanding with Glenn County Air District

11.0 Construction Scope and Schedule Summary

Construction of the Sites Reservoir Project will occur through a series of overlapping construction phases and work packages. Initial construction activities will focus on completing geotechnical investigations needed to support design progression with coordinated reviews from the Department of Water Resources Division of Safety of Dams (DSOD), where applicable.

Work for each major facility will generally progress through acquiring the necessary remaining land rights, completing environmental baseline surveys required by Project permits, performing geotechnical investigations, completing design, obtaining applicable permit authorizations, securing required compensatory mitigation, negotiating construction contracts, and developing Project-wide access and other supporting infrastructure. These activities will enable major facility construction to proceed.

Major facility construction is divided into two primary categories: reservoir work and conveyance work. Reservoir work will include construction of the two main dams—Golden Gate Dam and Sites Dam—as well as the saddle dams, spillway, inlet/outlet facilities, and associated infrastructure including the bridge crossing the reservoir. Conveyance work will proceed in parallel and will include large-diameter pipelines, pumping and generating facilities, electrical facilities, and associated infrastructure connecting the reservoir to the existing regional water conveyance system.

Construction activity will increase beginning in 2028, reaching peak levels around 2030. Major facility construction is anticipated to be substantially complete by late 2034, followed by reservoir commissioning and initial filling activities extending into 2035. Certain ancillary improvements may continue beyond substantial completion. The major construction phases, associated scope, estimated costs, and anticipated construction periods are summarized in the table below and portrayed in the accompanying schedule.

Table 11-1. Sites Reservoir Construction Phases

Major Construction Components	Description	Anticipated Construction Cost (\$M)	Anticipated Major Facility Construction Start	Anticipated Final DSOD Review / Approval	Anticipated Construction Completion
		Note 1	Note 2	Note 2	Note 2
Preconstruction Work and Enabling Activities	In order to begin the major facility construction described in this table, various enabling activities must first be completed or sufficiently advanced. Major enabling activities include: • Securing necessary land rights. The Authority currently owns a significant amount of the land required for the Project; however, additional land and land rights will need to be secured as Project funding becomes available. • Securing environmental permit authorizations. Project permits require various approvals and authorizations for specific construction activities and their associated environmental effects. These activities will need to progress in coordination with design and construction sequencing. • Securing agency-approved compensatory mitigation. The Authority is in the process of procuring a contractor to support this work. Mitigation is anticipated to include a combination of credits from existing mitigation banks and permittee-responsible mitigation, including acquisition of mitigation lands. • Completing geotechnical investigations and progressing the design from the current 30% status to final design. Some geotechnical investigations may require additional permit authorizations and compensatory mitigation where permanent disturbance is necessary to access investigation locations, such as construction of access roads on steep slopes. • Leveraging the Construction Manager at Risk modeling and completing ongoing design reviews, value engineering, and constructability analyses. • Developing key access and supporting infrastructure is needed to enable major construction. • Updating cost estimates and risk registers and negotiating construction contracts.	\$1,550	Ongoing	NA	Through Project Completion
Golden Gate Dam and Sites Dam	Early Works: Preparatory work will include the development of haul roads, access roads, detour roads, staging areas and borrow sources necessary to support facility construction. Facility Construction: Includes foundation excavation and preparation, installation of permanent and temporary bypasses,	\$1,500	Early 2028	Late 2029 and Mid 2030	Mid 2034

Major Construction Components	Description	Anticipated Construction Cost (\$M)	Anticipated Major Facility Construction Start	Anticipated Final DSOD Review / Approval	Anticipated Construction Completion
		<i>Note 1</i>	<i>Note 2</i>	<i>Note 2</i>	<i>Note 2</i>
	installation of cofferdam facilities, foundation grouting, and foundation approvals. Following completion and approval of the applicable foundation work, construction will progress through the placement of the zoned dam embankment.				
Inlet/Outlet Structure	Early Works: Due to the location of this facility, significant access improvements will need to be developed to support the construction of the structure. This is anticipated to start concurrently with the final DSOD approval. Facility Construction: Includes excavation and treatment of the upstream and downstream portals, tunnel excavation and lining, foundation and structure work followed by installation of mechanical equipment.	\$600	Mid 2029	Early 2030	Early 2032
Saddle Dams, Dikes & Spillway	Early Works: County road and bridge improvements will be required to support construction in this region and are expected to occur early in the Project. Development of borrow areas may also begin concurrently with final design and DSOD review and approval. Facility Construction: The various dams and dikes along with the spillway will be sequenced based on access restrictions and resource availability. The work for each dam and dike would start with foundation excavation, grouting (where required) followed by zoned dam embankment construction.	\$700	Mid 2030	Mid 2030	Late 2034
Conveyance Facilities	Early Works: This work will necessitate a range of early works activities, including early procurement of long-lead items, including large electrical equipment. Facility Work: Includes construction of two pumping and generating plants (PGPs), substations and switchyards, installation of the large-diameter pipelines between the PGPs and the Inlet-Outlet structure, construction of a new inlet structure on the Glenn-Colusa Irrigation District Canal, a new terminal regulating reservoir and improvements to the existing Funks Reservoir.	\$1,500	Mid 2030	N/A <i>Note 3</i>	Mid 2034
Dunnigan Pipeline and Intake and Outlet Structures	Early Works: Due to the nature of this work, early procurement of tunnel lining or mechanical work may be necessary. Facility Construction: Includes a new intake structure along the Tehama-Colusa Canal, an approximately four-mile-long, large-diameter pipeline extending east to the Colusa Basin Drain, and an outlet structure at the Colusa Basin Drain.	\$250	Mid 2031	N/A	Mid 2033

Major Construction Components	Description	Anticipated Construction Cost (\$M)	Anticipated Major Facility Construction Start	Anticipated Final DSOD Review / Approval	Anticipated Construction Completion
		Note 1	Note 2	Note 2	Note 2
Point of Interconnection Substation	Early Works: It is anticipated that the early purchase of large electrical equipment will be necessary to support the schedule. Facility Construction: This facility will interconnect the project facilities with the existing nearby Pacific Gas and Electric transmission lines.	\$50	Late 2030	N/A	Late 2032
Sites-Lodoga Road & Bridge	Early Works: The current design of this bridge includes long precast girders that may need to be procured early to support the schedule. Facility Construction: Includes construction of a major bridge across the proposed reservoir to realign the existing county road. Work will include significant foundation construction at the pier and abutment locations, construction of the bridge piers and abutments, followed by erection of the bridge superstructure and completion of the bridge deck and associated roadway improvements.	\$400	Late 2031	N/A	Mid 2034
Existing Facility Improvements	Includes improvements to existing Glenn-Colusa Irrigation District facilities required to support Project conveyance and operations. Generally, improvements to existing Tehama-Colusa Canal Authority facilities are being implemented outside of the Sites Project construction scope described in this table.	\$25	Late 2031	N/A	Early 2034
Huffmaster Road	Includes the realignment of the existing county road, Huffmaster Road, around the proposed reservoir location.	\$25	Early 2032	N/A	Early 2034
Recreation Areas	Includes construction of the Project's planned recreation facilities, access, parking, and related improvements around the reservoir.	\$50	Early 2033	N/A	Early 2035 Note 4
Reservoir Commissioning & First Fill	Following substantial completion of the major reservoir facilities, the Project will initiate commissioning and the first reservoir filling in coordination with applicable regulatory requirements.	\$15	Late 2034	Late 2034	Mid 2035

Notes:

1. Anticipated costs are based on the current cost estimate and are presented in 2024 dollars. The table is not intended to be inclusive of the entire Project scope or to reconcile to the total Project cost.
2. Anticipated timeframes are based on the current Project schedule and are approximate. Actual timing is dependent on the availability of Project funding, acquisition of necessary land and land rights, completion of environmental permitting and mitigation requirements, advancement of design, and other predecessor activities necessary to support construction. Anticipated construction start dates may include early construction activities authorized to proceed before final DSOD approval of the applicable facility. Construction activities requiring DSOD approval will commence following receipt of the necessary authorizations.
3. Most conveyance facilities are not subject to DSOD jurisdiction. However, the portion of the large-diameter pipeline extending from the Inlet/Outlet Structure to the energy dissipation structure at the Funks Pumping and Generating Plant is subject to DSOD review and approval. This approval is anticipated to be coordinated with the overall Inlet/Outlet Structure approval.
4. Construction of recreation facilities is anticipated to continue beyond substantial completion of the major Project facilities and the commencement of initial Project operations.

\$M = million of dollars

DSOD = Division of Safety of Dams

N/A = not applicable

PGP = pumping and generating plants

SITES RESERVOIR PROJECT SCHEDULE **Construction Summary**

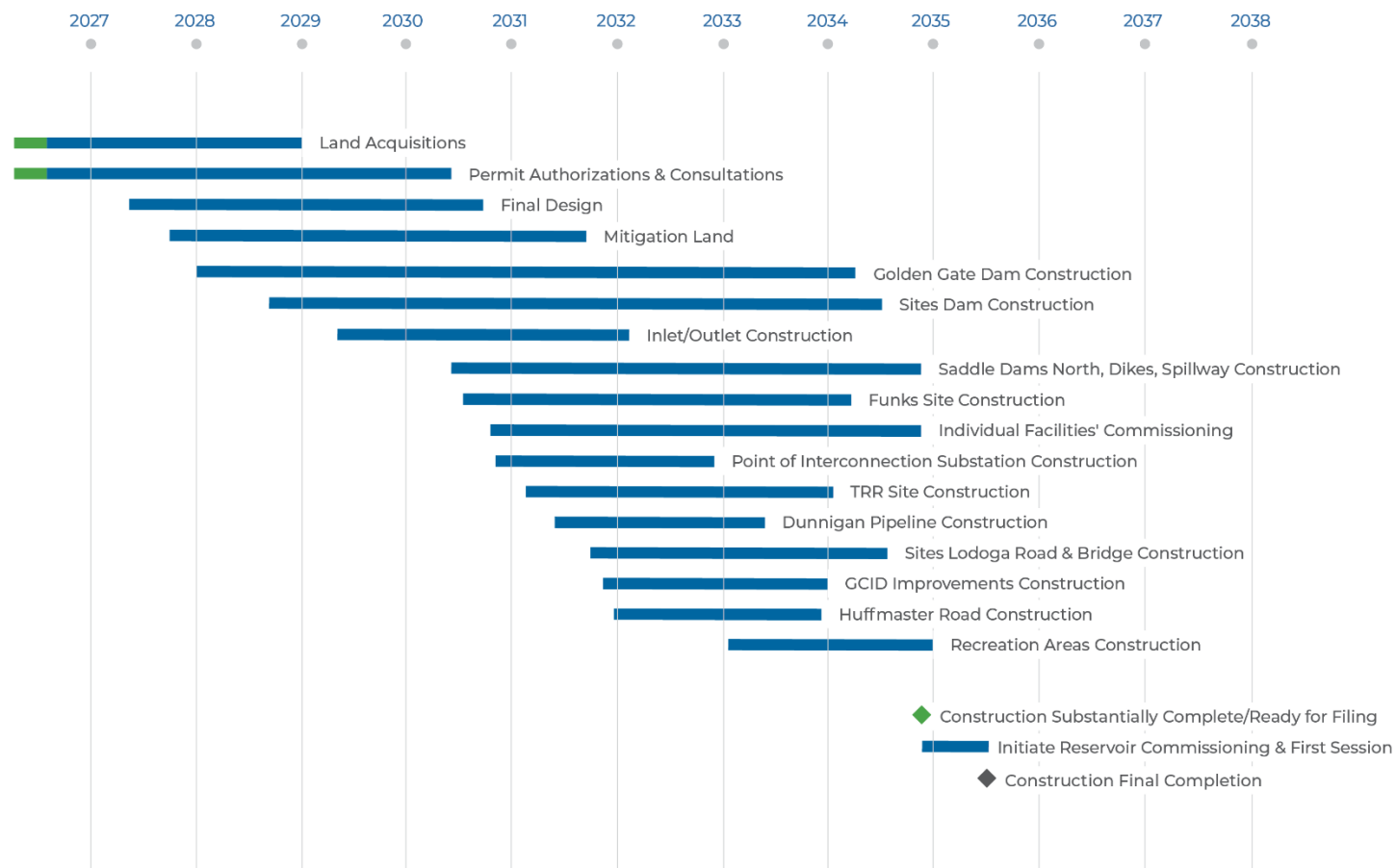


Figure 11-1. Construction Summary

Table 11-2. DSOD Jurisdictional Components

DSOD Jurisdictional Components	Anticipated DSOD 60% Design Review		Anticipated DSOD 90% Design Review		Anticipated DSOD 100% Design Review	
	Start	Finish	Start	Finish	Start	Finish
Golden Gate Dam	Mar-28	Aug-28	Mar-29	May-29	Oct-29	Dec-29
Saddle Dams & Spillway	Apr-28	Aug-28	Oct-29	Jan-30	Apr-30	May-30
Sites Dam	Jul-28	Nov-28	Jun-29	Sep-29	Mar-30	May-30
Inlet/Outlet	Dec-28	May-29	Aug-29	Oct-29	Dec-29	Feb-30

Notes:

DSOD – Division of Safety of Dams

12.0References

Bureau of Reclamation 2026. Record of Decision: Sites Reservoir Project.

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Appendix A Project Description

Appendix B Modeling Documentation

Appendix C Economics Appendix

Appendix D Cost Summary

Appendix E Sites Reservoir Plan of Finance

Appendix F Contracts, Permits, and Agreements