



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Board Report

Bay-Delta Resources

- **Sites Reservoir Project Plan of Finance Summary and Overview of Agreements**

Summary

The proposed Sites Reservoir Project would be a 1.5 million-acre-feet off-stream reservoir that would divert water from the northern Sacramento River into storage during high flow periods under a newly assigned water right, which will be separate from the State Water Project's water rights. The Sites Reservoir Project is governed by the Sites Project Joint Powers Authority (Authority) that was formed in 2010. Metropolitan is a potential investor (Participant) and has been paying to participate in the environmental review and planning process. The Authority will own the new facilities, and the Participants would receive a capacity right commensurate with their respective investments. Since 2017, Metropolitan's Board has authorized approximately \$31 million in planning costs for the Sites Reservoir Project, with the most recent board action taken in April 2022.

The current presentation focuses on Sites' plan of finance as well as the key components of its funding, financing and credit structure. A summary of the various stakeholders, their roles, anticipated benefits, and associated obligations to support the plan of finance will be described. This presentation includes a high-level description of the key contractual agreements, governing bylaws, and planning documents that comprise the comprehensive approach to funding this collaborative project. The purpose of each document is highlighted, and key elements of note for the Board to consider are presented. While the documents are still being drafted and negotiated, this presentation is intended to provide the Board with a general framework for how the Authority is approaching the development of its plan of finance, including several financing components under consideration. Later in the year, staff will focus on the financial assessment of Sites from Metropolitan's perspective as a potential participant, highlighting unit cost assessments and rate impacts, among other potential key financial metrics.

The Authority gave a presentation to the Imported Water Subcommittee in July 2025 regarding the updated cost estimate. During that meeting, the Directors raised a number of questions. Attachment 1 includes responses to the Directors' questions raised at that meeting.

Purpose

Informational

Attachments

Attachment 1. Response to questions raised during the July 2025 Imported Water Subcommittee

Directors Questions from July 2025 IWS Sites Project Cost Estimate Update

Costs/Financing:

- Will escalation during the 7-year construction period will have a significant impact?
 - *The \$7.5B we discussed with the board is in 2025 dollars. The 7-year construction period will impact the number in actual dollars. As we update the plan of finance, the cost of escalation during construction and the cost of financing will be evaluated. This is planned for the end of 2025 as an interim update, but we will provide the "official" numbers in the Program Baseline Report at the start of investor commitment.*

Escalating to mid-point of construction at 3% is about \$8.5 billion. The contingency built into the estimate does not include inflation/escalation.
- If Metropolitan's paying 22% of the cost of construction, will that all be financed?
 - *Participants may pay-go or participate in the group financing. Group financing has two options: (1) capitalize (defer) interest payments during construction, (2) pay interest during construction. If Metropolitan decides to pay-go, it has the option to finance the payments on its own using its own bonding authority. As the board is aware, there are additional capital project needs on the horizon for Metropolitan, which may be constrained by revenue bond capacity limitations.*
- Under group financing, would this all be done under one finance package?
 - *To manage project construction cashflow and comply with applicable tax regulations, while also not incurring excessive interest costs, the Authority will borrow incrementally over the course of the project construction period. The Authority's current plan of finance includes long-term financing of up to 49% of project costs through a federal Water Infrastructure Finance and Innovation Act (WIFIA) loan. The Authority's WIFIA loan is being structured as a Master Credit Agreement, allowing for discrete "draws" on the approved loan amount over the project funding period. The Authority also received a USDA loan award of up to \$450 million that could potentially be used to fund qualified expenditures of the project. The remainder of the long-term financing needs would be met by revenue bonds issued by the Authority or PAYGO contributions from Participants, who may elect to finance their contributions using their own financing authority. The Authority's plan of finance needs to be flexible to accommodate market conditions on a real-time basis. The Authority and the Reservoir Management Board will evaluate, as funds are needed, whether the cost of borrowing using the WIFIA or USDA loan is preferable to the bond market rates available through the issuance of revenue bonds. Some Participants with the option to do so will evaluate the merits of borrowing as part of the JPA financing, or on their own. Over the course of the construction period, alternative financing tools and approaches may be utilized. It is also important to note that, the project is on target to receive significant state and federal funding (currently 26.4% of the total project costs, but could increase to about 33%), which reduces the amount of the remaining project costs that will be financed by Participants.*

- Aside from construction and operations and maintenance (O&M), are there any additional fees associated with the project?
 - *There are no additional fees, above O&M, for storing and conveying water. Nor could stored water be “spilled”. The O&M fees do include cost recovery for use of existing facilities operated by Glenn-Colusa Irrigation District and Tehama-Colusa Canal Authority. However, participants would experience losses through evaporation/seepage and for those conveying water through the Delta, there would be carriage water and other conveyance losses.*
- Will the guaranteed maximum price be prepared by the end of the year?
 - *A guaranteed maximum price will not be available until 4-5 years from now as construction is being sequenced under overlapping work packages for schedule efficiency. The Authority plans to have the first CMAR under contract before the end of this year. The CMAR’s initial work will focus on early works packages.*
- Metropolitan will not know the price for 3-4 years, but is being asked to make an investment decision by next Spring?
 - *Yes, financing is required before completing design and initiating construction efforts. There would be opportunity throughout the construction period to continuously evaluate status, however upon signing the Benefits and Obligations Contract Metropolitan will be responsible for its share of costs unless it can find a replacement. An interim group check-in is being contemplated at the \$500M mark for the participants to vote on whether the project is ready to proceed to major construction (Section 3.2 of April 2025 Draft Benefits and Obligations Agreement).*
- How much of the increases between 2021 and 2025 cost estimates are due to inflation or design going from 10% to 30%? How can the Authority estimate price with all the new tariffs?
 - *With respect to tariffs, there's a reality that something could hit during construction. The Authority reviewed historical performance and relied on experts for future projections to build their cost estimate. The Authority closely coordinated with these experts as they built-out their cost. Generally, increase in cost is about 40% related to escalation and 60% related to design development. It is not atypical to see this level of cost growth as design develops from 10% to 30% as is the case here. There is additional design contingency in the update cost estimate for future changes and a change order allowance is anticipated for construction.*

Construction:

- Does the Authority have a good list of contractors that are on-board to bid the project?
 - *Yes, the Authority shortlisted to Flatiron Dragados-Obayashi Joint Venture, Kiewit, and Barnard. The Authority is considering 3 components to their proposal:*
 - (1) how are they planning to sequence and package to manage risk and schedule creep,*
 - (2) what it’s like to work with the contractor, and*
 - (3) pricing features.*
- What is the plan for the CMAR when the project is at 30% design? How does the Authority plan to get to 100%? Will the baseline report include 100% design?
 - *The existing engineering design firm will carry the Authority through 100% design. The CMAR will provide input and coordinate with the engineer design firm as they progress to 100% design. The baseline report will be inclusive of every cost the Authority is aware of at 30% design.*

Baseline Report

- What level of design will be included in the baseline report? Are there components of the project that are not yet designed? Will these components be included in the baseline report?
 - *Every component of the project will be advanced to 30% design by the time the Authority produces the baseline report at the end of the year.*

Operations/Climate

- Does the new water supply on slide 4 (with 210 – 260 TAF/year) account for evaporation, seepage, and Delta carriage losses?
 - *The information on slide 4 (210 – 260 TAF/year) represents the average annual total releases from the reservoir. These totals can vary significantly participant by participant depending on their use of the facilities. This number accounts for conveyance losses for moving water from the Sacramento River to the reservoir and evaporative and seepage losses at the reservoir. Each participant would experience losses as the water moves from the reservoir to their respective point of delivery. Estimated losses for conveyance, evaporation, seepage, and carriage water related to Metropolitan's participation in the Sites Reservoir Project are tabulated below.*

Table 1. Estimated Losses Associated with the Sites Reservoir Project Diversion, Storage, and Delivery of Water

Category	Location	Estimated Loss	Notes
Conveyance Loss	Tehama – Colusa Canal: Sacramento River to Sites Reservoir	1% of water diverted from the Sacramento River at Red Bluff	Lined canal, assume minimal losses accordingly
Conveyance Loss	Glenn Colusa Irrigation District Main Canal: Sacramento River to Sites Reservoir	November – March: 2% April – October: 13% of water diverted from the Sacramento River at Hamilton City	Unlined canal; assume saturated soil in November - March
Evaporative Loss	Evaporation at Sites Reservoir	Estimated long-term average annual evaporative loss is 27 TAF	Represents about 12% of the long-term average diversion volume
Seepage Loss	Seepage at Sites Reservoir	Up to 3.5 TAF per year	Not modeled; less than 2% of the long-term average project diversion volume
Conveyance Loss	Delta Carriage Water Loss	Long-term average annual carriage loss is 27%	Depending on the hydrology, Delta carriage water loss can vary from 25% to 35%.
Conveyance Loss	CA Aqueduct	Estimated long-term average annual conveyance loss is 4 TAF	Not modeled; less than 4% of the long-term average annual delivery to South of Delta participants

- What type of water rights or inflow events would fill the reservoir?
 - *The runoff volume in the reservoir's watershed is small and has been dedicated for County of Origin uses. So, the majority of the reservoir's inflow comes from Sacramento River diversions during high flow events. The Authority is pursuing its own water right to divert water from the Sacramento River. Diversions would only occur after all other water rights and regulatory criteria, including several protective diversion criteria in the project's operations incidental take permit (ITP), are met.*
- How reliable are those supplies, especially under future climate scenarios?
 - *The Sites Reservoir Project is designed to be reliable, and its performance is expected to improve in future climate conditions. Climate models project that California's precipitation will become "flashier." Warmer temperatures will cause more precipitation to fall as rain instead of snow. The State's existing infrastructure relies on the snowpack as a form of natural storage. Reduced snowpack will impact existing infrastructure, quickly filling reservoirs and forcing them to spill, but will create an opportunity for the Sites Reservoir Project. The project is designed to capture these excess flows during intense, short-duration storm events. As these types of events are projected to increase in frequency and intensity, the Sites Reservoir Project will have more opportunities to divert and store water.*
- It sounds like the project will be more reliable during wet years. What happens if there is a multi-year drought?
 - *Generally, Sites Reservoir will fill in winter months of wetter years, and release in the late spring, summer, and fall months of drier years. As the main inflow into the Sites Reservoir is through diversions, Metropolitan's storage is not subject to spill, nor are there additional expenses associated with keeping water in the reservoir. At our current level of participation, Metropolitan could have an additional 312 thousand acre-feet (TAF) of water supply in Sites Reservoir at the beginning of a drought. As a drought extends and deepens, Metropolitan could continue withdrawing water from Sites Reservoir for 3-4 years, providing relief during these high-stress periods.*
- How would the operations affect the Sacramento River and the Delta? Especially if there are dry years or climate stress.
 - *The Sites Reservoir Project would only divert excess flows from the Sacramento River in winter months of wetter years after all other water rights and regulatory criteria are met. The Sites Reservoir Project's diversions will be closely coordinated with State and Federal Project operations and are subject to specific terms in the water right that are protective of these operations. Sites Reservoir Project diversions would reduce Sacramento River flow and Delta outflow minimally, and the reduction would only occur during times of excess flows, when all other water rights and regulatory criteria are met.*

Generally, the stored water would be released during the summer and fall months of drier years. For project participants south of the Delta (e.g., Metropolitan), releases from Sites Reservoir will enter the Sacramento River, flow through the Delta, and get exported at the South Delta export facilities. Therefore, the Sites Reservoir Project would increase Sacramento River flows downstream of the release facilities and into the Delta.