



# Santa Clara Valley Water District

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**File No.:** 19-0204

**Agenda Date:** 2/26/2019  
**Item No.:** \*5.3.

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## BOARD AGENDA MEMORANDUM

### **SUBJECT:**

Sites Project Authority 2019 Reservoir Project Agreement for Continued District Participation in the Sites Reservoir Project. (Continued from February 12, 2019)

### **RECOMMENDATION:**

- A. Receive update and report on the Sites Reservoir Project;
- B. Authorize the CEO to execute the Sites Project Authority 2019 Reservoir Project Agreement for Phase 2 Year 1 participation;
- C. Authorize the District to participate in funding Phase 2 Year 1 Sites Reservoir Project costs, and decide on the specific participation level (up to 4.8%); and
- D. Direct staff to continue engagement in Sites Reservoir Committee and negotiate future funding participation to include stronger governance role.

### **SUMMARY:**

In 2017 the Board authorized the CEO to execute an agreement to participate in Phase 1 of the Sites Reservoir Project (Sites Project). That agreement is set to expire on March 31, 2019. The Sites Joint Powers Authority (JPA) is offering the District the opportunity to continue participating in the Sites Project by executing the Sites Project Authority 2019 Reservoir Project Agreement (2019 Project Agreement), which will cover calendar year 2019 work activities. Execution of the agreement would obligate the District to contribute funds to support development of the Sites Project through calendar year 2019 (Phase 2, Year 1). The District has been participating in the Sites Project at a targeted participation level of 4.8 percent (i.e., funding 4.8 percent of total project costs to preserve rights to 4.8 percent of total project benefits); maintaining this participation level would obligate the District to provide up to \$1.44 million in funding for Phase 2, Year 1. However, the District may choose to participate at a lower or higher level or to discontinue participation. A copy of the proposed 2019 Project Agreement is included as Attachment 1.

### ***2019 Funding Objectives***

The District's funding contribution would support a focused effort to develop key information needed

prior to the end of calendar year 2019 to enable individual participants to decide whether to provide substantial funding for continued development of the Sites Project. Key information to be developed includes the following:

- 1) *Defined storage benefits and operational rules for participant utilization of storage in Sites Reservoir.*
  - a) Potential benefits of dedicated District storage in the Sites Reservoir Project has not yet been analyzed. Throughout Phase 1, each participant's stake in the Sites Project has been expressed in terms of the initial estimated *total yield*. However, Sites Project participants have agreed to explore the allocation of benefits in another way -- that is in terms of dedicated storage to individual participants, who would determine how they would use their share of storage to best meet their needs.
  
- 2) *Better definition of the expected level of funding by the state of California (State) and U.S. Bureau of Reclamation (Reclamation); associated benefits to State, Reclamation, and CVP water users; and determination of the impact of such funding on the cost and yield allocation among participants.*
  - a) During its December 12, 2018 presentation to the State Water Resources Control Board on Voluntary Agreements as part of the Water Quality Control Plan update, the State indicated that Proposition 1 storage projects may be tapped in the future to help provide environmental flows for the Delta. Among the Prop. 1 storage projects, Sites Project may be identified as providing significant outflow in this context. Currently, the State's Prop. 1 funding for Sites is tied to benefits anticipated for recreation, flood control, and water deliveries to benefit both smelt in the Cache Slough area and wildlife refuges; the State has yet to determine how it might participate in the Sites Project for purposes of securing water for Delta outflow. The State's approach may significantly affect the funding level and operations of the Sites Project.
  - b) Benefits modeled for Sites Project participants south of the Delta, including the District, are based on participation as SWP contractors. However, the District may stand to benefit on the CVP side as well if Reclamation participates to secure water supplies for both fish protection and water supply reliability for CVP contractors. Reclamation has expressed interest in funding 12 to 25 percent of the Sites Project. These potential benefits have also not yet been evaluated.
  
- 3) *Completion of, or at least significant advancement on, key agreements with the California Department of Water Resources (DWR) to define the relationship of the Sites Project to the SWP, and to identify the delivery priority for Sites Project water supply to participating SWP contractors south of the Delta.*
  - a) District staff has been working with other participants and DWR staff to define how Sites Project operations may be integrated into or coordinated with the State Water Project. This task involves resolution of operational and contractual issues.

- 4) *An updated and narrowed range of Sites Project operating scenarios and yields, considering the following:*
- a) The best information available from 2019 permitting discussions with fish and wildlife agencies and the State Water Resources Control Board regarding Sites Project operating criteria.
    - The workplan for 2019 prioritizes working with resource agencies to reduce the operational uncertainty related to diversions and releases associated with the Sites Project. Currently, the range of possible requirements is too large to define whether the Sites Project can viably move forward. At the more restrictive end of the range of potential flow requirements, the performance of the Sites Project would be impaired such that it would likely lose support, while at the less restrictive end, the Sites Project would be one of the most cost-effective water supply projects available to the District and other participants.
  - b) Potential water supply yield and operational flexibility provided to Reclamation and CVP contractors.
    - The available modeling performed to date does not include water supply yield and operational flexibility for Reclamation, the operator of the CVP.
- 5) *Compilation of geotechnical information for the Sites Project, including historical data and sampling planned for 2019, to further refine the range of construction cost estimates.*
- a) The Sites JPA held a series of risk assessment workshops in 2018 to develop strategies to mitigate risk during the development of the Sites Project. In these meetings, there was broad consensus that additional geotechnical data collection would better inform design work, thus reducing the risk of design changes and improving the certainty of the construction cost estimate and schedule.

District staff's assessment is that, while preliminary estimates of water supply yield and costs are available, it is critical that the information above is developed to better define project benefits and costs prior to the District making a decision on whether to continue supporting the Sites Project.

Additional work included in the Sites Reservoir Project workplan for calendar year 2019, which the Sites JPA recommends performing to facilitate longer term project development, includes development of procedures to improve management and controls, preliminary design work, and agency coordination related to power and dam safety.

### **2019 Project Agreement**

Execution of the 2019 Project Agreement would obligate the District to provide funding for continued work on the Sites Project in calendar year 2019 and provide the District with a continuing seat on the Reservoir Project Committee (Reservoir Committee) through 2019. The total 2019 budget is roughly \$35 million, with about \$14 million of this to be funded by water user participants that comprise the

Reservoir Committee. The remaining budget is expected to be funded using Prop 1 Water Storage Investment Program (WSIP) early funding and funds secured from provisions under the Water Infrastructure Improvements for the Nation Act (WIIN Act). The allocation of costs to the Reservoir Committee members is outlined in Exhibit A of the 2019 Project Agreement, and shows the District's contribution to be 10.3 percent of the \$14 million component of the budget. This contribution would correspond to the 4.8% total Sites Project targeted participation level at which the District has been participating in Phase 1 of the project. The District may choose to provide funding at a different participation level for Phase 2 Year 1, with corresponding adjustments to the District's voting rights and preserved share of project benefits. Or the District may choose to discontinue participation in the Sites Project at this time. For the Board's convenience, a copy of the Project Members Agreement List contained in Exhibit A to the 2019 Reservoir Project Agreement has been included as Attachment 2.

The 2019 Project Agreement permits the Sites JPA and the participants in the 2019 Project Agreement to continue development of the Sites Project, consistent with the Fourth Amended and Restated Sites Project Authority Joint Exercise of Powers Agreement (Joint Powers Agreement), which is provided in Attachment 3. The 2019 Project Agreement defines the Reservoir Committee's budget approval and management process and delineates the responsibilities and authorities of the Sites JPA and the Reservoir Committee during 2019 for the Sites Project. Under the 2019 Project Agreement, the Reservoir Committee would undertake all actions necessary for carrying out the 2019 Project Agreement, including recommending actions, authorizing expenditure of funds, and other actions necessary to move the Sites Project forward.

The 2019 Project Agreement provides that those who execute the agreement (Project Agreement Members) will preserve through 2019 a first right, equal to that Project Agreement Member's participation percentage, to contract in the future for a share of any water supply and storage capacity available from the Sites Project. In any successor phase agreements, continuing Project Agreement Members shall continue to preserve those rights.

### **Background**

On March 14, 2017, the Board authorized the CEO to execute the Sites JPA's Amended and Restated Phase 1 Reservoir Project Agreement (Phase 1 Project Agreement). The Phase 1 Project Agreement allowed the District to join the Reservoir Committee and provides the District with a first right to contract for the Sites Project's water supply and storage capacity, commensurate with its participation and financial contributions to the Sites Project. The District has currently reserved 4.8 percent of the initial expected yield of the Sites Project and has contributed \$997,232.75 toward Phase 1 of the Sites Project.

District staff have continued to analyze the Sites Project and provide input into its development through participation in the Reservoir Committee and its various workgroups. Status updates on the Sites Project have been presented to the District's Water Storage Exploratory Committee.

Sites Reservoir is a proposed 1.81 million acre-foot north-of-Delta off-stream reservoir that would be located approximately 10 miles west of the town of Maxwell in Colusa County. The Sites Project

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would collect winter flood flows from the Sacramento River with the objective of increasing water supply certainty, while ensuring in-stream flows to benefit the Delta ecosystem. The existing Tehama Colusa and Glenn County Irrigation District Canals, which both divert water from the Sacramento River, would be adapted to connect to Sites Reservoir. A new intake pump station and twin pipeline would be added to divert water near Delevan on the Sacramento River to Sites Reservoir. A map of the Sites Project is included as Attachment 4. The total capital cost of the Sites Project is anticipated to be \$5.5 billion in constant 2015 dollars, according to estimates provided by the Sites JPA to the California Water Commission (CWC).

### Project Governance

The Sites JPA is comprised of Sacramento Valley water agency and landowner interests and was formed on August 26, 2010 to pursue the development and construction of the Sites Project. The Sites JPA delegates authority to the Reservoir Committee, which has effectively become responsible for design and analysis of Sites Reservoir facilities and financing. The District, as well as other State Water Project contractor participants (SWC Participants) and some Sites JPA participants, serve on the Reservoir Committee. The governance structure with a list of current participants is shown in the Sites Authority and Reservoir Committee Structure, contained in Attachment 5. Staff anticipates that the governance structure may be evaluated and adjusted during Phase 2. District staff has communicated to the Sites Executive Director that the District will require a stronger role in project governance than that afforded under the Reservoir Committee if the District makes further significant funding to the Project.

### Potential District Benefits

Sites Project water supply and operational benefits could be realized by diverting surplus water into Sites Reservoir during high river flow events for later release to participants, in conjunction with operation of Oroville and Shasta Reservoirs. District staff anticipates that the Sites Project could provide the following benefits to the District, if it is able to divert and store water as proposed with operations integrated with the SWP and CVP:

- An increase in water supply, primarily in dry years, which could, subject to future negotiations, be delivered as SWP project supplies;
- Storage rights in Sites reservoir proportional to the District's targeted participation level;
- Improvement in Shasta Reservoir storage levels and cold-water pool that may provide fishery benefits; and
- Stabilization or increase in CVP water supply allocations.

The extent to which these benefits can be realized depends on several issues that have yet to be resolved, including permit requirements, potential participation by Reclamation and other agencies, and integration of operations with the SWP and CVP as well as with other Sacramento Valley users and projects. While other participants have indicated their support for Phase 2, Year 1 during recent Reservoir Committee meetings, there is uncertainty regarding continued support in subsequent years. This support will depend largely on the outcome of Phase 2, Year 1 work efforts.

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Staff has evaluated preliminary modeling results provided by the Sites JPA in its WSIP application to assess the share of yield that could be delivered to the District if the District continues to target a 4.8 percent participation level. Given several uncertainties associated with permit requirements and implementation of the California WaterFix, staff has conservatively assigned losses of 25 percent on the modeled deliveries. This results in a yield of roughly 23,000 acre-feet per year in 'dry' and 'critical' years being available to the District, and around 12,000 acre-feet per year on average. Note that these yield amounts available to the District are *new water*, not otherwise available to the District, for example, through other projects currently being considered. These modeled values of 23,000 AFY in dry/critical years and 12,000 AFY on average require significant updating with information to be developed in 2019. Ultimately the amount of project yield and benefit that is *usable* by the District depends on the portfolio of water supply projects that the District ultimately implements; the outcome of negotiations among water agency participants, DWR, and Reclamation; the outcome of ongoing regulatory processes; and refinements of Sites Project operations to reflect storage benefits and updated operational constraints. Additional modeling refinements are currently being implemented to better estimate potential yields and benefits.

### Development Phases

The Sites Project is envisioned to progress in five phases:

- Phase 1 - WSIP funding application and EIR/EIS development;
- Phase 2 - EIR/EIS completion, predesign, critical permits, and water rights;
- Phase 3 - Final design, land and right of way acquisition, and remaining permits;
- Phase 4 - Construction
- Phase 5 - Transfer to Operations

A copy of the Project Overview - Phase Level Schedule can be found in Attachment 6.

### Phase 1 Accomplishments

The primary objectives of Phase 1 were to secure funding through the state's Proposition 1 Water Storage Investment Program (WSIP) and to develop an EIR/EIS for the Sites Project. The Sites JPA submitted its WSIP funding application to the CWC on August 11, 2017, with an initial funding request of \$1.622 billion. After conducting a lengthy review and appeal process, on July 24, 2018 the CWC gave the Sites Project a Maximum Conditional Eligibility Determination (MCED) of \$816 million. While this amount was lower than the initial request, it was still the largest MCED of any of the projects considered. The CWC also determined that the Sites Project was eligible to receive up to \$40.8 million of its MCED in early funding, which the Sites JPA intends to use towards Phase 2 work.

The Sites JPA released a draft EIR/EIS for the Sites Project on August 14, 2017. This was followed by a 154-day extended comment period that closed on January 15, 2018. The Sites JPA is now working to respond to the comments and advance a final EIR/EIS, with an anticipated release date of late 2020.

Other Phase 1 accomplishments include:

- Reclamation's release of a draft Feasibility Report for the Sites Project on August 14, 2017. A

Final Feasibility Report is expected in December of 2020 and will serve as the basis for federal appropriations under the WIIN Act. Based on conversation with Reclamation, the Sites JPA estimates the total WIIN Act funding for the Sites Project at \$1.3 billion, with \$10.1 million available as early funding in 2019.

- Approval by the U.S. Department of Agriculture (USDA) for a \$449 million construction loan, with a locked-in interest rate of 3<sup>7</sup>/<sub>8</sub> percent.
- Strong bipartisan support including 43 of California’s Congressional Representatives. A list of Sites Project supporters is included as Attachment 7.

Phase 2 Costs

Phase 2 is currently expected to extend through June 2022. The Sites JPA has estimated this phase will cost a total of \$420 million. Early funding through WSIP and the WIIN Act is expected to cover \$70 million, with the remaining \$350 million being covered by Sites Project participants. Based on feedback from participating agencies, including the District, the Sites JPA is currently planning to utilize annual funding agreements to cover the participant share of the costs. The 2019 Project Agreement covers funding for only the first year of Phase 2. Table 1 shows how the participant costs will be broken up over these agreements and provides an estimate of the Districts expected share of those costs if the District continues to target a 4.8 percent participation level.

*Table 1: Estimated Sites Phase 2 Participant Costs (\$ millions)*

	<b>Year 1</b>	<b>Year 2</b>	<b>Years 3-4</b>
<b>Participant Costs</b>	14	90	245
<b>District Share at a 4.8% participation level</b>	1.4	9.2	25.1

Phase 2, Year 1 Participation Level

While staff is recommending that the District continue to pursue a 4.8 percent participation level in the Sites Project, the Board may wish to consider options for reducing its participation or discontinuing participation altogether at this time. Should the District decide to discontinue participation, the future opportunity for rejoining the Sites Project depends largely on the extent to which other participants continue to participate and on any new terms and conditions for entry that may be applicable in the then-current reservoir project agreement. The proposed 2019 Reservoir Project Agreement provides for new participation (or stepping up a prior participation level) at a lower priority than existing participant allocated shares. Also, should the District elect to discontinue or decrease its participation level, it may be able to receive a refund (or partial refund) of monies already contributed to the Sites Project.

Table 2 shows how different levels of participation could affect expected yield and costs to the District, while Table 3 provides pros and cons for each option.

Table 2: A Comparison of Cost and Yields at Different Participation Targets in the Sites Project

Option	Target District Share	Average Annual Yield (acre-feet)	District Costs (\$ millions)	
			Phase 2, Year 1	Capital (2015 Do
A	4.8%	12,000	1.4	265
B	3.2%	8,000	0.96	177
C	1.6%	4,000	0.48	88
D	0%	0	0	0

Table 3: A Comparison of Pros and Cons at Different Participation Targets in the Sites Project.

Option	Target District Share	Pros	Cons
A	4.8%	<ul style="list-style-type: none"> <li>• Est. 12,000 AFY avg. yield (23,000 AF in dry/critical years)</li> <li>• Retain influence over the project as the 2<sup>nd</sup> largest investor</li> <li>• Option to reduce participation at a later date</li> </ul>	<ul style="list-style-type: none"> <li>• Water Master Plan analysis indicates that the District may not need Sites yield if California WaterFix, advanced purified water, and other anticipated projects are successfully developed</li> </ul>
B	3.2%	<ul style="list-style-type: none"> <li>• Lower Phase 2 Year 1 costs</li> <li>• Est. 8,000 AFY avg. yield (15,000 AF in dry/critical years)</li> <li>• Maintain some influence over project development</li> <li>• Possible credit on Phase 2 cost based on Phase 1 payments</li> </ul>	<ul style="list-style-type: none"> <li>• May be difficult to increase participation at a later date</li> <li>• Reduced influence over the project as medium investor</li> </ul>
C	1.6%	<ul style="list-style-type: none"> <li>• Lower Phase 2 Year 1 costs</li> <li>• Est. 4,000 AFY avg. yield (8,000 AF in dry/critical years)</li> <li>• Maintain some influence over project development</li> <li>• Possible credit on Phase 2 cost based on Phase 1 payments</li> </ul>	<ul style="list-style-type: none"> <li>• May be difficult to increase participation at a later date</li> <li>• Reduced influence over the project as small investor</li> </ul>

D	0%	<ul style="list-style-type: none"> <li>No additional costs to the District</li> <li>Possible reimbursement for Phase 1 payments</li> </ul>	<ul style="list-style-type: none"> <li>Unknown future opportunity to contract for water supply and storage</li> <li>May increase possibility the project may not go forward</li> </ul>
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**Total Project Cost**

The total capital cost of the Sites Project in constant 2015 dollars is roughly \$5.5 billion and its annual O&M costs are estimated at \$27 million. At a 4.8 percent participation level in the Sites Project, the District’s share of these costs are \$265 million and \$1.3 million, respectively, and the cost per acre-foot of yield could potentially be between \$800 to \$1,200. These cost estimates are based on assumptions made in the WSIP application for the project; staff will provide an updated financial analysis prior to requesting any additional funding for the project.

**FINANCIAL IMPACT:**

At a Sites Project targeted participation level of 4.8 percent, the District’s total payment for the 2019 Project Agreement will not exceed \$1,440,000. Sufficient funds are available in the adjusted fiscal year 2019 budget Imported Water Program #91131004 to cover these costs.

**CEQA:**

The recommended action does not constitute a project under CEQA since it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

**ATTACHMENTS:**

- Attachment 1: 2019 Reservoir Project Agreement
- Attachment 2: Agreement Exhibit A, Project Agreement Members List (Copy)
- Attachment 3: Joint Powers Agreement
- Attachment 4: Project Map
- Attachment 5: Sites Authority and Reservoir Committee Structure
- Attachment 6: Project Overview - Phase Level Schedule
- Attachment 7: List of Sites Project Supporters
- Attachment 8: PowerPoint
- \*Supplemental Board Agenda Memo
- \*Supplemental Attachment 1: WSMP 2018 Potential Projects

**UNCLASSIFIED MANAGER:**

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