



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, ZONE 7

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**ORIGINATING SECTION: INTEGRATED PLANNING**

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**AGENDA DATE:** December 21, 2018

**ITEM NO. 4**

**SUBJECT:** Los Vaqueros Reservoir Expansion Multi-Party Agreement

**SUMMARY:**

- The 2019 Water Supply Evaluation Update (2019 WSE Update) confirms the need for Zone 7 to continue to pursue water supply options to enhance storage flexibility and improve long-term water supply reliability for the Livermore-Amador Valley.
- Contra Costa Water District (CCWD) is planning for the potential expansion of the Los Vaqueros Reservoir from 160,000 to 275,000 AF and construction of new diversion and conveyance facilities, including the Transfer-Bethany Pipeline, which would connect the reservoir to the South Bay Aqueduct system (collectively, the Los Vaqueros Reservoir Expansion Project or Project).
- Because of the potential benefits of the Project to Zone 7, the Board approved participation in the Los Vaqueros Reservoir Expansion Project Planning in September 2016, with a \$100,000 cash contribution towards preparation of required environmental documents.
- In July 2017, CCWD and the US Bureau of Reclamation completed the Draft Supplement to the Final EIS/EIR. The Project was also successfully selected for funding under the State's Water Storage Investment Program in July 2018. The Project is now about to enter the next phase, and a Multi-Party Agreement has been developed to establish the terms of continued participation in the Project.
- Staff's analysis under the 2019 WSE Update indicates that the Project could improve the operational flexibility of Zone 7's water supply system, thereby increasing system reliability.
- Staff therefore recommends continued participation in the Project's planning activities in an amount not to exceed \$355,000.

**FUNDING:**

Staff proposes to fund this project from Fund 310 (Water Supply and Reliability Fund), with a current balance of approximately \$3.7 million.

**RECOMMENDED ACTION:**

Discuss and provide direction to staff.

**BACKGROUND:**

The 2019 Water Supply Evaluation Update (2019 WSE Update) confirms the need for Zone 7 Water Agency (Zone 7) to continue to pursue water supply options to enhance storage flexibility and improve long-term water supply reliability for the Livermore-Amador Valley. One of the water supply reliability projects that Zone 7 has been considering is the expansion of Los Vaqueros Reservoir and the associated new and modified diversion and conveyance facilities (collectively, 'Project') by Contra Costa Water District (CCWD). The Project would provide additional storage regionally and strengthen the interconnection of water systems in the Bay Area.

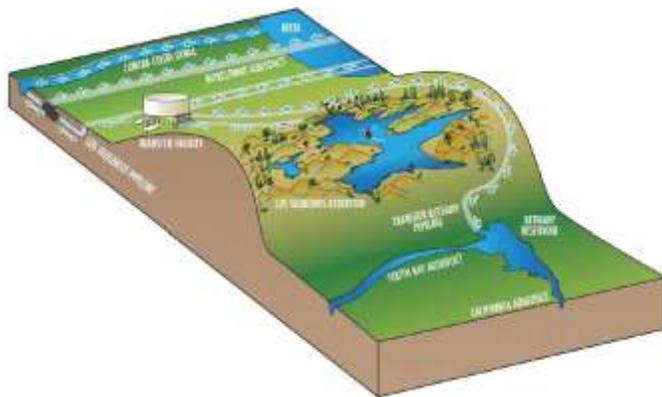


In September 2016, the Zone 7 Board approved participation in the Los Vaqueros Reservoir Expansion Project Planning as a ‘Local Agency Partner’ (LAP) with a \$100,000 cash contribution towards preparation of required environmental documents. In July 2017, CCWD and the US Bureau of Reclamation (Reclamation) completed the Draft Supplement to the Final EIS/EIR. The Project was also successfully selected for funding under the State’s Water Storage Investment Program (WSIP) in July 2018 as discussed further below. The Project is now about to enter the next phase, and a Multi-Party Agreement (Agreement) has been developed to establish the terms of continued participation. This agenda item presents the Agreement for the Board’s consideration.

## DISCUSSION:

### *Project Overview*

Constructed in 1997, Los Vaqueros Reservoir is an off-stream reservoir located in southeastern Contra Costa County. It currently has a capacity of 160,000 acre-feet (AF) following its expansion (Phase 1) from 100,000 acre-feet in 2012. CCWD is planning for further expansion of the reservoir to 275,000 AF (Phase 2) and construction of the Transfer-Bethany Pipeline, which would connect the reservoir to the South Bay Aqueduct (SBA) system. The Project’s key objectives are (1) to develop water supplies for environmental water management and (2) to increase water supply reliability for Bay Area water agencies<sup>1</sup>. In addition, the Project would improve water quality for municipal and industrial customers in the San Francisco Bay Area while providing improved habitat, and recreation and flood control benefits.



The Project would divert water from the Delta at CCWD’s Rock Slough, Old River, and Middle River Intakes, and at the Freeport Intake on the Sacramento River. This water could then be delivered to agencies within CCWD’s service area, the Bay Area, the Delta, neighboring regions, and the south-of-Delta wildlife refuges. Under existing and new water right and permit conditions, CCWD would be able to divert different types of water, including: Delta surplus water under CCWD’s Los Vaqueros water right, Central Valley Project water, State Water Project (SWP) water, Mokelumne River water, and other water acquired by project partners through transfer agreements.

Water could be stored in Los Vaqueros Reservoir for later use or delivered directly to partners. The LAPs envision different operational schemes for their use of the reservoir and associated facilities, and these various scenarios are continuing to be evaluated through modeling by CCWD staff. While some new water supply may be available from the Project, Zone 7 is primarily evaluating the Project as storage due to the uncertainty of the availability of such supplies given increasing Delta restrictions.

<sup>1</sup> <https://www.ccwater.com/733/About-the-Project>

## ***Project Costs***

The total capital cost for the Project is estimated at \$863 million in 2018\$. The dam raise is the largest cost component at \$493 million, followed by the Transfer Bethany Pipeline at \$217 million. CCWD's financial consultant has been developing a Pro forma Financial Model to develop preliminary cost estimates for LAPs and evaluate different cost allocation methods. The model incorporates assumed State and Federal funding. The key principle is that costs would be allocated according to proportional use of the facilities, with proportional use determined through operations modeling. Participants would share the debt service costs for new facilities while 'usage fees' would be applied to existing facilities owned by CCWD and EBMUD. The cost allocation principles and methods will continue to be refined as the Project moves into the next phase. Under one scenario that has been modeled, preliminary cost estimates range from \$600 to \$3,700/AF in 2018 \$ for the various LAPs; Zone 7's cost is estimated at \$2,100/AF for about 10,000 AF of storage and a delivery of 4,000 AF during critically dry years. Note that these unit costs are expected to shift significantly as participation levels evolve with greater Project definition.

In July 2018, the California Water Commission approved WSIP funding of up to \$459 million for the Project. The Project was also selected for early funding of up to \$14 million. The early funding from the State, as well as potential funding from the Federal government's Water Infrastructure Improvements for the Nation Act (WIIN Act), will cover some of the costs as the Project moves into the next phase, reducing participant costs.

## ***Findings from the 2019 Water Supply Evaluation Update***

As part of the 2019 WSE Update, staff has been evaluating the potential benefits of the Project to the reliability of Zone 7's water supply system. The water supply risk model results indicate that Los Vaqueros Reservoir's benefits are largely limited by Zone 7's ability to access new supplies; i.e., Zone 7 needs to acquire additional water supplies that can be stored in the reservoir. In addition, as a small-capacity storage project (with currently only 10,000 AF earmarked for Zone 7), the Project would not significantly help with prolonged water shortage conditions, which are major risks to the water supply system. Instead, the benefits would mostly be seen during rare single-year emergency conditions.

While difficult to quantify with the water supply risk model, the Project offers significant operational benefits that would add robustness to Zone 7's water supply system. Currently, Zone 7's excess SWP Table A water supplies—beyond what can be stored in the local groundwater basin and Lake Del Valle—are stored downstream in the SWP's San Luis Reservoir or in the Kern County groundwater banks. Access to these remotely stored water supplies is done through exchange which requires 1) Banks Pumping Plant to be operable (i.e., no Delta outage due to fisheries, water quality, or facility issues) and 2) sufficient flows and demands in the SWP system to support an exchange. Note that total storage in the Kern County groundwater banks is 198,000 AF while storage in Los Vaqueros is currently modeled at 10,000 AF for Zone 7. The Project would add storage upstream of the SBA, allowing for bypass of the Delta and direct delivery of water to Zone 7 through the new Transfer-Bethany Pipeline and the SBA. This new conveyance system provides redundancy, which would be especially useful during the conditions described above. In the future, when the Reliability Intertie is constructed to connect Zone 7's and EBMUD's systems, water from Los Vaqueros could also be routed through EBMUD and into the western side of Zone 7's water system.

The Project could also add operational flexibility by facilitating water deliveries during summertime peak demands. Much of the water recovered from the Kern County groundwater banks is generally not available in the summer, when demands are high. With access to Los Vaqueros, Zone 7 could recover water from the banks during the spring and fall, store the water in the reservoir, then request deliveries from CCWD when Zone 7 needs the water.

### ***Project Status and Multi-Party Agreement***

As noted above, the Project was awarded WSIP funding, including funding to support planning-related activities. The Early Funding Agreement will be executed by CCWD and the CWC and requires a one-to-one match from non-state sources, such as Reclamation, CCWD, and LAPs. The Multi-Party Agreement will establish funding contributions and in-kind services from the LAPs and provide a “bridge” of local funding through the end of 2019.

The Multi-Party Agreement assumes that CCWD will continue to be the lead on Project planning-related activities, including management of Project consultants, and will coordinate with LAPs on all Project planning activities. Key activities in 2019 include: 1) the completion of the Final Supplement to the Final EIS/EIR; 2) the completion of the Final Federal Feasibility Report in partnership with Reclamation; 3) a financial evaluation of the Project including refinement of the Pro forma Financial Model for the purpose of supporting LAP decision making regarding financial commitments to Project implementation; 4) the development of a Joint Powers Authority (JPA), which includes selection and retention of special counsel to develop the long term governance documents; 5) initiation of consultations with Federal, State, and local entities for Project permits, approvals, certifications, and agreements; and 6) conceptual and preliminary design advancement of Project facilities.

The total cost of the Multi-Party Agreement of \$2,833,036 is divided into equal cost shares and the cost per agency decreases with more agencies executing the Multi-Party Agreement. The cash contribution for Zone 7 could range from about \$200,000 to \$355,000, assuming participation by fourteen to eight LAPs.

The current schedule anticipates that by the end of 2019, the LAPs (i.e., agencies who elect to continue to participate) and CCWD will form a JPA. Following JPA formation, the Multi-Party Agreement will be replaced by future funding agreements between LAPs and the JPA to provide additional funding for completion of Project permitting and design. If necessary, the term of the Multi-Party Agreement can be extended until the JPA is ready to carry out the remainder of the early funding work.

### **RECOMMENDATIONS:**

Staff recommends that the Board authorize the negotiation and execution of the Multi-Party Agreement for continued participation in the Project for an amount not to exceed \$355,000. Funds are available in Fund 310 (Water Supply and Reliability Fund) with a current balance of approximately \$3.7 million. As described above, the Project is expected to improve the reliability of Zone 7's system through improved operational flexibility. Participation in the Agreement would allow staff to continue to evaluate these benefits and compare them against other water storage and supply alternatives.