



# Santa Clara Valley Water District

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**File No.:** 16-0800

**Agenda Date:** 3/28/2017

**Item No.:** 5.2.

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## BOARD AGENDA MEMORANDUM

### **SUBJECT:**

Cost-Sharing Agreement for Consulting Services to Evaluate Increasing Water Storage in Lake Del Valle Reservoir.

### **RECOMMENDATION:**

- A. Approve the Cost-Sharing Agreement between the Alameda County Water District (ACWD), Zone 7 Water Agency (Zone 7), Santa Clara Valley Water District (District), and East Bay Regional Parks District (EBRPD) for a District contribution of \$75,000 towards an evaluation of increasing water storage in Lake Del Valle Reservoir, and
- B. Authorize the Interim Chief Executive Officer (ICEO) to execute the Cost-Sharing Agreement.

### **SUMMARY:**

Alameda County Water District (ACWD), Zone 7 Water Agency (Zone 7), and the Santa Clara Valley Water District (District) (collectively, SBA Contractors), as well as East Bay Regional Parks District (EBRPD), are evaluating the feasibility of increasing the accessible storage capacity in Lake Del Valle Reservoir by as much as 25,000 Acre-feet (AF). Currently the reservoir has a total capacity of 77,000 AF, but existing flood rule curves limit the storage capacity to 40,000 AF. In anticipation of potential cost-sharing, and since it wished to proceed expeditiously with a planning study, ACWD secured the services of consultants to evaluate the potential to increase accessible storage in Lake Del Valle Reservoir. The consultants are evaluating: (1) the degree to which storage could be increased prudently given that local storm runoff has the potential to induce spills and downstream flooding when the reservoir is operated in a nearly-full mode, and (2) the feasibility and cost of relocating any facilities, including EBRPD recreation facilities, that would be displaced or otherwise impacted by the operational changes. These studies are anticipated to be complete by the end of April. ACWD is administering the consultant agreements, which collectively have a cost-not-to-exceed amount of \$225,000. The cost-share agreement seeks to reimburse ACWD based on equal contributions by the three SBA Contractors, who would be the direct beneficiaries of a storage enhancement project, if implemented. The District's contribution to the studies would not exceed \$75,000.

The current studies are a necessary precursor to the proposed next phase, in which the potential water supply and water quality benefits of increasing accessible storage will be estimated. ACWD, in coordination with Zone 7 and the District, have been discussing approaches to estimate those benefits. If staff determines that this next phase is of sufficient promise for District participation, a

separate or amended cost-share agreement will be recommended for Board approval.

ACWD is also considering submitting an application for Proposition 1 funding from the State's Water Storage Investment Program if a storage enhancement project is identified and may request that Zone 7 and the District participate. There is insufficient information for staff to make any recommendation, at this time, with regard to participating in a Proposition 1 application process.

### *Background*

Lake Del Valle is a storage reservoir located 10 miles southeast of Livermore, in Alameda County. It is within Del Valle Regional Park. The lake is formed by Del Valle Dam, completed in 1968.

The lake and dam are part of the California State Water Project (SWP), as part of the South Bay Aqueduct (SBA). The lake serves, in part, as off-stream storage for the SBA. It was built as a storage facility for the SBA, but also for flood protection and for recreation. The capacity of the lake is 77,000 acre feet; however, existing flood rule curves limit storage to about 40,000 AF. The lake is a popular destination for hikers, bikers, and boaters.

Lake Del Valle Reservoir regulate flows in the SBA and to store local supplies for ACWD and Zone 7. The SBA Contractors receive their SWP supply as well as the majority of their transfer and exchange supplies and Semitropic bank withdrawals, through the SBA. The Department of Water Resources (DWR) manages the SBA deliveries to either augment deliveries or to manage water quality by blending with releases from Lake Del Valle Reservoir. The District is located at the end of the SBA system, with up to 153 cfs delivery capacity upstream of Del Valle Reservoir and 184 cfs downstream. DWR meets the District's high summer and fall demands by supplementing water from Del Valle storage. The District typically uses the water from the SBA to serve the Penitencia Water Treatment Plant (WTP) and Rinconada WTP, and/or to recharge groundwater basins within the County. Delta water deliveries through the SBA can be greatly influenced by algae and salinity intrusions during summer and fall months.

In drier years, effectively treating algae and salinity at the District's water treatment plants, especially at Rinconada WTP, has been a challenge. Lake Del Valle-stored water is utilized to blend with water pumped directly from the Delta to minimize Delta algae problems which typically occur during summer months when temperatures are high and nutrient levels are elevated. Blending for salinity and bromide typically occurs from late summer through fall to control disinfection by-products at the water treatment plants. During recent drought years, SBA contractors were challenged by the limited amount of water in Del Valle Reservoir available for blending during extended periods of poor Delta water quality.

If Lake Del Valle Reservoir's operational storage capacity is increased, staff expects up to 22,000 AF of additional average monthly operational storage could be gained for use by the three SBA Contractors. The allocation percentage of this additional operational storage is yet to be determined. Increasing the operational storage in Lake Del Valle could improve the District's ability to utilize its share of SWP water allocated by DWR -- for example, by increasing the flexibility of delivery patterns to better meet demands during summer and fall months. Additional water stored in Lake Del Valle might also provide emergency supplies to the SBA Contractors, for example in the event of an earthquake that impacted Delta facilities but not the SBA. A larger amount of higher quality water

could also be used to extend the period over which Lake Del Valle supplies are available for water quality blending.

In December 2016, ACWD hired consultants to evaluate the potential to increase accessible storage in Lake Del Valle Reservoir. The alternatives being evaluated include: 1) reservoir reoperation to reduce seasonal flood control limitations to provide for short-term emergency storage, 2) reservoir reoperation with changes to the seasonal/annual flood control storage limitations to gain longer-term storage, and 3) structural modifications for potentially increasing storage capacity in part to capture additional local watershed runoff. All alternatives would require relocation of EBRPD facilities. ACWD's consulting services will determine the extent of any EBRPD facility relocation, and the potential costs of such relocation. District staff has reviewed the consultants' scope of services and has been consulted by ACWD during progression of the study. If the District executes the Cost-Sharing Agreement, District staff will take an active role in guiding and reviewing the work. The current studies are targeted for completion by the end of April 2017.

The consulting services are estimated to cost up to \$225,000. ACWD will be fronting the consultant costs and will seek reimbursement from the District and Zone 7. The attached cost sharing agreement provides for payment of up to \$225,000 in consultant costs, with costs shared equally among the three SBA Contractors. The District's contribution is anticipated to be no greater than \$75,000.

The current studies are a necessary precursor to the proposed next phase, in which the potential water supply and water quality benefits of increasing accessible storage will be estimated. ACWD, in coordination with Zone 7 and the District, have been discussing approaches to estimate those benefits. The next phase would also include cost estimation for CEQA/permitting, design and construction of a preferred project. If staff determines that this next phase is of sufficient promise for District participation, a separate or amended cost-share agreement will be recommended for Board consideration.

Also as a follow-on to the current studies, ACWD is considering submitting an application for Proposition 1 funding from the State's Water Storage Investment Program if a suitable storage enhancement project is identified and may request that Zone 7 and the District participate. There is insufficient information for staff to make any recommendation, at this time, with regard to participation in a Proposition 1 application process.

#### **FINANCIAL IMPACT:**

Execution of the Cost-Sharing Agreement would require a financial commitment of up to \$75,000. The FY 2017 Imported Water Program (Project #91131004) budget contains sufficient funds to cover this expense.

#### **CEQA:**

The recommended action is to contribute to planning studies only and therefore does not constitute a

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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: Cost Sharing Agreement

Attachment 2: PowerPoint

**UNCLASSIFIED MANAGER:**

Garth Hall, 408-630-2750