



# Santa Clara Valley Water District

**File No.:** 19-0826

**Agenda Date:** 9/10/2019

**Item No.:** \*3.7.

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## BOARD AGENDA MEMORANDUM

### **SUBJECT:**

Adopt Resolution Authorizing the Application for Funding and negotiation of Grant Agreement with the United States Bureau of Reclamation WaterSMART Title XVI Water Reclamation and Reuse Program and Executing Grant Agreement for the Reverse Osmosis Concentrate Management Alternatives Study Project (Project Number 91101004).

### **RECOMMENDATION:**

- A. Adopt the Resolution AUTHORIZING THE CHIEF EXECUTIVE OFFICER TO FILE AN APPLICATION AND EXECUTE A GRANT AGREEMENT WITH THE UNITED STATES BUREAU OF RECLAMATION FOR WATERSMART: TITLE XVI WATER RECLAMATION AND REUSE PROGRAM GRANT FOR THE REVERSE OSMOSIS CONCENTRATE MANAGEMENT ALTERNATIVES STUDY PROJECT; and
- B. Authorize the Chief Executive Officer to negotiate and execute a grant agreement with the United States Bureau of Reclamation upon the approval of the grant award.

### **SUMMARY:**

On June 27, 2019, the United States Bureau of Reclamation (USBR) released Funding Opportunity Announcement BOR-DO-19-F009 (FOA) for Title XVI Water Reclamation and Reuse Program grants, which are funded by the USBR WaterSMART Program. The Title XVI Water Reclamation and Reuse Program focuses on the reclamation and reuse of municipal, industrial, domestic, and agricultural wastewater and naturally impaired surface or ground waters.

Santa Clara Valley Water District (Valley Water) staff evaluated the grant program requirements and criteria and determined the Valley Water's Reverse Osmosis Concentrate Management Alternatives Study Project is eligible and competitive for funding. For the grant application to be considered, it must include a resolution adopted by Valley Water's Board of Directors (Board) that designates an authorized representative to submit the application and execute a grant agreement with the USBR. Staff recommends the Board delegate authority to the Chief Executive Officer to submit the grant application and, if a grant is awarded, to negotiate and execute grant agreements. The grant applications are due September 23, 2019.

### ***USBR WaterSMART: Title XVI Water Reclamation and Reuse Program Grants:***

USBR WaterSMART: Title XVI Water Reclamation and Reuse grants will be provided to

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congressionally authorized sponsors of Title XVI Water Reclamation and Reuse projects. A total of \$3 million is available for Fiscal Year 2019 through this new round of proposal solicitation. The USBR anticipates providing no more than \$750,000 per applicant. Applicants must document a minimum non-Federal funding financial match of 75 percent of the project costs.

***Reverse Osmosis Concentrate Management Alternatives Study Project (Project):***

The Project is a combination of three separate projects in Valley Water's Recycled and Purified Water Program, Project No. 91101004 - Reverse Osmosis Concentrate (ROC) Management Plan - to test the most promising treatment alternatives for determining whether ROC treatment for nutrients and metals removal would be feasible and effective. These projects include:

1. Floating Wetlands Treatment (FWT) of ROC at the Silicon Valley Advanced Water Purification Center (SVAWPC) - The proposed FWT project would establish a pilot for testing ROC treatment using hyperaccumulating plant species and various flow-through rates in collaboration with Humboldt State University, Intrinsyx Technologies Corporation, and San Francisco Estuary Institute.
2. ROC Treatment in Oro Loma Sanitary District's (OLSD) Horizontal Levee Demonstration Project in San Lorenzo - The proposed Horizontal Levee project is a three-way collaboration between OLSD, University of California Berkeley (UCB), and Valley Water to test the ability of the subsurface horizontal levee system to remove nitrate, trace organics and trace metals of concern from ROC produced at SVAWPC. The OLSD horizontal levee has been under investigation for wastewater treatment over the last several years, and the proposed ROC pilot will help demonstrate the correlations between ROC and wastewater treatment performance in this engineered wetland system.
3. Capacitive Coagulation (CapCo™) removal of Free and Chelated Metals in ROC at SVAWPC - The CapCo™ pilot project would test PowerTech Water's (PTW) capacitive coagulation technology for the removal of dissolved metals (e.g., Se, Ni, Zn, Al, Mn, Fe, and Cu) from RO brine in collaboration with PTW and Carollo Engineers, Inc.

As California water and wastewater agencies plan to increase local water supply through water reuse, there will be an increased need for ROC management options for discharge to enclosed bays, estuaries and coastal lagoons. These coastal areas are sensitive to priority pollutant metals and nutrient loading, and new treatment alternatives for ROC and municipal wastewater could significantly improve coastal water quality. The Project is anticipated to begin in September 2019, and is scheduled to be completed by December 2020.

**FINANCIAL IMPACT:**

Staff is applying for funding in response to FOA BOR-DO-19-F009. Reimbursable USBR grant funding is available to cover 25% of eligible project costs, up to a limit of \$750,000 in Federal funds.

Estimated total budget for the Reverse Osmosis Concentrate Management Alternatives Study Project

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is \$600,000. Staff is requesting grant funding of 25% of total project costs through this FOA, which translates to approximately \$150,000. Adequate funding for the Project activities have been included in the Fiscal Year 2020 budget for Project No. 91101004 Recycled & Purified Water Program.

**CEQA:**

The recommended action does not constitute a project under California Environmental Quality Act (CEQA) because it does not have a potential for resulting in direct or reasonably foreseeable indirect change in the physical environment. The projects included in this application are subject to separate review under CEQA and NEPA as applicable

**ATTACHMENTS:**

Attachment 1: Resolution

**UNCLASSIFIED MANAGER:**

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