



COUNTY OF SONOMA

575 ADMINISTRATION
DRIVE, ROOM 102A
SANTA ROSA, CA 95403

SUMMARY REPORT

Agenda Date: 11/16/2021

To: Board of Directors, Sonoma County Water Agency
Department or Agency Name(s): Sonoma County Water Agency
Staff Name and Phone Number: Aaron Fulton 547-1974
Vote Requirement: Majority
Supervisorial District(s): Countywide

Title:

Cotati No. 1 and Kastania Reservoir Rehabilitation Project

Recommended Action:

Authorize Sonoma County Water Agency's General Manager to execute an agreement with Harper & Associates Engineering, Inc., for engineering and design services through December 31, 2024, in the not-to-exceed amount of \$300,000 in a form approved by County Counsel.

Executive Summary:

The Cotati No. 1 and Kastania Reservoir Rehabilitation Project (Project) is a part of Sonoma County Water Agency's (Sonoma Water) overall Tank Maintenance Program (Program)-an essential element of Sonoma Water's Capital Improvement Plan (Plan) that protects the transmission system's 18 above-grade welded steel tanks through targeted proactive maintenance actions, structural repairs, and cathodic protection systems. The Project includes design, environmental compliance, and construction activities to maintain the functional life of the Cotati No. 1 and Kastania reservoirs, and will require highly specialized tank inspection, assessment, repair, and recoating design services.

Discussion:

HISTORY OF ITEM/BACKGROUND

Sonoma Water's Plan identifies key infrastructure projects to meet the needs of the water system, wastewater districts, and flood management facilities within its jurisdiction. The Plan describes the infrastructure projects that are planned over the next 5 years and includes the Program with a goal to maintain and protect the 18 above-grade welded steel water storage tanks (reservoirs) in Sonoma Water's transmission system. Water storage reservoirs are an integral component of the water transmission and supply system that provide a source of water when demand rates exceed production capacity. In total, Sonoma Water's 18 reservoirs provide 129 million gallons of storage, which is approximately 3 times the average daily system demand.

Sonoma Water's average reservoir age is approaching 40 years. Without intervention, welded-steel reservoirs are susceptible to corrosion and have a limited functional lifespan of 25 to 50 years without recoating. With regularly scheduled and targeted maintenance and monitoring activities, welded-steel water storage reservoirs can attain a lifespan of up to 100 years. Sonoma Water's Program specifically targets the protection and maintenance of steel transmission reservoirs by routinely inspecting, cleaning, and monitoring the condition of each reservoir to identify needs and deficiencies. When inspections and monitoring indicate more

substantial rehabilitation efforts are required or as coatings reach end of useful life, Sonoma Water develops design plans and tank rehabilitation projects that include recoating, structural repairs, and installation of cathodic protection systems to maximize the functional life of the facility.

The Cotati No. 1 and Kastania reservoirs were constructed in 1976 and 1984 and have a capacity of 6 million and 12 million gallons, respectively. Kastania reservoir is located on the Petaluma Aqueduct south of Petaluma, supports water transfers to the City of Petaluma, North Marin Water District, and Marin Municipal Water District, and was last recoated (exterior only) in 1999. Cotati No. 1 is located on the Cotati Intertie Aqueduct west of the City of Cotati and was last recoated in 1998. Recent inspections have indicated that both Kastania and Cotati No. 1 reservoirs require recoating and structural repairs to maintain their functional life. Localized corrosion in the rafters and various surficial coating failures were identified in the latest tank inspection report for Cotati No. 1. Kastania's vent system is also corroded, and the exterior coating system is delaminating and failing to protect exterior elements of the steel structure with visible signs of corrosion. To rectify these deficiencies and meet the goals of the Program, Sonoma Water has commenced Project.

The Project will restore the Cotati No. 1 and Kastania reservoirs to their original character and condition, protect against premature structural failure, and maximize facility lifespan. The Project will include design, environmental compliance, and construction with significant support from a highly specialized coating inspection and tank rehabilitation design consultant.

SELECTION PROCESS

On June 1, 2021, Sonoma Water issued a Request for Statements of Qualifications for Engineering and Design Services for Welded Steel Water Tank Rehabilitation to 30 firms listed in the attached Recipient List. The Request for Qualifications was also posted on the Sonoma Water and County of Sonoma Purchasing Department websites.

The six firms listed below submitted Statements of Qualifications:

1. Biggs Cardosa Associates, Inc., San Jose CA
2. Brelje & Race Consulting Engineers, Santa Rosa, CA
3. Harper and Associates Engineering, Inc., Corona, CA
4. Kleinfelder, Inc., Santa Rosa, CA
5. Stetson Engineers, Inc., San Rafael, CA
6. West Yost and Associates, Inc., Davis, CA

The following criteria were used to evaluate each firm:

- Thoroughness of SOQ
- Professional qualifications and demonstrated ability to perform the work
- Exceptions to standard terms in the sample agreement

Harper and Associates Engineering, Inc. (Consultant) was selected for the work under this agreement because of their expertise and considerable experience conducting welded-steel water tank inspections, assessments, and rehabilitation designs for structural repairs and coating reapplications. Consultant has recently completed similar sized water tank rehabilitation projects in Napa and Humboldt counties and is familiar with the challenges of the Project.

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Sonoma Water may seek to amend or enter into subsequent agreement(s) with Board approval if required, relying upon this competitive selection process, after the preliminary or initial work is completed for the Project.

SERVICES TO BE PERFORMED

Under the proposed agreement, Consultant will conduct meetings; submit monthly progress reports; gather and review existing data; conduct field investigations to assess the condition and status of each reservoir for structural, safety, and coating conditions; develop a design report with recommended actions; submit 50%, 90%, 99%, and final engineering designs for the Project; and provide bid period and construction period services.

The cost of services will not exceed \$300,000; the term end date is December 31, 2024.

The agreement includes two options for Sonoma Water to extend this agreement for a period of one year each by providing written notice to Consultant thirty days in advance of the expiration date of the agreement and of the first extension option.

Strategic Plan:

This item is aligned with the County's Five-year Strategic Plan pillar of Resilient Infrastructure. Approval of the item will result in design and implementation plans for maintenance actions at two of Sonoma Water's water storage tanks and is therefore consistent with Goal 3 of the Resilient Infrastructure pillar which includes investing in critical infrastructure (water storage and transmission). The item also meets Goal 3, Objective 2 of the Resilient Infrastructure pillar by directly investing in the preventative maintenance of Sonoma Water facilities.

This item directly supports the County's Five-year Strategic Plan and is aligned with the following pillar, goal, and objective.

Pillar: Resilient Infrastructure

Goal: Goal 3: Continue to invest in critical road, bridge, bicycle, and pedestrian infrastructure.

Objective: Objective 2: Increase investment by 5% annually on preventive maintenance on all road infrastructure/facilities.

Sonoma Water Strategic Plan Alignment: Maintain and improve the reliability of the Water Transmission System.

The project will include design of targeted maintenance activities that protect the Kastania and Cotati No. 1 reservoirs from premature failure and will therefore improve the reliability and resilience water storage facilities along the transmission system.

Prior Board Actions:

None

FISCAL SUMMARY

Expenditures	FY 21-22 Adopted	FY22-23 Projected	FY 23-24 Projected
Budgeted Expenses	\$300,000		
Additional Appropriation Requested			
Total Expenditures	\$300,000		
Funding Sources			
General Fund/WA GF			
State/Federal			
Fees/Other	\$300,000		
Use of Fund Balance			
Contingencies			
Total Sources	\$300,000		

Narrative Explanation of Fiscal Impacts:

Unused appropriations budgeted in FY 2020/2021 for the Water Transmission Fund in the amount of \$300,000 have been included in Sonoma Water’s Q1 Consolidated Budget Adjustments. No additional appropriation is required.

Staffing Impacts:			
Position Title (Payroll Classification)	Monthly Salary Range (A-I Step)	Additions (Number)	Deletions (Number)

Narrative Explanation of Staffing Impacts (If Required):

N/A

Attachments:

Recipient List

Related Items “On File” with the Clerk of the Board:

None