



SUMMARY REPORT

Agenda Date: 7/13/2021

To: Board of Directors, Sonoma County Water Agency
Department or Agency Name(s): Sonoma County Water Agency
Staff Name and Phone Number: Parastou Hooshialsadat 707-547-1961
Vote Requirement: 4/5th
Supervisory District(s): First

Title:

Hazard Mitigation at Bennett Valley Fault and Sonoma Valley Creek Crossings

Recommended Action:

- A) Authorize Sonoma County Water Agency's General Manager to execute an agreement with Kennedy/Jenks Consultants, Inc., for engineering and pre-design services for the Hazard Mitigation at Bennett Valley Fault and Creek Crossings Project (Project) through May 31, 2024, in the not-to-exceed amount of \$425,000.
- B) Adopt a Resolution Authorizing Adjustment to the Board Adopted Budget for Fiscal Year 2021-2022 for the Sonoma Aqueduct Capital Fund in the amount of \$300,000 and the Storage Facilities Fund in the amount of \$125,000 for the Hazard Mitigation at Bennett Valley Fault and Sonoma Valley Creek Crossings.

(4/5th Vote Required) (First District)

Executive Summary:

The Sonoma aqueduct and Oakmont pipeline have been identified as being susceptible to earthquakes and earthquake-related hazards due to their crossing at the Bennett Valley fault. In addition, the Sonoma aqueduct is at high risk of failure due to ground deformation and associated liquefaction and lateral spread at several creek crossings within Sonoma Valley. Sonoma County Water Agency (Sonoma Water) seeks engineering and pre-design services specific to water supply infrastructure and seismic mitigation in order to evaluate geotechnical conditions, assess vulnerability, develop mitigation concepts, and develop 30% design plans for preferred projects. This level of engineering will allow Sonoma Water to apply for future grant funding opportunities for design and implementation of seismic mitigation projects.

Discussion:

HISTORY OF ITEM/BACKGROUND

Sonoma Water owns and maintains more than 83 miles of water transmission pipeline to provide drinking water to more than 600,000 residents and businesses in Sonoma and Marin counties. The portion of Sonoma Water's transmission system that provides water to eastern Santa Rosa and the Sonoma Valley traverses the Bennett Valley fault zone. The Sonoma aqueduct and Oakmont pipeline cross the Bennett Valley fault zone along an approximate 2,000 foot segment along Montgomery Drive in Santa Rosa, just west of Channel Drive.

Sonoma Water conducted a hazard assessment of its water supply and transmission system that was published in the Phase II Natural Hazard Reliability Assessment, Water Supply and Transmission System for

Sonoma County Water Agency, dated July 18, 2008 (NHRA). The NHRA identified earthquakes and earthquake-related hazards as the most significant hazards to Sonoma Water's water transmission infrastructure. Following completion of the NHRA and development of Sonoma Water's first Local Hazard Mitigation Plan in 2008, Sonoma Water initiated efforts to implement projects and pursue grant funding to reduce the seismic vulnerabilities of the water transmission system. Some completed projects include the Rodgers Creek Fault Crossing, River Diversion System Ground Improvements, and the Water Transmission System Isolation Valves projects.

Mapping of the Bennett Valley fault in the Spring Lake area shows that the 20-inch Sonoma aqueduct and the 24-inch Oakmont pipeline cross the Bennett Valley Fault Zone near the Sonoma booster station. Both pipelines are susceptible to fault rupture hazard at this location according to the 2008 NHRA.

Additionally, Sonoma aqueduct crosses several creeks and streams where bank failure triggered by strong ground shaking may cause significant ground deformation that can result in pipe breaks.

The 2008 NHRA also identified four creek crossing locations for Sonoma Aqueduct including Calabazas Creek near Sylvia Drive, Sonoma Creek at Lawndale Road, Sonoma Creek at Madrone Road, and Sonoma Creek near Verano Avenue. One additional crossing of a small creek near Heaven Hill Road off Sonoma Highway has been identified by Sonoma Water staff as a potential vulnerability.

The purpose of the Project is to further assess existing conditions at these locations, address the source of the problems, and propose improvements that address existing vulnerabilities and would lessen the chance of critical water transmission infrastructure failure in the event of hazards and their associated impacts, thereby ensuring adequate water resources to approximately 42,000 residents and businesses in eastern Santa Rosa and Sonoma Valley.

SELECTION PROCESS

On March 22, 2018, Sonoma Water and its affiliated sanitation districts issued a Request for Statements of Qualifications to the 28 firms in the attached list. The Request for Statements of Qualifications was also posted on Sonoma Water and County of Sonoma Purchasing Department websites. Ten firms submitted Statements of Qualifications.

The following criteria were used to evaluate each firm:

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

Based on the evaluations, the following respondents were selected for the list of qualified consultants:

- AECOM, Oakland, CA
- BKF, Santa Rosa, CA
- Coastland, Santa Rosa, CA
- Infraterra, Oakland, CA
- Kennedy/Jenks Consultants, Inc., Walnut Creek, CA
- Kleinfelder, Santa Rosa, CA

- Mott MacDonald, Pleasanton, CA
- Schaaf and Wheeler, Santa Rosa, CA
- West Yost, Santa Rosa, CA
- Woodard and Curran, Walnut Creek, CA

Kennedy/Jenks Consultants, Inc. (Consultant) was selected from the list based on its experience with design of similar water supply infrastructure and related services.

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 provide engineering and pre-design services for the Hazard Mitigation at Bennet Valley Fault and Sonoma Valley Creek Crossings Project. Tasks in the scope of work include, but are not limited to, the following:

- Perform a preliminary geotechnical reconnaissance and study
- Conduct fault and subsurface investigations and laboratory testing and develop a geotechnical investigation report
- Develop alternative analysis and prepare a preliminary engineering report
- Submit 30% design drawings

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.

Prior Board Actions:

None

FISCAL SUMMARY

Expenditures	FY 21-22 Adopted	FY22-23 Projected	FY 23-24 Projected
Budgeted Expenses			
Additional Appropriation Requested	\$425,000		
Total Expenditures	\$425,000		
Funding Sources			
General Fund/WA GF			
State/Federal			
Fees/Other			
Use of Fund Balance	\$425,000		
Contingencies			
Total Sources	\$425,000		

Narrative Explanation of Fiscal Impacts:

Additional appropriations of \$425,000 are required to process the expense of the engineering and pre-design services agreement. With Board approval, appropriations budgeted in FY 2020/2021 and rolled over to FY 2021/2022 will be made in the Sonoma Aqueduct Capital Fund (\$300,000) and the Storage Facilities Fund (\$125,000) pursuant to the attached budgetary resolution.

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:

Attachment 1: Resolution

Attachment 2: Recipient List for Request for Qualifications

Related Items "On File" with the Clerk of the Board:

None