



## SUMMARY REPORT

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**Agenda Date:** 4/7/2020

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**To:** Board of Directors, Sonoma County Water Agency  
**Department or Agency Name(s):** Sonoma County Water Agency  
**Staff Name and Phone Number:** John Mendoza / 547-1929  
**Vote Requirement:** Majority  
**Supervisory District(s):** Countywide

**Title:**

Natural Hazard Reliability Assessment Update

**Recommended Action:**

Authorize Sonoma County Water Agency's General Manager to execute an agreement with InfraTerra, Inc. for natural hazard reliability assessment update through March 31, 2023, in the not-to-exceed amount of \$300,000.

**Executive Summary:**

This item requests authorization for Sonoma County Water Agency's (Sonoma Water) General Manager to execute an agreement with InfraTerra, Inc. for seismic and natural hazard reliability assessment to allow Sonoma Water to better characterize the overall reliability of water supply.

**Discussion:**

HISTORY OF ITEM/BACKGROUND

In 2004 Sonoma Water initiated a natural hazard reliability improvement program for its water supply system. This kicked off a three year long natural reliability assessment that identified how natural hazards could impact the system. Based on this assessment, recommended actions were developed to mitigate the potential impacts.

This assessment led to the preparation of a Local Hazard Mitigation Plan (LHMP) in 2007 that identified the highest priority reliability projects to pursue for mitigation actions. The LHMP was adopted by Sonoma Water's Board of Directors and approved by the Federal Emergency Management Agency (FEMA) in 2008. This allows Sonoma Water to be eligible for FEMA federal hazard mitigation grant funds. The LHMP was updated in 2013 and 2018 in order for Sonoma Water to remain eligible for FEMA grant funds.

Sonoma Water has been actively implementing the projects and programs identified in the LHMPs to mitigate natural hazard impacts to its water system. Recently the Sonoma County Civil Grand Jury released a report in 2018-2019 (Report) that reviewed the overall preparedness of Sonoma County in regards to post earthquake availability of water. While the Grand Jury recognized significant efforts undertaken by Sonoma Water to reduce the seismic vulnerability of its water system, it highlighted several areas for improvement. One of their key recommendations is the development of a more realistic estimate of post-earthquake system restoration time. This recommendation includes effective communication of post-earthquake water supply conditions to the public so that the community at large is better prepared for future disasters.

This agreement authorizes InfraTerra, Inc. (Consultant) to analyze which areas of the water system are most susceptible to disruption during an earthquake and develop realistic estimates for how long it would take to repair the disruption. In order to best determine which areas are most risk adverse and how long a repair may take, Consultant will review the current 2018 LHMP as well as complete additional studies characterizing the vulnerabilities of the water system. This work will further support the Report's recommendation and provide information needed to improve the resiliency of the water system.

In addition, information provided by Consultant's assessment will support the separate Regional Water Supply Resiliency Study being performed by Jacobs Engineering on behalf of Sonoma Water and its retail customers. The objective of Jacobs' work is to develop a regional water supply decision support tool that can be used to evaluate strategies and water supply projects to improve integrated water resources management and make the region more resilient to potential short and long-term water shortages. The decision support tool will be a planning level model framework that will consider the built infrastructure, water supplies, and operations of Sonoma Water and its retail customers.

The agreement includes four tasks:

- 1) Developing time estimates of water system service disruption due to an earthquake
- 2) Review and recommend updates to the 2018 LHMP
- 3) Analyze the vulnerability of the water system infrastructure in the Wohler-Mirabel Area
- 4) Review and provide recommendations for Sonoma Water's Standard Operation Procedures for Seismic Response

The total cost of completing these tasks is \$299,958.

#### SELECTION PROCESS

On May 17, 2019, Sonoma Water issued a Request for Statements of Qualifications (RFQ) to the following 36 firms:

1. A3GEO, Inc., Berkeley, CA
2. Adobe Associates, Santa Rosa, CA
3. AECOM, Oakland, CA
4. Allana Buick & Bers, Inc., Palo Alto, CA
5. Arcadis, Emeryville, CA
6. Bauer & Associates, Forestville, CA
7. BKF Engineers, Santa Rosa, CA
8. Blackburn, Auburn, CA
9. Brelje & Race Consulting Engineers, Santa Rosa, CA
10. CAE Piping, Irvine, CA
11. Capstone Roofing, Santa Rosa, CA
12. Carlile Macy, Santa Rosa, CA
13. Carollo Engineers, Inc., Walnut Creek, CA
14. CDM Smith, Concord, CA
15. Coastland Civil Engineering, Inc., Santa Rosa, CA
16. GEI Consultants, Rancho Cordova, CA
17. GENTERRA Consultants, Inc., Sacramento, CA

18. GHD, Santa Rosa, CA
19. Group Delta Consultant's Inc., Oakland, CA
20. HDR Engineering, Inc., Folsom, CA
21. InfraTerra, Inc., San Francisco, CA
22. Kennedy/Jenks Consultants, Santa Rosa, CA
23. Kleinfelder, Santa Rosa, CA
24. LEE & RO, Inc., City of Industry, CA
25. Miller Pacific Engineering Group, Petaluma, CA
26. MKM & Associates, Santa Rosa, CA
27. Moore Twining Associates, Inc., Fresno, CA
28. PinnacleART, Pasadena, CA
29. RMC Geoscience, Petaluma, CA
30. Schaaf & Wheeler Consulting Civil Engineers, Santa Rosa, CA
31. Simpson Gumpertz & Heger, San Francisco, CA
32. Summit Engineering, Inc., Santa Rosa, CA
33. West Yost and Associates, Davis, CA
34. Woodard & Curran, Walnut Creek, CA
35. WSC Consulting, Inc., San Luis Obispo, CA
36. ZFA Structural Engineers, Santa Rosa, CA

The RFQ was also posted on the Sonoma County Water Agency and County of Sonoma Purchasing Department websites. 22 firms submitted Statements of Qualifications (SOQs).

The following criteria were used to evaluate each firm:

- 1) Thoroughness of SOQ.
- 2) Professional qualifications and demonstrated ability to perform the work.
- 3) Exceptions to standard terms in the sample agreement).

Based on the evaluations, all 22 firms were selected for the list of qualified consultants, as listed below:

1. ADKO Engineering, Inc., Roseville, CA
2. Allana Buick & Bers, Inc., Palo Alto, CA
3. BC Engineering Group, Santa Rosa, CA
4. Bellecci & Associates, Concord, CA
5. Beyaz & Patel, Inc., San Diego, CA
6. BKF Engineers, Santa Rosa, CA
7. Brelje & Race Consulting Engineers, Santa Rosa, CA
8. CSW/Struber-Stroeh Engineering Group, Inc., Petaluma, CA
9. ERM-West, Inc., Walnut Creek, CA
10. GEI Consultants, Rancho Cordova, CA
11. HDR Engineering, Inc., Folsom, CA
12. InfraTerra, Inc., San Francisco, CA
13. LEE & RO, Inc., City of Industry, CA
14. Mott MacDonald, San Ramon, CA

15. Prunuske Chatham, Inc., Sebastopol, CA
16. Questa Engineering Corporation, Petaluma, CA
17. Schaaf & Wheeler Consulting Civil Engineers, Santa Rosa, CA
18. Summit Engineering, Inc., Santa Rosa, CA
19. TJC and Associates, Inc., Walnut Creek, CA
20. Watercourse Engineering, Inc., Davis, CA
21. Woodard & Curran, Walnut Creek, CA
22. ZFA Structural Engineers, Santa Rosa, CA

InfraTerra, Inc. (Consultant) was chosen to perform the work because of their expertise in assessing seismic hazards in water transmission systems. Consultant has successfully completed previous work for Sonoma Water's Local Hazard Mitigation Plan (LHMP) and Natural Hazard Reliability Assessment (NHRA). Through these projects Consultant has gained knowledge of Sonoma Water's water transmission system that will assist with the project under the proposed agreement.

#### SERVICES TO BE PERFORMED

Under the proposed agreement, Consultant will prepare a seismic and natural hazard reliability assessment to allow Sonoma Water to better characterize the overall reliability of water supply.

The cost of services will not exceed \$300,000; the term end date is March 31, 2023.

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:**

10/9/2018: Adopted a Resolution approving the Sonoma County Water Agency 2018 Local Hazard Mitigation Plan.

#### **FISCAL SUMMARY**

<b>Expenditures</b>	<b>FY 19-20 Adopted</b>	<b>FY20-21 Projected</b>	<b>FY 21-22 Projected</b>
Budgeted Expenses	\$300,000		
Additional Appropriation Requested			
<b>Total Expenditures</b>	<b>\$300,000</b>		
<b>Funding Sources</b>			
General Fund/WA GF			
State/Federal			
Fees/Other	\$300,000		
Use of Fund Balance			
Contingencies			
<b>Total Sources</b>	<b>\$300,000</b>		

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**Narrative Explanation of Fiscal Impacts:**

Budgeted amount of \$300,000 is available from FY 2019/2020 appropriations for the Water Transmission fund. No additional appropriation is required.

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

**Narrative Explanation of Staffing Impacts (If Required):**

N/A

**Attachments:**

Attachment 1: Agreement with InfraTerra, Inc.

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

None