



## Legislation Text

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**File #:** 2019-1006, **Version:** 1

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**To:** Board of Directors, Russian River County Sanitation District

**Department or Agency Name(s):** Sonoma County Water Agency, Russian River County Sanitation District

**Staff Name and Phone Number:** Carlos Diaz / 707-547-1956

**Vote Requirement:** 4/5th

**Supervisory District(s):** Fifth

**Title:**

Engineering Design of Seismic Retrofit of Secondary Treatment Clarifiers at the Russian River County Sanitation District Wastewater Treatment Plant

**Recommended Action:**

In an ongoing effort to maintain operation of wastewater treatment plant infrastructure and associated protection of public and environmental health:

- A) Authorize Sonoma County Water Agency's General Manager acting on behalf of Russian River County Sanitation District (District) to execute an agreement with HDR, Inc. for engineering seismic retrofit design through June 30, 2022 in the not-to-exceed amount of \$237,000.
- B) Authorize Sonoma County Water Agency's General Manager acting on behalf of the District to amend the agreement provided amendments do not cumulatively increase the total cost to the District by more than 10 percent, while retaining authorities under Resolution 04-0547, and do not substantially change the scope of work.
- C) Adopt Resolution of the Board of Directors of the District Authorizing Adjustments to the Board Adopted Budget for Fiscal Year 2019-2020 for the District's Construction Fund in the Amount of \$237,000 for Engineering Design of Seismic Retrofit of Secondary Treatment Clarifiers. (4/5<sup>th</sup> vote)

(Fifth District)

**Executive Summary:**

The Russian River County Sanitation District (District) completed a Natural Hazard Reliability Assessment of its wastewater treatment plant (Treatment Plant) in June of 2015 and identified vulnerabilities associated with existing infrastructure and facilities, including seismic risk to the Treatment Plant secondary clarifiers, which are critical to treatment of wastewater flows. This project will mitigate the potential failure of the secondary clarifiers at the Treatment Plant due to earthquakes by upgrading and replacing mechanical components within the existing concrete clarifier tanks to be able to meet current seismic loading requirements and design guidance.

**Discussion:**

HISTORY OF ITEM/BACKGROUND

District's Treatment Plant is located in western Sonoma County just south of Guerneville, and receives and treats wastewater from a service area of approximately 2,700 acres covering the unincorporated areas of Rio Nido, Guerneville, Guerneville Park, and Vacation Beach. The Treatment Plant services about 3,200

equivalent single-family dwelling units and has the capacity to process up to 700,000 gallons per day.

In 2015, the District conducted a hazard assessment of its sanitation system that was published in the Natural Hazard Reliability Assessment.

On September 13, 2016, District adopted its first Local Hazard Mitigation Plan (Plan) that was approved by the Federal Emergency Management Agency (FEMA) on April 16, 2018. This Plan will be updated as required by FEMA on a five-year recurring schedule.

The Natural Hazard Reliability Assessment and Plan identified the Seismic Retrofit of Secondary Treatment Clarifiers at the Russian River County Sanitation District Wastewater Treatment Plant (Project) as one of several mitigation projects that could be implemented to reduce the risk of damage to or failure of the sanitation system. The Natural Hazard Reliability Assessment first identified a potential vulnerability of the clarifiers to seismic hazards. The facility has three circular reinforced concrete clarifier tanks: two 40-foot diameter clarifiers (Clarifiers 1 and 2) and a 60-foot diameter clarifier (Clarifier 3). While the tanks themselves are considered adequate to withstand a design earthquake, the Natural Hazard Reliability Assessment identified the clarifiers' internal mechanisms as being vulnerable to seismic inertial forces and resulting hydrodynamic loading.

District intends to mitigate the potential failure of the secondary clarifiers at the Treatment Plant by seismic retrofit of the clarifiers' internal components, which will address structural and hydrodynamic loading requirements as set forth in applicable codes and design guidance, including, but not limited to, 2016 California Building Code and ASCE 7-16 Minimum Design Loads for Buildings and Other Structures.

In 2018, District applied for and was awarded a grant from FEMA to design and construct the Project, in the amount of \$2,238,402. The grant period of performance is 36 months, at which time both design and construction activities are expected to be completed.

Expenditures for consulting services, Sonoma County Water Agency (Sonoma Water) Project and grant management, design review, environmental documents, right-of-way, contact administration and inspection services, and construction costs are estimated as follows:

	<b>Budgeted</b>	<b>Budgeted</b>	<b>Estimated</b>
	<b>FY18-19</b>	<b>FY19-20</b>	<b>FY20-21</b>
Engineering Design Services	\$237,000		
Sonoma Water Project and Grant Management, Design Review, Environmental Documents, Right-of-Way	\$45,000	\$192,500	\$30,000
Construction		\$2,990,000	
Construction Inspection and Contract Administration		\$17,500	\$200,000

Total Estimated Costs by Fiscal Year	\$282,000	\$3,200,000	\$230,000
<b>Total Estimated Project Cost</b>	<b>\$3,712,000</b>		

Note: Budgeted amount of \$237,000 will be re-budgeted FY2019/2020 pursuant to the attached budgetary resolution. Funds were initially budgeted for FY2018/2019 with the uncertainty of exactly when FEMA grant approval would be received. Given timing of FEMA approval relative to staff resource availability, the design services agreement was slightly delayed to commence in FY2019/2020.

#### SELECTION PROCESS

On March 1, 2019, District issued a Request for Statements of Qualifications to the following 14 engineering design firms:

1. Carollo, Walnut Creek, CA
2. HDR, Folsom, CA
3. Brelje Race Consulting Engineers, Santa Rosa, CA
4. GHD, Santa Rosa, CA
5. Summit, Santa Rosa, CA
6. Kennedy Jenks, Santa Rosa, CA
7. Woodard Curran, San Francisco, CA
8. Stantec, Rocklin, CA
9. Abide International, Inc., Sonoma, CA
10. Ansari Structural Engineers, San Francisco, CA
11. OLM Consulting Engineers, San Francisco, CA
12. Water Resources Engineering, Inc., San Francisco, CA
13. Sage Consulting Engineers, Inc., San Francisco, CA
14. Innovative Project Solutions, Inc., San Francisco, CA

The Request for Statement of Qualifications was also posted on Sonoma Water and County of Sonoma Purchasing Department websites, as well as the Small Business Administration and the Minority Business Development Agency.

The three firms listed below submitted Statements of Qualifications

1. Beyaz Patel
2. Summit
3. HDR

The following criteria were used to evaluate each firm:

- 1) Thoroughness of Statements of Qualifications
- 2) Professional qualifications and demonstrated ability to perform the work
- 3) Exceptions to agreement terms

District 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, the consultant will provide engineering seismic retrofit design services, including, but not limited to, design, drafting, specification preparation, and assistance during bidding and construction for the Project.

The cost of services will not exceed \$237,000; the term end date is June 30, 2022.

District will return to this Board for approval of the construction contract resulting from the work of this Agreement.

**Prior Board Actions:**

05/08/2018: Adopted Board resolution designating Sonoma Water's General Manager, Assistant General Managers, and Chief Engineer as authorized agents of the Board to apply for, accept awards, and enter into agreements for Federal and/or State disaster funds.

09/16/2016: Adopt Russian River County Sanitation District Local Hazard Mitigation Plan.

06/04/2013: Approved agreement between District and GHD, Inc. for Natural Hazard Reliability Assessment services. Cost \$150,000; term end December 31, 2014.

**FISCAL SUMMARY**

<b>Expenditures</b>	<b>FY 19-20 Adopted</b>	<b>FY20-21 Projected</b>	<b>FY 21-22 Projected</b>
Budgeted Expenses	\$3,200,000	\$230,000	
Additional Appropriation Requested	\$237,000		
<b>Total Expenditures</b>	<b>\$3,437,000</b>	<b>\$230,000</b>	
<b>Funding Sources</b>			
General Fund/WA GF			
State/Federal	\$2,238,402		
Fees/Other	\$961,598	\$230,000	
Use of Fund Balance	\$237,000		
Contingencies			
<b>Total Sources</b>	<b>\$3,437,000</b>	<b>\$230,000</b>	

**Narrative Explanation of Fiscal Impacts:**

Total project costs are estimated to be \$3.7 million with \$2.2 million in offsetting grant funds, and \$1.5 million in Russian River County Sanitation District cost share. FY2019/2020 appropriations for staff costs for design, environmental, right-of-way, and inspection during construction and construction contracting were included in the Board approved FY2019/2020 District's Construction budget.

Additional appropriates of \$237,000 are required to process the engineering design contract. With Board approval, appropriations budgeted in FY2018/2019 and rolled over to FY2019/2020 will be made in the District's Construction fund pursuant to the attached budgetary resolution (attachment R-1).

Appropriations for ongoing staff costs for design and inspection will be budgeted in FY2020/2021 in the District's Construction fund.

<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>
N/A			

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

None

**Attachments:**

Draft Agreement  
Resolution

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

None