



Legislation Text

File #: 2022-0437, **Version:** 1

To: Board of Supervisors

Department or Agency Name(s): Transportation and Public Works

Staff Name and Phone Number: Johannes J. Hoevertsz, 707-565-2231

Vote Requirement: 4/5th

Supervisorial District(s): First, Second, Fourth and Fifth

Title:

First Amendment - Engineering Services for Design of Leachate and Potable Water Storage Tanks Replacement Project

Recommended Action:

- A) Authorize the Chair to execute a First Amendment to the Professional Service Agreement with GHD, Inc. for design services for certain leachate and potable water storage tanks to expand the scope of work and increase the total contract budget by \$78,193, for a total not-to-exceed amount of \$729,969.
- B) Adopt a Resolution authorizing a budget adjustment to the Fiscal Year 2020-21 Department of Transportation and Public Works CSA #41 Fitch Mountain Water System Adopted Budget in the amount of \$34,938 for expanded geotechnical work.

(4/5th Vote Required) (First, Second, Fourth and Fifth District)

Executive Summary:

The Department of Transportation and Public Works is requesting authorization to execute a First Amendment to an agreement with GHD, Inc. expanding the scope of work, and for a total not-to-exceed amount of \$78,193. Additional appropriations from fund balance are also requested in the amount of \$34,938, for the CSA #41 Fitch Mountain Water System.

Discussion:

Background

On July 20, 2021, the Board of Supervisors approved an agreement with GHD, Inc. to design two new steel bolted leachate tanks at three of the County's closed landfills, as well as provided designs for three new steel bolted water tanks to replace the existing redwood tanks for the CSA 41 Fitch Mountain water system. The agreement was awarded to GHD, Inc. following a competitive selection process consisting of a Request for Proposal for engineering services.

The County received a total of five proposals from the following engineering firms:

1. BKF Engineers;
2. Brelje & Race Consulting Engineers;
3. EBA Engineering;
4. GDH; and
5. LEE + RO

A ranking of the proposals was determined by a committee comprised of engineering staff from the Department of Transportation and Public Works. Scoring of proposals was based on the following criteria:

- Demonstrated ability to perform the services described in the RFP;
- Principal/Project manager in charge: Experience and Qualifications;
- Quality of work as verified by references;
- Costs relative to scope of work;
- Demonstrated history of providing similar services;
- Willingness to accept County's contract terms; and
- Quality and clarity of proposal.

The committee examined all proposals received and unanimously ranked GHD as the best qualified firm based on the proposal and the criteria above.

Since the agreement was executed, the following unforeseen conditions were discovered once the design process was complete:

1. One of the CSA 41 water tank locations was found to have geologic conditions that required a more robust geotechnical investigation than originally planned, to ensure a safe, long lasting and reliable design.
2. Based on a site and engineering review performed in the design phase of the work, the most suitable location for the new leachate tanks at the Roblar closed landfill facility required a retaining wall to protect the tanks and maintain the integrity of the access road.
3. During the site planning and initial design phase, adding fill stations was identified as a component that could ultimately result in long term cost savings, even after factoring the potential up front construction costs of the fill stations. The logistics of the new tanks, fill times and deliveries times were evaluated, and it was determined that adding filling stations could reduce the amount of time it takes to pump leachate from the storage tank into the transportation truck by 50% or more. With a cost saving evaluation, it was determined that fill stations should be added to the design for the Guerneville and Sonoma tank locations.

The requested additional scope of work proposed is further described below.

Landfills

The County of Sonoma is responsible for seven legacy closed landfill sites throughout the County, including the Guerneville, Roblar and Sonoma Closed Landfills. Each of the sites has a leachate collection and recovery system consisting of collection sump pumps, transfer pumps, and mobile 22,000-gallon storage tanks. Leachate, water that has percolated through solid waste that is buried within a landfill, is pumped to the tanks and removed intermittently by tanker trucks. The leachate is hauled to the Laguna Sub-regional Wastewater Treatment Plant for treatment and disposal.

At the Guerneville site, leachate is collected at two locations on the south side of the property. A sump that collects leachate with one pump is located at the lowest elevation, at the base of the closed facility. This pump

conveys leachate to storage tanks on the mid-level elevation, which also has numerous collection points. The mid-level tanks have two pumps that convey the combined leachate to four (4) 22,000-gallon mobile storage tanks for removal.

The Roblar site has two leachate collection sumps on the northwest side of the site. These two sumps use a series of three pumps that transfer the collected leachate to two (2) 22,000-gallon mobile storage tanks for removal.

The Sonoma site has two separate collection locations on the northeast side of the site. Both collection locations have one pump each that individually convey leachate to four (4) 22,000-gallon mobile storage tanks.

During times of maximum leachate generation, typically during significant winter storms, the leachate storage volumes are insufficient at the sites, resulting in the need for continuous trucking of leachate during peak periods. If, for any reason, trucks are unable to access the sites during peak periods, there is a risk of overflow or spill of leachate. Increasing the amount of leachate storage reduces this risk. Additional storage capacity will make the system more resilient to events that can interrupt removal, such as impaired trucking access from flooded roads and slides, or a lack of capacity at the treatment facility due to volume overload across the system.

GHD Design Services for Leachate Tanks

GHD has been retained by the County to design two permanent 200,000-gallon steel bolted and lined leachate storage tanks at each of the three County-owned closed landfill sites; a total of six tanks: two at Guerneville, two at Roblar, and two at Sonoma.

At the request by County staff, this First Amendment will expand services to include the design of leachate fill stations at Guerneville and Sonoma Closed Landfill sites; and the design of a retaining wall at the Roblar Closed Landfill site. Additional costs for these services are set to not exceed \$46,255.

Fitch Mountain Water System

The Fitch Mountain Water System (FMWS) provides water to 346 customers in the Fitch Mountain area of Healdsburg. The FMWS water supply is provided by way of a purchase agreement with the City of Healdsburg. A pneumatic pressure system pumps potable water to three distinct and separate pressure zones: Del Rio, Hilltop, and Madrone, each with its own 100,000-gallon redwood water storage tank. Russian River Utility, contracted by the county, monitors and controls this system with a remote radio telemetry system.

The three existing redwood potable water storage tanks for the FMWS have been in place since 1993. The total storage volume of the FMWS of 300,000 gallons has become a limiting factor in the system's ability to meet the growing demand for clean, safe potable water. The additional storage will also provide an extra measure of protection against wildland fires that have become more prevalent with each passing fire season. For these reasons, it is the intention of the County and community to replace the existing 100,000-gallon storage tanks with 200,000 gallon tanks to make available greater volumes of clean, safe potable water to the FMWS customers while, at the same time, provide an additional layer of protection against wildland fires that might strike the Fitch Mountain area in the future.

GHD Design Services for Potable Water Storage

This proposed First Amendment will add to GHD’s existing scope of work taking into consideration the findings from the geotechnical investigation at one of the water tank locations that identified issues with the existing geology in the area surrounding the tank. The solution identified is to drill additional borings and perform additional mapping of the area to support the engineering design phase of the project. Additional costs for these services are set to not exceed \$34,938.

Requested Action

The Department is requesting authorization for the Chair to execute a First Amendment to the Agreement with GHD, Inc., to expand the scope of services and an increase the total contract amount from \$651,776 to \$729,969. In addition the Department is requesting the adoption of a Resolution approving a budget adjustment for Fiscal Year 2020-21 Adopted Budget in the amount of \$34,938 for CSA #41 Fitch Mountain Water System.

Strategic Plan:

N/A

Prior Board Actions:

07/20/21: Board approved the Engineering Services for Design of Leachate and Potable Water Storage Tanks Replacement Project Agreement with GHD, Inc.

FISCAL SUMMARY

Expenditures	FY 21-22 Adopted	FY22-23 Projected	FY 23-24 Projected
Budgeted Expenses	\$43,255		
Additional Appropriation Requested	\$34,938		
Total Expenditures	\$78,193		
Funding Sources			
General Fund/WA GF			
State/Federal			
Fees/Other	\$43,255		
Use of Fund Balance	\$34,938		
Contingencies			
Total Sources	\$78,193		

Narrative Explanation of Fiscal Impacts:

Costs associated with the additional work to be completed with the First Amendment are estimated at \$78,193, increasing the total not-to-exceed amount from \$651,776 to \$729,969. The \$78,193 in additional expenses will be funded as follows: \$16,573 from Former Rural Landfills (34050200); \$26,682 from Former Urban Landfills (34050300); and \$34,938 from Fitch Mountain Water District (34120100).

There are sufficient appropriations in the adopted Fiscal Year 2021-22 budget to pay for costs for the additional work at the Former Rural and Urban Landfills. Additional appropriations from fund balance in the amount of \$34,938 are requested in the attached Resolution, from the Fitch Mountain Water District Operations Fund (45205-34120100).

Funding sources for maintaining the county closed landfills include collection of Franchise Fees under two Franchise Agreements as well as the collection of Concession Fees collected under a Master Operations Agreement with Republic Services of Sonoma County, Inc. Funding sources for the operations and maintenance of the Fitch Mountain water system are water usage fees and water meter monthly charges to residents who are connected into the water system.

Narrative Explanation of Staffing Impacts (If Required):

None.

Attachments:

First Amendment to the Agreement for Engineering Services for Design of Leachate and Potable Water Storage Tanks Replacement Projects by and Between County of Sonoma and GHD, Inc.
Resolution

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

Agreement for Engineering Services for Design of Leachate and Potable Water Storage Tanks Replacement Project dated 7/20/21.