



City of Arts & Innovation

City Council Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL **DATE: APRIL 16, 2024**

FROM: PUBLIC WORKS DEPARTMENT **WARDS: ALL**

SUBJECT: APPROVE CHANGE ORDER TO PURCHASE ORDER NO. 243037 WITH G.S.E. CONSTRUCTION COMPANY, INC. OF LIVERMORE, CALIFORNIA, FOR DIGESTER 5 CLEANING AT THE RIVERSIDE REGIONAL WATER QUALITY CONTROL PLANT, IN THE AMOUNT OF \$79,182, INCREASING THE TOTAL AMOUNT TO \$417,282

ISSUE:

Authorize a change order to Purchase Order No. 243037 with G.S.E. Construction Company, Inc., of Livermore, California, in the amount of \$79,182, increasing the total amount to \$417,282, for Digester 5 cleaning at the Riverside Regional Water Quality Control Plant.

RECOMMENDATION:

That the City Council approve a change order to Purchase Order No. 243037 for Digester 5 cleaning with G.S.E. Construction Company, Inc. from Livermore, California, in the amount of \$79,182, increasing the total amount to \$417,282.

BACKGROUND:

The Riverside Regional Water Quality Control Plant (RWQCP) treats wastewater generated within the City of Riverside and the communities of Edgemont, Highgrove, Jurupa, and Rubidoux. The RWQCP has an ultimate wastewater treatment capacity of approximately 52 Million Gallons per Day (MGD).

The solids handling facilities consist of Dissolved Air Floatation Thickening (DAFT) for Waste Activated sludge (WAS) thickening, anaerobic digestion for primary and secondary solids, screw presses and centrifuge dewatering of digested sludge. Dewatered biosolids are hauled offsite for land application in Arizona. Digester gas from digesters is stored in low-pressure gas storage unit and used in fuel cells for power generation while excess digester gas is flared.

Until 2017, the RWQCP operated with 3 digesters and a sludge holding digester. The 2017 Plant Expansion Project added two (2) new digesters to meet the ultimate 52 MGD digestion capacity along with the demolition of the existing Digester 5. Upon the completion of a feasibility study, Digester 5 was saved from demolition and instead will be utilized for processing food waste substrates, also known as Anaerobic Digestible Materials (ADM) for enhanced biogas production.

On December 19, 2023, the City Council awarded RFP No. 2222 for Biogas Upgrade and Digestate Management Facilities to Anaergia Services, LLC a Delaware limited liability company (LLC) doing business as Riverside Bioenergy Facility, LLC, a Delaware LLC. The City Council also approved the Lease and Energy Services Agreement with Riverside Bioenergy Facility, LLC a Delaware LLC, to accept and treat solid waste, particularly food waste, to leverage anaerobic digestion at the RWQCP, to address regulatory challenges on climate, waste disposal, biosolids management, and to maximize the potential of the RWQCP.

DISCUSSION:

As a precursor to the Biogas Upgrade and Digestate Management project, RWQCP staff issued Request for Proposals WQCP 2023-05 to a panel of on-call contractors to remove, transport, and dispose of approximately 198,500 gallons / 400 Wet Tons of sludge that had been sitting in Digester 5 for approximately eight years. The Project was awarded to the lowest responsive bidder G.S.E. Construction Company, Inc. for a total cost of \$338,100.

When requesting quotes to clean Digester 5 and to haul/dispose biosolids, staff used a calculated volume of liquid in the digester and figured the total solids is approximately 18% to 20%, which is standard industry practice for sludge. The calculation of total volume and percent solids were used to estimate the number of trucks needed to dispose of the dewatered sludge.

During the cleaning process, staff was informed and later verified that total solids were above the assumed industry standard of 18% to 20%, which increased the trucking and disposal cost. As the content in Digester 5 was sitting idle for more than eight years, it was difficult to determine the actual percent of total solids prior to starting the work.

The cleaning operation uncovered an excess sludge volume of 233 Wet Tons, thus raising the total volume to 633 Wet Tons. The removal, drying, transportation, and disposal of the excess sludge increased the project cost by \$79,182, requiring the change order.

Purchasing Resolution 23914, Section 1104 - Change Orders, states that “Modifications to a Purchase Order shall be made only by Change Order. Subject to the availability of funds, Change Orders may be utilized for purposes of ... (3) modifying scope of work/services being provided, where the modification is reasonably related to the original scope of work/services ... Unless otherwise specifically authorized by the Awarding Entity, Change Orders which cumulatively exceed the following will require Awarding Entity approval; (b) Any Change Order which causes the contract price to exceed \$50,000, if the Contract and/or Purchase Order was not previously approved by the Awarding Entity.”

The Purchasing Manager concurs that the recommended action complies with Purchasing Resolution No. 23914 Section 1104(3) and (b).

STRATEGIC PLAN ALIGNMENT:

This item contributes to **Strategic Priority 6 – Infrastructure, Mobility and Connectivity** and **Goal No. 6.2** – Maintain, protect, and improve assets and infrastructure within the City’s built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity.

Furthermore, this project aligns with each of the Cross-Cutting Threads as follows:

1. **Community Trust** – Riverside is transparent and makes decisions based on sound policy,

inclusive community engagement, involvement of City Boards & Commissions, and timely and reliable information. Activities and actions by the City serve the public interest, benefit the City's diverse populations, and result in greater public good. The proposed improvements are part of a significant endeavor to improve the solids dewatering process and to accommodate future growth. The Digester 5 used for food waste digestion will enhance the biogas production, increase the fuel cell power generation, and lower power purchase costs.

2. **Equity** – Riverside is supportive of the City's racial, ethnic, religious, sexual orientation, identity, geographic, and other attributes of diversity and is committed to advancing the fairness of treatment, recognition of rights, and equitable distribution of services to ensure every member of the community has equal access to share the benefits of community progress. The Project will improve the operational efficiency of the sewer wastewater treatment facility and provide a higher degree of service reliability for residents in the service area.
3. **Fiscal Responsibility** – Riverside is a prudent steward of public funds and ensures responsible management of the City's financial resources while providing quality public services to all. The proposed Project improvements will enhance biogas production, thereby increasing the onsite fuel cell power generation and providing significant cost savings for the City.
4. **Innovation** – Riverside is inventive and timely in meeting the community's changing needs and prepares for the future through collaborative partnerships and adaptive processes. This project provides an improved solution to address the usage of food waste to produce biogas and reduce the outside power consumption cost.
5. **Sustainability & Resiliency** – Riverside is committed to meeting the needs of the present without compromising the needs of the future and ensuring the City's capacity to persevere, adapt and grow during good and difficult times alike. The proposed improvements will improve sustainability by using biogas in fuel cells for power generation.

FISCAL IMPACT:

The total fiscal impact of this action is \$79,182. Sufficient funds are budgeted and available in the Sewer Fund, Digester 5 Rehabilitation Project account number 9912423-440301 for this change order.

Prepared by: Thuy Nguyen, Principal Engineer
Approved by: Gilbert Hernandez, Public Works Director
Certified as to
availability of funds: Kristie Thomas, Finance Director/Assistant Chief Financial Officer
Approved by: Kris Martinez, Assistant City Manager
Approved as to form: Phaedra A. Norton, City Attorney

Attachments:

1. Supplemental Agreement with G.S.E. Construction Company, Inc.
2. Change Order Calculation Summary