"Placerville, a Unique Historical Past Forging into a Golden Future"

City Manager's Report
October 8, 2019 City Council Meeting
Prepared by: Mark Liebenow, Water Reclamation Facility Supervisor
Item #: 12.3

Subject: Adopt a Resolution:

1. Approving a contract with Synagro, Inc. in an amount not to exceed $59,500 for the cleaning of Anaerobic Digester #2 (CIP#42016) and
2. Authorizing the City Engineer to execute the same; and
3. Approving a $67,000 budget appropriation from the Sewer Enterprise Fund Contingency for Unforeseen Expenditures for the said project.

Purpose: To clean and properly service Anaerobic Digester #2 in preparation for processing higher winter flows at the Hangtown Creek Water Reclamation Facility.

Discussion: Anaerobic digesters at the Hangtown Creek Water Reclamation Facility (WRF) date back to the original design from 1962 and are designed to take sludge flow, from the bottom of the primary clarifiers, along with the excess return activated sludge (RAS) from the secondary clarifiers, and process the sludge in a controlled and heated environment. The sludge consists of heavy settled organic material and the digester reduces this sludge from a very thick and odorous mixture to something that can be controlled. The anaerobic bacteria located in the digesters utilize the food sources in the sludge to reduce the amount of potentially hazardous pathogenic lifeforms in the material. The main byproducts from this biological process are carbon dioxide and methane gas, which in turn is piped and used as the primary fuel source to heat the digesters and further decompose the sludge until it can be properly dewatered and sent on as soil conditioners for agriculture use.

Anaerobic digesters are designed to be cleaned every three to eight years. The last record of cleaning for the WRF digesters was in 2010. Staff has done an excellent job in maintaining the equipment to allow for the service timeframe to be extended to nearly 10 years. However, digesters accumulate grit and rags at an approximate rate of 2% or greater per digester volume every year and are constantly filling up at a gradual rate. In 2017, the WRF was heavily impacted by two major storm events that damaged the head works grit and rag removal equipment. When that equipment was replaced in 2018, as a FEMA reimbursed project, the plant accumulated grit and rags at an accelerated rate, filling up the digesters more quickly with the unwanted material. The digester mixing pumps were also damaged during the storms and a replacement pump was ordered as part of the FEMA repairs and is on site. While addressing replacement of the pump in September, staff discovered the excess grit and material in the system that would potentially damage the replacement pump. In order to preserve the new pump, the digester will need to be thoroughly cleaned. The

best and most cost effective time for such a cleaning is now when grit and screening is in suspension and at a lesser volume to dewater. After the unit is cleaned, it will be inspected and any necessary repairs will be made prior to installation of the new mixing pump. Staff has been working diligently to keep Digester #2 mixed with the Heat Exchanger pump, which is a smaller pump and does not do the job adequately. The digester is a vital piece of the process and it is imperative it is cleaned prior to returning to full working service this coming winter.

WRF staff attempted to obtain quotes from various specialty contractors qualified to address the digester cleaning. To date, only one bid was received from Synagro, Inc. There is already an established working relationship with this company as they are the company who takes the dewatered sludge for use as soil conditioners. The bid received for the cleaning of digester #2 came in at $59,500 and it is staff's recommendation to proceed with awarding a contract with Synagro, Inc. for the work.

Options:

1. Approve the contract with Synagro, Inc. in an amount not to exceed $59,500 as recommended by staff.
2. Direct staff to negotiate different terms for the contract.

Cost: The cost of the proposed contract with Synagro, Inc. is for an amount not to exceed $59,500.

Budget Impact: This project is not currently budgeted. Staff recommends a $67,000 budget appropriation from the Sewer Enterprise Fund Contingency for Unforeseen Expenditures as shown below:

Construction	$ 59,500
Contingency	5,950
City Personnel Time	1,550
Total	**$ 67,000**

Recommendation: Adopt a Resolution:

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2. Authorizing the City Engineer to execute the same; and
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M. Cleve Morris, City Manager

Rebecca Neves, City Engineer

Attachments:

1. Resolution