



## CITY COMMISSION STAFF REPORT

**DEPARTMENT:** Finance/Utilities

**DATE:** July 23, 2024

**SUBJECT:** Motion to retroactively approve the Authorization of Emergency Wastewater Plant Surge Tank Debris Removal. – **Finance/Utilities**

### **CITY MANAGER RECOMMENDATION:**

The City Manager recommends a retroactive approval of an Emergency Procurement for the removal of Wastewater Plant Surge Tank Debris.

### **BACKGROUND OF ITEM:**

The wastewater treatment plant surge tank was designed to receive incoming raw sewage and settle bulky solids in a primary settling step, attenuate peak flows which occur typically in the morning and early evening, and then distribute wastewater for secondary treatment into three separate secondary wastewater clarifier treatment tanks. In recent weeks the following problems have been identified which required immediate attention and services:

1. **Loss of Capacity:** The tank's storage capacity has noticeably decreased, affecting its ability to handle peak flow periods.
2. **Debris Clogging Surge Tank Transfer Pumps:** Accumulated debris within the tank obstructed the pumps, leading to decreased efficiency and increased wear and tear on the equipment (pumps, motors and internal working impellers).
3. **Odor Emission:** A persistent and strong odor was emanating from the tank area, likely due to the buildup of organic material and stagnant water. An odor-control masking agent is added, but when the tank is in this condition, it has limited efficiency.

### **OBJECTIVES**

The objectives of the cleaning operation are to:

- Restore the surge tank to its total operational capacity.
- Remove all debris to ensure the smooth functioning of pumps.
- Eliminate the sources of odor to maintain environmental and workplace standards by removing the short-circuiting bulky solids to the extent possible.

### **ACTION PLAN**

Utilities completed the following steps to achieve the objectives:

## 1. Preparation

- **Inspection:** Conducted a thorough inspection of the surge tank to assess the extent of the debris accumulation and identify any structural issues.
- **Safety Measures:** Ensured all personnel are equipped with appropriate Personal Protective Equipment (PPE).
- **Temporary Flow Management:** Developed a plan to bypass the wastewater flow around the surge tank during the cleaning process to prevent operational disruption.

## 2. Cleaning Procedure

- **Drain the Tank:** Carefully drain the tank to access the interior surfaces and accumulated debris.
- **Debris Removal:** Utilize industrial vacuum trucks, contractor-provided crane with a grappler, and manual removal methods to clear all debris from the tank and associated pump areas.
- **Odor Neutralization:** Apply environmentally safe deodorizing agents to reduce odors.

## 3. Post-Cleaning Protection

- **Review:** Perform a post-cleaning inspection to confirm all debris is removed and the tank is free of obstructions.
- **Pump Testing:** Test the pumps to confirm they operate efficiently and without blockages.
- **Capacity Verification:** Verify the restored capacity of the tank to ensure it meets operational requirements.

## 4. Reporting and Documentation

- **Report Findings:** Document the cleaning process, findings, and any recommendations for future maintenance.
- **Maintenance Schedule:** Develop a regular maintenance schedule to prevent recurrence of these issues.

## RESPONSIBILITIES

- **Maintenance Team:** Oversee the cleaning operation, ensuring adherence to all safety protocols, and promptly report any issues encountered during the process.
- **Operation Team:** Assist with the temporary flow management plan and support as needed during the cleaning process.

## TIMELINE

The cleaning operation commenced on Tuesday, June 18, 2024, and proceeded until Thursday, June 20, 2024, then demobilized on Friday, June 21, 2024. Industrial Standard completed as much of the removal as possible but couldn't reduce the solids levels below approximately 3 to 4 feet above the tank bottom slab. An additional quote is required, and staff is finalizing this in order to complete the removal by another contractor.

**CONCLUSION:**

The efficient functioning of the City’s surge tank is critical for the efficient performance of the wastewater treatment plant. Addressing the current issues promptly will prevent further operational disruptions and maintain a safe working environment.

The staff received two quotes from qualified contractors. The costs reflected on these quotes are as follows and attached:

- Synagro: \$240,582.00
- Industry Standard Engineering Contractor: \$28,937.50

Staff progressed this work at a lower cost estimate received from Industry Standard Engineering Contractor and requested mobilization due to the risks associated with this problem for the solids removal.

**ANALYSIS:**

Pursuant to Section 2-258(c) *Emergency purchases exceeding the City Manager’s approval threshold* of the City’s Procurement Code, the City Manager authorized staff to progress with services by Industry Standard, an Engineering Contractor for removal of debris and wastewater solids accumulating in the City’s Wastewater Treatment Plant Surge Tank. These services were quoted to the Utilities Department on June 5, 2024, at \$28,937.50. However, due to the limitations of equipment utilized by this company, they could only reduce the solid levels in the surge tank to an elevation about 3 to 4 feet above the bottom slab of the tank, and additional solids remain to be removed.

Due to concerns about the City’s obligations to comply with the treatment regulatory criteria, staff immediately began working to secure another quote for additional services to complete this work by another contractor, and they will follow this request with another retroactive request as time is of the essence.

**FISCAL IMPACT:**

Funds are available in the Water & Sewer Fund.

<u>General Ledger Acct. Number</u>	<u>Budgeted Amount</u>	<u>Requested Amount</u>	<u>Remaining Amount</u>
450-931-531240-535	\$237,500	\$28,937.50	\$80,140.31

**ATTACHMENTS:**

1. Synagro Quote
2. Industry Standard Engineering Quote

## Workflow History



User	Task	Action	Date/Time
Allen, Tedra	NEW ITEM: Not Yet Routed	Route to Budget	06/27/24 10:38 AM
Nadeau, Mike	Assigned to Budget	COMPLETE: Forward to City Clerk	06/28/24 01:47 PM
	<i>The Fiscal Impact Section of this Staff Report is correct.</i>		
Allen, Tedra	Assigned to City Clerk	Route to Attorney	06/28/24 01:58 PM
Horowitz, Jacob	Assigned to Attorney	Route to Finance Director	06/28/24 02:12 PM
Williams, Irwin	Assigned to Finance Director	COMPLETE: Forward to City Attorney	07/12/24 10:20 AM
Horowitz, Jacob	Assigned to Attorney	COMPLETE: Forward to City Manager	07/12/24 01:05 PM
Rey, Alex	Assigned to City Manager	COMPLETE: Forward to City Clerk	07/12/24 01:57 PM
Allen, Tedra	Assigned to City Clerk	APPROVE ITEM: End Workflow	07/12/24 03:54 PM
Allen, Tedra	END WORKFLOW - APPROVED		07/12/24 03:56 PM