



DATE: May 8, 2023

TO: Honorable Mayor and City Councilmembers
David Perrault, City Administrator

FROM: David Swearingen, P.E. Public Works Director / City Engineer
Jeff Frid, Public Works Superintendent

SUBJECT: Lift Station Rehabilitation – Lift Station 7 & Lift Station 13

Budgeted Amount:	Actual Amount:	Funding Sources:
\$300,000 (LS-5)	\$171,490	Sanitary Sewer Fund
(LS-7 is in 2030 for \$80,000)		

Council Should Consider

Motions to approve, table, or deny the following:

- Quote for replacement of the pumps, bases and guide rails at Lift Station 7 in the amount of \$55,594.00 from Electric Pump.
- Quote for bypass pumping services at Lift Station 7 in the amount of \$33,912.00 from Northern Dewatering, Inc.
- Quote for replacement of the pumps, base elbows and ductile iron piping at Lift Station 13 in the amount of \$77,504.00 from Electric Pump
- Quote from Olson’s Sewer Service for truck bypass pumping at Lift Station 13 in the amount of \$4,480.00.

Background/Discussion

The Public Works Department maintains a program to refurbish and update sanitary sewer lift stations on a cycle for reliability, technology and risk management. Public Works tracks data and conducts testing and inspections to each of the 14 total wastewater lift stations around the City to assist in determining future maintenance and rehabilitation needs.

In the Fall of 2022, Public Works conducted tests on the pumps at several lift stations. The tests indicated that Lift Station 7 (near Johanna Shores) and Lift Station 13 (Karth Lake neighborhood) are in need of pump replacements making them a higher priority project. The City’s Capital Improvement Program currently identifies rehabilitation work for the forcemain related to Lift Station No. 5 for 2023. Public Works recommends shifting the Lift Station 5

forcemain project to 2024 and adding the proposed rehabilitation work at Lift Station 7 and Lift Station 13 for 2023.

The Lift Station 7 rehab project has two elements, wet well work and bypassing sewage for approx. 3 days (including overnights). The total combined cost for contracted services, labor, and parts - \$89,506.

Lift Station 7 Scope -

- Contract replacement of 2 complete submersible sewage pumps, 2 base elbows, guide rails, and misc. brackets within the wet well.
- Utilize Northern Dewatering to setup and take down a bypass pumping system. The pumping will need to be monitored by an AHPW staff member 24 hours a day. At this point, no special permitting is required for this project.
- AHPW is responsible for the initial wet well cleaning, plugging the main lines, ramping the bypass along County Road D, and providing traffic control.
- EP will provide a full equipment startup inspection and staff training on the new components.

Proposals for the bypass pumping were received from two companies that were capable of providing the service and equipment needed. The total cost difference between the two proposals was \$2,157. It is the recommendation of City Staff to contract with Northern Dewatering, even though they have the higher proposal. They have specialized experience and have shown an engineered bypassing design that staff has reviewed and is confident in using for this project.

The Lift Station 13 rehab project has two elements, wet well work and bypassing sewage for approx. 2 days (16 daytime hours budgeted). The total combined cost for contracted services, labor, and parts - \$81,984

Lift Station 13 Scope -

- Contract replacement of 2 complete submersible sewage pumps, 2 base elbows, ductile piping, and misc. brackets within the wet well.
- Utilize Olson's Sewer to bypass truck sewage during daytime hours. The bypass trucking will need to be monitored by an AHPW staff member. At this point, no special permitting is required for this project.
- AHPW is responsible for the initial wet well cleaning, plugging the main lines and providing traffic control.
- EP will provide a full equipment startup inspection and staff training on the new components.

If approved, this project is anticipated to be completed September 2023.

Budget Impact

This project will be covered by the sanitary sewer fund. In addition to the contracted costs of \$171,490, the City will also incur overtime costs due to the monitoring needed by an AHPW staff member. The impact to the Sewer Fund of moving these two lift stations up 7+ years will not be known until we are further along in the 2024-2028 CIP process.

Only one quote was obtained for the pump materials because the City utilizes Electric Pump for all of its lift stations for consistency in materials and parts. This also makes repair time more efficient if there is ever a failure. Timeliness of repairs is necessary for lift stations as it could cause a lot of damage to connected properties if the system backs up.

Attachments

Attachment A: Quote for replacement parts at Lift Station 7

Attachment B: Quote for bypass pumping services at Lift Station 7

Attachment C: Quote for replacement parts at Lift Station 13

Attachment D: Quote for truck bypass pumping services at Lift Station 13