



Staff Report

July 3, 2023 Council Workshop Meeting

Mission Control Monitoring System for Sewer Lift Stations

Presenter: Rob Charles, Utilities Manager

Time Estimate: 5 minutes

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BACKGROUND: The City owns and operates 29 sewer lift stations throughout the City which collect wastewater and pumps it to the wastewater treatment plant (WWTP). Currently, all the communication between the lift stations and the WWTP is via a single cellular provider and only monitors minimal changes to conditions. Unfortunately, due to weather or cellular conditions, there are times when all communication is lost between the lift stations and WWTP and staff are unaware of any failure issues unless physically driving out to a lift station site.

The information transmitted by the Mission Control system provides real time data for each lift station including run times and any failures for pumps, power failures, wet well levels, and any other operating parameters desired by the City. The information provided by Mission Control will allow staff to better understand on site conditions and assist them with prioritizing their response when we have multiple failures.

SUMMARY: The Mission Control system would replace the City's current reliance on the cellular based Guardian monitoring system and increase reliability as Mission Control uses three separate cellular providers for communication. The system automatically switches to another cell network when signal strength is low. Another benefit of the system will be the ability to remotely monitor sites and use the data for predictive asset maintenance rather than responsive maintenance during a failure.

BENEFITS TO THE COMMUNITY: Installation of this system will provide redundant communication to WWTP in the event that single cellular provider communication at a lift station is lost. This will help to prevent sewer overflows at lift stations and strengthens the City's commitment to protecting public health and receiving waters where sewer overflows may drain.

BUDGET IMPACT: Correct equipment is the only supplier of this system in the local area. The cost of the Mission Control system fully installed at each of the City's sewer lift stations is \$216,193.85 There is sufficient budget in the sewer operations budget to cover this expenditure.

RECOMMENDATION: Staff recommends that this item be placed on the July 17, 2023 City Council Regular Meeting Consent Agenda for Council's consideration.