



## AGENDA ITEM SUMMARY

### District Impacted

- ☐ 1 = Wolosin
- ☐ 2 = Woolard
- ☐ 3 = Scott
- ☐ 4 = Fowler
- ☐ 5 = Macaluso
- ☒ All

<b>AGENDA DATE</b>	<i>November 12, 2019</i>
<b>DESCRIPTION</b>	RECEIVE BIDS AND AWARD CONTRACT FOR WASTEWATER TREATMENT AND RECYCLING CENTER AND WASTEWATER TREATMENT PLANT FACILITY UPGRADES AND CONSIDER RESOLUTION NO. 2019-R172; A RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO AND MANAGE AN AGREEMENT BETWEEN THE CITY OF BOERNE AND _____ FOR THE WASTEWATER TREATMENT AND RECYCLING CENTER AND WASTEWATER TREATMENT PLANT FACILITY UPGRADES.
<b>STAFF'S RECOMMENDED ACTION (be specific)</b>	Receive and reject bids and Deny Resolution No. 2019-R172.
<b>CONTACT PERSON</b>	Michael Mann – Utilities Director
<b>SUMMARY</b>	<p>We recently bid some miscellaneous wastewater treatment plant work as a combined project to take advantage of economy of scale. Those projects are intended for both of our plants.</p> <p>WWTP:</p> <p>The current fiscal year budget includes funding for upgrades to the Esser Road Wastewater Treatment Plant (WWTP) effluent disinfection system. That system, which uses ultraviolet light is performing well and our plant remains in compliance with our TCEQ discharge permit.</p> <p>However, we had been notified by the manufacturer of the equipment that maintenance/repair components are no longer being manufactured due to its age. We had concerns that if a major component failed, we would not be able to make repairs, possibly leading to a non-compliance issue. Thus, we budgeted to upgrade the system to more modern equipment as a proactive measure. The total amount of allocated funding for this work was \$325,000.</p> <p>WWTP UV Equipment:</p>



#### WWTRC:

Last year, we encountered two operational issues at the Old San Antonio Road Wastewater Treatment and Recycling Center (WWTRC).

One was with failing mounting systems on mixing equipment at the anaerobic zones of the treatment basins, where some of the anchor bolts on mixer motors were cracked and/or had broken due to being too rigidly mounted. It was determined that the mounts for all the mixers needed to be modified.

#### Mixer:



The other issue was with inconsistency in treatment for Phosphorus. The plant effluent has remained within compliance for the amount of phosphorus in the flow, but we often have to manage spikes in the outgoing phosphorus levels due to changes in incoming flow, weather, etc. Our consultants advise the most efficient way to

manage our treatment of these issues is to interconnect some of our sludge piping in order to change the balance of waste and return flows from time to time. That work would be added in the sludge pump manifold area beneath the clarifiers.

#### Sludge Piping:



Neither of the operational/maintenance projects were specifically budgeted due to the timing of when the needs became apparent. When we went forward with design, the idea was to fund the work out of Sewer Utility Maintenance funds and reserve funds, depending upon cost.

#### Project Bid Results:

Again, we put all of the above referenced work out to bid as a single project, although the bid was separated by plant.

The engineer's estimated cost for the work at the completion of design was:

WWTP UV Bank Work - \$445,800

WWTRC Sludge Piping and Mixer Repairs - \$105,100

TOTAL - \$550,900

Clearly, the UV replacement work estimated cost was greater than the funds budgeted. But, we had hoped the actual bid amounts would be more attractive.

	<p>Four bids were received, ranging from \$549,250 to \$742,000. The low bidder was Associated Construction Partners. A copy of the bid summary is attached.</p> <p>Our consultant engineer reviewed the references of the low bidder and recommended award to that firm. A copy of the HDR recommendation is also attached.</p> <p>However, due to the cost of the work being much higher than the anticipated project cost, particularly with regard to the UV Replacement work, we do not recommend that the project be awarded as it was bid.</p> <p>It is important for the WWTRC (piping and mixers) work to be done as expeditiously as possible to correct known issues and to ensure our treated effluent meets required standards. However, the WWTP (UV replacement) still remains optional as a proactive measure in case of potential component failure. We are currently undergoing renewal of our discharge permit at the Esser Road WWTP, which carries the potential for changes in effluent quality requirements as well. That fact coupled with the higher than anticipated cost for the UV replacement work leads us to recommend not going forward.</p> <p>The work at the two plants could be separated. We considered the possibility of negotiating with the low bidder for the WWTRC work, as allowed by State Law. However, the low bidder for the total bid was not the low bidder for the WWTRC work.</p> <p>Thus, we believe it is most prudent at this time to reject all bids and re-bid the work at the two plants separately. We recommend re-bidding the WWTRC work immediately but waiting a few months for the finalization of the WWTP discharge permit renewal before potentially re-bidding the WWTP work. In the interim, we will research other methods of providing effluent disinfection in the event of a system component failure that would be difficult to repair.</p>
<b>COST</b>	N/A
<b>SOURCE OF FUNDS</b>	Wastewater Operating Fund
<b>ADDITIONAL INFORMATION</b>	

This summary is not meant to be all inclusive. Supporting documentation is attached.