



City of Pflugerville

Legislation Text

File #: 2023-0396, **Version:** 1

Approving the procurement of a replacement well pump in the amount of \$131,600, and authorizing the City Manager to execute the same.

In the early spring, staff began to notice that Well # 7 started to have diminishing flows coming from the well pump and began to troubleshoot what was causing the diminished flows. After confirming all other components were normal and the aquifer still had significant volume to pump water, staff contacted Advanced Water Well Technologies (who installed the well pump in 2016) to help evaluate what the problem could be. After diagnosing that the problem was definitely with the well pump itself, staff contracted Advanced Water Well Technologies to pull the well pump to determine what the underlying cause of the reduced flows were.

After retrieval of the well pump and casing, it was determined that there was significant failures to the pump housing that was caused by the velocity of the water and the pressure that goes through the pump on a daily basis. This velocity and pressure will eventually cause washouts in the pump casing and will begin to wear the material away until it develops holes in the pump casing and bowls. After a meeting with Advanced Water Well Technologies about why this would have been designed this way it was determined that when the CIP was completed in 2016 to make the well drought resistant, it was more economical for the City to use the existing pump case and install a pump that was more adaptable to varying water levels during a drought. The problem with this is that the pump can create these velocities regularly and with the small well bore that wasn't expanded in 2016, the pump and casing had to be thinner and smaller to accommodate the varying depths of water during cycles of drought.

Once staff realized the nature of the failure, it was found that the model of pump that we currently had in the well is no longer manufactured any more given the specialty of our well and the specific requirements we have with this well bore. Advanced Water Well Technologies and the City were able to verify that another pump would fit within the well bore and also provide the same performance as the previous pump. As it is critical to get this well pump reinstalled quickly, staff needed to place the order to get the pump here before we reached peak summer demand. As Advanced Water Well Technologies had already torn down the pump and performed the autopsy on what was needed, they were selected to be able to both provide the new pump as well as install the new well pump when it arrives. Also, since they are one of two companies in our region that work on larger municipal wells and they installed the original well during the CIP in 2016, they were the most qualified to perform the work. The City has used Advanced Water Well Technologies on other well projects and they are currently a subconsultant on our Well 6 Water Supply Evaluation project that is ongoing.

Prior City Council Action

On December 8, 2015, City Council awarded the Well 7 Rehabilitation project to Advanced Water Well Technologies in the amount of \$331,245.84.

Deadline for City Council Action

Action is requested on April 25, 2023.

Funding Expected: Revenue Expenditure N/A

Budgeted Item: Yes No N/A

Amount: \$ 131,600

1295 Form Required? Yes No

Legal Review Required: N/A Required Date Completed: _____

Supporting documents attached:

Advanced Water Well Technologies - Well 7 Replacement Proposal

Recommended Action

Staff recommends approving the procurement of a replacement well pump in the amount of \$131,600, and authorizing the City Manager to execute the same.