

MEMORANDUM

TO: Donna Barron, City Manager

VIA: Keith Marvin, P.E., Director of Public Services

FROM: Kelly Rouse, Utilities Manager

DATE: July 17, 2019

SUBJECT: **Approval of a Professional Services Agreement with HDR Engineering, Inc., Dallas, TX, in the Amount of \$95,341 for Professional Engineering Services for the Castle Hills Facilities and Operations Assessment; and Authorization for the City Manager to Execute the Agreement.**

BACKGROUND

As the City prepares for the possibility of annexation of Castle Hills various analyses and assessments of the impact of taking on the maintenance and operations of this additional area are being conducted. The Public Services Department's role in this area includes assessments of the civil infrastructure currently in place. While the Castle Hills water distribution and wastewater collection systems are owned by Lewisville, water and wastewater operation, inspection, maintenance, and repair services are administered by Denton County Fresh Water Supply District 1-A. Third party assessments are necessary to determine the condition of these assets, and the effect on the City's provision of services upon annexation.

ANALYSIS

The City of Lewisville stands to acquire an existing pump station, an elevated storage tank, two ground storage tanks, as well as a wastewater lift station during annexation of Castle Hills. With the acquisition of these sites, questions concerning the condition of the facilities and how they will be integrated into our operational plans will need to be addressed.

HDR Engineering, Inc. has recently updated the water system all-pipes model for 2018. This modeling evaluated the impacts of water age, pressures, and available fire flow for the current and future build-out demands of Lewisville's distribution system. The 2018 all-pipes model was the catalyst for the ongoing Comprehensive Water System Master Plan; which is also being conducted by HDR Engineering, Inc.

Staff has chosen to stay with HDR for the Castle Hills assessment which will include the development of an operating strategy for incorporating the Castle Hills area in the City of Lewisville's water distribution system. Further modeling of this area will be performed to analyze current and future demands specific to the area. The assessment will include condition evaluation

and recommended infrastructure improvement needs for the existing facilities so that demands on the system will be adequately met.

An additional PSA is currently in review and will be presented for approval at an upcoming City Council meeting with a second firm to assess the condition of the distribution and collection lines. These two utility studies together will assist in forecasting annual operational needs, as well as long range capital project planning. This information is important as City staff continues to study the impact of annexation.

This project is funded out of the Castle Hills Annexation Analysis Capital Improvement Project and is estimated to be completed in May of 2020.

RECOMMENDATION

It is City staff's recommendation that the City Council approve the agreement as set forth in the caption above; and authorize the City Manager to execute the agreement.