



STAFF REPORT CITY COUNCIL

Agenda Date: 4/2/2024
Agenda Section: Consent Agenda

Department Origination: Public Works

Agenda Item: Approve the SEH Professional Services Contract in the Not to Exceed Amount of \$64,800.00 for the 2024 Water System Hydraulic Model Update and Water System 20-Year Use Projections

Approval Required: Simple Majority Vote

BACKGROUND

The City's water model was last updated and utilized in 2009-2010 by AE2S Engineering. As the City has grown, and the water system has expanded since then, the model would benefit from an update to better reflect current water system conditions and more closely match observed system performance. The water model is a valuable tool for system planning and operational performance analysis. Initializing the analysis work with an update of the model along with additional calibration/verification will help to assure that the model is producing reliable results.

Water use projections have been completed by two different engineering firms in the past. One projected higher use than has been realized to date, while the other study predicted lower than actual use. It is recommended that the projections be updated based on the most current water service area boundary and growth projections, coupled with historical use. This task is foundational to the water system needs planning effort since the type and location of the anticipated growth will influence overall water needs and the facilities required to support those needs.

Attached is a SEH Professional Services Contract in the Not to Exceed Amount of \$64,800 for the 2024 Water System Hydraulic Model Update and Water System Planning.

The workplan is laid out in four phases:

- The first phase will establish an updated and calibrated water model.
- The second phase will update the City's water use projections over a 20-year planning period.
- The third phase will utilize the model to analyze specific water system planning and operational questions. The first water system planning question identified for analysis will be potential relocation or abandonment of trunk water main near the intersection of TH 371 and TH 210. As planning moves forward for a grade separation project, removal and relocation of water main in anticipation of this work is imminent.
- The fourth phase will prepare an updated ultimate water system planning map reflecting recommended pipe size updates and other pending water system improvements including potential for a new well field.

FINANCIAL IMPLICATIONS

The \$64,800 expense for the water system hydraulic model update and system planning, along with proposed \$146,225 well rehabilitation project and the proposed \$24,900 preliminary aquifer evaluation study (\$235,925 combined total), were not included in the 2024 Budget. They were also not programmed in the five-year capital needs on the enterprise fund's cashflows to forecast future revenue needs.

While the Water Availability Charges (WAC) of the Water Enterprise Fund is designed to address capital needs of the water system, a deficit remains in the fund as of the end of 2023 (pre-audit closeout) due to the financing of

past projects. Preliminary projections indicate the WAC fund deficit will be eliminated in 2024. Estimates are there will be approximately \$200,000 available to fund most of the \$235,925 of identified project costs.

Operational expenses and other projects programmed in the future may need to be adjusted to accommodate the additional costs of these projects. The projects will be incorporated into the water fund's cashflow to evaluate the impact and future rate adjustments necessary to finance the water operations.

STAFF RECOMMENDATIONS

The Utilities Commission and staff recommends approval of the SEH Professional Services Contract in the Not to Exceed Amount of \$64,800.00 for the 2024 Water System Hydraulic Model Update and Water System 20-Year Use Projections.

The City Attorney has reviewed the proposed contract and does not have any concerns.

COUNCIL ACTION REQUESTED

MOTION to approve the SEH Professional Services Contract in the Not to Exceed Amount of \$64,800.00 for the 2024 Water System Hydraulic Model Update and Water System 20-Year Use Projections.