AGENDA MEMORANDUM
Future Item for the City Council Meeting of July 11, 2017
Action Item for the City Council Meeting of July 18, 2017

DATE: June 21, 2017

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Construction Contract
Corpus Christi Aquifer Storage and Recovery Feasibility Study
(Capital Improvement Program)

CAPTION:

Motion authorizing the City Manager, or designee, to execute a construction contract with Felder Water Well & Pump Service LLC of Angleton, Texas in the amount of $950,740 for the Corpus Christi Aquifer Storage and Recovery Feasibility Study for Total Base Bid plus Additive Alternate No. 1. (Capital Improvement Program) (CIP)

PURPOSE:

The purpose of this agenda item is to obtain authority to execute a construction contract.

BACKGROUND AND FINDINGS:

CIP Description: Corpus Christi Aquifer Storage and Recovery Feasibility Study

Aquifer storage and recovery (ASR) is a long-term water supply strategy to effectively integrate the City's regional water supply system to achieve long-range water planning goals. The scope of investigation and analysis for this ASR feasibility study includes the following work elements:

- Conduct an exploratory test drilling program (up to three exploratory boreholes) to collect hydrogeological and geochemical parameters that can be used to characterize a potential ASR system at the selected sites;
- Perform geochemical analysis to determine the compatibility of treated source water for storing within the native aquifer setting;
- Develop a field scale groundwater model to simulate storage and recovery operations;
- Evaluate ASR operating policy considerations; and
- Prepare and submit a technical report and electronic presentation to the Texas Water Development Board summarizing the findings of District feasibility study.

Project Scope:

In 2005, the Corpus Christi Aquifer Storage and Recovery Conservation District (District) was established to protect the groundwater resources within the City limits that represent the District service area. One of the goals of the District is to investigate the feasibility of and potentially develop an aquifer storage and recovery project for the service area.

In 2009, the District completed a proposed five-year plan that identified studies needed to identify potential operational issues and gain confidence in developing a successful ASR program.

In July 2016, the City and District accepted a Texas Water Development Board grant in the amount of $433,388 to conduct an ASR Feasibility Study within the District service area.

In July 2016, the City awarded an Architect/Engineer contract to HDR Engineering to provide Corpus Christi ASR Feasibility Study which is aligned with tasks identified in the District's five-year plan and recent findings from a District study completed in January 2016.

The investigation of ASR feasibility within the District is a sound investment and important for the following reasons:

- Promoting diversification of regional water supplies;
- Providing cost-effective regional water supplies to meet competing demands; and
- Improving system operations and reduce annual operating costs.

As one of the key tasks of the ASR Feasibility Study, the City needs to contract a qualified water well driller to conduct an exploratory test drilling program (up to three exploratory boreholes) to collect hydrogeological and geochemical parameters that can be used to characterize a potential ASR system at the selected sites.

The project scope includes:

Base Bid:

- Initial evaluation (Phase I) Drilling a 9-7/8 inch diameter borehole or less and completing downhole geophysics and lithology classifications to a depth of 1,200 feet at a minimum of three test site locations;
- Expanded evaluation (Phase II) Drilling three separate boreholes (a maximum depth of 1,200 feet for each) adjacent to Phase I locations to carry out core-barrel soil coring, interval pumping tests, and water quality sampling up to three, 150-foot-thick intervals within each borehole

Additive Alternate:

- Provide and install permanent monitoring well in Phase I and Phase II Boreholes
- Drilling alternative Phase I and Phase II borehole if one of Phase I boreholes cannot provide good geophysics results

On May 10, 2017, the City received proposals from four (4) bidders and the respective bids were as follows:

CONTRACTOR	BASE BID	ADDITIVE ALTERNATE NO. 1	TOTAL BASE BID PLUS ADD. ALT. NO. 1
Unison Drilling, Inc. Devine, Texas	637,776	244,619	882,395
Felder Water Well & Pump Service LLC Angleton, Texas	**776,340**	**174,400**	**950,740**
Layne Christensen Company Houston, Texas	1,251,131	437,859	1,688,990
Cory L. Miller dba C. Miller Drilling Winnsboro, Texas	1,494,777	220,375	1,715,152
Engineer's Opinion of Probable Construction Cost (Base Bid)	**882,395**		

Unison Drilling, Inc. (Unison) was the apparent lowest bidder, Felder Water Well & Pump Service LLC (Felder) was the apparent second lowest bidder.

The City's Consultant, HDR Engineering, reviewed the experience and qualifications of the bidders and found that Unison failed to demonstrate comparable-type experience on similar sized projects per the requirements of bidding documents. Based on Unison's failure to demonstrate the required experience, Unison's bid has been deemed non-responsive.

Felder expressed significant experience with comparable-type projects and proficiency in executing similar projects. In addition, HDR Engineering contacted selected project references and received favorable feedback for Felder.

Felder is the lowest responsive and responsible bidder; therefore, City staff recommends the project be awarded to Felder. Based on a review of Felder's experience and resources, Felder is qualified to provide the construction services for the project.

ALTERNATIVES:

1. Authorize the execution of the construction contract. (Recommended)
2. Do not authorize the execution of the construction contract. (Not Recommended)

OTHER CONSIDERATIONS:

None

CONFORMITY TO CITY POLICY:

Conforms to City Fiscal Policy.

EMERGENCY / NON-EMERGENCY:

Non-Emergency

DEPARTMENTAL CLEARANCES:

Utilities Department

FINANCIAL IMPACT:

□ Operating □ Revenue ☒Capital □ Not applicable

Fiscal Year 2016-2017	Project to Date Expenditures	Current Year	Future Years	TOTALS
Line Item Budget (CIP)		1,857,708		1,857,708
Encumbered / Expended Amount		626,800		626,800
This Item		**950,740**		**950,740**
Future Anticipated Expenditures This Project		247,959		247,959
BALANCE		32,209		32,209

Fund(s): Water Supply CIP #7

Comments: This project requires approximately 166 days for construction with anticipated completion by February 2018. The construction contract will result in the expenditure of an amount not to exceed $950,740.

RECOMMENDATION:

City Staff recommends approval of a construction contract with Felder Water Well & Pump Service LLC of Angleton, Texas in the amount of $950,740 for the Corpus Christi Aquifer Storage and Recovery Feasibility Study for the Total Base Bid plus Additive Alternate No. 1.

LIST OF SUPPORTING DOCUMENTS:

Project Budget
Location Map
Presentation
Form 1295
Letter of Recommendation