ITEM #:	**28**
DATE:	**04-11-23**
DEPT:	**W&PC**

COUNCIL ACTION FORM

SUBJECT: AWARD OF CONTRACT FOR NORTH RIVER VALLEY WELL FIELD AND PIPELINE PROJECT

BACKGROUND:

The City's source water management strategy since the mid-1970s has been to avoid a need to ration water when experiencing a drought similar to that experienced in 1975-76. As old wells fail and need to be replaced, and as demand for treated water increases, additional water supply wells must be constructed.

The North River Valley Well Field and Pipeline Project will provide a combination of new and replacement water supply capacity. The potential for a productive aquifer formation in the flood plain to the north and east of the Skunk River was identified through detailed hydraulic modeling, which was subsequently confirmed by drilling test wells. Water quality was also tested, and the groundwater was found to be free of PFAS compounds and suitable as a drinking water supply in all respects.

This project will construct three new wells and an interconnecting pipeline to the Water Treatment Plant. It will also include new fiber optic communication with the Water Treatment Plant for well controls and security measures. The three new wells will also be connected to the existing standby generator located at the Water Treatment Plant to provide emergency power to the wells.

This project was previously bid in May 2019, but the bids that were received were significantly greater than the engineers' estimates at the time ($6,696,665 versus $4,996,085), predominately due to the electrical work required, and were rejected. A new Notice to Bidders was issued on January 24, 2023. The electrical scope was revised to connect to an existing generator at the Water Plant instead of providing a separate generator at the wells. Three bids were received, with one being non-responsive for failing to provide a price for the Division 1 work. **The bids were once again significantly higher than the engineers' estimates ($10,200,955 versus $6,327,380):**

Bidder	Division 1 (Wells)	Division 2 (Pipeline & Electrical)	Grand Total
Keller Excavating, Inc	$1,241,203.80	$8,959,752.00	$10,200,955.80
On Track Construction, LLC	$ 1,200,974.00	$9,405,156.00	$10,606,130.00
Rognes Corp	Non-Responsive		
Project Estimate	*$730,400.00*	*$5,596,980.00*	*$6,327,380.00*

When deciding whether to recommend accepting the low bid, staff considered the following five factors:

1. The Discrepancy Between the Bid Prices and the Engineer's Estimate

The estimates for Division 1 and Division 2 were prepared separately. The Division 1 (well construction) estimate was prepared by City staff. The estimate was backward-looking, using the pricing from the 2019 bids that were ultimately rejected. The only update to the 2019 bid pricing was to include a 3.5% per annum inflation factor. **That approach was not sufficiently predictive of the actual rate of inflation since 2019 or of current market pricing. The 2019 bids were structured such that each Division would be awarded independently, where the 2023 bids had the Division 1 work as a subcontract. In hindsight, the staff estimate should have also included an additional 15% mark-up to account for the subcontract arrangement.**

The Division 2 (pipeline and electrical) estimate was developed by the consultant, HDR Engineers. HDR provided the following thoughts:

- The Opinion of Probable Construction Costs (OPCC) was prepared in May 2022. When the project was delayed to allow for PFAS test drilling, the estimates were not updated prior to issuing the Notice to Bidders.

- Cost estimating is inherently a rearward looking activity, with unit prices coming from actual bids prices on prior projects. In the current construction market, that has become a poor indicator of current pricing. Pricing for both the pipeline materials and the electrical components are highly volatile, with pricing changing weekly.

- The scope of a project like this is highly sensitive to local market conditions. There is a considerable level of local work, and contractors are simply "not as hungry" for the work. Factoring this into a cost estimate is a difficult task.

- HDR candidly admitted that its OPPC was a poor estimate of the actual bids.

In comparing the two responsive bids, the Grand Totals are within 4% of one another. The non-responsive bid failed to provide a proposal for Division 1, but was even higher than the two responsive bids for Division 2. **This suggests that the bid prices are competitive and reflective of current market prices, and that the discrepancy between the estimates and the bids received was the result of bad estimates rather than bad bids.**

2. Bidder Understanding and Clarity of Specifications

Following the bid opening, staff from HDR contacted the low bidder to determine if there were any elements of the scope that were unclear or that the contractor felt created an extra financial risk for them. The contractor indicated that they felt the scope was clear, and that they would have no difficulty executing the project as designed and presented in the plans and specifications.

When comparing the line item pricing in the low bid to their estimate, HDR noted two areas that made up the bulk of the cost overrun. The first was in the electrical portion of Division 2. When the work was bid in 2019, the electrical portion was well over the estimate. At the time it was believed that since there was only one electrical subcontractor quoting on the work, the pricing was likely not competitive. During the bid phase this time around, HDR did reach out to multiple electrical contractors to make sure they were aware of the project and to encourage them to consider providing a bid. The low bidder said they did ultimately receive two electrical bids, and reported that those bids "were pretty close."

The other notable line item where the bid price exceeded the estimate was for dewatering: The OPCC included a $90,000 lump sum estimate for that line item, and the low bid had it priced at $700,000. HDR explained that they consciously weighed the option of including dewatering as a lump sum item versus unit price on the bid form. Either option has potential pros and cons. Bidding as a lump sum sets a fixed price that will not increase, but it also creates the potential for a contractor to build in excess costs to cover themselves (knowing that they ultimately still must be competitive on the overall cost). Bidding as a unit price means the City only pays for the work that is needed, but it could also result in large change order costs to the City if the construction season were to be very wet and additional dewatering is required. Ultimately, it was decided to bid it as a lump sum line item.

3. Potential to Reduce Cost by Rejecting and Rebidding

In the conversation with the low bidder, they were asked what they were seeing with trends in material pricing. Their opinion was that prices are still climbing, although the pace of the increases appears to perhaps be slowing.

The City's Purchasing Division shared its perspective that rejecting bids and going right back out again in the hope of getting better pricing seldom works to the City's advantage. Unless the work could be substantially repackaged, there would be little advantage to going back out again.

Staff did consider possibilities to repackage the project, but there is no significant scope element that staff would be comfortable modifying. Staff considered splitting the bid into three distinct Divisions (wells, pipeline, and electrical) and bid each as a stand-alone contract, but that would transfer the responsibility to act as the General Contractor to the City, and current staffing levels would not make that feasible.

The low bidder did not indicate that schedule was a consideration, so there is little likelihood that rebidding with a longer construction window would make any significant impact on the cost.

The electrical subcontractor did indicate that it might be possible to "value engineer" its portion of the work to bring down the costs. Staff has not yet pursued this offer, but would discuss it with the contracting team if the contract were to be awarded. Staff would propose to also bring in the Ames Electric Services Department to see if there is some element that they could assist with to help lower the costs. Those items would need to be addressed as contract change orders after award of the contract as bid.

4. <u>Availability of SRF Funding</u>

It is important for Council to be aware of the Drinking Water State Revolving Fund (DWSRF) process and timelines since this loan will be the source of funding for the project. The normal process calls for the project owner (Ames, in this case) to award the construction contract before the DWSRF loan is in place. The City's financial advisor has confirmed that it is required that the City award the contract before the loan agreement is finalized.

Having the DWSRF process in this order does require that the City have faith that the funding will be honored. The City has followed this sequence on multiple instances in the past without any difficulties. As a precautionary measure to protect the City, however, staff from the City's Purchasing Division reached out to the low bidder, Keller Excavating, and received in writing their willingness to accept a contract award that is subject to the Iowa Finance Authority approving the construction loan application.

Staff understands that obtaining the loan is now just a matter of completing a few remaining procedural steps. All required construction permitting, environmental reviews, cultural and historical reviews, and technical and managerial viability reviews have been completed and approved by the Iowa DNR. The state has confirmed in writing that it is "…able to set aside an increased amount of funding for this project."

The City will need to hold a new public hearing to approve the incremental increase in the maximum loan amount, and then submit a construction loan application to the state. At the April 25 Council meeting, Council will be asked to set May 9 as the date of that public hearing. At that same May 9 meeting Council will also be asked to approve the submission of the construction loan application.

5. <u>Impact on Water Rates</u>

Staff has updated the Water Fund rate model to evaluate the impact on the fund balance and anticipated rates should the project proceed with the current bids. The changes made to the rate model include:

- Increasing the SRF loan debt service to a $12.1 million principal amount.
- Reflecting that past project planning expenses ($662,000) are reimbursed from the SRF loan. This returns cash to the Water Fund now and rolls it into the loan.

- Reflecting $738,699 in loan forgiveness from the SRF program as a part of the Bipartisan Infrastructure Law funds designated for "emerging contaminants of concern." The City would be eligible due to a portion of the new capacity replacing the lost capacity from Well #17 due to high PFAS concentrations. The IDNR indicated the ultimate amount could be higher (perhaps up to $1.1 million), depending on the level of interest in this pool of funds.
- Reflecting the $550,000 in the FY 2022/23 Capital Improvements Plan budgeted for the Cherry Avenue Extension that is no longer planned.
- Delaying two future CIP projects totaling $1,613,000 (a future expansion of the NRV Well Field, and a long-range capacity assessment for the Water Plant).
- Maintaining annual rate increases previously presented to the City Council for the next 10 years.

Making these changes to the rate model shows that at the end of the 10-year rate projection the Water Fund would have a total balance estimated at $4.293 million, and would fully meet the City's desired operating reserve all ten years.

If the project were to proceed, the available funding would be as shown below.

TOTAL PROJECT FUNDING	
Water Fund	$ 0
Drinking Water SRF Loan	12,100,000
Total Available Funding	**$ 12,100,000**

If the project were to proceed with an award to the low bidder, the revised project expenses would be as follows.

TOTAL PROJECT EXPENSES	
Test Drilling	$ 124,005
Engineering, Legal, Admin	
Previous	514,168
Remaining	211,104
Land	111,038
Construction (from bids received)	10,200,956
Contingency (~10%)	938,729
Total Project Expenses	**$ 12,100,000**

ALTERNATIVES:

1. Award a contract for the North River Valley Well Field and Pipeline Project to Keller Excavating, Inc. of Boone, Iowa, in the amount of $10,200,955.80, contingent upon the Iowa Finance Authority approving the City's construction loan.

   If Council chooses this alternative, staff would return on April 25 and request that a public hearing be scheduled for May 9 for the incremental increase in the SRF loan amount. The actual approval of the loan will come at a later date when a loan agreement is finalized by both parties.

2. Reject the bids and direct staff to modify the project and rebid at a future date.

3. Reject the bids and direct staff to seek other alternatives to obtain additional water sources.

<u>CITY MANAGER'S RECOMMENDED ACTION</u>:

After evaluating all options, staff has come to the following conclusions.

- The discrepancy between the engineer's estimates and the actual bid prices appears to be bad estimates, and not bad bids.
- There is nothing that staff would recommend changing in the overall project scope that could help bring the cost lower.
- There is little likelihood that rebidding this project for a third time will result in substantially lower project costs.
- The project is a high priority for the Water Utility due to the loss of two existing wells and the past two years having record peak month demands.
- Adequate funding is available through the Drinking Water SRF program, and the project could receive an estimated $738,699 in loan forgiveness from the State.
- The electrical subcontractor has indicated that there may be a chance to reduce the project costs through a redesign change order.
- After adjusting the rate model as described above, it appears that there will be no change in the previously projected rate increases over the next 10 years.

Additional funds are available from the Drinking Water State Revolving Fund to cover the increased loan amount. The low bidder has agreed in writing to accept an award that is conditioned upon the Iowa Finance Authority approving the City's construction loan. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative 1, as described above.