

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

**COUNCIL ACTION FORM**

**SUBJECT: CHANGE ORDER NO. 2 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, which confirmed the absence of PFAS compounds, and found the groundwater to be suitable as a drinking water supply.

**The project will construct three new wells and interconnecting pipeline to the Water Treatment Plant. It will also include new fiber optic communication conveyed to the Water Treatment Plant for well controls and security measures.** The three new wells, to be located north of North River Valley Park, will be connected to the existing standby generator located at the Water Treatment Plant to provide emergency power to the wells.

On April 11th, 2023, City Council awarded a contract to Keller Excavating in the amount of \$10,200,955.80 for construction of the new water wells. The project is currently under construction. **As this project is being funded through a State Revolving Fund (SRF) loan it also comes with several requirements, including clearance from the State Historical Preservation Office (SHPO).** For the North River Valley Well Field Project, it was determined by SHPO during the loan's environmental review process that a portion of the project would be in potentially sensitive archaeological areas (identified by the hatched area in the attached map). This project area is rather large and spans a majority of the open excavation work for the raw water main installation. The contracted consulting archaeologist (In Situ Archaeological Consulting) was required to consult with the Iowa State Historic Preservation Office (SHPO) and University of Iowa – Office of the State Archaeologist (OSA) per the special conditions with the contract documents to satisfy SRF funding requirements.

As of early November, a portion of the ground disturbing activities within the monitoring areas has been completed. An archaeological monitor with In Situ Archaeological Consulting was present during these ground disturbing activities and monitoring of these areas took place in a manner consistent with the direction from SHPO. **On November 7th, SHPO came to the construction site. In their professional discretion, SHPO determined the scope of construction means and methods by Keller Excavating had to be altered. Failure to alter their methods for the remainder of the work would jeopardize the SRF funding for the project.**

SHPO outlined the following required alterations to ground disturbance in areas not yet disturbed:

- Excavations within the monitoring area will use a smooth-lipped excavator bucket (i.e. - a bucket

with no "teeth") in order to minimize any potential impacts to potential resources.

- Once excavations reach the A1 soils/Roberts Creek soils (ranging between 20-70 cms), excavations will begin to remove soil in 10 cm increments.
- These 10 cm increments will continue into the Gunder soil layer and once excavations are well within the Gunder layer without any cultural material, excavations may resume as normal.
- As excavations take place, the archaeological monitor will collect soil samples to screen through a ¼ inch mesh to inspect for cultural materials and perform shovel tests within the top of the Roberts Creek and Gunder soil layers.
- Upon completion of the excavation of a trench segment, the monitor will document the soil profile of the trench.
- The archaeological monitoring will focus on the excavation of the trench/deep excavations and monitoring will not be necessary during backfilling.

**Because of the substantial change in scope required by SHPO, a change order is necessary to account for the change in construction means and methods that are now required.** Staff worked with the consulting engineer (HDR) and the contractor to develop an initial Change Order No. 1 that was at a dollar threshold (\$30,125) that could be approved by staff and keep the contractor working while the much larger balance went through the approval process with City Council. Doing this helped eliminate additional charges from the contractor for project delays by the City.

Staff and its consulting engineer spent considerable time reviewing cost estimates provided by the contractor for the larger Change Order No. 2. **HDR has confirmed to the City in writing that after their review and coordination with the contractor, all additional costs contained in Change Order No. 2 are directly attributable to the SHPO directive. These costs are unavoidable to ensure compliance with the SRF funding requirements.** The substantial completion date will also be delayed approximately 12 weeks to December 20th, 2024.

The project budget is as follows.

	Funding Sources	Project Expenses
Drinking Water State Revolving Fund Loan	\$ 12,161,000	
Test Drilling		\$ 124,005
Engineering, Admin, Legal		725,272
Land		111,038
Construction		
Original Contract		10,200,956
Change Order #1		30,125
<b>Change Order #2 (This action)</b>		<b>228,565</b>
Geotechnical Services		14,839
Programming Services		36,225
Archaeological Services		
Original Contract		22,773
Change Order #1		35,240
<b>Additional Contract (Separate action tonight)</b>		<b>134,924</b>
<b>Project Totals</b>	<b>\$ 12,161,000</b>	<b>\$ 11,623,962</b>

**ALTERNATIVES:**

1. Approve Change Order No. 2 to the contract with Keller Excavating Inc., of Boone, Iowa, for the North River Valley Well Field and Pipeline Project, thereby adding \$228,564.80 and extending the contract completion date to December 20th, 2024.
2. Do not take any action and provide direction to staff on the future of the project. Failing to follow the instructions from SHPO, even though they were not timely, would likely jeopardize the State Revolving Fund loan that is financing the project. The result would be that the City would need to either abandon the project or find an alternative \$12.161 million funding source.

**CITY MANAGER'S RECOMMENDED ACTION:**

City staff and their consulting engineer followed all known requirements of the State Revolving Fund (SRF) program when drafting the plans and specifications for the project. Despite those good faith, due diligence efforts, the State Historic Preservation Office (SHPO) has imposed additional, previously unknown requirements after the construction contract had been awarded and construction work had begun. Staff is supportive of the SRF Program's goals of protecting cultural and historical resources, but is extremely frustrated with SHPO over the exceedingly late change in their requirements. Unfortunately, at this point staff has little alternative but to execute a change order with the contractor to implement the tardy requirements. To not do so would place the substantial \$12.161 million SRF loan in jeopardy.

The City's consulting engineer took great care in reviewing the cost proposal from the contractor to confirm that all work included in the final version of the change order was directly attributable to the late direction from SHPO, and that the time and hourly rates are reasonable. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.

**ATTACHMENT(S):**

[NRV Attachment.pdf](#)

[HDR Confirmation of CO 2.pdf](#)