

COUNCIL ACTION FORM

**SUBJECT: NORTH RIVER VALLEY WELL FIELD AND PIPELINE PROJECT
ENGINEERING SERVICES AND NOTICE TO BIDDERS**

BACKGROUND:

The Ames Water Treatment Plant relies on a network of 22 potable supply wells as the source of drinking water for the community. As old wells fail and need to be replaced and as demand for treated water increases, additional wells must be drilled.

The location for a new well field has been chosen using a detailed ground water hydraulic model. The new wells are proposed to be constructed on land north of East 13th Street and east of the Skunk River. Development of the proposed well field will consist of an interconnecting pipeline and three new wells, each with a capacity of 1,000 gallons per minute. The planned new well field will add an estimated 2.6 million gallons per day (mgd) of raw water that will be delivered to the City's Water Treatment Plant.

On June 28, 2016, the City Council awarded a contract to HDR Engineering, Inc. of Des Moines, IA, for design phase engineering services for the North River Valley Pipeline and Electrical Service. At the time of the initial contract award with HDR, staff had intentionally excluded bidding and construction phase services from the agreement, with an expectation that those services would be added at a later date by change order once the design was complete and the actual scope of additional services was known. **After working with HDR to define the level of assistance required, staff is recommending a change order with HDR to add \$150,000 in order to add bidding and construction phase services to the scope of the agreement. This work will be performed on an "hourly not to exceed" basis, so that the City only pays for the services it actually utilizes.**

Additionally, during the design phase, HDR Engineering was requested by City staff to perform additional services for changes requested by the City to the original scope of work. Those additional services include: an evaluation of alternative means for providing electrical power to the new wells; an evaluation to identify the optimal placement of an emergency standby generator; the addition of a fiber optic communication network for well controls and security cameras; and the inclusion of new security gates at the lime ponds that were budgeted as a separate project in the Capital Improvements Plan. **Staff is recommending that a change order be executed with HDR for an additional \$80,000 for the additional scope of work provided during the design phase. The total change order amount being recommended by staff is \$230,000.**

Original Engineering Contract w/ HDR	\$ 384,200
Change Order Number 1	230,000
Total Contract Amount	\$ 614,200

The final design work is now complete and staff is ready to issue a notice to bidders. The Engineer's estimate of probable construction costs is \$4,996,085. This estimate does not include contingency. The total estimated project expense is shown in the table below.

Estimated Total Project Expense

Engineering	
Original Contract	\$ 384,200
Change #1 (this request)	230,000
Land	47,350
Construction (Engineer's Estimate)	4,996,085
Total Estimated Expense	\$ 5,657,635

The authorized project budget is shown below. Note that as a part of the final budget amendments for FY 2018/19, the funding for the Security Gates project will be moved into the North River Valley Well Field project account.

Total Authorized Budget

Prior Year Actuals	
FY 2016/17	\$ 282,266
FY 2017/18	69,554
FY 2018/19 CIP	
Well Field Project	5,156,909
Security Gates	149,701
Total Estimated Expense	\$ 5,658,430

The estimate is extremely close to the authorized budget, with no contingency built in. Should the bids come in higher than the engineer's estimate, staff will develop a recommended course of action prior to recommending an award.

ALTERNATIVES:

1. a. Grant preliminary approval of the plans and specifications and issue a notice to bidders, setting May 29, 2019, as the bid due date and June 11, 2019, as the date of public hearing.
- b. Authorize Change Order Number 1 to the professional services agreement with HDR Engineering of Des Moines, Iowa, for additional engineering services for the North River Valley Well Field and Pipeline Project in an additional amount not to exceed \$230,000.

2. Do not take any action at this time, and provide direction to staff on the future of the project.

MANAGER'S RECOMMENDED ACTION:

The source water management strategy of the City since the mid-1970's has been to avoid a need to ration water when experiencing a drought similar to that experienced in 1975-1976. To meet that goal, new source water capacity needs to be developed to offset new growth in demand as well as to offset the loss of productivity of existing wells.

The most cost-effective location for constructing new wells has been identified in the flood plain north of East 13th Street and east of the Skunk River. Previous test wells have confirmed a sufficient aquifer capacity in this area not only for the three wells currently planned, but also for additional future wells. The route study for the pipeline to transmit the water to the new water plant has been completed, the land has been purchased, and the design of the well field and pipeline is now complete. The project is now ready for a notice to bidders to be issued.

Additionally, staff has determined that it is in the best interest of the City to move forward with an addition to the professional services agreement with HDR, the firm who has designed the pipeline, electrical, controls, standby power, and security camera system for the new well field. The scope of the project involves many engineering specialties that will require professional services during the bidding and construction phases (on-site inspection and review of shop drawings, payment requests, and schedules) in addition to the review and inspection that will be provided by City staff.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No.'s 1a and 1b as described above.