

COUNCIL ACTION FORM

SUBJECT: WATER TREATMENT PLANT TEST DRILLING FOR PFAS

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 need to be drilled. To determine the suitability of locations for future well sites, test drilling is used. Test drilling offers information about the water quality of the aquifer and the practicality of installing a well in that location based on the geology.

There are two locations that have been identified for future well fields based on previous groundwater research by Iowa State faculty. These include the North River Valley Well Field and an area southeast of Ames between the South Skunk River and Interstate 35. Design of the North River Valley Well Field has been completed and staff has received the Iowa Department of Natural Resources construction permit. **Prior to bidding this project, staff has determined it prudent to test drill the site for the emerging contaminant group of compounds referred to as PFAS (per- and polyfluoroalkyl substances).** The second location has been identified for future growth and the results from this test drilling will drive decisions on expanding our water supply to this location in the future.

Per- and polyfluoroalkyl substances (PFAS) are a class of over 6,000 compounds that have been used for over 70 years in applications such as: non-stick coatings; stain-resistant carpeting; water-repelling clothing and fabrics; paper packaging for food; metal plating; and fire-fighting foam. **The EPA released new Health Advisory Levels for four individual PFAS chemicals on June 15th, 2022.**

PFAS results from test drilling in the planned North River Valley Well Field will determine the feasibility of moving forward with bidding and construction later this year and determine if any potential design changes to the project are needed. When test drilling was initially performed in the North River Valley location, there were no health advisories for PFAS and testing methods were not sufficiently sensitive enough to be able to detect the extremely low concentrations that are now of interest.

Procuring test drilling services has been challenging. Staff has issued a Request for Bids on three separate occasions; twice with no bids received and the third time receiving only one bid for \$105,000. The bid was much higher than expected for three test holes and the contractor had no previous experience with PFAS analysis or decontamination of their equipment. That sole bid was rejected.

City staff next reached out directly to other types of vendors more familiar with PFAS sampling requirements. **To date, staff has only identified one contractor, Cascade Drilling from Flint, Michigan, who has had previous experience test drilling for**

PFAS and has the availability to perform the test drilling in a timely manner. This is very specialized work, and it is crucial to use a contractor that has the necessary expertise to obtain meaningful results from the water analysis.

Because of the three failed attempts to obtain this specialized service through competitive bids, staff is recommending a single-source award for test drilling services to Cascade Drilling of Flint, Michigan, for \$85,575, in accordance with the City's adopted Purchasing Policies. Cascade is the only firm who has previous experience with PFAS sampling at the depths and geology of the aquifer and has indicated that they have the time to perform work. Cascade will perform test drilling for five test holes (three holes at North River Valley and two holes at the southeastern location). Staff believes this is a reasonable cost based on the one previous bid of \$105,000 that only included three test holes.

The adopted CIP includes \$7,382,000 for the North River Valley Well Field project and \$476,278 for land acquisition of future well fields. Funding for this test drilling will be split between these funding sources.

ALTERNATIVES:

1. Authorize the procurement of single-source test drilling services, in accordance with the adopted Purchasing Policies, and award a contract to Cascade Drilling of Flint, Michigan, in the amount of \$85,575.
2. Do not take any action at this time and provide direction to staff on the future of these projects.

CITY 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 North River Valley Well Field and Pipeline project has been fully designed and permitted and is only waiting on the results from PFAS test drilling to move forward. After three failed attempts to solicit competitive bids, staff began contacting specialty drilling firms to obtain a quote from a responsive, reputable firm. Staff was ultimately able to get a reasonable price quote from a qualified out-of-state contractor. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.