

CITY OF NORMAN, OK STAFF REPORT

MEETING DATE: 10/11/2022

- **REQUESTER:** Rachel Croft, Staff Engineer
- **PRESENTER:** Rachel Croft, Staff Engineer
- ITEM TITLE: CONSIDERATION OF APPROVAL, REJECTION, AMENDMENT, AND/OR <u>POSTPONEMENT OF CONTRACT K-2223-16</u>: A CONTRACT BY AND BETWEEN THE NORMAN UTILITIES AUTHORITY AND PLUMMER ASSOCIATES, INC., IN THE AMOUNT OF \$528,900 TO PROVIDE ENGINEERING SERVICES FOR THE GROUNDWATER BLENDING AND DISINFECTION SYSTEM.

BACKGROUND:

The City of Norman/Norman Utilities Authority (NUA) currently owns and operates a well field with forty-one (41) active groundwater wells. The water produced from the groundwater wellfield is in compliance with all primary drinking water standards as established by the Oklahoma Department of Environmental Quality and Environmental Protection Agency. Historically, groundwater systems which are in compliance with the standards set forth in the Safe Drinking Water Act and Oklahoma Administrative Code 252:631 Public Water Supply Operation are not required to provide treatment or residual disinfectant. However, the NUA also treats and distributes surface water from Lake Thunderbird and purchases water from the City of Oklahoma. Both the surface water sources currently have chloramines as a residual disinfected and blend with groundwater in the distribution system piping. Since Norman's system has combined surface and groundwater sources, ODEQ has indicated that the system will need to be modified such that a minimum disinfectant residual of 1.0 mg/L of chloramines (NHCl₂) should be found throughout all parts of the system in the future. This requirement is also being mandated for other systems in Oklahoma that utilize both surface water and groundwater supplies in a common distribution system.

Additionally, groundwater from the Garber Wellington Aquifer can naturally contain arsenic, chromium, and other constituents. As drinking water regulations become more stringent, a centralized location might be necessary to provide treatment since individual treatment systems at each well will require significant capital and operation costs.

Therefore, a centralized location to blend the groundwater wells and provide a residual disinfectant and possibly future treatment to meet future regulations is necessary. This plan was envisioned previously and land acquisition was a component of the successful 2015 water rate increase. On Jun 15, 2021, Contract K-2021-129 with Carollo Engineers, Inc. was approved to evaluate possible land sites and develop preliminary layouts for the immediate and future needs

for the groundwater blending and disinfection facility. As part of this contract, a 28-acre tract of land located at 4020 E Tecumseh Road was evaluated and determined to meet the current and future needs for the facility. This property was acquired under Contract K-2122-93 on February 22, 2022, with closing completed on March 10, 2022.

DISCUSSION:

This contract will include engineering services for the design, bidding, and construction of the improvements required to meet current regulations but with the overall site planned for future treatment processes. Anticipated improvements include a new building containing chemical storage and feed equipment and support facilities, site paving, emergency generator, fencing and other ancillary facilities necessary for safe, reliable, and resilient operations.

Plummer was determined to be the best engineer to design the disinfection system. Their firm has extensive experience designing treatment facilities and their hydraulic modeling work under contract K-1516-85 (Groundwater Blending Hydraulic Modeling Project) was used to determine best possible locations for developing the groundwater blending location.

Funds are available in the amount of \$1,374,910 in Well Field Blending WTP design account (WA0214-DESIGN – 31993398-46201). This is sufficient to fund the proposed contract of \$528,900.

RECOMMENDATION:

Staff recommends the NUA approve Contract K-2223-16 in the amount of \$528,900 with Plummer Associates, Inc. for engineering services for the Groundwater Blending and Disinfection System.