



CITY OF NORMAN, OK STAFF REPORT

MEETING DATE: 12/14/2021

REQUESTER: Ken Giannone, PE

PRESENTER: Ken Giannone, PE, Capital Projects Engineer

ITEM TITLE: CONSIDERATION OF APPROVAL, ACCEPTANCE, REJECTION, AMENDMENT AND/OR POSTPONEMENT OF CONTRACT K-2122-76: A CONTRACT BY AND BETWEEN THE NORMAN UTILITIES AUTHORITY AND ALAN PLUMMER ASSOCIATES, INC., IN THE AMOUNT OF \$49,820 TO PROVIDE A RECLAIMED WATER MODELING EVALUATION FOR THE LINDSEY STREET WATER TOWER.

BACKGROUND:

Lindsey Tower is an elevated water storage tank at the intersection of E. Lindsey Street and Classen Blvd that was originally built to serve Norman's potable water system. However, as Norman's potable system expanded over many years, the system's gradient also changed and eventually, it was determined that Lindsey Tank no longer had the hydraulic characteristics necessary to function as viable potable water storage for Norman's system. As a result, it was decommissioned. Since that time, the coatings on the tower have begun to exhibit signs of deterioration. However, a preliminary evaluation of the tower was performed in May 2020 and, at that time, there was no major or obvious deterioration of the underlying steel. As such, it was determined that the tank can still be readily rehabilitated, repainted, and repurposed if other viable uses for it can be identified. Absent another viable use, it is likely that the Lindsey Tower will have to be demolished.

Norman Utilities Authority's (NUA's) 2014 Strategic Water Supply Plan, prepared by Carollo Engineering, included a recommendation that NUA consider establishing a non-potable water system to serve Reaves Park and possibly additional commercial customers generally extending east along Highway 9.

DISCUSSION:

The Lindsey Tower could be repurposed to provide needed storage for the non-potable system(s) at a fraction of the cost of building a new storage tank to perform the same duty. Since, as noted above, the coatings on Lindsey Tower are deteriorating, a decision must be made promptly on whether to rehabilitate it and repurpose it for the non-potable water system, or to demolish it before further deterioration makes it an eyesore and eventually makes demolition a necessity.

NUA contacted Alan Plummer Associates, Inc., (APAI) who has significant expertise in both hydraulic modeling and non-potable reuse as well as an extensive knowledge of NUA's system to determine the requirements of such a study. After several discussions, the following was deemed the minimum necessary effort to determine if repurposing of Lindsey Tower is both possible and recommended:

- Hydraulic analysis to determine if Lindsey Tower has the necessary hydraulic characteristics to serve as needed storage for a non-potable water system serving Reaves Park.
- Review potential additional customers along and near Highway 9 as generally outlined in the 2014 Strategic Water Supply Plan, create a high level design of distribution piping for such a system based on customers identified, and prepare a hydraulic analysis of this system to determine if Lindsey Tower has the hydraulic characteristics to be repurposed to furnish needed storage for this expanded non-potable system.
- Review pertinent regulations for non-potable water systems and initiate conversations with Oklahoma Department of Environmental Quality (ODEQ) to ensure such an expansion can be completed within existing rules and regulations and identify any potential pitfalls along with solutions thereto.
- Prepare high level evaluation of the capital cost for the possible expanded system and a high level analysis of the possible fee structure for customers of such a system, and, based on the financials, make a determination of the financial viability of expansion. Then, based on the financial viability, regulatory matters and any other relevant issues, make a recommendation of whether expansion should be pursued and, if so, on what time line.
- Furnish a report that summarizes all of the above.

NUA has negotiated a price in the amount of \$49,820. with APAI to furnish the above-described services. Funding is available in WW0205 WRF Non-Potable Reuse System (Org 32993394 – Object 46201). This account has an unencumbered balance of \$315,000.

RECOMMENDATION:

Staff recommends that NUA approve Contract K-2122-76 between Norman Utilities Authority and APAI in the amount of \$49,820 to furnish hydraulic analysis services and recommendations associated with the potential repurposing of Lindsey Tower as non-potable water storage.