



# City of Norman, OK

Municipal Building  
Council Chambers  
201 West Gray  
Norman, OK 73069

## Master

**File Number: K-1516-85**

**File ID:** K-1516-85

**Type:** Contract

**Status:** ATS Paused

**Version:** 1

**Reference:** Item 18

**In Control:** City Council

**Department:** Utilities Department

**Cost:** \$222,000.00

**File Created:** 01/28/2016

**File Name:** APAI contract to Update Water Model

**Final Action:**

**Title:** CONTRACT K-1516-85: A CONTRACT BY AND BETWEEN THE NORMAN UTILITIES AUTHORITY AND ALAN PLUMMER ASSOCIATES, INC. IN THE AMOUNT OF \$222,000 TO PROVIDE AN UPDATE TO THE WATER DISTRIBUTION SYSTEM MODEL IN ASSOCIATION WITH THE FYE15 WATER WELLS AND SUPPLY LINES PROJECT.

**Notes:** ACTION NEEDED: Acting as the Norman Utilities Authority, motion to approve or reject Contract K-1516-85 with Alan Plummer Associates, Inc., in the amount of \$222,000; and, if approved, authorize the execution thereof.

ACTION TAKEN: \_\_\_\_\_

**Agenda Date:** 02/09/2016

**Agenda Number:** 18

**Attachments:** Contract, Resolution R-1314-146

**Project Manager:** Michelle Matthews, Utilities GIS Analyst

**Entered by:** mark.daniels@normanok.gov

**Effective Date:**

### History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
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### Text of Legislative File K-1516-85

Body

**BACKGROUND:** In March 2012, the Norman Utilities Authority (NUA) approved Contract K-1112-114 with Carollo Engineers, Inc. for preparation of the 2060 Strategic Water Supply Plan (the 2060 SWSP). The plan update was needed because the NUA was unable to supply sufficient potable water to meet peak demands during summer months and was concerned about probable regulatory changes affecting both our surface water and groundwater supplies.

The goal of the 2060 SWSP is to strengthen our knowledge of potential short and long-term water supply source(s) for our community and begin implementation of a robust, water supply solution acceptable to the citizens of Norman. The 2060 SWSP Ad-Hoc Committee was appointed to ensure open and two-way dialogue with the community, to ensure the suggestions of the public are addressed, and to be able to communicate the objectives and conclusions of the 2060 SWSP to the public.

Eight meetings were held with the 2060 SWSP Ad-hoc Committee and six public meetings were held for public participation and input. Fourteen different portfolios were developed, investigated and evaluated at these meetings. Each portfolio was developed to provide an annual average supply of 29 million gallons per day

(MGD) in 2060 and a peak daily supply of 55.4 MGD in 2060. Ultimately, Resolution R-1314-146 was approved by the NUA on June 24, 2014 recommending Portfolio 14 for implementation; this portfolio included the following recommendations:

1. Continued use of Lake Thunderbird as a raw water supply source with treatment at an improved water treatment facility at the existing site (but with the current allocation reduced from 8.4 to 6.1 MGD based on a pending Bureau of Reclamation yield study);
2. Expanded water conservation practices ultimately resulting in additional water supply of 1 MGD in 2060 through reduced water consumption;
3. Additional non-potable reuse ultimately resulting in additional potable water supply of 0.8 MGD in 2060 (and reduced peak summertime demand of about 4.6 MGD by 2060);
4. Continued use of our current groundwater supply system of 36 wells and expanding our groundwater supply system by 2 MGD in the short term for a total of 8 MGD;
5. The addition of treatment for arsenic and chromium 6 at a centralized facility increasing the groundwater capacity to 10.1 MGD by bringing 12 inactive wells back on-line; and
6. Implementation of indirect potable reuse (IPR) over time by adding additional treatment at the Water Reclamation Facility (WRF) and discharging the highly treated effluent into Lake Thunderbird; raw water conveyance and water treatment expansions would be required.

The Fiscal Year Ending 2016 (FYE16) budget includes capital improvement project (WA0212) known as the FYE15 Water Wells and Supply Lines. As noted in Item 4 above, this project was recommended as a part of the NUA approved 2060 Strategic Water Supply Plan and was approved by Norman voters in 2015 as an interim means to increase the City of Norman water supply. Staff distributed Request for Proposal (RFP) 1516-6 on August 8, 2015 and fourteen (14) proposals were received on September 14, 2015.

The scope of RFP 1516-6 was generally to:

1. Study geologic conditions within the Garber Wellington aquifer, evaluate and propose the most cost effective well field development plan for Norman,
2. Recommend, permit and acquire sites and water rights for test wells and production wells,
3. Recommend test well drilling and testing procedures to maximize water quantity and enhance water quality,
4. Consider the implications of pending (and potentially new) EPA rules concerning drinking water quality and evaluate and recommend the optimum location of a future ground water treatment facility or facilities, including blending;
5. Provide design documents and construction assistance for the installation of test wells, production wells, well houses and transmission system improvements to convey potable water to customers.

In October 2015, the following consultants were selected to perform the tasks identified below:

1. Carollo Engineers, Inc. of Oklahoma City, Oklahoma: Study geologic conditions within the Garber Wellington aquifer; recommend a well field development plan considering the likely location of a future groundwater treatment facility while optimizing future water transmission and distribution lines; water right acquisition; test well and production well design with associated construction administration.
2. Cowan Group of Oklahoma City, Oklahoma: Water rights permitting through the OWRB.
3. Alan Plummer Associates, Inc. (APAI) of Oklahoma City, Oklahoma: update our city wide water distribution system model originally prepared in 2003 to include all waterlines; model calibration and recommendations for future improvements to enhance performance.
4. APAI, Garver and Cardinal were tentatively selected to perform work associated with water transmission improvements once water well locations have been finalized.

**Discussion:** Proposed Contract K-1516-85 with Alan Plummer Associates, Inc. includes water model development tasks noted in Task 3 above. Generally, APAI will review and utilize previously prepared modeling efforts by others; update our existing Infoworks water distribution system model to reflect current loadings projected by the Norman 2025 Land Use and Transportation Plan (as amended); incorporate recently constructed water distribution improvements, calibrate the model based on peak summer-time water demand, and recommend future water supply and water distribution improvements to correct deficiencies in the existing water distribution system. Carollo will utilize the model calibrated by APAI to optimize future water transmission

and distribution lines as indicated in Task 1.

The proposed contract amount of \$222,000 was negotiated with the consultant by staff; \$24,000 of this amount is for several allowances to be utilized only if required and approved by NUA staff. The contract includes the project schedule as Attachment A, the detailed work scope as Attachment B and the breakdown of the negotiated contract amount as Attachment C.

The Fiscal Year Ending 2016 (FYE16) budget includes \$618,000 in FYE15 Water Wells and Supply Lines, Design (account 031-9345-462.62.01; project WA0212) which is adequate to fund the contract.

**RECOMMENDATION:** Staff recommends approval of Contract K-1516-85 with Alan Plummer Associates, Inc., of Oklahoma City, Oklahoma, in the amount of \$222,000.