



STAFF REPORT

DATE: June 5, 2018

CONSENT

ITEM #: 8

AGENDA ITEM: 2018 Water System Evaluation Update – Authorize AE2S Task Order

SUBMITTED BY: Jack Griffin, City Engineer

REVIEWED BY: Kristina Handt, City Administrator
Rob Weldon, Public Works Director
Chad Isakson, Assistant City Engineer

ISSUE BEFORE COUNCIL: Should the City Council approve a Task Order for Advanced Engineering and Environmental Services, Inc. (AE2S) to update the water system distribution model and perform an updated water system evaluation?

PROPOSAL DETAILS/ANALYSIS: The City Engineer is recommending that the City retain Professional Engineering Services to conduct a Water System Evaluation Update to incorporate water system improvements, including developer installed improvements, into the City water distribution model and evaluating the water system performance.

Significant water system improvements have been constructed and placed online by the City since the last water model update. The model needs to be kept current so that the model may be utilized to evaluate future performance and system needs based on planned growth and development. The study will specifically evaluate the timing for a new water supply well and the timing for a new elevated storage tank in response to the loss of Well No. 1, and the updated 2040 Comprehensive land use plan and staging plan. The hydraulic studies will identify the preliminary design information for these water system components including an updated trunk watermain size evaluation.

FISCAL IMPACT: \$20,334 to be paid from the Water Core Fund.

RECOMMENDATION: Staff is recommending that the City Council approve, *as part of the consent agenda*, Task Order No. 6 for AE2S to perform a 2018 Water System Evaluation Update in the not to exceed amount **\$20,334**. If removed from the consent agenda, the recommended motion for this action is as follows:

“Move to approve Task Order No. 6 for AE2S to perform a 2018 Water System Evaluation Update in the not to exceed amount \$20,334.”

ATTACHMENTS:

1. Advanced Engineering and Environmental Services (AE2S) – Task Order No. 6.

In accordance with ARTICLE 1 of the Master AGREEMENT between the City of Lake Elmo ("CITY") and ***Advanced Engineering and Environmental Services, Inc.*** ("ENGINEER"), dated August 14, 2012 ("AGREEMENT"), the ENGINEER agrees to provide Professional Engineering Support Services as follows:

WATER DISTRIBUTION SYSTEM 2018 MODEL UPDATE

PROJECT OVERVIEW:

Update the existing water distribution system hydraulic model to incorporate recent developments and City projects. Evaluate the impacts of removing Well #1. Develop a strategic plan for expansion of the water supply and distribution system, as necessary to responsibly and cost-effectively accommodate future growth in Lake Elmo.

This project will specifically evaluate the timing of new well capacity and the impact of new and proposed developments on the Lake Elmo Water distribution system. It will establish development parameters that can be used to determine when new capacity is required. The project will also evaluate trunk pipe sizing, wells and storage needs to supply the planned service area and determine the timing for the necessary improvements.

The future approach is flexible and will be developed in collaboration with Focus Engineering, and in the best interest of the City of Lake Elmo.

SERVICES TO BE PROVIDED BY ENGINEER: AE2S shall provide the following Professional Engineering Services:

Update Existing Water Model

1. Update the computer model (InfoWater) to accurately reflect recent changes to the water distribution system.
2. Remove Well #1 from the system.

Evaluate Timing Needs for New Well

3. Model existing water system based on historic demand and current rate of development. The goal is to understand the timing needs for a new well.

Evaluate Future Improvements

4. Model the system based on future land use plan as developed for the City's comprehensive plan. Verify trunk pipe sizing, wells and storage to supply the planned service area and determine the timing of the facilities going on line.

Technical Memorandum

5. Prepare a Technical Memorandum documenting the analysis and recommendations outlined in this Task Order No. 6.

Items not included in the proposed scope are as follows:

1. Analysis of existing water quality.
2. Analysis of capacity of existing or proposed wells.
3. Model calibration using pressure gages and hydrant flow testing.

CITIES RESPONSIBILITIES: The City (or its consultants) will provide the following:

- Any changes/updates to the water distribution system that have been implemented in the past two years (since the model was last updated);
- Provide information related to pressure zone changes;
- Provide construction plans, for any new projects constructed in the last two years.
- Provide construction plans, including pipe invert elevations, shop drawings and pressure settings for new pressure reducing valve installation;
- Provide information on current number of RECs in newly developed areas;
- Provide information on proposed rate of development in newly developed areas;
- Prepare and present findings to city staff and council.

TIMES FOR RENDERING SERVICES: ENGINEER shall perform its services and provide deliverables in accordance with the following schedule:

- Work shall be completed by July 27, 2018.

Note that the proposed project schedule is dependent on timely receipt of information required from the Owner.

CITY'S REPRESENTATIVE AND CONTRACT ADMINISTRATION: The CITY's representative with respect to services rendered by ENGINEER under this TASK ORDER shall be the City Engineer. Project correspondence must be addressed to:

Jack Griffin, P.E., City Engineer
City of Lake Elmo
3800 Laverne Avenue North
Lake Elmo, MN 55042
651.300.4264
Email: Jack.griffin@focusengineeringinc.com

COMPENSATION: Compensation to ENGINEER shall be on an hourly rate basis using the hourly billing rates provided in the ENGINEER's Proposal for the work, in a not to exceed amount of.

AE2S proposes to provide the professional services for Water Distribution System 2018 Update consistent with the Scope of Services outlined above on an estimated hourly (plus expenses) basis not to exceed. An outline of the primary scope items is provided in the following table.

Phase 1	Professional Fees (Total)
Update Existing Model	\$3,038
Evaluate Timing Needs for New Well	\$5,446
Evaluate Future Improvements	
▪ Evaluate Demands	\$748
▪ Verify Pipe Sizing, Wells and Storage	\$6,732
Prepare Summary Report	\$4,370
Total Professional Services =	\$20,334

Payment for Services shall be in accordance with ARTICLE 3.2 of the Master AGREEMENT. Invoices should be sent to the attention of the City Engineer.

ATTACHMENTS: The following documents are incorporated by reference: *NA*

APPROVAL AND ACCEPTANCE: Approval and Acceptance of this Task Order, including the attachment(s) listed above, shall incorporate this document as part of the AGREEMENT. ENGINEER is authorized to begin performance of services upon receipt of a copy of this Task Order signed by CITY.

The Effective Date of this Task Order is June 5, 2018.

ADVANCED ENGINEERING AND
ENVIRONMENTAL SERVICES, INC.

CITY OF LAKE ELMO, MINNESOTA

By _____

Grant L. Meyer, P.E.
Client Program Leader

By _____

City Administrator