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**TO:** Chairperson Ed Baranowski and Members of the Utilities Committee

**FROM:** Chris Shaw, Utilities Director

**DATE:** May 17, 2018

**RE:** *Award Phase 1 Preliminary Engineering Services Contract for the Lake Intake and Shorewell Project to McMahon in the Amount of \$98,770 with an option to Negotiate and Award Phase 2 Engineering Services*

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**BACKGROUND:**

The Appleton Water Treatment Facility (AWTF) draws raw water from Lake Winnebago through preliminary treatment at the Raw Water Lake Station. Once pretreated, the raw water is pumped to the AWTF via a 42" pipe line for further treatment. The intent of this project is to address reliability and redundancy in raw water treatment.

The lake intake and shorewell were constructed in 1968. The intake consists of a single four foot diameter pipe with two twelve foot bell intakes. The intakes' configuration and building materials are prone to icing events that stop raw water. The lake station traveling screen removes large objects from the raw water intake such as logs, fish, and other debris. These materials are screened out of the water so they do not enter and damage the low lift pumps that pump water to the AWTF. The current screen has reached its useful life and is in need of a replacement. This project will provide a second raw water pipe, replacement screen, and a screenings conveyance system for wastes to be collected.

This project includes the preliminary engineering for the construction of a second raw intake from the lake station to the shorewell, new screening, as well as a pump assessment of the low lift pumps. In general, the selected engineering firm will complete a conditions assessment on the mechanical, electrical, and chemical systems. An alternatives analysis will be produced to give multiple options for upgrading the station and intake components. Each alternative will have a construction estimate and 10% conceptual engineering.

This project will also explore a treated water interconnection with the City of Menasha and/or Village of Fox Crossing. The Department of Natural Resources has recommended that Appleton pursue an emergency finished water interconnection. One potential option is an interconnection with the Village of Fox Crossing at a location along Oneida Street where the water mains of the Village are in close proximity to Appleton's.

## QUOTATION RESULTS:

A request for proposal (RFP) was distributed to five engineering firms. Each firm had previous engineering experience with design and construction of water intakes. McMahon Associates created the original plans and specifications for the Raw Water Pump Station. Strand and Associates has recently completed engineering services including construction management of the Glendale Tower project. Donohue had completed investigatory engineering work on frazil ice in 2009.

Representatives from the firms attended a pre-proposal meeting where the project was defined along with the project scope. Two of the firms, CDM Smith and Jacobs Engineering, opted not to provide a proposal based on the specifics of this project. The following table identifies the invited engineering firms along with their proposal score, proposal pricing and value score:

**Table 1: Engineering Firms and RFQ Results**

COMPANY	Proposal Score	Cost	Value Score
McMahon Associates	261	\$98,770	264
Donohue and Associates	218	\$90,404	241
Strand Associates	121	\$99,950	121
Jacobs Engineering	DNP	NA	NA
CDM Smith	DNP	NA	NA

**Notes:** DNP – Did Not Propose, NA – Non Applicable

An evaluation team completed their review and scoring of the submitted proposals. The evaluation team found that McMahon had scored the highest and provided a proposal that best met the City's needs. The team also found that the Donohue firm had provided a competitive proposal. The evaluation team completed the value evaluation to provide whether or not the additional costs for the McMahon proposal were worth justifying. The formula produced results that McMahon Associates provided the best overall project value including costs.

The McMahon team is experienced with similar intake projects including a Neenah and Menasha project. Their proposal demonstrated a comprehensive approach that delivered construction and improvement alternatives that best fit the City's needs.

It is further recommended that Phase 2 engineering award be conditional on whether value exists in the firm's Phase 2 proposal. Phase 2 engineering services will include producing bidding documents, construction management, and contract administration services.

## RECOMMENDATION:

Award Phase 1 Preliminary Engineering Services Contract for the Lake Intake and Shorewell Project to McMahon in the Amount of \$98,770 with an option to negotiate and award Phase 2 engineering services. If you have any questions regarding this project please contact Chris Shaw at ph: 920-997-4200.