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Department of Utilities
Wastewater Treatment Plant
2006 E Newberry Street
Appleton, WI 54915
920-832-5945 tel.
920-832-5949 fax

TO: Chairperson Joe Martin and Members of the Utilities Committee

FROM: Chris Shaw, Utilities Director

DATE: August 14, 2014

RE: *Award 2014 Digester Upgrades Contract to McMahon in the Amount of \$58,769 with a 15% Contingency of \$8,815 for a Project Total not to exceed \$67,584*

BACKGROUND:

The Appleton Wastewater Treatment Plant (AWWTP) utilizes two (2) egg-shaped anaerobic digesters to process and reduce plant solids and hauled-in food waste materials prior to dewatering into biosolids. These digesters had been in continuous service without internal inspection or assessment since commissioning in 1993. Since 2013 the digesters have been inspected, modified and repaired in accordance with recommendations from a series of conditions reports. The reports and subsequent maintenance work had been performed at the direction of engineers from Donohue and Associates. This year's project will complete the remaining recommended maintenance activities and improvements which will enhance the anaerobic digestion treatment process and maximize biogas production while extending the life of the associated infrastructure for decades to come.

The 2014 digester project includes optimizing the methane mixing system, installing gas metering, and introducing instruments and SCADA improvements for improved process control. This phase of the project is for engineering services for the improvements. The engineered mix improvements should allow for a significant reduction in energy that is estimated at \$34,000 per year. The digester gas system piping and appurtenances will need to be cleaned during the engineering phase. New equipment and controls will need to be installed by a contractor during the construction phase of the project. A qualified engineering firm is required to design the improvements, create bidding documents, and perform construction management services. Other deliverables will include applying for regulatory approvals with the State and subcontracting the gas pipe purging and cleaning services.

QUOTATION RESULTS:

A request for proposal (RFP) was distributed to four engineering firms. Each firm had previous engineering experience with the digestion processes at Appleton. Brown and Caldwell created the original plans and specifications for the digesters. Strand and Associates had completed resident engineering services for the aforementioned project. Donohue and Associates has produced the recent conditions reports and completed a number of successful

digester projects.. McMAHON has also engineered a number of projects for the wastewater treatment plant that include the receiving station and secondary digester mixing.

Representatives from the firms attended a pre-proposal meeting where the project was defined along with the project scope. Two of the firms, Strand and Associates and Brown and Caldwell, 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	104	\$58,769	\$702
Donohue and Associates	121	\$84,980	\$565
Strand Associates	DNP		
Brown and Caldwell	DNP		

DNP – Did Not Propose

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

Furthermore, the McMAHON team is experienced with municipal projects of similar size and complexity. Their proposal demonstrated a comprehensive approach that delivered construction and improvement alternatives that addressed the current digester gas system.

RECOMMENDATION:

It is recommended that the Utilities Committee award 2014 Digester Upgrades Contract to McMahon in the amount of \$58,769 with a 15% Contingency of \$8,815 for a project total not to exceed \$67,584. If you have any questions regarding this project please contact Chris Shaw at ph: 997-4200.