



DEPARTMENT OF
UTILITIES

Department of Utilities
Water Treatment Facility
2281 Manitowoc Rd.
Menasha, WI 54952
p: 920-997-4200
f: 920-997-3240

www.appletonwi.gov/government/utilities

MEMORANDUM

Date: January 23, 2026
To: Chairperson Brad Firkus and Members of the Finance Committee
CC: Ryan Rice, Deputy Director of Utilities
Jeri Ohman, Finance Director / Enterprise Accounting Fund Manager
From: Chris Stempa, Director of Utilities
Subject: **Action: Sole Source Engineering Services Contract to McMahon as part of Caustic Chemical System Upgrade and Raw Water Lake Station Valve and Pump Replacement Projects in the amount of \$183,000 with a 10% contingency of \$18,300 for a total not to exceed \$201,300**

BACKGROUND:

Two projects have been identified in the Appleton Water Treatment Facility (AWTF) 2026 Capital Improvements Program (CIP). One predicated on regulatory compliance and other aging infrastructure needs. The following is a brief background of each CIP followed by a description of an engineering proposal solicited from McMahon, and justification to consider a sole source engineering contract with McMahon.

The Caustic Chemical System Upgrade CIP will address regulatory compliance needs through the design and construction of a new permanent caustic feed system. The new caustic system will support pH adjustment subsequently to the permanent phosphoric acid system that was installed as part of the 2022-2023 Corrosion Control Treatment project. The AWTF has operated on a temporary sodium hydroxide feed system since receiving DNR approval in March 2024. Since then, the temporary system has been trialed under full-scale conditions to accurately benchmark treatment needs in conjunction with the use of phosphoric acid. That information will be used in the design and construction of a permanent sodium hydroxide delivery system.

The Raw Water Lake Station Valve and Pump Replacement CIP will replace three low-lift pumps each rated for 10 million gallon per day (MGD) which were installed as part of the original 1968 Raw Water Lake Station building construction. This project will also address a 36-inch discharge header butterfly valve which does not effectively seat. This valve is impeding raw water pipe isolation and required work on upstream assets.

PROPOSAL

McMahon was asked to provide a proposal for professional engineering services that would deliver 90% design documents for each CIP project outlined above. The scope of services also includes an evaluation of existing potassium permanganate feed system (used for zebra mussel control and as a pre-oxidant) to determine opportunities for chemical optimization and assessment of the water

supply well to determine the scope of work required to reestablish flow requirements originally intended to satisfy process demands (e.g. wash screen press and permanganate carrier water). The scope of work also requires McMahon to submit plans and specs for Wisconsin Department of Natural Resources (DNR) and Public Service Commission (PSC) for review and approval. The McMahon proposal detailed each aspect of the preliminary design work and the associated services required to provide the necessary deliverables that would allow AWTF staff to advance the project through construction (projected completion mid-2027). The proposed cost of design phase and construction management services totaled \$183,300.

JUSTIFICATION

The 2026 CIPs which would be supported through the sole source engineering service contract with McMahon were approved through budget adoption in November 2025 with the following breakdown in funding allocation.

CIP	Planning/ Engineering	Contractor	TOTALS
Raw Water Lake Station Valve and Pump Replacement CIP	\$307,000	\$1,412,200	\$1,719,200
Caustic Chemical System Upgrade	\$157,500	\$630,000	\$787,500
TOTALS	\$464,500	\$2,042,200	\$2,506,700

The AWTF budget has available funds to cover the service fee outlined in the McMahon proposal. Engineering fees integrated as a function of total construction can be 15% or more depending on the complexity of the scope of work involved. McMahon's total fees for design through construction management services are less than half of what was projected in the combined CIP budget for these projects.

The McMahon team assigned to this project possess extensive experience across the Midwest with hundreds of different municipal drinking water related projects. They possess the institutional knowledge of the treatment facility having led the design and construction of the AWTF from 1998 to 2001. McMahon has also been hired to lead each chemical system upgrades project since 2017 which includes ferric sulfate (new feed system), carbon dioxide (new refrigeration and piping rehabilitation), fluoride (new bulk storage and delivery system), dry polymer (modified dry-mix feed system), phosphoric acid (new bulk storage and delivery system), and sodium hypochlorite (new delivery system). That includes most recently being approved as the firm as part of emergency authorization to help guide us through the replacement of the existing 10,000-gallon sodium hypochlorite bulk storage system.

McMahon's experience also extends outside the treatment facility to the raw water conveyance and finished water distribution systems dating back to the late 1980's. That work started with the design and construction of the Matthias Water Tower in 1988 and continued with the ongoing booster pump upgrades at Glendale Tower and Matthias Tower which is projected to be completed later this year. Furthermore, this same firm and individual have been involved in all major Raw Water Lake Station upgrades that followed the original 1968 construction (1992, 1999-2004, 2010, and 2021). That history underpinned the justification for a sole source contract with McMahon in 2025 which yielded

a preliminary conditions assessment of the Raw Water Lake Station, high level scope of work and budget which the 2026 CIP was based on.

From a cost perspective, McMahon consistently has been the least cost option as part of past RFP processes. The geographical proximity of their main office to the City of Appleton can play a significant role with that. Their location provides McMahon with a strategic advantage as part of construction projects which require multiple site visits. Many of which are difficult to forecast based on the complexities of each project. Moreover, it is the institutional knowledge that McMahon has which allows them to hit the ground running saving time and cost.

RECOMMENDATION:

I am recommending the approval of a sole source engineering service contract to McMahon as part of the Caustic Chemical System Upgrade and Raw Water Lake Station Valve and Pump Replacement Projects in the amount of \$183,000 with a 10% contingency of \$18,300 for a total not to exceed \$201,300.

If you have any questions regarding this project, please contact Chris Stempa at 920-832-5945.

Encl: Finance Department Sole Source Request Form