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To: Chairperson Joe Martin and Members of the Utilities Committee

From: Utilities Deputy Director, Chris Stempa

cc: Chris Shaw, Utilities Director; Robert Kennedy Wastewater Plant Operations Supervisor; Kelli Rindt, Enterprise Fund Accounting Manager

Date: October 1, 2014

Re: *Approve Contract Amendment #1 for the AWWTP Evaluation of Phosphorous Treatment Optimization and TMDL Compliance Project to CH2M Hill for additional consulting services in the amount of \$15,285 resulting in a decrease in contingency from \$15,285 to \$0.*

Background:

The purpose of the is memo is to request approval for use of available contingency associated with the Appleton Wastewater Treatment Plant (AWWTP) Evaluation of Phosphorous Treatment Optimization and Total Maximum Daily Load (TMDL) Compliance Project to CH2M Hill. Common Council originally approved contract award to CH2M Hill on June 19, 2013. The goal of the project was to formulate a path for decision recommendations ahead of the AWWTP's September 2015 permit expiration date that would satisfy phosphorus reduction criteria set forth in the TMDL and NR 217.

The deliverables that are to be assembled at the end of the project include recommended next steps, time lines, design concept plans, and coarse budgetary estimates to achieve regulatory compliance. Originally, the project final completion date as specified by the request for proposal and executed contract with CH2M Hill was June 1, 2014. At that time the Wisconsin Department of Natural Resources (WDNR) recognized three tools that exist to WPDES permit holders under the TMDL and existing WDNR guidance documents that were to be vetted as part of the AWWTP project which included one or a combination of the following:

1. On-site phosphorous treatment/removal (plant optimization / process improvements),
2. Water Quality Trading (W.Q.T.)
3. Adaptive Management (A.M.).

Extending Project Schedule:

Additional manuals and "guidance" documents were developed following the initiation of the AWWTP project with CH2M Hill which included the Guidance for Implementing Water Quality Trading in WPDES Permits (8-21-13) and Water Quality Trading How-To-Manual

(9-9-13). These documents along with further legal clarifications from the WDNR on how the compliance options are to be interpreted and utilized were critical to determining how each WPDES holder evaluates and chooses its own path to ultimately satisfy new, more stringent, effluent phosphorus criteria within the suite of compliance options available under state and federal law.

An additional option is in the process of being made available to WPDES holders through the passage of Wisconsin Act 378 (a.k.a. Senate Bill 547). Senate Bill 547 (SB 547) was developed in early 2014 to give WWTP's a variance option to meet their phosphorus Water Quality Based Effluent Limits (WQBELs) or TMDL allocations. It also included total suspended solids (TSS) in an adaptive management program. Currently the Department of Administration (DOA) is conducting a 240-day review of SB 547 to determine if compliance with water quality based effluent phosphorus limitations are not feasible for point discharge sources (e.g. industrial and municipal WPDES holders) in Wisconsin because of "substantial and widespread adverse social and economic impacts on a statewide basis." Pending this determination, the variance must be approved by the Environmental Protection Agency (US EPA) before individual point sources can apply for a statewide variance. The outcome of the DOA review is not anticipated until late 2014. If SB 547 was to move forward to the EPA, final approval might not be known until sometime in early 2015.

As part the Phosphorus Treatment Operation & Optimization Evaluation CH2M Hill identified the criticality for the AWWTP to possess a wastewater effluent on-line phosphorus analyzer and precision phosphorus treatment chemical dosing pumps. Both these items have been approved by Common Council for purchase and have either been installed (on-line analyzer) or waiting to be received (precision dosing pumps). The purchase and installation of these devices and their criticality to refining costs and compliance options could not have known prior to the project originally being conceived. Therefore, delays associated with the selection and purchase of the aforementioned devices resulted have pushed back the full-scale phosphorus treatment testing project task (anticipate early or mid-November 2014). The results of this task are crucial to derive final outcomes of the project

As a result of the extended project schedule as described above, Contract Amendment #1 includes additional fixed costs (e.g. project management, subcontract administration, accounting, and invoicing) incurred by CH2M Hill to keep the project open until the new anticipated projected completion date of April 2015. Also included are the costs for out of scope efforts associated with engineering design assistance to complete the installation and start-up of new precision phosphorus treatment dosing pumps, configuration of multipoint chemical feed points, and chemical dosing programming assistance through flow pacing and on-line analyzer interaction with the AWWTP's Supervisory Control and Data Acquisition (SCADA) system.

Recommendation:

Approve Contract Amendment #1 for the AWWTP Evaluation of Phosphorous Treatment Optimization and TMDL Compliance Project to CH2M Hill for additional consulting services in the amount of \$15,285 resulting in a decrease in contingency from \$15,285 to \$0.

If you have any questions, regarding the project please contact Chris Stempa at 832-2353.