



## MEMORANDUM

DATE: January 13, 2017

TO: Commissioners

FROM: Dan Duchniak, General Manager

RE: Approve Pre-Return Flow Monitoring Plan

In June 2016, the Waukesha Water Utility received approval to obtain Great Lakes water from the Governors of the Great Lakes States. The approval requires return flow to the Root River after treatment at the City of Waukesha Clean Water Plant. We are in the process of obtaining the necessary permits to install the infrastructure necessary to obtain the water and return it to the Great Lakes basin. We expect this process to take approximately 18 months.

On September 22, 2016 the Commission approved an initial scope for the USGS to complete temperature and flow monitoring at locations along the Root River. This initial scope was developed because temperature and flow monitoring was important to implement prior to October.

As part of the Water Utility's Lake Michigan Water Supply Program (Program), a Pre-Return Flow Monitoring Plan (Plan) will be implemented at eight locations along the Root River. The Plan will monitor for water quality parameters such as phosphorus, total suspended solids, and dissolved oxygen; physical parameters such as habitat; and biological monitoring for fish and macroinvertebrates. The Plan will assist the Program with providing a baseline condition of the Root River water quality and habitat prior to return flow to support site specific permitting for the return flow discharge. The Program team has been closely coordinating with the City's Clean Water Plant due to the fact that the Plan and permitting will be integral to the DNR's discharge permit issued to the wastewater treatment plant.

Commission approval is now requested to supplement the initial scope and implement the comprehensive monitoring of the Root River pre-return flow. We are seeking approval for implementation on February 1, 2017 and extending through December 31, 2017. The intent would be to renew the contract for subsequent calendar years. A contract extension will be presented to the Commission annually for monitoring plan continuation.

We have requested proposals from the United States Geological Survey (USGS) and the University of Wisconsin – Parkside (Parkside) at Kenosha. To complete the tasks outlined in the Pre-Return Flow Root River Monitoring Plan developed in December 2016 with input from the Program Consultant Team and the Regulatory Agencies. The plan includes water chemistry and biological monitoring plans to assess pre-return flow conditions of the Root River near and downstream of the proposed return flow. The following is a summary of the sampling efforts that were included in the bid:



# Waukesha Water Utility

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<b>Water Chemistry Sampling</b>	
Total Number of Sampling Events:	17
Total Number of Water Quality Samples:	1,152
<b>Macroinvertebrate Sampling and Habitat Assessment</b>	
Total Number of Sampling Events:	2
Total Macroinvertebrate Samples:	12
<b>Fish Sampling</b>	
Total Number of Sampling Events:	2
Total Fish Samples:	10

The attached table provides a summary of the bids received. Also attached is the memo from the consultants regarding their recommendation.

Based on the bids received, we are recommending the Parkside Base Root River Monitoring Plan without Multi-Parameter Probe at a cost and expenses not to exceed \$106,199 and USGS for the Multi-Parameter Probe at a cost and expense not to exceed \$26,600.

We look forward to discussing this with you at the Commission meeting. Please let me know if you have any questions or concerns.

**Recommended motion:** Move to approve the contract with the University of Wisconsin - Parkside Base Root River Monitoring Plan without Multi-Parameter Probe at a cost and expenses not to exceed \$106,199 and USGS for the Multi-Parameter Probe at a cost and expense not to exceed \$26,600.