



MEMORANDUM

DATE: January 18, 2017
TO: Dan Duchniak
FROM: Jeff Detro
RE: Approve Back-Up 350 Horsepower Submersible Pump Motor

At the September 22, 2016 Commission meeting, we provided the following information, which resulted in the purchase of three pumping assemblies and two submersible pump motors:

"In March 2009, the City of Waukesha executed a "Stipulation and Order for Judgement" with the State of Wisconsin related to state laws regulating the supply of drinking water, or more specifically, the limits on radionuclides in drinking water.

The Consent Order provided the framework for Waukesha to obtain full compliance with the radionuclides standards by June 30, 2018. The City has taken all of the interim steps necessary to fulfil its obligations of the Consent Order. However, there have been periods where we have not been able to meet the radium limits utilizing weighted averaging when compliant wells were taken out of service due to equipment failure. This is due to the reliance on the compliant wells in the interim which has resulted in decreased pump life which causes additional well pump replacement projects.

With the approval of the Great Lakes water supply we now have a better understanding of the timing of the project and have come to the conclusion that we will need to replace deep well pumping equipment at least one more time before the new supply is available.

To reduce the time the wells are "out of service," we are recommending the purchase of three deep well pumps and two submersible motors. This includes a pump head, motor, and drop cable for Well No. 3, a pump head for Well No. 8 and a pump head for Well No. 10. We would also purchase one motor that could be used at either Well No. 8 or No. 10 again including the drop cable. Should Well No. 10 fail, using the pumping equipment on hand would reduce the available capacity until the 700Hp equipment could be repaired or replaced. By purchasing only one motor we are assuming that Wells No. 8 and 10 do not fail at the same time. This is a reasonable assumption based on the timing of the last projects at these locations.

This purchase would greatly reduce the out of service time for any of these critical wells. It is estimated the maximum of weeks a well would be out of service would be 6 weeks and less in many cases. This is due to the fact that this purchase substantially reduces the lead time of this equipment which can be greater than 16 weeks under normal circumstances."

As reported at the Special Commission Meeting held on November 10, 2016, a failure of the submersible well pump at Well No. 10 required us to install the spare 350 hp pump and motor. As we continue to work with the pump manufacturer and our insurance company to determine the reason for failure at Well No. 10, we are at risk for non-compliance should we experience a problem at Well No. 8.

Due to the long lead times for this type of equipment, we are asking for approval to purchase a second 350Hp submersible motor. An additional benefit is that we will need two 350Hp motors in the back up wells once Lake Michigan Water is in use.

We are currently working with several suppliers, but are asking for an approval of an amount not to exceed \$70,000. Funds for this equipment are available in capital account #3250.

Recommended Motion: Move to approve the purchase on one – 350Hp submersible motor, for a cost not to exceed \$70,000.