



1202 Musser Street
Muscatine, IA 52761-1645
(563) 263-2752
Fax (563) 263-3720

WATER POLLUTION CONTROL

MEMORANDUM

To: Gregg Mandsager, City Administrator

From: Roger Kirby, Director WPCP and Finance Director Nancy Lueck

Date: August 14th, 2012

Re: Purchase of Sluice Gate at the Levee

INTRODUCTION: There is a 36" pipe that runs through the bottom of the levee just behind Musser Park that allows the WPCP effluent to gravity discharge into the Mississippi River. There is a pit that runs from the top of the levee down approximately 30 feet where the pipe opens to the pit. From the pit the water then runs to the river. On the end of the pipe is a sluice gate valve that allows us to stop river water from flowing back under the levee if there is no discharge or if there is a break in the pipe anywhere. We have received bids for this gate and have selected a Plasti-Fab Heavy Duty 36" sluice gate for \$14,507.

BACKGROUND: In the course of our latest construction project, we attempted to close this gate to stop the river from flowing back to the plant while we installed portions of the new effluent pumps. The gate valve was completely non-functioning and could not be closed. The gate is over 30 years old and is very difficult to perform maintenance on due to its location. Because the river was too high during this phase of construction we were unable to access the pipe and valve at the bottom of the pit. In July 2012, the WPCP staff removed the gate valve and took measurements for replacement.

RECOMMENDATION/RATIONALE: There is a brief window of opportunity due to extended low river levels to access this gate valve and replace it. The possibility of something happening is low but should something happen, we would drain the Mississippi River into the south end of the City through a 3 foot hole in the bottom of the levee. The bids for the gate came in between \$12,727 and \$25,647, but the low bid was for a cast iron gate which has large maintenance issues and will take twice as long for delivery. Staff is recommending the use of a Co-Polymer gate with stainless steel guide frames and neoprene flanged gasket which will outlast the cast iron and will not rust or deteriorate as the current gate did. Staff recommends purchase of the Plasti-Fab Heavy Duty Tite Seal Sluice Gate for \$14,507. This is not a budgeted item; however, this project can be completed with city staff and equipment at this time due to the low river levels. It is proposed this gate be funded from the Water Pollution Control Plant Reserve.

Please include this request to authorize the issuance of a purchase order in the amount of \$14,507 to Mellen & Associates on the agenda for the August 16, 2012 City Council meeting.