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WATER POLLUTION CONTROL

MEMORANDUM

To: Gregg Mandsager, City Administrator
Cc: Nancy Lueck, Finance Director
From: Roger Kirby, Director WPCP
Date: May 10, 2012
Re: Convert natural gas boiler to methane

INTRODUCTION: Our new digesters are functioning very well. The project was designed to install and heat the digesters with one new boiler that would run on methane with natural gas backup. The old boilers were to be removed. During construction, it was determined to keep one of the old boilers as a backup. We need to keep this boiler in operation to have it as a backup.

BACKGROUND: Because our digesters are functioning so well, the methane production will enable us to install the valves and piping to convert the old boiler over to burn methane instead of natural gas also. We are currently just burning off the excess methane into the atmosphere and losing the cost savings that could be gained. We have received two quotes to make this conversion. The first quote is from Williams Brothers Construction for \$10,813 plus a valve purchased by us for \$500. The other quote is from Hometown Plumbing in Davenport for \$9,580 and includes the valve needed to complete the conversion.

RECOMMENDATION/RATIONALE: We have already seen a substantial cost savings by using methane to run our new boiler for heating the new digesters. This conversion will pay for itself in a very short time period and if we return to a "normal" winter it could be as soon as one year. We are also looking at the possibility of heating some of our other buildings using methane.

Staff recommends accepting the quote from Hometown Plumbing for \$9,580 for the installation of piping, valve, and regulator to run the boiler using methane with natural gas backup. This item was not included in the budget or the project because we did not know how soon we would be generating enough methane to make it cost effective. With the combination of the mild winter and the current cost savings using methane our utilities cost are down for this fiscal year leaving more than enough to fund this project.