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To: Hamburg Township Board
From: Tony Randazzo
Re: Heat Exchanger and Boiler for WWTP

The heat exchanger and boiler were installed at the wastewater treatment plant during the capital improvement project in 2010 to address noncompliance issues in the winter months. The problem back then was once the temperature of the influent fell below 50 degrees Fahrenheit, treatment would begin to suffer because the microorganisms don't work as well in cold temperatures. After the capital improvements project was completed, our winter compliance issues went away immediately.

In recent years, our flow has increased which has led to the equalization tank filling faster than our pumps can send sewage through the heat exchanger. This results in plant staff having to bypass the heat exchanger for eight hours or more to draw down the equalization tank. This alleviates the flow problem but upsets the microorganisms because of the drastic temperature change which can cause us to go out of compliance for a day or two. The last two winters we have had to bypass with increasing frequency, and this will only become more common as time goes on.

In order to address this burgeoning problem, I request approval to order a new, larger heat exchanger and boiler for the treatment plant. I intended to bring this topic to the strategic planning meeting next month, but the delivery time is 31-33 weeks per the quote we just received, which puts us in danger of not having the new equipment in place for next winter. We have sized the unit to accommodate a substantial amount of future flow, so that even if we need a plant expansion, the new heat exchanger and boiler can handle it. The cost of this project will be \$237,763 and will be paid out of reserves in the sewer enterprise fund.

