

## MEMORANDUM

TO: Jeff Mikorski, City Manager  
City Council

FROM: Timothy L. Ball, General Manager

DATE: September 18, 2013

SUBJECT: **Odor Complaint – Riverfront Park**

We acknowledge that an odor issue persists at our Deckers Creek sewage pumping station, at the Riverfront Park. We have been working diligently to find a solution.

Ironically, this problem results because of steps we have taken to improve the performance of the station and the protection of the environment. And the problem appears to result from a combination of factors.

Prior to the improvements, we had to take the station offline and divert its incoming flow to the river in order to clean the wet well. Those cleanings would take 3-4 days and would be performed 2-3 times per year. Although the diversion of sewage to the river was always done with DEP's knowledge, it clearly presented a poor public perception and was often criticized. In addition, the cleaning of the wet well was difficult to access and to perform.

In order to improve the cleaning procedures, we installed a new grit chamber to intercept debris prior to the wet well. The grit chamber is configured with bypass piping that allows the station to stay in operation while the grit chamber is cleaned. Diversion of flow to the river is no longer necessary. That's good. But, the grit chamber is smaller than the wet well, and it must be cleaned more often – about 1-3 days every 4 – 8 weeks. That cleaning operation temporarily releases concentrated odors. We usually try to schedule the cleaning work during rainy periods to help suppress the odors.

One solution under consideration is to modify the cleaning procedure and/or to utilize different equipment, so that air emissions from these periodic activities are reduced. A review of alternate equipment and procedures is underway.

A second improvement recently constructed was an odor control system. The system functions by filtering the air to remove the odor, and the treated air is blown from the treatment unit into the airspace outside the facility. The system is a biological one that relies upon living organisms, and therefore must remain constantly in service in order to sustain the organisms. We have given great care to ensure that the operation of the system has been fully optimized,

and measurements confirm that it usually achieves 100% removal of hydrogen sulfide (the dominant odor compound emitted from sewage facilities).

The tentative assessment of the function of this system is that it is too exclusively focused on a single odor source, and (although it removes that source well) it leaves other sources untreated. This is compounded by the fact that the (partially) treated air is blown from the building, which previously remained sealed when it was untreated. Thus, we have replaced a former small volume of concentrated odor that remained relatively contained, and have traded it for a current slightly odorous, higher volume of air that is constantly emitted. This sometimes leaves a low grade odor present in the area.

We will probably need to supplement the existing odor control system with another that addresses the remaining odors. We are in the process now of identifying potential supplemental systems. Once that is done, and a selection is made, we will proceed to an appropriate design.

Because the current odor control system is biological, we must leave it in service while these analyses are underway. Once we de-activate it, it will take 1-2 months for it to return to service. For these reasons, and unfortunately, the low grade odor will have to continue for an undetermined period.

Once the studies are completed, we can, if necessary, then turn the current odor control system off and re-seal the building until the corrections are implemented. Similarly, we can extend the interval between cleanings, so that the frequency of stronger odor releases is reduced.

Our team of engineers and consultants is highly motivated to find an appropriate solution, and to implement it as soon as possible. A more definite plan and schedule of improvements will be developed as the necessary information is collected.