



The Corporation of the Township of Huron-Kinloss

Staff Report

Report Title: Water Wastewater November 2022

Prepared By: John Yungblut, C.E.T., Director of Public Works

Department: Public Works

Date: Nov. 7, 2022

Report Number: PW-2022-11-75

**File Number: E08 WAT 22
E13 RIP 21
E08 LUC 19
E08 PTC 22
E03 LUC 21
E08 LUC 21**

Attachments: Monthly Water/Wastewater Summary, ET vs Standpipe Drawing

Recommendation:

THAT the Township of Huron-Kinloss Committee of the Whole hereby receives for information, Report Number PW-2022-11-75, prepared by John Yungblut, Director of Public Works

Background:

Monthly Summary

Veolia Water Canada has prepared a summary of the water and wastewater operations over the past month.

Ripley Wells 3 & 4 Contamination Investigation

From June – November 2021, the raw water samples from the new wells near the Ripley Elevated Tank resulted in low levels of coliform and E. Coli bacteria. Although the weekly samples have been clear of any contamination since that time, Township staff continue to investigate potential causes of this issue. A pumping test was conducted by our hydrogeologist from May 17-18, 2022 to help determine a potential source of contamination. The conclusion of the report issued on June 29th indicated that a leak in the piping between one of the wells to the elevated tank was the most likely source of contamination.

On Aug. 5th, our Operating Authority, Veolia Canada, conducted a pressure test under the supervision of our consulting engineer and found no indication that a leak exists between the wells and the elevated tank.

Huronville SCADA Upgrades

On April 18, 2022, Council awarded SCADA upgrades at the Huron S Pump house. The original start date for this project was in November 2022, however, this is now delayed due to issues with sourcing the equipment.

Kincardine Water Supply

Earlier this year, the Municipality of Kincardine requested that the Township supply water to the Kincardine water system for the reservoir repairs at the water treatment plant. This was originally scheduled in the spring; however, it was later delayed until the fall of 2022.

Lucknow Standpipe Replacement

On Aug. 15, 2022, the tender of the construction of an elevated water storage tank in Lucknow was awarded to Landmark Structures Co.

Point Clark Well 3

For the past year, Township staff have been investigating the possibility of redeveloping one of the two groundwater wells in Point Clark, known as Point Clark Well 3. The reason for this project is to avoid having to find a new well site in the southern Lakeshore area when the well located in Lurgan Beach, known as Blairs Grove Well 3, will need to be abandoned. The groundwater at Blairs Grove is significantly harder than any other drinking water wells in the Township, so staff would prefer to discontinue producing groundwater from this area.

Lucknow RIB Cleanout

In the summer of 2021, Township staff were notified by our Operating Authority, Veolia Canada, that all six rapid infiltration basins (RIB) at the Lucknow Wastewater Treatment Facility were clogged with organic material and no longer functioning. The purpose of these RIBs is to provide an outlet for the lagoon cells that provides additional filtration before the effluent enters the water table.

In the fall of 2021, Township staff removed the organic material from two of the basins and replaced with new gravel and filter sand.

Lucknow Well 5

For the past two years, Township staff have been in the process of increasing the volume of water that is permitted to be produced from Well 5 located on Bob St. in Lucknow. The reason for this project is to increase our water capacity which will allow for future growth in Lucknow. The existing Permit to Take Water (PTTW)

issued by the Ministry restricted Well 5 to 2,275 L/min and the entire Lucknow system (including Lucknow Well 4) to 1,500m³/day. Our PTTW amendment application requested an increase at Lucknow Well 5 to 2,500 L/min and a total volume of 2,000m³/day,

Discussion:

Monthly Summary

The summary prepared by Veolia Water Canada is attached to this report.

Ripley Wells 3 & 4 Contamination Investigation

Following the recommendation of our hydrogeologist, on Nov. 7th, a second pressure test is schedule to be conducted at a higher pressure than normal line pressure to see if any leaks are detected.

The raw water results from both wells since November 2021 had been clear of any contamination, however, a raw sample taken from Well 3 on Oct. 25th resulted in a total coliform count of 2 colony-forming units (cfu)/100mL. The sample taken from Well 4 had no detectable levels of coliform. It is possible that a relatively low level of total coliform could be a result of an error in the sampling procedure, so Township staff will continue to monitor these results.

Huronville SCADA Upgrades

The two main components of this project that are causing the delays is the programmable logic controller (PLC) which controls the operation of the facility and the motor control centre (MCC) which controls the operation of the pumps.

The delivery date of the PLC is December/January and the delivery date of the MCC is February/March. Our intent is to have this project complete before water demand usually begins to increase in late May.

Kincardine Water Supply

The Huronville pumphouse began supplying water to Kincardine on Oct. 18th and we expect this will continue until late November. The site did have some electrical issues during the first week, however, it appears those issues have been resolved.

Lucknow Standpipe Replacement

Township staff have been informed by the contractor that a construction schedule should be forthcoming on Nov. 4th with an expected start date for this project.

Letters have been mailed out to all Lucknow water customers explaining the project and how it is being funded. We have also included a drawing that shows how the appearance and height of the new structure will differ from the existing standpipe, which is attached to this report. The new structure will be approximately 10 metres higher than the existing standpipe. The same information has also been communicated in a full page ad in the Lucknow Sentinel newspaper.

Township staff continue to discuss terms of an agreement that will allow Montgomery Bus Lines and the Lucknow and District Fire Department to use the new water tower for two-way radio communications. Once discussions have concluded, these agreements will be brought to Council for approval.

Currently, only Montgomery Bus Lines uses the Lucknow Standpipe for radio communications, but there is no formal agreement in place with the Township.

Point Clark Well 3

Based on the recommendation of our hydrogeologist, Township staff will be bringing in a well drilling contractor to conduct a 24 hour pumping test to demonstrate the ability of the well to produce more water than is permitted by the Ministry. If the test is successful, we will be applying for an increased Permit to Take Water from the Ministry.

Lucknow RIB Cleanout

On Oct 17th and 18th, Township staff remove the clogged material in the other four basins and replaced with new gravel and filter sand. We were fortunate that we were able to use some of the excess granular material from the Victoria/Wheeler project rather than having to purchase Granular 'B'. Filter sand was purchased from a local supplier.

Lucknow Well 5

On Oct. 12th, Township staff were notified by the Ministry that our PTTW amendment application was approved. The increased uncommitted reserve water capacity in Lucknow has now increased from 54m³/day or 30 Equivalent Residential Units (ERU) to 554m³/day or 312 ERU. This information will be captured in the Growth and Servicing Master Plan that is in progress.

Financial Impacts:

Ripley Wells 3 & 4 Investigation, Huronville SCADA Upgrades, the Lucknow Standpipe Replacement, the testing of Point Clark Well 3 are included in the 2022 Capital Budget. The Lucknow RIB work is funded through the Operating Budget. Our standard practice is to charge a 25% surplus to our metered water rate to the Municipality of Kincardine for the use of the Lakeshore water system.

Strategic Alignment / Link:

We are an environmentally conscious community that are good stewards of our natural environment by being aware and taking responsibility.

We are a prosperous community that continues to grow in a sustainable manner by investing in infrastructure.

Action Item P5.4 – Lucknow Water Tower

Respectfully Submitted By:

John Yungblut, Director of Public Works

Approved By:

Mary Rose Walden, Chief Administrative Officer