



Staff Report

Report Title: Water Wastewater November 2023

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

Department: Public Works

Date: Nov. 6, 2023

Report Number: PW-2023-11-52

File Number: C11 PW23

Attachments: Monthly Water/Wastewater Summary, Ripley Well Map

Recommendation:

THAT the Township of Huron-Kinloss Committee of the Whole hereby receives for information, Report Number PW-2023-11-52 prepared by John Yungblut, Director of Public Works.

Background:

Monthly Summary

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

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. Construction began on Nov. 30, 2022 and is expected to finish by December 2023.

The mechanical and electrical systems are substantially complete and commissioning of the tank and piping is expected to be completed by Nov. 3rd. The contractor will then complete the site restoration as weather allows.

The contractor has scheduled the demolition of the standpipe and radio equipment building to begin on November 13th and the duration is expected to be approximately two weeks.

The existing standpipe did experience an overflow event on Oct. 30th that was the result of a communication failure at the Ross St. Pumping Station. The equipment at

that site is outdated and will be removed once the new water tower is commissioned.

London Road Watermain Replacement

The contract for the replacement of two existing watermains on London Road in Point Clark with one new watermain was awarded to Omega Contracting on April 17, 2023. Construction began on Sept. 20th and testing and commissioning was completed in early October.

Lucknow Lift Station Pump

Township staff along with our Operating Authority have been exploring options for replacing one of the lift pumps at the Lucknow that has failed. The original plan was to replace it with a pump of the same size, however, upon further investigation, we determined that an upgrade to a larger pump would be a better solution.

A rental pump was installed in August to prevent a bypass event if another pump failed and demonstrate that a larger pump would work at this site.

Ripley Well 1 Abandonment

The original municipal drinking water well in Ripley, known as Ripley Well 1, was abandoned on Oct. 5, 2023 with bentonite clay and a concrete cap and did not encounter any issues.

On Oct. 19, 2023, our lab contacted Veolia indicating that they were unable to test the raw water samples from Ripley Well 2, which is located approximately 10m east of Ripley Well 1, for the past two weeks. It appears that the bentonite clay migrated to the other well after abandonment, which impacted the ability of the lab to analyze the sample for contamination. Ripley Well 2 was then immediately taken offline.

Raw water sample results from Ripley Well 3 and 4 that were taken on Oct. 10th showed elevated levels of total coliform and E.Coli. At this point Ripley Well 2 was taken offline and Veolia began flushing Ripley Well 2.

Raw water sample result taken on Oct. 24th showed no detectable E.Coli and significantly reduced levels of total coliform in Ripley Well 3 and 4. The lab was able to determine that there was not high levels of contamination in the raw water at Ripley Well 2, but could not verify that there was no coliform or E.Coli.

Veolia continues to flush Ripley Well 2 in order to clear the raw water until we are able to the lab is able to verify that there are no detectable levels of coliform or E.Coli.

Through this entire process the treated water has been sampled and the lab has confirmed that there has been no detectable levels of total coliform or E.Coli at each well site and the various sampling locations throughout the Ripley drinking water distribution system.

Huronville SCADA Upgrades

The replacement of the Master Control Centre (MCC) and Programmable Logic Controller (PLC) at the Huronville S Pumphouse in the northern Lakeshore area has been awarded to Eramosa Engineering Inc. on April 18, 2022. All the equipment has finally been delivered and is now ready to install. This project is scheduled to be completed on Nov. 6, 2023.

Discussion:

Monthly Summary

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

Lucknow Standpipe Replacement

This project is progress very well with very few issues encountered.

Township staff have received a request from the Lucknow Kinsmen to salvage some of the rivetted panels on the existing standpipe. We will be meeting with them to discuss this further once the demolition contractor is on site.

The Township will be receiving a 500mm x 500mm square cut out of the existing standpipe for historical preservation purposes.

London Road Watermain Replacement

Two property owners along the south side of London Road have been sent letters notifying that they need to connect to the new watermain by the Nov. 1, 2024 so the existing watermain can be abandoned.

Ripley Well 1 Abandonment

As this situation developed Township staff have been in contact with the well drilling contractor and our hydrogeologist. Based on these conversations, we learned that the presence of coliform after abandonment when another well is nearby is not common but does happen on occasion. The reason for this is the bentonite clay that is used to seal the well is a natural material and can't be fully sterilized before being introduced to the well. What is unusual is that this prevented the raw water to from being analyzed by the lab.

What has surprised everyone involved is how quickly this appears to have impacted Ripley Wells 3 and 4, which are located over 400m away (see attached map). Since the issues we had with coliform during the summer of 2021, we have only had one raw water sample that showed any presence of coliform before this situation occurred. This leads us to believe that the contamination at Ripley Wells 3 and 4 is directly related to the abandonment of Well 1 and not related to the issues we had in 2021, which appears to have resolved itself.

Huronville SCADA Upgrades

Huronville is the last well site that is still on the antiquated Bristol Babcock control system, so staff are pleased to finally have this project completed. This project will also include the installation of a manual transfer switch, so we can connect this site to a portable generator during a power outage along the Lakeshore. Point Clark also has a manual transfer switch and Murdoch Glen in Heritage Heights has a standby generator.

Financial Impacts:

The Lucknow Standpipe Replacement, the London Road Watermain project, Ripley Well 1 Abandonment and the Huronville SCADA Upgrades are included in the 2023 Capital Budget.

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