



Staff Report

If this information is required in an alternate accessible format, please contact the Municipal Clerk at 905-623-3379 ext. 2102.

| | | | |
|-------------------------|---|-----------------------|------------|
| Report To: | Planning and Development Committee | | |
| Date of Meeting: | October 22, 2019 | Report Number: | PSD-047-19 |
| Submitted By: | Faye Langmaid, Acting Director of Planning Services | | |
| Reviewed By: | Andrew C. Allison, CAO | Resolution: | |
| File Number: | PLN 26.14.1 | By-law Number: | |
| Report Subject: | Clarington Transformer Station - Final Peer Review | | |

Recommendations:

1. That Report PSD-047-19-19 be received; and
 2. That all interested parties listed in Report PSD-047-19 and any delegations be advised of Council's decision.
-

Report Overview

Council accepted funding from Hydro One to retain a hydrogeologist to peer review the Surface and Groundwater monitoring program imposed as part of the approval of the Environmental Assessment by the Minister of Environment and Climate Change now Environment, Conservation and Parks (MECP). The Municipality's hydrogeologist is providing his peer review for the 2018 report and recent bore hole drilling.

1. Background

- 1.1 Clarington Council and staff have been involved with the Clarington Hydro Transformer since March of 2012. The Minister of Environment and Climate Change (at the time) approved the project in January of 2014 despite the objections/comments of Clarington Council and residents.
- 1.2 In June 2014, to address ongoing concerns from community members and residents, Hydro One proposed to Clarington to fund a peer review of their Surface and Groundwater monitoring program. The peer review consultant, SLR Consulting (Canada) Ltd. were retained and have been working with the residents, staff, Hydro One consultants and G360 group of scientists since late October, 2014. The contract expired this October 2019.
- 1.3 In September 2014, Council approved a road use agreement contingent on the drilling of a deep monitoring well. The hydrogeologists agreed that the MW 5-14 site on Hydro One property was the most relevant location for this borehole and monitoring well. The MW5-14 site already has monitors at 4 metres, 7 metres and 40 metres; the deep borehole monitor at 112 metres and another monitor at 52 metres are the result of drilling the deep borehole. This provides multi-level monitoring (or a nested cluster of boreholes and monitors).
- 1.4 In April 2015, Council approved funding as a contribution to the rotosonic drilling of up to \$25,000, by resolution #C-136-15. These funds have been disbursed to CLOCA for the borehole drilling that happened in July 2019.
- 1.5 In February 2016, Council approved funding for tritium testing of up to \$10,000 by resolution #C-030-16, as amended in May 2017. To date an interim payment of \$5,000 was provided to G360 for sampling and tritium analysis on private wells and the interim report received in July 2016. A final report will be provided once the newest borehole drilled in July has cleared to allow for testing.
- 1.6 In November, 2016 CLOCA entered into agreements with Hydro One which allows access to the site and deep well for ongoing monitoring under the conditions set out in the agreement. CLOCA's Memorandum of Understanding with G360 allowed for the drilling that occurred in July and any scientific work by G360. CLOCA is host to the Oak Ridges Moraine Groundwater Program, they are the legal entity for the agreements. The Municipality is not party to the agreements.

- 1.7 The Clarington Transformer Station became fully connected to the Hydro One Bulk Electrical network on April 30, 2018. Hydro One reports that the Enfield TS construction is complete and it came into service in May, 2019. Works to complete the on-site constructions (e.g. road works and habitat plantings are to be completed in 2020.

2. Summary of the Peer Review Findings

- 2.1 The SLR report reviews the present state of the existing information and purposely does not address the process by which it was achieved. Their review includes information from all parties, being Hydro One, Stantec, G360 scientists, Enniskillen Environmental Association, the Conservation Authority, Clarington, the Ministry of Environment and Climate Change and the Oak Ridges Moraine Groundwater Program. SLR staff conducted two site visits, attended one public meeting, and reviewed the 2017 Annual Monitoring Report (by Stantec on behalf of Hydro One) on Clarington's behalf. No new well owner complaints were received in the reporting period. The results are outlined below, their more detailed report is Attachment 1.
- 2.2. The Ministry required a ground and surface water monitoring program. No significant adverse conditions were reported in the 2018 annual monitoring report. No requests to SLR from residents for interpretation or clarification were received. The MECP required monitoring period is over at the end of 2019.

3. Community Liaison Committee Request

- 3.1 The members of the Enniskillen Environmental Association made a request to Council in June of 2019 regarding re-establishment of the Community Liaison Committee and other related items as set out in resolution in Attachment 2. The Community Liaison Committee was a requirement in the Environmental Assessment approval which has been met by Hydro One.
- 3.2 The Ministry and Hydro One are willing to answer questions from residents but they do not see the need to re-establish the Community Liaison Committee. The responses to the request by Hydro One and the Ministry are contained within Attachment 2.

4. Research Bore Hole

- 4.1 The G360 research group were able to install the additional borehole for long-term monitoring at the MW5-14 site in July of 2019. The researchers are waiting until the sediment within the well settles to allow for the tritium sampling.
- 4.2 In 2018 the G360 research group conducted tritium sampling and analysis on local wells. They have found the presence of tritium (an indicator of age and not a contaminant) in the shallow wells as anticipated, and also in some but not all of the deeper wells. Some surficial contaminants like salt and short lived bacteria are also present at depth. This information points to a likelihood of insecure well casings. CLOCA, through Dr. Gerber sampled the aquitard wells in the deep well

cluster on site for tritium and found very little. These deep wells are scientifically constructed to preclude casing leakage.

- 4.3 The cluster of wells (multi-level) at MW5-14 will allow long-term research to be carried out by G360 in concert with Dr. Gerber from the Oak Ridges Moraine Ground Water Monitoring Group.

5. Private Well Monitoring

- 5.1 Part of the Enniskillen Environmental Association request in June was that the monitoring program for private wells continue beyond 2021. Hydro One had already committed to monitoring the private wells for 2 additional years beyond the requirements imposed by the Ministry's approval.
- 5.2 Hydro One's response (in Attachment 2) indicates that while they voluntarily committed to extend the private well monitoring to participating well owners until 2022, they do not believe further monitoring is warranted.
- 5.3 For the private wells monitoring by Hydro One, SLR has been available to answer questions and review the findings. However each review has corroborated the findings of Hydro One's consultant. SLR has not any calls from residents during the past year.
- 5.4 In summary, SLR continues to maintain that the wells are not at risk from the Transformer Site.

6. Concurrence

Not applicable.

7. Conclusion

- 7.1 The purpose of retaining a peer review consultant was to assist with understanding the technical information and to have an independent advisor monitor the practices and methodologies being employed during the construction of the Clarington Transformer Station. To date, the observations, recommendations and conclusions by SLR Consulting (Canada) Ltd have required additional work by Hydro One and their consultants to demonstrate that the conclusions of the Environmental Assessment and Permit to Take Water are reasonable and conservative.
- 7.2 Council and residents were concerned for the safety of private residential wells in the vicinity of the transformer construction and Farewell Creek. The Clarington and Enfield Transformers are now complete. Hydro One consultants, Ministry and peer review consultant have concluded that the transformer construction is not putting residential wells at risk.
- 7.3 Hydro One has offered to continue to monitor local wells for an additional 2 years.

- 7.4 Much has been learned about the hydrogeology of the site over the past few years providing additional scientific knowledge for the G360 researchers, and the Oak Ridges Moraine Groundwater Program.
- 7.5 The last annual report by Hydro One will be issued in the new year. SLR will analyze the report, cross-check numbers and provide a peer review as an information report in 2020. This final report from SLR should be able to include an update on the results of the tritium testing as well.

Staff Contact: Faye Langmaid, Acting Director of Planning Services, 905-623-3379 ext. 2407 or flangmaid@clarington.net

Attachments:

Attachment 1 – Clarington Transformer Station Peer Review

Attachment 2 – August 29, 2019 Update Memo from the Acting Director of Planning Services

The following is a list of the interested parties to be notified of Council's decision:

Denise Jamal, Hydro One
Clint Cole, Enniskillen Environmental Association
Drs. John Cherry and Beth Parker, G360, University of Guelph
Dr. Rick Gerber, Oak Ridge Moraine Groundwater Program
Chris Darling, CLOCA
Steven Usher, SLR Consulting (Canada) Ltd