

Central Region

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July 12, 2019

Mirka Januszkiewicz, P. Eng
Director, Waste Management
The Regional Municipality of Durham
605 Rossland Road East
Whitby ON L1N 6A3

Laura McDowell, P.Eng
Director, Environmental Promotion and Protection
The Regional Municipality of York
17250 Yonge Street
Newmarket ON L3Y 6Z1

**Re: Durham/York Energy from Waste Project
2017 and 2018 Annual Groundwater and Surface Water Monitoring Report
Minister's Notice of Approval Condition 20.8
Environmental Compliance Approval Condition 7(14)**

Dear Ms. Januszkiewicz and Ms. McDowell,

Thank you for the above-noted submissions. This letter serves as a confirmation of receipt of the 2017 Annual Groundwater and Surface Water Monitoring Report dated April 27, 2018 and the 2018 Annual Groundwater and Surface Water Monitoring Report dated April 24, 2019. The reports were submitted in accordance with Condition 20.8 of the Environmental Assessment (EA) Notice of Approval and Condition 7(14) of the Environment Compliance Approval for this project.

Staff have reviewed the reports and offer the following comments:

2017 and 2018 Reports

1. Please use Piper Trilinear plots and/or Durhov plots in future annual reports to present analytical data for spatial and temporal comparisons.

2018 Report

2. The conclusions state "Based on the 2018 groundwater elevations, the shallow and deeper groundwater flow direction at the Site was interpreted to be toward the southwest, with minor flow alterations as a result of the influences from the trunk sewer." We note that one map of the shallow groundwater flow direction was provided in the report (Figure 2 of RWDI, 2019). No map was provided for the deeper flow direction. A

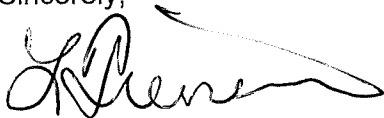
comparison of the depth of the trunk sewer and of the shallow groundwater would need to be provided to infer the impact of the trunk sewer.

3. The conclusions state "For the groundwater sampling program completed for DYEC in 2018, QA/QC measures indicated that the detected constituent concentrations were accurate and reflected actual conditions at the time of sample collection." We note that it appears that only one field duplicate sample was collected per sampling period. It is common for travel blanks to also be collected. The collection of field duplicates should be rotated between sampling wells.
4. The conclusions discuss elevated concentrations of salt related parameters at multiple groundwater monitoring wells which are interpreted to be attributed to the application of de-icing salt. Please confirm the origin of salt detected in the on-site monitoring wells using the method of Panno et al. (2005 and 2006).
5. The recommendations state "The rapid increase of the concentrations of salt related parameters within the groundwater at MW4 suggests that stormwater and/or shallow groundwater influenced by de-icing salt may be entering the well casing directly. As such; it is recommended that MW4 is inspected with a down-well CCTV camera to visually assess the integrity of the monitoring well and to determine if the monitoring well installation may be compromised." Please determine as soon as possible whether monitoring well MW4 is providing a conduit for road salt to enter the surficial aquifer. If MW4 is a conduit, the well should be decommissioned and a replacement should be installed.

An annual meeting is required in accordance with EA Condition 20.3(d). This meeting can coincide with the next regularly scheduled quarterly meeting between the Region and the MECP Regional Director, as an agenda item.

Thank you for the opportunity to comment on this project. If you have any questions, please contact Emilee O'Leary, Regional Environmental Assessment Coordinator at 416-326-3469 or by email at emilee.oleary@ontario.ca.

Sincerely,



Lisa Trevisan
Director, Central Region

- cc. Lubna Hussain, Manager, Central Region, MECP
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