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Information Item No. 1
Halifax and West Community Council
September 12, 2018

TO: Chair and Members of Halifax and West Community Council

-Original Signed-

SUBMITTED BY:

Bruce Zvaniga, Director, Transportation and Public Works

-Original Signed-

Catherine Mullally, A/Chief Administrative Officer

DATE: June 19, 2018

SUBJECT: **Further Ecological Testing on the Groundwater at the Ragged Lake Composting Facility**

INFORMATION REPORT

ORIGIN

May 15, 2018 - Halifax and West Community Council requested a staff report on further ecological testing being performed on the groundwater at the Ragged Lake Composting Facility site, in concurrence with the recommendation put forward in the Stantec report, as outlined in the correspondence from Peter Lund dated March 23, 2018.

LEGISLATIVE AUTHORITY

Clause 79(1)(an) of the *Halifax Regional Municipality Charter* provides that "Council may expend money required by the Municipality for ... solid-waste management facilities".

BACKGROUND

The Ragged Lake Composting Facility is located at 61 Evergreen Place, Halifax. It is operated by AIM Environmental Group on behalf of Halifax Regional Municipality (facility and land owner). A groundwater and surface water monitoring program was completed in accordance with the Site's Approval to Operate as issued by Nova Scotia Environment (NSE). AIM is the holder of the Approval and has retained a qualified firm to complete the annual groundwater and surface water monitoring program. To date, no concerns have been raised by NSE with regards to the water monitoring program results.

In 2014, Stantec was hired to complete an Environmental Liability Assessment to determine if the composting operation impacted groundwater, potable well water and surface water on the site. This work was completed as due diligence during the early termination buy-out of the previous site operators contract (New Era Farms). In this review Stantec concluded:

Groundwater

Groundwater analytical results indicate no impacts from site activity above CCME and/or NSE guidelines and parameters reported above applicable guidelines are consistent with natural conditions in Nova Scotia groundwater or are being compared to aesthetic guidelines and do not represent a risk to human or ecological health. There is no anticipated environmental liability associated with site groundwater.

Potable Well Water

Potable well water analytical results indicate no impacts from site activity above CCME and/or NSE guidelines and parameters reported above applicable guidelines are consistent with natural conditions in Nova Scotia groundwater or are being compared to aesthetic guidelines and do not represent a risk to human or ecological health. There is no anticipated environmental liability associated with site potable well water; however, if the on-site water is required for drinking, there will be a cost associated with water treatment to reduce uranium concentrations to an acceptable level, or with supply of alternate sources. It is noted that alternate sources (bottled water cooler/dispenser) is supplied at this site.

Surface Water

Surface water migrating off-site in drainage ditches or streams near locations SW7 and SW8 indicate a potential ecological risk as analytical results from these locations show multiple parameters that exceed applicable CCME and/or NSE guidelines. However, elevated copper, iron, lead, cadmium, and phenols can be naturally occurring in surface waters in Nova Scotia. In addition, SW7 is located near a roadway, where other potential sources of metals may exist and SW8 is located at some distance from the site in a stream that may be receiving other inputs. In order to fully assess whether the facility is impacting surface water in the area, additional assessment is needed to determine background conditions and to confirm surface water quality exiting the site.

DISCUSSION

Stantec recommended that surface water monitoring at SW8 be increased to quarterly, and one sample location up-stream and one sample location down-stream from the site (SW8) be established and also sampled quarterly. The surface water samples should be analyzed for metals, general chemistry and phenols. After one year of monitoring, the results should be assessed, and if exceedances still exist at SW8 that are shown to be associated with the composting facility, an ecological risk assessment should be undertaken to determine if the concentrations seen at SW8 are creating ecological impacts.

In 2017, GHD was retained by the Municipality to review the groundwater and surface water data. GHD concluded that the similarity of the surface water quality data from location to location suggest the exceedances are not likely Site related. However, to ensure additional baseline data is collected for the possible site extension / expansion, Solid Waste has increased the scope of the annual groundwater and surface water monitoring program. The expanded program has integrated Stantec's recommendation for increased monitoring at SW8 and at an up-stream and a down-stream surface water station.

FINANCIAL IMPLICATIONS

The annual groundwater and surface water monitoring program is budgeted within R325 6399 – Ragged Lake Composting.

COMMUNITY ENGAGEMENT

There was no community engagement required for this report.

ATTACHMENTS

N/A

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

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