



INFORMATION REPORT

To:	Mayor Stratthdee and Members of Council
From:	Jed Kelly, Director of Public Works
Date of Meeting:	28 March 2017
Subject:	PW 18-2017 Landfill Annual Monitoring Report

INFORMATION

To update Council regarding the submission of the 2016 Annual Monitoring Report for the St. Marys Landfill Site to the Ministry of Environment and Climate Change (MOECC) and to summarize key aspects within the annual monitoring report for Council.

RECOMMENDATION

THAT PW 18-2017 Landfill Annual Monitoring Report be received for information.

BACKGROUND

The Town is required to submit an annual report to the MOECC prior to March 31 of each year for the previous year's site operations. Each year this report is prepared by Engineering Consultants and submitted to the MOECC on the Town's behalf.

REPORT

In 2016, the St. Marys landfill site was operated by the Town of St. Marys and supplied successful waste disposal and diversion needs to residents and businesses within the Town. The following is a summary of information presented within the annual report:

- Annual landfill volume utilization increased slightly in 2016 but remains below the annual design utilization rate for the Site;
- Approximately 11,457 m³ of landfilling capacity was utilized in 2016. This is approximately a 3.5% increase over the prior year's filling rate;
- The 2016 volumetric fill rate represents a 3,543 m³ savings over the annual design fill rate of 15,000 m³ per year for Phase II/III;
- In 2016, approximately 5,943 tonnes of waste was placed for final disposal at the landfill Site. This equates to an in-situ density of approximately 519 kg/m³;
 - The 2016 in-situ density was an increase of approximately 25% when compared to the prior year. This can be attributed to improved site management and operations;
- It is estimated that approximately 3,437 m³ of daily cover was placed within the active cells in 2016 (included in above volumetric fill utilizations);
- Environmental Compliance Approval Amendment (Notice No. 3) approved additional interim capacity for the Site up to a total of 307,950 m³. The estimated remaining volume available for refuse (including daily cover) is 21,364 m³, as of December 2016;
- The landfill's remaining approved site life is estimated to be approximately 1.8 years as of December 2016. The Town is required to submit a request for additional interim approval in mid-2017;
- Chloride and several other parameters in groundwater were noted to be elevated or rising at several monitoring stations. Chloride is a potential indicator of landfill impact, however can also be related to

other means and activities. The site's dust control product is believed to be the source of the elevated chloride;

- Investigative work was completed on several wells in 2016 which identified several defects which may be a contributing factor.
- Manhole B (MHB) was added to the sampling program in 2016 and reported several elevated parameters indicative of landfill impact.
 - Monitoring will continue in 2017 to aid in determining a trend or potential impact
- No operational issues related to treating leachate were identified by the Wastewater Treatment Plant;
- There were two (2) odour related complaints received from the public in 2016.
- The Town saw significant diversion efforts related to the various programs offered and administered at the landfill, consisting of, but not limited to, recycling, leaf collection, yard waste collection, E-Waste Depots, Household Hazardous Waste Depots, etc.

General Notes

An Environmental Assessment to determine future solid waste disposal needs for the Town of St. Marys was commenced on February 9, 2015 and continued throughout 2016. Draft submission is anticipated to be completed in early to mid-2017.

The Town of St. Marys will be applying to the MOECC in the coming months for continued interim capacity approval to continue operations while the EA is finalized, submitted and subsequently reviewed.

SUMMARY & IMPLICATIONS

The above information has been summarized from the Annual Monitoring Report for 2016. The landfill site continues to provide effective and efficient solid waste disposal for the Town. Groundwater quality at the Site remains relatively good with several results to be further investigated in 2017. Surface water quality was reported to be within acceptable limits within 2016.

Several wells within the site's monitoring network were identified to have various defects. Repair and / or replacement works on the monitoring wells to address these defects is estimated to cost approximately \$10,000.00.

There was approximately 1.8 years of approved filling remaining at the landfill as of December 2016. The Town is required to submit an application in mid-2017 for additional interim capacity approval at the Site while the EA is completed and reviewed. Should interim approval not be granted, the Town would be required to find alternative means of waste disposal until such time as additional capacity could be approved.

OTHERS CONSULTED

Jed Kelly, Director of Public Works – Town of St. Marys
R.J. Burnside and Associates – Consulting Engineers

ATTACHMENTS

None

Respectfully submitted,



Dave Blake, C.E.T.
Supervisor of Environmental Services



Brent Kittmer
CAO / Clerk