



Staff Report

Report To: Dan Best, Chief Administrative Officer
From: **Don Giberson, Environmental Services Director**
Date: May 22 2018
Report: ESD.18.25
Subject: 2017 Annual South Huron Landfill Status Report

Recommendations:

That South Huron Council receive the report from Don Giberson, Environmental Services Director Re: 2017 Annual South Huron Landfill Status Report.

Purpose:

The purpose of this report is to notify Council of regulatory compliance with respect to the South Huron Landfill Site annual reporting and to ensure all Members of Council are fully informed.

Background and Analysis:

A requirement of the Environmental Compliance Approval (ECA) for the South Huron Landfill Site is to prepare and submit a report to the Ministry of the Environment by April 30th of each year. This report is to confirm that BM Ross Engineers prepared and submitted the 2017 report to the Ministry prior to the prescribed deadline.

The report is exhaustive and covers the Site History; Approvals; Site Development and Operations; Water Resource Monitoring; Control and Contingency Implementation; and Recommendations. A complete copy of the Report is available in the Environmental Services Department for viewing by any Member of Council.

The following is a brief summary of the report. The landfill site is being operated in accordance with the approved Operations Manual and

Environmental Compliance Approval. Waste reduction and recycling initiatives continue with the diversion of asphalt roofing shingles and Construction & Demolition Waste. Methane gas monitoring confirms that methane gas migration from the landfill site is not a concern.

The remaining air space available for waste disposal activities at the South Huron Landfill is estimated to be 228,330 m³ (end of 2017). Based on the current three year average landfilling rate, the remaining volume should provide for approximately **19 more years** of capacity for the existing serviced area. However, if the Mid-Huron Group commences taking waste to this landfill, the site life will be significantly reduced.

Curbside recycling initiatives and landfill site diversion/recycling such as the diversion of asphalt shingles, wood, concrete, construction and demolition waste has significantly contributed to the decrease in quantities of waste material being landfilled. Increased recycling efforts have resulted in the extension of the useful life of the landfill site.

Site security remains a concern, but there has been less evidence of trespassing than in previous years due to the completion of 99% of the perimeter fence. Increased security measures in 2017 involved the installation of permanent security cameras and increased vigilance during daily site inspections. The OPP monitors the landfill site for break-ins during routine patrols in the vicinity of the landfill site. The MNR monitors the landfill site for trespassing by off road vehicles and monitors hunters on the CAZ lands adjacent to and on the landfill site.

Ground water monitoring and surface water monitoring confirms that landfill operations are not a concern to the surrounding surface or groundwater resources. Leachate sampling confirms relatively low strength municipal leachate and indicates that landfill natural attenuation is functioning as designed.

An expansion of the Contamination Attenuation Zone (CAZ) beyond the limits of our property has been abandoned. The adjacent landowner (Ausable Bayfield Conservation Authority) has advised that they are not prepared to enter into a CAZ zone agreement. Staff will pursue an alternative solution to an expansion of the CAZ zone if the need arises. This may involve the installation of a leachate interceptor drain and pumping station to pump leachate to the Exeter Wastewater Treatment Facility for treatment.

Engineers Report Recommendations:

The report includes a comprehensive list of 27 recommendations. The following is a summary of the key recommendations:

- 1) Complete a capacity survey and an updated survey of site areas in October 2018 or 2019. Update the capacity calculations and the site plan based on the survey results.
- 2) Continue to operate and maintain the landfill site, including access roadway, infiltration ditches, closed and active landfill mound areas, in accordance with the Operations Manual and Environmental Compliance Approval.
- 3) Plans should be made to relocate the C&D, shingles, tires, and scrap metal area to the proposed Residential Drop Off area in order to free up this landfill mound area for landfilling purposes. Plans should also be made to relocate the burn pile to outside the landfill mound area.
- 4) Identify sources of approved low permeability soil for final cover of closed areas, including sampling and stockpiling for future use.
- 5) Litter should continue to be routinely cleared from affected areas, in particular along the perimeter of the landfill mound, and this waste material landfilled within the approved area. The amount of wind-blown litter should trigger a comprehensive cleanup.
- 6) Burning of segregated wood waste material should continue in accordance with MOE Guidelines. Burning of clean kiln dried lumber, such as wood pallets has been eliminated and is being diverted to C&D pile for recycling.
- 7) Landfill Staff should continue to inspect the landfill mound for leachate seepage and have the contractor immediately cover any affected areas.
- 8) Prior to submitting to the MOE an application for Stage 3 approvals for this site, the installation of several additional test wells and additional ground water monitoring should be considered.
- 9) Following the closure of the Mid-Huron Landfill (scheduled for the summer of 2018) and if the Mid-Huron Group indicates that they wish to use the South Huron landfill Site, South Huron should determine when Stage 3 study, design and technical approvals work should be initiated.

- 10) The Municipality should consider replacing some of the gas monitoring wells that have been destroyed or abandoned in the vicinity of the proposed residential drop-off area.
- 11) Landfill site staff and contractor should become familiar with the conclusions and recommendations of the annual report, as well as the requirements of the Design & Operations Report and Certificate of Approval.
- 12) The Operations Manual should be prepared and submitted to the MOE at least six months prior to implementing landfill site service area changes (i.e. Mid-Huron Group's use of this site).
- 13) Two copies of this Status Report (Volume I) and the Report's Figures & Appendices (Volume II) should be forwarded to the attention of the District Manager of the MOECC office in Owen Sound.

Operational Considerations:

As this report is being presented for information purposes only, no alternatives are presented.

South Huron's Strategic Plan:

Section 6.2.2 of the Municipality of South Huron 2015- 2019 Strategic Plan identifies key objectives that are reflective of the collective perspectives of the strategic planning process.

The recommendations and actions outlined in this report are reflective of the following strategic objectives:

Administrative Efficiency and Fiscal Responsibility

Informing Council of regulatory compliance, reduces liability and results in efficient use of time/resources.

Increased Communications and Municipal Leadership

Communicating information to Council related the South Huron Landfill Site and associated monitoring, keeps Council and the public informed.

Transparent, Accountable and Collaborative Governance

Public reporting of the annual South Huron Landfill Site Status Report, demonstrates commitment to transparent, accountable and collaborative governance.

Dedicated Economic Development Effort

Informing Council of regulatory compliance, results in increased public confidence; retention/attraction of businesses and economic development opportunities.

Financial Impact:

There are no financial implications for the Corporation resulting from the proposed recommendation.

Legal Impact:

There are no legal implications for the Corporation resulting from the proposed recommendation.

Staffing Impact:

There are no staffing implications for the Corporation resulting from the proposed recommendation.

Policies/Legislation:

1. Environmental Protection Act, R.S.O. 1990, c. E.19
2. Ontario Regulation 347 – General Waste Management
3. Ontario Regulation 232/98 – Landfilling Sites
4. South Huron Landfill Site MOECC Environmental Compliance Approval A161501
5. MOECC Technical Support for Ontario Drinking Water Standards, Objectives and Guidelines
6. MOECC Reasonable Use Concept into MOE Groundwater Management Activities
7. MOECC Water Management Policies, Guidelines, Provincial Water Quality Objectives

Consultation:

Ryan Davies, P.Eng. – B.M. Ross and Associates Limited, was consulted regarding the content of the Engineers Report. Shawn Young, Water/Sewer Foreman provided information for the annual report.

Related Documents:

None

Respectfully submitted,

A handwritten signature in black ink, consisting of a large, loopy 'D' followed by several vertical strokes and a long horizontal flourish at the bottom.

Don Giberson, Environmental Services Director