



Staff Report PW2021-025

Title of Report: PW2021-025 Egremont Landfill Amended
Environmental Compliance Approval
Department: Public Works
Branch: Waste Resources and Diversion Management
Council Date: May 19, 2021

Recommendation:

Be it resolved that Council receive Staff Report PW2021-025 for information.

Background:

Staff received the signed amended Egremont Landfill ECA Number A261602 Issue Dated May 8, 2021, after review and consultation with GM BluePlan Engineering and the Ministry of Environment, Conservation and Parks (MECP). The amended ECA includes some changes to Trigger Mechanisms and Contingency Plans and sampling program modifications.

Staff Comments:

The new amended Egremont Landfill ECA incorporating the following and changes in blue:

- Definition and additions reflecting the recently new Excess Soils Ontario Regulation 406/19 throughout the document.
- Landfilling Operations:
 - 15. The landfill shall be developed, operated and maintained in accordance with the plans and specifications in the documents listed in Schedule "A", including the relocation of historical fill within the Footprint and the staged deposition of waste in the Footprint according to the Plan of Development & Operations Report Addendum No. 1 document noted in Item 22 in Schedule "A".
 - 17.(b) Wastes may only be disposed of within the 3.3 hectare Footprint as described in the Plan of Development & Operations Report Addendum No. 1 document noted in Item 22 in Schedule "A".
- Operations:
 - 25. The normal operating hours of the Site, shall not exceed 9:00a.m. to 5:00p.m., Monday to Saturday. The Site shall be closed on Sundays and Statutory Holidays. The Site may open two hours earlier and two hours later than the waste disposal operating hours for maintenance and placement of cover. These hours of operation may be temporarily adjusted in writing by the District Manager.

- Operational Cover:

27. Wastes shall be compacted and then covered with a minimum of 15 centimetres of operational cover at the end of each operating day.

- Cover Materials Allowed for Daily and Intermediate Cover

28. (a) The following materials may be used as operational cover:

- i. soils and granular soils;
- ii. subject to Conditions 29.1, 29.2, 29.3, and 29.4, of this Approval, non-hazardous excess soil;
- iii. wood chips;
- iv. non-hazardous foundry sand;
- v. compost imported to the Site; and
- vi. processed material described in Conditions 52(2) and 52(3) below.

- Use of Excess Soil as Cover

29.1 Solid non-hazardous excess soil may be used for daily/intermediate cover but only on slopes where surface water drainage is into the waste fill and isolated from any storm water collection system.

29.2 The Owner shall keep a record of the delivery of all excess soil to the Site. The record shall include the following information as a minimum:

- (i) The name and Approval number of the hauler;
- (ii) The name and address of the generator of the excess soil and the source of the excess soil delivered;
- (iii) The date and time of delivery;
- (iv) Analytical test results of the excess soil, conducted prior to delivery to the Site by a professional engineer, geoscientist or other qualified person, that is independent of the generator and the hauler; and
- (v) If the excess soil was a characteristic waste but had been properly treated to remove the characteristic waste designation prior to receipt at the Site, a copy of the Land Disposal Restrictions notification form required by Regulation 347 along with a statement that such excess soil was not "leachate toxic waste" as defined in Regulation 347.

29.3 The volume of excess soils stored at the Site shall not exceed the quantity required for three months use.

29.4 Excess soil for use as cover shall be stockpiled within the 3.3 hectare Footprint.

- Monitoring

36. (1) The Owner shall monitor groundwater, surface water and landfill gas at the Site according to Schedule "B".

(2) Changes to the monitoring plans for the Site shall be submitted to the District Manager for review by regional technical support staff prior to submission to the Director for approval.

(3) Changes to the monitoring plans for which the Owner has received written concurrence from the District Manager shall be submitted to the Director for approval prior to implementation.

- Trigger Mechanisms and Contingency Plans

39. The Owner shall ensure that the reasonable use criteria outlined in the Reasonable Use Guideline are met at the Site property line.

40. The Owner shall abide by the following trigger mechanisms for groundwater in accordance with the document entitled Trigger Mechanism & Contingency Plan (Revised) dated April 2018 noted in Item 22 in Schedule "A" and the correspondence described in Item 23 in Schedule "A":

Compare Site boundary downstream groundwater quality to the reasonable use criteria (RUC) using the method specified in Reasonable Use Guideline B-7. The background value used in the RUC calculation for each trigger parameter shall be the 95th percentile background concentration from historic sampling events. Trigger parameters are to include chloride, sodium, iron, alkalinity, DOC, barium and boron. The trigger level for each parameter shall be 80% of the RUC, or where the indicator parameter is naturally elevated (i.e. RUC is less than background) the trigger level for that parameter shall be the 95th percentile background concentration, for monitoring locations that are less than 50 metres from the property boundary.

(iv) If contingency measures are needed, the Owner shall submit detailed plans, specifications and descriptions for the design, operation and maintenance of the contingency measures, and a schedule of implementation, to the District Manager for review by regional technical support staff prior to submission to the Director for approval, and shall initiate/implement the contingency measures within a reasonable time following approval by the Director. A summary of the results of this monitoring and any trigger/contingency action taken, shall be reported in the subsequent Annual Monitoring Report.

41. (a) The Owner shall carry out the monitoring program to determine compliance with the trigger mechanism for surface water at downstream surface water sampling locations. The Owner shall abide by the following trigger mechanisms for surface water, in accordance with the document entitled Trigger Mechanism & Contingency Plan (Revised) dated April 2018 noted in Item 22 in Schedule "A" and the correspondence described in Item 23 in Schedule "A":

- (i) Trigger Monitoring Locations_– Trigger and compliance monitoring locations shall be at the downstream sampling station identified as SW1, as listed in Table B-1 of Schedule "B" in this Approval.
- (ii) Trigger Parameters and Level/Criteria – The trigger parameters for surface water shall include alkalinity, chloride, sodium, barium, boron and iron. The trigger level for downstream surface water quality shall:
 - Be equivalent to surrogate values previously established for the Site;
 - Where a PWQO exists, be the higher of 75% the PWQO or the background surface water quality; or
 - For parameters in which a PWQO value does not exist and a surrogate value has not been previously established, be based on the groundwater trigger level or the background concentration in groundwater.

Using this approach, the trigger levels for surface water are as follows:

Alkalinity = 301 mg/L;
Barium = 0.22 mg/L;
Boron = 1.0 mg/L;
Chloride = 26 mg/L;
Iron = 0.23 mg/L;
Sodium = 20.4 mg/L.

- Composting

51. Compostable waste received at the Site shall not exceed 20 tonnes per day.

52. (1) No later than August 31, 2021, the Owner shall submit a report to the Director for approval detailing the operation of the Compost Facility. The report shall provide a summary of current compost production operations and provide recommendations for changes required to bring the operation into compliance with the Ministry's "Guideline for the production of compost in Ontario" published on October 27, 2016 and updated on June 12, 2020, and the Ministry's "Ontario Compost Quality Standards" document revised July 25, 2012.

(2) Compostable material on-site that has been processed in the existing Compost Facility and that meets the requirements for Category AA or Category A compost in Part II of the Ministry's "Ontario Compost Quality Standards" document revised July 25, 2012 is exempt from Part V of the EPA further to Section 3(2)25 of Reg. 347 and may be sent off-site for reuse as compost without further approval.

(3) Compostable material on-site that has been processed in the existing Compost Facility but that does not meet the requirements for Category AA or Category A compost in Part II of the Ministry's "Ontario Compost Quality Standards" document revised July 25, 2012 remains a waste and shall not be sent off-site for reuse, but may be sent off-site for further processing or disposal at an approved site or may be deposited on-site in the Footprint as waste or cover material.

(4) For clarity, Conditions 52(2) and 52(3) will be revised upon review and approval of the report described in Condition 52(1) to reflect approved operations at the Composting Facility.

- Environmental Emergency Plan

53.1 The Owner shall maintain an Environmental Emergency Plan (E2 Plan) at the Site. The E2 Plan shall include, but is not limited to:

- B.2 Groundwater Monitoring Plan
 - Notwithstanding this Section B.2 and Table B-2 below, VOC sampling for LW1, OW10, OW11, OW12S, OW19 and OW20 shall be carried out no less than once per year, with VOC sampling for all other groundwater wells to be carried out no less than once every 3 years starting in 2021, where that sampling shall be carried out during the October/November sampling period.

The Public Works Manager has already submitted a draft Compost Plan to GM BluePlan for review and submission to the Ministry before the August 31, 2021 deadline. The Compost Plan includes policies and procedures as outlined in the Southgate Waste By-law, Egremont Landfill ECA and MOE's Interim Guidelines for the Production and Use of Aerobic Compost in Ontario 2004.

Financial Implications:

The new amended ECA allows the Township to proceed with remining and relocation of the historical fill area and regain 7 metres lower depth elevation from current base elevation filling that equates to another 25 years of landfill capacity. The estimated cost for these operations is \$180,000.00 to be included in a future budget.

Communications & Community Action Plan Impact:

Goal 5 - Upgrading our "Hard Services"

Action 5:

The residents and businesses of Southgate recognize our linear services - roads, bridges, water and sewer works, for example - to be a fundamental purpose of municipal government. This infrastructure needs to be serviceable and sustainable so that our businesses and communities can thrive and grow.

Concluding Comments:

Staff recommends that Council receive Staff Report PW2021-025 for information.

Respectfully Submitted,

Dept. Head: *Original Signed By*

Jim Ellis, Public Works Manager

Treasurer Approval: *Original Signed By*

William Gott, CPA, CA Treasurer

CAO Approval: *Original Signed By*

Dave Milliner, CAO

Attachments:

Attachment #1 - Amended Egremont Landfill ECA Number A261602 Issue Date May 8, 2021