

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER A110302
Issue Date: March 27, 2020

2270386 Ontario Limited
162 Cumberland St
Toronto, Ontario
M5R 3N5

Site Location: Brooks Road Landfill Site
160 Brooks Rd
Lot 24, Concession 1 NORTH
Haldimand County

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

a waste disposal site (landfill) with a total site area of 14.3 hectares of which 6 hectares is approved for landfilling.

For the purpose of this environmental compliance approval, the following definitions apply:

"Approval" or "ECA" means this Environmental Compliance Approval and any Schedules to it, including the application and supporting documentation listed in Schedule "A";

"Contaminating Life Span" means contaminating life span as defined in Ontario Regulation 232/98;

"Design and Operations Report" means the Design and Operations Report Vertical Expansion, Brooks Road Landfill Site, Prepared by GHD, April 18, 2019 that was submitted in support of the Approval

"Director" means any Ministry employee appointed in writing by the Minister pursuant to section 5 of the EPA as a Director for the purposes of Part II.1 of the EPA;

"District Manager" means the District Manager of the local district office of the Ministry in which the Site is geographically located;

"EPA" means Environmental Protection Act, R.S.O. 1990, c. E. 19, as amended;

"Improvement Area" means the area of Brooks Road, between Highway #3 (also known as Talbot Road) and Townline Road;

"Ministry" means the Ontario Ministry of the Environment, Conservation and Parks;

"NMA" means Nutrient Management Act, 2002, S.O. 2002, c. 4, as amended;

"Odour Management Plan" means a document which describes the measures to minimize odour emissions from the Site;

"Operator" means any person, other than the Owner's employees, authorized by the Owner as having the charge, management or control of any aspect of the Site and includes its successors or assigns;

"Owner" means any person that is responsible for the establishment or operation of the Site being approved by this Approval, and includes 2270386 Ontario Limited and its successors and assigns;

"OWRA" means the Ontario Water Resources Act, R.S.O. 1990, c. O.40, as amended;

"PA" means the Pesticides Act, R.S.O. 1990, c. P-11, as amended;

"Provincial Officer" means any person designated in writing by the Minister as a provincial officer pursuant to Section 5 of the OWRA, Section 5 of the EPA, Section 17 of the PA, Section 4 of the NMA, or Section 8 of the SDWA;

"Refrigerant Appliances" means household appliances which use, or may use refrigerants, and which include, but is not restricted to, refrigerators, freezers and air-conditioning systems;

"Regional Director" means the Regional Director of the local Regional Office of the Ministry in which the Site is located;

"Regulation 232" means Ontario Regulation 232/98 - Landfilling Sites made under the EPA, as amended;

"Regulation 347" or "Reg. 347" means means Regulation 347, R.R.O. 1990, General - Waste Management, made under the EPA, as amended;

"Regulation 406" means means Regulation 406/19, R.S.O. 1990, On-site and Excess Soil Management, made under the EPA, as amended;

"Regulation 558" means Ontario Regulation 558/00 - General Waste Management, made under the EPA, as amended;

"Regulation 903" means Regulation 903 - Wells, R.R.O. 1990, made under the OWRA, as amended;

"SDWA" means Safe Drinking Water Act, 2002, S.O. 2002, c. 32, as amended;

“Site” means the entire waste disposal site, including the buffer lands, at the Brooks Road Landfill Site, Lot 24, Concession 1 North, Haldimand County; and

“Trained Personnel” means personnel knowledgeable in the following through instruction and/or practice:

- a. relevant waste management legislation, regulations and guidelines;
- b. major environmental concerns pertaining to the waste to be handled;
- c. occupational health and safety concerns pertaining to the processes and wastes to be handled;
- d. management procedures including the use and operation of equipment for the processes and wastes to be handled;
- e. emergency response procedures;
- f. specific written procedures for the control of nuisance conditions;
- g. specific written procedures for refusal of unacceptable waste loads; and
- h. the requirements of this Approval.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL

Compliance

- (1) This Approval revokes all previous Approvals and Notices of Amendment issued under Part V of the Environmental Protection Act for this Site. The approval given herein, including the terms and conditions set out, replaces all previously issued Approvals and related terms and conditions under Part V of the Act for this Site.
- (2) The Owner and Operator shall ensure compliance with all the conditions of this Approval and shall ensure that any person authorized to carry out work on or operate any aspect of the Site is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
- (3) Any person authorized to carry out work on or operate any aspect of the Site shall comply with the conditions of this Approval.

In Accordance

- (4) Except as otherwise provided by this Approval, the Site shall be designed, developed, built, operated and maintained in accordance with the documentation listed in the attached Schedule “A”.
- (5) 1. Construction and installation of aspects described in Schedule "A" must be completed within 5 years of the later of:

- (a) the date this Approval is issued; or
 - (b) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.
2. This Approval ceases to apply in respect of the aspects of the Site noted above that have not been constructed or installed before the later of the dates identified in Condition 1(5)1.

Interpretation

- (6) Where there is a conflict between a provision of any document listed in Schedule "A" in this Approval, and the conditions of this Approval, the conditions in this Approval shall take precedence.
- (7) Where there is a conflict between the application and a provision in any document listed in Schedule "A", the application shall take precedence, unless it is clear that the purpose of the document was to amend the application and the Ministry approved the amendment.
- (8) Where there is a conflict between any two documents listed in Schedule "A", the document bearing the most recent date shall take precedence.
- (9) The conditions of this Approval are severable. If any condition of this Approval, or the application of any condition of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

Other Legal Obligations

- (10) The issuance of, and compliance with, this Approval does not:
 - (a) relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement; and
 - (b) limit in any way the authority of the Ministry to require certain steps be taken or to require the Owner and Operator to furnish any further information related to compliance with this Approval.

Adverse Effect

- (11) The Owner and Operator shall take steps to minimize and ameliorate any adverse effect on the natural environment or impairment of water quality resulting from the present, past and historical operations at the Site. Such steps may include accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.
- (12) Despite an Owner, Operator, or any other person fulfilling any obligations imposed by this Approval, the person remains responsible for any contravention of any other condition of this Approval or any applicable statute, regulation, or other legal requirement resulting from any act or omission that caused the adverse effect to the natural environment or impairment of water quality.
- (13) At no time shall the Owner or Operator allow the discharge of a contaminant that causes or is likely to

cause an adverse effect.

Change of Ownership

- (14) The Owner shall notify the Director, in writing, and forward a copy of the notification to the District Manager, within 30 days of the occurrence of any changes in the following information:
 - (a) the ownership of the Site;
 - (b) the Operator of the Site;
 - (c) the address of the Owner or Operator; and
 - (d) the partners, where the Owner or Operator is or at any time becomes a partnership and a copy of the most recent declaration filed under the Business Names Act, R. S. O. 1990, c. B.17, shall be included in the notification.
- (15) No portion of this Site shall be transferred or encumbered prior to or after closing of the Site unless the Director is notified in advance and sufficient financial assurance is deposited with the Ministry to ensure that these conditions will be carried out.
- (16) In the event of any change in ownership of the Site, other than change to a successor municipality, the Owner shall notify the successor of and provide the successor with a copy of this Approval, and the Owner shall provide a copy of the notification to the District Manager and the Director.

Registration on Title Requirement

- (17) Prior to dealing with the property in any way, the Owner shall provide a copy of this Approval and any amendments, to any person who acquires an interest in the property as a result of the dealing.
- (18)
 - (a) If not already completed, within ninety (90) calendar days from the date of issuance of this Approval, the Owner shall submit to the Director a completed Certificate of Requirement which shall include:
 - (i) a plan of survey prepared, signed and sealed by an Ontario Land Surveyor, which shows the area of the Site where waste has been and is to be deposited at the Site;
 - (ii) proof of ownership of the Site;
 - (iii) a letter signed by a member of the Law Society of Upper Canada or other qualified legal practitioner acceptable to the Director, verifying the legal description provided in the Certificate of Requirement;
 - (iv) the legal abstract of the property; and
 - (v) any supporting documents including a registerable description of the Site.
 - (b) If not already completed, within fifteen (15) calendar days of receiving a Certificate of Requirement authorized by the Director, the Owner shall:
 - (i) register the Certificate of Requirement in the appropriate Land Registry Office on the title to the property; and
 - (ii) submit to the Director and the District Manager, written verification that the Certificate of Requirement has been registered on title.

Registration on Title Requirement - Contaminant Attenuation Zone (CAZ)

- (19) Within thirty (30) calendar days from the date of establishing a contaminant attenuation zone (CAZ) (overburden and/or bedrock aquifers) in either fee simple or by way of a groundwater easement, the Owner shall submit to the Director a completed Certificate of Requirement which shall include:
- (a) If rights are obtained in fee simple, the Owner shall provide:
 - (i) documentation evidencing ownership of the CAZ obtained in compliance with Regulation 232, as amended;
 - (ii) a completed Certificate of Requirement and supporting documents containing a registerable description of the CAZ; and
 - (iii) a letter signed by a member of the Law Society of Upper Canada; or other qualified legal practitioner acceptable to the Director, verifying the legal description of the CAZ.
 - (b) within fifteen (15) calendar days of receiving a Certificate of Requirement signed or authorized by the Director, the Owner shall:
 - (i) register the Certificate of Requirement in the appropriate Land Registry Office on the title to the property; and
 - (ii) submit to the Director and the District Manager, a written verification that the Certificate of Requirement has been registered on title.
 - (c) If rights are obtained by way of a groundwater easement, the Applicant shall:
 - (i) provide a copy of the agreement for the easement;
 - (ii) provide a plan of survey signed and sealed by an Ontario Land Surveyor for the CAZ; and
 - (iii) submit proof of registration on title of the groundwater easement to the Director and District Manager;
 - (d) The Owner shall not amend, or remove, or consent to the removal of the easement or CAZ from title without the prior written consent of the Director.

Inspections by the Ministry

- (20) No person shall hinder or obstruct a Provincial Officer from carrying out any and all inspections authorized by the OWRA, the EPA, the PA, the SDWA or the NMA, of any place to which this Approval relates, and without limiting the foregoing:
- (a) to enter upon the premises where the approved works are located, or the location where the records required by the conditions of this Approval are kept;
 - (b) to have access to, inspect, and copy any records required to be kept by the conditions of this Approval;
 - (c) to inspect the Site, related equipment and appurtenances;
 - (d) to inspect the practices, procedures, or operations required by the conditions of this Approval; and
 - (e) to sample and monitor for the purposes of assessing compliance with the terms and conditions of this Approval or the EPA, the OWRA, the PA, the SDWA or the NMA.

Information and Record Retention

- (21) (a) Except as authorized in writing by the Director, all records required by this Approval shall be retained at the Site for a minimum of two (2) years from their date of creation.

- (b) The Owner shall retain all documentation listed in Schedule "A" for as long as this Approval is valid.
 - (c) All information and logs required in Conditions 9(1), 10(1), 11(3), 11(4), 12(3), and 12(4) shall be kept at the Site until they are included in the Annual Report.
 - (d) The Owner shall retain employee training records as long as the employee is working at the Site.
 - (e) The Owner shall make all of the above documents available for inspection upon request of Ministry staff.
- (22) The receipt of any information by the Ministry or the failure of the Ministry to prosecute any person or to require any person to take any action under this Approval or under any statute, regulation or other legal requirement, in relation to the information, shall not be construed as:
- (a) an approval, waiver, or justification by the Ministry of any act or omission of any person that contravenes any term or condition of this Approval or any statute, regulation or other legal requirement; or
 - (b) acceptance by the Ministry of the information's completeness or accuracy.
- (23) The Owner shall ensure that a copy of this Approval, in its entirety and including all its Notices of Amendment, and documentation listed in Schedule "A", are retained at the Site at all times.
- (24) Any information related to this Approval and contained in Ministry files may be made available to the public in accordance with the provisions of the Freedom of Information and Protection of Privacy Act, RSO 1990, CF-31.

2. FINANCIAL ASSURANCE

- (1) (a) Within twenty (20) days of issuance of this Notice, the Owner shall submit to the Director, Financial Assurance as defined in Section 131 of the Environmental Protection Act, in the amount of **\$8,371,282.00**. This Financial Assurance shall provide sufficient funds for the closure and post-closure care/monitoring of the Site.
- (i) The total amount of financial assurance specified in Condition 2(1)(a) shall be updated by the *Owner*, as follows, by the specified dates:
 - i. October 1, 2021 - **\$9,956,333.00**
 - ii. October 1, 2022 - **\$11,541,383.00**
 - iii. October 1, 2023 - **\$10,424,285.00**
 - iv. October 1, 2024 - **\$10,097,075.00**
- (b) Commencing on October 1, 2023 and on a three (3) year basis thereafter, the Owner shall provide to the Director a re-evaluation of the amount of the Financial Assurance to facilitate the actions required under Condition 2(1)(a). The re-evaluation shall include an assessment based on any new information relating to the environmental conditions of the Site and shall include the costs of additional monitoring and/or implementation of alternative measures required by the Director upon review of the annual reports. The Financial Assurance must be submitted to the Director within twenty (20) days of written acceptance of the re-evaluation by the Director;

- (c) The amount of Financial Assurance is subject to review at any time by the Director and may be amended at his/her discretion. If any Financial Assurance is scheduled to expire or notice is received, indicating Financial Assurance will not be renewed, and satisfactory methods have not been made to replace the Financial Assurance at least sixty (60) days before the Financial Assurance terminates, the Owner shall forthwith replace the Financial Assurance with cash.

3. SITE OPERATION

Operation

- (1) The Site shall be operated and maintained at all times including management and disposal of all waste, in accordance with the EPA, Regulation 347, Regulation 232, and the conditions of this Approval.

Service Area

- (2) Waste categories of Industrial, Commercial and Institutional ("ICI waste"), generated from within the geographic boundaries of the Province of Ontario may be received for disposal at this Site.

Waste Types

- (3) Only solid non-hazardous ICI waste, including contaminated soils, and processed organic waste (e.g., dewatered sewage sludge from the Caledonia Sewage Treatment Plant), shall be received for disposal at this Site. No hazardous waste or liquid industrial waste, as defined in Reg. 347, as amended by Reg. 558/00, shall be disposed at this Site.
- (4) The Owner shall develop and implement a program to inspect waste to ensure that the waste received at the Site is of a type approved for acceptance under this Approval.
- (5) The Owner shall ensure that all loads of waste are properly inspected by Trained Personnel prior to acceptance at the Site and that the waste vehicles are directed to the appropriate areas for disposal or transfer of the waste. The Owner shall notify the District Manager, in writing, of load rejections at the Site within one (1) business day from their occurrence.

Approved Waste Quantities

- (6) The maximum volumetric capacity for the Site including waste and daily cover shall not exceed 1,045,065 cubic metres.
- (7) The Owner shall ensure that the waste received at the Site does not exceed:
- (a) a total of 151,000 tonnes in any calendar year; and
 - (b) the daily maximum received at the site does not exceed 1,000 tonnes.

Waste Placement

- (8) No waste shall be landfilled outside of the approved six (6) hectare footprint fill area. The site shall be developed, maintain established buffer areas, and adhere to final contours for waste and final cover material in accordance with the design drawings provided in Appendix L of the Design and Operations Report.
- (a) The maximum elevation of the fill zone, including final cover, shall be 221.50 metres above mean sea level.

Signage

- (9) A sign shall be installed and maintained at the main entrance/exit to the Site on which is legibly displayed the following information:
- (a) the name of the Site and Owner;
 - (b) the number of the Approval;
 - (c) the name of the Operator;
 - (d) the normal hours of operation;
 - (e) the allowable and prohibited waste types;
 - (f) the telephone number to which complaints may be directed;
 - (g) a warning against unauthorized access;
 - (h) a twenty-four (24) hour emergency telephone number (if different from above); and
 - (i) a warning against dumping outside the Site.
- (10) All landfill signs shall be kept legible, in good repair, and cleaned when required.

Nuisance Control (Vermin, Vectors, Dust, Litter, Odour, Noise and Traffic)

- (11) The Site shall be operated and maintained such that vermin, vectors, dust, litter, odour, noise and traffic do not create a nuisance.
- (12) The Owner/Operator shall install visual screening berms, in accordance with the Design and Operations Report and shall inspect and maintain them as required, during the operating life of the landfill Site.
- (13) The Owner/Operator shall conduct inspections and ensure that appropriate controls are in place to prevent the acceptance of liquid industrial waste and hazardous waste and to prevent the acceptance of waste from outside the approved service area. Records of violations by haulers or waste generators shall be maintained in the daily records for the Site operations. The Owner/Operator shall ensure that any waste refused for disposal leaves the Site immediately, and the District Manager is notified forthwith, of all waste load refusals at the Site related to requirements in this Certificate, including service area and waste types.
- (14) The Owner/Operator shall ensure that the leachate collection system piping in the fill area and the connecting forcemain piping which leads to the leachate holding tank, shall be cleaned out at least once per year with a high pressure wash, and video inspections conducted, as necessary, to confirm that the pipes are clean and to determine the need for more frequent cleaning. Assessment of the need to amend the cleaning frequency shall be based on regular inspections of the leachate collection system and monitoring results.

- (15) A thickness of at least 5 metres of compacted waste and cover material shall be maintained between any landfilled sludge (solid non-hazardous as per Reg. 347) and the granular leachate collection layer and leachate monitoring wells.
- (16) The Owner/Operator shall take all reasonable steps to prevent off-site nuisance impacts, including visual impacts, transfer of waste, mud, or dust from the Site onto public roads due to landfill operations.

Burning of Waste

- (17) Burning of waste at the Site is prohibited.

Scavenging

- (18) Scavenging (as defined in Reg. 347) of deposited and/or stockpiled waste is prohibited at the Site. Controlled removal of recycleable/reusable material from the Site may only occur in a designated paved area on the Site, and shall be supervised by Trained Personnel.

Hours of Operation

- (19) The permitted hours of operation for the site are from 6:00 a.m. to 6:00 p.m., Monday to Friday, and from 6:00 a.m. to 2:00 p.m. on Saturdays, for site preparation, site maintenance and daily cover activities. The operating hours for receipt of waste for disposal at the Site shall be from 7:00 a.m. to 5:00 p.m., Monday to Friday, and from 7:00 a.m. to 1:00 p.m., on Saturdays. No operations shall take place at the Site outside of the stated hours and the Site shall be closed on statutory holidays.
- (20) The hours of operation may be amended from time to time to accommodate seasonal or unusual demand, based on prior consultation with the PLC and written concurrence from the District Manager.

Site Security

- (21) No waste shall be received, landfilled or removed from the Site unless a site supervisor or other Trained Personnel are present to supervise the operations during operating hours. The Site shall be closed when a supervisor or Trained Personnel are not present to supervise operations at the Site.
- (22) The Site shall be operated and maintained in a safe and secure manner. During non-operating hours, the Site entrance and exit gates shall be locked and the Site shall be secured against access by unauthorized persons.

Cover Material

- (23) Alternative materials to soil may be used as weekly and interim cover material, based on an application with supporting information and applicable fee for a trial use or permanent use, submitted by the Owner to the Director, copied to the District Manager and as approved by the Director via an amendment to this Approval. The alternative material shall be non-hazardous according to Regulation 347 and will be expected to perform at least as well as soil in relation to the following functions:

- (a) control of blowing litter, odours, dust, landfill gas, gulls, vectors, vermin and fires;
- (b) provision for an aesthetic condition of the landfill during the active life of the Site;
- (c) provision for vehicle access to the active tipping face; and
- (d) compatibility with the design of the Site for groundwater protection, leachate management and landfill gas management.

(24) Daily, interim and final cover material shall be shall be applied as follows:

- a. Daily Cover - At the end of each working day, the entire working face shall be compacted and covered with a minimum thickness of 150 mm of soil cover, compost, wood chips, or other approved daily cover material. Prior to placing waste at the start of the next operating day, the existing daily cover material shall be scarified or removed to the extent practical, to ensure vertical hydraulic connection is maintained between layers of waste and to promote percolation of leachate downwards to the leachate collection system.
- b. Interim Cover - In areas where landfilling ceases temporarily for a period of 6 months or more, a minimum thickness of 300 mm of soil shall be placed as interim cover and graded to promote surface water runoff. The quality of soil for use as interim cover shall, as a minimum, meet the standards specified in Table 3 of Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act. Prior to the use of interim cover soil, representative samples shall be taken and analysed for metals, Volatile Organic Compounds (VOCs) and PAHs, to confirm the soil meets the above-mentioned standards.
- c. Final Cover - Final cover shall be applied progressively as areas of the landfill reach final waste elevations within the fill area. Prior to placement of final cover, the Owner/Operator shall submit for the approval of the Director, a report detailing the specifications, including particle size distribution of the final cover soil which shall confirm the designed infiltration rate of 0.15 m/year, as well as the protocols for testing and acceptance for on-site and off-site final cover soils. All areas of final cover shall be graded and vegetated as soon as practically possible. The final soil cap shall be regularly inspected and maintained after the installation and during the post-closure period. Without limiting the above, the Owner/Operator shall ensure for a minimum of five years after completion of the cap that the Site shall be inspected at least on a quarterly basis to ensure that there is positive drainage along the cap and that during the frost free period of the first two years following completion, such inspections shall be monthly. If any inspection indicates that there is an area of ponding or zero slope, the Owner/Operator shall take all steps necessary to provide positive drainage and rehabilitate the final cover as soon as practically possible.
- d. All on-site and excess soil used for daily, interim, and final cover shall be managed in accordance with Regulation 406.

Traffic Control

- (25) The Owner/Operator shall ensure that vehicles carrying waste or materials to and from the Site shall only enter the Site from Highway #3 and Brooks Road. At no time shall any vehicle carrying waste or materials to and from the Site travel along Townline Road to access the Site.
- (26) The Owner/Operator shall be responsible for maintenance and remedial work to the Improvement Area.

The Improvement Area shall be maintained to the following minimum requirements:

(a) 300 mm thick granular "A" layer of gravel, meeting all applicable Haldimand County and Ontario Provincial Standards Specification (OPSS) to the Improvement Area; and

(b) Maintain asphalt on the entranceway/exit to the landfill and the parking area for the landfill Site, as well as 30 metres of the road approach on Brooks Road to the entranceway/exit to the Site, extending both north and south of the entranceway/exit, in base asphalt and top coat. The thickness of asphalt shall be a base coarse of 60 mm (HL8), and a surface coarse of 50 mm (HL3).

Odour Management

- (27) Within ninety (90) days from the issuance of this Approval, the Owner shall submit to the District Manager for approval, an Odour Management Plan that includes mitigation measures to minimize off-Site odour impacts, and if appropriate, a trigger mechanism and contingency plan.
- (28) The Odour Management Plan shall be reviewed on an annual basis as part of the Annual Report.
- (29) If there is any odour complaint, or significant odour is detected during daily inspection, and the odour is confirmed to originate from the Site, mitigation measures shall be implemented immediately in accordance with the Odour Management Plan approved by the District Manager.
- (30) If odour causes adverse off-site impacts that are not mitigated through implementation of odour mitigation measures according to the Odour Management Plan, the Owner shall, upon written notification from the District Manager, conduct an investigation into the cause as to why the impacts were not mitigated and submit to the District Manager within the time frame identified in the notice, an assessment of the issues and the need for implementation of contingency actions in accordance with the Odour Management Plan.
- (31) If the Ministry deems the odour mitigation measures taken as per Condition 3(29) to be unsuitable, insufficient or ineffective, the District Manager may direct the Owner, in writing, to propose further measures to address the noted failure, upset or malfunction, which may include requiring a reduction in the receipt of waste, cessation of the receipt of waste, removal and disposal of waste from the waste diversion area, the removal of leachate from the Site in accordance with Condition 5(5), as well as, making repairs or modifications to equipment or processes. Such measures shall be implemented by the Owner upon approval by the District Manager.
- (32) If the cessation of the receipt of waste is required, as determined by Condition 3(31), no waste shall be received at the Site until the District Manager is satisfied that odour impacts have been adequately mitigated.

4. GROUNDWATER AND SURFACE WATER MONITORING

Compliance

- (1) The Site shall be operated in such a way as to ensure compliance with the following:
 - (a) Reasonable Use Guideline B-7 for the protection of the groundwater at the Site; and
 - (b) Provincial Water Quality Objectives included in the July 1994 publication entitled *Water Management Policies, Guidelines, Provincial Water Quality Objectives*, as amended from time to time, or limits set by the Regional Director, or the *Canadian Water Quality Guidelines* published by the Canadian Council of Ministers of the Environment, 1999 for the protection of the surface water at and off the Site.

Surface Water and Groundwater

- (2) The Owner shall monitor surface water and groundwater in accordance with the environmental monitoring program outlined in Schedule "B".
- (3) A certified Professional Geoscientist or Engineer possessing appropriate hydrogeologic and hydrologic training and experience shall execute or directly supervise the execution of the environmental monitoring and reporting program.

Groundwater Wells and Monitors

- (4) The Owner shall ensure that all groundwater monitoring wells which form part of the monitoring program are properly capped, locked and protected from damage and maintained in accordance with Regulation 903.
- (5) Where landfilling is to proceed around monitoring wells, suitable extensions shall be added to the wells and the wells shall be properly re-secured.
- (6) Any groundwater monitoring well included in the on-going monitoring program that is damaged shall be assessed, repaired, replaced or decommissioned by the Owner, as required.
 - (a) The Owner shall repair or replace any monitoring well which is destroyed or in any way made to be inoperable for sampling such that no more than one regular sampling event is missed.
 - (b) All monitoring wells which are no longer required as part of the groundwater monitoring program, and have been approved by the Director or the District Manager for abandonment, shall be decommissioned by the Owner, as required, in accordance with Regulation 903, to prevent contamination through the abandoned well. A report on the decommissioning of the well shall be included in the Annual Report for the period during which the well was decommissioned.

Trigger Mechanisms and Contingency Plans

- (7) In the event of a confirmed exceedance of a site-specific trigger level relating to groundwater or surface water impacts due to leachate, the Owner shall immediately notify the District Manager, and an investigation into the cause and the need for implementation of remedial or contingency actions shall be

carried out by the Owner in accordance with the approved trigger mechanisms and associated contingency plans provided in Appendix J of the Design and Operations Report.

- (8) If monitoring results, investigative activities and/or trigger mechanisms indicate the need to implement contingency measures, the Owner shall ensure that the following steps are taken:
 - (a) the Owner shall notify the District Manager, in writing of the need to implement contingency measures, no later than seven (7) days after confirmation of the exceedances;
 - (b) within thirty (30) days from the date of confirming the need to implement contingency measures, detailed plans, specifications and descriptions for the design, operation and maintenance of the contingency measures shall be prepared and submitted by the Owner to the Director for approval; and
 - (c) the contingency measures shall be implemented by the Owner upon approval by the Director.
- (9) The Owner shall ensure that any proposed changes to the site-specific trigger levels for leachate impacts to surface water or groundwater, are approved in advance by the Director via an amendment to this Approval.

Changes to the Monitoring Plan, Trigger Mechanism and Contingency Plan

- (10) The Owner may request to make changes to the environmental monitoring program, Trigger Mechanism and Contingency Plan to the District Manager in accordance with the recommendations of the annual report. The Owner shall make clear reference to the proposed changes in a separate letter that shall accompany the annual report.
- (11) Within fourteen (14) days of receiving the written correspondence from the District Manager confirming that the District Manager is in agreement with the proposed changes to the environmental monitoring program, the Owner shall forward a letter identifying the proposed changes and a copy of the correspondences from the District Manager and all other correspondences and responses related to the changes to the monitoring program, to the Director requesting the Approval be amended to approve the proposed changes to the environmental monitoring plan prior to implementation.
- (12) In the event any other changes to the environmental monitoring program are proposed outside of the recommendation of the annual report, the Owner shall follow current Ministry procedures for seeking approval for amending the Approval.

5. LEACHATE MANAGEMENT AND DISPOSAL

- (1) Leachate generated at the landfill Site shall be collected, treated and disposed of using the on-site Leachate Treatment System, in accordance with the terms and conditions of the Industrial Sewage Works Approval No. 1122-BKUPSM dated February 3, 2020, as amended.
 - (a) Notwithstanding Condition 5(1), leachate generated at the landfill Site that is not treated using the on-site Leachate Treatment System shall be removed to an off-site facility that is approved by the Ministry to treat leachate generated at the landfill Site.

- (2) Leachate generated at the landfill Site that is not treated using the on-site Leachate Treatment System shall not be discharged to the natural environment at any time.
- (3) Any alternative proposal for leachate management and disposal must receive prior written approval of the District Manager.
- (4) The Owner shall reduce the level of leachate within the landfill to an elevation 191 metres above mean sea level (AMSL), which equates to an average leachate depth of no greater than 0.3 metres, by the earlier of:
 - (a) five (5) years from the issuance date of this ECA; or
 - (b) the date the landfill reaches capacity.
- (5) In addition to the requirements of Condition 5(4), the interim annual leachate elevation levels and interim landfill capacity-based leachate elevations shall be adhered to pursuant to Schedules "C" and "D" respectively.
 - (a) The leachate elevation, as determined by the pressure transducer located in the leachate collection sump riser pipe shall be used to establish the landfill leachate elevation. The leachate elevation will be considered in compliance with the target leachate elevations if the measurement meets the elevations stated in Schedules "C" and "D" within fifteen (15) days of the compliance date.
- (6) The Owner shall implement the leachate management contingency measures in the report titled "Leachate Removal Plan, Brooks Road Landfill Site, Haldimand County, 2270386 Ontario Limited", prepared February 7, 2020, as amended, as necessary to meet the leachate elevations in Schedules "C" and "D".
 - (a) if the leachate elevations in Schedules "C" and "D" are not met within 105 days of the anniversary date of the issuance of this Approval the Owner shall cease accepting waste at the Site and immediately undertake the following actions until the leachate elevation is below the leachate elevation in Schedules "C" and "D":
 - (i) notify the District Manager;
 - (ii) increase trucking of raw leachate to an off-Site facility approved to accept leachate from the Site;
 - (iii) increase trucking of treated leachate from the on-Site leachate treatment system to an off-Site facility approved to accept treated leachate from the Site;
 - (iv) install interim cover to cells that have not reached final waste contours and to the working face;
 - (v) install final cover to cells that have reached final waste contours;
 - (vi) establish vegetation on installed cover material where appropriate and weather permitting; and
 - (vii) provide a plan to the District Manager regarding additional contingency measures deemed to be appropriate.

- (b) landfilling activities may commence again when the compliance leachate elevation has been attained; and
 - (c) prior to amending the Leachate Removal Plan proposed amendments shall be submitted to the District Manager for approval.
- (7) If the leachate elevation in the landfill reaches 199.0 metres AMSL, the Owner shall cease accepting waste at the Site and immediately undertake the following actions until the leachate elevation is below 199.0 metres AMSL:
- (a) notify the District Manager;
 - (b) increase trucking of raw leachate to an off-Site facility approved to accept leachate from the Site;
 - (c) increase trucking of treated leachate from the on-Site leachate treatment system to an off-Site facility approved to accept treated leachate from the Site;
 - (d) install interim cover to cells that have not reached final waste contours and to the working face;
 - (e) install final cover to cells that have reached final waste contours;
 - (f) establish vegetation on installed cover material where appropriate and weather permitting; and
 - (g) provide a plan to the District Manager regarding additional contingency measures deemed to be appropriate.
- (8) The Owner shall monitor leachate in accordance with the monitoring program outlined in Schedule "B".

6. LANDFILL GAS MANAGEMENT

- (1) The Owner/Operator shall ensure that all buildings and structures containing enclosed spaces at the Site, shall be situated, constructed and monitored in a manner which minimizes the potential for explosive hazards due to landfill gas. The Owner/Operator shall install and maintain in good working condition, methane detection and alarm equipment (with active venting or with an effective passive venting system to relieve any possible landfill gas accumulation) for all enclosed buildings at the Site.
- (2) The Owner/Operator shall ensure that site design plans, specifications and descriptions for the control of landfill gas are such that the subsurface migration of landfill gas meets the requirements of the Ministry's Landfill Standards Guideline, Section 4.10, including but not limited to the following:
- (a) the concentration of methane gas below the ground surface at the Site boundary must be less than 2.5 per cent by volume;
 - (b) the concentration of methane gas in any on-Site building or enclosed structure, and in the area immediately outside the foundation or basement floor of the building or structure, if the building or structure is accessible to any person or contains electrical equipment or a potential source of ignition, must be less than 1.0 per cent by volume;
 - (c) sub-condition (b) does not apply to a leachate collection, storage or treatment facility or a landfill gas collection or treatment facility for which specific health and safety measures and procedures are in place relating to the risk of asphyxiation and the risk of explosion; and
 - (d) the concentration of methane gas from the Site in any off-Site building or enclosed structure, and in the area immediately outside the foundation or basement floor of the building or structure, must be less than 0.05 per cent by volume (i.e. not present).

- (3) If the measured gas concentration at a gas probe exceeds the applicable limit listed in Condition 6(2) above, the District Manager shall be notified immediately. The gas concentrations shall be re-measured immediately and daily for a period of up to three (3) consecutive days. If these readings confirm that the applicable limit has been exceeded, the Owner/Operator shall forthwith, implement appropriate control measures.
- (4) The Owner shall monitor landfill gas in accordance with the monitoring program outlined in Schedule "B".

7. STORMWATER MANAGEMENT

- (1) Stormwater runoff generated from the active waste fill area shall be treated by the Owner/Operator as leachate. The Owner/Operator shall ensure that any precipitation falling onto active waste fill areas, not under interim cover, shall be directed to the leachate collection system. If necessary, granular sumps shall be dug into the waste to facilitate drainage of contaminated stormwater towards the leachate collection system.
- (2) The Owner shall monitor the stormwater management pond in accordance with the monitoring program outlined in Schedule "B".

8. EMPLOYEE TRAINING

- (1) A training plan for all employees that operate any aspect of the Site shall be developed and implemented by the Owner or the Operator. Only Trained Personnel shall operate any aspect of the Site or carry out any activity required under this Approval.
- (2) The Owner shall ensure that all site operations employees have been adequately trained and received on-going training with respect to the following, but not limited to:
 - (a) terms, conditions and operating requirements of this Approval for the Site;
 - (b) the operation, inspection, and maintenance of the Site with respect to the approved design and operations documents;
 - (c) relevant waste management legislation and regulations;
 - (d) environmental concerns related to waste management at the Site;
 - (e) occupational Health and Safety concerns related to waste management at the Site; and
 - (f) emergency procedures and contingency plans in case of fire, spills, off-site impacts and any other emergency situations.

9. COMPLAINTS RESPONSE PROCEDURE

- (1) If at any time the Owner receives complaints regarding the operation of the Site, the Owner shall respond to these complaints according to the following procedure:

- (a) The Owner shall record and number each complaint, either electronically or in a log book, and shall include the following information: the nature of the complaint, the name, address and the telephone number of the complainant if the complainant will provide this information and the time and date of the complaint;
- (b) The Owner, upon notification of the complaint, shall initiate appropriate steps to determine possible causes of the complaint, proceed to take the necessary actions to eliminate the cause of the complaint and forward a written reply to the complainant; and
- (c) The Owner shall complete and retain on-site a report written within one (1) week of the complaint date, listing the actions taken to resolve the complaint and recommendations, if any, for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents.

10. EMERGENCY AND SPILL RESPONSE

- (1) All Spills as defined in the EPA occurring at or from the Site shall be immediately reported to the **Ministry's Spills Action Centre at 1-800-268-6060** and shall be recorded in the log book. The Owner/Operator shall record for each Spill event the contaminant(s) spilled, the quantity or volume of contaminants spilled, the spatial distribution of the area impacted by the Spill, a root cause analysis of the events leading up to the Spill and a list of actions designed to prevent similar Spill events.
- (2) In addition, the Owner shall submit, to the District Manager a written report within three (3) business days of the Spill event, outlining the nature of the incident, remedial measures taken, handling of waste generated as a result of the emergency situation and the measures taken to prevent future occurrences at the Site.
- (3) All wastes resulting from a Spill event shall be managed and disposed of in accordance with the EPA and Regulation 347.
- (4) All equipment and materials required to handle the Spill event shall be:
 - (a) kept on hand at all times that waste landfilling and/or handling is undertaken at the Site; and
 - (b) adequately maintained and kept in good repair.
- (5) The Owner shall ensure that the emergency response personnel are familiar with the use of such equipment and its location(s).

11. PUBLIC LIAISON COMMITTEE (PLC)

- (1) The Owner or Operator shall maintain and participate in a landfill PLC, which shall function in accordance with the Terms of Reference for the PLC, as amended from time to time. Any amendment to the Terms of Reference must be approved by the District Manager. The PLC shall serve as a forum for dissemination, consultation, review and exchange of information regarding the operation of the landfill Site, including environmental monitoring, maintenance, complaint resolution, and new approvals or amendments to existing approvals related to the operation of this landfill Site.

- (2) The Owner/Operator shall invite representation from the following groups to participate on the PLC:
- (a) the County of Haldimand;
 - (b) Six Nations of the Grand River;
 - (c) landowners within a minimum 500 metre distance of the Site;
 - (d) residents of Haldimand County; and
 - (e) Lower Grand River Land Trust.

The number of representatives from each group shall be as specified in the Terms of Reference approved by the District Manager.

- (3) Copies of all reports or other submissions required by the conditions of this Approval shall be made available to the PLC and the County of Haldimand, in accordance with the deadlines specified in the Conditions.
- (4) The Owner or Operator shall provide to the PLC and the County of Haldimand, reasonable notice and opportunities to make comments regarding any proposed amendment to this Approval. The Owner or Operator shall forward to the Director for consideration any written comments received by the Owner or Operator and advise the Director of the essence of any verbal comments received by the Owner or Operator regarding the proposed amendment.

12. INSPECTIONS, RECORD KEEPING AND REPORTING

Daily Inspections and Inspection Log

- (1) A visual inspection of the entire Site and all equipment on the Site shall be conducted each day the Site is open to ensure that:
- (a) the Site is secure;
 - (b) the operation of the Site is not causing any nuisances;
 - (c) the operation of the Site is not causing any adverse effects on the environment or impairing water quality; and
 - (d) the Site is being operated in compliance with this Approval.
- (2) Any deficiencies discovered as a result of the inspection shall be remedied immediately, including temporarily ceasing operations at the Site if needed.
- (3) An electronic or written record of the inspections shall be maintained and shall include the following:
- (a) the name and signature of person that conducted the inspection;
 - (b) the date and time of the inspection;
 - (c) the list of all deficiencies discovered during the inspections, including but not limited to:
 - (i) the presence of any leachate seeps;
 - (ii) the condition of the methane venting system;
 - (iii) poor drainage conditions and ponding of surface water; and
 - (iv) the presence of waste outside of the approved fill area;

- (d) the recommendations for remedial action to address the identified deficiencies; and
- (e) the date, time and description of the remedial actions taken.

Daily Waste Log

- (4) A daily log shall be maintained in written or electronic format and shall include the following information:
 - (a) the type, date and estimated quantity (tonnes) of all waste, including non-landfilled waste received at the Site;
 - (b) the type, date and estimated quantity (tonnes) of cover material applied at the Site;
 - (c) the area of the Site in which waste disposal operations are taking place;
 - (d) a record of litter collection activities and the application of any dust suppressants;
 - (e) a record of all refusals of waste shipments, the reason(s) for refusal, and the origin of the waste, if known; and
 - (f) a description of any out-of-service period of any control, treatment, disposal or monitoring facilities, the reasons for the loss of service, and action taken to restore and maintain service.

Other Information

- (5) Any information requested, by the Director, the District Manager or a Provincial Officer, concerning the Site and its operation under this Approval, including but not limited to any records required to be kept by this Approval shall be provided to the Ministry, upon request.

Annual Report

- (6) A written report on the development, operation and monitoring of the Site, shall be completed annually (the "Annual Report"). The Annual Report shall be submitted to the District Manager, by March 31st of the year following the period being reported upon.
- (7) The Annual Report shall include but not be limited to the following information:
 - (a) the results and an interpretive analysis of the results of all leachate, groundwater surface water and landfill gas monitoring, including an assessment of the need to amend the monitoring programs;
 - (b) an assessment on the Site's compliance with Guideline B7;
 - (c) an assessment of the operation and performance of all engineered facilities, the need to amend the design or operation of the Site, and the adequacy of and need to implement the Ministry approved contingency plans;
 - (d) site plans showing the existing contours of the Site; areas of landfilling operation during the reporting period; areas of intended operation during the next reporting period; areas of excavation during the reporting period; the progress of final cover, vegetative cover, and any intermediate cover application; facilities existing, added or removed during the reporting period; and site preparations and facilities planned for installation during the next reporting period;
 - (e) summaries of any actions taken for the odour management plan and compliance with the leachate removal plan;
 - (f) calculations of the volume of waste, daily and intermediate cover, and final cover deposited or

placed at the Site during the reporting period and a calculation of the total volume of Site capacity used during the reporting period;

- (g) a calculation of the remaining capacity of the Site or an estimate of the remaining Site life;
- (h) summary of total annual quantity (tonnes) of waste received at the Site;
- (i) a summary of any complaints received and the responses made;
- (j) a summary of the information included in the logs required by Conditions 9(1), 10(1), 11(3), 11(4), 11(5), and 12(2);
- (k) a summary of the daily waste log;
- (l) a discussion of any operational problems encountered at the Site and corrective action taken;
- (m) any changes to the Ministry approved Design and Operations Report and the Closure Plan that have been approved by the Director since the last Annual Report;
- (n) a report on the status of all monitoring wells and a statement as to compliance with Regulation 903;
- (o) a description and location of any leachate seeps identified during the daily inspection of the Site and the mitigative measures taken to address the presence of seeps;
- (p) a summary of the daily inspections conducted over the monitoring period;
- (q) any other information with respect to the Site which the District Manager may require from time to time;
- (r) a copy of the most current ministry approved monitoring programs in table format;
- (s) compliance status with all conditions of the Approval and the approved Design and Operations Plan;
- (t) a "Monitoring and Screening Checklist" completed and signed by a Qualified Professional; and
- (u) items identified in Section 7.7 Annual Progress Report of the Design and Operations Report;

13. CLOSURE PLAN

- (1) At least two (2) years prior to the anticipated date of closure of this Site, or when the Site reaches 90% capacity, whichever comes first, the Owner shall submit to the Director for approval, with copies to the District Manager, a detailed Site closure plan pertaining to the termination of landfilling operations at this Site, post-closure inspection, maintenance and monitoring, and end use. The plan shall include but not be limited to the following information:
 - (a) A plan showing Site appearance after closure;
 - (b) A description of the proposed end-use of the Site;
 - (c) Description of the procedures for closure of the Site, including:
 - i. advance notification of the public of the landfill closure;
 - ii. posting of a sign at the Site entrance indicating the landfill is closed and identifying any alternative waste disposal arrangements;
 - iii. completion, inspection and maintenance of the final cover and landscaping;
 - iv. site security;
 - v. removal of unnecessary landfill-related structures, buildings and facilities;
 - vi. final construction of any control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas; and
 - vii. a schedule indicating the time-period for implementing sub-conditions (i) to (vi) above.

- (d) Description of the procedures for post-closure care of the Site, including:
 - i. operation, inspection and maintenance of the control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas;
 - ii. record keeping and reporting; and
 - iii. complaint contact and response procedures;
 - (e) An assessment of the adequacy of and need to implement the contingency plans for leachate and landfill gas;
 - (f) An updated estimate of the contaminating life span of the Site, based on the results of the monitoring programs to date; and
 - (g) An update of the cost estimate for financial assurance and the amount which has been provided to the Director.
- (2) The Site shall be closed in accordance with the closure plan as approved by the Director.

The following Schedule "A" forms part of this Approval

Schedule "A"

1. Application for an amendment to ECA No. A110302 for a vertical expansion. Signed by Richard Weldon, Managing Partner, 2270386 Ontario Limited. Dated April 26, 2019. The application includes all supporting documentation and consists of the following:
 - i. Design and Operations Report Vertical Expansion, Brooks Road Landfill Site, 2270386 Ontario Inc., Prepared by GHD, April 18, 2019;
 - ii. Appendix A - Provisional CofA No. A110302 and Amendments;
 - iii. Appendix B - Site Preparation Reports;
 - iv. Appendix C - Site Legal Surveys;
 - v. Appendix D - Geotechnical Assessment;
 - vi. Appendix E - HELP Model Outputs;
 - vii. Appendix F - Hydrologic Modeling;
 - vii. Appendix G - Surface Water Supporting Engineering Calculations;
 - viii. Appendix H - Landfill Gas Production and Air Dispersion Modeling Results;
 - ix. Appendix I - Fugitive Odour Best Management Practices Plan and BRE Odour Complaint Response Procedure;
 - ix. Appendix J - Trigger Level Program;
 - ix. Appendix K - Financial Assurance Plan; and
 - ix. Appendix L - Design and Operations Report Drawings.
2. Leachate Removal Plan, Brooks Road landfill Site Haldimand County, 2270386 Ontario Limited. Report No 90. Prepared by GHD, February 7, 2020.

The following Schedule "B" forms part of this Approval

Schedule "B"

Table B1: Groundwater, Surface Water, Leachate and Landfill Gas Monitoring Programs

	Location	March	May	August	November
Groundwater ¹	OW1A-06	-	B ⁴	-	A ³
	OW1B-06	-	B	-	A
	OW3A-07	-	B	-	A
	OW3B-07	-	B	-	A
	OW5A-06	-	B	-	A
	OW5B-07	-	B	-	A
	OW8A-06	-	B	-	A
	OW8B-06	-	B	-	A
	OW8D-07 (Gypsum Mine)	-	B	-	WL - only ⁶
	OW8S-07 (Gypsum Mine)	-	B	-	WL - only
	OW9A-06	-	B	-	A
	OW9B-06	-	B	-	A
	MW1-03	-	WL - only	-	WL - only
	MW1A-07	-	B	-	A
	MW1B-07	-	B	-	A
	MW1D-07 (Gypsum Mine)	-	B	-	WL - only
	MW1S-07 (Gypsum Mine)	-	B	-	WL - only
	MW2-03	-	WL - only	-	WL - only
	MW2A-01	-	B	-	A
	MW2B-07	-	B	-	A
	MW2D-07 (Gypsum Mine)	-	B	-	WL - only
	MW2S-07 (Gypsum Mine)	-	B	-	WL - only
	MW3-03	-	WL - only	-	WL - only
	MW4A-09	-	WL - only	-	WL - only
	MW5A-09	-	B	-	A
	MW5B-09	-	B	-	A
	MW6A-07	-	B	-	A
	MW6B-07	-	B	-	A
	MW10A-18	-	B	-	A

	MW10B-18	-	B	-	A
	MW11A	-	B	-	A
	MW11B	-	B	-	A
	MW12A	-	B	-	A
	MW12B	-	B	-	A
Surface Water ²	SW1	C ⁵	B	C	B
	SW3	C	B	C	B
	SW4	C	B	C	B
	SW5	C	B	C	B
	SW6	C	B	C	B
	SW7	C	B	C	B
	SW8	C	B	C	B
	SW9	C	B	C	B
Leachate ⁷	Leachate Collection System Sump Riser Pipe	See Note #7	B	-	-
	LW1-17		-	-	-
Landfill Gas ⁸	GP-1A	See Note #8			
	GP-1B				
	GP-2A				
	GP-2B				
	GP-3A				
	GP-3B				
	GP-4A				
	GP-4B				
	GP-5				
	GP-6				
	GP-7				
	GP-8				
QA/QC	Groundwater Duplicate	-	B	-	A
	Surface Water Duplicate	C	B	C	B
	Field Blank	C	B	C	B

Notes:

1. Groundwater levels will be measured during May and November sampling events.
2. Surface water levels and flows will be measured for all sampling events.
3. **A - Indicator parameters (groundwater):** alkalinity, ammonia, barium, boron, calcium, chloride,

conductivity, iron, magnesium, nitrate, pH, sodium, TDS, sulphate, COD, and DOC.

4. **B - Metals:** aluminum, arsenic, barium, beryllium, boron, cadmium, total chromium, copper, iron, lead, magnesium, manganese, mercury, silver, sodium, zinc, vanadium, thallium, molybdenum, cobalt, nickel.

B - PAHs: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(j)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, benzo(ghi)perylene.

B - VOCs: chloromethane, vinyl chloride, bromomethane, chloroethane, trichlorofluoromethane, acetone, 1,1-dichloroethene, dichloromethane, trans-1,2-dichloroethene, methyl-t-butyl ether, 1,1-dichloroethane, methyl ethyl ketone, cis-1,2-dichloroethene, chloroform, 1,2-dichloroethane, 1,1,1-trichloroethane, carbon tetrachloride, benzene, 1,2-dichloropropane trichloroethene, bromodichloromethane, cis-1,3-dichloropropene, methyl isobutyl ketone, trans-1,3-dichloropropene, 1,1,2-trichloroethane, toluene, 2-hexanone, dibromochloromethane, 1,2-dibromoethane, tetrachloroethene, 1,1,1,2-tetrachloroethane, chlorobenzene, ethylbenzene, m,p,o-xylenes, bromoform, styrene, 1,1,2,2-tetrachloroethane, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene.

B - Inorganic chemistry parameters: alkalinity, ammonia, hardness, nitrate, nitrite, TKN, chloride, sulfates, DOC, TDS, suspended solids, phenol, BOD5, COD, pH, total phosphorus, potassium, conductivity, calcium.

5. **C - Indicator parameters (surface water):** alkalinity, ammonia, chloride, conductivity, iron, nitrate, nitrite, TKN, pH, total phosphorus, TDS, suspended solids, sulphate, BOD5, COD, phenol, temperature, and dissolved oxygen.
6. **WL - only:** water level or leachate level only.
7. **Leachate:** Leachate water levels shall be collected on a monthly basis at leachate monitoring well LW1-17 and the inclined leachate collection sump riser pipe, while an annual leachate chemistry sample is required to be collected in May from the collection sump. Compliance with the leachate level elevation shall be determined by the pressure transducer that is located in the leachate collection sump riser pipe.
8. **Landfill Gas:** Sampling is to occur monthly from December 1 to April 30 and quarterly from May through November for % lower explosive limit methane concentration of combustible gas, carbon dioxide, oxygen and balance gases, gas pressure, and water level.

The following Schedule "C" forms part of this Approval

Schedule "C"

Table C1: Target leachate elevations to reach leachate elevation 191 m AMSL based on the anniversary date of the issuance of this Approval.

Year (From Date of Issuance of this ECA)	Required Leachate Elevation (m AMSL)	Estimated Leachate Volume in Landfill (m ³)	Volume Removed in Excess of Generation (m ³)	Forecasted Leachate Generation Rate (m ³ /day)	LTS Discharge to Ditch (m ³ /day)	Required Average Excess Leachate Removal (m ³ /day)
0	198.5	40,000	-	44	45	0
1	196	28,000	12,000	44	45	32
2	193.8	18,000	10,000	42	45	24
3	192.1	10,000	8,000	44	45	21
4	191.3	4,000	6,000	45	45	16
5	191	2,000	2,000	49	45	9.5
6+	191	2,000	0	33	45	0

The following Schedule "D" forms part of this Approval

Schedule "D"

Table D1: Capacity-Based Target Leachate Elevations

Estimated Landfilled Volume (m ³)	Required Leachate Elevation (m AMSL)
680,000	197.9
710,000	197.4
740,000	196.8
770,000	196.2
800,000	195.7
830,000	195.1
860,000	194.5
890,000	193.9
920,000	193.4
950,000	192.8
980,000	192.2
1,010,000	191.7
1,040,000	191.1
1,045,065	191.0

The reasons for the imposition of these terms and conditions are as follows:

Conditions 1(1), 1(2), 1(4), 1(5), 1(6), 1(7), 1(8), 1(9), 1(10), 1(11), 1(13), 1(20), 1(21), 1(22), and 1(23) are to clarify the legal rights and responsibilities of the Owner and Operator under this Approval.

Conditions 1(3) and 7(4) are to ensure that the Site is designed, operated, monitored and maintained in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider.

Condition 1(12) is to ensure that the Site is operated under the corporate name which appears on the application form submitted for this approval and to ensure that the Director is informed of any changes.

Condition 1(14) is to restrict potential transfer or encumbrance of the Site without the approval of the Director and to ensure that any transfer of encumbrance can be made only on the basis that it will not endanger compliance with this Approval.

Condition 1(15) is to ensure that the successor is aware of its legal responsibilities.

Conditions 1(16), 1(17) and 1(18) clarify that the Part II.1 Director is an individual with authority pursuant to

Section 197 of the Environmental Protection Act to require registration on title and provide any person with an interest in property before dealing with the property in any way to give a copy of the Approval to any person who will acquire an interest in the property as a result of the dealing.

Condition 1(19) is to ensure that appropriate Ministry staff has ready access to the Site for inspection of facilities, equipment, practices and operations required by the conditions in this Approval. This Condition is supplementary to the powers of entry afforded a Provincial Officer pursuant to the Act, the OWRA, the PA, the NMA and the SDWA.

Condition 1(24) clarifies what information may be subject to the Freedom of Information Act.

Condition 2(1) is to ensure that sufficient funds are available to the Ministry for closure and post-closure activities at the Site in the event that the Owner is unable or unwilling to do so.

Conditions 3(1), 3(11), 3(12), 3(13), 3(14), 3(15), 3(16), 12(1) and 12(2) are to ensure that the Site is operated, inspected and maintained in an environmentally acceptable manner and does not result in a hazard or nuisance to the natural environment or any person.

Conditions 3(2), 3(3), 3(4), and 3(5) are to specify the approved area from which waste may be accepted at the Site, and the types of waste that may be accepted for disposal at the Site based on the Owner's application and supporting documentation.

Conditions 3(6), 3(7), and 3(8) are to specify restrictions on the extent of landfilling and the maximum rates to be accepted for disposal at the Site based on the Owner's application and supporting documentation. These limits define the approved volumetric capacity of the site.

Conditions 3(9) and 3(10) are to ensure that users of the Site are fully aware of important information and restrictions related to Site operations and access under this Approval.

Condition 3(17) is to ensure open burning of municipal waste is unacceptable because of concerns with air emissions, smoke and other nuisance effects, and the potential fire hazard.

Condition 3(18) is to ensure that uncontrolled removal of material from waste at the Site is avoided. Scavenging of deposited waste can be detrimental to the public health and safety and cause damage to the natural environment.

Conditions 3(19) and 3(20) are to specify the hours of operation for the landfill site and a mechanism for amendment of the hours of operation, as required.

Conditions 3(21) and 3(22) are to ensure that the Site is supervised by properly trained staff in a manner which does not result in a hazard or nuisance to the natural environment or any person and to ensure the controlled access and integrity of the Site by preventing unauthorized access when the Site is closed and no site attendant is on duty.

Condition 3(23) is to specify the approval requirements for use of alternative cover material at the Site.

Condition 3(24) is to ensure that daily and intermediate cover is used to control potential nuisance effects, to facilitate vehicle access on the site, and to ensure an acceptable site appearance is maintained. The proper closure of a landfill site requires the application of a final cover which is aesthetically pleasing, controls infiltration, and is suitable for the end use planned for the site.

Condition 3(25) is to ensure that potential truck traffic impacts on the immediate local community is limited to the existing main roads.

Condition 3(26) is to ensure that public road servicing the Site (described as "Improvement Area") meets the applicable standards. Condition 3(26) also ensures that the Improvement Area is maintained regularly as per agreement between the Owner/Operator of the Site and Haldimand County.

Conditions 3(27), 3(28), 3(29), 3(30), 3(31), and 3(32) are to ensure that the Site is operated in a manner that does not result in unacceptable odour emissions and mitigation measures are employed in event of an odour impact.

Condition 4(1) is to provide the groundwater and surface water limits to prevent water pollution at the Site

Conditions 4(2), 4(3), 5(2), 6(4), and 7(2) are included to require the Owner to demonstrate that the Site is performing as designed and the impacts on the natural environment are acceptable. Regular monitoring allows for the analysis of trends over time and ensures that there is an early warning of potential problems so that any necessary remedial/contingency action can be taken.

Conditions 4(4), 4(5), and 4(6) are included to ensure the integrity of the groundwater monitoring network so that accurate monitoring results are achieved and the natural environment is protected.

Conditions 4(7), 4(8), and 4(9) are added to ensure the Owner has a plan with an organized set of procedures for identifying and responding to potential issues relating to groundwater and surface water contamination at the Site's compliance point.

Conditions 4(10), 4(11), and 4(12) are included to streamline the approval of the changes to the monitoring plan.

Condition 5(1) is added to ensure that leachate generated at this Site is disposed of in an environmentally acceptable manner.

Conditions 6(1), 6(2), 6(3), and 6(5) are to ensure that off-site migration of landfill gas is monitored and all buildings at the Site are free of any landfill gas accumulation, which due to a methane gas component may be explosive and thus create a danger to any persons at the Site.

Condition 7(1) is added to ensure to ensure that both surface water and stormwater is managed in an environmentally acceptable manner.

Conditions 8(1) and 8(2) are to ensure that the Site is operated by properly trained staff in a manner which does not result in a hazard or nuisance to the natural environment or any person.

Condition 9(1) is added to ensure that any complaints regarding landfill operations at this Site are responded to in a timely and efficient manner.

Condition 10(1) is to ensure the Owner immediately responds to a spill.

Conditions 10(2), 10(3), 10(4), and 10(5) are to ensure that the Owner notifies the Ministry forthwith of any spills so that an appropriate response can be determined.

Conditions 11(1), 11(2), 11(3), and 11(4) are added to establish a forum for the exchange of information and public dialogue on activities carried out at the landfill Site. Open communication with the public and local authorities is important in helping to maintain high standards for site operation and protection of the natural environment.

Condition 12(3) is to ensure that detailed records of Site inspections are recorded and maintained for inspection and information purposes.

Condition 12(4) and 12(5) are added to ensure that accurate waste records are maintained to ensure compliance with the conditions in this Approval (such as fill rate, site capacity, record keeping, annual reporting, and financial assurance requirements), the EPA and its regulations.

Conditions 12(6) and 12(7) are added to ensure that regular review of site development, operations and monitoring data is documented and any possible improvements to site design, operations or monitoring programs are identified. An annual report is an important tool used in reviewing site activities and for determining the effectiveness of site design.

Condition 13(1) is added to ensure that final closure of the Site is completed in an aesthetically pleasing manner, in accordance with Ministry standards, and to ensure the long-term protection of the health and safety of the public and the environment.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). A110302 issued on July 10, 1980

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental

compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Director appointed for the purposes of Part II.1 of
the Environmental Protection Act
Ministry of the Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 27th day of March, 2020



Mohsen Keyvani, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

CF/

c: District Manager, MECP Hamilton - District
Daniel Turner P. Eng., GHD