

**Township of Macdonald, Meredith
and Aberdeen Additional
Landfill Site Annual Operations Report - 2022**



Consultant



Report Prepared: March 2023

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1.0 Introduction

The Township of Macdonald, Meredith & Aberdeen Additional landfill site is located on the south half and the north half of the southeast quarter of Section 28, Parts 1 and 2 on Reference Plan 1R-13194 within the geographic Township of Macdonald. The landfill site is located on the west side of Watson Road approximately 3.5km east of Highway 17 four-lane and southeast of the community of Echo Bay, Ontario. The landfill serves the Municipal Township of Macdonald, Meredith and Aberdeen Additional.

Provisional Certificate of Approval for a Waste Disposal Site Number A561302 was issued on March 17, 1980. The only condition to the Provisional Certificate of Approval was that it be registered by the applicant as an instrument against the title to the site and that a duplicate registered copy be returned to the director. This condition was fulfilled on April 11, 1980, by registering as instrument number T-209756 in the Registry Division of Algoma (No. 1). The Municipality has received an amended Environmental Compliance Approval for this landfill after submission to the MOE on additional lands purchased for leachate attenuation. The amended ECA No. A561302 issued February 23, 2015, was in effect for landfill operations and testing commencing in 2015. An Amendment Notice No. 1 was added to the ECA on November 22, 2017. An Amended Environmental Compliance Approval Number A561302 was issued on October 14, 2021, and is included in Appendix A. This amendment provided for receiving non hazardous contaminated soil from throughout the Algoma District.

2.0 Site Operations

The landfill site operates three days a week – Tuesdays, Thursdays, and Saturdays. The hours for the landfill site are outlined in the following Table.

Hours of Landfill Operations			
Season	Tuesday	Thursday	Saturday
Summer April 1 – September 30	12 noon to 8pm	12 noon to 5pm	8am to 5pm
Winter October 1 – March 31	12 noon to 5pm	12 noon to 5pm	9am to 5pm

Waste brought to the site is disposed of by placing it over the side of an embankment in an area fill method of landfilling. The waste is covered with earth material on a regular basis.

Commencing in 2012, the Municipality implemented a bag tag program for disposal of household waste. Each household initially received 156 tags was first reduced to 130 tags per year and then to 104 bags. The program of using bag tags was discontinued as of January 2021 as it was felt that the program had been successful in encouraging residents to recycle. Residents of the Township of Kehoe still are required to use the tags. Residents are now provided with blue landfill identification cards. In addition, there is now the need for tipping fees for all trailer loads brought on site.

The Municipality strongly promotes recycling. The recycling program collects paper products, cardboard and boxboard, as well as No. 1 to No. 7 plastics, metal food containers, aluminum foil and trays, and milk and juice boxes. These blue recycling bins are located under roof cover at the

landfill site and currently include seven cardboard/boxboard bins, three commingled bins, and one paper bin. Several years ago, the Municipality discontinued the use of the blue recycling bins at the Water Treatment Plant in Echo Bay and concentrated all recycling efforts at the landfill. Brochures related to recycling are included in Appendix B.

The landfill building also contains a “Share Shed”. This provides a location for residents to drop off items that are no longer used but have value to other residents. The Share Shed was opened in 2006 and has proved extremely popular with a significant number of items being diverted from the landfill. However due to COVID19 the share shed was closed for all of 2021 and for the first two months of 2022 .

The Municipality was a past collector of used tires within the Ontario Tire Stewardship Program. The Ontario Tire Stewardship program was discontinued on December 31st, 2018. The Municipality no longer accepts tires at the landfill. The new program is to have providers of new tires to also be collectors of used tires. There are several businesses in the area that provide this service and these locations were provided to residents in the township newsletter as well as posted at the landfill and municipal office.

The Municipality has an agreement with Electronic Products Recycling Association (EPRA) for the collection of electronic waste. An enclosed container is set up on site to collect electronics, although in 2022 there were no full containers removed from the site.

The Municipality maintains a large 40 yard roll off bin for the placement of scrap metals. This is sold as scrap metal to Triple M Metal in Sault Ste. Marie. In 2022 there were a total of seven loads delivered to Triple M Metal with a total weight of 40 Tonnes which generated revenue of around \$13,600.

The Municipality has an agreement with the City of Sault Ste. Marie for the disposal of household hazardous waste including motor oils, batteries, and paints. Residents dispose of these wastes directly at the Hazardous Household Waste Depot. This facility was relocated in 2016 from 115 Industrial Park Crescent to the City Landfill at 402 Fifth Line East in the City of Sault Ste. Marie and is open Tuesday to Saturday - 8:30 a.m. to 4:30 p.m.; May to October only. Information on this depot is included in Appendix B.

3.0 Ministry of Environment, Conservation and Parks Inspections

There was a formal Environment Ministry inspection of the landfill site from October 6, 2021 to March 30, 2022 with the inspection report has been included in Appendix C. The report was received too late to be discussed in the 2021 Annual Operations Report which was due on March 31, 2022. There were two requested actions in the report as follows which will be further discussed in Section 5.0.

1. Compact and cover exposed wastes in the active working face (both household and commercial wastes) in accordance with the ECA.
2. Develop and implement a plan to address seasonal surface water and high water table along the outer working face

4.0 Landfill Reporting

The current ECA document outlines the conditions for the operation of the landfill. Included in this under Section 6 - Inspections, Record Keeping and Reporting – Annual Report under Clause 6 and 7 outlines the requirement for reporting on the landfill.

The requirements for the annual report are detailed in Clause 7 and are divided into two components. The first component is the Operations of the landfill site covered in sub-clauses (a) to (h) and the second component is the Monitoring of the landfill site covered in sub-clauses (i) to (r). This report is to fulfill the Operations component while a separate report by Sawicki Groundwater Engineering Inc. will fulfill the Monitoring component. Following is a summary of the ECA requirements along with the response.

4.1 Operation & Performance

(a) 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 contingency plans;

The site is currently operating as intended as an area fill landfill with operations to extend landfilling to the south from the existing waste face. The Design and Operations report was submitted to the MOECC in 2016 for comment and was ultimately accepted on November 22, 2017. Utilizing the 2016 and 2017 surface water and groundwater analysis, Peter Richards of Waters Environmental Geosciences Inc. submitted the *Monitoring Program Trigger Criteria Assessment and Contingency Options for the MMA Township Landfill Site* to the Ministry of the Environment and Climate Change Environmental Assessment and Permissions Division's Director on February 6, 2018.

It is noted that the Municipality received a request from a firm completing a cleanup of a gas station in Sault Ste. Marie in 2020 to haul non-hazardous contaminated soil to the landfill. The Municipality saw this as an opportunity to receive interim and daily cover material while also collecting tipping fees that could be put to landfill operations. After consultation with Kirk Crosson, Senior Environmental Officer for the landfill in an interim basis the Municipality applied to MECP for an ECA amendment. After several months delay, partially due to COVID19 delays in processing applications, the Municipality was instructed by MECP that they must follow the Environmental Screening Process because of the change to the geographic area from which the site receives waste. The Municipality went through this Environmental Screening Process. An amended Environmental Compliance Approval was issued on October 14, 2021. The amended ECA changes were as follows:

4.2 Site Operations

(b) 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;

Site operations are represented in Drawing 23-0031-G1, which is attached to this report. It outlines the existing operations of the landfill including where waste was placed in 2022 and the intended locations for 2023.

The municipality intends to pursue placement of waste within the area to the west of the building as a means to flatten that very steep slope to 4:1. The original plan was to regrade that area to 4:1 but there are two concerns related to completing that. Firstly, the regrading will require exposing existing buried waste and there are concerns related to odour and released gases. Secondly, due to the proximity of the Attendants Shed / Share Shed it will severely limit the distance between the structure and the top of the embankment.

4.3 Waste Volumes

(c) 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;

The following volumes of waste are calculated based on the population from the 2021 census, estimated values of waste generation, and a topographical survey of the site in 2011 which calculated volume of waste placed since the opening of the site.

Total Waste Disposal Volume Capacity	264,000 m ³
Total Estimated Waste to Date	<u>143,326 m³</u>
Remaining Waste Disposal Volume	120,674 m ³
2021 Population – from 2021 Census	1,513
Seasonal Residents (annual equivalent)	<u>530</u>
Total Equivalent Population	2,043
Population Growth (From 2011 to 2021)	0.3%
Total Estimated Equ. Population (2022)	2,049
Average Waste Rates	1.25 kg/capita/day
Total Waste	935 Tonnes
Compaction Rate	0.40 Tonnes/m ³
Estimated Waste Volume (2022)	2,338 m ³
Cover Material	15%
Total Waste & Cover Material (2022)	2,688 m ³
Total Years Remaining	43 years

The municipality has site attendants track all materials received at the site that are outlined in Appendix D – Log Book Summaries. A mass is assigned to each unit of waste received at the landfill including counting of garbage bags and different types of loads including pickup trucks, trailers and dump truck loads. After adjusting for wood waste burned, scrap metal removed and non-hazardous contaminated soil and excavated soil to be used for cover material an estimate of 982 Tonnes of waste was estimated to be placed. This is approximately 105% of the 935 Tonnes calculated based on expected waste generated and our opinion that it is within an expected margin of error is these calculations.

4.5 Non-Hazardous Waste from Macdonald, Meredith & Aberdeen Additional & Kehoe
(d) summary of the volume of non-hazardous contaminated soil received from the municipal boundary of the township of Macdonald, Meredith and Aberdeen Additional and the unincorporated Township of Kehoe

There was no non-hazardous contaminated soil received from within the Township of Macdonald, Meredith and Aberdeen Additional and the unincorporated Township of Kehoe in 2022.

4.6 Non-Hazardous Waste from District of Algoma
(e) summary of the volume of non-hazardous contaminated soil received from the District of Algoma (outside of municipal service area)

There was a total of nine (9) triaxle loads received from a site cleanup in the City of Sault Ste. Marie which would equate to a volume of 135 cubic metres.

4.7 Landfill Capacity

(f) a calculation of the remaining capacity of the Site and an estimate of the remaining Site life;

Remaining Waste Disposal Volume	120,674 m ³
Total Waste & Cover Material (2022)	2,688 m ³
Annual Waste Expected Growth	0.3%
Total Years Landfill Remaining	43 years

4.5 Waste Summary

(g) a summary of the weekly, maximum daily and total annual quantity (tonnes) of waste received at the Site;

Tracking of daily disposal of waste in the log books has allowed a more accurate estimate of the weekly, maximum daily, and total annual quantity of waste received. A summary of monthly records is included in Appendix D.

4.6 Complaints

(h) a summary of any complaints received, and the responses made;

In 2022 there were no formal complaints received at the landfill site. In 2016, the Municipality began using a log book at the landfill to record formal complaints. There were occasional non-formal complaints at the site about wind-blown litter but none related to offsite litter as the landfill site is in a valley protect to the west, south and east by hills.

4.7 Operational Problems

(i) a discussion of any operational problems encountered at the Site and corrective action taken;

No major operational issues in 2022. The response to the COVID19 pandemic required the closing of the share shed for part of 2020, all of 2021 and the first two months of 2022. It was finally reopened on March 1, 2022.

4.8 Landfill Changes

(j) any changes to the Design and Operations Report and the Closure Plan that have been approved by the Director since the last Annual Report;

The Design and Operations Report was approved by the Ministry of the Environment and Climate Change Environmental Assessment and Permissions Division Director on

November 22, 2017. This report will be followed as the Municipality moves forward with regular operations at the landfill. An amendment to the ECA No. A561302 Notice No. 2 was made on September 3, 2019. These included amendments allowing for changes to the monitoring programs, trigger mechanisms, and/or contingency plans to be made through the District Manager. In addition, within nine (9) months of the date of the amendment, the Owner was to submit to the District Manager a plan with timelines to bring the site into compliance with respect to Condition 8(2).

In regard to ECA A561302 Amendment Notice No. 2 the Municipality was to submit a plan to the MECP District Manager by June 3, 2020. Municipal representatives met on site during May 2020 to formulate a plan and this was approved at the June 2, 2020th council meeting. The background and the plan were to be submitted to the District Manager for their review and approval before it can be submitted to the Director. This was submitted to District Manager Brian Cameron on June 3rd, 2020 by email. In accordance with the ECA, an additional letter and the annual reports were sent to the District Manager in March 2020. This letter also requested a reduction in testing from three times a year (spring summer fall) to twice a year (spring and fall). The municipality also followed up with a ECA amendment application to allow for the receiving of non-hazardous contaminated soil from all of the District of Algoma. This was approved with the replacement ECA on October 14, 2021, and is included in Appendix A. To this point there has been no response from the District Manager to the plan submitted. The updated plan is included in Appendix E.

5.0 Response to Ministry

As outlined in Section 3.0 the Ministry submitted an inspection report with two issues to be addressed.

1. Compact and cover exposed wastes in the active working face (both household and commercial wastes) in accordance with the ECA.

In the summer of 2022 the municipality received eleven triaxial loads of non-hazardous contaminated soil that. This was used to cover exposed landfill waste in accordance with the ECA and the plan submitted to the District Manager.

2. Develop and implement a plan to address seasonal surface water and high water table along the outer working face.

The plan as outlined in Appendix E includes a step to complete clearing and perimeter ditching as outlined on the attached design plan. Two contractor bids were received in the fall of 2022 to complete clearing and the perimeter ditching. However, both bids far exceeded the municipal budget for this work. This work has been deferred to the summer of 2023 where it will be completed by contractors.

6.0 Summary

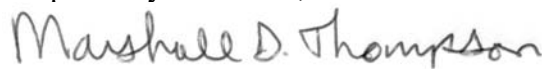
This report has served the purpose of outlining the Development, Operations and Monitoring of the landfill site for the Township of Macdonald, Meredith & Aberdeen Additional for the year 2022. The Municipality continues to provide enhancements to the landfill site including encouragement of reuse and recycling of materials that would otherwise be placed in the landfill. The enhanced recycling and diversion efforts will extend the long-term life of the landfill and benefit the residents, the Municipality and the environment.

In 2016 the Municipality's operation and monitoring of the landfill commenced to be under the conditions of the amended Environmental Compliance Approval A-561302. The Design and Operations Report was submitted to the District Office by February 23, 2016, as required by the ECA and it was approved on November 22, 2017. Further reporting in the form of a Plan was submitted to the Ministry on June 3rd, 2019, as it relates to the need to bring the site into compliance with Condition 8 (2) which is outlined following. No response to the Plan submitted has been received to date. An updated schedule for this Plan has been included in Appendix E.

The Municipality initiated an Environmental Screening Process to expand the Service Area in which to receive Non Hazardous Contaminated Soil from the entire District of Algoma. The plan is to use these soils as daily and interim cover material. The approval to receive this soil from outside the service area was granted in October 2021. Eleven triaxial loads were received in 2022 from a site cleanup in the City of Sault Ste. Marie. The municipality endeavors to utilize received soil that is granular in nature and suitable for interim cover of waste.

A standalone report completed by Sawicki Groundwater Engineering Inc. on Groundwater and Surface Water Monitoring for 2022 will be submitted to the Ministry. Annual Landfill Operations Reports and Groundwater and Surface Water Monitoring Reports will continue to be submitted to the Ministry of the Environment, Conservation and Parks by March 31st of the following year.

Respectfully submitted,



Marshall D. Thompson, P.Eng.
TULLOCH ENGINEERING INC.

Appendix A

**Environmental Compliance Approval
No. A561302**

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER A561302

Issue Date: October 14, 2021

The Corporation of the Township of Macdonald, Meredith and Aberdeen Additional
208 Church St
Echo Bay, Ontario
P0S 1C0

Site Location: 503 Watson Road East
Lot 10, 11, Concession 28
Macdonald, Meredith and Aberdeen Additional Township, District of Algoma
P0S 1C0

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:

the use and operation of 27 hectare waste disposal/transfer site within a total site area of 63.3 hectares.

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

“Approval” means this Environmental Compliance Approval and any Schedules attached to it;

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

“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 the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;

"Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

“NMA” means the *Nutrient Management Act, 2002*, S.O. 2002, c. 4, as amended;

“O. Reg. 101/94” means Ontario Regulation 101: (Recycling and Composting of Municipal Waste), made under the EPA, as amended;

“O. Reg. 232/98” means Ontario Regulation 232/98: (Landfilling Sites), made under the EPA, as amended;

"O. Reg. 463/10" means Ontario Regulation 463/10 (Ozone Depleting Substances and Other Halocarbons), made under the EPA, as amended;

“Ontario Drinking Water Quality Standards” means Ontario Regulation 169/03 (Ontario Drinking Water Quality Standards), made under the SDWA, as amended;

“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 the Corporation of the Township of Macdonald, Meredith and Aberdeen Additional 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;

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

“Reg. 347” means R.R.O. 1990, Reg. 347: (General - Waste Management), made under the EPA, as amended;

“Reg. 903” means R.R.O. 1990, Reg. 903: (Wells), made under the OWRA, as amended;

“SDWA” means the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32, as amended;

"Schedules" means the following schedules attached to this Approval and forming part of this Approval namely:

- o Schedule 1 - Supporting Documentation;
- o Schedule 2 - Surface Water Monitoring Program; and
- o Schedule 3 - Groundwater Monitoring Program;

“Site” means the entire waste disposal site, including the buffer lands, and contaminant attenuation zone at 503 Watson Road East, Lot 10, 11, Concession 28, Macdonald, Meredith and Aberdeen Additional

Township, District of Algoma; and

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

- o relevant waste management legislation, regulations and guidelines;
- o major environmental concerns pertaining to the waste to be handled;
- o occupational health and safety concerns pertaining to the processes and wastes to be handled;
- o management procedures including the use and operation of equipment for the processes and wastes to be handled;
- o emergency response procedures;
- o specific written procedures for the control of nuisance conditions;
- o specific written procedures for refusal of unacceptable waste loads; and
- o 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

GENERAL

Compliance

1. 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.
2. 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

3. 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 1.

Interpretation

4. Where there is a conflict between a provision of any document listed in Schedule 1 in this Approval, and the conditions of this Approval, the conditions in this Approval shall take precedence.
5. Where there is a conflict between the application and a provision in any document listed in Schedule 1, the application shall take precedence, unless it is clear that the purpose of

the document was to amend the application and that the Ministry approved the amendment.

6. Where there is a conflict between any two documents listed in Schedule 1, the document bearing the most recent date shall take precedence.
7. 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

8. 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; or
 - 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

9. 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 Site, including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.
10. 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.

Change of Ownership

11. 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.

12. 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.
13. 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

14. 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 will acquire an interest in the property as a result of the dealing.
15.
 - a. Within thirty (30) 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 or 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. 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.

Inspections by the Ministry

16. 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

- 17.
 - 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 1 for as long as this Approval is valid.
 - c. All monthly summary reports of waste records collected are to 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.
- 18. 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.
- 19. 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 1, are retained at the Site at all times.
- 20. 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. 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, Reg. 347, and the conditions of this Approval. At no time shall the discharge of a contaminant that causes or is likely to cause an adverse effect be permitted.

Signs

2. The Owner shall install and maintain a sign at the entrance to the Site. The sign shall be visible and readable from the main road leading to the Site. The following information shall be included on the sign:
 - 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.
3. The Owner shall install and maintain signs to direct vehicles to working face and recycling areas.
4. The Owner shall provide signs at recycling depot informing users what materials are acceptable and directing users to appropriate storage areas.

Vermin, Vectors, Dust, Litter, Odour, Noise and Traffic

5. The Site shall be operated and maintained such that the vermin, vectors, dust, litter, odour, noise and traffic do not create a nuisance.

Burning Waste Prohibited

6.
 - a. Burning of waste at the Site is prohibited.
 - b. Notwithstanding condition 2.6.a above, burning of segregated, clean wood and brush at the landfill may be carried out in strict compliance with the Ministry of the Environment Document titled "Guideline C-7, Burning at Landfill Sites" dated April 1994.

Site Access

7. Waste shall only be accepted during the following time periods:

Summer (April 1 - September 30)

Tuesday: 12 noon - 8 p.m.
Thursday: 12 noon - 5 p.m.
Saturday: 8 am - 5 p.m.

Winter(October 1 - March 31)

Tuesday: 12 noon - 5 p.m.
Thursday: 12 noon - 5 p.m.
Saturday: 9 am - 5 p.m.

8. On-site equipment used for daily site preparation and closing activities may be operated one (1) hour before and one (1) hour after the hours of operation approved by this Approval.
9. With the prior written approval from the District Manager, the time periods may be extended to accommodate seasonal or unusual quantities of waste.

Site Security

10. No waste shall be received, landfilled or removed from the Site unless a site supervisor or an attendant is present and supervises the operations during operating hours. The Site shall be closed when a site attendant is not present to supervise landfilling operations.
11. 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.

3. 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.

4. 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 formal 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 any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents.

5. EMERGENCY RESPONSE

1. All Spills as defined in the EPA shall be immediately reported to the **Ministry's Spills Action Centre at 1-800-268-6060** and shall be recorded in the log book as to the nature of the emergency situation, and the action taken for clean-up, correction and prevention of future occurrences.
2. In addition, the Owner shall submit, to the District Manager a written report within three (3) business days of the emergency situation, 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 an emergency situation shall be managed and disposed of in accordance with Reg. 347.
4. All equipment and materials required to handle the emergency situations 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).

6. INSPECTIONS, RECORD KEEPING AND REPORTING

Daily Log Book

1. A daily log shall be maintained in written or electronic format and shall include the following information:
 - a. the type, date and time of arrival, hauler, and quantity (tonnes) of all waste and cover material received at the Site;
 - b. the area of the Site in which waste disposal operations are taking place;
 - c. a record of litter collection activities and the application of any dust suppressants;
 - d. a record of the daily inspections; and
 - e. 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.
2. Any information requested, by the Director 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.

Daily Inspections and Log Book

3. An inspection of the entire Site and all equipment on the Site shall be conducted each day the Site is in operation to ensure that: the Site is secure; that the operation of the Site is not causing any nuisances; that the operation of the Site is not causing any adverse effects on the environment and that the Site is being operated in compliance with this Approval. Any deficiencies discovered as a result of the inspection shall be remedied immediately, including temporarily ceasing operations at the Site if needed.
4. A record of the inspections shall be kept in a daily log book that includes:
 - a. the name and signature of person that conducted the inspection;
 - b. the date and time of the inspection;
 - c. the list of any deficiencies discovered;
 - d. the recommendations for remedial action; and
 - e. the date, time and description of actions taken.
5. A record shall be kept in the daily log book of all refusals of waste shipments, the reason(s) for refusal, and the origin of the waste, if known.

Annual Report

6. A written report on the development, operation and monitoring of the Site, shall be completed annually (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:

Operations:

- a. 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 contingency plans;
- b. site plans showing the existing contours of the Site; areas of landfilling operation during the reporting period; location of stockpile of non-hazardous contaminated soil; 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;
- c. calculations of the volume of waste, daily and intermediate cover, volume of non-hazardous contaminated soil used as daily and intermediate 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;
- d. summary of the volume of non-hazardous contaminated soil received from the municipal boundary of the township of Macdonald, Meredith and Aberdeen Additional and the unincorporated Township of Kehoe (service area in condition 7.5);
- e. summary of the volume of non-hazardous contaminated soil received from the district of Algoma (outside the service area in condition 7.5);
- f. a calculation of the remaining capacity of the Site and an estimate of the remaining Site life;
- g. a summary of the weekly, maximum daily and total annual quantity (tonnes) of waste received at the Site;
- h. a summary of any complaints received and the responses made;
- i. a discussion of any operational problems encountered at the Site and corrective action taken;
- j. any changes to the Design and Operations Report and the Closure Plan that have been approved by the Director since the last Annual Report;

Monitoring:

- k. an accurately scaled site plan illustrating the location of all buried wastes, the site boundaries, monitoring well locations, surface water sampling locations, and the location of the contaminant attenuation zone;
- l. an accurately scaled location map illustrating topography and the site relative to nearby potentially sensitive groundwater/surface water features (i.e., lakes, streams, wells);
- m. universal transverse mercator (UTM) coordinates for all sampling locations, North American Datum (1983);
- n. a water table contour map based on current data;
- o. stratigraphic cross-sections which clearly illustrate the subsurface distribution of geological materials;
- p. borehole logs for all monitoring wells;

- q. tables illustrating historical water chemistry and water level data;
- r. graphs illustrating historical water quality trends with time for key leachate indicator parameters (as a minimum these should include alkalinity, chloride, sulphate, boron, sodium, iron, manganese, zinc and DOC);
- s. an assessment of monitoring data to evaluate compliance with the requirements of Ministry's Guideline B-7;
- t. description and evaluation of any and all aquatic environmental effects associated with the site
- u. tabulation and interpretation of current and historical surface water monitoring data (including electronic file of historical and current data in EXCEL format), examination of spatial and temporal trends, and a comparison to Ontario Provincial Water Quality Objectives, Canadian Water Quality Guidelines, Federal Environmental Quality Guidelines, and for sulphate the British Columbia Water Quality Guideline;
- v. graphs illustrating current and historical trends with time of key water quality parameters;
- w. recommendations for future monitoring and/or remedial actions; and
- x. a section detailing the field sampling protocols and QA/QC measures.

7. LANDFILL DESIGN AND DEVELOPMENT

Approved Waste Types

1. Only municipal waste as defined under Reg. 347 being solid non-hazardous shall be accepted at the Site for landfilling.
2. 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.
3. 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.

Capacity

4. Maximum volumetric capacity approved for the Site, consisting of the waste, daily cover and intermediate cover, but excluding the final cover based on the supporting documentation is 264,000 cubic metres.

Service Area

5. Only waste that is generated within the boundaries of the Township of Macdonald,

Meredith and Aberdeen Additional and the unincorporated Township of Kehoe may be accepted at the Site.

6. Notwithstanding condition 7.5 the Owner may accept non-hazardous contaminated soil from District of Algoma, to use as daily and intermediate cover. Non-hazardous contaminated soil shall not be used as final cover.

Cover

7. 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 Reg. 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.
8. Cover material shall be applied as follows:
 - a. **Bi-weekly** Cover - Weather permitting, deposited waste shall be covered **bi-weekly** in a manner acceptable to the District Manager so that no waste is exposed to the atmosphere;
 - b. Intermediate Cover - In areas where landfilling has been temporarily discontinued for six (6) months or more, a minimum thickness of 300 millimetre of soil cover or an approved thickness of alternative cover material shall be placed; and
 - c. Final Cover - In areas where landfilling has been completed to final contours, a minimum 600 millimetre thick layer of soil of medium permeability and 150 millimetres of top soil (vegetative cover) shall be placed. Fill areas shall be progressively completed and rehabilitated as landfill development reaches final contours. Non-hazardous contaminated soil shall not be used in the final cover.

Geosynthetic Final Cover

9. If the Owner proposes Geosynthetic Clay Liner (GCL) for the final cover, the following are the minimum requirements for the Geosynthetic Clay final cover for the Site:
 - a. three hundred (300) millimeter subgrade soil compacted to 85% Standard Proctor Density;
 - b. three hundred (300) millimeter drainage layer protecting the GCL; and
 - c. one hundred and fifty (150) millimeter top soil.

8. LANDFILL MONITORING

Landfill Gas

1. The Owner shall ensure that any buildings or structures at the Site contain adequate ventilation systems to relieve any possible landfill gas accumulation to prevent methane concentration reaching the levels within its explosive range. Routine monitoring for explosive methane gas levels shall be conducted in all buildings or structures at the Site, especially enclosed structures which at times are occupied by people.

Compliance

2. 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, for the protection of the surface water at and off the Site.

Surface Water and Groundwater

3. The Owner shall monitor surface water and groundwater in accordance with the monitoring programs in Schedules 2 and 3.
4. Within six (6) months of issuance of this approval, the Owner shall propose reference water sampling station(s) in nearby stream(s) with similar characteristics to the Unnamed Stream, at location(s) not exposed to contaminated seepage or runoff. The reference sampling location(s) shall be included in the water sampling program upon written approval by District Manager.
5. The temperature and pH of water shall be determined in the field at the time of sampling for Total Ammonia Nitrogen. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).
6. A certified Professional Geoscientist or Engineer possessing appropriate hydrogeologic training and experience shall execute or directly supervise the execution of the groundwater monitoring and reporting program.

Groundwater Wells and Monitors

7. The Owner shall ensure that all groundwater monitoring wells which form part of the monitoring program are properly capped, locked and protected from damage.
8. Where landfilling is to proceed around monitoring wells, suitable extensions shall be added to the wells and the wells shall be properly re-secured.
9. 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 for abandonment, shall be decommissioned by the Owner, as required, in accordance with Reg. 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

10.
 - a. Within one (1) year from the date of this Approval, the Owner shall submit to the Director, for approval, and copies to the District Manager, details of a trigger mechanisms plan for surface water and groundwater quality monitoring for the purpose of initiating investigative activities into the cause of increased contaminant concentrations.
 - b. Within one (1) year from the date of this Approval, the Owner shall submit to the Director for approval, and copies to the District Manager, details of a contingency plan to be implemented in the event that the surface water or groundwater quality exceeds any trigger mechanism.
11. In the event of a confirmed exceedance of a site-specific trigger level relating to leachate mounding or 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.
12. 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 30 days after confirmation of the exceedances;
 - b. 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.
13. The Owner shall ensure that any proposed changes to the site-specific trigger levels for leachate impacts to the surface water or groundwater, are approved in advance by the Director via an amendment to this Approval.

Changes to the Monitoring Programs, Trigger Mechanisms and Contingency Plans

14. The Owner may request to make changes to the monitoring program(s), trigger mechanisms and/or 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.
15. 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, trigger mechanisms and/or contingency plans, 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 Director requesting the Approval be amended to approve the proposed changes to the environmental monitoring plan prior to implementation.

9. CLOSURE PLAN

1. At least two (2) years prior to closure, 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 the following as a minimum but not limited to:
 - a. a plan showing Site appearance after closure;
 - b. a description of the proposed end use of the Site, that shall include a discussion on the Environmental Assessment commitments (if applicable) to dedicate portion of the lands within the Site that are not required for site post-closure operations and monitoring, to be used for community recreational purpose;
 - c. a description of how pollinator friendly plants were considered in the final vegetative cover for the landfill and/or in the landscaping within the Site;
 - d. a description of the procedures for closure of the Site;

- i. advance notification of the public of the landfill closure;
 - ii. posting 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; and
 - vi. final construction of any control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas;
 - e. a schedule indicating the time-period for implementing sub-conditions (i) to (vi) above.
 - f. descriptions 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;
 - g. an assessment of the adequacy of and need to implement the contingency plans for leachate and methane gas; and
 - h. an updated estimate of the Contaminating Life Span of the Site, based on the results of the monitoring programs to date.
2. The Site shall be closed in accordance with the closure plan as approved by the Director.

10. WASTE DIVERSION

- 1. The Owner shall ensure that:
 - a. all bins and waste storage areas are clearly labelled;
 - b. all lids or doors on bins shall be kept closed during non-operating hours and during high wind events; and
 - c. if necessary to prevent litter, waste storage areas shall be covered during high winds events.
- 2. The Owner/Operator shall remove the refrigerant as defined in O. Reg. 463/10 in accordance with the following:
 - a. all White Goods containing refrigerants which have not been tagged by a licensed technician to verify that the equipment no longer contains refrigerants, shall be stored in a separate area in an upright position; and
 - b. White Goods containing refrigerants received at the Site shall be shipped off-Site in order to have the refrigerants removed by a licensed technician in accordance with O. Reg. 463/10; or

- c. the refrigerant shall be removed at the Site by a licensed technician, in accordance with O. Reg. 463/10, prior to shipping White Goods off-Site; and
 - d. a detailed log of all White Goods containing refrigerants received shall be maintained. The log shall include the following:
 - i. date of the record;
 - ii. types, quantities and source of White Goods containing refrigerants received;
 - iii. details on removal of refrigerants as required by O. Reg. 463/10; and
 - iv. the quantities and destination of the White Goods and/or refrigerants transferred from the Site.
- 3. Propane cylinders shall be stored in a segregated area in a manner which prevents cylinders from being knocked over or cylinder valves from breaking.
- 4. The Owner shall transfer waste and recyclable materials from the Site as follows:
 - a. recyclable materials shall be transferred off-site once their storage bins are full;
 - b. scrap metal shall be transferred off-site at least twice a year;
 - c. tires shall be transferred off-site as soon as a load for the contractor hired by the Owner has accumulated or as soon as the accumulated volume exceeds the storage capacity of its bunker; and
 - d. immediately, in the event that waste is creating an odour or vector problem.
- 5. The Owner shall notify the appropriate contractors that waste and recyclable wastes that are to be transferred off-site are ready for removal. Appropriate notice time, as determined by the contract shall be accommodated in the notification procedure.
- 6. Collection, storage and transfer of Waste Electrical and Electronic Equipment shall be in accordance with the documents in the Schedule 1. If there is any discrepancy between the guideline titled "Collection Site Organizing & Operating Waste Electrical and Electronic Equipment (WEEE) Guidebook" dated November 2012 as amended prepared by Ontario Electronic Stewardship and the documents in Schedule 1, the guideline shall take precedence.

Schedule 1
Supporting Documentation

1. Application for a Certificate of Approval dated November 2, 1970 and signed by Mrs. Robbins, including the attached supporting documentation.
2. Environmental Compliance Approval Application dated January 3, 2013 and signed by Lynne Duguay, Clerk Administrator, the Corporation of the Township of Macdonald, Meredith and Aberdeen Additional, including the attached supporting documentation.
3. Report titled "Design and Operations Plan, Macdonald Meredith & Aberdeen Add'l Landfill Site" dated February 2016 prepared by Tulloch Engineering Inc.
4. Environmental Compliance Approval Application dated June 22, 2020 and signed by Lynne Duguay, Clerk Administrator, The Corporation of the Township of Macdonald, Meredith and Aberdeen Additional, including the attached supporting documentation.

Schedule 2
Surface Water Monitoring Program

Table 1. Surface Water Sampling Locations

Sampling Location	Description	Frequency
SW3	Unnamed Stream Background	3 times per year (spring, summer, fall) **
SW2	Leachate Pond	
SW1B	Unnamed Stream 150 m downstream of Leachate Pond	
SW4B	Unnamed Stream at Property Boundary	
	Reference Stream (one or more to be proposed)	

**at least 60 days apart.

Table 2. Surface Water Monitoring Parameters*

Laboratory		Field
Alkalinity	Aluminum	Temperature
Ammonia	Arsenic	pH
Barium	Boron	Conductivity
Cadmium	Chloride	Dissolved Oxygen
Chromium	Conductivity	Flow**
Copper	Iron	
Lead	Mercury	
Nitrate	Nitrite	
Total Kjeldahl Nitrogen (TKN)	pH	
Total Phosphorus	Suspended Solids	
Total Dissolved Solids	Sulphate	
Zinc	Biochemical Oxygen Demand	
Chemical Oxygen Demand	(BOD ₅)	
Hardness	Phenol	
	Dissolved Organic Carbon	

* For any parameter listed in Table 2 which has a Provincial Water Quality Objective (PWQO) or Canadian Water Quality Guideline (CWQG) or Federal Environmental Quality Guideline (FEQG) the detection limit for analyses shall be below the PWQO and Interim PWQO and CWQG and FEQG for each such parameter.

** If flow is not measurable, record observation and take photograph.

Schedule 3
Groundwater Monitoring Program
Table 3. Groundwater Sampling and Monitoring

Groundwater Wells: MW-1, MW-2, MW-3, MW-4, MW-6 and MW-7

Laboratory – Spring & Summer Sampling	Laboratory – Fall Sampling	Field – All Seasons
Alkalinity Ammonia Barium Boron Calcium Chloride Conductivity Iron Magnesium Nitrate pH Sodium Total Dissolved Solids Sulphate Chemical Oxygen Demand Dissolved Organic Carbon	Alkalinity, Ammonia Arsenic, Barium Boron, Cadmium Calcium, Chloride Chromium, Conductivity Copper, Iron, Lead Magnesium, Manganese Mercury, Nitrate Nitrite Total Kjeldahl Nitrogen pH, Total Phosphorus Potassium, Sodium Total Dissolved Solids Sulphate, Zinc Benzene 1,4 Dichlorobenzene Dichloromethane Toluene Vinyl Chloride Chemical Oxygen Demand Dissolved Organic Carbon Phenol	pH Conductivity

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

GENERAL

- The reason for conditions 1.1, 1.2, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.17, 1.18 and 1.19 is to clarify the legal rights and responsibilities of the Owner and Operator under this Approval.
- The reasons for condition 1.3 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.
- The reasons for condition 1.11 are 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.
- The reasons for condition 1.12 are 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.
- The reason for condition 1.13 is to ensure that the successor is aware of its legal responsibilities.
- The reasons for conditions 1.14 and 1.15 are 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.
- The reason for condition 1.16 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 1.20 has been included in order to clarify what information may be subject to the Freedom of Information Act.

SITE OPERATION

- The reasons for conditions 2.1, 2.5 and 6.3 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.
- The reason for conditions 2.2, 2.3 and 2.4 is to ensure that users of the Site are fully aware of important information and restrictions related to Site operations and access under this Approval.

- The reasons for condition 2.6.a and 2.6.b are open burning of municipal waste is unacceptable because of concerns with air emissions, smoke and other nuisance effects, and the potential fire hazard and to make sure burning of brush and wood are carried out in accordance with Ministry guidelines.
- The reasons for condition 2.7, 2.8 and 2.9 are to specify the hours of operation for the landfill site and a mechanism for amendment of the hours of operation, as required.
- The reasons for condition 2.10 and 2.11 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.

EMPLOYEE TRAINING

- The reason for condition 3.1 is to ensure that the Site is supervised and operated by properly trained staff in a manner which does not result in a hazard or nuisance to the natural environment or any person.

COMPLAINTS RESPONSE PROCEDURE

- The reason for condition 4.1 is to ensure that any complaints regarding landfill operations at this Site are responded to in a timely and efficient manner.

EMERGENCY RESPONSE

- Conditions 5.1 and 5.2 are included to ensure that emergency situations are reported to the Ministry to ensure public health and safety and environmental protection.
- Conditions 5.3, 5.4 and 5.5 are included to ensure that emergency situations are handled in a manner to minimize the likelihood of an adverse effect and to ensure public health and safety and environmental protection.

INSPECTIONS, RECORD KEEPING AND REPORTING

- The reason for conditions 6.1 and 6.2 is 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.
- The reason for conditions 6.4 and 6.5 is to ensure that detailed records of Site inspections are recorded and maintained for inspection and information purposes.
- The reasons for conditions 6.6 and 6.7 are 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.

LANDFILL DESIGN AND DEVELOPMENT

- The reason for conditions 7.1 to 7.6 inclusive is to specify the approved areas from which waste may be accepted at the Site and the types and amounts of waste that may be accepted for disposal at the Site, based on the Owner's application and supporting documentation.
- Condition 7.7 is to provide the Owner the process for getting the approval for alternative daily and intermediate cover material.
- The reasons for condition 7.8 are to ensure that daily/weekly and intermediate cover are 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 7.9 is included to provide minimum requirements for the geosynthetic clay final cover if the Owner proposes to use geosynthetic clay for the final cover.

LANDFILL MONITORING

- Reasons for condition 8.1 are to ensure that 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 8.2 is included to provide the groundwater and surface water limits to prevent water pollution at the Site.
- Conditions 8.3, 8.4, 8.5 and 8.6 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 8.7, 8.8 and 8.9 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 8.10 to 8.13 inclusive 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 8.14 and 8.15 are included to streamline the approval of the changes to the monitoring plans and trigger mechanisms and contingency plans.

CLOSURE PLAN

- The reasons for condition 9 are 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.

WASTE DIVERSION

- Condition 10 is included to ensure that the recyclable materials are stored in their temporary storage location and transferred off-site in a manner as to minimize a likelihood of an adverse effect or a hazard to the natural environment or any person.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). A561302 issued on February 23, 2015

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 14th day of October, 2021



Mohsen Keyvani, P.Eng.

Director

appointed for the purposes of Part II.1 of the
Environmental Protection Act

RM/

c: Area Manager, MECP Sault Ste. Marie

c: District Manager, MECP Sudbury

Marshall Thompson P. Eng., Tulloch Engineering Inc.

Appendix B

Recycling Information

HOUSEHOLD HAZARDOUS WASTE DEPOT

402 Fifth Line East, S.S.M.



Hours of Operation:

Seasonally Tuesday – Saturday

8:30a.m. – 4:30p.m.

They accept the following:

Paint, anti-freeze, diesel fuel, propane tanks/cylinders, sharps & containers, varsol, organic liquids and solids, oil filters, cell phones, car batteries, pesticides, flammables, household batteries, pharmaceuticals, caustics, motor oil, acids, aerosols & bases, printer cartridges.

This is a **FREE** service available to all residents of the Algoma District and no gate fee is required.

For a complete list of acceptable and non-acceptable items please visit:
www.saultstemarie.ca/hhw

LANDFILL SUMMER HOURS

April 1st - September 30th

Tuesday: 12:00 p.m. - 8:00 p.m.

Thursday: 12:00 p.m. - 5:00 p.m.

Saturday: 8:00 a.m. - 5:00 p.m.

LANDFILL WINTER HOURS

October 1 – March 31

Tuesday: 12:00 p.m. - 5:00 p.m.

Thursday: 12:00 p.m. - 5:00 p.m.

Saturday: 9:00 a.m. - 5:00 p.m.

REMINDERS:

- All HOUSEHOLD refuse must be in **garbage bags**.
- Anyone entering our landfill site must have their **blue landfill identification card**.
- Brush will be accepted year round **except** during a Fire Ban.
- When entering you must tell the caretaker the number of household refuse bags you are depositing in the landfill.

ONTARIO ELECTRONIC STEWARDSHIP

We still have an agreement with Ontario Electronic Stewardship to provide a bin for electronics. *Electronics* that we can accept are: computer paraphernalia including modems, floor standing printing devices including printers, photocopiers, multi-function devices, scanners, typewriters, telephones, answering machines, cellular phones, pagers, audio and video players and recorders, speakers, turntables, video players, projectors, digital frames and personal hand held computers.

For a list of other collection locations near you, visit:

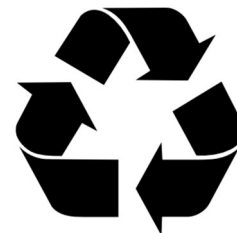
www.healthsteward.ca/returns/ontario

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL



Information Pamphlet

2022



SCRAP METAL

We have a bin at the landfill for scrap metal which has been provided to us by Triple M Metal. They provide the bin, pick up the bin when called and provide a cheque to us based on the tonnage and market value. **ALL** scrap metal can be placed in this bin.

Propane bottles do not belong in here.

PLASTIC SYMBOLS



SHARE SHED

The share shed is available to drop off any items that you feel can be recycled by others.

This is free to everyone.



REMINDER:

RECYCLE IT RIGHT!

1. Food, beverage & other metal cans

- Empty, rinse and remove lids

2. Aluminum foil wrap and trays

- Rinse and crumple

3. All rigid plastic containers

- Only rigid food, beverage, personal, pet care, and detergent containers
- Remove plastic caps and lids
- Empty and Rinse.

4. Milk & Juice Cartons & Juice Boxes

- Remove plastic lids and caps
- Remove any straws and put in garbage
- Empty and flatten

5. Newspapers, inserts, magazines, phonebooks, paperbacks, hardcover books & household print pater

- Flatten and bundle.

PLEASE CONTACT GREEN FOR LIFE ENVIRONMENTAL INC. SHOULD YOU HAVE ANY QUESTIONS ABOUT THIS RECYCLING PROGRAM.

<https://gflenv.com>

705-356-4118

CARDBOARD

Includes:

- Pizza boxes
- Cereal, shoe, detergent, cracker & toothpaste boxes
- paper rolls
- paper egg cartons



Please **flatten** all boxes to fit in depot slots.

NO Plastic or Wax Board.

NEWSPRINT

Includes:

- Newspaper & Flyers
- Magazines & Catalogues
- Telephone Books
- Paper/Hard Back Books
- Household Papers & Junk Mail
- Greeting Cards & Gift Wrap
- Non-treated paper



- Brown Lunch Bags, Paper Grocery Bags
- Paper Bags from LCBO
- Non-Metallic Paper Gift Bags, Paper Shopping Bags

Household Hazardous Waste Depot

Phone

General Inquiry: 705-759-1567

PWT Office: 705-759-5201

GFL: 705-945-7554

Email

pwt@cityssm.on.ca

Fax

705-541-7010

TTY

1-877-688-5530

Location

402 Fifth Line East

Sault Ste. Marie, ON

P6A 6J8

Acceptable vs. Unacceptable Waste

• Acceptable Hazardous Waste

- Small Business hazardous waste
- Acetone nail polish remover
- Acid or bases
- Adhesives (all types)
- Aerosol can (full or partially full)
- Alkyd and lead-based paint/stain
- Antifreeze
- Automobile batteries
- Barbeque propane cylinder (small green and large 20 lb)
- Batteries (single use)
- Bleach

- Blueprint Ink
- Brake fluid
- Car care products
- Car wax
- Chemicals
- Chlorine
- Cleaners and detergents
- Cooking oil
- Deodorant (contents)
- Drain cleaner
- Driveway sealer
- Electronics
 - CD-ROM Drives
 - Cell Phones/Telephones/Answering Machines
 - Computer Disk Drives
 - Computer Keyboards/Mouse
 - Computer Terminals
 - Digital Cameras
 - Microcomputers/Minicomputers
 - Personal Computers (Laptop/Notebook/Notepad)
 - Printers/Fax Machines
 - Monitors (LCD/Plasma/CRT)
 - Radios/Stereo Equipment
 - Scanners
 - Speakers
 - Televisions (LCD/Plasma/CRT/Rear Projection)
 - Turntables
 - Video Projectors
- Energy efficient light bulb
- Fertilizers
- Fire extinguisher
- Fluorescent light bulb/tubes
- Fluorescent tube light (whole)(8 per day)

- Fuel
- Garden chemicals
- Gas
- Glue
- Grease (automobile)
- Helium tanks
- Herbicides
- Insecticides
- Kerosene
- Lacquer - in hard plastic containers (old coffee cans etc.)
- Lighter
- Lighter fluid
- Locker
- Medication
- Mercury thermometers/thermostats
- Motor oil - 20 Litres (5 gal) or smaller containers
- Nail polish
- Nail polish and remover
- Needles - in hard plastic containers (old coffee cans, etc.)
- Oil filter
- Oven cleaner
- Oxygen tank
- Paint can (full or partially full)
- Paint thinner
- Perfume
- Pesticides
- Photographic chemicals
- Pool chemicals
- Pool heater/pump/metal filters
- Rechargeable batteries -separated from regular household batteries
- Salt (driveway)
- Solvents

- Syringe - in hard plastic containers (old coffee cans, etc.)
- Transmission fluid
- Turpentine
- Varnishes
- Vitamins and supplements
- **Unacceptable Hazardous Waste**
 - Large Commercial Business hazardous waste
 - Radioactive waste
 - PCB waste (light ballast, etc.)
 - Bio-medical waste
 - Explosives / Ammunition / Fire Arms
 - Asbestos products of any kind
 - Large spray foam insulation canisters (return to place of purchase)

Note: *No containers over 5 gallons will be accepted and any gas cans that contain gas/oil will not be returned.*

Appendix C

Ministry of Environment, Conservation & Parks Inspection Report



Macdonald, Meredith and Aberdeen Landfill
503 WATSON RD, MACDONALD, MEREDITH AND ABERDEEN
ADDITIONAL, ON, P0S 1C0

Inspection Report

System Number:

Inspection Start Date: 10/06/2021

Inspection End Date: 03/30/2022

Inspected By: Kristy Mitchell

Badge #: 1193

A handwritten signature in blue ink, reading "Kristy Mitchell", on a light grey rectangular background.

(signature)

NON-COMPLIANCE/NON-CONFORMANCE ITEMS

The following item(s) have been identified as non-compliance/non-conformance, based on a "No" response captured for a legislative or best management practice (BMP) question (s), respectively.

Question Group: Operations

Question ID	NOL 41		
Question	Question Type	Legislative Requirement	
Is the waste being compacted adequately?	Legislative	EPA 27 (1)	
Observation/Corrective Action(s)			
No			

Question ID	NOL 42		
Question		Question Type	Legislative Requirement
Is Daily cover applied to the waste at the end of each working day or as otherwise specified in the ECA?		Legislative	EPA 27 (1),EPA O. Reg. 232/98 7
Observation/Corrective Action(s)			
No			

Question Group: Other Inspection Findings

Question ID	949100		
Question	Question Type	Legislative Requirement	
Were the inspection questions sufficient to address other identified non-compliance items?	Legislative	Not Applicable	
Observation/Corrective Action(s)			
<p>The following instances of non-compliance were also noted during the inspection: Additional Findings:</p> <p>Observations made during the October 6th site visit noted that a large portion of the miscellaneous area fill cell was not covered and waste was exposed, particularly close to the tipping face. Some compaction was observed but without sufficient cover material. Wastes were also spread towards a tree line in an area with a seasonal high water table or standing water and at the outer limit of active waste face. Furthermore, wastes along outer active waste face did not have adequate cover material. The working cells were not readily identified. An letter to EO Crosson in June 2020 in response to his January 2020 inspection indicated that clearing for future landfilling and a storm water management plan will establish a firebreak buffer in the area.</p>			

A Monitoring Program Trigger Criteria Assessment and Contingency Options of the Macdonald, Meredith and Aberdeen Additional Township Landfill was submitted to MECP's Permissions Division Director in 2018. As a result, comments from a MECP hydrogeologist and a surface water specialist were provided to the municipality. A reply to the comments was then provided by Waters Environmental Geoscience Ltd. in response to MECP's comments. Further review was also conducted by MECP's Technical Support hydrogeologists and surface water specialists in support of the monitoring requirements addressed in the 2021 ECA amendment.

The municipality submitted a plan to meet requirement of Condition 8 (8) of the 2019 amendment (Notice No. 2) were provided to the District Manager for review in June 2020. In addition, the plan requested a reduction in sampling based on the condition in the ECA, from three times annually to twice (spring and fall). The plan noted dates which have since passed and should be revised in accordance with the requirements of the amended ECA.

In the amended ECA, surface and groundwater monitoring is to be conducted in accordance with its schedules 2 and 3. The frequency for sampling of surface water locations and monitoring wells is three times annually, as required in prior ECA versions. However, the Ministry acknowledges that the municipality has previously requested through the conditions of the 2015 ECA to reduce the frequency of sampling to twice annually. This request was submitted to the Ministry and no response was provided. A review conducted by the Ministry's surface water specialist in April, 2021, in conjunction with the review requirements of the ECA amendment Environmental Screening Report (ESR), indicate that sampling surface water in spring, summer and fall was reasonable in order to account for variation. It is recommended that if surface water is not sufficient for sampling, it should be documented. However, as per Condition 14 of the amended ECA, the municipality may request changes to the monitoring program to the District Manager. It is recognized that prior permission for this change was not previously granted and communicated to the site owner.

As indicated in the undersigned 2016 Inspection Report, the surface water sampling program has demonstrated that the shallow overburden leachate is impacting the stream which originates within the landfill. Steps should be take to minimize infiltration of surface water. The site owner should also examine surface water control methods along the outer fill are to divert surface water away from exposed wastes.

Requested Actions:

By August 31st, 2022, complete the following items and submit a response to the undersigned:

1. Compact and cover exposed wastes in the active working face (both household and commercial wastes) in accordance with the ECA.
2. Develop and implement a plan to address seasonal surface water and high water table along the outer working face.

INSPECTION DETAILS

This section includes all questions that were assessed during the inspection.

Ministry Program: Regulated Activity: WASTE : Landfills

Question ID	NOL 1		
Question	Question Type	Legislative Requirement	
Does the Open landfill site have an Environmental Compliance Approval (ECA)?	Legislative	EPA 27 (1)	
Observation			
<p>Yes A limited scope inspection was conducted at the Macdonald, Meredith and Aberdeen Additional landfill involving a field visit on October 6th, 2021 and file review in February 2022. The most recent full inspection for the site occurred in late 2016 by the undersigned Environmental Officer (EO).</p> <p>In January 2020, a site visit was conducted by Kirk Crosson who issued a letter with recommended actions for the following issues: litter observed between the site gate and the attendant office; the height of the commercial disposal embankment (35 feet high without any barrier); frequency of cover application, signage for the burn barrel, standing water along the outer active waste face and a firebreak for the active waste face. A response to EO Crosson's observations was provided to MECP in January 2020.</p> <p>On October 14th, 2021, an amended ECA was issued to the municipality in order allow for the expansion of the service area for accepting of solid, non-hazardous (SNH) contaminated soils resulting from petroleum hydrocarbon spills. The landfill may now accept SNH contaminated soils from the District of Algoma for cover material, with the exception of final cover. The amended ECA is not in the form of a Notice but rather an amended ECA which revokes the previous versions.</p> <p>As noted in previous reports, the Environmental Compliance Approval (ECA) A561302 was first issued in 1980. An amended ECA was issued in 2015 for the a 27 hectares waste disposal/transfer site within a total site area of 63.3 hectares, including additional lands added to the northeast of the site for the creation of a contaminate attenuation zone (CAZ). Notice 1 was then issued in November 2017 to include the approval of the Design and Operations (D&O) Report and Notice 2 was issued in September 2019 to address changes to the monitoring programs, trigger mechanisms and contingency plans (see below).</p> <p>The 2020 Annual Report noted modifications and a reconfiguration of the waste drop off areas (identified in the report's Drawing 21-0031-G1) that indicates a separate commercial waste cell (formerly or interchangeably identified as miscellaneous – larger household items, construction and demolition wastes) and a household cell. This inspection does not cover the review of 2021 onsite logbooks, inspections reports and complaint records. However, the monthly summaries of the logbooks were reviewed within the 2020 Annual Report.</p>			

The compaction of wastes in both the household and commercial waste sections have been a continual issue identified at the site from previous inspections reports, although improvements related to the reconfiguration of the site were observed. Waste is deposited over the sides of an embankment which now has safety barriers in place. The D&O Report notes that waste is compacted with the use of an onsite bulldozer and covered with interim cover to a depth of 150 mm using the bulldozer and a backhoe on a regular basis.

The ECA amendment issued in October 2021, indicates specific cover application requirements in Condition 8 including bi-weekly cover to prevent waste from coming in contact with the atmosphere. This requirement aligns with Section 8.4 of the D&O Report to minimize surface water contact with wastes and prevent extraneous surface water contact with the active working face. This recommendation was also made in the 2020 Groundwater and Surface Water Monitoring Report. The report notes that the uppermost 1 m of soil is considered the main contaminant pathway and has direct hydraulic linkage to the small surface water creek which drains to the north. This finding reflects previous monitoring reports.

Question ID	NOL 3		
Question		Question Type	Legislative Requirement
Does the holder of the landfill ECA own the entire site?		Legislative	EPA 27 (1), EPA O. Reg. 232/98 3
Observation			
Yes			

Question ID	NOL 2		
Question		Question Type	Legislative Requirement
Is this landfill on Crown land?		Information	Not Applicable
Observation			
No			

Question ID	NOL 4		
Question		Question Type	Legislative Requirement
Does the landfill have a Contaminant Attenuation Zone (CAZ)?		Information	Not Applicable
Observation			
Yes			

Question ID	NOL 5		
Question		Question	Legislative

	Type	Requirement
Is the CAZ on Crown land?	Information	Not Applicable
Observation		
No		

Question ID	NOL 7	
Question	Question Type	Legislative Requirement
Is the CAZ on a public road?	Information	EPA O. Reg. 232/98 7
Observation		
No		

Question ID	NOL 9	
Question	Question Type	Legislative Requirement
Does the holder of the landfill ECA own the property rights for the CAZ?	Legislative	EPA 27 (1), EPA O. Reg. 232/98 4 (1)
Observation		
Yes		

Question ID	NOL 13	
Question	Question Type	Legislative Requirement
Are access roads and on-site roads provided so that vehicles hauling waste to and on the site may travel readily on any day under all normal weather conditions?	Information	EPA 27 (1)
Observation		
Yes		

Question ID	NOL 14	
Question	Question Type	Legislative Requirement
Is site access limited to times when an attendant is on duty?	Legislative	EPA 27 (1)
Observation		
Yes		

Question ID	NOL 15	
Question	Question Type	Legislative Requirement

Does the site only receive waste from within its approved service area?	Legislative	EPA 27 (1)
Observation		
Yes		

Question ID	NOL 16	
Question	Question Type	Legislative Requirement
Is the site required to have a ground water monitoring program by the ECA?	Information	Not Applicable
Observation		
Yes		

Question ID	NOL 17	
Question	Question Type	Legislative Requirement
Is the site implementing the groundwater monitoring program as required by the ECA?	Legislative	EPA 27 (1)
Observation		
Yes		

Question ID	NOL 18	
Question	Question Type	Legislative Requirement
Are monitoring well samples taken and tested to determine the quality of the ground water?	Legislative	EPA 27 (1), EPA O. Reg. 232/98 25
Observation		
Yes		

Question ID	NOL 19	
Question	Question Type	Legislative Requirement
Is the ministry concerned with the results of the samples that have been tested?	Information	Not Applicable
Observation		
No		

Question ID	NOL 20	
Question	Question Type	Legislative Requirement

Is there ongoing abatement to address any concerns the ministry has with the ground water monitoring?	Information	Not Applicable
Observation		
No		

Question ID	NOL 21	
Question	Question Type	Legislative Requirement
Is the site required to manage leachate by the ECA?	Information	Not Applicable
Observation		
No		

Question ID	NOL 26	
Question	Question Type	Legislative Requirement
Is the site required to manage landfill gas by the ECA?	Information	Not Applicable
Observation		
No The landfill is required to conduct monitoring using hand held units for safety reasons within the share shed/landfill operator office building.		

Question ID	NOL 29	
Question	Question Type	Legislative Requirement
Is the ministry concerned with landfill gas at this site?	Information	Not Applicable
Observation		
No		

Question ID	NOL 31	
Question	Question Type	Legislative Requirement
Is the site required to have a surface water monitoring program by the ECA?	Information	Not Applicable
Observation		
Yes		

Question ID	NOL 32	
Question	Question Type	Legislative Requirement
Is the site implementing the surface water monitoring program as required by the ECA?	Legislative	EPA 27 (1)
Observation		

Yes

Question ID	NOL 33	
Question	Question Type	Legislative Requirement
Is the water quality being monitored/sampled for surface water features on-site and for any off-site surface water features that receive run-off from the site?	Legislative	EPA 27 (1), EPA O. Reg. 232/98 24
Observation		
Yes		

Question ID	NOL 34		
Question		Question Type	Legislative Requirement
Are there water quality concerns with the results of the samples that have been tested?		Information	Not Applicable
Observation			
Yes Trigger mechanisms will need to be developed for the site.			

Question ID	NOL 35		
Question		Question Type	Legislative Requirement
Is there ongoing abatement to address any concerns the ministry has with the surface water monitoring?		Information	Not Applicable
Observation			
No			

Question ID	NOL 36		
Question		Question Type	Legislative Requirement
Is proper equipment available for the compaction of waste and applying cover material?		Legislative	EPA 27 (1)
Observation			
Yes			

Question ID	NOL 37	
Question	Question Type	Legislative Requirement
Is the landfill able to accurately determine the amount of waste received?	Legislative	EPA 27 (1)
Observation		

Yes Records are maintained and the amount received is documented in the annual report.

Question ID	NOL 41		
Question	Question Type	Legislative Requirement	
Is the waste being compacted adequately?	Legislative	EPA 27 (1)	
Observation			
No			

Question ID	NOL 42		
Question	Question Type	Legislative Requirement	
Is Daily cover applied to the waste at the end of each working day or as otherwise specified in the ECA?	Legislative	EPA 27 (1), EPA O. Reg. 232/98 7	
Observation			
No			

Question ID	NOL 44		
Question		Question Type	Legislative Requirement
Is site access restricted by use of a gate, fence, or physical barrier when the site is not operating?		Legislative	EPA 27 (1)
Observation			
Yes			

Question ID	NOL 45		
Question		Question Type	Legislative Requirement
Is the waste disposal area adequately screened from public view?		Legislative	EPA 27 (1)
Observation			
Yes Although this was not within the scope of the inspection, records have been provided in last two annual reports.			

Question ID	NOL 47	
Question	Question Type	Legislative Requirement
Has the annual operations report been submitted to MECP or available on site as required by the ECA?	Legislative	EPA 27 (1)
Observation		

Yes

Question ID	NOL 48		
Question		Question Type	Legislative Requirement
Is scavenging being prevented?		Legislative	EPA 27 (1), EPA O. Reg. 232/98 23
Observation			
Yes			

Question ID	NOL 49		
Question		Question Type	Legislative Requirement
Has a closure plan been submitted to the MECP?		Information	Not Applicable
Observation			
No Not required at this time.			

Question ID	NOL 51		
Question		Question Type	Legislative Requirement
Is the landfill only accepting the types of waste that they are approved to receive?		Legislative	EPA 27 (1)
Observation			
Yes			

Question ID	NOL 56		
Question		Question Type	Legislative Requirement
Is there an ECA condition requiring financial assurance?		Information	Not Applicable
Observation			
No			

Question ID	NOL 61		
Question		Question Type	Legislative Requirement
Has the landfill operator developed a Design and Operations Manual?		Information	EPA 27 (1)
Observation			
Yes The Design and Operations Report was submitted to MECP in 2016 and approved in 2017.			

Question ID	NOL 62		
Question		Question Type	Legislative Requirement
Is the Design and Operations Manual up to date?		Information	Not Applicable
Observation			
Yes			

Question ID	NOL 65		
Question		Question Type	Legislative Requirement
Has the Certificate of Requirement been registered on Title?		Legislative	EPA 27 (1)
Observation			
Yes			

Question ID	949100		
Question		Question Type	Legislative Requirement
Were the inspection questions sufficient to address other identified non-compliance items?		Legislative	Not Applicable
Observation			
<p>The following instances of non-compliance were also noted during the inspection: Additional Findings:</p> <p>Observations made during the October 6th site visit noted that a large portion of the miscellaneous area fill cell was not covered and waste was exposed, particularly close to the tipping face. Some compaction was observed but without sufficient cover material. Wastes were also spread towards a tree line in an area with a seasonal high water table or standing water and at the outer limit of active waste face. Furthermore, wastes along outer active waste face did not have adequate cover material. The working cells were not readily identified. An letter to EO Crosson in June 2020 in response to his January 2020 inspection indicated that clearing for future landfilling and a storm water management plan will establish a firebreak buffer in the area.</p> <p>A Monitoring Program Trigger Criteria Assessment and Contingency Options of the Macdonald, Meredith and Aberdeen Additional Township Landfill was submitted to MECP's Permissions Division Director in 2018. As a result, comments from a MECP hydrogeologist and a surface water specialist were provided to the municipality. A reply to the comments was then provided by Waters Environmental Geoscience Ltd. in response to MECP's comments. Further review was also conducted by MECP's Technical Support hydrogeologists and surface water specialists in support of the monitoring requirements addressed in the 2021 ECA amendment.</p> <p>The municipality submitted a plan to meet requirement of Condition 8 (8) of the 2019 amendment (Notice No. 2) were provided to the District Manager for review in June 2020. In addition, the plan requested a reduction in sampling based on the condition in the ECA, from three times annually to twice (spring and fall). The plan noted dates which have since passed and should be</p>			

revised in accordance with the requirements of the amended ECA.

In the amended ECA, surface and groundwater monitoring is to be conducted in accordance with its schedules 2 and 3. The frequency for sampling of surface water locations and monitoring wells is three times annually, as required in prior ECA versions. However, the Ministry acknowledges that the municipality has previously requested through the conditions of the 2015 ECA to reduce the frequency of sampling to twice annually. This request was submitted to the Ministry and no response was provided. A review conducted by the Ministry's surface water specialist in April, 2021, in conjunction with the review requirements of the ECA amendment Environmental Screening Report (ESR), indicate that sampling surface water in spring, summer and fall was reasonable in order to account for variation. It is recommended that if surface water is not sufficient for sampling, it should be documented. However, as per Condition 14 of the amended ECA, the municipality may request changes to the monitoring program to the District Manager. It is recognized that prior permission for this change was not previously granted and communicated to the site owner.

As indicated in the undersigned 2016 Inspection Report, the surface water sampling program has demonstrated that the shallow overburden leachate is impacting the stream which originates within the landfill. Steps should be take to minimize infiltration of surface water. The site owner should also examine surface water control methods along the outer fill are to divert surface water away from exposed wastes.

Requested Actions:

By August 31st, 2022, complete the following items and submit a response to the undersigned:

1. Compact and cover exposed wastes in the active working face (both household and commercial wastes) in accordance with the ECA.
2. Develop and implement a plan to address seasonal surface water and high water table along the outer working face.

Appendix D

Log Book Summaries - 2022

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

**MONTH
END**

LANDFILL OPERATIONAL LOG BOOK

DATE: JAN 31 2022

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	4618	
Shingles		
Trailer Loads	23	
½ ton Loads	26	
Tandem Loads		
Tri-Axel		
Dump Trailer	8	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
	1	SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS
		2

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

MONTH
END

LANDFILL OPERATIONAL LOG BOOK

DATE: _____

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	310912	
Shingles		
Trailer Loads	24	
½ ton Loads	29	
Tandem Loads		
Tri-Axel		
Dump Trailer	10	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

MONTH
END

LANDFILL OPERATIONAL LOG BOOK

DATE: mar 31 2022

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	4281	
Shingles		
Trailer Loads	36	
½ ton Loads	33	
Tandem Loads		
Tri-Axel		
Dump Trailer	10	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

LANDFILL OPERATIONAL LOG BOOK

DATE: April 2022

Month
End

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	4892	
Shingles		
Trailer Loads	68	
½ ton Loads	30	
Tandem Loads	1	
Tri-Axel	3	
Dump Trailer	35	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPY'S/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

MONTH
END

LANDFILL OPERATIONAL LOG BOOK

DATE: May 2022

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	4072	
Shingles	4	
Trailer Loads	68	
½ ton Loads	62	
Tandem Loads	18	
Tri-Axel	9	
Dump Trailer	49	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

LANDFILL OPERATIONAL LOG BOOK

DATE: June 2022*End of shift*

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	4982	
Shingles		
Trailer Loads	80	
½ ton Loads	70	
Tandem Loads		
Tri-Axel		
Dump Trailer	68	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPY'S/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

month
END

LANDFILL OPERATIONAL LOG BOOK

DATE: July 2022

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	5328	
Shingles	4	
Trailer Loads	168	
½ ton Loads	54	
Tandem Loads	3	
Tri-Axel	4	
Dump Trailer	47	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

MONTH
END

LANDFILL OPERATIONAL LOG BOOK

DATE: August 2022

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	5742	
Shingles	2	
Trailer Loads	89	
½ ton Loads	82	
Tandem Loads		
Tri-Axel		
Dump Trailer	66	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals &why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

month
END

LANDFILL OPERATIONAL LOG BOOK

DATE:

Sept 2022

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	4979	
Shingles	1	
Trailer Loads	62	
½ ton Loads	39	
Tandem Loads	5	
Tri-Axel	1	
Dump Trailer	68	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

month
END

LANDFILL OPERATIONAL LOG BOOK

DATE: October 2022

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	5528	
Shingles	1	
Trailer Loads	37	
½ ton Loads	36	
Tandem Loads		
Tri-Axel		
Dump Trailer	45	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

**MONTH
END**

LANDFILL OPERATIONAL LOG BOOK

DATE: November 2022

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	5164	
Shingles		
Trailer Loads	46	
½ ton Loads	39	
Tandem Loads	4	
Tri-Axel	2	
Dump Trailer	106	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
	1	GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

**month
END**

LANDFILL OPERATIONAL LOG BOOK

DATE: December 2022

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	5840	
Shingles		
Trailer Loads	17	
½ ton Loads	32	
Tandem Loads		
Tri-Axel		
Dump Trailer	42	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

TOWNSHIP OF MACDONALD, MEREDITH & ABERDEEN ADDITIONAL

YEAR
END

LANDFILL OPERATIONAL LOG BOOK

DATE: 20 22

RECORD OF WASTE COLLECTED

TYPE	QUANTITY	LOCATION OF DISPOSAL
Household waste	59112	
Shingles	16	
Trailer Loads	6916 718	
½ ton Loads	552	
Tandem Loads	24 31	
Tri-Axel	14 19	
Dump Trailer	550	

RECORD OF REMOVAL OF TIRES

TYPE	QUANTITY	PICKUP
		DAY CONSTRUCTION

RECORD OF REMOVAL OF SCRAP METAL

TYPE	QUANTITY	PICK UP
		SCRAPPIES/BICKELL'S

REMOVAL OF ELECTRONIC BIN

TYPE	QUANTITY	PICK UP
		GREEN FOR LIFE

RECORD OF BURNS

TYPE	TIME	SIGNATURE & COMMENTS

RECORD ANY OTHER RELEVANT INFORMATION (refusals & why)

Appendix E

Landfill Plan to Ministry of Environment, Conservation & Parks

Updated March 2023

Marshall Thompson

From: Marshall Thompson
Sent: June 3, 2020 4:46 PM
To: Cameron, Brian (MECP)
Cc: Mitchell, Kristy (MECP); Crosson, Kirk (MECP); Lynne Duguay
Subject: Macdonald Meredith Landfill - ECA A561302
Attachments: Response to ECA Ammendment - Macdonald Meredith Landfill.pdf; 20-0031 Letter to MECP MMA Landfill Annual Report 2019.pdf; 20-0031 MMAA Landfill Annual Operations Report - 2019 (Final).pdf; ECA Ammendment - September 3, 2019.pdf

Categories: Red Category

Hi Brian:

In regards to ECA A561302 Amendment Notice No. 2 the municipality was to submit a plan to the MECP District Manager by June 3, 2020. Municipal representatives met last week on site to formulate a plan and this was approved at the June 2, 2020 council meeting. I have attached the background and the plan to you for your review and approval before it can be submitted to the director.

In addition and in accordance with the ECA we had sent a letter to the District Manager through the district office back in March along with the annual reports requesting a reduction in testing from three times a year (spring summer fall) to twice a year (spring and fall). I have attached this letter as well as the annual reports for your consideration. I've included the annual operation report with this email and a subsequent email will include the front end of the surface water and groundwater monitoring report without all the monitoring data due to file size. If you would like to also receive this I can send in two additional emails.

Please contact by email if you have any questions.

Regards, Marshall

Marshall Thompson P. Eng

Project Engineer



Tel: 705 842 3372
Fax: 705 842 2658

Tulloch Engineering Inc
200 Main Street - P.O. Box 579, Thessalon, ON P0R 1L0
marshall.thompson@TULLOCH.ca | TULLOCH.ca

From: Crosson, Kirk (MECP) <Kirk.Crosson@ontario.ca>
Sent: June 1, 2020 9:02 AM
To: Marshall Thompson <marshall.thompson@tulloch.ca>
Cc: Cameron, Brian (MECP) <Brian.Cameron@ontario.ca>; Mitchell, Kristy (MECP) <Kristy.Mitchell@ontario.ca>
Subject: RE: Macdonald Meredith Landfill

Please copy me on the reply to the District Manager on the waste site file.

From: Marshall Thompson <marshall.thompson@tulloch.ca>

Sent: June-01-20 8:11 AM

To: Crosson, Kirk (MECP) <Kirk.Crosson@ontario.ca>

Subject: Macdonald Meredith Landfill

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Kirk:

Met with Township of Macdonald Meredith representatives last week regarding your letter from January 2020 and an ECA amendment they have to respond to. They have a council meeting this Tuesday and they will then direct me in responding on Wednesday. I have to send the ECA info to the District Manager. Can you confirm that this would be Brian Cameron in Sudbury [705-564-3214 | brian.cameron@ontario.ca]?

Did you get an update from Camp Bil-O-Wood representatives regarding their sewage system status?

Marshall

Marshall Thompson P. Eng

Project Engineer



Tel: 705 842 3372

Fax: 705 842 2658

Tulloch Engineering Inc

200 Main Street - P.O. Box 579, Thessalon, ON P0R 1L0

marshall.thompson@TULLOCH.ca | TULLOCH.ca

Township of Macdonald Meredith & Aberdeen Additional Landfill

Plan of Response to ECA A561302 Amendment Notice No. 2 Dated September 3, 2019

Background:

This is related to the need to respond to the MECP regarding the following condition which is from the compiled Environmental Compliance Approval.

Contingency Plans and Implementation

8. (14) (a) Within nine (9) months from the date of this *Approval*, the *Owner* shall submit to the *District Manager*, a plan with timelines to bring the site into compliance with respect to condition 8(2).
- (b) Within fourteen (14) days of receiving the written correspondence from the *District Manager* confirming that the *District Manager* is in agreement with the proposed plan of action, the *Owner* shall forward the final proposal and a copy of the correspondences from the *District Manager* and all other correspondences and responses related to the proposal, to the *Director* requesting the *Approval* be amended to approve the proposal.

Condition 8(2) excerpt following where it refers to compliance with Reasonable Use Guideline

Compliance.

- (2) 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*, for the protection of the surface water at and off the *Site*.

Part (a) from Compliance relates to groundwater and the hydrogeologist has determined that leachate impacts on groundwater is not an issue. See following excerpt from Recommendation and Conclusions from the 2019 Monitoring Report.

Monitoring data collected in 2019 included both surface water and groundwater samples, and allowed a detailed interpretation of the hydrogeological setting of the Township of Macdonald, Meredith & Aberdeen Additional landfill site. Based on the borehole data and groundwater The uppermost 1 m of soil (which includes topsoil and a weathered zone within the clay overburden) is considered to be the main contaminant pathway at the landfill site, and is a zone which is assumed to have a direct hydraulic linkage to the small surface water creek which drains northwards past the landfill deposits. This zone is extremely difficult to instrument with monitoring wells due to its shallow depth; however, the evidence from the surface water chemistry data is that landfill leachate impacts are being felt in the small creek, and are interpreted to be due to "event driven" (i.e. precipitation-generated) leachate discharges from the nearby landfill waste deposits.

Part (b) is related to leachate impacts on surface water which has been an issue at the landfill as discussed in the following excerpt from the monitoring report.

The monitoring report further indicates steps that can be taken to address the surface water quality as outlined following.

Efforts to minimize rainwater infiltration into the landfill waste deposits should be encouraged. These efforts could include such activities as minimizing the open working face area of the waste deposits, the application of a lower-permeability final cover to completed waste cell areas and the grading and contouring of the landfill itself to promote rainwater runoff (of uncontaminated rainwater) to the watershed.

Plan:

The following is a plan to present to the District Manager for endorsement prior to submitting to the Director for Approval. Need to provide MECP with a plan to comply with the ECA with associated timelines.

Activity	Timeline
Interim Cover of Waste & Reduce Landfill Exposed Waste Footprint	Summer 2022 (Completed)
Complete Clearing and Construct Perimeter Ditch along West and South Side of Landfill.	Summer 2023
Identify where ponding water within landfill footprint and regrade to ensure drainage	Summer 2023
Place Waste and Interim Cover Material to west of Site Building to 4:1 Slope Progressively place Final Cover	Commence Summer 2023 Ongoing Operations until Completed

Monitoring:

Sampling and Testing of surface water and groundwater will continue with annual monitoring reports to determine the effectiveness of the plan. As the plan will be implemented in 2023 it is expected that the effectiveness will not be realized until 2024 and beyond.