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**REPORT TO:** Mayor and Members of Council  
**DATE:** December 13, 2017  
**FROM:** Tara Clayton, Public Works Manager  
**SUBJECT:** Trillium Drive Landfill ECA Amendments – ECA #A041403  
Ref. # 7444-APGM3L

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## **RECOMMENDATION**

**THAT council receive the report on Trillium Drive Landfill ECA Amendments – ECA #A041403 Ref. # 7444-APGM3L for information.**

## **BACKGROUND:**

In October 2016 Ministry of Environment and Climate Change (MOECC) undertook an inspection at Trillium Drive Landfill and following that the report was received by the Municipality in January 2017. The report noted that there was a field alert issued to the MOECC Approvals Branch for an amended Environmental Compliance Approval (ECA) for Trillium Landfill, Glencoe. The public works manager provided a corrective action written response to the MOECC in March to address the corrective actions that were required.

The report stated that the “existing ECA needs to be updated to include additional requirements that will ensure the municipality is utilizing current best management practices when operating the landfill. The need for a surface/groundwater monitoring program is necessary to provide analytical data that will assist in determining if current/future operations at the landfill are contributing to adverse impacts offsite.” (October 2016, MOECC)

## **ANALYSIS:**

The draft amendments are attached for your reference. There are requirements for increased information to be gathered, documentation to be

prepared, and assessments to be conducted, as well as establishing a number of procedures, establishing and undertaking ongoing monitoring, providing training, and clearly identifying the expected life of the landfill based on data and using that to project closure.

There are requirements that must be followed including:

### **Section 1 General**

- Compliance
- In accordance
- Other legal obligations
- Adverse effect
- Furnish information
- Interpretation

### **Section 2 General Operations**

- Proper operation
- Service area
- Site security
- Roads and traffic
- Waste inspection and procedures
- Litter control
- Vermin, scavenging, dust, odour, noise, etc.

### **Section 3 Landfill Site Operations**

- Landfill operations
- By no later than November 31, 2019, the Owner shall submit to the Director for approval, with copies to the District Manager, a Design and Operations report pertaining to current and future operational procedures for landfilling at the Site. The report shall include but not be limited to the following:
  - a plan(s) showing the Site location, Site plan, geological and hydrogeological Site conditions, landfilling staging plan and approved limits of wastes;
  - a description of the landfill design and solid waste management related features such as but not limited to: landfill containment features (engineered or natural attenuation, contaminant attenuation zone),

- leachate and landfill gas management system (if present), mini-transfer area, surface water bodies, drainage structures or features;
- a discussion on the landfill service area, the type and expected annual of waste accepted, waste inspection procedures, theoretical site capacity, the proposed volume of waste to be landfilled (under this plan compared to theoretical volume), the current volume of waste landfilled and the expected remaining life expectancy;
  - Site operation and maintenance procedures. These items shall include but not be limited to the following:
    - hours of operation;
    - security/access;
    - signage;
    - receiving, screening and rejection of waste;
    - unloading, handling and storage of waste;
    - mini-transfer area;
    - daily/interim cover material;
    - equipment and buildings;
    - litter control;
    - dust and noise control;
    - animal/vector control;
    - complaints;
    - Site inspection, spill, fire and leakage recording; and
    - training;
    - schedule for inspections at the Site;
    - description of leachate management plan for the site and a contingency plan to address leachate outbreaks or migration off-site;
    - description of the site monitoring programs for groundwater, surface water and landfill gas;
    - description of the steps to be taken to address complaints at the site such as odours, dust, noise, vectors, vermin, rodents;
    - description of stormwater management at the Site; and
    - conceptual closure plans for the landfill including but not limited to the following:
      - description of the end use of the site;
      - drawings showing the final contours;
      - the final waste volume;
      - the thickness of the final cover; and
      - the material to be used for the final cover.
  - Capacity by no later than May 31, 2018, the Owner shall submit to the Director for approval, and to the District Manager, a determination of the theoretical maximum approved capacity of the landfill site in

accordance with the Ministry document titled "Landfill Capacity Determination, Final Version - December, 1993" and a determination of the volume and weight of waste and daily/interim cover landfilled to date.

- Waste types
- Burning of waste
- Asbestos waste
- Cover material
- Signage
- Landfill gas
- Surface water management
- Mini transfer area
- Subsequent stages

#### **Section 4 Training**

- Employees and training

#### **Section 5 Inspections and Record Keeping**

- Daily inspections and log books
- Monthly records
- Site inspections
- Records retention

#### **Section 6 Monitoring**

- Ground water monitors
- Compliance criteria

#### **Section 7 Complaints Procedure**

#### **Section 8 Emergency Situations**

#### **Section 9 Annual Reporting**

#### **Section 10 Site Closure**

### **FINANCIAL IMPLICATIONS:**

There will be financial implications associated with the requirements outlined in the amended ECA.

**LEGAL IMPLICATIONS:**

The reason for the amendment is 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 ECA also is to clarify the legal rights and responsibilities of the Owner under this Approval.

**OPERATIONAL IMPLICATIONS:**

There will be a significant number of operational changes required to meet the conditions in the amended ECA.

**ASSET MANAGEMENT IMPLICATIONS:**

PS 3270 (Solid Waste Landfill Closure and Post-Closure Liability) requires that the accounting already accrues for a liability for the costs on an ongoing basis as capacity is used. Estimates of costs should be reviewed annually with detailed studies. Budgeting for the annual operating budget of a functioning landfill should include the accrual of closure and post closure costs in each year of operation. In theory, the annual operating budget for landfills should be financed out of the tipping fees. If accrued liability for closure and post-closure costs are insufficient, the overage should be an expense in the year(s) in which it occurs.

**RISK MANAGEMENT IMPLICATIONS:**

To mitigate any risks the municipality is advised to follow the amended ECA along with the Environmental Protection Act and the Occupational Health and Safety Act.

**RELATIONSHIP TO STRATEGIC PLAN:**

- Sponsoring attractive municipal services in a rural setting
- Upholding a healthy & safe environment

**PREVIOUS RELATED REPORTS:**

- November 22, 2017 Landfill Operations Review RPF
- November 8, 2017 Landfill Excavation Proposal Results
- September 20, 2017 Draft Terms of Reference Landfill Committee
- August 30, 2017 Southwest Middlesex Landfills

- December 14, 2016 Insurance Update
- September 9, 2015 Landfill Closure Liability
- December 3, 2014 Landfill Inspections
- December 5, 2012 Landfill Supervisor
- December 16, 2009 Trillium Drive Landfill Contract
- November 18, 2009 Administration Limerick Landfill Site Status

**ATTACHMENT(S):**

- Trillium Landfill Letter -20171208
- Trillium Drive Landfill Proposed ECA Amendments – ECA #A041403  
Ref. #7444-APGM3L
- Trillium Drive Landfill Inspection Report October 2016

**OTHERS CONSULTED:**

- Jillene Bellchamber-Glazier, CAO/Clerk
- John McGlynn, Senior Environmental Officer, Ministry of Environment and Climate Change
- Dan Crompt, District Supervisor, Ministry of Environment and Climate Change

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December 8, 2017

Tara Clayton  
The Corporation of the Municipality of Southwest Middlesex  
153 McKellar St  
Post Office Box, No. 218  
Glencoe, Ontario  
N0L 1M0

Dear Madam:

**Re: Application for Approval of Waste Disposal Sites  
Field Alert- Amendment to ECA # A041403  
Southwest Middlesex Municipality, County of Middlesex  
Reference Number 7444-APGM3L**

This is to advise you that the ministry has conducted a review of Environmental Compliance Approval (ECA) No. A041403 for the Trillium Drive Landfill located at 3945 Trillium Drive in the Municipality of Southwest Middlesex. Based on the review, it has been determined that the terms and conditions of the ECA do not meet the ministry's current standards for environmental protection. As a result, a draft ECA with updated terms and conditions has been prepared and attached to this letter for your review.

Please provide any comments or concerns directly to me by no later than **January 5, 2018**. Please copy the District Office in your correspondence. If no response is received by the above due date, the ministry will assume that the municipality has no objections and will proceed with the update based on the attached draft.

If you have any questions regarding the above, please contact me by phone at (416)-212-4201 or by email at [Nick.Zambito@ontario.ca](mailto:Nick.Zambito@ontario.ca)

Yours truly,

Nick Zambito  
Project Engineer Intern

c: District Manager, MOECC London - District



**AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL**

The Corporation of the Municipality of Southwest Middlesex  
153 McKellar St  
Post Office Box, No. 218  
Glencoe, Ontario  
N0L 1M0

Site Location: Trillium Drive Landfill Site (Ekfrid Landfill)  
3945 Trillium Dr  
Southwest Middlesex Municipality, County of Middlesex  
N0L 1M0

*You are hereby notified that I have amended Approval No. A041403 issued on November 26, 1971 for the use and operation of a 20.2 hectare waste disposal site (landfill) within a total Site area of 50 hectares, as follows:*

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

**"Approval"** or **"ECA"** means this Environmental Compliance Approval and includes all items, conditions and Schedules attached to and forming part of this Approval, as amended by the *Director*.

**"Contaminating Life Span" or "CLS"** refers to the period of time, after closure until the *Site* finally produces contaminants at concentrations below levels which have unacceptable health or environmental effects;

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

**"District Manager"** refers to the District Manager in the Ministry of the Environment and Climate Change's London District Office;

**"District Office"** refers to the Ministry of the Environment and Climate Change London District Office;

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

"**MOECC**" or "**Ministry**" refers to the Ontario Ministry of the Environment and Climate Change;

"**Operator**" has the same meaning as "operator" as defined in s.25 of the *EPA*;

"**Owner**" means the Corporation of the Municipality of Southwest Middlesex;

"**OWRA**" refers to the Ontario Water Resources Act, R.S.O. 1990, c. O.40;

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

"**Provincial Officer**" means any person designated in writing by the Minister as a provincial officer pursuant to section 5 of the *OWRA* or section 5 of the *EPA* or section 17 of the *PA*;

"**Regulation 347**" or "**Reg. 347**" means Regulation 347, R.R.O. 1990, made under the *EPA*, as amended from time to time;

"**Site**" means the entire waste disposal site, including any buffer lands and contaminant attenuation zones approved by this *ECA*.

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

## TERMS AND CONDITIONS

### 1.0 GENERAL

#### Compliance

- 1.1 The *Owner* shall ensure that any person authorized to carry out work on or operate any aspect of the *Site* is notified of the *ECA* and the conditions herein and shall take all reasonable measures to ensure the person complies with the same.
- 1.2 Any person authorized to carry out work on or operate any aspect of the *Site* shall comply with the conditions of this *ECA* .

#### In Accordance

- 1.3 Except as otherwise provided for in this *ECA* , the *Site* shall be designed, developed, constructed, operated and maintained in accordance with the conditions in this *ECA* and the supporting documentation listed in Schedule "A".

#### Other Legal Obligations

- 1.4 The issuance of, and compliance with, this *ECA* does not:
- i. relieve any person of any obligation to comply with any provision of the *EPA* or any other applicable statute, regulation or other legal requirement; or
  - ii. limit in any way the authority of the *Ministry* to require certain steps be taken or to request that any further information related to compliance with this *ECA* be provided to the *Ministry* ;

unless a provision of this *ECA* specifically refers to the other requirement or authority and clearly states that the other requirement or authority is to be replaced or limited by this *ECA* .

### **Adverse Effect**

- 1.5 The *Owner* or *Operator* shall remain responsible for any contravention of any other condition of this *ECA* or any applicable statute, regulation, or other legal requirement resulting from any act or omission that caused the adverse effect or impairment of air and/or water quality.

### **Furnish Information**

- 1.6 Any information requested by the *Director* or a *Provincial Officer* concerning the *Site* and its operation under this *ECA* , including but not limited to any records required to be kept by this *ECA* shall be provided in a timely manner.
- 1.7 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 *ECA* or under any statute, regulation or subordinate legal instrument, in relation to the information, shall not be construed as:
- i. an approval, waiver, or justification by the *Ministry* of any act or omission of any person that contravenes any condition of this *ECA* or any statute, regulation or other subordinate legal requirement; or
  - ii. acceptance by the *Ministry* of the information's completeness or accuracy.
- 1.8 Any information related to this *ECA* 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.

### **Interpretation**

- 1.9 This *ECA* revokes and replaces the previous Environmental Compliance Approval and all subsequent amendments.
- 1.10 Where there is a conflict between a provision of any document, including the application, referred to in this *ECA*, and the conditions of this *ECA*, the conditions in this *ECA* shall take precedence.
- 1.11 Where there is a conflict between the application and a provision in any documents listed in Schedule "A", the application shall take precedence, unless it is clear that the purpose of the

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

- 1.12 Where there is a conflict between any two documents listed in Schedule "A", other than the application, the document bearing the most recent date shall take precedence.
- 1.13 The conditions of this *ECA* are severable. If any condition of this *ECA* , or the application of any condition of this *ECA* to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this *ECA* shall not be affected thereby.

### **Certificate of Requirement**

- 1.14 Pursuant to Section 197 of the *EPA* , no person having an interest in the *Site* shall deal with the *Site* in any way without first giving a copy of this *ECA* to each person acquiring an interest in the *Site* as a result of the dealing.
- 1.15 If not completed by the issuance of this *ECA*, then two (2) copies of a completed Certificate of Requirement, containing a registerable description of the *Site* , shall be submitted to the *Director* for the *Director*'s signature within sixty (60) calendar days of the date of this *ECA*.
- 1.16 If not completed by the issuance of this *ECA*, then the Certificate of Requirement shall be registered in the appropriate land registry office on title to the *Site* and a duplicate registered copy shall be submitted to the *Director* within 10 calendar days of receiving the Certificate of Requirement signed by the *Director* .

### **No Transfer or Encumbrance**

- 1.17 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 is satisfied with the arrangements made to ensure that all conditions of this *ECA* will be carried out and that sufficient financial assurance is deposited with the *Ministry* to ensure that these conditions will be carried out.

### **Change of Owner**

- 1.18 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:
  - i. the ownership of the *Site* ;
  - ii. the *Operator* of the *Site* ;
  - iii. the address of the *Owner* or *Operator* ;
  - iv. 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;
  - v. the name of the corporation where the *Owner* or *Operator* is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current

information filed under the *Corporations Information Act* , R. S. O. 1990, c. C.39, shall be included in the notification.

- 1.19 In the event of any change in the ownership of the *Site*, other than a change to a successor municipality, the *Owner* shall notify in writing the succeeding owner of the existence of this *ECA* , and a copy of such notice shall be forwarded to the *Director* and *District Manager* .

## **Inspections**

- 1.20 No person shall hinder or obstruct a *Provincial Officer* from carrying out any and all inspections authorized by the *OWRA* , the *EPA* , or the *PA* , of any place to which this *ECA* relates, and without limiting the foregoing:
- i. to enter upon the premises where the approved works are located, or the location where the records required by the conditions of this *ECA* are kept;
  - ii. to have access to, inspect, and copy any records required to be kept by the conditions of this *ECA*;
  - iii. to inspect the *Site*, related equipment and appurtenances;
  - iv. to inspect the practices, procedures, or operations required by the conditions of this *ECA* ; and
  - v. to sample and monitor for the purposes of assessing compliance with the terms and conditions of this *ECA* or the *EPA* , the *OWRA* or the *PA* .

## **2.0 GENERAL OPERATIONS**

### **Proper Operation**

- 2.1 The *Site* shall be properly operated and maintained at all times. All waste shall be managed and disposed of in accordance with the *EPA* and *Regulation 347* and the requirements of this *ECA*. At no time shall the discharge of a contaminant that causes or may cause an adverse effect be permitted.

### **Service Area**

- 2.2 Only solid non-hazardous waste that was generated within the Municipality of Southwest Middlesex shall be accepted at the *Site*.

### **Site Security**

- 2.3 During non-operating hours, the *Site* entrance and exit gates shall be locked and the *Site* shall be secured against access by unauthorized persons.

### **Roads and Traffic**

- 2.4 On-*Site* roads shall be provided and maintained in a manner that vehicles hauling waste to and on the *Site* may travel readily and safely on any operating day. On-*Site* roads must be clear of mud, ice and debris which may create hazardous conditions.

### **Waste Inspection and Procedures**

- 2.5 The *Operator* shall develop and implement a program to inspect waste to ensure that the waste is of a type approved for acceptance under this *ECA*.
- 2.6 All loads of waste must be inspected by trained site personnel prior to acceptance at the *Site* and waste vehicles must be directed to appropriate areas for waste disposal.

### **Litter Control**

- 2.7 The *Owner* shall take all practical steps to prevent escape of litter from the *Site*. All loose, windblown litter shall be collected on a daily basis and disposed of at the landfill working face when the *Site* is active and at a licensed waste disposal site when the *Site* no longer accepts waste for final disposal.

### **Vermin, Scavenging, Dust, Odour, Noise, etc.**

- 2.8 The *Site* shall be operated and maintained such that the vermin, vectors, dust, odour, noise and traffic do not create adverse effect off-site.
- 2.9 No scavenging is to occur at the *Site*.

### **Dust**

- 2.10 The *Owner* shall control fugitive dust emissions from onsite sources including but not limited to onsite roads, stockpiled cover material and closed landfill area prior to seeding especially during times of dry weather conditions. If necessary, major sources of dust shall be treated with water and/or dust suppression materials to minimize the overall dust emissions from the *Site*.

### **Noise**

- 2.11 The *Owner* shall comply with noise criteria in MOECC Guideline entitled "Noise Guidelines for Landfill Sites."

## **3.0 LANDFILL SITE OPERATION**

### **Landfill Operations**

- 3.1 Except as otherwise provided by these conditions, the landfilling operations at the *Site* shall be conducted in accordance with conditions within this *ECA* and the supporting documentation, plans and specifications listed in Schedule "A".

3.2 By no later than November 31, 2019, the *Owner* shall submit to the *Director* for approval, with copies to the *District Manager*, a Design and Operations report pertaining to current and future operational procedures for landfilling at the *Site*. The report shall include but not be limited to the following:

- i. a plan(s) showing the *Site* location, *Site* plan, geological and hydrogeological *Site* conditions, landfilling staging plan and approved limits of wastes;
- ii. a description of the landfill design and solid waste management related features such as but not limited to: landfill containment features (engineered or natural attenuation, contaminant attenuation zone), leachate and landfill gas management system (if present), mini-transfer area, surface water bodies, drainage structures or features;
- iii. a discussion on the landfill service area, the type and expected annual of waste accepted, waste inspection procedures, theoretical site capacity, the proposed volume of waste to be landfilled (under this plan compared to theoretical volume), the current volume of waste landfilled and the expected remaining life expectancy;
- iv. *Site* operation and maintenance procedures. These items shall include but not be limited to the following:
  - a) hours of operation;
  - b) security/access;
  - c) signage;
  - d) receiving, screening and rejection of waste;
  - e) unloading, handling and storage of waste;
  - f) mini-transfer area;
  - g) daily/interim cover material;
  - h) equipment and buildings;
  - i) litter control;
  - j) dust and noise control;
  - k) animal/vector control;
  - l) complaints;
  - m) *Site* inspection, spill, fire and leakage recording; and
  - n) training;
- v. schedule for inspections at the *Site*;
- vi. description of leachate management plan for the site and a contingency plan to address leachate outbreaks or migration off-site;
- vii. description of the site monitoring programs for groundwater, surface water and landfill gas;
- viii. description of the steps to be taken to address complaints at the site such as odours, dust, noise, vectors, vermin, rodents;
- ix. description of stormwater management at the *Site*; and
- x. conceptual closure plans for the landfill including but not limited to the following:
  - a) description of the end use of the site;
  - b) drawings showing the final contours;
  - c) the final waste volume;
  - d) the thickness of the final cover; and
  - e) the material to be used for the final cover.

- 3.3 Upon approval of the Design and Operations Report, the Design and Operations Report shall be retained at the *Site*; kept up to date through periodic revisions; and be available for inspection by *Ministry* staff. Changes to the Design and Operations Report shall be submitted to the *Director* for approval.

### **Capacity**

- 3.4 By no later than May 31, 2018, the *Owner* shall submit to the *Director* for approval, and to the *District Manager*, a determination of the theoretical maximum approved capacity of the landfill site in accordance with the *Ministry* document titled "Landfill Capacity Determination, Final Version - December, 1993" and a determination of the volume and weight of waste and daily/interim cover landfilled to date.

### **Waste Types**

- 3.5 Only solid non-hazardous waste shall be accepted at the *Site* for landfilling.

### **Burning of Waste**

- 3.6 a) Burning of waste at the *Site* is prohibited.  
b) Notwithstanding Condition 3.5 (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.

### **Asbestos Waste**

- 3.7 Any waste that is considered asbestos waste shall be handled in accordance with Section 17 of *Reg. 347*, as amended from time to time.
- 3.8 A suitable sized excavation for the asbestos waste shall be made by the *Owner* in a location away from the active landfilling face, or the active face of the landfill shall be shut down during this procedure to bury the asbestos containing waste.
- 3.9 All asbestos waste shall be inspected to ensure that the asbestos waste is properly bagged or contained and free from puncture, tears or leaks.
- 3.10 The asbestos waste shall be placed in the excavation to avoid damage to the containers and to prevent dust and spillage.
- 3.11 Upon completion of the unloading and deposition of the asbestos in the excavation, at least 1.25 metres of cover or waste material shall be placed over the asbestos.
- 3.12 All asbestos waste shall be deposited to a level no higher than 1.25 metres below the general elevation of the disposal area to ensure that daily cover material removal in the future does not encounter the asbestos waste.



## Cover Material

- 3.13
- i. Daily Cover - By the end of each working day, the entire working face shall be covered with a minimum thickness of 150 mm of soil cover.
  - ii. Intermediate Cover - In areas where landfilling has been temporarily discontinued for six (6) months or more, a minimum thickness of 300 mm of soil cover material shall be placed.
  - iii. Final cover of the waste fill zone must meet the following specifications:
    - a) Final Cover - In areas where landfilling has been completed to final contours, a minimum 0.85 m layer of low-permeability final cover soil shall be placed. Fill areas shall be progressively completed and rehabilitated as development reaches final contours; and
    - b) Topsoil - In areas where landfilling has been completed to final contours and where final cover has been placed, a minimum 0.15 metres thick layer of topsoil shall be placed.
- 3.14 Cover material which has cracked or eroded shall be regraded and compacted as soon as possible.

## Signage

- 3.15 A sign shall be maintained at the main entrance/exit to the *Site* on which is legibly displayed the following information:
- i. the name of the *Site* and *Owner*;
  - ii. the number of the *ECA*;
  - iii. the name of the *Operator*;
  - iv. the normal hours of operation;
  - v. the allowable and prohibited waste types;
  - vi. a warning against unauthorized access;
  - vii. the telephone number to which complaints may be directed;
  - viii. a twenty-four (24) hour emergency telephone number (if different from above); and
  - ix. a warning against dumping outside the *Site*.

## Landfill Gas

- 3.16 The *Owner* shall ensure all existing structures and future structures to be built on *Site* shall be situated and constructed in a manner which minimizes the potential for accumulation of landfill gas.

## Surface Water Management

- 3.17 Clean runoff from non-operating areas shall be diverted from the landfilling area and prevented from entering the lined landfill cells.

- 3.18 Runoff from operating areas shall be diverted from the landfilling area and prevented from entering the lined landfill cells and Newbiggen Creek.
- 3.19 The discharge of surface water off-*Site* is prohibited except in accordance with an OWRA approval.

### **Mini-Transfer Area**

- 3.20 The *Owner* shall operate and maintain the mini-transfer area such that the dust, odours, vectors, birds, litter, noise and traffic do not create a nuisance.
- 3.21 Domestic waste received from the public shall be placed within appropriate steel bin, and shall not be placed on the ground.
- 3.22 Waste storage bins shall be emptied and the waste be disposed of in the active landfilling area within 24 hours of being full or every seven (7) days at a minimum.
- 3.23 Recyclable materials received shall be properly sorted and sent to appropriate processing facility. No landfilling of recyclable materials shall be allowed.
- 3.24 All storage containers/bins used to store waste and/or recyclable materials shall be well sealed and maintained in good condition to prevent leakage. The *Owner* shall immediately remove from service any leaking container.

### **Subsequent Stages**

- 3.25 The final detailed design for the subsequent stages shall be submitted to the *Director* for approval prior to landfilling.
- 3.26 Approval to proceed with landfilling in each subsequent stage shall be dependent on monitoring results acceptable to the *Director*. If monitoring results are not acceptable to the *Director* then remedial action must be taken and completed before landfilling may proceed in the subsequent stage.

## **4.0 TRAINING**

### **Employees and Training**

- 4.1 A training plan for all employees that operate any aspect of the *Site* shall be developed and implemented by the *Operator*. Only trained employees shall operate any aspect of the *Site* or carry out any activity required under this *ECA*. For the purpose of this *ECA* "trained" means knowledgeable either through instruction or practice in:
- i. the relevant waste management legislation including *EPA, Reg. 347*, regulations and guidelines;
  - ii. major environmental and occupational health and safety concerns pertaining to the waste to be handled;

- iii. the proper handling of wastes;
- iv. the management procedures including the use and operation of equipment for the processes and wastes to be handled;
- v. the emergency response procedures;
- vi. the specific written procedures for the control of nuisance conditions;
- vii. the terms, conditions and operating requirements of this *ECA*; and,
- viii. proper inspection, receiving and recording procedures and the activities to be undertaken during and after a load rejection.

## **5.0 INSPECTIONS AND RECORD KEEPING**

### **Daily Inspections and Log Book**

5.1 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 being operated in compliance with this *ECA*. Any deficiencies discovered as a result of the inspection shall be remedied immediately, including temporarily ceasing operations at the *Site* if needed.

5.2 A record of the inspections shall be kept in a daily log book or a dedicated electronic file that includes:

- i. the name and signature of person that conducted the inspection;
- ii. the date and time of the inspection;
- iii. the list of any deficiencies discovered;
- iv. the recommendations for remedial action; and
- v. the date, time and description of actions taken.

5.3 A record shall be kept in the daily log book or a dedicated electronic file of all the following:

- i. the type, date and time of arrival, hauler, and quantity (tonnes) of all waste received at the *Site*; and,
- ii. a list of the refusal of waste shipments, the reason(s) for refusal, and the origin of the waste, if known.

### **Monthly Records**

5.4 Monthly *Site* inspection records in the form of a written log or a dedicated electronic file shall include the following:

- i. a summary of wastes received, processed, transfer and refused for disposal at the *Site*;
- ii. a calculation of the total quantity (tonnes) of waste received at the *Site* during each operating day and each operating week;
- iii. the amount of any leachate removed, or treated and discharged from the *Site*;
- iv. a record of litter collection activities and the application of any dust suppressants;
- v. a record of the daily inspections;

- vi. 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;
- vii. type and amount of daily, intermediate and final cover used;
- viii. maintenance and repairs performed on equipment employed at the *Site*;
- ix. complaints received and actions taken to resolve them;
- x. emergency situations and actions taken to resolve them; and
- xi. any other information required by the *Ministry*.

## Site Inspections

- 5.5 During *Site* operations, the *Owner* shall inspect the *Site* monthly for the following items but not limited to these items:
- i. general settlement areas or depressions on the waste mound;
  - ii. shear and tension cracks on the waste mound;
  - iii. condition of surface water drainage works;
  - iv. erosion and sedimentation in surface water drainage system;
  - v. presence of any ponded water on the waste mound;
  - vi. adequacy of cover material;
  - vii. evidence of vegetative stress, distressed poplars or side slope plantings on or adjacent to the waste mound;
  - viii. condition of groundwater monitoring wells and gas wells;
  - ix. presence of insects, vermin, rodents and scavenging animals on or adjacent to the waste mound;
  - x. condition of fence surrounding the *Site*; and,
  - xi. general *Site* appearance.
- 5.6 The *Owner* shall inspect the waste mound and surrounding areas weekly for presence of leachate seeps. The *Owner* will make best efforts to repair leachate seeps within 48 hours of discovery, depending on weather and ground conditions. In the event the leachate seeps are not addressed within 48 hours of discovery, the *Owner* shall document in the daily log book the reasons for which the seep(s) were not repaired within the 48 hour timeframe and the date at which they were repaired.

## Record Retention

- 5.7 Except as authorized in writing by the *Director*, all records required by this *ECA* shall be retained at the *Site* for a minimum of two (2) years from their date of creation.
- 5.8 The *Owner* shall retain all documentation listed in Schedule "A" for as long as this *ECA* is valid.
- 5.9 All monthly summary reports are to be kept at the *Site* until they are included in the Annual Report.
- 5.10 The *Owner* shall retain employee training records as long as the employee is working at the *Site*.

5.11 The *Owner* shall make all of the above documents available for inspection upon request of *Ministry* staff.

## **6.0 MONITORING**

### **Groundwater Monitors**

- 6.1 The *Owner* shall ensure all groundwater monitoring wells are properly capped, locked and protected from damage.
- 6.2 All groundwater monitoring wells whether included in the monitoring program or not shall be assessed, repaired, replaced or decommissioned as required. Any well being decommissioned shall be decommissioned in accordance with good standard practice that will prevent contamination through the abandoned well and in accordance with Ontario Regulation 903.
- 6.3 The *Owner* shall repair or replace any monitoring well included in the monitoring program which is destroyed or in any way made inoperable for sampling such that no more than one sampling event is missed.
- 6.4 Any monitoring well included in the monitoring program that is no longer required as part of the groundwater monitoring program may be decommissioned provided its removal from the monitoring program has been approved by the *Director*. A report on the decommissioning shall be provided in the annual monitoring report for the period during which the well was decommissioned.

### **Compliance Criteria**

- 6.5 The *Site* shall be operated in such a way to ensure compliance with the *MOECC's* Guideline B-7 Reasonable Use Concept at monitoring points along the property line that have the potential to be impacted by leachate from the *Site*.

## **7.0 COMPLAINTS PROCEDURE**

- 7.1 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:
- i. 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;
  - ii. the *Owner*, upon notification of the complaint, shall initiate appropriate steps to determine all 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

- iii. the *Owner* shall complete 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. A copy of the report shall be retained onsite.

7.2 The *Owner* shall post the *Site* complaints procedure at the *Site* entrance along with the name and phone number of a suitable, local contact to receive complaints or questions related to the *Site*. All complaints and the *Owner's* actions taken to remedy the complaints must be summarized in the Annual Report.

7.3 All complaints received by the *Owner* are to be reported within twenty-four (24) hours of receipt to the *District Manager*.

## **8.0 EMERGENCY SITUATIONS**

8.1 In the event of a fire or discharge of a contaminant to the environment, *Site* staff shall contact the *MOECC* Spills Action Centre (1-800-268-6060) and the *District Office* of the *MOECC*, as well as other applicable agencies as required.

8.2 The *Owner* shall submit to the *District Manager* a written report within three (3) days of the spill or incident, outlining the nature of the incident, remedial measures taken and measures taken to prevent future occurrences at the *Site*.

8.3 The *Owner* shall ensure that adequate fire fighting and contingency spill clean up equipment is available and that emergency response personnel are familiar with its use and location.

## **9.0 ANNUAL REPORTING**

9.1 By no later than March 31, 2019, a written report on the development, operation, closure and monitoring of the *Site*, shall be completed annually (the "Annual Report"). The Annual Report shall be submitted to the *District Manager* by March 31st of each year and shall cover the year ending the preceding December 31st.

9.2 The Annual Report shall include the following:

- i. the results and an interpretive analysis of the results of all leachate, groundwater, surface water and landfill gas monitoring, including an assessment of the need to amend the monitoring programs;
- ii. an assessment with regards to compliance of the groundwater quality at the property boundary and compliance point with regards to Guideline B-7 - Reasonable Use Concept;
- iii. 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;
- iv. an assessment of the efficiency of the leachate management at the *Site*;
- v. site plans showing the existing contours of the *Site*;

- vi. areas of landfill during the reporting period;
- vii. areas of intended operation during the next reporting period;
- viii. areas of excavation during the reporting period;
- ix. the progress of final cover, vegetative cover, and any intermediate cover application;
- x. previously existing site facilities;
- xi. facilities installed during the reporting period;
- xii. *Site* preparations and facilities planned for installation during the next reporting period;
- xiii. 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;
- xiv. a summary of the quantity of any leachate or pre-treated leachate removed from the *Site* during each operating week;
- xv. a summary of the weekly, maximum daily and total annual quantity (tonnes) of waste received at the *Site*;
- xvi. a summary of any complaints received and the responses made;
- xvii. a discussion of any operational problems encountered at the *Site* and corrective action taken;
- xviii. a summary of the amount of wastes refused for disposal at the *Site*, the reasons for refusal and the carrier who brought the waste to the *Site*;
- xix. an updated summary of the amount of financial assurance which has been provided to the *Director*;
- xx. a report on the status of all monitoring wells and a statement as to compliance with Ontario Regulation 903;
- xxi. any other information with respect to the site which the *District Manager or Regional Director* may require from time to time;
- xxii. a statement of compliance with all conditions of this *ECA* and other relevant *Ministry* groundwater and surface water requirements;
- xxiii. a confirmation that the site inspection program as required by this *ECA* has been complied with by the *Owner*;
- xxiv. any changes in operations, equipment or procedures employed at the *Site*;
- xxv. recommendations regarding any proposed changes in operations of the *Site*;
- xxvi. any updates to the Operations Manual.

## 10.0 SITE CLOSURE

- 10.1 At least two (2) years prior to closure or when 90% of the site capacity is reached, whichever comes first, the *Owner* shall submit to the *Director* for approval, with copies to the *District Manager*, a detailed *Site* closure plan pertaining to the termination of landfilling operations at this *Site*, post-closure inspection, maintenance and monitoring, and end use. The plan shall include the following:
- i. a plan showing *Site* appearance after closure;
  - ii. a description of the proposed end use of the *Site*, that shall include a discussion on the EA commitment 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;

- iii. a description of the procedures for closure of the *Site*:
  - a) advance notification of the public of the landfill closure;
  - b) posting a sign at the *Site* entrance indicating the landfill is closed and identifying any alternative disposal arrangements;
  - c) completion, inspection and maintenance of the final cover and landscaping;
  - d) site security;
  - e) removal of unnecessary landfill-related structures, buildings and facilities; and
  - f) final construction of any control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas;  
a schedule indicating the time-period for implementing sub-conditions i) to vi) above.
- iv. descriptions of the procedures for post-closure care of the *Site*, including:
  - a) operation, inspection and maintenance of the control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas;
  - b) record keeping and reporting; and
  - c) complaint contact and response procedures;
- v. an assessment of the adequacy of and need to implement the contingency plans for leachate and methane gas;
- vi. an updated estimate of the *Contaminating Life Span* of the *Site*, based on the results of the monitoring programs to date; and
- vii. an update of the cost estimates for financial assurance and the amount which has been provided to the *Director* to date.

10.2 The *Site* shall be closed in accordance with the closure plan as approved by the *Director*.

10.3 Upon closure of the *Site*, the *Owner* shall update the sign at the front gate of the *Site* to indicate the following:

- i. the name of the *Site* and *Owner*;
- ii. the Environmental Compliance Approval number;
- iii. the name of the *Operator*;
- iv. a warning against unauthorized access;
- v. the telephone number to which complaints or questions may be directed;
- vi. 24 hour emergency telephone number;
- vii. the *Site* is closed;
- viii. dumping outside of the gate is illegal; and
- ix. alternative locations for waste disposal.

10.4 Illegal waste shall be removed and disposed of within 48 hours of detection.

10.5 A vegetative cover consisting of vegetation that is suited to local conditions and that is capable with minimal care of providing vigorous, plentiful cover no later than its third growing season shall be established over the entire landfill cover. The *Owner* shall complete planting as soon as possible after reaching final contours. The vegetative cover seed shall be in accordance with Ontario Provincial Standard Specifications and good practice.

**The reasons for this amendment to the Approval are as follows:**



1. *The reason for inclusion of the definitions is to define the specific meaning of terms and simplify the wording of conditions in this Environmental Compliance Approval.*
2. *The reason for Conditions 1.1, 1.2 and 1.3 is 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.*
3. *The reason for Conditions 1.4, 1.5, 1.9, 1.10, 1.11, 1.12 and 1.13 is to clarify the legal rights and responsibilities of the Owner under this Approval.*
4. *Conditions 1.6 and 1.7 are included to ensure that the appropriate Ministry staff have ready access to information and the operations of the Site, which are approved under this ECA.*
5. *Condition 1.8 has been included in order to clarify what information may be subject to the Freedom of Information Act.*
6. *Conditions 1.14 to 1.16 inclusive are included, pursuant to subsection 197(1) of the EPA, to provide that any persons having an interest in the Site are aware that the land has been approved and used for the purposes of waste disposal.*
7. *The reasons for Condition 1.17 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.*
8. *The reasons for Conditions 1.18 and 1.19 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.*
9. *The reason for Condition 1.20 is to ensure that appropriate Ministry staff have ready access to the Site for inspection of facilities, equipment, practices and operations required by the conditions in this Environmental Compliance Approval. This condition is supplementary to the powers of entry afforded a Provincial Officer pursuant to the EPA and OWRA.*
10. *Conditions 2.1, 3.1 and 6.5 are included in order to ensure that waste disposal, waste transfer operations at the site is undertaken in accordance with applicable Ministry of the Environment regulations and guidelines. Compliance with these regulations and guidelines will ensure that the site does not cause and adverse effect on the environment.*
11. *The reason for Conditions 2.2, and 3.5 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.*
12. *The reason for Conditions 2.3 is to specify site access to/from the Site 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.*
13. *The reason condition 2.4 has been included is to ensure that access roads are clear and do not pose a safety hazard to the general public.*

14. *Condition 2.5 is necessary in order to ensure that all waste loads are inspected and waste that is disposed of at the site is in accordance with the terms and conditions in this Environmental Compliance Approval.*
15. *The reasons for Conditions 2.6, 2.7, and 2.8 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.*
16. *The reasons for Condition 2.9 are the protection of public health and safety and minimization of the potential for damage to environmental control, monitoring and other works at the landfill Site. Scavenging is the uncontrolled removal of material from waste at a landfill site.*
17. *The reason for Condition 2.10 is to ensure that dust from or related to the operation of the landfill is kept to within Ministry limits and does not result in a hazard or nuisance to any person.*
18. *The reason for Condition 2.11 is to ensure that noise from or related to the operation of the landfill is kept to within Ministry limits and does not result in a hazard or nuisance to any person.*
19. *The reason for Conditions 3.2 and 3.3 is to ensure the owner has a Design, Operation and Maintenance plan for the landfill reflects the current operations of the site. The condition is also to ensure the landfill is operated in accordance with Ministry standards, and to ensure the long-term protection of the health and safety of the public and the environment.*
20. *The reason for Condition 3.4 is to determine the theoretical capacity of the landfill. Approval to landfill beyond the determined theoretical capacity would require an application with supporting documentation submitted to the Director.*
21. *The reason for Condition 3.6 is to limit the burning of municipal waste to clean wood waste and brush in accordance with the Ministry guidelines as the open burning of municipal waste is unacceptable due to concerns with air emissions, smoke, other nuisance effects, and the potential fire hazard.*
22. *The reason for Conditions 3.7 to 3.12 is to ensure asbestos waste is handled and disposed of in accordance with Reg. 347 as amended from time to time. Proper handling and disposal of asbestos waste ensures that the asbestos waste does not cause an adverse impact on the environment and also does not affect human health.*
23. *The reason for Condition 3.13 is to ensure that landfilling operations are conducted in an environmentally acceptable manner. Daily and intermediate cover is used to control potential nuisance effects, to facilitate vehicle access on the site, and to ensure an acceptable site appearance is maintained. The proper closure of a landfill site requires the application of a final cover which is aesthetically pleasing, controls infiltration, and is suitable for the end use planned for the site.*
24. *The reason for Condition 3.14 is to ensure the integrity of the final cover which controls infiltration and is aesthetically pleasing.*
25. *The reason for Conditions 3.15 is to ensure that users of the Site are fully aware of important information and restrictions related to Site operations under this ECA.*

26. *The reason for Condition 3.16 is to ensure concentration of landfill gas does not pose a hazard to human health or the environment.*
27. *The reason for Conditions 3.17 to 3.19 is to ensure that surface water from the Site is properly managed and does not pose an impact to the environment.*
28. *The reason for Conditions 3.20 to 3.24 is to ensure the mini-transfer area is operated in a manner that does not cause an impact on the environment and public health.*
29. *The reasons for conditions 3.25 and 3.26 is to ensure that the subsequent stages of the Site are designed, constructed and operated in an environmentally acceptable manner, based on the conceptual design, operations at the Site, and monitoring at the Site.*
30. *The reason for Condition 4.1 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.*
31. *Condition 5.1, 5.5 and 5.6 is needed to ensure regular inspections of the site are conducted in order to protect the natural environment.*
32. *The reason for Conditions 5.2, 5.3 and 5.4 is to ensure that detailed records of Site inspections are recorded and maintained for inspection and information purposes.*
33. *The reason for Conditions 5.7 to 5.11 is to ensure that accurate waste records are maintained to ensure compliance with the conditions in this Environmental Compliance Approval (such as fill rate, site capacity, record keeping, annual reporting, and financial assurance requirements), the EPA and its regulations.*
34. *The reason for Conditions 6.1 through 6.4 are to ensure the integrity of the groundwater monitoring network and protection of the natural environment.*
35. *The reason for Conditions 6.5 is to demonstrate that the landfill 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.*
36. *The reason for Conditions 7.1 and 7.3 is to ensure that any complaints regarding landfill operations at this Site are responded to in a timely and efficient manner.*
37. *The reasons for Conditions 8.1 through 8.3 are to ensure that the Ministry is informed of any spills or fires at the Site and to provide public health and safety and environmental protection.*
38. *The reasons for Conditions 9.1 and 9.2 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.*

39. *The reasons for Conditions 10.1 through 10.5 are to ensure that final closure of the Site is completed in an aesthetically pleasing manner and to ensure the long-term protection of the natural environment.*

**This Notice shall constitute part of the approval issued under Approval No. A041403 dated November 26, 1971**

*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:*

- I. 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;
- II. 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:*

- I. The name of the appellant;
- II. The address of the appellant;
- III. The environmental compliance approval number;
- IV. The date of the environmental compliance approval;
- V. The name of the Director, and;
- VI. 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 and Climate Change  
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](http://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 .....

\_\_\_\_\_  
\_\_\_\_\_

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Signature  
....., P.Eng.  
Director  
Section .....

NZ/

c: District Manager, MOECC London - District  
Tara Clayton, The Corporation of the Municipality of Southwest Middlesex



## Solid Non-Hazardous Waste Disposal Site Inspection Report

<b>Client:</b>	The Corporation of the Municipality of Southwest Middlesex Mailing Address: 153 McKellar St, Post Office Box, 218, Glencoe, Ontario, Canada, N0L 1M0 Physical Address: 153 McKellar St, Southwest Middlesex, Municipality, County of Middlesex, Ontario, Canada, N0L 1M0 Telephone: (519)287-2015, FAX: (519)287-2359, email: jfrancisco@southwestmiddlesex.ca Client #: 2308-4XUQEP, Client Type: Municipal Government, NAICS: 913910		
<b>Inspection Site Address:</b>	Trillium Drive Landfill Site (Ekfrid Landfill) Address: 3945 Trillium Dr, Southwest Middlesex, Municipality, County of Middlesex, N0L 1M0 District Office: London - District LIO GeoReference: Zone: 17, UTM Easting: 445036.6, UTM Northing: 4731827.0, Latitude: 42.736988, Longitude: -81.67147 Site #: 7217-67MJFL		
<b>Contact Name:</b>	Tara Clayton	<b>Title:</b>	Public Works Manager
<b>Contact Telephone:</b>	(519)287-2015 ext119	<b>Contact Fax:</b>	
<b>Last Inspection Date:</b>			
<b>Inspection Start Date:</b>	2016/10/18	<b>Inspection Finish Date:</b>	2017/01/26
<b>Region:</b>	Southwestern		

### 1.0 INTRODUCTION

On October 18, 2016, as part of the Ministry's 2016/2017 inspection program, Provincial Officer John McGlynn conducted an inspection of the Trillium Drive Landfill site (Ekfrid Landfill), located on Lot 22, Concession R1N, in the Ekfrid Township of the Municipality of Southwest Middlesex. The purpose of the inspection was to assess compliance with the requirements of the Environmental Protection Act, the Ontario Water Resources Act, Regulation 347 (Waste), Environmental Compliance Approval (ECA)# A041403, and all other applicable Ministry of the Environment policies and guidelines.

The site is a municipal solid non-hazardous waste disposal site. The site representative for the inspection was Mike Sholdice, Landfill Attendant.

The landfill is currently operating under the original Certificate of Approval issued in 1971 and renewed each year until 1980, after 1980 no renewals were required. The existing ECA does not require the municipality to prepare and implement a design and operations report, or conduct surface and groundwater sampling.

It is my opinion that the existing ECA needs to be updated to include additional requirements that will ensure the municipality is utilizing current best management practices when operating the landfill. The need for a surface/groundwater monitoring program is necessary to provide analytical data that will assist in determining if current/future operations at the landfill are contributing to adverse impacts offsite. As a result, the London District Office has issued a 'Field Alert' to the MOECC Environmental Approvals Branch (EAB) requesting the current ECA be updated and amended to include, but not limited to, requirements for

a Design & Operations Report and establishment of a monitoring/reporting program.

On January 26, 2017 Provincial Officer McGlynn met with the new Southwest Middlesex Public Works Manager, Tara Clayton, to discuss the ongoing concerns with the operations at the landfill, specifically, the issues surrounding exposed waste and leachate management at the site. It was communicated that the London District Office will be issuing a 'Field Alert' requesting the current ECA be updated and amended, and suggested the municipality consider making preparations for the upcoming changes. It is anticipated that the MOECC London District will work closely with the MOECC EAB during the amendment process and will strive to keep the municipality updated on the proposed changes.

## 2.0 INSPECTION OBSERVATIONS

### **Certificate of Approval Number(s):**

A041403

Certificate of Approval number A041403 was issued on July 3, 1980 and approved a 20.2 hectare (50 acre) waste disposal site in accordance with the application and supporting information forms. The approval was issued originally in 1971 and renewed each year until 1980. After 1980 no renewals were required.

The site is approved to receive domestic, commercial and non-hazardous solid industrial waste and that the approval be a register instrument on title.

### 2.1 FINANCIAL ASSURANCE:

#### **Specifics:**

The site is owned by the municipality, financial assurance requirements do not apply.

### 2.2 APPROVED AREA OF THE SITE:

#### **Specifics:**

Trillium Drive Landfill is a 20.2 hectare (50 acre) site surrounded by agricultural and natural areas. The landfill footprint is not defined in the approval and is difficult to determine where filling has taken place. The active cell which is being filled is identifiable north-east upon entering the landfill. Previous landfill activities which have occurred are generally known by the municipality. The closest residential dwelling was observed to be approximately 250 metres north-east of the landfill. Newbiggen Creek borders the property from the north-east corner to the southeast corner, with drainage from the site being generally directed towards the creek.

### 2.3 APPROVED CAPACITY:

#### **Specifics:**

There is no approved capacity listed in the approval. The remaining capacity at the landfill is currently unknown. There is an active recycling program and refuse is primarily taken to the landfill by residents and Emterra, who performs the municipal collection.

### 2.4 ACCESS CONTROL:

#### **Specifics:**

At the time of the inspection the landfill was observed to have a secure entrance. During the hours of operation the site is supervised by an employee of the County. There are signs posted at the entrance which includes hours of operation, approved wastes, unapproved wastes, and tipping fees.

### 2.5 COVER MATERIAL:

#### **Specifics:**

There are no specific requirements for cover material identified on the approval. At the time of the inspection, the active tipping area was observed to be a large area with exposed waste, considerable in height, with no soil coverage. A large pond of leachate was observed at the base of the exposed waste. Applying regular cover material at the tipping face does not appear to be an operational practice at this site. The application of daily cover assists with reducing odours, controlling litter and controls and reduces amount of leachate accumulation.

**2.6 WASTE BURNING:**

**Specifics:**

At the time of the inspection there was a burn area observed on the south-east side of the landfill. The burn area was observed to only contain brush and clean wood.

**2.7 GROUNDWATER/SURFACEWATER IMPACT:**

**Specifics:**

During the site visit I inspected the vegetative area between the the working face of the landfill and the creek bordering the property. Evidence of previous surface water flowing from the active tipping area to the creek was apparent by the number of water flow paths observed carved in the soil. Leachate impacts to surface water and groundwater is a possibility due to the current waste management practises and excessive amount of leachate observed pooling at the base of the active tipping area. No surface water monitoring or groundwater monitoring has been completed at the site, therefore, it is difficult to determine if the site is contributing to adverse impacts offsite.

**2.8 LEACHATE CONTROL SYSTEM:**

**Specifics:**

The site does not have a leachate collection system. At the time of the inspection a large quantity of exposed leachate was observed pooling at the base of the active tipping area.

**2.9 METHANE GAS CONTROL SYSTEM:**

**Specifics:**

There are no methane gas control requirements or controls for Trillium Drive Landfill.

**2.10 OTHER WASTES:**

**Specifics:**

**3.0 REVIEW OF PREVIOUS NON-COMPLIANCE ISSUES**

As a result of the findings from the inspection completed by the MOECC in October 2014 the following actions were required:

1) The Municipality of Southwest Middlesex shall develop a burning procedure, in writing, that shall be implemented at the municipal landfills by no later than November 28, 2014. A copy of this procedure shall be forwarded to the author of this report no later than the above date.

Complied

2) The Municipality of Southwest Middlesex shall immediately stop taking unapproved wastes at the landfill sites. Waste located at the site shall be assessed, characterized, and if found to be subject waste, removed by an approved carrier and disposed of at an approved receiver. Documentation that the wastes were moved by an approved hauler and disposed of at an approved waste site shall be provided to the undersigned provincial officer by no later than November 28, 2014.

Complied

3) The Municipality of Southwest Middlesex shall provide a response in writing describing how the leachate issues identified will be addressed. This response must be provided to the undersigned provincial officer no later than November 28, 2014.

No record of the actions taken by municipality to address the ongoing leachate concerns received.

**4.0 SUMMARY OF INSPECTION FINDINGS (HEALTH/ENVIRONMENTAL IMPACT)**

**Was there any indication of a known or anticipated human health impact during the inspection and/or review of relevant material, related to this Ministry's mandate?**

No



**Specifics:**

**Was there any indication of a known or anticipated environmental impact during the inspection and/or review of relevant material ?**

No

**Specifics:**

**Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment ?**

No

**Specifics:**

**Was there any indication of a potential for environmental impairment during the inspection and/or the review of relevant material ?**

Yes

**Specifics:**

At the time of the inspection a large area of exposed leachate was observed to be pooling at the base of the active tipping area in close proximity to adjacent creek.

**Was there any indication of minor administrative non-compliance?**

No

**Specifics:**


**5.0 ACTION(S) REQUIRED**

The municipality shall implement the following practices:

- Apply cover material to minimize the size of the uncovered working face.
- Minimize the size of the tipping area and ensure that wastes are pushed into the trench and covered after each day the site receives waste.
  1. By March 3, 2017 provide the undersigned Provincial Officer with a written action plan to address the identified ongoing concerns with leachate management on the site.

**6.0 OTHER INSPECTION FINDINGS**

**7.0 INCIDENT REPORT**

Applicable  
7230-AJ5REV 



**8.0 ATTACHMENTS**

**PREPARED BY:**

**Environmental Officer:**

**Name:**

**John McGlynn**


**District Office:**

**London District Office**

**Date:**

**2017/01/31**

**Signature**



**REVIEWED BY:**

**District Supervisor:**

**Name:**

**Dan Cromp**

**District Office:**

**London District Office**

**Date:**

**2017/01/31**

**Signature:**



**File Storage Number:** -

**Note:**

"This inspection report does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they may apply to this facility. It is, and remains, the responsibility of the owner and/or the operating authority to ensure compliance with all applicable legislative and regulatory requirements"