



Solid Non-Hazardous Waste Disposal Site Inspection Report

Client:	The Corporation of the Municipality of Southwest Middlesex Mailing Address: 153 McKellar St P.O. Box 218, Southwest Middlesex, 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		
Inspection Site Address:	Trillium Drive Landfill Site (Ekfrid Landfill) Address: 3945 Trillium Dr, Southwest Middlesex, Municipality, County of Middlesex, N0L 1M0 District Office: London - District GeoReference: ,		
Contact Name:	Jaime Francisco	Title:	Public Works Manager
Contact Telephone:	519-287-2015 ext119	Contact Fax:	
Last Inspection Date:	2004/12/14		
Inspection Start Date:	2010/09/14	Inspection Finish Date:	2010/09/14
Region:	Southwestern		

1.0 INTRODUCTION

The Corporation of the Municipality of Southwest Middlesex (SWM) operates two solid non-hazardous waste disposal sites. These sites are known as the Trillium Drive (formerly Ekfrid) and Limerick Road (formerly Mosa) landfill sites.

Both of these sites were inspected on October 1, 2010.

This inspection report addresses the Trillium Drive site.

The site was inspected to determine compliance with the Environmental Protection Act (EPA), Regulations 347 (O. Reg. 347), the Certificates of Approval for the site, and other relevant ministry legislation, policies and guidelines.

During the inspection, Mr. Mike Shouldice (Landfill Site Supervisor/Contractor) was interviewed. Additional information for the inspection was obtained during a telephone conversation with Mr. Jaime Francisco, and from the SWM web site.

A small number of digital photographs were taken during the inspection to support the inspection findings. Copies of the photographs are stored with the electronic copy of the inspection report in the Ministry of the Environment's reporting system.

2.0 INSPECTION OBSERVATIONS

Certificate of Approval Number(s):

A041403

CofA 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. Mr. Shouldice indicated that the site first opened in 1974.

The site is approved to receive domestic, commercial and non-hazardous solid industrial waste.

There are no conditions on the approval other than a requirement to register the instrument on title.

2.1 FINANCIAL ASSURANCE:

Financial assurance is not required for this municipally owned landfill.

2.2 APPROVED AREA OF THE SITE:

The portion of the site approved for landfilling activities is not defined in the CofA. Mr. Shouldice indicated that there is a hand drawn map of the filled areas available at the municipal office.

The footprint of the cell currently being filled is identifiable. The footprint of previous landfilling activities is not as well defined but is generally known to the current site supervisor.

The site is approved as a 20.2 hectare (50 acre) site. Mr. Shouldice indicated that the main portion of the site is about 35 acres in size with an additional area on the far side of Newbiggin Creek approximately 15 acres in size.

2.3 APPROVED CAPACITY:

There is no approved capacity on the CofA. The original application in 1971 indicated that the expected life expectancy of the site would be 25 years. Recycling efforts have extended the life of the landfill.

The 2004 document commissioned on behalf of the municipality entitled "An Outline of a Strategic Plan for the development of Waste Management Facilities" (later referred to as the Strategic Plan) indicates that a rough estimate of the waste deposited on the site is approximately 400,000 tonnes.

Mr. Francisco indicated that using current estimates, there is about 12 years of capacity at the site, based on the availability of two additional cells and another cell closer to the road. He also indicated that an additional parcel of land which is 40.47 ha (100 acres) in size has been acquired by the municipality for potential use in future landfilling activities. The 2004 Strategic Plan details this issue and the associated approvals that would be required.

2.4 ACCESS CONTROL:

The site is fenced, gated and locked. When open, the site is supervised. Signage is provided at the site entrance. Some minor updating to the signs should be done to update information and improve legibility.

The public can access the site on:
Tuesday from April 1 to October 31 from noon to 5 pm
Saturday from 9 am to 5 pm

The site is restricted to use by residents of SWM.

2.5 COVER MATERIAL:

There are no specific requirements for cover material identified on the CofA. Mr. Shouldice indicated that approximately two times per week deposited waste is pushed at the tipping face and compacted. Every other week, the edges of the tipping face are covered with soil and soil is added to the access ramp as needed. Applying cover material at the tipping face is not an operational practice at this site.

Overall, the access ramp and tipping face were orderly compared to other similar landfilling operations. No on- or off-site wind-blown litter was observed and rodents/birds/insect vectors were not noted.

2.6 WASTE BURNING:

Burning is an operational practice at this site. Mr. Shouldice indicated that only clean wood and brush are burned.

Burning is generally conducted when the site is closed, usually Sunday morning, weather permitting. Burning is undertaken two times per month in the summer and one time per month in the winter. The fire department is notified before each burn is conducted.

2.7 GROUNDWATER/SURFACEWATER IMPACT:

During the inspection, no groundwater or surface water impacts were noted. There are no known monitoring wells within the landfill boundary. Mr. Shouldice indicated that there may have been some monitoring wells located along the north site boundary at one time. It was noted that there are two or more areas on the perimeter of the landfill where wetland vegetation is growing. These areas should be inspected to ensure that they are not associated with leachate seeps.

In 1983, the Ministry of the Environment conducted a preliminary hydrogeological assessment of the site. The report concluded that at

that time the site was not having an apparent impact on the local groundwater. No groundwater data was available for this assessment. The assessment was based on an evaluation of the site's surficial geology only.

There was no leachate or contaminated water in the active cells on the day of the inspection. Mr. Shouldice indicated that the current operational practices at the site are designed to minimize the collection of leachate or contaminated water in the active cells. Should any leachate or contaminated water be found, this material is pumped onto the active waste pile.

2.8 LEACHATE CONTROL SYSTEM:

This landfill does not have a leachate control system. No leachate control issues were noted on the day of the inspection.

2.9 METHANE GAS CONTROL SYSTEM:

This landfill does not have a methane control system. No landfill gas control issues were noted on the day of the inspection.

2.10 OTHER WASTES:

CofA A041403 approved the landfill to receive domestic, commercial and non-hazardous solid industrial waste. No other waste types were noted.

The municipality operates recycling and composting programs at the site. The following waste types are being recycled:

- used tires (in dedicated bins) as part of the Ontario Tire Stewardship program.
- expired and empty propane tanks
- metals and white-goods (picked up yearly by Zubicks).
- traditional recycling materials (paper, glass, tin, plastics) collected in seven on-site bins.
- compost - leaf and yard waste is composted at the site. In addition, oversized tree material primarily from roadside clean-up is collected at the site.

Concrete is collected for road building at the site. Drywall is no longer collected (separated) as it was deemed unsuitable for road building at the site.

SWM plans to implement collection of electronic waste in the near future.

3.0 REVIEW OF PREVIOUS NON-COMPLIANCE ISSUES

The previous inspection in 2004 identified several concerns with the landfill operation. Updates to these concerns are in **bold**:

- The need for a formal, documented inspection program to inspect the landfill for leachate seeps. **It does not appear that this recommendation has been fully implemented.**
- The report identified concerns with the practice of pumping leachate and precipitation directly from the working face of the landfill onto the ground, which may cause ground or surface water impairment. **The operation of the landfill has moved away from a trench and fill method. Leachate and precipitation collection in the excavated area are now minimized.**
- The Municipality should also continue to investigate the landfilling requirement that will be required in the future, such as landfill expansion or the construction of a new landfill. **The municipality has yet to develop and adopt a formal plan for the future operation of this landfill.**

See Section 6 of this report for recommendations relating to the above points.

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: None were observed at the time of the inspection.

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

No

Specifics: None were observed at the time of the inspection.

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: None were observed at the time of the inspection.

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

No

Specifics: None were observed at the time of the inspection.

Was there any indication of minor administrative non-compliance?

No

Specifics: None were observed at the time of the inspection.

5.0 ACTION(S) REQUIRED

No actions are required as a result of this inspection.

6.0 OTHER INSPECTION FINDINGS

Overall, the landfill is well run in comparison to other rural landfills of a similar size.

A number of recommendations are made as a result of this inspection:

- Some minor updating to the signage at the site entrance should be done to update information and improve legibility. In particular, the signs should indicate that trespassing is not allowed at the site.
- As the site has exceeded its original life-expectancy, SWM should evaluate the installation of groundwater monitoring wells and establish surface water monitoring at the site to establish trends in groundwater and surface water quality around the site. This information would assist in obtaining a future amendment to the site CofA, should one be needed, or in establishing a baseline for monitoring groundwater quality post-closure. The Strategic Plan also recommends similar actions.
- The 2004 inspection noted that the Municipality had previously hired a consultant to evaluate all landfilling activities in the Municipality and provide a Strategic Plan for landfilling activities in SWM to the municipal council. A plan or outline was developed on behalf of the municipality. This document (the Strategic Plan) was developed in 2004 but appears to be an outline for plan. The Municipality should continue to develop and then adopt a formal plan for the future operation and management landfilling operations within the municipality.
- The municipality should develop a design and operations report for the operation of the landfill. Examples of such reports were provided to the landfill supervisor. Within that report, the site supervisor should implement a formal (documented) inspection program for leachate seeps at the landfill site.
- A copy of the waste site CofA and site operations manual should be stored at the landfill site.
- Adequate cover should be applied to any exposed putrescible waste materials at a frequency sufficient to prevent problems such as rodents, vector insects, birds or litter.
- The municipality should investigate opportunities for drywall and roofing shingle material recycling. It is understood that bins for these materials can be obtained from local companies that recycle these materials.

7.0 INCIDENT REPORT

Not Applicable

8.0 ATTACHMENTS

P1010190.JPG; P1010191.JPG; P1010192.JPG; P1010193.JPG; P1010194.JPG; P1010195.JPG; P1010196.JPG;
P1010197.JPG; P1010198.JPG; P1010199.JPG; P1010200.JPG; P1010201.JPG; Site CofA.pdf; Strategic Plan_Waste
Management Facilities.pdf

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Date: 2010/11/08
Signature



REVIEWED BY:

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Name: Angela Whiteley
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Date: 2010/11/12

Signature:



File Storage Number: MI SW

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"