



Ministry of
the Environment

Ministère de
l'Environnement

Ontario

Provincial Officer's Report

Order Number
0117-6SJRU2

The Regional Municipality of Durham
P.O. Box 623 Stn Main
Whitby, Ontario, L1N 6A3
Canada

Site

Lot: 6; Concession: 13
Brock, Regional Municipality of Durham

Observations

The Brock Township Landfill site (the "**Site**") is located in The Regional Municipality of Durham (the "**Region**"), in Lot 6, Concession 13 in Brock Township. The Site is located in a predominantly agricultural area and is immediately north of peat wetlands associated with the Gibson Hill Swamp which drains to a tributary of Pefferlaw Brook.

The landfill at the Site has operated since the 1950's. The property was purchased by Brock Township in 1966 and was issued Provisional Certificate of Approval (**PCofA**) No. 240902 in 1971. The Site was assumed by the Region in 1974 and currently operates under PCofA No. A390602. The Region operates a transfer station at the Site also approved under PCofA No. A390602 as amended. The 40.5 hectare (100 acre) property includes the current, active western fill area, and an inactive eastern fill area.

The Region voluntarily undertakes groundwater and surface water monitoring at the Site and provides annual reports. In May 2004, the Ministry of the Environment (the "**Ministry**") York Durham District Office (the "**District**") provided comments to the Region on the 1998 to 2001 monitoring reports and the Region's Sept. 2002 letter report regarding leachate impacts to a pond on a neighbouring property north of the Site (the "**Pond**").

In February and August 2006 the District received copies of the 2004 and 2005

monitoring reports for the Site ("Brock Township Landfill Site – 2004 Groundwater and Surface Water Monitoring Report" prepared by Gartner Lee Ltd. in August 2005 and the "Brock Township Landfill Site – 2005 Monitoring Program Report" prepared by Gartner Lee Ltd. in July 2006). These reports incorporated the previous District comments relating to Site monitoring, including the partial remediation of the Pond.

The 2004 and 2005 monitoring results indicate that landfill leachate from the active western disposal area is impacting groundwater and migrating across the northern Site boundary. Off-site groundwater monitors 1-I, 1-II, 9-II and 21 exhibit elevated concentrations iron, manganese, hardness and dissolved organic carbon in excess of their respective Ministry aesthetic objectives in 2004 and 2005. It should be noted that although leachate indicator parameters are elevated at these wells, there are no off-site exceedances of the Ontario Drinking Water Quality Standards for health related parameters and chemical standards. Surface water samples collected from the partially filled Pond also exhibit elevated concentrations of leachate indicator parameters and staining from leachate is noted in the 2004 and 2005 monitoring reports.

Leachate break-out and seeps are also described in the 2004 and 2005 monitoring reports along the eastern edge of the inactive eastern fill area of the Site. These seeps were sampled and characterized in 2005 and were similar to leachate chemistry from the active western lobe of the landfill.

This order is issued pursuant to preventative measures subsection 157.1(1) of the Environmental Protection Act, R.S.O. 1990, c.E. 19, as amended.

I reasonably believe that the requirements specified in this order are necessary or advisable so as to prevent, decrease or eliminate an adverse effect (namely leachate impacts) that may result from the presence or discharge of contaminants in, on or under the property (namely the Site). Based on my review of the 2004 and 2005 monitoring reports and the Region responses to previous Ministry comments, I am of the opinion that current and historic landfilling operations at the Brock Township landfill site are resulting in a leachate plume which impacts off-site groundwater and surface water to the north of the property. I also conclude that inactive eastern fill area continues to cause leachate breakout and seeps which require remediation to prevent impacts to the wetland.

The purpose of this order is to require the timely development of a remedial action plan to assess and address off-site groundwater and surface water impacts and remedy on-site leachate out-breaks. This order also requires development of a site operations report to ensure that continued landfilling at the Site is appropriately planned and managed to prevent impacts to groundwater and surface water. The site operations report will describe current landfill features and operations, provide a plan for future landfill staging and management, describe groundwater and surface water monitoring programs and include an assessment of potential landfill gas generation and

migration.

Offence(s)

Suspected Violation(s)/Offence(s):	
Act - Regulation - Section, Description (General Offence)	

Andrea Brown

Andrea Brown
Provincial Officer
Badge Number: 996
Date: 2006/10/13
District Office: York-Durham District Office



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Environmental Protection Act, R.S.O. 1990, c.E 19 (EPA)
Ontario Water Resources Act, R.S.O. 1990, c. O. 40 (OWRA)
Pesticides Act, R.S.O. 1990, c. P11 (PA)
Safe Drinking Water Act, S.O. 2002, c.32 (SDWA)
Nutrient Management Act, 2002, S.O. 2002, c.4

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To: The Regional Municipality of Durham
P.O. Box 623 Stn Main
Whitby, Ontario, L1N 6A3
Canada

Site: Lot: 6, Concession: 13
Brock, Regional Municipality of Durham

Work Ordered

Item No. 1

Compliance Date

2007/01/31

Prepare and submit to the undersigned Provincial Officer a Remedial Action Plan to address landfill leachate impacts at the Brock Township Landfill Site. This plan shall address leachate impacts to off-site groundwater north of the Site, leachate discharge to the pond north of the Site and leachate break-out and seeps associated with the inactive eastern portion of the Site. The Remedial Action Plan shall include at a minimum:

- an assessment of Site conditions contributing to off-site leachate migration and on-site leachate outbreaks, including the depth and extent of wastes, soils conditions, presence and extent of interim and final cover; measures to address existing leachate impacts to off-site groundwater and surface water and on-site seeps measures to prevent future leachate impacts; and
- a proposed schedule for the completion of remedial works.

Item No. 2

Compliance Date

2007/03/30

Prepare and submit to the undersigned a Site Operations Report which describes current operational procedures for landfilling and waste management activities at the Site. This report shall include at a minimum:

- A description of the landfill design, waste management and topographic features,

- A description of the fill area, current limits of the wastes and a staging plan for future landfilling,
- An estimate of Site capacity ensuring adequate separation distances from property boundaries or corrective measures or works to contain landfill related impacts,
- A description of Site operations including daily cover practices,
- A detailed description of the groundwater and surface water monitoring program,
- An assessment of landfill gas generation, migration and potential receptors at the Site and in the vicinity and recommendations for future monitoring,
- A stormwater management and landfill runoff and drainage plan for the Site, and
- A complaint response procedure.

- A. While this Order is in effect, a copy or copies of this order shall be posted in a conspicuous place. AB
- B. While this Order is in effect, report in writing, to the District or Area office, any significant changes of operation, emission, ownership, tenancy or other legal status of the facility or operation.

This Order is being issued for the reasons set out in the annexed Provincial Officers Report which forms part of this Order.

Issued at Ajax this 13th day of October, 2006.

Andrea Brown

Andrea Brown
 Badge No: 996
 York Durham District Office
 Tel: (905) 427-5624

APPEAL/REVIEW INFORMATION

REQUEST FOR REVIEW

You may request that this order be reviewed by the Director. Your request must be made in writing (or orally with written confirmation) within seven days of service of this order and sent by mail or fax to the Director at the address below. In the written request or written confirmation you must,

- specify the portions of this order that you wish to be reviewed;
- include any submissions to be considered by the Director with respect to issuance of the order to you or any other person and with respect to the contents of the order;
- apply for a stay of this order, if necessary; and provide an address for service by one of the following means:
 1. mail
 2. fax

The Director may confirm, alter or revoke this order. If this order is revoked by the Director, you will be notified in writing. If this order is confirmed or amended by order of the Director, the Director's order will be served upon you. The Director's order will include instructions for requiring a hearing before the Environmental Review Tribunal.

DEEMED CONFIRMATION OF THIS ORDER

If you do not receive oral or written notice of the Director's decision within seven days of receipt of your request, this order is deemed to be confirmed by order of the Director and deemed to be served upon you.

You may require a hearing before the Environmental Review Tribunal if, within 15 days of service of the confirming order deemed to have been made by the Director, you serve written notice of your appeal on the Environmental Review Tribunal and the Director. Your notice must state the portions of the order for which a hearing is required and the grounds on which you intend to rely at the hearing. Except by leave of the Environmental Review Tribunal, you are not entitled to appeal a portion of the order or to rely on grounds of appeal that are not stated in the notice requiring the hearing. Unless stayed by the Environmental Review Tribunal, the order is effective from the date of service.

Written notice requiring a hearing must be served personally or by mail upon:

The Secretary
Environmental Review Tribunal
P.O. Box 2382
2300 Yonge Street, Suite 1700
Toronto, ON M4P 1E4

and
Director (Provincial Officer Orders)
Ministry of the Environment
York Durham District Office
5th Floor
230 Westney Rd S
Ajax ON L1S 7J5
Fax: (905)427-5602
Tel: (905)427-5600

Where service is made by mail, it is deemed to be made on the fifth day after the date of mailing and the time for requiring a hearing is not extended by choosing service by mail.

Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal by:

Tel: (416) 314-4600

Fax: (416) 314-4506

www.ert.gov.on.ca

FOR YOUR INFORMATION

- Unless stayed by the Director or the Environmental Review Tribunal, this order is effective from the date of service. Non-compliance with the requirements of this order constitutes an offence.
- The requirements of this order are minimum requirements only and do not relieve you from complying with the following:
 - any applicable federal legislation;
 - any applicable provincial requirements that are not addressed in the order; and
 - any applicable municipal law.
- The requirements of this order are severable. If any requirement of this order or the application of any requirement to any circumstance is held invalid, the application of such requirement to other circumstances and the remainder of the order are not affected.
- Further orders may be issued in accordance with the legislation as circumstances require.
- The procedures to request a review by the Director and other information provided above are intended as a guide. The legislation should be consulted for additional details and accurate reference.