

Provincial Officer's Report

Order Number
3623-BL33DW

Waste Management of Canada Corporation
1271 Beechwood Rd
Napane, Ontario, K7R 3L1
Canada

Site

1271 Beechwood Rd, Lots 1 2 and 3 Concession 4 Richmond
Greater Napane, County of Lennox and Addington

Observations

1. Definitions:

For the purposes of this Order, the following terms shall have the meanings described below:

"EPA" means the Environmental Protection Act, R.S.O. 1990, c. E.19.

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

"Leachate Storage Lagoon" means the 16, 245 m³ lined leachate lagoon as described in Environmental Compliance Approval 1688-8HZNJG

"North Chamber" means one of two (2) leachate collection sumps at the Site

"Orderee" means Waste Management of Canada Corporation

"OWRA" means Ontario Water Resources Act, R.S.O. 1990, c. O. 40.

"Provincial Officer" means the undersigned Provincial Officer or, in the event that the Provincial Officer is unable to act, any other Provincial Officer authorized to act pursuant to the EPA or OWRA.

"Qualified Consultant" means a person who has obtained the appropriate education and training and has demonstrated experience and expertise in the areas relating to the work required to be carried out in this Order and a person meets the qualifications to be a qualified consultant if a) the person holds a licence, limited licence or temporary licence under the Professional Engineers Act; or b) the person holds a certificate of registration under the Professional Geoscientists Act, 2000 and is a practising member, temporary member or limited member of the Association of Professional Geoscientists of Ontario.

"Site" means the property described as 1271 Beechwood Road, Part of Lots 1, 2 & 3, Concession 4, Town of Greater Napanee on which the Richmond Landfill site is located

"South Chamber" means one of two (2) leachate collection sump pumps at the Site

"Southern Stormwater Management Pond" means the stormwater pond located at the Site that is described in Environmental Compliance Approval 1688-8HZNJG as SWM Pond No. 3

"WMCC" means Waste Management of Canada Corporation.

2. Description of the Site and the Orderee

WMCC owns/operates the Richmond Landfill, municipally located at 1271 Beechwood Rd. in the Town of Greater Napanee, County of Lennox and Addington (the 'Site'). The Site includes an approximately 16 hectare waste disposal site within a total area of approximately 140 hectares consisting of the closed and capped waste landfill mound, associated leachate and landfill gas collection infrastructure, stormwater collection/management network, operational/administration facilities as well as contaminant attenuation lands.

The Site is regulated under the authorization of Environmental Compliance Approvals A371203 (Waste) and 1688-8HZNJG (Stormwater/Leachate Management) which approve in part a leachate collection system consisting of perimeter drainage within the waste mound, two (2) collection sumps hereafter referred to as the North Chamber and South Chamber, and an adjacent 16,245 m³ capacity HDPE-lined storage lagoon. Leachate collected at the Site is pumped directly from the North and South Chambers into approved trucks for offsite disposal, or in emergency situations where off-Site disposal isn't immediately available, to the adjacent storage lagoon via temporary overland piping or truck transfer.

3. Summary of Events leading to issuance of this Order

This Provincial Officer's Report and Order concerns two matters:

- January 14, 2020 Spill of Landfill Leachate, and
- Overflow of Leachate from the Landfill Collection System

i) January 14, 2020 Spill of Landfill Leachate

On January 16, 2020 I spoke via telephone with Bill McDONOUGH, Senior Project Manager with WMCC who advised that on January 14, 2020 approximately 13,000L of landfill leachate was intentionally spilled to ground from a truck hauling the liquid waste to the adjacent storage lagoon. This incident had not previously been reported to the Ministry. Mr. McDONOUGH further advised that the liquid waste had reportedly fully infiltrated into the ground and WMCC would be retaining an environmental consulting firm to attend the Site, assess the spill and conduct sampling to evaluate for impacts. This work is ongoing as of the authoring of this Order.

On January 17, 2020 I attended the Site, spoke with Site foreman/supervisor Stan WALLBANK and inspected the spill area. Upon questioning, Mr. WALLBANK advised that while at the Site on January 12, 2020 he observed elevated levels of leachate within the North and South Chambers corresponding to recent wet weather events. Mr. WALLBANK advised that WMCC was restricted at that time from hauling leachate to the municipal treatment plant in the Town of Greater Napanee. He advised that the Site was only equipped with one portable pump and associated piping and advised that he began to pump leachate from the North Chamber overland via temporary piping into the adjacent storage lagoon.

Mr WALLBANK further advised that because of colder conditions the portable pump and piping froze and so on January 14, 2020 he retained Sutcliffe Septic Service to pump out a load of approximately 13,000L of landfill leachate from the leachate collection system at the Site with the intention of manually transferring the waste via truck to the adjacent storage lagoon. During that transfer Mr. WALLBANK advised that he was contacted by the Sutcliffe Septic Service driver who reportedly determined they would be unable to access the lagoon due to soft ground conditions near the lagoon entrance and further that the driver did not have time to drive the liquid waste into the City of Kingston for disposal at an approved municipal wastewater treatment facility. Mr. WALLBANK advised me that he then instructed the driver to spill the entire 13,000L of leachate to the ground contrary to the *Environmental Protection Act* and associated Environmental Compliance Approval(s) issued for the Site. This was not reported to the Ministry until my telephone conversation with Mr. McDONOUGH two days later.

The intentional spill was reportedly done so that the truck would be free to leave the site and avoid the contents freezing inside the vehicle tank. Based upon my observations and information provided from Mr. WALLBANK however it was apparent other alternatives were not reasonably considered, for instance returning to the collection site and emptying the truck contents back into the leachate collection system, or retaining a second approved hauler to transfer the leachate onto a second vehicle for proper disposal, or re-establishing access to the leachate storage lagoon so that the truck contents could be safely disposed of in the originally intended manner.

Based upon the information obtained surrounding this incident there are concerns identified not only with the incident itself and the potential for impacts to the natural environment resulting from the deposit of approximately 13,000L of leachate onto the ground surface but also concerns with operational matters at the Site with respect to the use of the leachate storage lagoon and related operational deficiencies, including: failure to obtain and maintain sufficient equipment for temporary transfers of leachate to said lagoon, lack of properly engineered infrastructure to safely manage direct leachate transfers on a longer term/permanent basis, failure to inspect and properly

maintain hauling routes, failure to develop appropriate contingencies/protocols in the event of exigent circumstances, along with associated training of staff in relation to contingency measures and reporting requirements.

ii) Overflow of Leachate from the Landfill Collection Sytem

During my discussions with Mr. WALLBANK on January 17, 2020 he further advised that while at the Site on January 12, 2020 he observed leachate from the South Chamber overflowing the sump pit and discharging overland from the South Chamber structure to an area immediately adjacent the Southern Stormwater Management Pond where he advised that it reportedly was infiltrating into the ground. This was not reported to the Ministry forthwith contrary to the requirements of the *Environmental Protection Act* and associated Environmental Compliance Approval(s) issued for the Site.

Per Environmental Compliance Approval 1688-8HZNJG this Southern Stormwater Management Pond passively discharges offsite via drainage ditching to nearby surface water features and ultimately to the local "Marysville Creek" watercourse further downstream. Mr. WALLBANK advised that the Site was only equipped with enough equipment to temporarily pump leachate from one of the chambers at a time and as a result this overflow condition at the South Chamber occurred during his entire time on Site on January 12, 2020 and remained ongoing upon his arrival back on Site on January 13, 2020. He was unable to advise when the overflow began as the Site is not staffed on a 24/7 bases. Mr. WALLBANK advised that on January 13, 2020 he retained the company Sutcliffe Septic Service to pump out one load of approximately 13,000L of landfill leachate from the South Chamber into a truck and manually deposit it into the North Chamber which reportedly stopped the overflow condition from the South Chamber at that time.

Upon further questioning Mr. WALLBANK advised that he had personally observed repeated incidents in the recent past where leachate was found to be overflowing the South Chamber, including on or about January 2, 2020 where he made similar observations of leachate discharging overland from the South Chamber structure and infiltrating into the ground in the vicinity of the adjacent Southern Stormwater Management Pond which flows off the Site. He was again unable to confirm the duration of the spill and this incident was also not reported to the Ministry or publicly per the requirements of the *Environmental Protection Act* and associated Environmental Compliance Approvals issued for the Site.

Mr. WALLBANK advised that excessive leachate volumes in the South Chamber during wet weather events is a recurring issue which he has reportedly raised with senior WMCC officials and believed were likely as a result of excessive precipitation infiltration through the engineered landfill cap or otherwise entering the landfill through the subsurface. This suggestion was supported in a subsequent conversation with Bill McDONOUGH on January 17, 2020 who also advised that WMCC suspected that degradation of the engineered cap was allowing excessive precipitation to infiltrate into the landfill mound resulting in corresponding increases in volumes of leachate generated.

From the information provided from WMCC officials in relation to the leachate collection system at the Site, there are concerns identified with the respect to excessive water infiltration into the landfill mound, potential integrity of the landfill cap and the apparent corresponding increase in the volumes of leachate being produced as a result. 2019 monthly analytical results for combined leachate samples from the North and South Chambers provided by WMCC in response to these incidents were reviewed by Ministry surface and groundwater specialists as part of the Ministry's assessment, and results showed significant elevations of numerous parameters at levels capable of impairing water quality. While weather conditions at the time of these incidents may have resulted in some dilution of the leachate released to the environment, based upon my observations and subsequent discussion with Ministry technical specialists it is the ministry's position that the repeated, uncontrolled and unreported releases of leachate from the South Chamber have the potential to impact the water quality in the adjacent Southern Stormwater Management Pond and impair adjacent surface water features through the passive offsite discharge.

4. Conclusions and Reasons for Order

I am of the opinion, based on reasonable and probable grounds, that WMCC is currently the owner and is in charge, management and control of the Site and the activities thereon.

I am of the opinion, based on reasonable and probable grounds, that WMCC is currently the owner and is in charge, management and control of contaminants, namely landfill leachate, that has and continues to be generated at, on, in or under the Site.

I have reviewed provincial waste databases and determined that regular removal and off Site disposal of landfill leachate is a frequent and continuous activity by WMCC at this Site.

I am of the opinion based upon my observations, information/statements provided by WMCC officials and opinions by Ministry technical specialists that there is an ongoing potential for continued spills from the leachate collection system and migration of leachate contaminants in surface and groundwater which have the potential to adversely affect off Site surface water receptors in the vicinity of the Site, and additionally that WMCC currently lacks the proper equipment, contingencies, operational protocols and training to adequately prevent further environmental incidents with respect to the continued use of the leachate storage lagoon.

For the reasons set out in this Report, I am of the reasonable belief that the Orderee, through ownership and care/control of the Site and of the closed landfill located at the Site, has caused or may cause the discharge of a contaminant, namely landfill leachate, into the natural environment where it has the potential to cause adverse effects in terms of impairment to surface waters.

I reasonably believe that the requirements specified in this Order are necessary or advisable so as to prevent the likelihood of continued spills of landfill leachate and possible offsite migration of potentially impacted stormwater from the Site.

I reasonably believe that WMCC is contravening the provisions, terms or conditions noted below

in the Suspected Violation(s)/Offence(s) section of this Provincial Officer's Report. I also believe that the requirements specified in the attached Order are necessary to address the contraventions.

This Order is being issued pursuant to Sections 157 and 157.1 of the *Environmental Protection Act, R.S.O. 1990* and Sections 16 and 16.1 of the *Ontario Water Resources Act, R.S.O. 1990*. The requirements specified in the order are reasonable and necessary to address the current and potential impacts and adverse effects associated with the continued use of the leachate storage lagoon and control/management of the leachate collection system and associated volumes of leachate generated on Site, and to address the identified contraventions and implement preventative measures to protect public health and the local water resources.

Offence(s)

| Suspected Violation(s)/Offence(s): |
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| <p>Act - Regulation - Section, Description {General Offence}</p> <p>1) EPA - 40, No person shall deposit, or cause, permit or arrange for the deposit of, waste upon, in, into or through any land or land covered by water or in any building that was not a waste disposal site for which an environmental compliance approval or renewable energy approval has been issued or a registration under Part II.2 is in effect and except in accordance with the terms and conditions of the approval or the regulations made for the purposes of Part II.2. {186 (1)}</p> <p>2) EPA - 186 (3), Every person who fails to comply with the terms and conditions of an environmental compliance approval, certificate of property use or renewable energy approval or of a licence or permit under this Act or who fails to comply with the terms of a report under section 29 is guilty of an offence {}</p> <p>3) OWRA - 30 (1), discharging or causing or permitting the discharge of a material into a watercourse or in any waters or on any shore or bank thereof or into or in any place, which said discharge may impair the quality of the water of any waters {107 (1)}</p> <p>4) EPA - 92 (1) (a), Every person having control of a pollutant that is spilled and every person who spills or causes or permits a spill of a pollutant shall forthwith notify the following persons of the spill, of the circumstances thereof, and of the action that the person has taken or intends to take with respect thereto: the Ministry. {186 (1)}</p> <p>5) EPA - 93 (1), The owner of a pollutant and the person having control of a pollutant that is spilled and that causes or is likely to cause an adverse effect shall forthwith do everything practicable to prevent, eliminate and ameliorate the adverse effect and to restore the natural environment. {186 (1)}</p> |



David Arnott
Provincial Officer
Badge Number:
Date: 2020/01/23
District Office: Kingston District Office

