



May 25, 2016

Dear All,

You are receiving this communication to keep you apprised of the status of the ongoing hydrogeological investigation associated with the closed Waste Management Landfill property.

Following the conclusion of the Environmental Review Tribunal (ERT) proceedings last summer, work has continued to address activities required by the ERT Orders, under technical oversight from Ministry of the Environment and Climate Change (MOECC). Specifically, additional field investigations have been conducted to further delineate a Contaminant Attenuation Zone (CAZ Investigation) for the site that, once approved, will allow the Environmental Monitoring Plan (EMP) to be finalized.

In the interim, the EMP was modified as ordered by the ERT to include new or modified conditions to the Environmental Compliance Approval (ECA) for the site, and implemented on an interim basis as of April 16, 2016.

Under the new ECA Conditions set forth in the revised EMP and ordered by the ERT, Waste Management has notified the MOECC District Manager of results from the most recent sampling event conducted as a part of scheduled spring 2016 semi-annual environmental monitoring event conducted between April 29 and May 6, 2016. We are providing, for your information, the notice supplied to MOECC on May 25, 2016. All results outlined in this notice are related to concentration exceedances at locations within the proposed CAZ, as well as a two new locations on the property to the east of the southern part of the eastern landfill property boundary, where recently drilled groundwater monitoring wells have been sampled; similar to previous sampling, the results at these two new locations are indicative of naturally degraded groundwater, and do not show any evidence of impacts from landfill leachate.

All results will be evaluated in the spring semi-annual report that will be issued by July 15, 2016.

Regards,

Timothy Haaf
Manager, Richmond Landfill
Waste Management of Canada Corporation

Encl.



MEMORANDUM

DATE: May 25, 2016
TO: Brian Kaye, District Manager, Ministry of the Environment and Climate Change (MOECC)
CC: Kyle Stephenson, Peter Taylor and Chris Raffael (MOECC)
Tim Haaf, Jim Forney, Chris Prucha and Bill McDonough, (WM)
FROM: François Richard (BluMetric)
PROJECT NO: 160061-00-02
SUBJECT: Notification of Off-site Exceedances, WM Richmond Landfill, Town of Greater Napanee

This memorandum is provided on behalf of Waste Management of Canada Corporation as required by Condition 8.7 of Environmental Compliance Approval (ECA) No. A371203 for the Richmond Landfill, Town of Greater Napanee, Ontario. This requirement is outlined in the Environmental Monitoring Plan (EMP) for the site¹, implemented on April 16, 2016 on an interim basis as ordered by the Environmental Review Tribunal (ERT) Order dated December 24, 2015. Condition 8.7 of the ECA requires that any off-site exceedance of the applicable criteria for groundwater (Reasonable Use Limits (RUL)) or surface water (Provincial Water Quality Objectives (PWQO)) be reported to the MOECC District Manager within 48 hours following completion of the initial data screening.

RESULTS

The groundwater and surface water sampling was completed as part of the spring semi-annual monitoring event between May 2 and May 6, 2016, following the requirements outlined in the latest EMP for the site. In addition to the monitoring locations included in the EMP, newly established groundwater monitoring well M193 was sampled as required by Condition 8.5(a)ii of ECA No. A371203, which stipulates that newly established wells must be sampled on a quarterly basis within the first year following their installation.

There were no off-site exceedances in groundwater observed from the shallow flow zone monitoring location (M114-2).

¹ *Environmental Monitoring Plan, WM Richmond Landfill, Town of Greater Napanee, Ontario, rev. No.05*, prepared by BluMetric Environmental Inc., dated August 2015



The analytical results for samples from off-site intermediate bedrock groundwater flow zone monitoring locations show the presence of parameters that exceeded their respective RUL, as summarized in **Table 1**. These include:

- One or several non-health based parameters (alkalinity, chloride, dissolved organic carbon, iron, manganese, sodium and/or total dissolved solids) at locations M114-1, M121, M123, M167, M168, M178R-2, M178R-3, M178R-4, M179, M186, M187, M190, M192 and M193; and
- Volatile Organic Compounds (VOCs) 1,4 dioxane and benzene at monitoring wells located within the proposed Contaminant Attenuation Zone (CAZ): M64-2, M114-1, M121 (1,4 dioxane and benzene), M123, M167, M168, M178R-2, M178R-3, M178R-4, as well as M193 (benzene only).

Surface water monitoring analytical results at location 58R exhibit a concentration for total phosphorous slightly above the PWQO (0.033 mg/L vs. 0.03 mg/L).

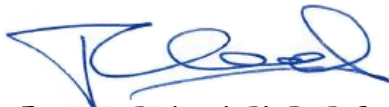
CLOSING

The results from the latest environmental monitoring event are consistent with those from previous sampling events, and will be reported as part of the spring semi-annual monitoring report by July 15, 2016 as required by ECA Condition 14.1.

We trust the above information is satisfactory. If you have any questions or need further information regarding the completed work please do not hesitate to contact the undersigned.

Respectfully submitted,

BluMetric Environmental Inc.



Francois Richard, Ph.D. P.Geo.
Senior Hydrogeologist

Encl.

Table 1. WM Richmond Landfill - Summary of RUL Exceedances from Spring 2016 Groundwater Monitoring Results

Monitoring Location	General and Inorganic Parameters							Volatile Organic Compounds (VOCs)	
	Alkalinity	Chloride	Dissolved Organic Carbon	Iron	Manganese	Sodium	Total Dissolved Solids	1,4-Dioxane	Benzene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RUL*	400	132	3.5	0.18	0.032	106	465	0.001	0.0014
M64-2								0.0031	
M114-1			4.3	5.3	0.3			0.0052	
M121	520	390	5.2			230	1130	0.01	0.034
M123	410		4.2				512	0.0063	
M167	430	250	4.2			180	874	0.0035	
M168	410	290	4.6			120	950	0.0064	
M178R-2			5	0.92	0.051		502	0.0052	
M178R-3	410		5.6	0.56	0.042		552	0.0061	
M178R-4	460		5.1				626	0.0068	
M179			3.8	0.48					
M186		1200		0.7	0.21	700	2360		
M187							602		
M190			3.8						
M192		580			0.035	320	1390		
M193**		370			0.08	250	844		0.004

* RUL: Reasonable Use Limit

** M193 - Sampled as required by ECA Condition 8.5(a)ii (all newly established wells must be sampled on a quarterly basis within the first year)