



June 14, 2017

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, 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 at newly installed groundwater monitoring wells, conducted on May 25, 2017. We are providing, for your information, the notice supplied to MOECC on June 14, 2017. All results outlined in this notice are related to concentration exceedances at locations within the proposed CAZ.

All results will be evaluated in the complementary hydrogeological investigation report that will be issued by July 15, 2017.

Regards,

Timothy Haaf  
Manager, Richmond Landfill  
Waste Management of Canada Corporation

Encl.



## MEMORANDUM

**DATE:** June 14, 2017  
**TO:** James Mahoney, Acting District Manager, Ministry of the Environment and Climate Change (MOECC)  
**CC:** Shawn Trimper, Peter Taylor and Chris Raffael (MOECC)  
Tim Haaf, Jim Forney, Chris Prucha and Bill McDonough, (WM)  
**FROM:** François Richard (BluMetric)  
**PROJECT NO:** 170194-02  
**SUBJECT:** Notification of Off-site Exceedances, WM Richmond Landfill, Town of Greater Napanee

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This memorandum is provided on behalf of Waste Management of Canada Corporation as required by Conditions 8.7 and 8.8 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 site<sup>1</sup>, implemented on April 16, 2016 on an interim basis as ordered by the Environmental Review Tribunal (ERT) Order dated December 24, 2015. Conditions 8.7 and 8.8 of the ECA stipulate that monitoring results shall be reported to the MOECC District Manager within 48 hours of the determination of the exceedance (initial data screening) if they meet either of the following conditions, respectively:

- (1) any off-site exceedance of the applicable criteria for groundwater (Reasonable Use Limits (RUL)) or surface water (Provincial Water Quality Objectives (PWQO)), or
- (2) 1,4 dioxane concentrations at or above the detection limit of 1 µg/L at any groundwater well or domestic well at which 1,4 dioxane has not been detected in the past or at any surface water monitoring location.

### RESULTS

Groundwater samples were collected on May 25, 2017 from five monitoring wells recently drilled as part of the ongoing hydrogeological investigation aimed at delineating an off-site Contaminant Attenuation Zone (CAZ). The new wells were installed in the proposed CAZ, including Shallow

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<sup>1</sup> *Environmental Monitoring Plan, WM Richmond Landfill, Town of Greater Napanee, Ontario, rev. No.05*, prepared by BluMetric Environmental Inc., dated April 2016



Flow Zone monitoring wells M178R-5 and M188-2, as well as Intermediate Bedrock Zone wells M194-1, M194-2 and M195.

The analytical results for samples from the new monitoring locations located within the proposed CAZ show the presence of parameters that exceed their respective RUL, as summarized in **Table 1**. These include:

- One or several non-health based parameters (alkalinity, dissolved organic carbon, iron, manganese, sodium and/or total dissolved solids) at locations M178R-5, M188-2, M194-2 and M195; and
- Volatile Organic Compound (VOC) 1,4 dioxane at monitoring well M178R-5.

**Table 1. Summary of RUL Exceedances from May 25, 2017 Groundwater Monitoring Results**

Parameter	General and Inorganic Parameters						VOC
	Alkalinity	Dissolved Organic Carbon	Iron	Manganese	Sodium	Total Dissolved Solids	1,4-Dioxane
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RUL*	390	3.6	0.18	0.034	109	452	0.001
M178R-5	430	3.8	0.21	0.04		540	0.0074
M188-2				0.071			
M194-2		9.3		0.043		462	
M195					190	634	

\* RUL: Reasonable Use Limit

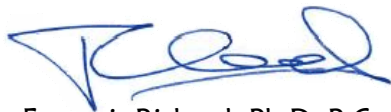
## CLOSING

All results will be evaluated as part of the ongoing hydrogeological investigation and formally reported by July 15, 2017.

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.Ge.  
Senior Hydrogeologist