



May 30, 2024

Dear All:

You are receiving this communication to keep you apprised of the status of the ongoing environmental monitoring activities associated with the closed Waste Management (WM) Richmond Landfill property.

Under the Environmental Compliance Approval conditions for the facility, WM has notified the Ministry of Environment, Conservation and Parks (MECP) District Manager of results from the most recent sampling event. This work was conducted between April 25 and May 9, 2024, as a part of scheduled spring 2024 semi-annual environmental monitoring event.

We are providing, for your information, the notice supplied to MECP on May 30, 2024. All results outlined in this notice are related to concentration exceedances at locations within the proposed Contaminant Attenuation Zone, as well as one location on the property to the east of the southern part of the eastern landfill property boundary. These results are generally similar to the historical exceedances observed at these locations for the parameters listed.

These results will be evaluated in the spring semi-annual report that will be issued by July 15, 2024.

Regards,

Noah Wayt
Manager, Richmond Landfill
Waste Management of Canada Corporation

Encl.



MEMORANDUM

DATE: May 30, 2024

PROJECT NO: 240160-04

TO: Cathy Chisholm,
District Manager, (MECP)

CC: David Arnott (MECP)
Chris Prucha, Noah Wayt and
Chad Moose (WM)

FROM: François Richard (BluMetric)

SUBJECT: Notification of Exceedances, WM Richmond Landfill Town of Greater Napanee

This memorandum is provided on behalf of Waste Management of Canada Corporation (WM) as required by Conditions 8.11 and 8.12 of Environmental Compliance Approval (ECA) No. A371203 for the Richmond Landfill, Town of Greater Napanee, Ontario, dated March 19, 2021. Conditions 8.11 and 8.12 of the ECA stipulate that monitoring results shall be reported to the MECP District Manager within 48 hours of the determination of the exceedance (initial data screening) if they meet one of the following conditions:

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

RESULTS

The groundwater and surface water sampling were completed as part of the spring semi-annual monitoring event between April 25 and May 9, 2024, following the requirements outlined in the latest EMP for the site.

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

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The analytical results for samples from off-site intermediate bedrock groundwater flow zone monitoring locations showed the presence of parameters that exceeded their respective RUL, as summarized in **Table 1**. These results are generally similar to the historical exceedances observed at these locations for the parameters listed, and 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, M185-1, M186 and M192; and,
- Volatile Organic Compounds (VOCs) including 1,4-dioxane at monitoring wells M114-1, M121 (as well as benzene), M123, M167, M168, M178R-2, M178R-3, M178R-4 and M192.

All surface water analytical results at off-site sampling locations were below their respective PWQO, with the exception of unionized ammonia at sampling location S19 (0.022 mg/L compared to the PWQO of 0.02 mg/L), as well as iron (0.49 mg/L vs. PWQO of 0.3 mg/L) and phosphorus (0.034 mg/L vs. PWQO of 0.03 mg/L) at upstream sampling location S18 (see **Table 2**).

CLOSING

The results from the latest environmental monitoring event will be reported as part of the spring semi-annual monitoring report by July 15, 2024, 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.



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

Encl.

Ref.: Richmond Landfill Exceedance Notification-20240530.docx

Table 1: Summary of Off-Site RUL Exceedances from Spring 2024 Groundwater Monitoring Results

General and Inorganic Parameters								Volatile Organic Compounds (VOCs)	
Parameter	Alkalinity	Chloride	Dissolved Organic Carbon	Iron	Manganese	Sodium	Total Dissolved Solids	1,4-Dioxane	Benzene
Units	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
M114-1			5.5	7.4	0.34		525	0.0054	
M121	450		5.0				615	0.0059	0.0055
M123	410		4.4		0.034		510	0.0064	
M167	440	310				190	940	0.0041	
M168		260	4.2			180	910	0.008	
M178R-2			4.4	1.1	0.067		470	0.0042	
M178R-3			12.0	1.0	0.062		545	0.0049	
M178R-4	420		4.3	0.2	0.039		590	0.0056	
M179				0.35					
M185-1		470				360	1170		
M186		1200			0.067	760	2270		
M192	660	290	3.7			350	1150	0.0087	
M114-1			5.5	7.4	0.34		525	0.0054	

*RUL: Reasonable Use Limit

Table 2: Summary of Off-Site PWQO Exceedances from Spring 2024 Surface Water Monitoring Results

Parameter	Ammonia (unionized)	Iron	Phosphorus (total)
Units	mg/L	mg/L	mg/L
PWQO*	0.02	0.3	0.03
S18		0.49	0.034
S19	0.022	0.32	

* PWQO: Provincial Water Quality Objectives