

February 24, 2022

BY EMAIL & REGULAR MAIL

Client Services and Permissions Branch
Ministry of the Environment, Conservation and Parks
135 St Clair Ave West, 1st Floor
Toronto, ON
M4V 1P5

Dear Sir/Madam:

**RE: RICHMOND LANDFILL (TOWN OF GREATER NAPANEE)
ERO NUMBERS 019-4864 AND 019-4955**

Please be advised that I am counsel for the Concerned Citizens' Committee of Tyendinaga & Environs ("CCCTE") in relation to the above-noted matter.

I have been instructed by my client to provide the Ministry of the Environment, Conservation and Parks ("Ministry") with the CCCTE's comments regarding the proposals described in ERO 019-4864 (i.e., amendments to ECA (Waste) No. A371203) and ERO 019-4955 (i.e., amendments to ECA (Sewage) No. 1688-8HZNJG).

For the reasons outlined below, the CCCTE submits that:

- The off-site leachate plumes emanating from the Richmond Landfill Site have not been adequately delineated, contrary to the dubious claims made by the proponent and the Ministry.
- The proposed Post-Closure Environmental Monitoring Plan ("EMP") is highly deficient, unacceptably narrow, and completely unjustified in the circumstances of the Richmond Landfill Site.
- The proposal to direct contaminated groundwater pumped from the Hydraulic Control System ("HCS") into the surface water system (via a forcemain into Stormwater Pond No. 3) creates considerable risk of adverse environmental impacts and is based on limited testing, inadequate modelling, and questionable assumptions by the proponent.

Accordingly, the CCCTE recommends that the various works, operations, and activities contemplated in the two ERO postings should not be approved by the Ministry on the basis of the unpersuasive supporting documentation submitted by the proponent to date.

Canadian Environmental Law Association

T 416 960-2284 • 1-844-755-1420 • F 416 960-9392 • 55 University Avenue, Suite 1500, Toronto, Ontario M5J 2H7 • cela.ca

(a) Background: CCCTE Membership and Objectives

The CCCTE is a non-profit organization which is incorporated under the laws of Ontario. The CCCTE membership includes persons living in the Township of Tyendinaga, the Town of Greater Napanee, the Town of Deseronto, and other local communities, and includes residents living near the Richmond Landfill Site.

The overall objectives of the CCCTE are to ensure that:

- the Richmond Landfill Site remains permanently closed, and is not expanded or re-opened for waste disposal purposes; and
- the environmental risks and impacts of the closed Richmond Landfill Site are carefully monitored, publicly reported, and effectively mitigated over its entire contaminating lifespan.

To achieve these objectives, the CCCTE has been actively engaged since the late 1990s in various administrative and legal proceedings involving the Richmond Landfill Site. Similarly, the CCCTE has attended public meetings, retained counsel and experts, corresponded with provincial and municipal officials, and reviewed countless documents prepared by the proponent, the Ministry, and other persons and agencies in relation to the Richmond Landfill Site.

In addition, the CCCTE was the appellant in the 2015 hearing before the Environmental Review Tribunal (“ERT”) that resulted in key amendments to ECA A371203. Among other things, the amendments ordered by the ERT strengthened the environmental monitoring regime and required the delineation of the off-site leachate plumes that originate from the Richmond Landfill Site.

Given this background, experience, and public interest perspective, the CCCTE – and its hydrogeologist Wilf Ruland, P. Geo – have carefully reviewed the proposals outlined in the two ERO notices. The CCCTE and Mr. Ruland have also considered the proponent’s supporting technical reports and relevant Ministry correspondence. This ongoing review has identified numerous data gaps, questionable methodology, and unsubstantiated conclusions in the materials that purportedly support the two ERO proposals, as described below.

(b) Overview of CCCTE’s Concerns

The CCCTE retained Mr. Ruland to conduct an independent technical review of the hydrogeological aspects of the two ERO postings and related Ministry documentation. Mr. Ruland’s attached report (dated February 23, 2022) forms part of the CCCTE comments to the Ministry, and the CCCTE hereby adopts and commends Mr. Ruland’s findings and recommendations to the Ministry.

(i) *Inadequate CAZ Delineation*

For the reasons provided by Mr. Ruland in his February 23, 2022 report (and his previous report appended thereto dated October 31, 2019), the CCCTE disagrees with the assertion from the proponent and the Ministry that the leachate plumes have been fully delineated at this time.

The evidentiary basis for Mr. Ruland's professional opinion was succinctly described 1.5 years ago in his 2019 report:

The MECP and WM have been distracted by a focus on leachate plume delineation at a time when groundwater and surface water flow and contamination conditions at the Richmond Landfill are in the process of changing.

The changes will be resulting from WM's new (since 2017) high-risk practice of dumping millions of litres of leachate from the landfill into a lagoon on its northeast side for an indefinite period, and then waiting for it to disappear (i.e., leak into the groundwater flow system).

A moratorium on the leachate dumping is urgently required, and it is incumbent on WM and/or the MECP to act in this regard.

In the meantime, I see no point in my clients' continuing discussions on plume delineation at the Richmond Landfill. Delineation work done to date is being rendered moot by the input of millions of litres of leachate into the groundwater flow system - and work on assessing the impacts of the dumping takes highest priority at this time (page 14).

In his 2022 report, Mr. Ruland identifies an additional reason why the leachate plumes have not been adequately delineated to date:

The Hydraulic Control System (HCS) is being proposed in order to try to hydraulically contain the southeastern corner of the Richmond Landfill property. At present one of the landfill's groundwater contamination plumes crosses the southeast property boundary and contaminates groundwater on a neighbouring property. The off-site area which is being contaminated by the landfill is not precisely defined, which is one of the reasons I don't consider the plumes to be fully delineated (emphasis added, page 6).

Accordingly, Mr. Ruland's 2022 report (page 3) continues to dispute the Ministry's contention that the plume has been adequately delineated. The CCCTE agrees with and relies upon Mr. Ruland's position on this issue.

(ii) *Unjustified Rollback of Monitoring Requirements*

The environmental monitoring program for the Richmond Landfill Site in the post-closure period was expanded and improved by the ERT's decision dated December 24, 2015. However, the proponent is now proposing to significantly reduce the nature and scope of environmental monitoring requirements at the site.

For example, the proponent intends to reduce the frequency of surface water monitoring and decrease the number of monitoring wells by 25%, including wells in key areas in the vicinity of the landfill. The CCCTE vigorously opposes this and other proposed rollbacks in the monitoring program.

In relation to the proponent's new monitoring proposals, Mr. Ruland's 2022 report identifies serious shortcomings in the proposed EMP, including the following deficiencies:

- It fails to disclose which changes are actually being proposed to the landfill's various monitoring programs.
- If approved, it would reduce key aspects of the site monitoring programs with no justification or rationale.
- It does not make provision for PFAS sampling or the sampling of wells near a karst feature, even though such sampling has been recommended by the MECP.
- It does not make provision for reporting (in the Annual Monitoring Reports) of leachate seeps, springs, spills, overflows, or other upset events at the landfill.
- It does not make provision for the monitoring of the proposed Hydraulic Control System (HCS) (page 12).

Accordingly, the CCCTE concurs with Mr. Ruland's conclusion that the proposed EMP is "inadequate and requires further work" (page 12). In the CCCTE's view, the Ministry cannot and should not approve the proposed EMP in its present form.

(iii) *Unacceptable and Risk-Laden HCS Proposal*

The proponent's HCS is intended to concurrently use three purge wells to intercept and prevent the leachate plume from moving toward a neighbouring property. If the HCS is approved, the collected leachate effluent will be pumped via a forcemain into Stormwater Pond No. 3, which is designed to discharge surface water off-site into the Beechwood Road ditch south of the Richmond Landfill Site.

In the CCCTE's view, the proposed HCS is arguably the most alarming and environmentally risky aspect of the two ERO postings. Similarly, Mr. Ruland has expressed grave concerns about purge well systems since 2018 when this concept was first raised as a possibility at the Richmond Landfill Site.

In his attached 2022 report (pages 7-11), Mr. Ruland provides several key reasons why the proposed HCS should not be approved by the MECP.

First, there has been no apparent consideration of the likelihood that the leachate effluent quality will gradually worsen over time as the purge wells continuously pump groundwater to the stormwater pond. This is because the wells will serve as a new low point in the local groundwater flow system, which will induce inward flow of leachate contaminants toward the HCS and create the risk of upward hydraulic gradients that facilitate the upwelling of saline/briny water from deeper groundwater. Mr. Ruland further notes that the limited pump testing conducted by the proponent to date is insufficient for the purposes of predicting the long-term quality of the effluent to be captured by the HCS or the efficacy of the HCS over time.

Second, the available evidence indicates that it would not be appropriate to discharge the collected HCS effluent (about 4 million litres/year) into the surface water system. For example, Mr. Ruland's report (Table 1) reveals that for certain parameters (i.e., boron, zinc, and toluene), the HCS effluent does not meet Provincial Water Quality Objectives. At the same time, it appears that the proponent has not comparatively assessed other options for managing the HCS effluent (i.e., collection and transportation for off-site treatment and disposal). Instead, in a non-transparent manner, the proponent has selected the most objectionable option that has the greatest potential for causing adverse environmental effects.

Third, the pump testing and modelling results appear to confirm that the purge wells are drawing leachate-contaminated groundwater from one of the landfill's contaminant plumes and causing well interference in other nearby monitoring wells. However, Mr. Ruland concludes that the proponent has not demonstrated that the HCS will work as predicted to cut off the leachate-contaminated groundwater flow to the neighbouring property. In the CCCTE's view, this is a significant omission in the proponent's supporting documentation.

For these and other reasons, Mr. Ruland's 2022 report (page 11) "strongly" recommends against Ministry approval of the proposed HCS. The CCCTE supports this recommendation and urges it upon the MECP.

(c) CCCTE's Conclusion

The CCCTE's overall conclusion is that none of the proposals described in the two ERO postings should be approved by the Ministry. In the CCCTE's view, considerably more field work, analysis, consultation, and reporting by the proponent should be required before the Ministry can make an informed decision on the proposals.

The CCCTE further submits that sending the proponent back to the drawing board is entirely consistent with the important principles (i.e., ecosystem approach, cumulative effects consideration, public consultation, etc.) that the Ministry has committed to in its Statement of Environmental Values ("SEV") under the *Environmental Bill of Rights*.

For example, the SEV indicates that the Ministry will undertake a "precautionary, science-based approach" when making environmentally significant decisions. On the facts of this case, the

CCCTE submits that it is neither prudent nor precautionary for the Ministry to approve the proposed HCS infrastructure and related activities when there is still considerable uncertainty and insufficient data regarding the nature, extent, and significance of potential effects upon groundwater and surface water quality (i.e., upwelling of saline groundwater, downstream surface water impacts, location and volume of the leachate contaminants that leaked from the lagoon into the groundwater flow system, etc.).

Similarly, the CCCTE notes that the proponent has not withdrawn its application for approval under the *Environmental Assessment Act* (“EAA”) for the much larger Beechwood Road Environmental Centre (“BREC”) landfilling proposal beside the Richmond Landfill Site. To the CCCTE’s knowledge, there appears to be no consideration by the Ministry of the potential additive or cumulative effects of the HCS proposal and the BREC if approved.

The CCCTE further notes that the Terms of Reference (“TOR”) for the BREC environmental assessment (“EA”) was submitted by the proponent 12 years ago and was approved by the Minister 10 years ago. However, over the past decade, the proponent has neither undertaken any public consultation programs nor disclosed any studies, reports or documents that advance the EA application in a timely manner in accordance with the approved TOR. In these circumstances, the CCCTE submits that it is long-overdue for the dormant BREC application under the *EAA* to be immediately withdrawn, discontinued, or terminated in order to fully focus the proponent’s attention on the Richmond Landfill Site, particularly in relation to the outstanding technical issues described above.

In closing, the CCCTE would be remiss if it did not again raise the issue of non-compliance with the Public Notification Plan entrenched in ECA A371203. As described in Mr. Ruland’s attached 2022 review (pages 2-3), there have been several reportable leachate-related incidents (i.e., accidental and intentional leachate spills, leachate chamber overflow, increasing 1-4 dioxane levels in wells beyond the eastern landfill boundary, etc.) that have not triggered the Plan’s important notification requirements. In these circumstances, the CCCTE submits that the Ministry must either redouble its efforts to ensure compliance with the Plan or must review and revise the Plan forthwith (with input from the CCCTE) to make it even more clear that the above-noted incidents are subject to the prescribed notification requirements.

We trust that the CCCTE’s comments and concerns about the two ERO postings will be considered and acted upon by the Ministry. Please contact the undersigned if you have any questions arising from this submission.

Yours truly,
CANADIAN ENVIRONMENTAL LAW ASSOCIATION



Richard D. Lindgren
Counsel

Encl.

cc. Ian Munro, CCCTE Chair
Chief R. Don Maracle, Mohawks of the Bay of Quinte