



Published on *Canadian Environmental Law Association* (<http://www.cela.ca>)

Richmond Landfill: Chronology of Environmental Concerns

Section 61 of the EBR enables Ontarians to file an EBR Application for review of an environmental approval where there is reason to believe that the approval “should be amended, repealed or revoked in order to protect the environment.”

The detailed, 40 page EBR Application (and extensive supporting documentation) jointly filed by the MBQ, Tyendinaga Township and local residents specifically requests that two existing approvals for the Richmond Landfill be reviewed and amended by the MOE in order to:

- prohibit any further waste disposal, and any further acceptance of petroleum contaminated soils, at the landfill after December 31, 2008;
- establish immediate and comprehensive site closure and post-closure requirements; and
- require Waste Management to immediately develop (with public input) and implement an appropriate on-site and off-site surface water and groundwater monitoring/reporting program to determine the nature, extent and environmental fate of the leachate plume generated at the landfill.

The factual, technical and scientific grounds for the joint EBR Application include the following considerations:

- numerous expert reports have confirmed that the hydrogeology of the site is characterized by thin soils, fractured bedrock, complex groundwater flow, vulnerable aquifer, no natural attenuation, and contaminant transport pathways that are unpredictable and difficult to track;
- local residents, farmers and businesses in the vicinity of the site rely on groundwater as a source of drinking water and for other agricultural and household purposes;
- since its establishment in the 1950s, the Richmond Landfill has received approximately 3 million tonnes of waste, and has been developed in five distinct phases, but the oldest and largest phase (Cell 1) lacks an impermeable liner and is not underlain by leachate collection pipes;
- the remaining phases have various types of liners, but the MOE has concluded that these liners do not meet Ontario’s current landfill design standards;
- in 2000, an independent site audit conducted for the Town of Greater Napanee concluded that leachate from the unlined cell “can enter the groundwater and be transported off-site”, that “groundwater beneath the landfill has been impacted by leachate”, and that the groundwater monitoring program is “outdated” and “insufficient”;
- in 2002, an MOE hydrogeologist concluded that the Ministry should consider the site “as

likely out of compliance with Reasonable Use Guideline B-7” until groundwater issues are rectified;

- in 2003, the MOE issued a provincial officer’s order against Waste Management in relation to odours emanating from the Richmond Landfill;
- in 2005, Waste Management [formerly CWS] submitted an Environmental Assessment (EA) for its proposed site expansion, and indicated that there were only 1.1 years of site life left at the Richmond Landfill; the EA further indicated that the contaminating lifespan of the existing Richmond Landfill is 300 years;
- in 2006, an MOE hydrogeologist expressed concern “about the quantity and environmental fate of leachate entering the subsurface throughout this site’s operational history”;
- in 2006, the MBQ’s consultants conducted an off-site groundwater investigation in the vicinity of the Richmond Landfill, and detected the presence of leachate indicators in groundwater samples;
- in the 2006 Government Review of the EA, MOE staff concluded, among other things, that “the site has a history of odour complaints”, and “given that the landfill is a potential source of groundwater contamination in a susceptible subsurface environment... there are significant environmental risks associated with expanding the landfill”;
- the MOE Government Review further concluded that “it is reasonable to assume that the unlined cell is a potential source of groundwater contamination”;
- in November 2006, the Minister of the Environment accepted the Government Review’s recommendation that the proposed expansion should not be approved due to environmental concerns raised by public and agency reviewers;
- shortly thereafter, local residents requested the MOE to impose new conditions to prohibit waste disposal activities at the site by the end of 2007, but the MOE failed or refused to do so;
- similarly, the MBQ, Tyendinaga Township and the Town of Greater Napanee passed resolutions in 2007 calling upon the MOE to require immediate site closure, but the MOE failed or refused to do so to date;
- in 2007, Waste Management prepared an updated closure plan, but claimed that the “date of final closure is indeterminate at this time”, and that “at reduced tonnages, site life could last for several years”;
- the residents’ hydrogeologist has estimated that for every year that site remains open and uncapped, an extra 6 million litres of leachate is being created due to infiltration by precipitation and snow melt;
- the residents’ hydrogeologist has further estimated that up to 50% of the landfill area is leaking leachate into the underlying groundwater flow system, and that the annual quantity of leachate leaking into groundwater is approximately 14 million litres;
- the residents’ hydrogeologist concluded that recent surface water monitoring results “provide strong evidence that surface water contamination is occurring, and the obvious sources of such contamination are the landfill’s leachate springs and seeps”;
- a November 2007 MOE memo expressed numerous concerns about the adequacy of the current groundwater monitoring program, and noted the absence of monitoring wells within the waste pile to quantify the amount of leachate mounding;
- a December 2007 MOE memo acknowledged that “the longer the site remains operational and exposed to infiltrating precipitation, the greater the potential risk of impacts to the surface water features”;
- in July 2008, the MOE released an extensive critique of Waste Management’s proposed closure plan; and
- as of November 3, 2008, there is no fixed date for the closure of the Richmond Landfill, and there is no updated closure plan in place, despite the foregoing chronology of environmental concerns.

See also today's [Media Release](#) ^[1].

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Environmental law, in the public interest

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Links:

[1] http://www.cela.ca/cela/legacy_link/4066