



December 2010

## **Treatment of Leachate**

Waste Management has applied to the Ministry of Environment (MOE) for approval to construct and operate a sequencing batch reactor (SBR) leachate treatment system.

SBR treatment systems are a proven and reliable method of leachate treatment. The requirement of the system proposed will be to pre-treat site leachate, reducing concentrations of the parameters within the leachate, to allow a greater leachate flow to be discharged to the Ottawa sanitary sewage collection system.

Based on the site leachate generation rate and the goal to reduce the leachate stored within the landfill mound we have requested approval to construct and operate a pre-treatment system with a capacity of 2.4 L/s (37.5 gpm).

A SBR is an activated sludge process, which operates in a batch mode and includes biological decomposition and settling within a common process tank. The complete system will include leachate pumps, equalization tank, treatment system (including tank, blowers and pumps), heating system, sludge storage tank and pumps, chemical feed systems, process piping, odour control and electrical instrumentation.

All leachate treated through the SBR will be pumped to the municipal sanitary sewer system. There will be no direct discharge of leachate to the environment.

A drawing showing the proposed location of the SBR follows:



The application will be posted on the Ontario Ministry of the Environment Environmental Registry website (EBR).

This system is part of on going site operations. It is not related to the WCEC Environmental Assessment.

### Landfill Gas to Energy Plant Update

The Landfill Gas to Energy Plant has now been in operation since April 2010 and generates energy under a Feed-in Tariff contract from Ontario Power Authority. The plant consists of five engines, which generate a total of 6.4 MW of electricity. There are two types of engines, which currently use up to 2,400 scfm of Landfill Gas to generate electricity. We have three CAT 3520 (V20 engine) and two CAT3516 (V16 engine). We would like to replace the two CAT3516 and replace them with two CAT3520. This would increase the energy generation from 6.4 MW up to 8.0 MW.

Emission from the engines will be modeled and application to amend our Certificate of Approval (air) will be submitted to the Ministry of Environment.



Landfill Gas to Energy Plant Engines

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