

DATE: November 5, 2019

FILE: 5360-20/CV

TO: Chair and Directors
Comox Strathcona Waste Management Board

Supported by Russell Dyson
Chief Administrative Officer

FROM: Russell Dyson
Chief Administrative Officer

R. Dyson

RE: Comox Valley Waste Management Centre – Strategies for Leachate Management

Purpose

To inform the Comox Strathcona Waste Management (CSWM) Board (Board) of a strategy to reduce leachate generation in Cell 1 at the Comox Valley Waste Management Centre (CVWMC).

Recommendation from the Chief Administrative Officer:

This report is for information purposes only.

Executive Summary

As reported at the September 12, 2019 CSWM Board meeting ([link](#)) staff are working towards implementing a rain cover plan to reduce leachate generation in Cell 1 during the winter season. This system has been selected and will be implemented per the following:

- Proposals were obtained from three proponents for the one-time supply and installation of rain covers and ballast systems.
- The selected system will cover up to 18,000 m² of Cell 1 and will collect clean rainwater with a polyethylene cover that is protected from both ultra violet and wind damage. The system is expected to be reused in subsequent years.
- It is estimated that up to 40 per cent of precipitation on Cell 1 will be diverted away as clean surface water runoff during the upcoming winter.
- The work will be completed by Western Tank and Lining before the end of November 2019.
- Prior to deploying rain covers, horizontal landfill gas pipes will be installed.
- At the end of this coming winter performance of the rain cover system will be assessed and if successful staff will incorporate the system into our operational practice.
- These measures can be completed within the approved 2019-2023 Financial Plan.

The following regulatory and operational constraints are driving the need for additional leachate management measures:

- The BC landfill criteria for municipal solid waste requires leachate head (depth) within Cell 1 be below certain parameter and our operating certificate limits daily treated leachate discharge to 250m³.

- The entire surface area of Cell 1 is open, which increases the catchment area for leachate and the existing leachate equalization pond’s useful volume is undersized.
- Cell 1 is in early stages of filling and does not have sufficient capacity to absorb and attenuate precipitation. All water that enters the cell almost immediately becomes leachate.

Any operational changes required to implement the above are included in the operational certificate for the CVWMC and reviewed with Ministry of Environment and Climate Change Strategy (MoE). Comox Valley Regional District staff have discussed preliminary plans with the MoE and received agreement in principle with the approach to reduce leachate generation. A final plan will be submitted to the ministry in the coming weeks for their records.

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