

REPORT TO CAPITAL REGIONAL DISTRICT BOARD MEETING OF WEDNESDAY, JUNE 12, 2024

SUBJECT Short-term Biosolids Management Plan – June Update

ISSUE SUMMARY

To provide a monthly update to the Board on the status of the short-term options for biosolids management, as well as progress on the advanced thermal pilot project. An update on the Long-term Biosolids Management Strategy will be reported under separate cover.

BACKGROUND

The Capital Regional District (CRD) has been responsible for the beneficial use of Class A biosolids produced at the Residuals Treatment Facility since the commissioning of the core area wastewater treatment project in 2020. Currently, the CRD is operating under the Short-term Biosolids Management Plan (2020-2025), with the primary beneficial use options being incineration as an alternative fuel in a cement manufacturing plant in Richmond, BC, and integration with landfill cover systems as contingencies. When neither of these options are available, landfilling biosolids at Hartland Landfill has been the only alternative. In 2011, the CRD Board passed a resolution to ban the land application of biosolids from CRD facilities; however, in 2023, given the operational and logistical challenges with the short-term plan, the CRD Board amended its position to allow limited non-agricultural land application of biosolids as a contingency option. The CRD has secured the use of biosolids for industrial land reclamation at a quarry near Cassidy, BC. Staff continue to seek additional short-term beneficial use contingency options, in order to limit or avoid landfilling of biosolids when the other options are not available.

The CRD is also required to submit a Long-term Biosolids Management Strategy to the Province by June 18, 2024. Plan development has included input from the Technical and Community Advisory Committee, First Nations engagement and public consultation.

Short-term Biosolids Management Plan Implementation

Land Reclamation in Cassidy, BC: The quarry received the majority of biosolids produced in May. Biosolids are blended with sand and are being stored by the landowner under cover, pending regulatory approval for mixing and placement of biosolids growing medium, in accordance with the Organic Matter Recycling Regulation and approvals under the Mines Act. The quarry has capacity to accept 2,000 cubic metres in 2024 and received approximately 1,000 cubic metres through May. Staff anticipate that at the current rate of use, this contingency option will not be available after July 2024 until their existing stockpiles are blended and placed as final reclamation cover.

Cement Kiln in Richmond, BC: An equipment malfunction in April prevented any transports for the majority of May; one delivery was achieved at the end of May but again equipment issues forced the shut-down of the silo to receive biosolids. Repairs are expected to be completed mid-June. CRD and LaFarge senior staff will be meeting in June to discuss next steps to improve the reliability and resilience of the current process.

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Landfilling at Hartland Landfill: There was no landfilling of biosolids through April and May, and staff anticipate sufficient capacity at the Cassidy quarry site through June to avoid landfilling. Landfilling is not a beneficial use, as per provincial regulations, and consumes valuable airspace at the landfill.

Provincial (Organic Matter Recycling Regulation) Technical Working Group Review: In 2023, the provincial Ministry of Environment and Climate Change Strategy conducted a review of the Organic Matter Recycling Regulation, including an evaluation of emerging contaminants of concern in the context of land application. The Province has not released the Technical Working Group's report nor commented on the OMRR review at this time. The Board considered its own literature review of current science and a legal review of land application risks to the CRD at its May 8 meeting. The Environmental Services Committee will receive updates on these tasks in the coming months.

CONCLUSION

The Capital Regional District continues to implement the Short-term Biosolids Management Plan while also finalizing a Long-term Biosolids Management Strategy. The short-term program continues to experience operational challenges and there is insufficient contingency capacity to ensure the sustainable beneficial use of biosolids, which prevents reliable regulatory compliance. Staff are currently exploring additional contingency options to support implementation of both the short-term and long-term plans.

RECOMMENDATION

There is no recommendation. This report is for information only.

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