

**REPORT TO CAPITAL REGIONAL DISTRICT BOARD
MEETING OF WEDNESDAY, FEBRUARY 14, 2024**

SUBJECT **Biosolids Monthly Update – February**

ISSUE SUMMARY

To update the Board on the status of the short-term options for biosolids management, as well as progress on the development of the Long-Term Biosolids Management Plan and advanced thermal pilot project.

BACKGROUND

Since the commissioning of the core area wastewater treatment project in 2020, the Capital Regional District (CRD) has been responsible for the beneficial reuse of Class A biosolids produced at the Residuals Treatment Facility (RTF). Currently, the CRD is operating under a five-year Short-Term Biosolids Management Plan, with beneficial use options, including incineration as an alternative fuel in a cement manufacturing plant in Richmond, BC, with industrial land reclamation at a quarry near Cassidy, BC and integration with landfill cover systems as contingencies. When none of these options are available, landfilling biosolids at Hartland Landfill is the only alternative. In 2011, the Board banned the land application of biosolids; however, in 2023, given the operational and logistical challenges with the Short-Term Plan, the Board amended its position to allow non-agricultural land application of biosolids as a contingency option. Staff continue to seek additional Short-Term beneficial use contingency options consistent with CRD Board direction (short-term, non-agricultural land application options).

The CRD is also required to develop a Long-Term Biosolids Management Plan by June 2024. Plan development will include input from the Technical and Community Advisory Committee (TCAC; established October 2023), First Nations engagement and public consultation.

Short-term Plan Implementation

A 2023 summary of biosolids production and end use is provided in Appendix A. The CRD produced 2,908 tonnes of Class A Biosolids this past year; 555 tonnes of non-Class A biosolids were produced when the RTF dryer was down for maintenance and that material was handled as controlled waste.

Cement Kiln: Only 67 tonnes of biosolids were able to be sent to the Richmond cement kiln in 2023; no biosolids have been sent to Richmond since November of last year. Maintenance at the facility was not completed in time to send biosolids prior to a planned winter maintenance shutdown. The kiln is expected to reopen in mid-March following equipment repairs.

Land Reclamation in Cassidy, BC: Reclamation of the up-island industrial quarry is being done in phases, meaning there is a short-term limit on the quantity of biosolids that can be received at the facility. This limit was met in early January and, therefore, shipping of biosolids to the quarry has been paused until at least March 2024, depending on how quickly the quarry site utilizes the existing stored biosolids.

Second Quarry Site in the Regional District of Nanaimo, BC: The CRD was approached by a site operator of a second gravel quarry within the Regional District of Nanaimo to receive CRD Class A biosolids for site reclamation. Given the CRD Board's current resolution to allow non-agricultural land application out-of-region, but not in-region, opposition to the site has been raised and the operator has now withdrawn their proposal.

Landfilling: Currently, all biosolids are being landfilled, as no other short-term management options are available. In 2023, the volume of biosolids and mixed soil that were landfilled totalled 9,000 cubic meters. Landfilling is not a beneficial use, as per provincial and federal expectations, and continues to consume valuable airspace that would be better utilized for municipal solid waste.

Long-term Planning

Public Engagement: Public engagement on the Long-term Biosolids Management Plan was launched January 11, 2024 and will close March 6, 2024. The consultant will provide a "What We Heard" report in April. This engagement includes background information, various means to provide feedback, all of which are available via the CRD's Get Involved engagement platform (<https://getinvolved.crd.bc.ca/biosolids>). A virtual open house is scheduled for February 20, 2024. The TCAC is also reviewing the public engagement feedback, along with a review of available beneficial reuse options, and will bring recommendations forward to the Environmental Services Committee.

First Nations Engagement: Staff have retained an engagement consultant to conduct First Nations engagement on long-term biosolids management options and planning. The consultant has experience working with Indigenous communities in BC and anticipates completing First Nations engagement parallel to the public engagement process.

Advanced Thermal Technology Demonstration Plant: A Request for Proposals (RFP) for a technical advisor to support CRD staff in developing terms and technical requirements for a demonstration plant has been issued and closes on March 4. The subsequent RFP for the demonstration plant is expected to be issued in April, with a preferred proponent selected in fall 2024.

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 report was anticipated to be released in late 2023, but staff have been advised that the date has been delayed to the end of Q1 2024.

CONCLUSION

The Capital Regional District continues to implement the Short-Term Biosolids Management Plan while also developing the draft Long-Term Biosolids Management Plan. The program has experienced operational challenges and has inadequate contingency capacity consistent with CRD Board policy to ensure beneficial use of biosolids. These challenges emphasize the need for flexibility in the short-term plan, as well as for a complement of preferred and contingency options in the Long-term Plan. The CRD continues to landfill a significant amount of material, which consumes valuable landfill airspace and is contrary to provincial regulatory direction.

RECOMMENDATION

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

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ATTACHMENT

Appendix A: Summary of Biosolids Production and End Use for 2023