

REPORT TO CAPITAL REGIONAL DISTRICT BOARD MEETING OF WEDNESDAY, DECEMBER 11, 2024

SUBJECT **Short-term Biosolids Management Plan – December Update**

To provide a monthly update to the Capital Regional District (CRD) Board on the status of short-term options for biosolids management and the implementation of the Long-term Biosolids Management Strategy.

BACKGROUND

The 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 was 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.

Short-term Biosolids Management Plan Implementation

Cement Kiln in Richmond, BC: No biosolids were shipped to the facility in November. The kiln was shut down for maintenance for two weeks in early November. An issue with the conveyance system of the biosolids receiving silo prevented shipments for the remainder of the month. The facility entered its maintenance shutdown in late November and is expected to reopen in early January 2025.

Land Reclamation in Cassidy, BC: Biosolids were mixed with sand at Hartland Landfill and shipped to the Cassidy quarry. Staff anticipate sufficient contingency capacity at the quarry for the remainder of 2024. However, the Cassidy site is not able to receive biosolids during periods of significant wet weather. Cassidy staff have indicated they are procuring a tented structure that will allow for biosolids shipments regardless of the weather. Staff continue to explore other possible solutions and contingency options in accordance with Tier 2 of the long-term strategy.

Landfilling at Hartland Landfill: There was no landfilling of biosolids in November. Landfilling is not a beneficial use, as per provincial regulations and consumes valuable airspace at the landfill.

Long-term Biosolids Management Strategy Implementation

The draft long-term strategy was submitted to the Province on June 18, 2024 for regulatory review; the CRD has not yet received a response.

Tier 1: A Request for Proposals (RFP) for an advanced thermal demonstration plant closed on September 11, 2024. Out of the six proponents short-listed after the Request for Expressions of

Interest, only three submitted detailed proposals. Staff have reviewed the submissions and will be presenting a recommendation to the CRD Board. Staff met with the Ministry of Environment & Parks to discuss the regulatory permitting process for the demonstration facility in late November.

Tier 2: Staff issued an RFP in August seeking biosolids management options consistent with Tier 2 of the long-term strategy that could be available to provide contingency options for biosolids beneficial use during the coming winter months. Of the two responses received, staff have determined that one is both technically feasible and conforms with the long-term strategy and have initiated contract discussions with the proponent. This option is anticipated to become available February 1, 2025, with an initial capacity of 25 tonnes/month but, if successful, could be scaled up to 100 tonnes/month later in 2025.

Staff also completed a broader Request for Expressions of Interest (RFEOI) for biosolids management under Tier 2 of the long-term strategy. The RFEOI closed on October 31, 2024 and no submissions were received. Staff are currently evaluating options for next steps in biosolids management.

CONCLUSION

The Capital Regional District continues to implement the Short-term Biosolids Management Plan while operationalizing a Long-term Biosolids Management Strategy. The short-term program has seen some improvement in reliability and consistency in 2024; however, additional options are required to ensure the continued beneficial use of biosolids. Staff have identified an additional small-scale contingency option and will continue to identify and procure Tier 2 contingency options in accordance with the long-term strategy with the goal of ensuring reliable regulatory compliance in the coming years.

RECOMMENDATION

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

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