

**REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, JUNE 21, 2023**

SUBJECT **Biosolids Update - June 2023**

ISSUE SUMMARY

To update the Environmental Services Committee on the status of biosolids short-term and contingency management.

BACKGROUND

The Capital Regional District's (CRD) primary option for beneficial use of the CRD's Class A biosolids has been incineration as an alternative fuel at LaFarge Canada Inc.'s (LaFarge) cement manufacturing facility in Richmond, BC. As of June 7, 2023, the facility is still not able to receive biosolids in its silo because of challenges procuring contracting services to finish maintenance and repairs to the silo. The silo has been inoperable since July 2022.

On February 8, 2023, the CRD Board amended the 2020-2025 Biosolids Short-Term Management and Contingency Plan "to allow non-agricultural land application of biosolids as a short-term contingency alternative." Given the longstanding board policy not to allow land application of biosolids within the CRD, staff explored out-of-region options that could provide immediate relief for biosolids management. There are existing programs on Vancouver Island and the CRD is currently progressing with potential options within the Regional District of Nanaimo (RDN); however, the RDN Board has expressed concerns regarding the CRD not pursuing land application of biosolids within the CRD while shipping it to another region for the same use. A letter from the RDN Board Chair is attached in Appendix A. The current discussion focuses on using biosolids as part of a mine reclamation plan for LaFarge. Staff are also exploring other existing programs in the lower mainland in an effort to divert biosolids away from the current landfilling operations at Hartland Landfill, an objective that is becoming more urgent as the current filling area of the landfill is being exhausted at a much higher rate than anticipated.

Staff will also bring a report back to this Committee in July 2023 with an update on the long-term (2025 and beyond) biosolids management planning process, including information on the consultation process planned for Q3 2023. This will include the final technical report from the CRD's consultants on the range of options that could be considered in the long-term plan. Staff will also update the Committee on the Request for Expressions of Information with respect to advanced thermal technology options for biosolids management.

The long-term plan, due to the Province in June 2024, will take time to go through a regulatory review and then implementation. To bridge that timeline, and given the current challenges with the existing plan, the CRD will need a more robust short-term plan that includes land application options. The recent decision by the CRD Board to amend the policy to allow non-agricultural options should assist management planning in the very short-term. Although recent efforts have focused on out-of-region sites/options, due to potentially available opportunities and the maturity of out-of-region land application programs, to build resiliency and credibility into the program, in-region options need to be considered. There are no current in-region options but opportunities exist to investigate non-agricultural land application options within the region.

ALTERNATIVES

Alternative 1

The Environmental Services Committee recommends to the Capital Regional District Board:

1. That staff be directed to pursue non-agricultural land application of biosolids within the region as a short-term contingency option for biosolids management; and
2. That staff be directed to update the CRD's short-term contingency plan accordingly.

Alternative 2

That the Environmental Services Committee provide alternative direction to staff.

IMPLICATIONS

Environmental & Climate Implications

Land application returns nutrients to the land, enhances carbon capture and sequestration, replaces topsoil lost to erosion and run-off, enhances soil stability, reclaims disturbed industrial and commercial lands, and is consistent with the circular economy goals embedded in sustainability strategies at all levels of government.

Intergovernmental Implications

Land application of biosolids is consistent with senior levels of government's direction for beneficial use of biosolids. Land application options would also allow the CRD to be in compliance with provincial direction not to landfill biosolids, as a contingency plan when LaFarge's silo is inoperable. Developing in-region land application options will also demonstrate consistency with other local and regional governments managing biosolids residuals within their regions.

Staff will engage with First Nations both as part of any short-term contingency option that is developed in region and also as part of the long-term biosolids management plan.

Financial Implications

Current landfilling of biosolids has added significant extra costs to the core area wastewater service for disposal costs. Despite reduced trucking costs, materials management and tipping fees at the landfill have added in excess of \$100,000/month to the disposal cost estimates above transport and utilization at LaFarge. Land application costs will be comparable to costs associated with the cement manufacturing facility (primary) option.

Service Delivery Implications

In-region options will bring stability and consistency to the wastewater service costs, as well as to the handling and beneficial use management of biosolids. Inclusion of in-region options will also provide relief to the solid waste service and the use of air space for materials that can be diverted away from the landfill.

CONCLUSION

The Board amended its biosolids land application policy associated with the short-term biosolids contingency plan to include application to non-agricultural lands. Staff are currently exploring out-of-region options in an effort to provide immediate relief from landfilling the material at Hartland Landfill. In-region options would provide more resiliency to biosolids management in the short-term until a long-term plan can be developed and implemented, as well as be consistent with management plans from other regions and local governments.

RECOMMENDATION

The Environmental Services Committee recommends to the Capital Regional District Board:

1. That staff be directed to pursue non-agricultural land application of biosolids within the region as a short-term contingency option for biosolids management; and
2. That staff be directed to update the CRD’s short-term contingency plan accordingly.

Submitted by:	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
Concurrence:	Larisa Hutcheson, P. Eng., General Manager, Parks & Environmental Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

ATTACHMENT:

Appendix A: Letter from Regional District of Nanaimo regarding Biosolids Management in the Capital Regional District (May 30, 2023)