

**REPORT TO ENVIRONMENTAL SERVICES COMMITTEE  
MEETING OF WEDNESDAY, JUNE 16, 2021**

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**SUBJECT     Biosolids Management – Response to Peninsula Biosolids Coalition**

**ISSUE SUMMARY**

To provide the Environmental Services Committee with an update on Capital Regional District (CRD) biosolids management and address correspondence received from the Peninsula Biosolids Coalition.

**BACKGROUND**

On May 28, 2021, the Peninsula Biosolids Coalition (PBC) submitted correspondence (Appendix A) to the CRD Board Chair outlining concerns regarding the management of core area biosolids at Hartland Landfill under the CRD's short-term biosolids contingency plan.

The CRD is undertaking and implementing biosolids management in accordance with regulatory requirements under the new core area wastewater service. The CRD has obtained provincial approval of short-term biosolids management and contingency plans, and has initiated the planning phase for the development of a long-term management plan for implementation 2025 and beyond.

The move to tertiary wastewater treatment requires management of residual solids previously discharged to the marine environment. The Residual Treatment Facility (RTF) receives these solids and processes them into Class A biosolids. The short-term plan, approved by the Board and accepted by the Province, includes transportation of biosolids to a cement manufacturing facility to be used as an alternative fuel to displace coal. The CRD anticipates there will be short periods (equivalent to approximately 10% of annual production) when the cement facility is closed and cannot receive biosolids. During those periods, the CRD will implement the contingency plan and beneficially utilize the material to either produce a biocover to capture fugitive landfill gases or a biological growth medium to enhance vegetative growth over closed landfill cells. Both of these actions support the organization's climate goals to reduce greenhouse gas emissions associated with CRD operations.

The PBC letter makes a number of assertions regarding risk to human health and the environment posed by land application of biosolids at Hartland Landfill. Health and environmental agencies across North America and Europe have concluded that with appropriate regulation and rates of application, biosolids land application poses a low risk to health and the environment. The PBC letter also recommends that the CRD:

- a) immediately cease land application of biosolids at Hartland;
- b) work to lobby the provincial government to amend the Organic Matter Recycling Regulation (OMRR) and "not insist" on land application where there are significant risks to local health, environment and economy;
- c) provide real-time public access to biosolids monitoring data, and immediately undertake a broad "downwind and downstream" environmental impact study with monthly testing and reporting; and
- d) investigate options for long-term biosolids management including integrated resource management and emerging technologies.

Due to the ongoing commissioning of the RTF, the CRD has not yet implemented the short-term contingency plan of land application at Hartland Landfill for any biosolids products. Rather, all dewatered residuals and dried Class A biosolids have been deposited as controlled waste, and mixed with daily cover (and subsequently covered in municipal solid waste), respectively. The Lafarge cement kiln is prepared to receive the CRD's dried Class A biosolids as soon as the RTF can reliably produce a dried product that meets particle size requirements in the contract.

## **IMPLICATIONS**

### *Environmental & Climate Implications*

The CRD is in full compliance with its regulatory commitments to protect human health and the environment. The beneficial use or disposal of dewatered residuals and biosolids at Hartland Landfill is not anticipated to have any environmental or climate implications because of the environmental controls that are in place to ensure protection of surface and groundwater resources and to ensure collection of landfill gas.

Once normal operations are reestablished at the RTF, the facility will provide regular (monthly) testing of Class A biosolids to ensure regulatory compliance under the OMRR, and provide those results to the CRD for its oversight of the RTF contract. The CRD will report these results in its annual Operating Certificate compliance report to the provincial regulator. A monthly summary of operational data reported by the RTF contractor could be posted to the web without impact to service delivery; however, consolidated review and interpretation of biosolids management under the short-term and contingency plans is only possible on an annual basis.

All material must meet the Class A standard to be received at the cement manufacturing facility or to be used beneficially at the landfill. The Hartland environmental monitoring program meets all regulatory requirements, including monitoring of ground and surface waters at the perimeter of the site. The CRD does not have planning or resources allocated to fund additional environmental studies (downwind/downstream) outside the scope of Hartland Environmental Programs. Furthermore, these studies are not needed to demonstrate regulatory compliance.

### *Intergovernmental Implications*

The CRD is following its commitments under the Core Area Liquid Waste Management Plan submitted to and approved by the Province. The Province did not support the construction of a biocell for biosolids disposal at the landfill but did approve the short-term and contingency biosolids management plans. CRD staff are in regular communication with Ministry of Environment and Climate Change Strategy staff on the status of the wastewater service commissioning, including the landfill disposal of dewatered residuals, and delay of production and beneficial use of Class A biosolids. The CRD and its RTF contractor (Hartland Resource Management General Partnership) are working to address commissioning issues as quickly as possible to implement the short-term biosolids management plan and transport biosolids to the lower mainland under the K'ENES trucking contract.

There is no requirement for land application of biosolids under the OMRR; rather, there is a requirement for beneficial reuse. The CRD's short-term biosolids management plan meets this requirement. Concurrently, staff have initiated the planning and pilot phases to support the development of the long-term management plan required by 2025.

*Financial Implications*

The CRD's requirement to meet the terms and agreement of the provincial funding agreement includes compliance with the Core Area Liquid Waste Management Plan. Extended non-compliance with provincial requirements for beneficial reuse of biosolids may jeopardize provincial grant funding for RTF construction and operations, as well as expose the CRD to future regulatory enforcement actions by the Province.

*Social Implications*

The handling and disposal of dewatered wastewater residuals at Hartland Landfill does not pose any risk to the public; however, the activity has resulted in higher production of odour around the RTF. Staff recognize the high level of concern from residents and parks users regarding safe handling and disposal of this material and will continue to engage directly with concerned citizens and post updated information to CRD's website as it becomes available.

**CONCLUSION**

On May 28, 2021, the Peninsula Biosolids Coalition submitted correspondence to the CRD Board Chair outlining concerns regarding the management of core area biosolids at Hartland Landfill. Due to ongoing challenges completing commissioning of the Residuals Treatment Facility (RTF) and implementing the CRD's short-term biosolids management and contingency plans, wastewater residuals and biosolids produced at the RTF have largely been deposited at Hartland Landfill as a controlled waste. The CRD's contractor and staff are working to reestablish full operation of the RTF, and implement the CRD's short-term biosolids management plan as soon as possible. Once biosolids are being managed in accordance with the CRD's approved short-term plans, staff will concentrate on the preparation and evaluation of options for long-term biosolids management beyond 2025.

**RECOMMENDATION**

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

That this staff report be received for information.

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**ATTACHMENT**

Appendix A: Letter from Peninsula Biosolids Coalition to CRD Board Chair regarding Spreading Biosolids at Hartland Landfill (May 28, 2021)