

**REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 18, 2023**

SUBJECT **Proposal For Academic And Legal Reviews Of Biosolids Land Application****ISSUE SUMMARY**

To provide the Environmental Services Committee with a proposal for independent academic and legal reviews of the risks and benefits of biosolids land application.

BACKGROUND

At the August 9, 2023 Capital Regional District (CRD) Board meeting, staff were directed to “*report back with a proposal that CRD Environment Service fund University of Victoria or other suitable independent academic institution to prepare a review: a) of available literature, to determine whether there are validated examples and/or peer reviewed papers assessing the risks and benefits of the application of biosolids on environmental and human health, and b) based on this and on The Precautionary Principle, whether CRD may have a legal liability for such application.*”

Staff have confirmed that there are at least three independent academic institutions willing to undertake the literature review: the University of Washington College of the Environment, the Toronto Metropolitan University Department of Chemistry and Biology, and the University of Victoria Department of Engineering and Computer Science (civil engineering).

The terms of reference for the literature review would consider the following:

- Previous literature reviews.
- Risks and concerns that have resulted in land application bans elsewhere.
- Impacts of long-standing land application programs elsewhere.
- Contaminant concentrations in biosolids relative to levels of exposure in general society.
- Extrapolating lab-based toxicity testing to observations in the environment.
- Acknowledgement of uncertainty (e.g., toxicity and environmental fate of emerging substances and microplastics, contaminant mixture effects, etc.).
- Techniques for evaluating and addressing uncertainties.
- Affirming the intent of the Precautionary Principle.

Biosolids land application is regulated under the BC Organic Matter Recycling Regulation (OMRR). The BC Ministry of Environment and Climate Change Strategy convened a Technical Working Group (TWG) in October 2022 to undertake a comprehensive review of OMRR to ensure it remains protective of human health and the environment. The TWG consists of academics, consulting practitioners, and representatives from federal, various provincial and local governments. TWG is effectively undertaking the same literature review exercise that the CRD Board requested. They had their last meeting at the end of September 2023 and expect to release a summary report of their findings and recommendations by the end of November 2023 at the earliest. A similar timeline of a number of months would be expected if CRD staff were to fund an independent academic review.

ALTERNATIVES

Alternative 1

The Environmental Services Committee recommends to the Capital Regional District Board: That academic and legal reviews of the risks and benefits of biosolids land application be reconsidered after the provincial technical working group has completed its review of the Organic Matter Recycling Regulation and released its report.

Alternative 2

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

1. That staff be directed to proceed with an academic review of the risks and benefits of biosolids land application; and
2. That staff be directed to proceed with a legal opinion related to potential liabilities for the regional government.

Alternative 3

That this report be referred back to staff for additional information.

IMPLICATIONS

Financial Implications

Costs for the proposed biosolids literature review and legal opinion will be approximately \$35,000 and can be covered by existing Core Area wastewater and biosolids budgets. However, if staff are directed to proceed with the literature review, it will likely be redundant with the expected findings of the provincially led OMRR TWG. A legal review could be undertaken independently of the literature review and would likely cost approximately \$10,000-\$15,000, depending upon the instruction letter.

Social Implications

The upcoming consultation on biosolids long-term management will help determine the public's perspectives on all options, including any land application risks and benefits that are identified by an independent review or the provincial efforts to re-evaluate OMRR. Public information on these risks and benefits is currently available.

Legal Implications

Any legal opinion would be specific to the CRD and based on biosolids generated in the capital region, not on biosolids generally, as the facts and assumptions would need to be defined and applicable to the region's risk profile.

The legal opinion could wait until after the independent literature review or provincial OMRR findings are released or could be initiated immediately.

CONCLUSION

The Environmental Services Committee (ESC) directed staff to investigate and propose additional scientific and legal reviews in support of the long-term biosolids planning. Staff identified possible

options for ESC to consider but also identified a current provincial process that is addressing the scientific issues. A legal review would be specific to regional concerns; results from the provincial review of the Organic Matter Recycling Regulation and upcoming public consultation may inform any concerns regarding liability.

RECOMMENDATION

The Environmental Services Committee recommends to the Capital Regional District Board: That academic and legal reviews of the risks and benefits of biosolids land application be reconsidered after the provincial technical working group has completed its review of the Organic Matter Recycling Regulation and released its report.

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