

Pamela Martin

From: Municipal Hall
Subject: FW: FOR YOUR INFORMATION: Public Consultation to Shape the Long-Term Biosolids Management Plan - District of Central Saanich
Attachments: 2024-02-15-PublicConsultationToShapeTheLongTermBiosolidsManagementPlan-CentralSaanich.pdf

From: CRD Biosolids <biosolids@crd.bc.ca>
Sent: Thursday, February 15, 2024 5:27 PM
To: Emilie Gorman <Emilie.Gorman@csaanich.ca>
Cc: Christine Culham <Christine.Culham@csaanich.ca>; Ted Robbins <trobbs@crd.bc.ca>; Kristen Morley <kmorley@crd.bc.ca>
Subject: FOR YOUR INFORMATION: Public Consultation to Shape the Long-Term Biosolids Management Plan - District of Central Saanich

Some people who received this message don't often get email from biosolids@crd.bc.ca. [Learn why this is important](#)

The Capital Regional District is undertaking public consultation for long-term biosolids management. We want you to be aware of this process and encourage you to get involved. Please see the attached letter.

Thank you for your consideration.

Glenn Harris, Ph.D., R.P.Bio. | Senior Manager, Environmental Protection
Capital Regional District
625 Fisgard Street, PO Box 1000, Victoria, BC V8W 2S6



This message is intended only for the use of the individual or entity named above, and may contain information that is privileged, confidential or exempt from disclosure under applicable law. If you are not the intended recipient or their employee or agent responsible for receiving the message on their behalf your receipt of this message is in error and not meant to waive privilege in this message. Please notify us immediately, and delete the message and any attachments without reading the attachments. Any dissemination, distribution or copying of this communication by anyone other than the intended recipient is strictly prohibited. Thank you. Please consider the environment before printing this email.

"The information contained in this transmission may contain privileged and confidential information of the District of Central Saanich. It is intended for review only by the person(s) named above. Dissemination, distribution or duplication of this communication is strictly prohibited by all recipients unless expressly authorized otherwise. If you are not the intended recipient, please contact the sender by reply email and destroy all copies of the original message. Thank you."



Making a difference...together

Parks & Environmental Services
625 Fisgard Street, PO Box 1000
Victoria, BC, Canada V8W 2S6

T: 250.360.3078
F: 250.360.3079
www.crd.bc.ca

February 15, 2024

File: 0220-20
Correspondence

Emilie Gorman
Director of Corporate Services/Corporate Officer
District of Central Saanich
Via email: emilie.gorman@csaanich.ca

Dear Emilie Gorman:

RE: PUBLIC CONSULTATION TO SHAPE THE LONG-TERM BIOSOLIDS MANAGEMENT PLAN

The Capital Regional District (CRD) is actively exploring long-term options and technologies to harness the benefits of biosolids. The CRD produces high quality Class A biosolids and wants to ensure they are being used in a beneficial manner.

A Long-term Biosolids Management Plan is required by the Province of BC and must outline how biosolids generated in the capital region will be managed for community benefit. In 2020, when the CRD first introduced wastewater treatment, biosolids short-term management plans were put in place. Now, with a better understanding of our operations and available options, we are actively exploring long-term solutions.

The Province of BC requires that the CRD submit a Long-term Biosolids Management Plan by June 2024. The plan must consider land application options, as part of the beneficial use options analysis. Landfilling biosolids has been used as an emergency measure. However, it wastes valuable space in the landfill and does not meet provincial requirements for beneficial use of biosolids. It is not being considered as a long-term option. The CRD is moving ahead with a pilot of thermal technologies for managing biosolids. However, if successful, it will still be 7-10 years before it can be utilized as a long-term option. Since 2011, the CRD Board has banned the land application of biosolids within the capital region. In 2023, due to on-going challenges with existing options, the CRD Board amended the policy to allow for non-agricultural application of biosolids as a short-term contingency alternative. The Province of BC requires that the consultation process consider all options that meet beneficial use criteria as defined by regulatory guidance.

As we look to the future, we will need to explore a range of possibilities to maximize the benefits of biosolids. We invite you to learn more and share your ideas. Building on the involvement of the Technical and Community Advisory Committee since October 2023 and First Nations consultation, the public consultation process involves a range of opportunities from January to March 2024, including:

- Project Website: <https://getinvolved.crd.bc.ca/biosolids>
- Virtual Open House – Tuesday, February 20, 2024. Pre-registration required at https://us06web.zoom.us/webinar/register/WN_OJ4RQavWRZiEn8T3wS4K6g
- Provide written feedback by email: biosolids@crd.bc.ca

- Online Survey open until Friday, March 6, 2024 - [Long-Term Biosolids Management Plan | Get Involved CRD](#)

Learn more about biosolids and the different beneficial options being considered and opportunities to provide input at <https://getinvolved.crd.bc.ca/biosolids>. A Summary Consultation Report will capture “What We Heard” throughout the process and will be shared online.

We welcome your participation in this process and look forward to hearing from you. If you have any questions, please contact me at biosolids@crd.bc.ca.

Sincerely,



Glenn Harris, Ph.D., R.P.Bio.
Senior Manager, Environmental Protection

Attachment: Harnessing the Potential of Biosolids Fact Sheet

cc: Ted Robbins, Chief Administrative Officer, CRD
Kristen Morley, General Manager, Corporate Services, CRD
Christine Culham, Chief Administrative Officer, District of Central Saanich

Harnessing the Potential of Biosolids

Fact Sheet

Capital Regional District | January 2024

The CRD is exploring long term options and technologies to harness the benefits of biosolids. The CRD produces some of the highest quality biosolids in North America and wants to ensure they are being used in a beneficial manner.

In 2020, when the CRD introduced wastewater treatment for the core area municipalities and Songhees and Esquimalt First Nations, we implemented a 5-year, short-term plan. Now, with a better understanding of both our operations and available options, we are developing a long-term plan to move us forward into the future.

What Are Biosolids?

Biosolids are the nutrient-rich by-product of wastewater treatment. They contain nutrients, energy, and organic matter that can be recycled and used in various ways. The most common use is as fertilizer to promote tree and plant growth and as a soil additive to restore degraded industrial lands. Other emerging options may include harnessing energy contained in biosolids through thermal (heating) processes to use as an alternative fuel.



CRD biosolids are dark, dry granular pellets. Approximately 3,300 tonnes of Class A biosolids are generated in the CRD each year. CRD biosolids surpass all provincial standards. This is due to the limited heavy industry in Greater Victoria, the highest standards of sewage treatment, and robust source control programs that prevent metals and other contaminants from ever entering the wastewater system.

Benefits of Biosolids

Biosolids contain important nutrients such as nitrogen, phosphorus, calcium, sulphur, and iron. Benefits include:

- Adds organic matter and plant nutrients to enrich soil
- A natural alternative to synthetic (chemical) fertilizers
- Stores carbon in soil and decrease greenhouse gas emissions
- Increases soil water retention
- Can be mixed with wood chips or yard waste to create compost
- Can be used to create alternate fuel



For generations, biosolids have been safely used around the world by farmers, landscapers, and foresters. More recently in other countries, biosolids have been used in thermal (heating) processes to generate alternate energy sources. Biosolids are commonly used within communities across Canada. In fact, many common bagged fertilizers and soil products sold at local hardware stores and retailers contain biosolids.

How Are Biosolids Being Managed Currently?

Presently, the CRD's biosolids are largely being landfilled as an emergency measure, which does not meet provincial requirements. Further, it is exacerbating a capacity problem at the Hartland Landfill which is filling up at an accelerated rate. In 2011, prior to introducing wastewater treatment, the CRD Board passed a biosolids land application ban based on the concerns of members of the public. The ban remains in place today. Due to limited viable options, short-term exceptions were made for land cover application at Hartland Landfill in 2020 and for non-agricultural, out-of-region land application options in 2023.

Presently, the CRD's biosolids are mostly being landfilled because of challenges with the short-term options, which do not meet provincial requirements. The CRD is currently investigating a pilot study of thermal technologies for managing biosolids. However, if successful, it will still be 7-10 years before it can be utilized as a long-term option.

The Province of BC requires that the current consultation process consider land application options, which are included with advanced thermal options. Any options that don't meet beneficial use criteria will not be included. Landfilling biosolids has been used as an emergency measure. It wastes valuable space in the landfill and does not meet provincial requirements for beneficial use of biosolids.

Who Sets the Standard for How Biosolids Are Managed?

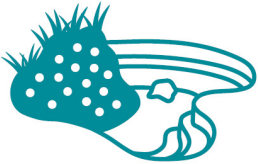


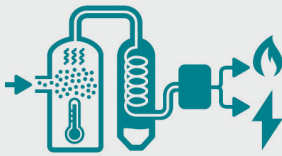
The BC Ministry of Environment and Climate Change Strategy and federal Environment and Climate Change Canada set the standards for wastewater treatment. Regional districts in BC are legally required by the Province to find beneficial uses for biosolids.




Class A biosolids must meet regulatory requirements under the Provincial Environmental Management Act and Organic Matter Recycling Regulation. These stringent requirements outline maximum allowable levels of pathogens and heavy metals to ensure protection of human health and the environment. They also provide strict controls on how and where biosolids may be used.



The Options

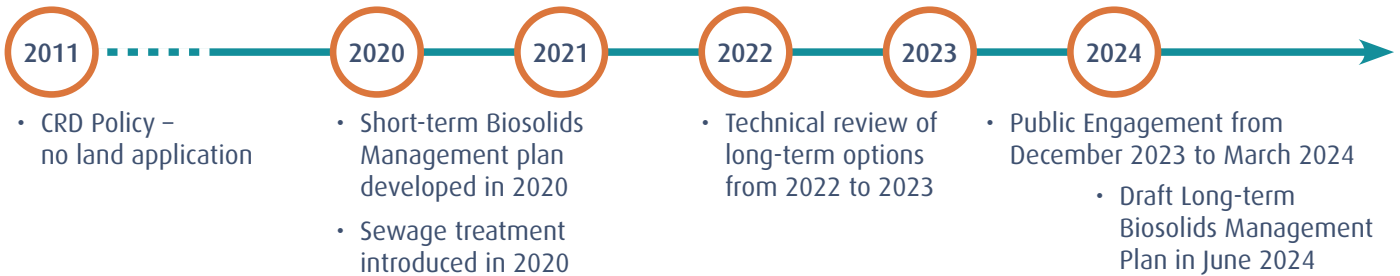
As we look to the future, a range of options must be explored. The CRD is exploring all options to use biosolids in ways that are increasingly beneficial for the environment. The CRD is committed to smart, innovative solutions that help reduce greenhouse gas emissions. We need to pursue a variety of options. The Province of BC requires that the CRD submit a Long-Term Biosolids Management Plan by June 2024. The plan must consider land application options, which are included with advanced thermal options among others.

| OPTION | BENEFITS | TIMELINE | ESTIMATED COSTS (per tonne) | |
|--|--|---|-----------------------------|--------------------------|
| <p>Industrial Land Reclamation (e.g., mines or quarries)</p>  | <p>Mining activities often result in disturbed and degraded soils, which can be challenging for plant growth.</p> <p>Biosolids can be applied to replenish organic matter and essential nutrients, improving soil fertility, soil structure, and increasing water-retention.</p> <p>Can be applied directly or blended with compost, soil, or woodchips to restore degraded mine or industrial sites. Biosolids can improve soil quality and promote vegetation growth. Can also reduce reliance on synthetic fertilizers.</p> | <p>Immediate</p> | <p><\$250/tonne</p> | <p>LAND-BASED OPTION</p> |
| <p>Fuel for Incineration / Combustion (e.g., for cement kilns)</p>  | <p>Biosolids are burned or used as an alternative fuel to power facilities, such as cement kilns and pulp mills, reducing reliance on other non-renewable sources like coal or natural gas.</p> | <p>Limited facilities available. The CRD currently utilizes this technology at a plant in Richmond. In-region options are not available.</p> | <p><\$500/tonne</p> | <p>THERMAL OPTION</p> |
| <p>Forest Fertilization</p>  | <p>Can help improve soil fertility, prevent erosion, and accelerate plant and tree growth.</p> <p>In addition, after wildfire, biosolids can help forests regenerate, increasing water-retention and providing essential nutrients and organic matter to promote plant and tree growth. Can reduce reliance on synthetic fertilizers.</p> | <p>Immediate</p> | <p><\$400/tonne</p> | <p>LAND-BASED OPTION</p> |
| <p>Pyrolysis or Gasification Technology (to create biochar/gas)</p>  | <p>Biosolids are heated (using little or no oxygen) to make a gas or "biochar".</p> <p>The gas created can be used to produce heat or electricity.</p> <p>Biochar is a type of charcoal that is made from organic material. It can be used as a soil additive to improve soil fertility and enhance water retention.</p> | <p>7-10 years for permitting, siting and construction of a permanent facility.</p> <p>Advanced thermal technology is not currently used for processing biosolids in Canada.</p> | <p>\$500-\$4,500 /tonne</p> | <p>THERMAL OPTION</p> |

| OPTION | BENEFITS | TIMELINE | ESTIMATED COSTS (per tonne) |
|--|---|-----------|-----------------------------|
| Bagged Fertilizer for Residential Use  | <p>The nutrient-rich organic material is bagged and distributed as fertilizer for residential use.</p> <p>Can also be blended with soil, compost or wood chips and made available for residential use.</p> <p>Can improve water retention to reduce water-usage as well as reduce reliance on synthetic fertilizers</p> | Immediate | <\$500/tonne |
| Fertilizer for Agriculture  | <p>The nutrient-rich organic material can improve soil conditions to promote plant growth and increase crop yields.</p> <p>Can improve water retention to reduce water-usage, as well as reduce reliance on synthetic fertilizers.</p> | Immediate | <\$500/tonne |
| Wholesale Fertilizer for Landscaping (e.g., lawns, boulevards, golf courses)  | <p>The nutrient-rich organic material can improve soil conditions to promote lawn and plant growth.</p> <p>Can improve water retention to reduce water-usage as well as reduce reliance on synthetic fertilizers.</p> | Immediate | <\$500/tonne |

LAND-BASED OPTIONS

Timeline



Share Your Thoughts!



Email: biosolids@crd.bc.ca



Online Open House:
Tuesday, February 20, 6pm



Website and Survey: <https://getinvolved.crd.bc.ca/biosolids>
Complete the online survey by Wednesday, March 6, 2024



Making a difference...together

Capital Regional District

625 Fisgard Street, Victoria, BC V8W 1R7
250.360.3000 | www.crd.bc.ca