



Corporation of the Village of Cumberland

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Comox Valley Regional District

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File: 5340-05

May 22, 2019

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Comox Valley Sewage Commission
c/o Comox Valley Regional District
600 Comox Road
Courtenay, BC V9N 3P6
Tel: 250-334-6083

To: CV Sewage
Commission
cc: M. Rutten
K. LaRose
M. Imrie
J. Martens
J. Warren

Attention: David Frisch, Chair of the Commission

Re: CVRD Composting of Dewatered Biosolids from the Village of Cumberland Wastewater Lagoons.

Dear Sir,

The Village of Cumberland has recently completed its Stage 2 Liquid Waste Management Plan, and has developed a preferred option for wastewater treatment based on high performance upgraded lagoon system. The major works will be;

- Improvements to headworks screening
- Reconfigured lagoons and improved aeration
- A Dissolved Air Flotation (DAF) unit for chemically enhanced phosphorus removal
- Disinfection by Peracetic acid
- Effluent polishing by a biochar media reed bed (constructed wetland)
- Discharge of the baseflow effluent to the wetlands to the north of the lagoons, and,
- Discharge of treated excess winter flow directly to Maple Lake Creek

The proposed treatment upgrades will be taking place in 2020 and 2021, though the reed bed and wetland portion may not be complete until 2021/2022. Further details of the planned upgrades are in the recently completed [Stage 2 Liquid Waste Management Plan report \(July 2018\)](#).

As with any treatment process, there will be biosolids produced, and the Village would like to send the dewatered biosolids to the Comox Valley Regional District (CVRD) composting facility at the Cumberland Landfill for inclusion with the CVRD biosolids for composting and eventual sale as Skyrocket. To this end, the Village would like to negotiate a servicing agreement with the CVRD for biosolids composting services. The Village understands that the CVRD is currently

doing an expansion of the compost facility and that there is no spare capacity until this expansion is completed, anticipated to be summer 2019.

As part of the lagoon upgrades, the existing lagoons will be dredged and de-sludged. The lagoons were de-sludged for the first time in 2009, and yielded 620 dry tons of biosolids, which was sent to the CVRD composting facility. It is expected that the yield from desludging in late 2020 or early 2021 would be of a similar amount.

Biosolids management for continuing operations of the upgraded system will see the solids stream from the DAF dewatered by geotube, and periodic de-sludging of the lagoons, estimated to be at 10-year intervals.

The geotube dewatering process typically produces biosolids at around 20% solids content, though sometimes higher. The sludge will be left in the geotubes over the winter to dewater, for delivery to the CVRD in spring or summer of each year.

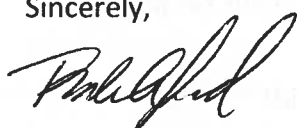
The anticipated volumes are shown in the table below.

	Lagoons	DAF
Expected sludge mass (dry tons)	500-600 tons every ten years	20-40 tons per year
Minimum Solids content	>18%	>18%
Delivery to CVRD	2020, 2030	2021, then annually

While there is no need for the actual composting services until 2020, the Village would like to get an agreement in principle from the CVRD as soon as practicable. This can then be used to support the current infrastructure funding application for the upgrade project.

Please feel free to contact me at your earliest convenience to discuss further.

Sincerely,



Rob Crisfield, Manager of Operations

Cc Paul Nash, Project Coordinator, Liquid Waste Management Planning