

Starting in 2020, RDN biosolids production will increase from about 5,000 tonnes per year to about 7,000 tonnes per year because of the addition of secondary treatment at the Greater Nanaimo Pollution Control Centre. New or expanded biosolids management options are needed to maximize the beneficial use of biosolids and minimize the disposal of biosolids at the Regional Landfill. The Forest Fertilization Program is at its capacity for the land base currently available. Harmac Pacific has expressed an interest to manage 2,000 to 3,000 tonnes of biosolids per year for the next two years. Under this program, Harmac Pacific would produce a fabricated soil product using RDN biosolids, wood waste from their own mill operations, and mineral soil.

At its October 2017 meeting, the Regional District of Nanaimo (RDN) Board of Directors passed motion 17-550 authorizing staff to enter into negotiations with Harmac Pacific to beneficially use RDN biosolids to fabricate soil for cover material at the Harmac Pacific landfill. In 2018 and 2019, the soil fabrication program piloted as a contingency option to the Forest Fertilization Program at a rate of \$95 per tonne targeting the management of 420 tonnes of biosolids per year. Staff have negotiated a revised rate of \$93 per tonne for 2,000 to 3,000 tonnes of biosolids per year for the next two years. The revised rate captures economies of scale.

On October 21, 2019, the RDN issued a Notice of Intent to Contract Biosolids Management Services to Harmac Pacific. No party challenged the Notice of Intent to Contract and it is recommended that the RDN award Harmac Pacific the biosolids management services contract for a two year term.

Beneficially reusing biosolids returns nutrients to the land and is consistent with the RDN's Liquid Waste Management Plan. It also keeps biosolids from being disposed of at the Regional Landfill and helps the RDN meet its waste diversion targets set out in the RDN's Solid Waste Management Plan.

ALTERNATIVES

1. Enter into a two-year biosolids management services contract with Harmac Pacific for a value of up to \$558,000.
2. Do not enter into a contract with Harmac Pacific (biosolids may be sent to the RDN Landfill).

FINANCIAL IMPLICATIONS

The contract value for Harmac Pacific to manage biosolids at a rate of \$93 per tonne is \$372,000 to \$558,000 over the two year contract (based on the management of 2,000 to 3,000 tonnes per year). Harmac Pacific provides an economical option to manage RDN biosolids and Wastewater Services budgets for biosolids management services.

In the absence of a beneficial biosolids management program, RDN biosolids may be disposed of at the RDN Landfill for \$260 per tonne. The cost of landfill disposal over the two years would be \$1,040,000 to \$1,560,000 (based on the disposal of 2,000 to 3,000 tonnes per year).

STRATEGIC PLAN IMPLICATIONS

Environmental Stewardship - Protect and enhance the natural environment, including land, water, and air quality for future generations.

- Biosolids contain nutrients, such as nitrogen and phosphorous, which are vital to healthy and productive soil. Reusing biosolids returns nutrients to the land that might otherwise be lost. Biosolids also have a high organic matter content that improves soil quality and allows the soil to hold more water, thereby decreasing run-off and erosion.

Environmental Stewardship - Achieve the 90% waste diversion target as per the Solid Waste Management Plan.

- Reusing biosolids keeps this beneficial resource from being disposed of at the Regional Landfill and helps the RDN meet its waste diversion targets.



Shelley Norum
snorum@rdn.bc.ca
November 12, 2019

Reviewed by:

- S. De Pol, Director, Water and Wastewater Services
- R. Alexander, General Manager, Regional and Community Utilities
- P. Carlyle, Chief Administrative Officer