

## ADMINISTRATIVE REPORT

**TO:** Board of Directors

**FROM:** B. Newell, Chief Administrative Officer

**DATE:** January 9<sup>th</sup>, 2020

**RE:** Organic Composting- Proposed Scope

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### Administrative Recommendation:

**THAT the Regional District apply for an “Investing in Canada Infrastructure Program- B.C.” grant in order to construct an in-vessel organics food, yard waste and biosolid waste composting facility;**

**AND THAT the RDOS submit an application to the Agricultural Land Commission (ALC) for the exclusion of lands required for the purposes of constructing an organics composting facility from the Agriculture Land Reserve (ALR); or, failing that, for a non-farm use;**

**AND THAT the RDOS enter into an option to purchase agreement for land suitable for the purposes of constructing an organics composting facility; and, once the land is compliant with regulations for that use, proceed to purchase the land.**

### Purpose:

To locate and acquire property for the construction of an in-vessel organics waste composting facility to accommodate food waste, yard waste and biosolids from the City of Penticton Waste Water Treatment Plant.

### Background:

In order to further divert wastes entering the landfill, the Solid Waste Management Plan has identified organics diversion as the primary means of achieving this goal. Food waste and other organic material accounts for approximately 40% of waste going to landfills in the RDOS. Previous studies estimate a diversion potential of 26% of the total waste stream should a curbside food collection program be put in place. Further, previous studies have shown that the costs to process wastes through composting are lower than that of landfilling.

On September 19<sup>th</sup>, 2019 the Board authorized staff to pursue a compost siting study. Specifically to look at the Okanagan Falls landfill site and lands at or near the Campbell Mountain landfill. Upon, review of these two sites it became clear the Campbell Mountain landfill would be the preferred alternative. It is also clear that combining the biosolids and organics composting operations will be a significant cost savings.

These advantages are:

- The Regional District has submitted an application to the Ministry of Environment for a Bio-cover methodology to meet the requirements of the Landfill Gas Regulation. Approval and successful implementation would be assisted by removing organics from Campbell Mountain.
- The Regional District is required to provide a site to the City of Penticton for bio-solids treatment and composting. The current site at Campbell Mountain is non-compliant.
- The organics composting facility leachate control system could be combined with the Campbell Mountain landfill system.
- The Campbell Mountain landfill is open more hours in the week than that of the Okanagan Falls landfill. Longer hours will assist in receiving biosolids, organic amendment, and food waste and will assist with the sale of finished compost. It is also more convenient for the majority of residents in the Service Area.
- There is no water source near the Okanagan Falls landfill where the Campbell Mountain landfill site has an active well on site and the ability to obtain additional water from the City of Penticton.
- The Campbell Mountain Landfill currently has a biosolids composting facility where Okanagan Falls does not. The Okanagan Falls Landfill site is closer to residential land use where the new Campbell Mountain landfill composting facility is a consistent use and will dramatically reduce existing nuisances.
- The driving distances for curbside collection vehicles dropping of garbage and organics will be much lower at Campbell Mountain.

A number of recent events have increased the opportunity and urgency to establish a composting facility. Specifically, a new grant program has become available that could fund food waste diversion, and the proposed organics composting facility. The grant, if successful, would fund up to 83% of capital costs, not including land, but must include a predesign of the facility. The submission deadline is February 26. An appropriate land parcel has been identified. The Agricultural Land Commission is changing ALR exclusion rules after January 30, 2020 that may be problematic. Any application prior to January 30, 2020 will follow current rules.

A recent Business Case comparing a currently designated site at Campbell Mountain and the proposed site has determined a potential advantage of \$1.7M to purchase the new site rather than build on the Campbell Mountain Landfill site due to geotechnical considerations. Also, the movement of the composting site off the Campbell Mountain Landfill property, will save landfill air space, estimated to be valued \$11M to \$16M over the life of the landfill. The proposed land purchase will buy lands that are currently impacted due to nuisance, thus eliminating a source of complaint and liability.

Total capital costs for the project are expected to be at \$17.2M plus land costs. Should the Regional District be successful with a grant application our share of the capital costs will be \$2.9M. This will enable a significant reduction in the aggregate biosolids and food waste composting per tonne cost of \$100 to capitalize and process organic wastes.

## Analysis:

There are several distinct advantages to build a combined biosolids/food waste composting facility near the Campbell Mountain Landfill. These advantages are:

- The cost of composting is less than that of landfilling wastes
- Combining biosolids, food waste and yard waste composting in the same facility is shown to reduce costs compared to running multiple sites. This is due to less capital and operating costs to operate one facility versus several. The consultant has identified a \$20 per tonne savings.
- The Biosolids composting does not appear to be eligible for the current grant funding where a combined organics composting facility will be eligible.
- Diverting food waste furthers our objectives to divert organics entering our landfill and helps to trap Carbon that would otherwise be released into our atmosphere.
- Diverting food waste helps to extend the life of the landfill which is currently the most cost effective refuse disposal method. A 26% diversion means that the life of the landfill can be extended.
- Food waste compost will be a separate compost stream than that of the biosolids and can be used on farms.
- Compost is a valuable soil additive helps to trap moisture and conserve water.
- The addition of strict odour control in the new facility will reduce existing nuisances dramatically.
- The City of Penticton must improve its leachate management and odour control in order to be compliant with Provincial regulation
- There is an opportunity to use the Landfill scales and leachate control systems.

There are several distinct advantages to purchase the land near the landfill. These advantages are:

- The capital cost to construct the composting facility is less than the cost to purchase the land, and represents a net savings of \$1.7M
- The construction of the composting facility will move the facility away from neighbouring properties, create a strict odour control system and reduce risks of complaints.
- By moving the composting facility offsite, we create between \$11M to \$16M worth of airspace for the landfill
- The purchase of land will give us room to grow should additional treatment trains such as digesters or as the population increases.
- There will be large areas for compost storage should there be a down turn in compost sales.

**Next Steps:**

Should the Board agree to the above recommendations, staff will bring back an in-camera report on the land purchase.

**Respectfully submitted:**

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Andrew Reeder, Manager of Operations