

DATE: June 12, 2019

FILE: 5380-03

TO: Chair and Directors
Comox Strathcona Waste Management Board

Supported by Russell Dyson
Chief Administrative Officer

FROM: Russell Dyson
Chief Administrative Officer

R. Dyson

RE: Remote Facilities – Composting Pilot Program

Purpose

To seek approval from the Comox Strathcona Waste Management (CSWM) Board (Board) for a one year organic composting pilot program in the Village of Tahsis (Tahsis) and Cortes Island to determine the viability of composting in remote communities.

Recommendation from the Chief Administrative Officer:

THAT the Comox Strathcona Waste Management Board approve the implementation of a remote community's organic composting pilot program in the Village of Tahsis and within Electoral Area B of the Strathcona Regional District, being Cortes Island;

AND FURTHER THAT the Comox Strathcona Waste Management Board approve the purchase of composting equipment and supplies to operate the pilot in the two remote communities of the Village of Tahsis and Cortes Island up to a maximum of \$10,000;

AND FINALLY THAT staff report back to the Comox Strathcona Waste Management Board at its September 2020 meeting, with a summary and business case for a small scale organic composting program, for all remote communities that wish to participate.

Executive Summary

The intent of the pilot is to support effective programs for our rural communities. We would test the feasibility of a remote facilities, small scale organic composting program. To ensure data is accurately collected and reported, a select number of participants will be used. This may include local restaurants or grocery stores. Upon completion of the pilot, staff will present the results to the Board, with recommendations for moving forward.

The Village of Tahsis and the community of Cortes Island have expressed interest in an organic composting program. There are direct benefits with removal of organics from the waste stream, including reduction in greenhouse gas emissions (GHG), producing a usable end product and a reduction in the transportation of waste.

- A pilot program for Tahsis and Cortes follows the CSWM Board's direction to investigate ways to divert compost from the Cortes Island's waste stream and is in response to the Village of Tahsis's requested commitment.

- The results of the 2017 CSWM waste composition audit found that the waste stream contained approximately 29 percent food waste. This program seeks practical solutions for our rural communities.
- The recommended option for the pilot is the purchase of stainless steel tumbler composters. The units are able to compost all types of food waste in as little as six weeks and are secure against vectors and bears.

Prepared by:

Concurrence:

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Stakeholder Distribution (Upon Agenda Publication)

Village of Tahsis	✓
Cortes Island Waste Management Center	✓

Background/Current Situation

In 2017, the CSWM service conducted a [waste composition audit](#) at our two regional facilities in Campbell River and the Comox Valley. The overall composition of food waste in the waste stream was approximately 29 per cent. This is in line with the data from the Province which estimates approximately 30 per cent of waste is organic in nature.

In November 2018, the province of British Columbia launched their [Love Food Hate Waste \(LFHW\)](#) campaign to decrease the amount of residential food waste being disposed of into landfills. The Comox Strathcona Waste Management (CSWM) service signed on as a partner to this campaign. This education campaign, based on the UK model, has launched in countries across the globe and is aiming to address the environmental impact of food loss and food waste as well as the GHG emissions associated with landfilling food waste. For the CSWM service there are additional benefits to managing organics within the remote communities.

The unified transportation policy covers the cost of transporting waste from a transfer station to the closest regional facility. Currently the Cortes Island Waste Management Center (CIWMC) generates approximately 379 tonnes of waste annually. There is the potential for savings in transportation costs to the service for reducing organic material out of the waste stream and composting. In addition, reducing the transportation will lead to a reduction in carbon emissions generation.

In January 2019, staff met with the Village of Tahsis Council to discuss compost options within the community. Given their remote location, the council expressed interest in a community composting program and their need to establish food security and increase their self-sustainability.

Challenges for the Village include location, transportation, lack of access to resources required for establishing food security and bear/vector issues. Currently all waste generated in Tahsis is landfill with the exception of recyclables. When the landfill reaches capacity and waste is handled through a transfer station, removing food waste will have a reduction in expenses and have a positive environmental impact in the reduction of GHG emissions.

During the pilot the staff will collect data regarding organics generated in comparison to the statistics provided through the LFHW provincial program. This information will provide a base line

for remote community organics waste. The information to be determined is quantity generated, consistency and organic waste composition.

There is an interest in composting and the financial and environmental impact of separating and composting food waste in these two communities. The CSWM service would like to conduct a pilot program to gather information on operating small scale composting at the remote facilities. It is important to note that both communities have fluctuating populations, seasonal/vacation rental residents, tourists, restaurants, lodges and camp sites that also affect the volume of organics in the waste stream. The CSWM service will be better prepared with education and messaging if able to collect the necessary data through a pilot.

There are many technologies for composting organic waste and they all follow four main principles of composting: particle size, moisture content, oxygen flow and temperature. The cost of each system can vary significantly based on required capital infrastructure, initiation costs, supply and transportation of required materials such as wood feed stock or pellets (if required). Until more information is gathered, however, it is recommended that the pilot utilize a tumbler style composter.

Tumbler composters can compost all types of food waste, including bones, in as little as six weeks as they provide better heat distribution, are thermally insulated for all season composting, and if made of steel will ensure durability against vectors and even bears. Most units can accommodate forty kilograms of food waste per week, and two units would provide sufficient capacity for a small scale pilot. The recommended unit is the Joracan NE401. These are a quality units with a fully metal exterior and are secure, insulated and have been officially recognized as bear proof by WildSafeBC.

The operational impacts of the pilot program will have a minimal financial impact to the service. There are no other costs associated with running the program other than staff time in the form of an increase in the operating contract cost to run the program. In addition, there may be small amounts of grinded wood waste required to mix with the food waste.

Consideration could be given to reinstate the sale of backyard composters and green cones to residents. The composters and green cones were purchased in bulk and sold at the CSWM facilities, providing an affordable option for residents wishing to manage their own food waste. The program was suspended in 2012.

Unfortunately the composters were flimsy and easily damaged during storage and transport, resulting in a loss of inventory. Although this program was successful in urban areas, encouraging back yard composting in some remote communities may pose vector issues, particularly where there are large numbers of bears. Given that the focus of this program is for remote communities, back yard composting is not advised.

The finished material can be given to the facilities to use as part of their public works or facility landscaping.

Options

1. Operate the pilot program using a tumbling composter to collect data and information about the viability of a community based small scale composting program;
2. Reinstate the backyard composting program where residents can purchase a composter from the service to use at home;
3. Continue to landfill organics until further direction is provided.

Staff are recommending option 1 in order to collect information and staff will report back with the results.

Financial Factors

The budget for the project is \$10,000 and will be funded under the recycling and diversion initiatives of the 2019 Financial Plan.

Legal Factors

There are no legal factors for consideration.

Intergovernmental Factors

The CSWM service will work with Tahsis staff and the contractor at the CIWMC to ensure that staff are properly supported and provided all the information necessary to conduct a pilot program. Staff are going to reach out to volunteers from community garden clubs and schools to assist with the pilot program.

Interdepartmental Involvement

CSWM staff will work with the Comox Valley Regional District Communications department, Tahsis staff, as well as the operator of the CIWMC, to put together information material for residents participating in the pilot program. CSWM staff will update the CSWM website to promote and highlight the information on back yard composting through the CSWM Garden Center in Campbell River and provide additional alternatives for residents who wish to utilize, compost or divert their food waste.

Citizen/Public Relations

As a service, we strive to meet the needs and wants of our residents, particularly if synergies with reduction in environmental impact exist. The goal of the pilot is to provide a successful, small scale and affordable option to divert organics from remote facilities.