

DATE: September 5, 2019

TO: Chair and Directors
Comox Strathcona Waste Management Board

FROM: Russell Dyson
Chief Administrative Officer

FILE: 5380-03

Supported by Russell Dyson
Chief Administrative Officer

R. Dyson

RE: Regional Organics Compost Project – Procurement Recommendations

Purpose

To provide a summary of procurement options and recommend a project delivery method for the regional compost processing facility and transfer station.

Recommendation from the Chief Administrative Officer:

THAT the Comox Strathcona Waste Management compost processing facility and the compost transfer station be procured through a design-build or design-bid-build procurement method.

Executive Summary

At the March 2019 Comox Strathcona Waste Management (CSWM) Board (Board) meeting, the Board expressed an interest in better understanding procurement options for the regional organics project. This report summarizes various procurement options and recommends a project delivery method for the compost processing facility and the transfer station.

The Regional Organics Compost project consists of a new food and yard-waste transfer station at the Comox Valley Waste Management Centre, and a regional organics compost facility in Campbell River.

This report presents the advantages and disadvantages of various procurement processes and concludes that the project would best be delivered through design-build contract for both the compost processing facility and the compost transfer station.

Under a design-build procurement process, the CSWM service would select a bid team comprised of design engineer and a construction firm for each facility. This procurement process has successfully been used to build the Comox Valley Waste Management Centre leachate treatment plant, put into operation in January 2018.

The Comox Valley Regional District has sought professional advice and received the following recommendations:

- The procurement of the compost facility on a design-build basis will take less time than on a design-build-operate basis. The time delay is due to the requirement of an alternative approval process (AAP) required due to the long term (10+ years) of operating component.
- The design-build-operate requires agreements beyond five years to realize cost and risk savings achieved through this procurement option.
- Design-bid-build or design-build could be utilized to procure the transfer station with similar outcomes.

Staff supports the recommendation based on the fact that these procurement approaches:

- Improves the overall scheduling, and optimize design and construction costs.
- Design-build contracts tend to maximize cost savings by facilitating design innovation during the design and construction phases.
- Encourages efficiency as the traditional design-bid-build approach tends to lead to longer overall delivery schedules, and can create multiple points of contact that may not align to the owner’s business interest.

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Stakeholder Distribution (Upon Agenda Publication)

City of Campbell River	✓
City of Courtenay	✓
Town of Comox	✓
Village of Cumberland	✓

Background/Current Situation

Design-build and design-build-operate procurement processes have been introduced over the past 10 to 20 years to deliver many types of solid waste projects. The main difference with traditional design-bid-build contracts are described below.

Traditional Design-Bid-Build:

- Design engineer procured to complete engineering investigations and develop detailed design;
- Construction contractor procured by tender; and
- Construction contractor paid on progress basis during construction and commissioning.

Design-Build and Design-Build-Operate:

- Owners engineer procured to complete engineering investigations and develop a combination of design and performance specifications; and
- Integrated contractor paid on progress with a moderate level of holdback until contract completion.

The CSWM service has sought the advice of the following consultants in order to provide a recommendation to the Board for the Regional Organics Compost project:

- Legal. Scope: all legal requirements for this project.
- Deloitte. Scope: market sounding and multi-criteria assessment.

A summary of the procurement processes chosen for this project are discussed below. Each procurement process has its own attributes which are generally related to owner involvement, allocation of risks and responsibilities, scheduling and schedule certainty, potential value for money, and procurement complexity, cost and market forces.

Design-build and design-build-operate procurement approaches tend to maximize costs savings through design innovation during procurement, improve the overall scheduling, and optimize initial construction costs and long-term operational costs. In the traditional design-bid-build option, the design is finalized prior to requesting bids for construction which can lead to longer overall delivery schedules, and creates multiple points of contact that may not align to the owner's business interest.

A design-build procurement process was used to deliver the leachate treatment plant at the Comox Valley Waste Management Centre as part of the landfill expansion. The facility has been operating successfully since January 2018.

Design-Build for the Compost Processing Facility

Under this project delivery model, the CSWM service would select a bid team comprised of design engineer and a construction firm, a single entity responsible for the design and construction of the compost processing facility.

The design-build contract will include detailed specifications developed by the owner's engineer and performance based specifications to be achieved during commissioning. Payment is made at specific design and construction milestones.

The design-build-operate model was originally considered in the grant secured from the New Building Canada fund for this project. The reason for this is that a single contract for the design, construction and operation retains the responsibility for all risks under one company. This model has been discarded due to the need of additional time and risk to conduct an AAP. In a design-build-operate approach, a long-term partnership exists between the owner and the design-build-operate contractor. For the compost processing facility, a 10-year term was chosen to be able to closely monitor the operation of the processing facility.

Design-Build for the Compost Transfer Station

This project delivery model is the same as for the compost facility. The CSWM service would enter into a contract with a design-build constructor responsible for the design and construction of the compost transfer station according to the CSWM service's prescribed standards.