



Regional Board Report

Request for Decision

To: Regional Board

From: Director of Engineering Services

Date: February 2, 2023

Subject: Expanded Residential Curbside Organics

Voting Entitlement: *All Directors – Unweighted Corporate Vote – Simple Majority (LGA s.208)*

Purpose: To receive direction from the Regional Board regarding the expansion of residential curbside organics collection within the Central Okanagan to include food waste.

Executive Summary:

Following the RDCO Waste Characterization study completed in 2020 and 2021, the RDCO identified that compostable materials make up nearly 50% of our community's landfill bound waste stream within Single Family and Multifamily residential sectors. In 2022, with input from the Solid Waste Technical Advisory Committee (SWTAC), the RDCO completed a Food Waste Feasibility Study to explore options for expanding residential organics management programs. This report is intended to present the Regional Board with recommendations from the study as they relate to the next phase of a potential curbside organics program.

Specifically, the Food Waste Feasibility Study recommends that resident engagement be undertaken to advise residents of potential changes, explore expectations and social acceptance, and prepare the public for regional food waste collection. The study also recommends co-mingled Food Waste and Yard Waste collection in a single curbside container for the single-family curbside service.

Staff have estimated approximately \$500,000 in funding to increase team capacity, create and execute engagement strategies, prepare educational content, and operationalize a curbside co-mingled food and yard waste collection program.

Recommendation(s):

THAT the Board receive the report titled Expanded Residential Curbside Organics dated February 2, 2023, from the Director of Engineering Services for information;

AND THAT Staff initiate next steps to implement a regional curbside co-mingled food and yard waste collection program as outlined in the report from the Director of Engineering Services.

Prepared By: Travis Kendel, P.Eng., Manager of Engineering Services

Approved by:



David Komaika, P.Eng., Director of Engineering Services

Attachments: 1. Table from Final Report - Scenarios ranked by weighted factors
2. Feasibility Assessment of Food Waste Collection and Processing
3. Expanding Residential Curbside Organics – PowerPoint Presentation

Strategic Plan Alignment:

Priorities: Environment, Sustainable Communities

Values: Regional Perspective, Collaboration

Background:

Following the Waste Characterization study completed in 2020 and 2021, the RDCO identified that compostable materials make up nearly 50% of our community's landfill bound waste stream within Single Family and Multifamily residential sectors. With input from the Solid Waste Technical Advisory Committee (SWTAC), the RDCO initiated and completed a Food Waste Feasibility Study in 2022 to explore options for expanding residential organics management programs.

As part of the Food Waste Feasibility Study, an assessment with weighted factors was developed by the SWTAC and its members municipalities. These factors were used to evaluate four options:

Status Quo:	Curbside automated yard waste collection and backyard composting.
Scenario 1:	Curbside automated yard waste collection and manual food waste collection.
Scenario 2:	Co-mingled automated yard waste and food waste collection.
Scenario 3:	Countertop Kitchen Composting Units

Table 20, extracted from the Food Waste Feasibility Study (Attachment 1), includes a comparison of scenarios, factors, and option rankings. Scenario 2, the co-mingled collection of yard and food waste is the highest ranked (most feasible) option outlined within the report.

Scenario 2, as envisioned within the study achieves an overall reduction in greenhouse gas emissions without impacting the viability of the existing landfill gas collection program at the Glenmore Regional

Landfill. The study estimates that with a community curbside food waste collection program, 76% of organic materials would continue to be landfilled, supplying ample renewable natural gas production.

Recommendation and Next Steps:

The Food Waste Feasibility Study notes, the RDCO is obligated to ensure organics diversion options are cost effective and socially acceptable. Therefore, the RDCO proposes to undertake the following as next steps:

- Engage with residents and Regional Council's prior to the implementation of any changes to:
 - confirm social acceptance
 - understand support or resistance to rate changes associated with the service
 - develop strategies to foster community acceptance of food waste collection.
- Undertake design level effort to accurately estimate service expenses and service details.
- Develop a consultation and communication strategy to build program enthusiasm, build understanding, create engagement tools, and capture community feedback.
- Explore how the addition of food waste to curbside yard waste containers may impact existing services and contracts.
- Consider wildlife interactions and the potential to transition regional curbside yard waste containers into animal resistant carts.
- Investigate opportunities to influence commercial and multifamily organics diversion through organic waste bans and/or differential tipping fees.
- Keep apprised of the implementation of countertop composting units in other communities and review their outcomes before undertaking multifamily pilots using the same technology.

The Food Waste Feasibility Study estimates total cost for next steps to range between \$10 and \$15 per household (approximately \$650k - \$1.0M). If approved by the Board, \$450k will be allocated towards completing the next steps identified above. An additional \$75k would also be budgeted, ongoing, for additional staff resources to support the development, implementation, and operation of a food waste collection services.

To best realize investments already made in existing cart infrastructure and align with the outcome of the feasibility study, it is recommended that engagement regarding a future curbside food waste collection service as outlined within Scenario 2 of the Food Waste Feasibility Study be pursued.

This work would be undertaken within the Waste Management function of the RDCO, which is funded through recycling revenue and contributions from all Central Okanagan governments based on population (as per the 2021 federal census) as summarized within the table below.

District / Jurisdiction	Population	Funding Percentage	Capital Contribution
City of Kelowna	144,576	69.04%	\$362,450
District of Peachland	5,789	2.76%	\$14,513
District of Lake Country	15,817	7.55%	\$39,653
City of West Kelowna	36,078	17.23%	\$90,447
Electoral Area Central Okanagan West	2,897	1.38%	\$7,263
Electoral Area Central Okanagan East	4,258	2.03%	\$10,675
Total:	209,415	100.000%	\$525,000

Please note that Westbank First Nation is currently serviced by a variety of methods, which include self-haul and numerous private service contracts. WFN does not currently participate in the Regional Solid Waste Management Function. Future discussions will be required to determine the most appropriate model to create a region-wide Waste Management Program that may include recycling, organics and waste management.

Future Considerations:

The information obtained through the “Next Steps” process mentioned on the previous page, will inform, and better explain what will be needed should the Board wish to move forward with an organics collection program on a regional wide scale. This would be considered as part of the budget deliberations for 2024.

Capital Costs, estimated at \$6 Mil (Class D estimate) includes the addition of a transfer station that accepts commingled food and yard waste and the necessary transfer station infrastructure. Transfer station costs include site preparation, a prefabricated metal building with concrete foundations, road preparation and surfacing, site drainage work and miscellaneous items such as signage, fencing, storage bins and contingency. A building footprint of 40 m by 40 m was assumed to manage up to 32,000 tonnes of commingled food and yard waste per year.

Transfer station land acquisition has not been included in the proposed 2023-2028 5-year capital plan, and may, or may not be required depending on where a potential transfer station is located.

Considerations:

Organizational/External:

- Expanded organic services may become a regional service delivered through the RDCO, or, through contract by each individual Municipality like the current curbside collection contract.

Financial:

- Financial Plan impacts:
 - Operating - Approximately \$75,000 (w/o overhead) for staff resources
 - Capital - \$450,000 to support next steps
 - Capital - \$6,000,000 to fund infrastructure costs relating to service

Legal / Statutory Authority:

- As per the *Local Government Act* the Board, by bylaw, may establish a service for the management of solid waste, including food wastes.

Alternate Recommendation:

THAT the Regional Board receive the report titled Expanded Residential Curbside Organics dated February 2, 2023, from the Director of Engineering Services for information.

Approved for Agenda



Brian Reardon, CAO

Attachment 1 – Table from Final Report - Scenarios ranked by weighted factors

*Highest value = Best value

Focus Area	Indicator (Weighting%)	Status Quo	Scenario 1 Manual Collection	Scenario 2 Co-Mingled Collection	Scenario 3 Countertop Units
Financial	Life-Cycle Costs (25%)	1.25	0.92	0.87	0.80
	Financial Confidence (5%)	0.20	0.10	0.15	0.05
Environmental	GHG Impact (25%)	0.71	0.90	1.06	1.25
	Soil Quality Impacts (5%)	0.10	0.25	0.20	0.15
	Air and Water Quality Impacts (5%)	0.15	0.10	0.15	0.20
Social	Local Employment (5%)	0.10	0.25	0.20	0.05
	Odour, Noise, and Transportation Impacts (5%)	0.15	0.05	0.10	0.25
	Convenience to Residents (15%)	0.75	0.45	0.60	0.30
Policy & Adaptability	Contribution to RDCO Waste Policy (4%)	0.08	0.16	0.20	0.12
	Adaptability to Meet Future Needs (3%)	0.09	0.12	0.12	0.15
	Risk (3%)	0.06	0.12	0.12	0.06
Total		3.64	3.42	3.77	3.38
Rank		2	3	1	4

Table 20 extracted from final report