



# Alberni-Clayoquot Regional District

## ALBERNI VALLEY & BAMFIELD SERVICES COMMITTEE MEETING BEING JOINED BY CITY OF PORT ALBERNI COUNCIL TUESDAY, AUGUST 11, 2020, 1:00 PM

Due to COVID-19, the meeting will be held via Zoom Video Conferencing and will be livestreamed on the ACRD website at <https://www.acrd.bc.ca/>

### AGENDA

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|--|--------|
| 1. <b><u>CALL TO ORDER</u></b>   |        |
| Recognition of Territories.  |        |
| 2. <b><u>APPROVAL OF AGENDA</u></b>  |        |
| <i>(motion to approve, including late items requires 2/3 majority vote)</i>  |        |
| 3. <b><u>PRESENTATION</u></b>  |        |
| a. <b>Organics Collection Options for the City of Port Alberni – Jodie Frank, Organics Diversion Coordinator</b>         |        |
| 4. <b><u>REPORTS</u></b>   |        |
| a. <b>City of Port Alberni Curbside Three-Stream Waste Services Update – Jodie Frank, Organics Diversion Coordinator</b> | 2-9    |
| <i>THAT the Alberni Valley &amp; Bamfield Services Committee receives this report.</i>                                   |        |
| 5. <b><u>LATE BUSINESS</u></b>   |        |
| 6. <b><u>ADJOURN</u></b>   |        |



## REPORT FOR INFORMATION

**To:** Alberni Valley and Bamfield Committee  
City of Port Alberni Council

**From:** ACRD/City Staff Organics Working Group

**Meeting Date:** August 11, 2020

**Subject:** City of Port Alberni Curbside Three-Stream Waste Services Update

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### Summary:

ACRD staff is currently developing the first component of the Regional Organics Diversion project that will include moving to a three-stream (recycling, organics and garbage) collection system in the City of Port Alberni (CPA).

ACRD and CPA staff have initiated a combined Organics Working Group that has begun regular meetings to discuss the various operational components for three-stream collection including routing, staffing, hauling, billing and cart/container logistics for the CPA. This report is intended to provide detailed information on the two potential service options to add organic collection within the CPA including a benefit analysis and costs estimates of each delivery model. Staff will be seeking direction from the ACRD Board and City Council at the following meetings to move forward with one of these options.

When the option is chosen, an RFP for purchase of carts will be issued, followed by the development of a communication and engagement strategy. The estimated implementation for curbside collection in the CPA is March 2021.

### Background:

This report is based on the following assumptions:

- The City and Board support the implementation of organics diversion
- The current priorities for implementing the regional organics diversion program are:
  - Phase 1: City of Port Alberni,
  - Phase 2: West Coast, and
  - Phase 3: Alberni Valley and Bamfield
- Phase 1: Three stream curbside collection (recycling, organics and garbage) will service approximately 6900 single family households for the CPA.
- Phase 1 will act as a pilot for Phase 3 implementation using success and data measures to support the implementation of the similar waste services for the AV and Bamfield areas.
- There is a desire to further increase waste diversion to 50% and a per capita disposal rate of 400kg/year.
- The ACRD will continue to contract with Recycle BC for the collection of recyclables as the most efficient service to the community.
- The purchase of new carts for organics and recycling is approved for funding under the Strategic Priorities Grant.

Current Collection System

The current garbage collection service is operated by the City of Port Alberni which is collected from single family households on a weekly schedule. Garbage material is collected at the curb with a cart-based automatic arm collection system and hauled to the Alberni Valley Landfill located approximately 10 km west of Port Alberni. Garbage collection is currently not fully funded by user fees, a full cost recovery service model is planned moving forward. The garbage collection fees are sent out every four months as part of the utility billing invoicing.

Curbside recycling is contracted to the ACRD through Recycle BC and is collected by a third-party contract with Waste Management on a bi-weekly schedule. The collection service is completed manually where the driver lifts the 'blue box' containers from the ground to the truck hopper to tip the material into the truck. Recycling is currently hauled to a consolidation centre in Parksville which is approximately 50 km from Port Alberni and transferred from there for processing. Recycle BC provides a financial incentive for collection on a cost per household basis depending on collection methodology.

CPA Collection Trucks

The CPA currently operates a fleet of three (3) 2019 Freightliner Fully Automated 60/40 split compartment waste collection trucks. The trucks allow for the collection of multiple streams at once (ex. garbage and organics) increasing the operational efficiencies due to the reduced variability in collection containers and the elimination of manual involvement in the retrieval of collection containers. The split trucks also result in more pickups in the same timeframe and therefore the waste collector can cover the same geographical area with fewer trucks. The reduction of curbside visits is the most cost efficient and environmentally friendly waste collection practice.

As part of the organics program development and future implementation, staff are looking at the options to include Radio Frequency Identification (RFID) technology which provides better coordination, and real-time tracking to streamline customer inquiries, complaints and compliance issues. Other collection efficiency options that are being explored are Fleet software that can link to RFID technology to help provide monitoring and communication, including:

- route efficiencies,
- detailed records for cart set out rates for each container to measure compliance;
- container status (requires repair/replacement);
- contamination records for non-compliance containers;
- refused pickup records (blocked containers, open lids, access issues); and
- Real-time footage of contamination for feedback to residents to be used for targeted education.

CPA Waste Collection Options:

Stream	Frequency	Option 1 3-stream CPA Collection	Option 2 Waste and Organics Collection	Option 3 Waste Only
Recycling	Bi-weekly	City Collection	Contractor	Contractor
Organics	Weekly	City Collection	City Collection	Contractor
Waste	Bi-weekly	City Collection	City Collection	City Collection

**Total combined  
ACRD/City cost**

	Option 1	Option 2	Option 3
<b>Total</b>	\$ 1,235,718.00	\$ 1,314,547.44	\$ 1,666,123.44
<b>per household</b>	\$ 180.03	\$ 191.51	\$ 242.73

See full cost analysis attached as Appendix A and the Municipal Scan costs per Households Appendix B.

Based on the intention to increase operational efficiencies and improve service delivery, it is recommended that Option 3 - Waste Only collection by the CPA, not be given further consideration as an option.

Option 1 – City of Port Alberni Collection - 3-Stream Automated Carts (Recycling, Organics and waste)

<b><u>Advantages</u></b>	<b><u>Disadvantages</u></b>
<ul style="list-style-type: none"> <li>• City can maintain increased control of collection service delivery across all streams.</li> <li>• Split truck capabilities will allow for Organics to be picked up weekly with garbage and recycling alternating on a bi-weekly basis</li> <li>• Centralized operations</li> <li>• Increase operational efficiencies (additional with routing technology)</li> <li>• Eliminates the need for an extra contracted collection truck (reduction of GHG’s)</li> <li>• Maintain control over collection schedules and frequencies</li> <li>• Supports the collection methodology that other local Municipalities and Regional Districts have transitioned to (see Appendix B).</li> <li>• Potential to add City facilities recycling pick up – currently contracted out at approx. \$800/month</li> <li>• Residents receive organic and recycling carts fully funded by the strategic grant program</li> </ul>	<ul style="list-style-type: none"> <li>• Labour hour intensive and will require additional resourcing (increased working hours and may require overtime)</li> <li>• Increased fleet maintenance required</li> <li>• Possible cost for recycling transfer (looking at potential for local consolidation center)</li> <li>• Possible additional trips to landfill to empty during daily route</li> <li>• May result in increased contamination of recycling</li> <li>• Retro fitting will be required to prevent recyclable contamination</li> </ul>

Option 2 - City of Port Alberni Collection of Waste and Organics – Third Party collection of Recycling

<b><u>Advantages</u></b>	<b><u>Disadvantages</u></b>
<ul style="list-style-type: none"> <li>• Recycling could continue to be collected manually as a separate service</li> <li>• Multi-stream provides an increased incentive (cost per household)</li> <li>• Blue Bins typically have the lowest contamination rates for recycling</li> </ul>	<ul style="list-style-type: none"> <li>• As organics is collected weekly and garbage bi- weekly there will be an offset in labor required with collection frequency on alternating weeks</li> <li>• May not have the opportunity for a consistent 3-stream centralized operation</li> <li>• Manually collection of recycling</li> <li>• Less cost effective than option 1</li> <li>• Additional collection vehicles result in higher GHG production</li> </ul>

**Considerations:**

Public Support

A recent survey was conducted at the Alberni Valley Landfill in July 2020. Out of the 1142 survey participants 527 respondents were from the City of Port Alberni and 59% of these residents expressed positive support for a curbside organics program.

## Carts

With the implementation of a fully automated collection system, residents will be required to use standardized wheeled carts to ensure compatibility with the mechanized lifting arm. Based on research that evaluated a number of municipalities across the BC region with full automation garbage collection service, it is industry practice for regional district/municipalities to purchase the carts for resident use which remain the property of regional district/municipalities. The carts are registered to each property receiving collection service rather than the property owner. If the owner moves, the carts remain with the property as they are assigned to the civic address.

Cart sizes being considered for three-stream collection are 120 L for Garbage, 240 L for Recycling and 120L or 240L for organics with wildlife proof mechanisms included as a specification requirement (for both garbage and organic containers). The RFP will include social procurement principals including options for the use of local community groups for cart deployment to generate social and economic benefits as a result of the purchase of carts.

## Environmental

There are significant environmental benefits from collecting food waste and yard waste at the curb including:

- a reduction of illegal dumping at the end of streets and alleys which improves the look of neighborhoods and trails in the City;
- a reduction of fire hazards associated with the build-up of yard waste in forested areas;
- a reduction of individual trips to the landfill to drop off yard waste, in turn reducing GHGs and improving air quality;
- production of a useful compost amendment from previous waste materials
- a reduction of landfill gas production by diverting these materials from landfilling

## Safety

Based on a jurisdictional review, it is common that municipalities have or are considering the transition to a full stream automated collection as manual collection has been a growing safety concern as the primary sources of injury can stem from repetitive motion, slips and trips and exposure to sharp objects. In addition to safety, communities with optimized automated waste collection systems such as the City of Nanaimo have realized an increase of 30% productivity efficiency due to the reduce inconsistency in containers handled.

## Increased Recycling Contamination

Feedback from Recycle BC has cautioned that cart-based recycling programs can lead to higher contamination rates as opposed to blue box programs as the collector has the ability to screen materials placed at the curb, limiting the possibility for monitoring contamination. However, the RDN which has recently moved from bins to carts has not experienced a significant increase in contamination through the use of public education. The ACRD is also exploring fleet software with camera footage to capture contaminants that will help form education opportunities in conjunction with a strong engagement strategy.

## Engagement

In order to achieve success with the new waste services, it is important for the ACRD to develop a strong engagement strategy that will allow the ACRD to collaborate with the community and create avenues to provide education and outreach. Engagement planning is currently underway with a framework to determine how best to involve, engage, educate and communicate to the community the changes that will occur with the new waste services to provide a successful outcome. Once participants start to receive the new service, tactics such as residential waste audits and cart tagging programs will begin as a form of engagement to inform and educate participants of best practices such as cart placement and what can or cannot go in the various waste streams. Key finding from these tactics will then be communicated to the wider audience.

**Next Steps**

The proposed project timeline (Appendix C) anticipates implementation of the new waste collection system in the CPA in Spring of 2021. In order to meet this schedule, staff have some key action items to undertake immediately including issuing an RFP for cart procurement, development of a public engagement and communication program, and revising current ACRD recycling collection contracts. Staff will be seeking support to proceed with one of these waste services options at the next Board and Council meetings.

Submitted by:   
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Jodie Frank, Organics Coordinator

Reviewed by:   
\_\_\_\_\_  
Jenny Brunn, Interim General Manager of Community Services

Approved by: For:   
\_\_\_\_\_  
Douglas Holmes, Chief Administrative Officer

Appendix A – Service Delivery Costs

	Option 1	Option 2	Option 3***
	<b>3 Stream Cart</b>	<b>City - Waste/Organics</b>	<b>City - Waste Only</b>
Recycling	City Cart	ACRD - contract single bin	ACRD - contract multi bin
Organics	City Cart	City Cart	ACRD - contract cart
Waste	City Cart	City Cart	City Cart

	City Costs			ACRD Costs		
	Option 1	Option 2	Option 3	Option 1	Option 2	Option 3
<b>Collection</b>						
Recycling	included				\$ 336,061.44	\$ 336,061.44
Organics	included	included				\$ 576,576.00
Waste	\$ 650,000.00	\$ 540,000.00	\$ 300,000.00			
<b>Total</b>	\$ 650,000.00	\$ 540,000.00	\$ 300,000.00	\$ -	\$ 336,061.44	\$ 912,637.44
<b>Transfer Fees</b>						
Recycling	\$ 78,000.00				\$ -	\$ -
<b>Tipping Fees</b>						
Waste	313,950.00	313,950.00	313,950.00			
Organics	177,320.00	177,320.00				\$ 177,320.00
<b>Other</b>						
Annual Capital Cart Replacement	\$ 147,576.00	\$ 96,096.00				\$ 96,096.00
Annual ERRF contribution - Trucks	\$ 140,000.00	\$ 140,000.00	\$ 140,000.00			
Education				\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
Billing	included	included	included			\$ 15,000.00
<b>Total</b>	\$ 1,506,846.00	\$ 1,267,366.00	\$ 753,950.00	\$ 20,000.00	\$ 356,061.44	\$ 1,221,053.44
<b>Recycle BC Revenue</b>	\$ 271,128.00				\$ 308,880.00	\$ 308,880.00
<b>Net</b>	\$ 1,235,718.00	\$ 1,267,366.00	\$ 753,950.00		\$ 47,181.44	\$ 912,173.44

**Total combined ACRD/City cost**

	Option 1	Option 2	Option 3
<b>Total</b>	\$ 985,718.00	\$ 1,113,046.00	\$ 1,443,755.44
<b>per household</b>	\$ 143.61	\$ 162.16	\$ 210.34

Appendix B – Municipal Scan 3- Stream Collection

City/Municipality	Service Provider	Population (2016 Census)	Collection	Materials Collected			Annual Cost/hh
				Garbage	Recycling	Organics	
<b>British Columbia</b>							
City of Nanaimo	City Staff	90,504	Automated	120 L biweekly	240 L biweekly	120L weekly	\$165.00
Regional District of Nanaimo	City Staff	29,000	Automated	80L-240L	240 L biweekly	100 L weekly	\$165- \$250
Cowichan Valley Regional District	City Staff	83,739	Automated	140 L biweekly	240L biweekly	NA	\$143.67
City of Fernie	City Staff	4,850	Automated	120 L weekly	240L biweekly	NA	\$154.99
City of Penticton	City Staff	33,761	Automated	120 L weekly	240L biweekly	240 biweekly	\$232.00
City of Port Moody	City Staff	33,441	Automated	120 L weekly	360L biweekly	120 L weekly	\$360.00
City of Port Coquitlam	City Staff	58,612	Automated	240 L biweekly	240L biweekly	240 L biweekly	\$189.36
City of Surrey	Contractor	517,887	Automated	240 L biweekly	240L biweekly	240 L weekly	\$287.00
City of Richmond	Contractor	198,309	Automated	240 L biweekly	240L weekly	240 L weekly	\$274.55
Town of Lake Cowichan	City Staff	3,226	Automated (G/O) Manual Recycling	80 L biweekly	bag	80 weekly	\$175.80
City Coquitlam	Contractor	139, 284	Automated (G/O) Manual Recycling	120 L weekly	Box/bag biweekly	120 L	\$244.00
Town of View Royal	Contractor/CRD	10,408	Automated (G/O) Manual Recycling	120 L weekly	Box/bag biweekly	120 L	\$185.00
City of Vancouver	City Staff	631,486	Automated (G/O) Manual Recycling	75-360 L biweekly	Box/bag biweekly	120-360 L weekly	\$203-368
City of Victoria	Contractor/CRD	85,792	Automatic (G/O) Manual Recycling	120 L biweekly	Box/bag biweekly	120L bi-weekly	\$218.13
District of Oak Bay	City Staff	18,094	Automatic (G/O) Manual Recycling	140 L biweekly	Box/bag biweekly	120L bi-weekly	\$210.00



CITY OF  
PORT ALBERNI

# CURBSIDE Organics COLLECTION

MARCH  
2021

NEW CURBSIDE  
CART COLLECTION  
WASTE SERVICES



2020  
SUMMER

## PROJECT PLANNING

- Develop Program Framework
- Determine Regulatory Requirements
- Procurement – Develop Tender Documents & Award Contracts for:
  - Curbside Collection Carts
  - Compost Processing Facility

### Collection:

- Coordinate Collection of New Curbside Organic Services with CPA
- Make Changes to Service Contracts Related to Garbage and Recycling Collection (Recycle BC)

Develop Stakeholder Engagement Plan



2020  
FALL  
WINTER

## IMPLEMENTATION PLANNING

- Site Construction
- Execution of OMRR (Organic Matter Regulatory Requirements):
  - Ops Plan

Launch Stakeholder Engagement & Communication Plan

Determine Data & Information Requirements



2021  
WINTER  
SPRING

## NEW WASTE SERVICES ROLL-OUT / IMPLEMENTATION

- Continue with Public Pre-launch Engagement
- Distribute Communications Material:
  - New Sorting Guides
  - Intro to Curbside Collection, FAQs and Messaging
- Distribute New Curbside Carts



In partnership with:  
**Alberni-Clayoquot**  
Regional District

**Canada**