
TO: Solid Waste Management Select Committee **MEETING:** January 10, 2019

FROM: Kirsten Gellein, Special Projects Assistant **FILE:** 5310-01

SUBJECT: 2018 Regional District of Nanaimo Curbside Outreach Program Summary

RECOMMENDATION

That the Solid Waste Management Select Committee receives this report dated January 10, 2019, for information.

SUMMARY

The Regional District of Nanaimo (RDN) undertakes the Curbside Recycling Outreach Program (Recycling Outreach) as a contractual obligation under our agreement with Recycling BC for curbside collection of packaging and printed paper materials, and is funded through the education and administration portion of monies received from Recycle BC. The 2018 Recycling Outreach program assesses compliance with Recycling BC requirements, and reinforces good recycling practices.

In 2018, the Curbside Outreach Program was extended for two collection weeks to include a garbage component (Garbage Outreach), with the intention of gathering data on households setting out excessive volumes of garbage, use of non-rigid containers, and identification of secondary suites. This information will be used as part of the curbside collection evaluation as these issues will need to be addressed in the upcoming Curbside Collection Services procurement process.

BACKGROUND

The 2018 Curbside Outreach Program ran from late April to the beginning of August, and included eight collection weeks of Recycling Outreach, along with two collection weeks of Garbage Outreach. These two components of the Curbside Outreach Program are detailed below.

Recycling Outreach

The RDN has been conducting Recycling Outreach annually since 2014, when the RDN partnered with Recycle BC to become a collector of Packaging and Printed Paper (PPP) for single family dwellings. The main objectives of Recycling Outreach are to:

- collect data for household compliance and non-compliance; and
- drive correct recycling behavior by:
 - reinforcing residents' good recycling practices; and,
 - providing clarity on non-compliant materials.

Based on the August 2018 household count, the RDN will receive an education rebate from Recycling BC of approximately \$21000 to fund Recycling Outreach.

The Recycling Outreach team consisted of two staff members for efficiency and safety reasons, and was led by the Solid Waste Special Projects Assistant and assisted by a staff member from the Solid Waste Service casual labour pool. The routes were predetermined to ensure even coverage of the curbside collection routes, to address problematic areas identified by the RDN curbside collection provider (Waste Connections), as well as coverage of areas missed in previous outreach years. For reference, Attachment 1 shows a map of the current curbside collection routes.

Duties of the Outreach team included inspection of recyclables set out at the curb for collection, identifying and tagging non-compliant recyclables, talking with residents, and distributing information regarding curbside collection and disposal alternatives.

At each household, the upper layers of the recycling bins and yellow bags were examined for presence of non-compliant materials. If no non-compliant materials were found, the bin/bag was tagged with a "Thank You for Recycling" sticker; if non-compliant materials were found, they were removed and tagged with a "Left Behind" sticker. Attachment 2 shows the two stickers used for the 2018 outreach season. In rare instances of high levels of non-compliance materials, the whole bin/bag was set away from the roadside and tagged with a "Left Behind" sticker. A description of the material was indicated on the sticker, so residents could utilize the description to enter into the "What Goes Where?" directory, as explained at the bottom of the sticker.

The Curbside Outreach team distributed yellow recycling bags to households that had overflowing bins/bags or were using single-use film plastic bags to contain their recyclables. Education materials were also distributed, usually during interactions with residents, and included the "Recycling in our Region" brochure, the RDN Curbside App cards, and information on the new Recycle BC Other Flexible Plastic Packaging stream.

Compliance Data

A summary of the 2018 Recycling Outreach can be found on Table 1. It includes a comparison of 2018 to the past five years for totals, average compliance and non-compliance ratios. The lowest and highest single-day compliance percentages are also included to illustrate the range of compliance and overall understanding of the recycling program. Attachment 3 shows the complete 2018 Recycle Outreach results.

	2018 Recycling Outreach			5 Year Average
	Lowest Single Day Compliance	Highest Single Day Compliance	2018 Total	
Total # Households Tagged	75	144	4860	4758
% Compliance	33%	76%	58%	58%
% Non-Compliant	67%	24%	42%	42%

Table 1: Summary Curbside Recycling Outreach Program

It is important to note that most commonly, households tagged with the “Left Behind” sticker had one to three non-compliant items. Less frequently, but still prevalent, were bins that had a large quantity of the same contaminating material (e.g. all film plastic and overwrap). Occasionally, the Curbside Outreach team found bins that had a high quantity of multiple types of contaminants.

Summary and Explanation of Common Contaminants

Table 2: Presence of contaminants per outreach day summarizes the common contaminants and their corresponding rates of occurrence, sorted by presence of the material per day of outreach.

Contaminant	Outreach days in which contaminant was present	
	#	%
Depot - Film	39	100%
Depot - Foam	39	100%
Multilaminate film	39	100%
Depot - Glass	37	95%
Unsortable material¹	34	87%
Products - Plastic	32	82%
Products - Metal	31	79%
Household Hazardous Waste	26	67%
Electronics	16	41%
Soiled Paper	16	41%
Products – Mixed Material	14	36%
Other	13	33%
Loose shredded paper	3	8%
Total Days of Outreach	39	

Table 2: Presence of contaminants per outreach day

The most common contaminants were film (Recycle BC’s “Plastic Bags and Overwrap” stream), Styrofoam (Recycle BC’s “Foam Packaging” stream), multi-laminate film plastics (mostly falling into Recycle BC’s new stream “Other Flexible Plastic Packaging”), glass (Recycle BC’s “Glass Containers” stream), and un-sortable material.

¹ As defined by Recycle BC, un-sortable material refers to material that may otherwise be accepted and recyclable, but has been placed in collection containers by residents in a manner that does not allow the material to be recycled.

The multi-laminate film category included materials that are accepted in the new Recycle BC stream “Other Flexible Plastic Packaging”, which has been collected by voluntary depots since June 2018. Common examples of multi-laminate include coffee bags, stand up pouches for frozen foods and dried foods, chip bags, candy bar wrappers, as well as non-recyclable paper- and plastic-layered bags, such as dog food bags and tortilla chip bags.

Relatively common contaminants were materials that fall out of scope of the Recycle BC Residential Paper and Packaging program. These included: plastic products, like water bottles, Rubbermaid totes, ice cube trays, paint trays, and hangers; and metal products, like baking sheets, frying pans, and coffee thermoses. Less commonly present were mixed material products, like childrens’ toys, binders, and shower heads.

Although it was less prevalent, the presence of household hazardous waste (HHW) in curbside recycling continues to pose issues for worker and environmental safety. Materials identified as HHW included motor oil containers, antifreeze/coolant containers, containers for other flammable materials, pesticide containers, and aerosol paint cans. Examples of uncommon hazardous, but more dangerous items, include propane tanks, helium tanks, saw blades, kitchen knives, and potentially hazardous medical waste like syringe casing (without needles) and personal hygiene products infected with human waste.

Electronic items included solar lights, electrical cords, batteries and light bulbs, all of which are items accepted for free recycling at a number of depots across the region. Other items of note include: a pair of clogs, a broken ceramic zebra lawn ornament, garden hose, toilet seats, and vehicle parts.

Resident Interactions

The Curbside Outreach team interacted with 223 residents, of which 93% (207) were positive and well received by residents. Many of these residents appreciated being able to see the materials in question, and took the opportunity to ask about other questionable materials, and general curbside collection inquiries. Generally, the interactions that ended positively tended to begin with the residents expressing dissatisfaction with the current curbside collection program not accepting materials like glass, Styrofoam and film plastic, which are accepted at depots only. Once the collection and sorting process was explained, these residents stated they understood the rationale, but still expressed their desire for these items to be included as part of curbside collection.

The Curbside Outreach team was not able to conclude the remaining 7% (16) of interactions positively; the main concern from these residents was general frustration with recycling as a whole, or their desire to have all recyclables collected as part of the curbside collection program (e.g. glass, film plastic and Styrofoam which are currently accepted at depots only). Two of the interactions involved residents that were concerned about their privacy, and out of respect for their concern, they were excused from the audit.

Implications

Recycling Outreach reinforces the Recycle BC audit data of which materials should be of focus in resident education. The results have been shared with Waste Connections, and resulted in a series of collection driver education session(s) to ensure a thorough understanding and consistency of the in-scope materials accepted as part of the Recycle BC curbside program.

Recycling Outreach continues to be an excellent opportunity to interact with residents. With a well established recycling program, many residents' have developed habits which can be challenging to modify. Curbside Outreach allows RDN staff to communicate changes in recycling streams through face-to-face interactions and tagging physical materials. Curbside Outreach serves an important component of resident education and outreach, alongside education activities such as public events, newsletters, school education program, brochures, and social media. The new Solid Waste Management Plan proposes an Expanded Zero Waste Education program, which will make a greater emphasis on adult education. The RDN will continue to strive to improve recycling rates as we work to advance the goals of the Solid Waste Management Plan.

Audit data can be used to assess the RDNs improvement in reducing contamination since the launch of the Recycle BC program in 2014. Attachment 4 provides data sets for: 1) contamination rates from Recycle BC since the program start; 2) comparison of RDN contamination rates to program averages; 3) contamination rates of major cities across the nation; and 4) disposal rates for regional districts across BC. It is important to note, these data sets do not directly correlate with the Curbside Outreach audit data due to a number of factors, such as program differences between regional districts, including if the program is single- or multi-stream, participation rates, and how the contamination is measured (e.g. by weight, volume, household, or number of items). Nevertheless, the data does show that the RDN has extremely low contamination rates on a comparative basis nationally.

Garbage Outreach

In 2018, the Curbside Outreach Program was extended for two collection weeks to include a Garbage Outreach component, with the intention of gathering data on households setting out excessive volumes of garbage, use of non-rigid containers, and identification of secondary suites. This information will be used as part of the curbside collection evaluation as these issues will need to be addressed in the upcoming procurement process.

The curbside team inspected households with over the one bin of garbage limit. These households would be recorded as being compliant or non-compliant. Compliant households had either an extra garbage tag attached to their bins, or were on the secondary suites list. Households were considered non-compliant if they had set out garbage well over 100 litres in volume and did not use an extra garbage tag or were not on the secondary suites list. The non-compliant bins were affixed with an extra garbage tag and a letter explaining the allowable garbage weights and volumes, and the extra garbage tag system. The addresses of the non-compliant households were recorded.

The results of Garbage Outreach can be found in Table 3, below.

Date	Route	Total Count	# with Tags	# On 2 nd Suite List	# Non-Compliant	% Non-Compliant
April 30	RE	750* ²	NR ³	NR	21	2.8%
May 1	RA	1650*	NR	1	28	1.7%
May 16	RB	344	6	1	16	4.7%
May 17	RC	756	9	3	24	3.2%
May 18	RD	187	9	3	25	13.4%
June 12	RE	344	7	4	24	7.0%
June 13	RA	205	6	1	15	7.3%
June 29	RC	469	9	1	29	6.2%
July 3	RD	306	16	4	30	9.8%
July 27	RB	336	8	1	13	3.9%
Total /Average	10	5347	70	19	225	6.0%

Table 3: Garbage Outreach Results

ALTERNATIVES

This report is provided for information purposes only.

FINANCIAL IMPLICATIONS

In 2019, the RDN will receive approximately \$1,130,000 from Recycle BC to collect residential recycling on their behalf. Of the Recycle BC funding, approximately \$51,000 is provided to cover increased administration of the program and \$21,000 for education.

STRATEGIC PLAN IMPLICATIONS

Recycling Outreach is funded through the education and administration portion of monies received by Recycle BC. Consistent with the “*focus on organizational excellence and services*” as set out in the Strategic Plan, Recycling Outreach has been effective in minimizing contamination in the recycling stream as part of our contractual obligation with Recycle BC. Additionally, the education efforts are anticipated to increase diversion of solid waste and recycling to align with the diversion goals as defined in the newly approved Solid Waste Management Plan.

² * – The total counts for these days were estimated by conducting a rough parcel count in the RDN GIS system.

³ NR – Not recorded.



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December 12, 2018

Reviewed by:

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- R. Alexander, General Manager, Regional and Community Utilities
- P. Carlyle, Chief Administrative Officer

Attachments

1. Map of Current Curbside Collection Routes
2. "Left Behind" and "Thank You for Recycling" Stickers
3. 2018 Curbside Recycling Outreach Results
4. Comparison of Contamination Rates