



PHASE TWO IMPLEMENTATION PLAN

PRESENTATION: THE SECOND PHASE OF THE SORT-TOSS-ROLL AUTOMATED SOLID WASTE COLLECTION SERVICES ROLL OUT



**GLOBAL AFFINITY
COMMUNICATIONS INC.**

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**PHASE 1
2 TRUCKS**

**PHASE 2
an additional
6 TRUCKS**

**PHASE 1
Over 23,000 carts
delivered to
8,000 homes**

**PHASE 2
Over 53,000
carts delivered
to 20,000
homes**

+ EXECUTIVE SUMMARY

The successful implementation of phase one in October 2017 has assisted City staff in preparing for phase two, using a similar implementation and communications strategy, and incorporating lessons learned.

PHASE ONE OVERVIEW

The implementation of phase one was a success due to a strong and diverse communications strategy, and the ability for the contractors to complete delivery within the given time frame.



PHASE ONE – COMMUNICATIONS PLAN

Highlights

- Staff used all possible communication channels, and kept the message clear and consistent.
- Residents were informed through several press releases, print advertising, door hangers, newsletters, web and social media, downloadable materials, videos, radio messaging and customized letters.
- One-on-one communication through the Sort Toss Roll hotline, outreach events and displays, and ambassador program.



PHASE ONE – IMPLEMENTATION

- Ten routes were selected in Central Nanaimo to participate in phase one.
- The supplier loaded delivery trucks, each with all sizes of one cart type (i.e. one truck for blue recycling carts, one truck for green organics carts and one truck for black waste carts).
- Carts were assembled in the back of the trucks as crews worked through their delivery route.
- Sort Toss Roll Guides were attached to each organics cart.
- Carts were scanned and left at each address as they should be placed for collection.



AMBASSADOR PROGRAM

Ambassadors talked to residents about the Sort Toss Roll program as the carts were being delivered, allowing the delivery crew to stay on task and providing personalized responses to resident's questions.



- Ambassadors talked to 2,665 residents (over 1/3 of the homes that received carts).
- Of those residents, only 55 (2%) had an issue that needed to be resolved by referring him or her to a City staff member.
- The remaining 98% (2,610) of residents were either happy with the program, or were satisfied with the answers they received to their questions.

*A happy resident conversing with an ambassador.
Image credit: Global Affinity Communications*

CART EXCHANGE

Residents were asked to try the standard set of carts for the first three months of service.

- February was the “free cart exchange month” where residents could change the size of their carts without paying the standard \$25 change-out fee.
- **Cart exchange options were as follows:**
 - **Garbage cart:** upsizing to 360L (\$100 garbage rate increase apply).
 - **Recycling cart:** free to upsize or downsize.
 - **Organics cart:** No option to upsize.

CART	STANDARD CAPACITY (litres)	UPSIZING OPTION (litres)	COST TO SWAP OUT CARTS IF OUTSIDE “FREE SWAP MONTH”*	ADDITIONAL ANNUAL COST FOR UPSIZING
GREEN - organics (kitchen & yard waste)	120	N/A	N/A	N/A
BLUE - recycling	240	360	\$25	FREE
BLACK - garbage	120	240	\$25	\$100

RESIDENT FEEDBACK AFTER PHASE ONE

On March 1, 2018, residents in an automated neighborhood were asked what they thought of the new system after their collection.



"I love the new system! Nothing but the best. I do a lot of gardening and the green [cart] is always full." - Gordon Smidts

"I like the new system. I would love a bigger green bin for more yard waste, but besides that [the program] works well. But I never know when the trucks are coming because the new ones are so quiet!" - Stuart Collins



Please note: Each person featured in the testimonials gave their permission to use their photo and/or testimonial in a report and presentation to council. Photo credits: Global Affinity Communications Inc.

RESIDENT FEEDBACK AFTER PHASE ONE



"The system is good, easy to wheel and less physical, [and it] solves the issue of rain soaking the bags and bins and recycling flying down the street. Plus the [recycling] cart is big enough to fit everything." - Tom Star (no photo)

"I like the new system. I can't think of anything bad to say, they're great!" - F.B (no photo)



Please note: Each person featured in the testimonials gave their permission to use their photo and/or testimonial in a report and presentation to council. Photo credits: Global Affinity Communications Inc.

PHASE ONE RECOMMENDATIONS

ADMINISTRATIVE

- Software training refresher
- Provide two sets of carts for bare-land stratas
- Review fourplexes case by case (as to whether they should split sets)
- Allow ample time for data uploads
- Adjust data to remove unoccupied addresses
- Address special programs (Medical Program and Carry Out Service)

OPERATIONAL

- Alley service trial runs prior to start
- Optimize max route size
- Make a customized route map book for each truck/driver

PHASE ONE RECOMMENDATIONS

COMMUNICATIONS

- Continue public engagement/outreach and displays
- Send letters regarding 'special exceptions'
- Communicate what to do with the yellow bags
- Allow ample time for data uploads
- Ensure accurate collection schedules are delivered well in advance
- Address special programs (Medical Program and Carry Out Service)

Con't.

- Use service or printer with in-house addressing equipment for mail-outs
- Provide two guide booklets to duplexes/homes with suites
- Publicize delivery schedule and method to reduce volume of calls from residents asking when their carts will be delivered

PHASE ONE RECOMMENDATIONS

CARTS

- Secure a centrally located staging area with paved surface
- Communicate delivery logistics to residents (see communications)



TRUCKS

- Provide ergonomic driver training
- Make mirror improvements
- Provide training on onboard scale operation
- Identify optimal onboard computer screen placement



**6 new
automated
trucks will
arrive**

**Over 53,000
carts will be
delivered to
20,000 homes**



PHASE TWO IMPLEMENTATION PLAN

Phase two will be carried out in a similar fashion to phase one, incorporating lessons learned and building upon delivery efficiencies.

**All routes will
be automated
by July 30,
2018**

OPERATIONS PLAN

1) PROJECT COMMENCEMENT

JANUARY - APRIL

2) PROCUREMENT PERIOD

MARCH - MAY

3) IMPLEMENTATION (ASSISTANT)

APRIL - AUGUST

4) IMPLEMENTATION (ROLL OUT)

MARCH - NOVEMBER

IMPLEMENTATION PLAN

1) Project commencement

Task

- Detailed project plan and review
- Communications plan
- GIS Mapping of new routes
- Tempest data extraction
- Confirm roll out plan/dates with suppliers
- Inovadel phase two training
- Troubleshoot problem locations
- Confirm cart staging area
- Confirm organics processing

Timeline

- Jan – Mar
- Jan – Mar
- Jan – Mar
- Mar
- Mar
- Apr
- Mar – Apr
- Mar
- Jan – Mar



IMPLEMENTATION PLAN

2) Procurement period

Much like transit bus advertising, there is potential to generate revenue from the sale of advertising space on the side of refuse collection trucks.

- **Truck advertising RFP (tentative)**

- Potential revenue \$50,000-\$100,000
- Suggested external firm manage space
- Minimum 2 month period to avoid disruptions
- Value needs to be weighed against loss of identity and City messaging

- **Timeline: April (prepare) – May (award)**



IMPLEMENTATION PLAN

3) STR implementation assistant work

Task

- Contamination reduction program
- Promotional events and locations
- Cart swap database

Timeline

- Apr – Jun
- Apr – Jun
- Jun – Aug



IMPLEMENTATION PLAN

4) Phase two roll out

Task

- Crew training
- MILESTONE – Small truck delivered
- MILESTONE – 2 large trucks delivered
- MILESTONE – 3 large trucks delivered
- Carts arrive at staging area
- Carts are delivered
- MILESTONE – All trucks operational
- Cart trial period (tag-a-bag accepted)
- Cart swap available (Nov = free month)

Timeline

- Mar– Jul
- Mar– Apr
- May
- Jun
- Jun
- June – Jul
- Jul
- Aug – Oct
- Nov – Jan



IMPLEMENTATION PLAN

4) Phase two roll out

- The supplier will meet at staging area each morning, load delivery trucks, each with all sizes of one cart type (i.e. one truck for blue recycling carts, one truck for green organics carts and one truck for black waste carts).
- Scanners and routes will be confirmed.
- Crews will arrive at route starting point and assemble/deliver carts.
- Crews will scan each cart barcode to the correct address and leave carts as they should be placed for collection.
- Sort Toss Roll Guides will be attached to each organics cart.
- Crews will communicate with City staff to troubleshoot any issues that arise.



COMMUNICATIONS PLAN

AWARENESS BUILDING

JAN – JAN '19

- Online communications
- Print communications
- Radio advertising
- Video production
- Community outreach
- Other communications initiatives

PARTICIPATION BUILDING AND EVALUATION

MARCH – DEC.

- Advertising
- Program evaluation

COMMUNICATIONS PLAN

Awareness Building

Boost public awareness about the roll out through:

1. Online communications (website, newsletter, social media, press releases)
2. Print communications (in-house design, update 2017)
3. Radio advertising (10 messages)
4. Video production (4 new videos)
5. Community outreach at city facilities, Trunk Sale, VIEX, (April – Aug)
6. Other communications initiatives (training/council)



AWARENESS BUILDING

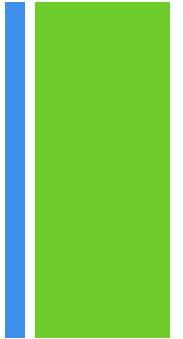
JAN – JAN '19

Already begun
production/placement
of
print/radio/video/online
communications

AWARENESS BUILDING TASKS	PRODUCTION TIMELINE	PLACEMENT/ EXECUTION
1. Online Communications		
a. Sort Toss Roll hotline and email address		January - January '19
b. City webpages	February	March - January '19
c. City newsletter	January	February
d. Social media – promotion of videos/key messages	March	December
e. Press releases	March - June	April - November
2. Print Communication and Advertising		
a. FAQ booklet	March	April - June
b. The factsheet	March	April - June
c. Print ad "Sort Toss Roll: The Facts"	March	April - June
d. Door hanger	March	April - June
e. Truck signage	March	April - June
f. Sort Toss Roll guides – delivered with carts	February	June - July
g. Print ad "Sort Toss Roll Coming Soon"	February	April - June
h. Recollect automation edition- graphic design, etc.	April	May - January '19
i. Letters to suites and exceptions	February	March - May
j. Assistance programs and eligibility	March	June - July
3. Radio Advertisement		
a. "Download the App"	February	February
b. "Contamination"	February	Mid March
c. "Automation is Coming"	February	Late March
d. "New Calendar"	February	Early April
e. "Carts are Being Delivered"	February	April - May
f. "Automation is Here"	February	Early June
g. "Trunk Sale"	February	Late June, Early July
h. "Contamination"	February	August, October
i. "Free Swap Month for Carts"	February	September
j. "Christmas Message"	February	December
4. Video Production		
a. Automation phase two into	March	April - June
b. At the recycling facility	January	February – June
c. Automation user guide video	March	April - June
d. Automation tips	May	June - August
5. Community Outreach		
a. Displays in City facilities		April – June
b. Trunk sale		July
c. Vancouver Island Exhibition		August
6. Other Communication Initiatives		
a. Staff orientation and training		April - June
b. Council briefings		March, September

COMMUNICATIONS PLAN

Participation Building and Evaluation



Boost participation and program satisfaction post roll out through:

■ Advertising

- Print (cart size exchange options, free swap month)
- Resizing video
- City newsletter

■ Program evaluation

- Apply for recognition awards (SWANA – Awareness Campaign Excellence Award, and UBCM Community Excellence Awards)
- Evaluation survey (Develop Dec – Jan '19)
- Evaluation analysis and reporting (March– May ' 19)

■ Aug – Sept

■ Apr – May '19





RISK MANAGEMENT PLAN

City staff are working to avoid all potential risks, however four risks have been identified that could affect the proposed project timeline and/or budget. The following table identifies each potential risk and the ranking of the potential outcome.

RISK MANAGEMENT PLAN

- **LOW:** **Capacity of organics processing** – City is confident that RDN and Nanaimo Organic Waste continue to process organic waste.
- **LOW:** **Availability of ideal staging area** – In the unlikely event that a suitable staging area is not found, the Public Works yard will be used.
- **MODERATE:** **Delay in cart delivery** – Rehrig Pacific Co. operates a ‘just in time’ policy. The City is confident there will be no delays to disrupt the current plan.
- **SIGNIFICANT:** **Delay in truck delivery** – The final six trucks will be supplied and delivered by Rollins Machinery in May/June and be operational by July 30. Best to avoid delays.

Risk Name	Probability	Impact	Risk Rank	Risk Response	Risk Owner
Capacity of Organics Processing	1	1	Low	Mitigate	CoN, RDN, NOW
Delay in truck delivery	2	4	Significant	Avoid	CoN, Rollins Equipment
Delay in cart delivery	1	4	Moderate	Avoid	CoN, RPC
Availability of ideal staging area	1	2	Low	Mitigate	CoN



+ FUTURE CONSIDERATIONS AND OPPORTUNITIES

Learning from other automated communities, and reviewing the long-term future plan for the City of Nanaimo, the following future considerations and opportunities should be reviewed and incorporated into future planning and communications.

FUTURE CONSIDERATIONS AND OPPORTUNITIES

Summer
2018

- **Revenue generation through truck advertising**
- Closure of Nanaimo Recycling Exchange
- Changes to 'Carry Out Service'
- Changes to 'Medical Program'

Spring
2019

- Satisfaction survey

Summer
2019

- New route to meet City growth
- Incentivize higher diversion
- Changes to the waste stream collection frequency

Winter
2019

- Driver shift changes

FUTURE CONSIDERATIONS AND OPPORTUNITIES

Closure of Nanaimo Recycling Exchange (Spring)

The Nanaimo Recycling Exchange (NRE) will cease operations in spring, 2018.



- The NRE recycles 8,000 tonnes of waste a year, 83% of users are City residents.
- NRE recycles for for Zero Waste; many of the items collected are not able to be recycled elsewhere.
- Impacts could include increased garbage/landfill material and increased contamination of the curbside-recycling stream caused by “wish-cycling” and misinformation/confusion.

Staff will develop a strong communication strategy to remind residents of their disposal options and review curbside contamination.

Promotion of the Nanaimo Recycles app will help residents figure out where to take their recyclables that cannot be collected curbside.

FUTURE CONSIDERATIONS AND OPPORTUNITIES

‘Carry Out Service’ (Summer, 2018)

The ‘carry out service’ is currently available for residents who are living alone and are not physically able to place their waste at the curb for collection.

CRITERIA

Waste is collected from a pre-agreed location from the resident’s property and placed in the garbage truck by the refuse collector.

City staff will visit the property and confirm eligibility. The resident must:

- Live alone
- Have no family/neighbor to help
- Have impaired mobility
- Have a medical note

The program is a ‘nice to have’ service that is currently not advertised. The City plans to define the verification process, post online and notify VIHA.

VERIFICATION FORM

Carry Out Service Verification of Eligibility

The purpose of this form is to obtain information about the applicant’s physical and/or cognitive functional ability, verifying that he or she is unable to participate in the City of Nanaimo’s regular curbside waste collection service and requires additional waste collection support.

This form is to be filled out by sanitation staff at the applicant’s home during an onsite visit. The onsite visit will help staff understand whether the resident meets the program eligibility requirements and allows staff to identify an agreed upon waste collection point. This form must be completed in full and returned to public works.

Applicant Information

First and Last Name:			
Phone:		Age:	
Email:			
Street Address:			
Mailing Address (if different from above):			
Reason for joining program:			

Eligibility Requirements (All must be checked)

- ☐ Resident lives alone (no other tenants on the property)
- ☐ Resident does not have a close neighbour or family member who is willing to put waste at the curb for them
- ☐ Resident’s mobility is impaired such that they are not able to wheel the new automated carts to the curb
- ☐ Resident has a medical note to prove their eligibility for the service

The pre-agreed waste collection location is: _____

- ☐ I certify that I have verified the above requirements, identified the pre-agreed waste collection location for waste, recycling and organics, and the applicant understands this change in service.

Signature (City staff)

Print Name (City staff)

Signature (applicant)

Print Name (applicant)

FUTURE CONSIDERATIONS AND OPPORTUNITIES 'Medical Program' (Summer, 2018)

The Medical program is available for residents who have certain medical conditions that result in the production of excessive waste.

CRITERIA

Eligible residents will be entitled to have their cart upsized, but they must prove that they will have more waste than is provided in the new wheeled carts.

Criteria includes: being a recipient of either dialysis, wound care or brain related illness/injury, and have a medical note proving their need for excessive medical waste.

The program is a 'nice to have' service that is currently not advertised. The City plans to define the verification process, post online and notify VIHA.

VERIFICATION FORM

Medical Service Verification of Eligibility

The purpose of this form is to obtain information about the applicant's medical condition, verifying that he or she requires a larger wheeled waste cart that what was provided by the City of Nanaimo, at no additional cost. *Upsizing a cart will not be done by default, since the new carts offer 55% more volume than a typical garbage can.*

This form is to be filled out by sanitation staff at the applicant's home during an onsite visit. The onsite visit will help staff understand whether the resident meets the program eligibility requirements and allows staff to identify an agreed upon waste collection point. This form must be completed in full and returned to public works.

Applicant Information

First and Last Name:			
Phone:		Age:	
Email:			
Street Address:			
Mailing Address (if different from above):			
Reason for joining program:			

Eligibility Requirements

- ☐ Resident has a medical note to prove their eligibility for the service (must have)

Resident has one of the following (check one)

- | | |
|---|--|
| <input type="checkbox"/> Resident is a recipient of dialysis | <input type="checkbox"/> Resident is a recipient of wound care |
| <input type="checkbox"/> Resident has a brain injury or brain related illness | <input type="checkbox"/> Other: (describe) _____ |

To be completed by City staff member

- ☐ I certify that I have verified the above requirements, identified that the applicant requires a larger waste cart at no additional cost.

Signature (City staff)

Print Name (City staff)

Signature (applicant)

Print Name (applicant)

FUTURE CONSIDERATIONS AND OPPORTUNITIES

Satisfaction survey (Spring, 2019)

Conduct a survey to identify resident's level of satisfaction with the program, as well as identify opportunities to further improve waste reduction.



Key survey areas will measure the following:

- Satisfaction with managing change
- Satisfaction with carts
- Satisfaction with collections on route
- Satisfaction with the program overall
- Identify this program requires further changes
- Gauge whether residents would support future initiatives such as improving diversion rates (through incentivized diversion) and changes to waste stream collection frequency

FUTURE CONSIDERATIONS AND OPPORTUNITIES

Incentivize Higher Diversion (Summer, 2019)

Once the second phase of automation is fully implemented, the City will begin to work on improving the current diversion rate.



REFERENCE GUIDE | PLEASE READ CAREFULLY

Your guide to the waste reduction strategy, the new automated waste collection and the incentive tariff



beaconsfield.ca

- Investigate introducing 'Pay as you throw' system similar to 'Smart Collection' in Beaconsfield, QC.
- The RFID technology inside the wheeled carts gives the City the ability to keep track of how often residents set out their carts.
- By allowing unlimited set outs of recycling, and only 12 set outs of garbage and organics annually as part of the base fee, residents would find ways to recycle more.
- **Benefits:** Decreased weekly participation should reduce strain on collection routes, improving efficiencies and incentivizing residents to be very mindful of their waste.

FUTURE CONSIDERATIONS AND OPPORTUNITIES

New route to meet city growth (Summer, 2019)

Population growth will have an impact on the capacity of waste collection in the City of Nanaimo. The city will need a new collection route once the population reaches 29,000.

To address this issue with minimal disruption to scheduling and routing, it is recommended that the City:

- Order a new truck by late 2018
- Plan the new route
- Hire one additional driver

To alleviate strain in the short term, hiring a night service staff member may alleviate current waste collector's workload as a short-term solution.



FUTURE CONSIDERATIONS AND OPPORTUNITIES

Changes to collection frequency (Fall, 2019)

Based on volumes of waste by stream since implementing phase one, an alteration to the collection frequency of the organics and recycling streams should be investigated.



- Drivers note little organics in carts weekly, and overflowing recycling biweekly.
- It is recommended that the City continue monitoring automated waste collection to identify whether switching the frequency of organics and recycling would be more efficient.
- A full cost-benefit analysis of the potential change would be required before any alterations were put into place.
- 'Pay as you throw' may also alleviate this concern.

FUTURE CONSIDERATIONS AND OPPORTUNITIES

Driver shift changes (Winter, 2019)

Collection schedules change each month due to stat holidays. These ‘add-a-day’ schedules can be confusing for residents and costly to continuously print.

Sanitation staff have been working with payroll and CUPE to identify a solution.

- There is indication that moving to a 4 day work week (10 hour shifts, excluding Monday) instead of a 5 day work week will alleviate the ‘add-a-day’ confusion.

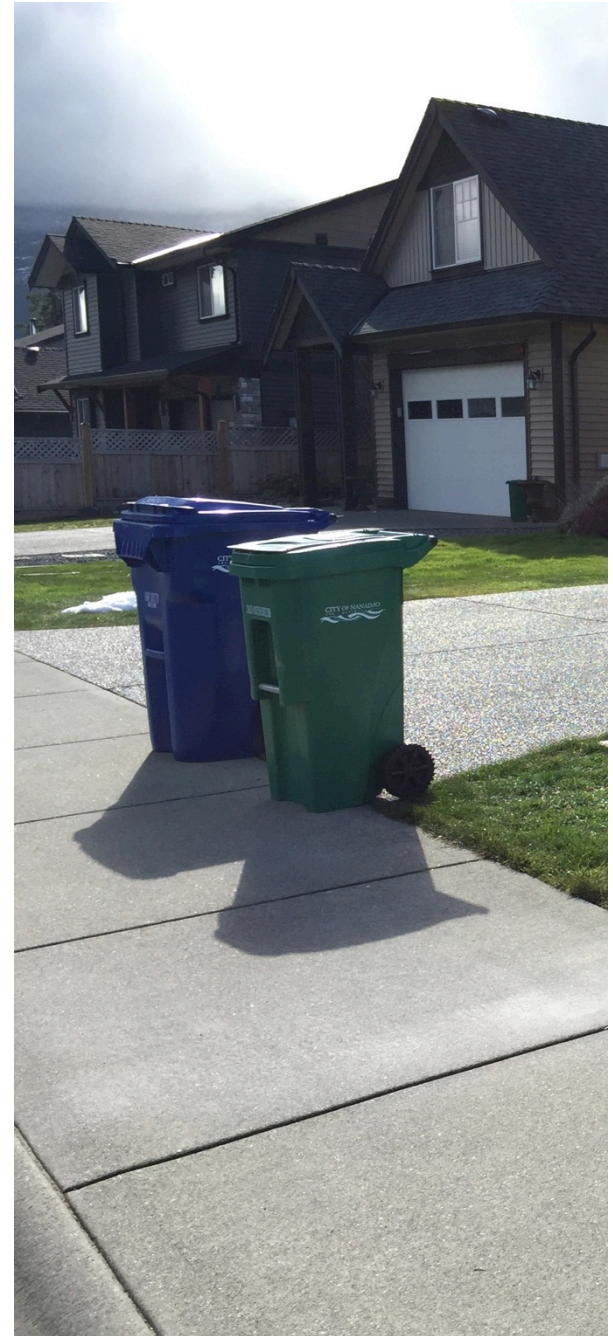


Prior to recommending this to council, a full cost-benefit analysis would be required.

Cost savings would include eliminating the continual publication and mailing of calendars. Cost increases would include additional wages (approximately \$100,000).

IN CONCLUSION

- Phase two is on schedule for summer, 2018.
- Residential communication was successful in phase one, and will be built upon for phase two.
- All lessons learned from phase one are incorporated in the implementation plan for phase two.
- Staff are taking steps to eliminate/mitigate risks.
- Future considerations will be further developed and presented.
- The details of this presentation are available in the Phase Two Implementation Plan report.





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