

DATE OF MEETING | MAY 28, 2018 |

AUTHORED BY | CHARLOTTE DAVIS, MANAGER OF SANITATION, RECYCLING AND PUBLIC WORKS ADMINISTRATION |

SUBJECT | **SORT TOSS ROLL PHASE TWO IMPLEMENTATION UPDATE** |

OVERVIEW

Purpose of Report

To advise Council of the Implementation Plan for rolling out the Phase 2, Sort Toss Roll program, and provide a status update as to the budget.

Recommendation

That the report “Sort Toss Roll Phase Two Implementation Update” dated, 2018-MAY-28, be received for information.

BACKGROUND

Phase One – Completed Winter 2017

Phase One of the Sort Toss Roll automated solid waste collection service was rolled out over a three week period in October, 2017, in central Nanaimo. Approximately 8,000 households received a set of wheeled carts consisting of a:

- blue recycling cart,
- green organics cart (food and yard waste), and
- waste/landfill cart.

The program has been popular with residents who generally prefer the wheeled carts to the old bins and bags. Residents are also pleased to receive the added yard waste service.

Key Statistics

- 8,000 homes.
- 2 new large automated trucks. Total cost \$857,482.
- 20,421 wheeled carts were delivered to residences. 1,400 were ordered for inventory purposes. Total cost, including delivery, \$1,362,248.
- Collection of organics has increased slightly; Staff expect to see the biggest increase during the summer months.
- Less than 4% of carts in the Phase One area have been exchanged; the majority of these requests are at residences with suites.

DISCUSSION

Lessons Learned

The phased implementation of the project has allowed Staff to learn as the program has rolled out. The lessons learned during Phase One will be applied for the implementation of Phase Two. Two key lessons learned in Phase One include:

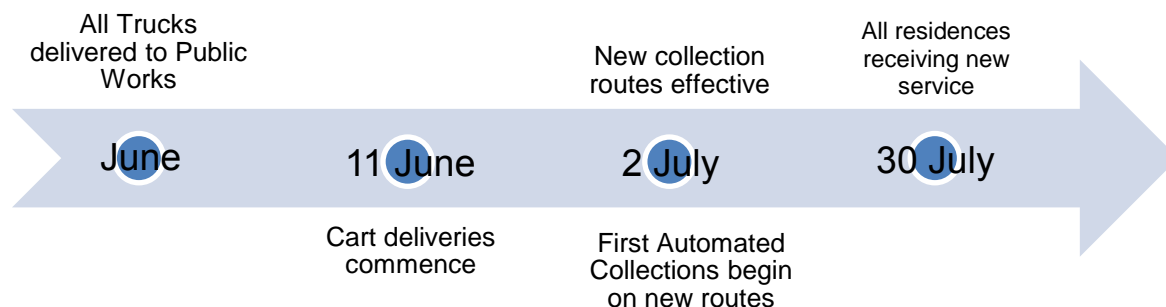
- The optimisation of collection routes: Staff found that the optimal maximum route size for the large truck is 650 stops per 8-hour shift, and
- Public engagement: The communications program was a success, in particular, the door hanger and the Sort Toss Roll booklet that was provided with the carts.

A matter of particular concern during Phase Two, is delivering the service in heavily parked areas and hard to access areas. Through research, Staff found that residents typically prefer alley service to communal collection points. In advance of going into alleys, Staff conducted a trial run with a mid-sized manual truck to ensure alley routes will work. Residents who will receive alley service will receive a letter detailing that their collection point has changed and the proposed start date for their new collection point.

Phase Two - Coming Summer 2018

Phase Two will be carried out in a similar fashion to Phase One, incorporating lessons learned and building upon delivery efficiencies. Roll out will occur over a six week period from June 11 to July 30.

Implementation Timeline



Key Statistics

- 20,000 homes.
- Six new automated trucks (5 large, one small). Total cost \$2,436,635.
- 53,193 wheeled carts expected to be delivered to homes. Total cost \$3,184,476 (including delivery).

Risks

Truck delay - Trucks have been delayed by three months. There was a delay at the chassis plant, compounded by rail car uncertainty. Staff originally specified delivery by the end of March, 2018. Staff are working closely with the equipment provider to ensure that new units are delivered in time for the roll out in July and any potential further delays are understood early so customer impacts can be mitigated. The delay in truck delivery will result in lower projected debt servicing costs in 2018 for the carts and trucks.

Organics processing – The City is continuing to work with the Regional District of Nanaimo (RDN) to process organic materials, with their contractor, Nanaimo Organic Waste. Due to the delay in upgrades at the plant, there has been no reduction in tipping fee for comingled organics as compared to kitchen waste only, as was originally anticipated; however, this additional cost was budgeted for 2018. It is anticipated that rates will drop once the facility upgrades are complete.

Financial Update

To keep Council informed on a timely basis, the following operations changes to timing and cost changes for Phase Two implementation are:

1. Implementation delayed – Due to delay in delivery of automated trucks, the final implementation phase will be delayed up to three months.
2. Tipping fee increase for organics – Staff have been advised of an increase in tipping fees for organic waste. The fee is increasing from \$129 per tonne to \$132 per tonne effective April 2018. This is projected to increase tipping fees for 2018 by \$60,000.
3. Increased cost for recycling contractor – Due to delay in final implementation, the City will need to continue having recycling collected by external contractor for an unbudgeted six week period. This is projected to increase costs by \$127,000.
4. Fleet Charges – Fleet charges are reduced in 2018 due to the delay in implementation of the project. This is projected to result in a savings of \$19,023.
5. Delay borrowing – Due to delay in delivery of trucks, borrowing will be delayed to July 2018. This is projected to result in a savings in debt servicing costs of \$321,274.

Total Project Cost

The entire cost for the Automated Waste Collection project consists of the following items

	May 2017 Business Case	Financial Plan Total	Projected Total	Notes regarding Projected Total
Carts	4,008,859	4,159,882	4,146,385	Slightly less than reported in Nov 2017
Cart Delivery	288,600	380,000	398,271	Slightly less than reported in Nov 2017
Implementation	150,000	150,492	152,103	Largely communication and logistics
Automated Trucks	3,122,758	3,236,635	3,294,117	As reported in Nov 2017
	7,570,217	7,927,009	7,990,875	
Less Phase I Fortis Grants			75,600	
Net Projected Final Cost			7,915,275	
Other anticipated cost savings include:				
• Phase 2 Fortis Grants			144,500	(Grant to be finalized)
• Delay in borrowing			321,274	(For 2018 only)
• Fleet charges			19,023	

In summary, the project costs are tracking at or slightly below the budget that was presented in Fall 2017 and approved in January 2018.

These funds do not include \$36,454 originally spent in 2015 on starting the program and the RFP to purchase the carts.

It is anticipated that there will be no impact to the 2018 Solid Waste Collection User Fee as a result of the operational changes. The user fee is expected to remain at \$165 annually per household for 2018 (\$3.17 weekly). However, user rates in future years may be impacted by the delayed borrowing costs.

Future Considerations

Once Phase Two is fully implemented, Staff will pursue a number of potential initiatives.

Medical Program and Carry Out Service - Staff put together a more structured qualification policy for these services, which provide assistance to those with specific illnesses that lead to the creation of more waste and to those with severe mobility issues living alone. These will be implemented alongside the roll out of Phase Two.

Revenue Generation through Advertising - Much like transit bus advertising, there is potential to generate revenue from the sale of advertising space on the side of refuse collection trucks. Preliminary discussions with advertising sales agencies have suggested potential annual revenue of between \$50,000 and \$100,000.

Incentivising Diversion - Once automated collection is fully implemented, the City will begin to work on improving the diversion rate. The most effective way to increase diversion is to incentivize residents to recycle more and throw away less by introducing “a pay as you throw system”. The Radio Frequency Identification (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 be encouraged to recycle more. Every additional set out of garbage or organics would be billed as extra, tracked by the RFID technology.

New Route to Meet Growth - Population growth will have an impact on the capacity of waste collection in the City. Staff anticipate that a new refuse collection route will be needed once the number of collections reach 29,000. Projections indicate that this number will be reached at the end of 2018. Staff recommends a new route be implemented in early 2019 and will bring forward a business case for this.

Addition of New Services - Following the implementation of the automated collection service, Staff will utilise a resident survey to understand the curbside collection needs of residents. Potential new curbside services could include collection of items, such as, glass and textiles. The provision of these services would need to be approved by Council following the production of a business case which would include the potential impact of the additional service to the solid waste user rate and the level of service already provided in the community for these materials (how easy is it to dispose of these items in our community through depots).

SUMMARY POINTS

- Phase One of the Sort Toss Roll Project was successfully completed in winter 2017.
- Phase Two of the Sort Toss Roll Project will begin implementation in June, 2018 and will be completed in July, 2018. By this time, all homes in Nanaimo will be receiving the new service, which includes the curbside collection of Yard Waste, a new service provided to residents.
- Staff have identified the project risks and are actively working to mitigate them.
- There have been some changes to operational costs, which will be offset by delaying borrowing by three months. There will be no impact to the 2018 Solid Waste Collection User Fee as a result of these changes. The user fee is expected to remain at \$165 annually per household for 2018 (\$3.17 weekly). User rates in future years may be impacted by the delayed borrowing.
- The total Automated Waste Collection project cost is projected at \$7,915,275.
- Staff have identified various future considerations that could roll out in 2019, the most impactful of which would be a “pay as you throw” system and new curbside services.

ATTACHMENTS

Attachment A - Phase Two Implementation Plan

Submitted by:

Charlotte Davis
Manager of Sanitation, Recycling and Public
Works Administration

Concurrence by:

Bill Sims
Director, Engineering and Public Works