

DATE OF MEETING | SEPTEMBER 18, 2019 |
AUTHORED BY | CHARLOTTE DAVIS, MANAGER, SANITATION, RECYCLING AND
PUBLIC WORKS ADMINISTRATION |
SUBJECT | **ADDITIONAL REFUSE COLLECTION FLEET** |

OVERVIEW

Purpose of Report

To obtain Council's approval to proceed with the purchase of two used refuse collection vehicles and expand the number of collection routes effective December 1, 2019. |

Recommendation

That the Finance and Audit Committee recommend that Council approve:

- a) The purchase of two used refuse collection trucks for the purposes of adding one spare unit to the fleet for maintenance reasons and putting one additional collection vehicle in service in order to reduce route sizes; and,
- b) Accelerating the start date of the additional Refuse Collector from January 2020 to December 1, 2019.

BACKGROUND

Starting in October 2017, the City of Nanaimo started a transition from manual garbage, recycling, and organics collection to fully automated collection. This transition was complete in July 2018. The anticipated benefits of this change included: reduced staff injury rates and severity, improved convenience to residents, and expanded service by allowing light yard waste to be included with kitchen scraps. Each of these anticipated benefits has been achieved and the new program has broadly achieved the goals set out.

Due to a number of factors, primarily an unprojected increase in new solid waste collection accounts, the Sanitation section is under-resourced in terms of fleet vehicles available to collect waste. The current under resourcing means that approximately 100-150 additional collection points have been added to individual routes already at capacity. The result of this is that it takes longer to complete collection routes and there is less time to perform preventative maintenance on these vehicles, additionally, the fleet is not large enough to be resilient to unscheduled downtime. Due to these issues there have been several times throughout the summer where collection routes have not been completed on their scheduled day of collection.

The 2019 - 2023 Financial Plan included \$114,880 for the purchase of one spare automated refuse unit to assist with maintenance issues in the Sanitation section. The intent at the time was not to bring an additional unit in to service but to add capacity to conduct preventative maintenance.

DISCUSSION

Fleet section staff have identified two used refuse collection trucks that are coming out of service from the City of Kelowna in October 2019. Staff inspected these vehicles on September, 12, 2019 and found that they were in serviceable condition.

Both vehicles are split body “Automizer” trucks; the same brand and configuration as the current sanitation fleet. The vehicles are 10 years old.

Staff had, had the intention of purchasing one vehicle and using that as a spare truck to facilitate an increased preventative maintenance schedule and build resiliency to unscheduled downtime. However, since two suitable and affordable units have been identified staff recommend the purchase of both units in order to reduce route sizes as well as tackle maintenance issues. Staff believe that an offer of \$30,000 for each unit would be appropriate.

The 2019 – 2023 Financial Plan includes a new Refuse Collector position beginning January 1, 2020. Staff recommend that the start date of the position be amended to December 1, 2019 and that the Refuse Collector will drive the new spare unit until the new truck arrives in May. The additional costs incurred in 2019 for the position will be offset by savings incurred by the delay to the hiring of the Zero Waste Coordinator.

Reasons for capacity issues

Upon implementation of Automated collection it was estimated that large collection vehicles would be able to service 600 service stops per day. The actual number that large trucks can service is more like 580 service stops per day. The smaller than anticipated capacity is due to longer than anticipated time required to pack waste at each home during recycling collections and longer than anticipated times required to dump at the recycling facility.

Over and above this issue has been the occurrence of unanticipated city growth. The 2019 operating budget and 2019-2023 capital plan were based on residential growth for curbside collection services of 1.5%. Through mid-2019, 657 residences at 544 stops were added at an annualized growth rate of almost 4%.

The additional required effort has been provided through a combination of overtime labour, increased use of the backup truck, and reassignment of labour to operate the backup truck.

At the time of writing, the sanitation fleet is operating at 112% capacity. By the time the ninth new unit arrives in June 2020, the fleet will be operating at 115% capacity if no additions are made to the fleet. There is a high risk of service failure related to unplanned maintenance.

Resolving capacity issues

It is for this reason that staff recommend the purchase two used units instead of one and that one of these units is entered into service in December 2019. This addition will reduce fleet capacity rates to 100%.

A staff report scheduled for a future Governance and Priorities meeting will address resolving capacity issues beyond 2020.

Staff continue to educate residents regarding the need to properly prepare their recycling by ensuring that all materials are flattened and appropriately sized. More progress in this area is anticipated once the Zero Waste Coordinator role is filled.

OPTIONS

Option 1. That the Finance and Audit Committee recommend that Council approve:

- a. The purchase of two used refuse collection trucks for the purposes of adding one spare unit to the fleet for maintenance reasons and putting one additional collection vehicle in service in order to reduce route sizes.
 - b. Accelerating the start date of the additional Refuse Collector from January 2020 to December 1, 2019.
- The advantages of this option are that preventative maintenance on sanitation fleet can be increased and the impact of unscheduled downtime would be reduced. Additionally, by purchasing the second unit, collection routes can be reduced closer to their intended capacity. An outcome of smaller collection routes will be less wear and tear on the existing fleet and also more availability for the Fleet section to access the trucks for repair and maintenance work. There are financial advantages in purchasing these vehicles direct from the vendor (The City of Kelowna) as opposed to going through a dealer.
 - The disadvantages of this option are that it would result in one additional unit in service full time, the result being increased maintenance costs. Staff would be adding one collection route one month earlier than budgeted. The impact would be one months of pay for one additional refuse collector.
 - Financial Implications:

One time costs- To be covered by preapproved 2019-2023 capital plan

Item	Each	Number	Total
Purchase of units	\$ 30,000	2	\$ 60,000
Transportation costs	\$ 5,000	2	\$ 10,000
Repairs to put trucks in service	\$ 10,000	2	\$ 20,000
Total			\$ 90,000.00
Budget			\$ 114,800.00
Difference			\$ 24,800.00

Operating costs- To be covered by 2020-2024 operating budget

* Spare units will service routes alternating weekly

Item	Each	Number	Total
Annual Maintenance cost	\$ 17,036	2	\$ 34,072
Annual Insurance Cost	\$ 2,058	2	\$ 4,116
Fuel costs - Unit 1	\$ 16,000	1	\$ 16,000
Fuel costs - Unit 2	\$ 6,705	1	\$ 6,705
MVI, Tires, Misc	\$ 6,764	2	\$ 13,529
Total			\$ 74,421.89

Additional unbudgeted costs- To be covered by 2019 operating budget

Item	Each	Number	Total
Additional refuse collector 1 month	\$ 11,178	1	\$ 11,178
Total			\$ 11,178.00

Option 2. That the Finance and Audit Committee recommend that Council approve:

The purchase of two used refuse collection trucks for the purposes of adding two spare units to the fleet for maintenance reasons.

- The advantages of this option are that preventative maintenance on sanitation fleet can be increased over an above that of option 1 and the impact of unscheduled downtime would be reduced further. There are financial advantages in purchasing these vehicles direct from the vendor (The City of Kelowna) as opposed to going through a dealer.
- The disadvantages of this option are that it does not facilitate the reduction of route sizes. There would be no less pressure applied to the active units of the collection fleet meaning that downtime would not be reduced. The Sanitation section would remain reliant on additional labour and overtime to complete collection routes.
- Financial Implications:

One time costs- To be covered by preapproved 2019-2023 capital plan

Item	Each	Number	Total
Purchase of units	\$ 30,000	2	\$ 60,000
Transportation costs	\$ 5,000	2	\$ 10,000
MVI & repairs to put trucks in service	\$ 10,000	2	\$ 20,000
Total			\$ 90,000.00
Budget			\$ 114,800.00
Difference			\$ 24,800.00

Operating costs- To be covered by 2020-2024 operating budget

* Spare units will be used as spares only

Item	Each	Number	Total
Annual Maintenance cost	\$ 8,518	2	\$ 17,036
Annual Insurance Cost	\$ 2,058	2	\$ 4,116
Fuel costs	\$ 6,705	2	\$ 13,410
MVI, Tires, Misc	\$ 6,764	2	\$ 13,529
Total			\$ 48,090.54

Option 3. That the Finance and Audit Committee recommend that Council approve:

The purchase of one used refuse collection truck for the purposes of adding one spare unit to the fleet.

- The advantages of this option are that preventative maintenance on sanitation fleet can be increased and the impact of unscheduled downtime would be reduced. Since a second unit would not be purchased there would be no increased maintenance over what was originally approved. Additionally, there would be no costs associated with adding an additional collection route one month early.
- The disadvantages of this option are that it would not resolve the issue of over capacity collection routes currently experienced by the Sanitation section. The section would continue to struggle to complete collection routes as scheduled.

- Financial Implications:

One time costs- To be covered by preapproved 2019-2023 capital plan

Item	Each	Number	Total
Purchase of units	\$ 30,000	1	\$ 30,000
Transportation costs	\$ 5,000	1	\$ 5,000
MVI & repairs to put trucks in service	\$ 10,000	1	\$ 10,000
Total			\$ 45,000.00
Budget			\$ 114,800.00
Difference			\$ 69,800.00

Operating costs- To be covered by 2020-2024 operating budget

* Spare unit will be used as spare only

Item	Each	Number	Total
Annual Maintenance cost	\$ 8,518	1	\$ 8,518
Annual Insurance Cost	\$ 2,058	1	\$ 2,058
Fuel costs	\$ 6,705	1	\$ 6,705
MVI, Tires, Misc	\$ 6,764	1	\$ 6,764
Total			\$ 24,045.27

SUMMARY POINTS

- The Sanitation fleet is currently under resourced.
- Should the Finance and Audit Committee approve the recommendation, two used units will be purchased; one unit will serve as a true “spare” and one unit will be placed into service meaning that a new collection route will be added approximately one month earlier than anticipated.
- The purchase of two used spare refuse collection vehicles falls within the original capital budget approved by Council for the purchase of one vehicle.

Submitted by:

Charlotte Davis
Manager, Sanitation, Recycling and Public
Works Administration

Concurrence by:

John Elliot
Director, Public Works

Laura Mercer
Director, Finance