

May 25, 2017

Email: [REDACTED]

Dear [REDACTED]:

**Re: Request for Access to Information Under Part II
of the Access to Information and Protection Privacy Act**

On May 3, 2017, the City of St. John's received your request for access to the following information:

"ALL THE INFORMATION that Coun. Breen used to come up with his \$30,000 savings re: automated garbage. Also HAS Council done a proper cost benefit analysis re: AUTOMATED GARBAGE."

Enclosed is the information you requested. As the provision of the information constitutes full disclosure, we now consider this matter completed and will be closing the file.

If you have any further questions, please feel free to contact me by telephone at 576-8619 or by e-mail at kchafe@stjohns.ca.

Yours truly,



Karen Chafe
ATIPP Coordinator

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DECISION/DIRECTION NOTE

Title: Automated Garbage Collection
Date Prepared: October 3, 2016
Report To: Public Works Standing Committee
Councilor and Role: Councilor Danny Breen, Chair
Ward: All Wards

Decision/Direction Required:

Approval to proceed with implementing an Automated Garbage Collection Program.

Discussion – Background and Current Status:

Automated garbage collection consists of specially designed wheeled carts and collection vehicles equipped with automated arms. Residents place these carts in designated spots on the curb and a single operator picks up and dumps the carts using an articulated arm controlled from the truck cab.

Automated garbage collection has been adopted in many municipalities across Canada, and is quickly becoming the industry standard. There are many advantages to moving towards an automated collection program:

- Greater efficiencies than traditional manual collection means more households can be serviced by one vehicle and operator.
- Significant reductions in physical effort required by operators equates to decreased instances of workplace injuries and associated compensation costs.
- Specially designed carts reduce litter, odour and wildlife problems associated with traditional methods of leaving garbage in bags at the curb.

There are significant costs and savings associated with the start-up of an automated garbage collection program; specifically, fleet requirements, staff requirements and purchase of bins.

Purchase of Garbage Collection Trucks

The Waste & Recycling Division presently maintains a fleet of twenty-seven (27) garbage and recycling trucks that were purchased between 2005 and 2010. The accepted life cycle for these vehicles is 8 years, so all of our current fleet will be due for replacement in the coming years. Therefore, the cost to replace the actual trucks cannot be considered a cost to implement an automated program; however, to outfit those trucks with the automated components is a direct cost of automation implementation. These components will cost approximately \$60,000 per truck.

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Fleet Requirements

The number of trucks we presently maintain allow our Division to collect garbage and recycling throughout the City of St. John's: Our collection schedule runs from Monday to Friday and can involve up to twenty-three (23) daily collection routes. The current breakdown of routes is:

- 15-16 garbage collection routes
- 7 recycling routes

One of the advantages of moving towards an automated garbage collection program is the increased efficiencies achieved by each individual truck and operator. Through these efficiencies, staff have determined that our fleet requirements upon full implementation would be reduced by four (4) trucks. This four truck reduction in our fleet represents a savings of approximately \$1,600,000 through the fleet replacement cycle.

Staff Requirements

Tied to a reduction in fleet requirements is a reduction in staff requirements. The present operations varies seasonally and ranges between 27-33 operators. With the efficiencies realized by adopting an automated garbage collection program, staff have determined that our staffing requirements could be reduced down to 24 operators throughout the year with an additional 4 operators seasonally (May-November). The seasonal employees will help cover during vacation periods and carry out special programs such as leaf collection in the fall.

We will also require a new position that will maintain and repair the inventory of bins throughout the city. It is expected that this position would be included in the CUPE 1289 bargaining unit as it would require administrative skill sets.

This adjustment to staffing levels equates to a 3.23 FTE reduction and an annual reduction in personnel costs of approximately \$250,000 once fully implemented (based on 2018 salary and benefit scale).

Purchase of Bins

The one true cost of an automated garbage collection program is the purchase of bins. These bins are constructed of high quality materials and are normally fully warranted from manufacturer defect for 10 years. The expected life of each bin ranges between 15 and 20 years. The City of St. John's will require approximately 41,000 bins once the program is fully implemented. These bins will be the property of the City of St. John's and will be issued to each property served through this program. The City of St. John's will maintain and repair the inventory of bins.

The approximate cost of purchasing all the bins will be \$3,750,000. This cost represents the largest bin available (similar to what has been supplied in Mount Pearl and Paradise). Simply supplying the next largest sized bin (33% smaller in volume) will equate to an approximate \$800,000 reduction in costs of purchasing.

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Implementation Scenario

If given approval to proceed with the initiation of an automated garbage collection program, the first phase of the program is proposed to start in the first quarter of 2018 and full implementation able to take place by the second quarter of 2019.

Some aspects of the implementation to be considered include:

- Collection route development
- Updates to the City of St. John's Sanitation Regulations
- Comprehensive communication strategy
- Accessibility planning
- Procurement of equipment
- Planning surrounding distribution and documentation of bins
- Policy development

It is important to note that this program only involves garbage collection. Recycling collection will continue to be done by hand since the Materials Recovery Facility requires recyclables to be sorted prior to collection.

Key Considerations/Implications:

1. Budget/Financial Implications

Upfront costs to initiate an automated garbage collection program include the automated components on the trucks and the purchase of bins. It is estimated that this total cost will be approximately \$4.0 - \$4.8 million depending on the size of bins supplied. It is anticipated that these costs can be fully recovered within 10 years through fleet and staff reductions.

Garbage trucks will be financed through the Fleet Acquisition Fund. Not all Capital out of Revenue has been allocated for 2017/2018 and thus these funds could be used to purchase the bins.

2. Partners or Other Stakeholders

Residents of the City of St. John's.

3. Alignment with Strategic Directions/Adopted Plans

Responsive and Progressive, Effective Organization, Fiscally Responsible.

4. Legal or Policy Implications

The Sanitation Regulations will need to be updated.

5. Engagement and Communications Considerations

Comprehensive communications and strategy plans will have to be developed.



6. Human Resource Implications

Adoption of this program could result in a 3.23 FTE reduction. It is anticipated that the Waste and Recycling Division will also experience fewer worker injuries.

7. Procurement Implications

Garbage trucks and bins will be purchased through the tendering process.

8. Information Technology Implications

N/A

9. Other Implications

It is anticipated that program approval will result in a reduction of litter, odour and wildlife problems associated with garbage collection.

Recommendation:

It is recommended that Council approve adoption of an Automated Garbage Collection Program based on the following:

1. Greater efficiencies will be achieved than with traditional manual collection meaning more households can be serviced by one vehicle and operator.
2. Significant reductions in physical effort required by operators equates to decreased instances of workplace injuries and associated compensation costs.
3. Specially designed carts reduce litter, odour and wildlife problems associated with traditional methods of leaving garbage in bags at the curb.
4. Initial capital costs to implement the program may be fully recovered in approximately ten years through fleet and staff reductions.

Once approval is granted staff will bring forth an *Information Note* detailing the full implementation schedule and plans.

Prepared by/Signature:

Andrew Niblock, B.Sc.
Director – Public Works

Approved by/Date/Signature:

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Lynnann Winsor, M.A.Sc., P.Eng.
Deputy City Manager – Public Works

Attachments: N/A

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