

Request for Decision

Review - Garbage Collection Policies

Presented To: Operations Committee

Presented: Monday, Feb 01, 2016

Report Date: Wednesday, Jan 20, 2016

Type: Managers' Reports

Resolution

Resolution #1:

THAT the City of Greater Sudbury approves option # _____ as outlined in the report dated January 14, 2016 from the General Manager of Infrastructure Services.

Resolution #2:

THAT the City of Greater Sudbury approves the weekly curbside co-collection of blue box materials and green cart organics be maintained.

Resolution #3:

THAT the City of Greater Sudbury approves unlimited quantities of blue box materials, green cart organics and leaf & yard trimmings continue to be collected.

Resolution #4:

THAT the City of Greater Sudbury approves an enhanced educational program be developed and brought back for the Committee's review and approval.

Resolution #5:

THAT the City of Greater Sudbury approves no additional garbage bag limits or a change in collection frequency be imposed for the collection at Residential Drop-Off Depots, high density residential or multi-type properties with centralized collection services.

Resolution #6:

THAT the City of Greater Sudbury approves a "call in/email in" Large Furniture, Electronics & Appliances weekly collection program be developed and in place for October 2016.

Resolution #7:

THAT the City of Greater Sudbury approves the current garbage bag tag system be maintained.

Signed By

Report Prepared By

Chantal Mathieu
Director of Environmental Services
Digitally Signed Jan 20, 16

Division Review

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Director of Environmental Services
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Recommended by the Department

Tony Cecutti
General Manager of Infrastructure
Services
Digitally Signed Jan 20, 16

Recommended by the C.A.O.

Kevin Fowke
Acting Chief Administrative Officer
Digitally Signed Jan 20, 16

Resolution #8:

THAT the City of Greater Sudbury approves additional collection options be developed for the Central Business District and that the billing for the current and new services be handled directly by the successful waste collection firm.

Finance Implications

The financial implications are dependent on the timing of any potential changes to the garbage collection policies and the results of the tender process. A report will be prepared on any 2017 budget implications as a result of this tender.

Background History

The Solid Waste Advisory Panel recommended a change in the garbage bag limit from 3 to 2 bags in 2010. This was taken to Council in 2011 but not approved. Staff was directed to re-introduce the motion in a few years.

Staff re-tabled the garbage bag limit change along with a change in the garbage collection frequency in March 2014. The Solid Waste Advisory Panel recommended that both items be brought forward for further consideration.

The Auditor General completed a high level review in July 2014 and indicated that the direct cost savings from implementing a change in the garbage bag limit and garbage collection frequency could be as high as approximately \$2.1 million per year. It was agreed that a business case to review the potential savings should be undertaken.

Staff presented the 2015-2020 Solid Waste Strategy to the Operations Committee in November 2015. A change in the garbage bag limit and a change in the garbage collection frequency to every other week (EOW) was included in the document under Strategy 3, Increase Policies that Induce Waste Diversion. The report was received as information.

The business case to review potential savings was undertaken in 2015 and although the report has not been finalized, a summary of potential savings and costs and the internal and external operational impacts are provided throughout this report. A high level summary of outcomes from selected municipalities is also provided. Although no municipality collects waste in the same manner, the impact in implementing garbage bag limits and changing garbage collection frequencies does increase waste diversion and recycling.

Why is it important to change garbage collection policies?

Changing garbage collection policies so that more emphasis is placed on recycling and composting is a part of our strategic plan to protect our valuable resources. We simply don't want to fill up the landfill with recyclable or compostable materials.

Planning and establishing a new landfill site or disposal facility is a very long, difficult and expensive process. We want to delay this process for as long as we can. The more that we delay this process, the less we'll have to start setting aside for a new site. A new site is currently estimated at \$40 to \$50 million.

Reserving landfill space for regular garbage that is not recyclable or compostable and having residents divert more of their waste to their blue box or green cart is a preferred approach to waste management.

Experience of other selected municipalities

The experience of a few municipalities was reviewed as part of the business case and is summarized as follows:

- The City of Kingston changed from a two-bag weekly limit to a one-bag limit to encourage better participation in the green bin program and increase their diversion rate. By reducing garbage bag limits, the City of Kingston experienced 3% less garbage collected and a 13% increase in green bin materials collected.
- Municipalities stated that they changed to every other week garbage collection to encourage greater

participation in the green bin program, increase waste diversion and/or reduce garbage collection costs.

- In some cases (e.g. City of Barrie, City of Ottawa, City of Owen Sound) municipalities did report savings in garbage collection costs, however the amount of savings varied.
- In all cases, the municipalities experienced greater participation in the green bin program by implementing every other week garbage collection.
- The City of Ottawa and City of Barrie implemented every other week garbage collection but did not change the bag limit (i.e. Ottawa changed from 3 garbage bags weekly to 6 garbage bags bi-weekly). By implementing every other week garbage collection, these municipalities saw an average of 15% reduction in the amount of garbage collected and 27% increase in the amount of green bin material collected.
- The Region of Durham reduced their bag limit and implemented every other week garbage collection (e.g. 3 bags weekly to 4 bags bi-weekly). By doing this they experienced even better results with regard to garbage and green bin collection compared to Ottawa and Barrie. Durham experienced 27% less garbage collected and a 67% increase in green bin material collected.
- Early in the every other week garbage collection program, waste collection staff for the City of Owen Sound occasionally experienced increased illegal dumping by finding household waste in public/park waste containers.
- A key point that must be highlighted is that municipalities collect waste differently and the cost savings experienced in one municipality may not transfer to another municipality. The actual savings will only be known through the competitive bid process.

Change in the garbage bag limit

Limiting the number of garbage bags is an established best practice to drive up waste diversion results. Waste Diversion Ontario considers a set out limit of 2 garbage bags or less per week as an effective waste diversion policy.

The majority of Greater Sudbury residents have been placing less than 3 garbage bags out per week for many years. This has been identified as part of the annual waste audits conducted on approximately 100 households.

To re-affirm the average set-out rates for garbage, staff conducted a review of 4,541 households in the Spring of 2015. The results confirmed that approximately 89% of residents placed less than 3 garbage bags per week. Approximately 9.7% were at the limit and 1.3% over the limit.

The diversion potential of reducing the garbage set out limit to 2 bags was estimated based on 11% (9.7% + 1.3%) of residents setting out 3 containers or more. It was also assumed that 50% of these residents would place more waste in existing garbage bags while 50% of residents would divert more. Therefore, an increase of approximately 1,600 tonnes per year would be expected by changing the garbage bag limit from 3 to 2 garbage bags. It is also assumed that the majority of the increase would be in the organic component, since Greater Sudbury's blue box capture rate is high.

A change in the garbage bag limit is also expected to influence the homes that currently generate 2 bags or



less. The change would be well advertised and would promote additional diversion and recycling. The education would include the fact that although we are doing well, we can do better. This is based on waste audits conducted that indicated that approximately 46% of the waste placed in a garbage bag could actually be diverted or recycled. That means that if you're producing two garbage bags per week, you probably can get it down to one bag per week with a little more work and attention.

Financial Implication for a change in the garbage bag limit

The City will incur costs to advertise and promote the garbage bag limit change. This will be funded from the existing Education & Outreach collection budget.

It is anticipated that the change would result in minimal additional staff time to address a potential initial increase in calls and emails directed to the City related to the reduction in the garbage bag limit and bags over the limit being left at the curb. Therefore, no additional staff time or cost is required at this time.

The City may realize some minor savings in future garbage collection contracts. Under a competitive process, contractors may assume that with a reduced garbage bag limit the amount of waste collected curbside may decrease. This would translate to the collection contractor being able to make more stops on the same route, thereby resulting in some fuel savings and reduced staff time. However, the collection contractor would still be required to provide vehicles, fuel, insurance, administration, facilities and travel the same routes. Therefore, anticipated collection contract savings are expected to be minimal, if any.

The City should see an increase in processing costs for the additional blue box materials and organics (approximately \$80,000 per year). However, the additional cost is expected to be gradual and should simply be adjusted yearly based on actual quantities diverted.

As with all waste diversion and recycling initiatives, savings in landfill space must always be considered. Assuming that 1600 tonnes of waste is diverted from this initiative, then 1600 tonnes per year of landfill space can be saved over the next 30 years. Either the space is used by the private sector to generate additional tipping fee revenues or the airspace results in an avoided cost to establish public sector disposal in the future. The value, at a minimum, is \$116,800 per year (1600 tpy * \$73/tonne tipping fee) or \$3.5 million over the next 30 years. A more detailed estimate in the value of landfill space will be determined as part of Strategy 4 under the 2015-2020 Solid Waste Strategy. For now, this estimate should be considered low since the \$73/tonne does not include the cost to fund a replacement landfill site. However, if we were to estimate that a new landfill site were to cost approximately \$40-\$50 million in 30 years, then we would need to set aside approximately \$0.9 million to \$1.1 million per year starting now. No funds are currently being set aside for a replacement landfill site, so delaying the closure of existing sites is extremely worthwhile.

Every other week garbage/leaf & yard trimmings co-collection

From a diversion perspective, the intent of implementing every other week garbage collection is to encourage participation in other diversion programs by creating a situation where disposal is no longer the most convenient alternative. Every other week garbage collection is most appropriately implemented where a municipality has an organic green cart collection program in place. Organic materials are generally the most odour causing. By implementing every other week garbage collection, the intent is that residents would direct organic materials out of the garbage stream and into the organic green cart stream to avoid holding these materials in the garbage stream for two weeks.

Based on the experience of a few municipalities, waste diversion is expected to increase by approximately 3,400 tonnes per year, with the majority in organic diversion.

Based on the current collection model, switching to every other week garbage collection for Greater Sudbury would mean that the co-collection vehicles for garbage and leaf & yard trimmings would collect this material every other week, including large items (i.e. furniture).

Residents would continue to have unlimited leaf & yard trimmings bags or bundles collected, but collection would be every two weeks. Staff would continue to encourage residents to grasscycle (*Grasscycling* is the natural recycling of grass by leaving clippings on the lawn when mowing) and to roll the tops of paper bags closed to prevent rain water from entering the bag.

The collection of large furniture, electronics & appliances would also be impacted with every other week collection. However, staff is recommending that this program remain a weekly program and be converted to a "call in/email in" program. This system is being recommended in all options to promote diversion and to improve landfill operation.

Permanent City collection personnel would continue to collect one week in the former City of Sudbury area and either collect the other week in other areas within Greater Sudbury or collect different waste streams within Greater Sudbury. Various options will be considered.

The current weekly co-collection of blue box recyclables and organics would continue to be collected weekly.

Financial Implication for every other week garbage collection

The City will incur costs to advertise and promote a change to the collection frequency including the potential for a collection day change. This could be done through developing and distributing a waste management calendar to residents and other promotional and educational techniques. It is recommended that an additional \$50,000 be added to the public education and outreach collection budget for the first year of implementation, and that this additional amount be reduced to \$25,000 for subsequent years.

It is anticipated that the change would result in additional staff time to address the potential in increased calls, emails and field inspections related to the change. One permanent field inspector under the collection portfolio and additional part time hours for customer service would be required. It is recommended that the \$80,000 be added to the collection budget 3 months prior to the change.

There will be an additional cost to continue servicing roadside litter containers. No estimate is available at this time but it will be considered if every other week collection is approved.

The direct savings from every other week collection will be confirmed once the competitive process is completed. The City of Ottawa estimated \$10 million in collection cost savings per year and estimated this as an approximate 25% reduction in collection cost. The City of Barrie has estimated that it will save approximately 10% reducing costs from \$4.4 million to \$4 million annually by implementing every other week garbage collection. In theory, reducing the level of garbage collection service by 50% (weekly to every other week) should correspondingly reduce collection costs by 50%. However, there are fixed costs for staffing, vehicle maintenance, administration, fuel, insurance, facilities/buildings that would reduce the opportunity to achieve a full 50% savings. It's difficult to precisely estimate the savings without actually going out to tender. However, the low end estimate as experienced by Barrie is 10% and upper end is 25% by Ottawa. Savings for Greater Sudbury could range from approximately \$370,000 to \$900,000 per year.

Since leaf and yard trimmings will also change to every other week collection as it will continue to be co-collected with garbage, there may be an indirect cost for additional leaf and yard collection during peak collection periods (Spring and Fall). It is understood that the City currently incurs an additional cost to provide collection of leaf and yard trimmings during peak times. As 2-weeks' worth of leaf and yard trimmings will accumulate at households, the City should budget an additional \$15,000 per year. The amount can be subsequently reduced if not required.

The City should see an increase in processing costs for the additional blue box materials and organics. Approximately \$170,000 per year should be added to the recycling and organic processing accounts.

Estimating savings in landfill space from the diversion of 3400 tonnes of material per year for the next 30 years is valued at \$248,000 per year or \$7.4 million for the next 30 years. Again, the saved landfill space will either be used by the private sector to generate additional tipping fee revenues or be an avoided cost to establish public sector disposal for the future. As previously described, a more detailed estimate in the value of landfill space will be determined as part of Strategy 4 under the 2015-2020 Solid Waste Strategy. For now, this estimate should be considered low since the \$73/tonne does not include the cost to fund a replacement landfill site. However, if we were to estimate that a new landfill site were to cost approximately \$40-\$50 million in 30 years, then we would need to set aside approximately \$0.9 million to \$1.1 million per year starting now. No funds are currently being set aside for a replacement landfill site, so delaying the closure of existing sites is extremely worthwhile.

Other system components

Ensuring that barriers or problematic issues are reviewed prior to making a change in the garbage bag limit or the garbage collection frequency will assist in making the program changes more successful. Staff will report back to the Committee with an implementation plan if option #2, #3 or #4 is approved. The implementation plan will include the following, at a minimum:

Additional Diversion Containers

Consideration should be given to reducing or eliminating the cost of the Big Blue and Green Cart during the transition to every other week collection. The Big Blue is a large recycling container with a lid and has the capacity of approximately 2 to 3 blue boxes. The Big Blue is currently sold for \$20. The Green Cart is currently sold for \$17.

Illegal Deposits

There is a possibility that illegal dumping may increase in the short-term following a change in the garbage bag limit or a change in the garbage collection frequency. Field Educators could be utilized to assist with this potential problem and provide options to property owners/managers, such as securing their properties and waste bins. Field Educators are proposed under the Enhanced Educational Initiative and could be added this job duty.

Households Requiring Special Assistance

The change in the garbage bag limit or every other week garbage collection is not being proposed to place any undue hardship on local households. It is recognized that certain households may generate non-recyclable waste on a regular basis and may need assistance or a variety of options from the City.

For example, young families with more than 2 children under the age of 3 or families with home health care individuals may need special consideration.

A visit from a Field Educator would outline the current options available (cloth diapers for children, garbage bag tags for extra garbage, delivering excess bags to the landfill). The Field Educator could also undertake to review the waste diversion habits of the family to ensure full participation.

A new program could also be developed for families to place their waste in clear plastic bags. All the clear bags placed curbside from these registered families would be collected provided no recyclable or divertable material was included in the bags.

Potential options in garbage collection policies

Staff will always recommend changes that will promote waste diversion. However, we do understand that change can be difficult for residents and have prepared a few options for the Committee's consideration:

Option #1 No change in the garbage collection limit or the garbage collection frequency - Effective October 2016

Under this option, the garbage bag limit would remain at three per week and the co-collection of garbage/leaf & yard trimmings would continue to be a weekly service.

Consideration to every other week garbage collection and a change in the garbage limit would be postponed and reviewed as part of the Master Plan Update tentatively scheduled to commence in 2021.

Option #2 Change in the garbage collection limit - Effective February 2017

Under this option, the co-collection of garbage/leaf & yard trimmings would continue to be provided on a weekly basis but the garbage bag limit would be changed from 3 to 2 garbage bags per week.

Consideration to every other week garbage collection would be postponed and reviewed as part of the Master Plan Update tentatively scheduled to commence in 2021.

This option will have a waste diversion impact.

Option #3 Change in the garbage collection frequency - Effective February 2019

Under this option, the co-collection of garbage/leaf & yard trimmings would change from weekly to every other week and the garbage bag limit would be 6 garbage bags every other week.

Consideration to a change in the garbage bag limit would be postponed and reviewed as part of the Master Plan Update tentatively scheduled to commence in 2021.

This option will have a waste diversion impact.

Option #4 Change in the garbage collection limit and the garbage collection frequency - Effective February 2019

Under this option, the co-collection of garbage/leaf & yard trimmings would be switched from weekly to every other week and the garbage bag limit would be 4 garbage bags every other week.

This option will have the greatest and quickest waste diversion impact.

In all four options, staff recommends:

- That the weekly curbside co-collection of blue box materials and green cart organics be maintained.
- That unlimited quantities of blue box materials, green cart organics and leaf & yard trimmings continue to be collected.
- That an enhanced educational program be developed to include details on why we need to divert waste. This will include the importance of delaying the very expensive costs of siting a new landfill site, one on one assistance provided by Field Educators, social marketing techniques aimed at changing & maintaining waste diversion behaviour and various other traditional educational tools. This program would be developed and brought back for the Committee's review and approval.
- That no additional garbage bag limits be imposed for the collection at Residential Drop-Off Depots, high density residential or multi-type properties with centralized collection services.
- That a "call in/email in" Large Furniture, Electronics & Appliances weekly collection program be developed and in place for October 2016.
- That the current garbage bag tag system be maintained.
- That additional collection options be developed for the Central Business District and that the billing for the current and new services be handled directly by the successful waste collection firm.

Other collection changes

Various collection (garbage tag, carts etc.) systems are available and will be reviewed as part of the Master Plan Update scheduled for 2021. This was discussed during the 2015-2020 Solid Waste Strategy presentation in November 2015. The update is scheduled for 2021 in order to include potential new Provincial legislation requirements.