

BACKGROUND

Staff was requested to prepare a cost comparison of roadside collection performed by in-house crews and contractor crews. This report responds to that direction.

In-house crews co-collect garbage (including large furniture) and leaf & yard trimmings and do not provide collection services for the other waste streams. The comparison will therefore be limited to the collection of garbage and leaf & yard trimmings.

Overview of the Current Waste Collection System

Service Scope and Service Level

Currently, the City of Greater Sudbury provides garbage, leaf & yard trimmings, recycling and organics waste collection services to homes within the City of Greater Sudbury following a schedule approved by City Council. In addition to Council's policies, various provincial legislations also influence these services.

For the most part, "garbage" typically includes materials that are collected, transported and buried within municipal landfill as required by the site's environmental compliance approvals issued by the Ministry of the Environment and Climate Change. This represents approximately 57% of the total collection volumes.

"Recyclables" are materials that can be, with further processing, repurposed for use by other end users. This represents approximately 30% of total collection volumes. "Leaf & Yard Trimmings" and "Organics" are materials that are composted to produce soil enhancements or soil substitutes. This stream represents approximately 13% of total collection volumes.

City Council can significantly influence service levels, performance and cost. For example:

- The maximum amount of waste that can be collected each time a pickup occurs is currently determined by City Council.
- The frequency of waste collection provided to residents is determined by City Council. Provincial regulations also influence collection frequency.
- The type of materials eligible for pickup for blue box recyclables, leaf & yard trimmings and the organics stream is partly determined by City Council. Provincial regulations also influence what items must be collected.

Garbage collection services are dependent upon the municipal landfill's operation, since it is the method used by the City of Greater Sudbury to dispose of the collected garbage. Recyclables, leaf & yard trimmings and organics are dependent upon a sorting/processing facility, operated by the City of Greater Sudbury, to prepare the material for either resale or reuse.

In 2017, collection costs comprise approximately 55% of the service's gross costs (operating and capital), while landfill and materials sorting costs comprise approximately 45%. Revenues and service fees are equivalent to approximately 34% of the service's gross costs, while 10% is received from external funds. The remaining costs are covered by property taxation.

For the purpose of this report, costs to operate the landfill or sorting facilities are excluded, since they are the same regardless if collection is provided by in-house or contracted crews.

Resources Used in the Overall Waste Collection System

Currently, and for at least the last 17 years, waste collection services are delivered on behalf of the City of Greater Sudbury by a combination of in-house collection crews and contracted crews.

The current collection system includes the collection of waste utilizing various waste collection vehicles:

Garbage and leaf & yard trimmings/Christmas trees are collected utilizing co-collection (split) waste packers. In-house crews collect approximately 53% of the households and the balance is provided by contractor crews.



Co-collection (split) waste packers are also utilized for the collection of blue box recyclables and green cart organics. This service is 100% provided by contractors.

Evening collection of garbage and blue box recyclables in the Central Business District (Downtown Sudbury) is 100% provided by contractors. Garbage collection and disposal costs are paid by downtown merchants while Downtown Sudbury covers the cost of recycling.

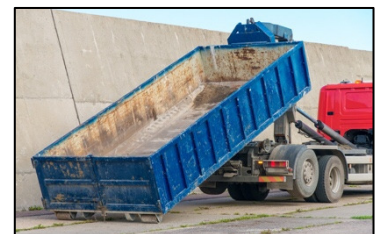
The collection of recyclable items such as stoves, freezers, defined large metal items, computer monitors, televisions or extremely large items unable to fit safely in the co-collection (split) waste packer such as king size mattresses & box springs, cement laundry tubs etc. is 100% collected by contractors utilizing a cube van or vehicle with a lift.

A cube van for the collection of household hazardous waste (Toxic Taxi Service) is 100% provided by contractors.



Front-end waste collection vehicles to service centralized systems at apartment buildings, municipal facilities and residential depots, which is 100% provided by contractors.

Roll-off waste collection vehicles to service centralized systems at municipal facilities and residential depots, which is 100% provided by contractors.



For the purpose of this report, the comparison is limited to the roadside co-collection of garbage and leaf & yard trimmings since all other collection is performed exclusively by contractors.

History of Re-assignment between Collection Crews

Re-assignment between in-house crews and contractor crews for the period 2001 to 2017 is highlighted in the following chart:

Year	Crews	Waste Stream	Area	Estimated Stops
2003	In-house crews to contractor crews	Garbage	Entire former Valley East area	7,400
2012	Contractor crews to in-house crews	Garbage/Leaf & Yard Trimmings	Copper Cliff	175
2017	Contractor crews to in-house crews	Garbage/Leaf & Yard Trimmings	Garson	1,132

Re-assignments are based on achieving costs savings while maintaining Council approved service levels.

Service Areas

In 2017, there were approximately 61,469 stops that received roadside garbage and leaf & yard trimmings collection services. The counts include all households and litter containers that are serviced on a roadside collection system for garbage and leaf & yard trimmings.

A summary by area is provided in the following table:

Area	Service Areas	Counts (Dec 2017)	Percentage of Counts per Area	Service Provider
Area 1	Levack, Onaping, Dowling, Azilda, Chelmsford, Worthington, Whitefish, Naughton, Penage, Fairbanks and Lively	12,829	21%	Contractor Crews
Area 2	Copper Cliff, Sudbury and parts of Garson	32,614 (32,530+84 ¹)	53%	In-house Crews
Area 3	Capreol, Hanmer, Val Caron, Val Therese, Blezard Valley, Coniston, Falconbridge, Skead, Wahnapiatae, Wanup, Areas of Sudbury (South of Bypass) and parts of Garson	16,026	26%	Contractor Crews

Note 1 – 84 households are collected by contractor crews with a smaller vehicle (i.e. Little Italy in Copper Cliff).

Service Area Characteristics

Both Area 1 and Area 3 are considered to have similar urban form and building characteristics. Both have scattered pockets of urban densities (less in Area 1) with long travel times between collection points. Area 2 consists of mostly urban areas with dense housing. The following table provides details on mileage and tonnes collected per area.

	Average kilometers driven per month	Percentage of total tonnes collected
Area 1	9091 km	19%
Area 2	6505 km	53%
Area 3	11173 km	28%

The quantity of waste collected is proportional to the number of counts in the area.

Comparison of Roadside Waste Collection

The comparison focuses on the cost of roadside co-collection of garbage & leaf & yard trimmings, including large furniture and appliances and litter containers across the three service areas.

The comparison is based on:

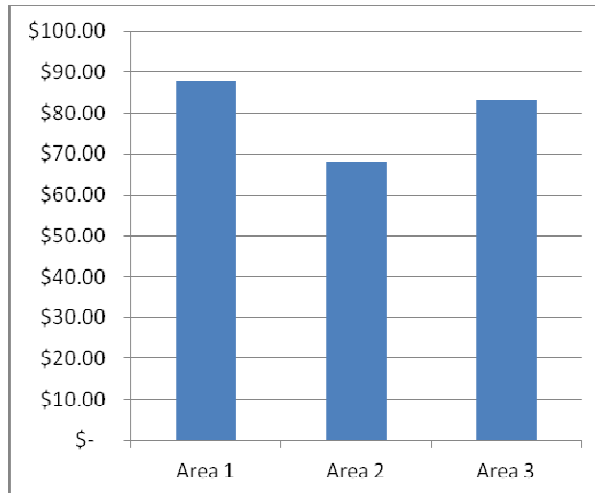
- Data for the period January 1, 2017 to December 31, 2017
- Waste collection procurement rates received in October 2016 for contractor crews
- Fleet procurement rates received in March 2017 for two replacement in-house co-collection (split) waste packers
- Allocation of indirect supporting costs to both in-house and contractor crews. This includes costs allocated to the Division's collection cost centre for accounts payable, accounts receivable, budgeting, human resources, information technology, payroll and purchasing.
- Allocation of indirect costs to both in-house and contractor crews. This includes costs such as building utilities, repairs, maintenance etc.

Key points:

- The cost to collect all extremely large items (i.e. king size mattresses) or recyclable items (i.e. stoves) by contractor crews on behalf of in-house crews was included in Area 2 costs.

- Staff time for contract management & development; collective bargaining discussions and performance monitoring was excluded.
- Finance staff and the Auditor General have reviewed the financial data.

The following chart outlines the cost per stop for each area in 2017:



As expected, Area 1 and Area 3 are relatively close in cost and higher than Area 2.

Area 2 costs are expected to be lower than Area 1 and Area 3 regardless of the service provider (in-house crews or contractor crews). The collection of waste in a densely populated area is most often less expensive than rural areas. Exceptions would include areas with numerous one way streets, laneways or high traffic volumes.

Influencing Factors

There are several factors that could influence the City's costs or how waste collection systems should be organized or compared. They include:

- The number and experience of private service providers (contractors), their profit margins and length of contracts
- In-house expertise in staffing, adequate labour pool, and labour costs
- Potential for labour disputes (for in-house crews or contracted crews)
- Waste collection equipment type, availability and lead time for new equipment (could be 12 to 18 months), including adequate service maintenance agreements
- Changes in waste streams (i.e. less garbage, more divertible materials)
- Service area characteristics (i.e. urban vs rural, distance to processing or disposal areas)

- New regulations mandating material bans, change of law provisions, separate collection of designated items, meeting commercial requirements of new funding organizations
- Standard service levels and safety requirements
- Application of indirect costs

Conclusion and Next Steps

Based on the staff comparison, collection costs for in-house collection crews are lower than collection costs provided by contractor crews. The lower cost provided by in-house collection crews was expected based on the service area characteristics (less kilometers driven in a more urban area).

Although staff believes that a hybrid (mix of in-house and contractor crews) system for waste collection continues to be the best model for Greater Sudbury, the current mix of service areas is not readily comparable. A true comparison would alter the service areas so both in-house crews and contractor crews service a mix of urban/rural areas.

Work on the next (year 2021) waste collection contract is underway and staff will have the revised scope of work and supporting documentation submitted to Purchasing in December 2018. The procurement process is expected to take 3.5 to 4 months with a closing date in April 2019 and an award date no later than July 2019.

At this time, staff is seeking approval from Council to request a seven year plus one option year term period for the next waste collection contract. The Purchasing Bylaw limits staff ability to request a term period greater than five years when the annual acquisition cost for a multi-year contract is expected to be more than \$50,000.

The longer term period will provide bidders that must purchase new equipment the ability to depreciate the value of the equipment over the average service life of the equipment.