

## Jurisdiction Scan for Organics Processing

Municipalities across Canada use a variety of options for organics processing, including a fully City-owned and operated facility, a City-owned and contractor operated facility or a fully contracted out facility. Table 1 shows the different organics processing approaches for a sample of Canadian municipalities. This summary was prepared using a combination of publicly available online documents, news articles and dialog with jurisdictional operations. For more information on compost processing facility technologies see Appendix 3.

Table 6: Summary of Jurisdiction Scan for Organics Processing

City	City Owned & Operated	City Owned & Contractor Operated	Contracted	Comments
Calgary		X		145,000 tonne capacity + 60,000 expansion in progress
Lethbridge		X		13,000 tonne capacity
Peterborough		X		40,000 tonne capacity
Halifax			X	60,000 tonne capacity. Contractor will own and operate the facility for 25 years; at which time the ownership will be transferred to Halifax
Red Deer			X	
Edmonton	X		X	Uses several facilities. Processed over 88,000 tonnes in 2023
Burnaby			X	Proposed building own facility
Winnipeg	X			Seasonal yard waste program only
Regina			X	Processing facility delays
Ottawa			X	

### Calgary

#### Operations

The in-vessel composting (aerobic tunnels) facility is owned by the City of Calgary and operated by AIM Environmental Group. The facility processes upwards of 145,500 metric tons of residential food and yard waste and dewatered biosolids every year. The Calgary facility uses in-vessel technology, which means that the incoming green cart materials are shredded and placed in large, enclosed vessels for 21 days to break down the materials. Large biofilters are used to reduce odours before exhausting air from the vessels.<sup>1</sup>

In 2022, City Council approved an expansion to include an anaerobic digestion module that will turn food and yard waste into renewable natural gas. The expansion will add an extra 60,000 tonnes of processing capacity to support the Green Cart program and is expected to be completed by 2025.

### Fees

Monthly cart program fees cover all components of the residential cart programs including:

- Providing carts and cart maintenance
- Collection of material
- Sorting, processing and disposing of material
- Education, outreach and program support

The Blue and Green Cart Program fees are offset by revenue generated by the sale of recyclables and finished compost.<sup>2</sup>

## Lethbridge

### Operations

The composting facility is located at the City of Lethbridge Waste and Recycling Centre (landfill). The facility is owned by the City of Lethbridge and operated by AIM Environmental Group. The facility accepts food and yard waste from residential and commercial programs and uses aerated static bed technology to turn materials into compost. After being mixed with a bulking agent, the green cart materials are placed into an outdoor aerated static bed for 3-5 weeks. An aerated static bed uses airflow to keep the pile at optimum temperatures for the composting process. It is not disturbed during this process. All air exhausted to the environment is filtered through a bio-filter.

The curbside organics project cost \$10,629,000, which included the construction of the facility, processing equipment, carts and trucks. The Government of Canada provided \$5,879,000 and the Government of Alberta provided \$4,750,000.<sup>3</sup>

### Fees

Residential customers in single family homes are charged \$5/month on their utility bill to cover a portion of the green cart program expenses,<sup>4</sup> along with the grant funding.

This charge will cover the following costs:

- Compost facility operations (maintenance, utilities, staffing)
- Curbside collection of green carts
- Compost marketing and sales
- Maintenance and lifecycle for collection trucks and carts
- Resources for public education and outreach

## **Peterborough**

### **Operations**

The Peterborough Organics Facility is under construction and will be owned and operated by the City, using a contractor. At full capacity, the centralized composting facility could be designed to accept up to 40,000 tonnes of organic material per year from the City and County of Peterborough. The Facility will accept and process, leaf and yard waste, and source separated organic material. The organics facility will be located next to the Peterborough County/City Waste Management Facility on land jointly owned by the City and County of Peterborough.<sup>5</sup>

The implementation of the city-wide organic waste collection and composting program, including the design and build of a composting facility will cost \$15.3-million project with the Federal Government contributing \$6.1 million.<sup>6</sup>

Professional consulting services for the design, permitting and approvals, as well as support of tendering, construction administration and commissioning were awarded to a third party.

### **Fees**

Organics collection is paid for through property taxes.

## **Halifax Regional Municipality**

### **Operations**

A third party is designing, building, and operating (for 25 years) a new in-vessel composting facility. Construction of the new facility began in Spring 2021 and is planned to be completed by Winter 2024. Organics will continue to be processed at the two existing facilities until the new one is operational. Ownership for the two existing facilities were transferred to HRM after the completion of the contract term for each facility (~20 years own/operate). Both facilities are currently operated by a third-party company. At the new facility, all composting activities will be completed indoors to minimize impacts to the neighboring communities such as noise and odour.<sup>7</sup>

Organic material will be brought to the facility where it will be shredded and placed in composting tunnels, or vessels, which are sealed concrete structures with forced air blowing into the compost.

### **Fees**

The green cart program and all residential waste collection is funded by property taxes.

## **Red Deer**

### **Operations**

The green cart materials are sent to a third-party facility, Stickland Farms, south of Red Deer.

## Fees

There is only one charge on the utility bill that covers Green, Blue and Black Cart collection services. The amount a resident is charged is determined by the size of the Black Cart, ranging from \$19.50 to \$30.00 per month.<sup>8</sup>

## Edmonton

### Operations

The current program uses City and third-party waste processing facilities, using both outdoor aerobic composting (with oxygen) and anaerobic digestion methods (without oxygen) to process organic waste. Food scraps from curbside residents are processed by third-party processors using outdoor row composting. Grass, leaf, and yard waste are processed at the City's Compost Cure site, using outdoor row composting. Organic waste is sorted out from mixed garbage collected from apartments and condos which is then processed at the City's anaerobic digestion facility. By 2027, all apartments and condos will have access to food scraps collection and organic waste will no longer be sorted out from mixed garbage.<sup>9</sup>

Edmonton processed over 88,000 tonnes of organic materials in 2023 and is projecting that there will be 121,000 tonnes of incoming organic waste by 2027. They are starting work on an options analysis to determine how to meet demand. A combination of processing methods will continue to be used while exploring the possibility of constructing a new outdoor composting facility, investing in the anaerobic digestion facility or increasing reliance on third party processors.<sup>9</sup>

### Fees

Edmonton's waste services are provided as a utility. They are funded entirely through monthly utility rates, and no property taxes go toward these services.<sup>10</sup>

The monthly waste rate funds the following:

- Collection
- Eco Stations and Drop Off Depots
- Landfill
- Edmonton Waste Management Centre Operations
- Environmental Compliance
- Refuse Derived Fuel Facility
- Materials Recovery Facility
- Organic Waste Processing
- Education and Reduction Program
- Utility Management
- Amortization and Repayment

## Winnipeg

### Operations

The City of Winnipeg operates a seasonal yard waste program which processes material at their composting operation at the Brady Road Resource Management Facility. The composting operation uses an outdoor windrow method and processes approximately 31,000 tonnes annually.<sup>11</sup>

### Fees

There is a Waste Diversion Services Fee on the utility bill that funds programs that provide residents with more ways to reduce, reuse and recycle – such as curbside yard waste collection and 4R Depots. It is billed as a daily charge for each dwelling unit of your property determined by the Assessment and Taxation Department.<sup>12</sup>

## Burnaby

### Operations

Currently, Burnaby residents and businesses pay to have organic waste processed at the GFL Facility in Delta using an aerated in-vessel composting system building (enclosed composting process). Using a third-party is subject to significant price fluctuation based on market conditions and according to the City, an in-house recycling and organics facility (GRO) would allow the City to provide residents with reliable, stable pricing – even when the market is volatile. They are proposing that the GRO facility would process up to 150,000 tonnes of organic waste (through Anaerobic Digestion) annually from Burnaby and neighbouring communities and businesses.<sup>13</sup>

### Fees

No charge for organics, cost is included in garbage fees. Four different receptacle sizes are offered, ranging from \$50 to \$400 annually.<sup>14</sup>

## Regina

### Operations

The City of Regina entered an agreement with EverGen Infrastructure Corp to process all the organic waste collected from its Food and Yard Waste program.

The food and yard waste that is being collected from the green carts is going to the temporary compost site at the landfill for processing until EverGen can establish a permanent facility. EverGen scouted a spot in the RM of Edenwold, about 1.6 kilometres from Pilot Butte. The RM of Edenwold has voted against the processing facility.<sup>15</sup>

### Fees

Starting on January 1, 2024, all three curbside collection services (garbage, recycling, and food and yard waste) will be funded by a user fee on the City of Regina Utility bill, meaning garbage collection will no longer be funded by property taxes.<sup>16</sup>

## Ottawa

### Operations

Organic materials from the Green Bin program are taken to a facility owned and operated by Convertus which uses an accelerated aerobic indoor tunnel composting system. The City is in a 20-year contract with Convertus, which ends in 2030 and has two one-year contract extension options. In 2019, following a long-running litigation process between the City and Convertus, the City of Ottawa revised the accepted materials for their green cart program. This change cost the City an additional \$626,000 per year. There is a Put or Pay provision of 75,000 tonnes per year and the maximum annual amount of organics the City can send to the facility under the contract is 100,000 tonnes. There is also a maximum weekly amount of material that the City can send for processing, which is currently 2,700 tonnes/week.<sup>17</sup>

### Fees

Residential garbage collection costs are recovered through property taxes and organics are included in the garbage utility fee.

<sup>1</sup> For more information on Calgary's program visit <https://www.calgary.ca/waste/residential/how-composting-works.html> Accessed March 12, 2024

<sup>2</sup> For more information on Calgary's rates, visit <https://www.calgary.ca/waste/residential/rates.html> Accessed March 12, 2024

<sup>3</sup> <https://www.lethbridge.ca/news/posts/city-peels-open-organics-processing-facility/> Accessed March 12, 2024

<sup>4</sup> For more information about the Lethbridge program visit <https://www.lethbridge.ca/news/posts/curbside-organics-program-frequently-asked-questions/> Accessed March 12, 2024

<sup>5</sup> For more information on Peterborough's program visit <https://www.peterborough.ca/en/city-hall/organic-waste-collection-and-processing.aspx#Staff-reports-to-City-Council--2019> and <https://www.peterborough.ca/en/city-hall/budget-environmental-services.aspx> Accessed March 12, 2024

<sup>6</sup> <https://pub-peterborough.escribemeetings.com/filestream.ashx?DocumentId=25436>

<sup>7</sup> For more information on the Halifax facility visit <https://www.halifax.ca/home-property/garbage-recycling-green-cart/green-carts-leaf-yard-material/new-organics-facility> Accessed March 12, 2024

<sup>8</sup> For more information on Red Deer rates visit <https://www.reddeer.ca/city-services/garbage-recycling--organics/black-cart/> Accessed March 12, 2024

<sup>9</sup> <https://pub-edmonton.escribemeetings.com/filestream.ashx?DocumentId=213673>

<sup>10</sup> For more information about Edmonton's program visit [https://www.edmonton.ca/programs\\_services/garbage\\_waste/organics-processing#:~:text=Most%20of%20the%20material%20collected,they%20create%20from%20the%20material](https://www.edmonton.ca/programs_services/garbage_waste/organics-processing#:~:text=Most%20of%20the%20material%20collected,they%20create%20from%20the%20material) and [https://www.edmonton.ca/programs\\_services/garbage\\_waste/rates-fees](https://www.edmonton.ca/programs_services/garbage_waste/rates-fees) Accessed March 12, 2024

<sup>11</sup> For more information about the Winnipeg program visit <https://myutility.winnipeg.ca/UtilityPortal/RecyclingGarbageYardWaste/sp/leafandyardwaste> Accessed March 12, 2024

<sup>12</sup> For more information on rates visit <https://myutility.winnipeg.ca/UtilityPortal/UtilityBilling/rates> Accessed March 12, 2024

<sup>13</sup> & <sup>14</sup> <https://www.burnaby.ca/our-city/projects/green-recycling-and-organics-gro-facility><sup>14</sup>

<https://www.burnaby.ca/services-and-payments/utility-fees-and-charges/residential-utility-fees>

<sup>15</sup> <https://globalnews.ca/news/10185149/regina-landfill-to-serve-as-temporary-composting-facility-for-up-to-a-year/> Accessed March 12, 2024

<sup>16</sup> For more information visit <https://www.regina.ca/home-property/recycling-garbage/>

<sup>17</sup> [Ottawa Solid Waste Master Plan](#)