

First Year Green Cart Program Performance

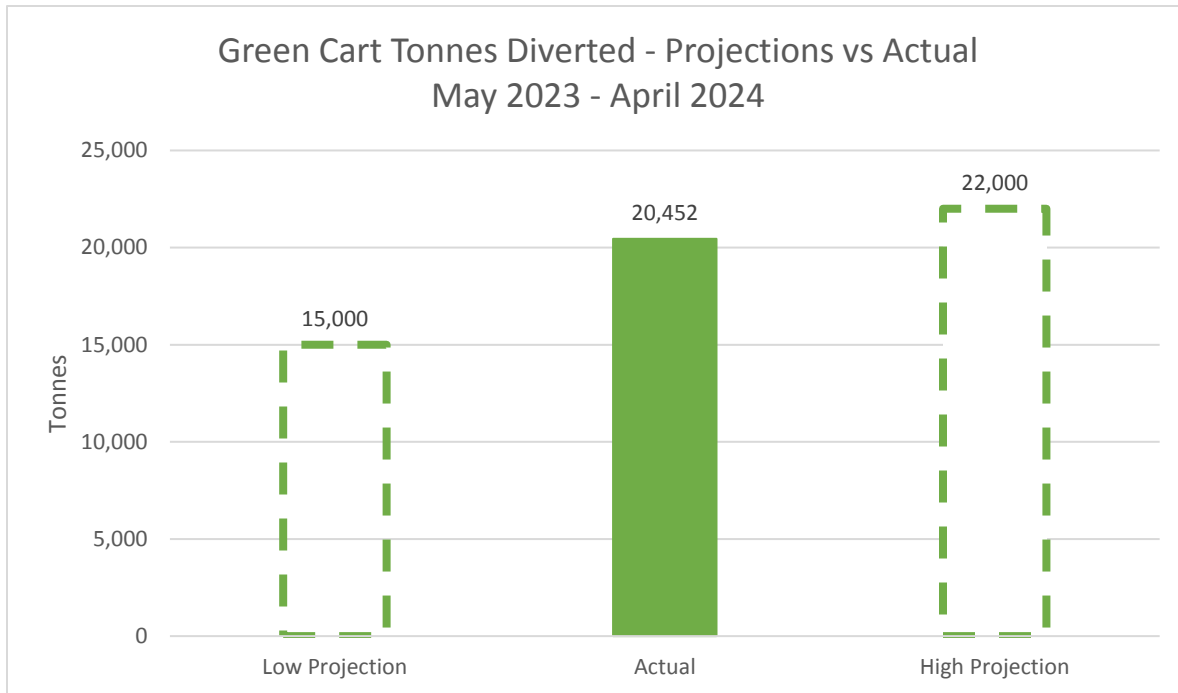
This Appendix covers the performance of the Green Cart program to-date. Much of the performance reporting below includes two main time periods depending on the data presented and is labelled throughout:

- The calendar year for 2023 (January – December 2023)
- The first full year of program operations (May 2023 to April 2024)

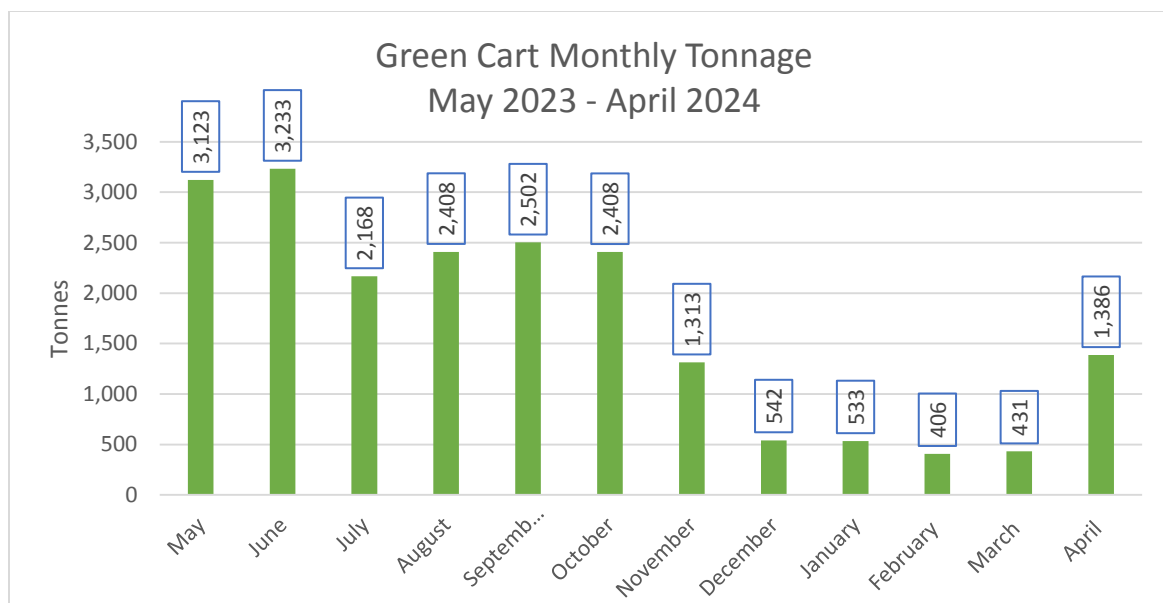
Waste Reduction & Diversion Performance

Tonnes Diverted

In the first year of Green Cart program operations (May 1, 2023 – April 30, 2024) the program diverted 20,452 tonnes of organics from the landfill. The Solid Waste Reduction and Diversion Plan had projected the program would result in an increase of waste diversion of 15,000 tonnes (8%) to 22,000 tonnes (12%) per year.



Most of the materials that were diverted in the first year (May 2023 – April 2024) were between May and November, with a notable increase for April 2024. This aligns with the times of year where yard and garden waste generation are higher. December, January, February, and March had lower tonnages, which is the time of year when materials generated are generally food waste and soiled paper.



2023 Diversion Rate

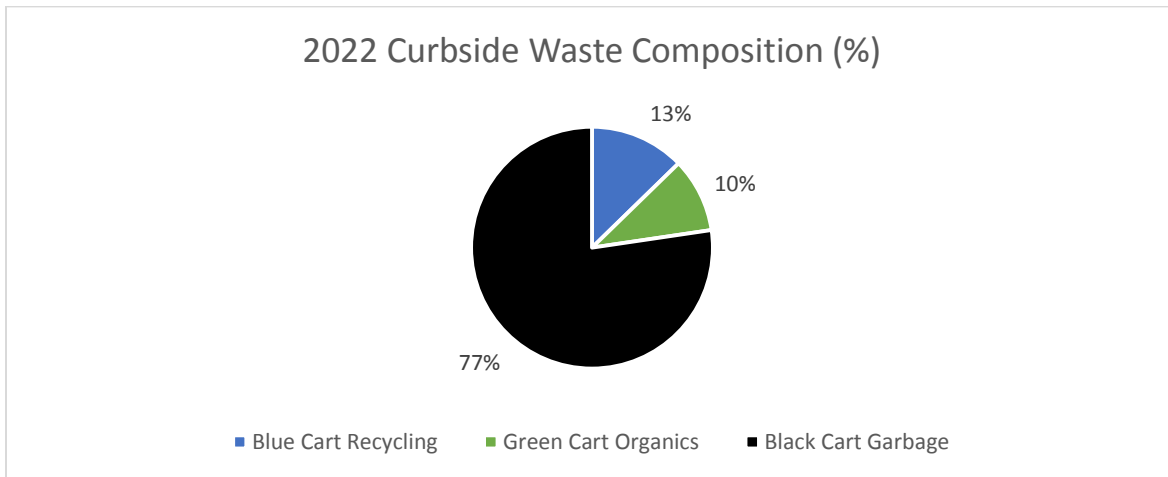
The City's waste diversion rate for 2023 increased to 33.3% compared to the previous year's rate of 24.5%. The waste diversion rate is calculated based on all waste materials that the City handles and includes both residential and commercial waste. In [2018 reporting on program service levels](#), a 33% diversion rate was projected following program launch. As shown in the graph below, this is the first significant increase in the waste diversion rate in a decade.¹ The total waste diversion rate remains below the 70% target.

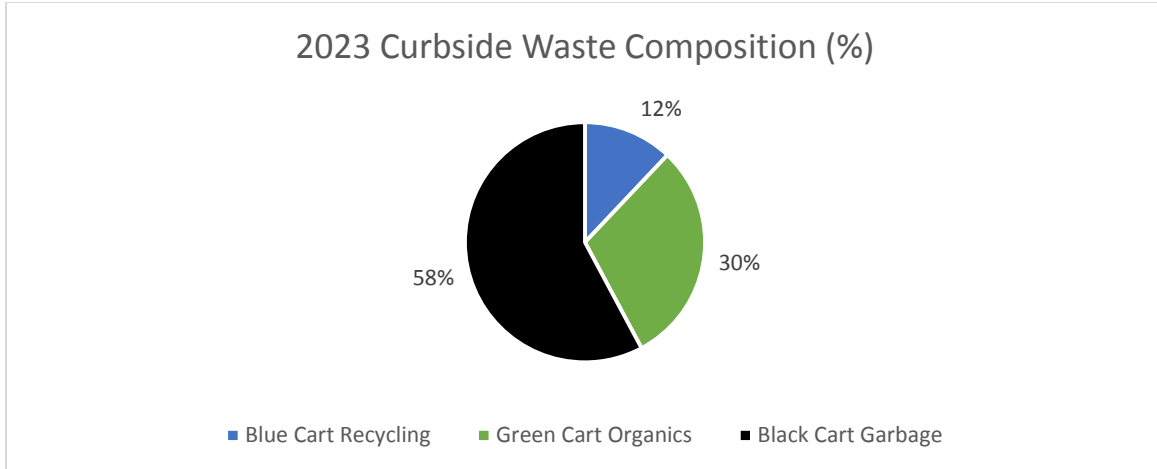
¹ It should be noted that the methodology for calculating compost depot and the subscription green cart tonnages (as these materials are not scaled) was updated in 2015 to be more accurate (and resulted in lowering tonnes) around the same that residential recycling waste introduced.



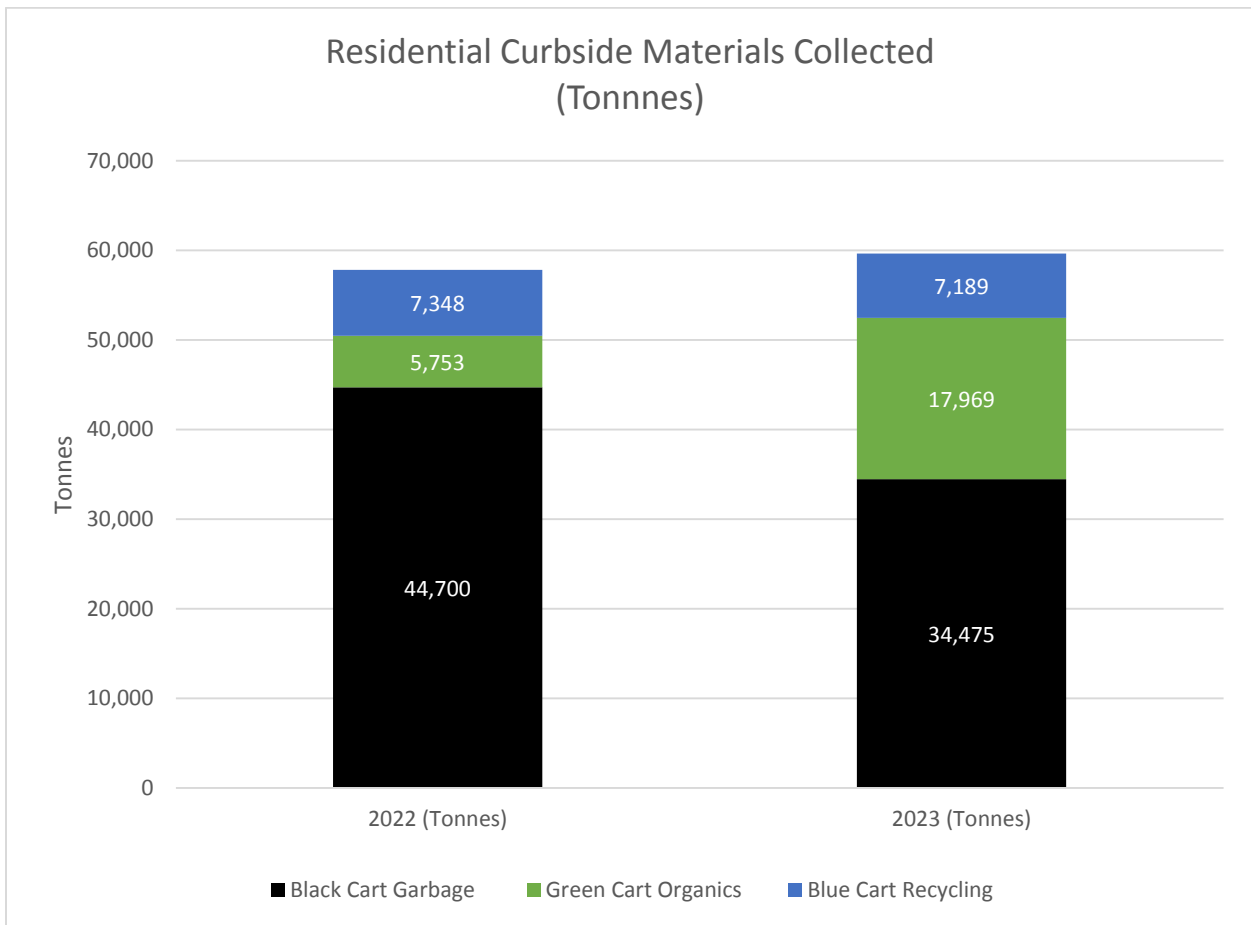
Curbside Collections

Materials collected through residential curbside programs saw a significant shift from the previous year. There was a 20% increase in diversion rate, from 22.7% in 2022 to 42.2% in 2023. As shown in the comparative pie charts below, blue cart materials remained stable, green cart materials increased from 10% to 30%, and black cart materials decreased from 77% to 58%.





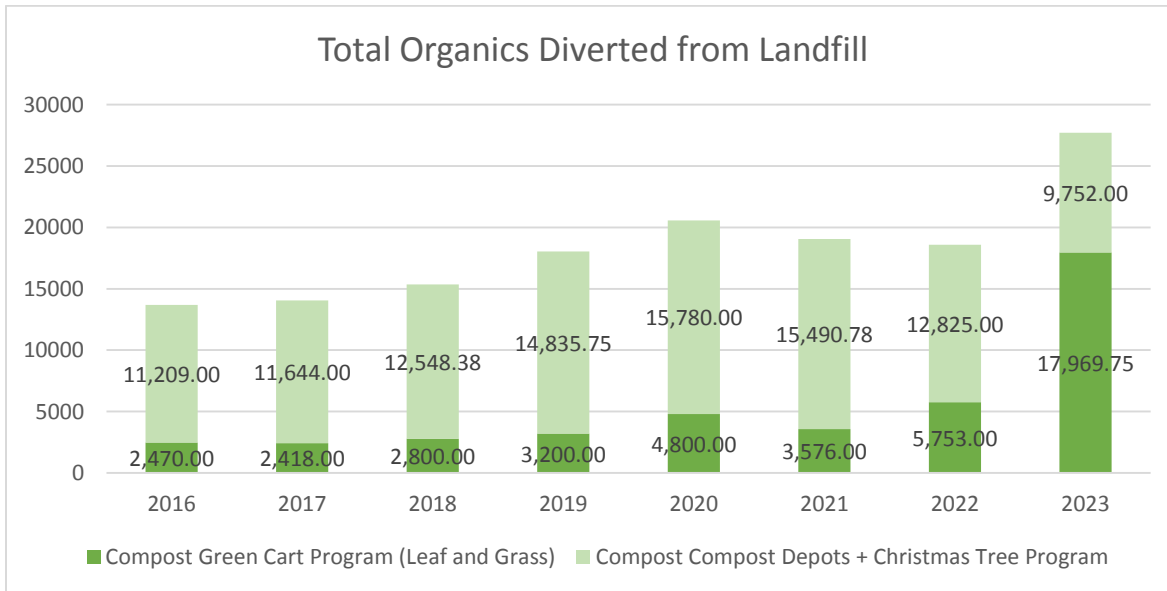
The tonnes of material collected through the Black Cart program decreased in 2023 by 10,225 tonnes compared the previous year. This was a 23% reduction in garbage landfilled and the equivalent landfill airspace value would be \$750,000 based on the estimate of landfill airspace value which was last completed in 2018.



	2022 (Tonnes)	2023 (Tonnes)	Change (Tonnes)	Change (%)
Blue Cart Recycling	7,348	7,189	-159	-2.2
Green Cart Organics	5,753	17,969	+12,216	+212.3
Total Diversion - Carts	13,101	25,158	+12,057	+92.1
Black Cart Garbage	44,700	34,475	-10,225	-22.9
Curbside Collections Diversion Rate	22.7%	42.2%		

Organics Diversion through all City Services

In 2023, the tonnes of organics diverted from the landfill through the combination of curbside collections, compost depots, and Christmas tree drop off increased to 27,722 tonnes from 18,578 tonnes in 2022. The amount from collections increased 12,216 tonnes compared the previous year’s subscription program. The compost depots saw a decrease of 3,073 tonnes, maintaining approximately 75% of materials diverted through this service compared to the year before.

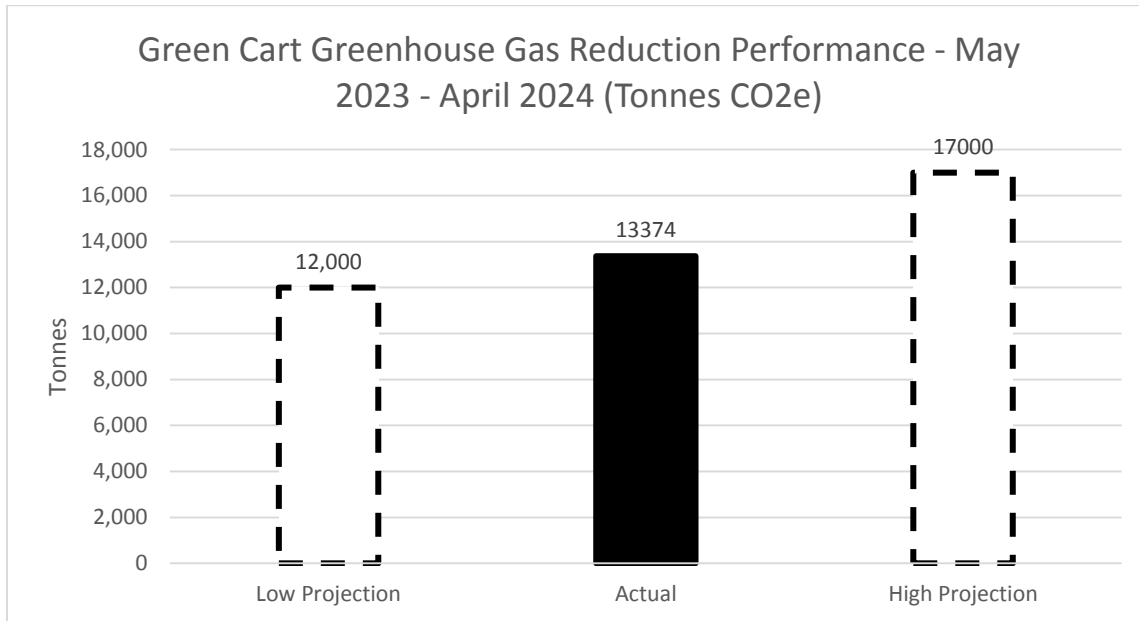


Greenhouse Gas Emission (GHG) Performance

Waste buried in landfills lacks oxygen, so when food and yard waste are broken down methane is emitted. Methane is a powerful greenhouse gas that can escape into the atmosphere. The Green Cart program avoids these emissions by composting, which allows materials to break down in the presence of oxygen.

In the first year of operations (May 2023 – April 2024), the Green Cart program avoided 13,374 tonnes of CO₂e. The equivalent of removing 2,972 passenger cars from the roadway each year. The Solid Waste Reduction and Diversion Plan projected an annual GHG reduction of 12,000 - 17,000 tonnes CO₂e per year by the Green Cart program. The first year of the program fell within this projection; however, is on the lower range of the projection despite diversion tonnage being in the higher range of the

projection. The reason for this is the proportion of food waste that was captured (which is detailed in the capture rate section below). Food waste has a higher emissions factor than yard waste.



In 2023, the City’s organics diversion (a combination of Green Cart, Compost Depots and Christmas Tree drop off) prevented 11,798 tonnes CO2e, which would have been generated if the same materials had been landfilled.²

Collection Operations

Each day there are approximately 8,000 green carts that are scheduled for collection. Typically, eight operators complete these collections, and each operator has roughly 1,000 carts on their route scheduled to be collected. Operators will assist each other in completing routes depending on how the work goes.

How efficiently automated waste collection occurs is dependent on the number of carts set out, how full those carts are, and the density of the material in the cart. The time collections take, fuel consumption, and truck use (kilometers driven) depend on these factors.

If there is a high set out rate it will increase the time which it takes for the route to get collected due to the truck starting, stopping, and tipping each cart. How quickly a route can be completed depends on how many carts are set out.

² This calculation uses the same emissions calculator that was used in 2021 to determine the projection. Environment and Climate Change Canada has released a new tool for calculating organics diversion GHGs that will be assessed in 2025 as part of a project to review and update waste reduction and diversion key performance indicators.

Collections trucks need to tip their waste at the organics processing facility when they are full, or when they reach the maximum weight which they can haul. If there is a lot of waste in each cart, then the truck will reach its limit quickly and need to make a trip to dispose of that material. Trips to dispose of material vary in time depending on the location of the collections that day. Typically, a truck will tip its collected waste twice per day.

The number of resources required to meet the level of service throughout the first year of the green cart program has been highly variable. From spring to fall when yard waste is at its peak and the set-out rate is at its highest, additional trucks have been required to complete all the collections. In winter when the set-out rate has been at its lowest and there has been primarily food waste in the carts, less operators were required to complete those collection routes.

Financial Performance

Costs for Collections

The true cost to collect green carts is difficult to quantify accurately due to several factors. Many resources (staff, equipment, administrative support, etc.) were initially reallocated from the existing garbage collection budget to the green cart program. With the green cart program being a new utility funded model, some existing costs were taken off the mill rate and put on to the utility. Given that the program started in May and that the budget was developed for the entirety of 2023, there were some operating costs which were charged to capital budgets.

While collecting both green carts and black carts with the same staff and fleet has improved operational flexibility and provided efficiencies to the operations of those programs, it has also made it difficult to completely determine the true independent costs of operating each program.

With that being said, the actual expenses from May to December of 2023 on green cart collections alone (staff, supervision, fleet, fuel, and maintenance) were \$2.05M. From January to April of 2024 the total expenses accrued for the collection of green carts was \$607K, resulting in a total cost of \$2.657M for the first year of the Program. The 2024 costs are still subject to change based on the possibility of charges from other departments changing. These costs are below their approved budget of \$3.94M annually; however, they should be only analyzed while understanding the complexity of the accounting methods as mentioned earlier.

When City Council made the decision in August 2021 to in-source the collection of organics from the green cart program, the cost to provide the collection service annually was estimated to be \$2.65M annually or \$2.94 per household per month. These figures excluded shared costs with the garbage collection to provide an appropriate comparison to estimated costs for a third-party contractor to complete the work. Estimates from 2021, including the shared costs for the green cart collections, were \$3.0M to \$3.3M annually.

Total Costs

2023 budgeted costs were \$3.94M and actual costs were \$2.69M. However, it should be noted that actuals are not reflective a typical year as this was the initial year of operations. As such, costs of training time, administrative overhead, and advertising costs were funded through capital. In addition, there were no costs for containers staff who manage all the carts that are in service. This was because all the carts were deployed by a contractor and managed through the capital project. Further, the \$2.69M includes a capital reserve transfer of \$643K which was part of the transition funding strategy. Finally, adjustments for penalties collected from the curbside organics processing contract that defaulted are included in the costs, which mean that true costs of processing are understated. 2024 will provide a more accurate annual cost for the collections component of the program.

As mentioned in the Collections Operations portion of this document, there is great variability in the resources required to meet the current level of service. This has led to considerable variability in the cost of delivering the current level of service from month to month.

Resident Participation and Behaviours

Eligibility

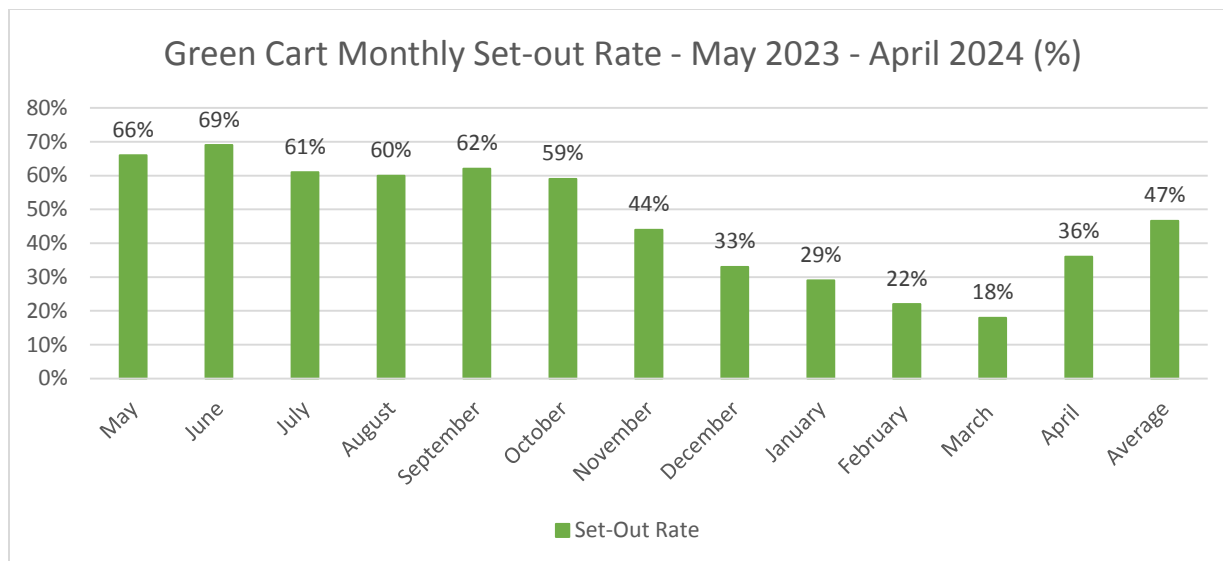
Each habitable unit that has their waste collection provided by a roll-out cart is eligible for the curbside green cart program. A habitable unit designation means that all building permits have been issued and all inspections have been completed, which makes the unit safe and fit for people to live in. All habitable units serviced by roll-out carts are part of the curbside green cart program. There are approximately 75,500 eligible units in Saskatoon.

Residents that live in multi-unit properties and have their waste collection provided in large communal bins are not eligible for the green cart program.

Set-out Rate

The set-out rate is calculated per month and is the main indicator of residents' participation in the program. It is calculated by the percentage of actual tips compared to the scheduled tips.

Between May and October, the set-out rate was approximately 60% or greater. This decreased November through to March, increasing again in April. This aligns with the lower tonnages received during those months, as shown in the charts in the Waste Reduction and Diversion Performance section above.



The City's Waste Characterization Study provides a seasonal snapshot of actual resident use of their carts, including set out rates, cart fullness, contamination rates, and capture rates. To date, three audits have been completed:

- [Fall 2023](#) – October
- [Winter 2023](#) – December
- Spring 2024 – April³

The waste characterization study measured a set-out rate during each of their 2-week audits. The study found a green cart set out rate of 75% in the Fall (October 2023) audit, 44% in the winter (December 2023) audit, 60% in the spring August (April 2024).

As a comparison, the historical average set-out rate for black carts has varied from 75% to 80%. The average set-out rate for the curbside recycling collection program in 2023 was 73.7%.

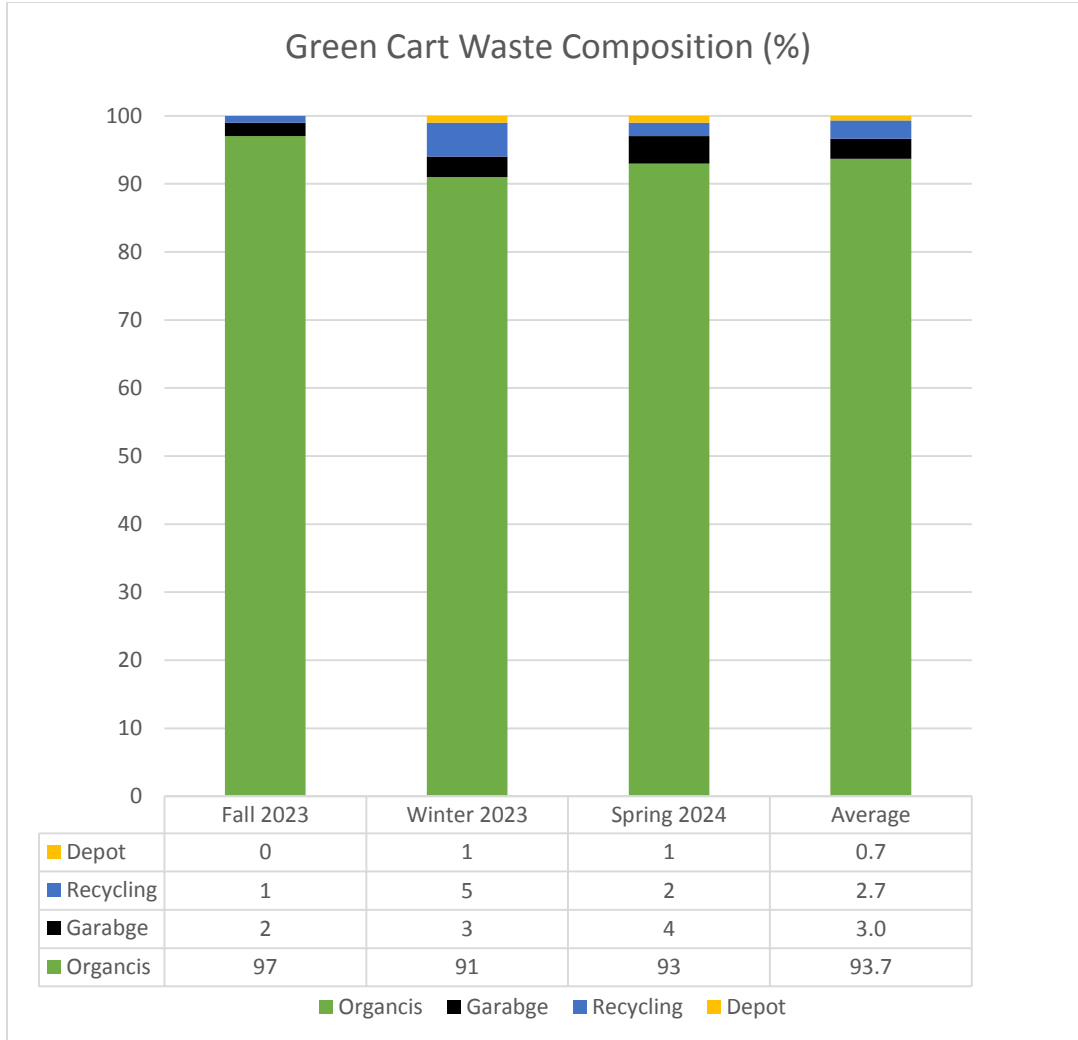
Contamination Rates

The main indicators of resident sorting behaviour are through audits of the materials collected. Contamination rate is the percentage of improperly sorted waste. In the case of the Green Cart, this includes garbage, recyclables, and materials accepted at depots.

Due to the interim nature of the organics processing contract, contamination information from the contractor has only been available since November 2023, and is based on visual audits. The visual audits noted a significant increase in contamination over the winter months, aligning with the lower amounts of yard waste. The observed contamination was primarily plastics, including food packaging and bags.

³ Preliminary results were used for this appendix. The final report will be posted here: <https://www.saskatoon.ca/environmental-initiatives/solid-waste/waste-data-studies>.

The audits found that the contamination rate was 3% in the fall, 9% in the winter, and 7% in the spring for an average contamination rate of 6.4%. The program’s projected contamination rate was 7.3% based on comparable programs (co-mingled collection of food and yard waste in a single cart). This indicates that the first-year performance was in line with projections.

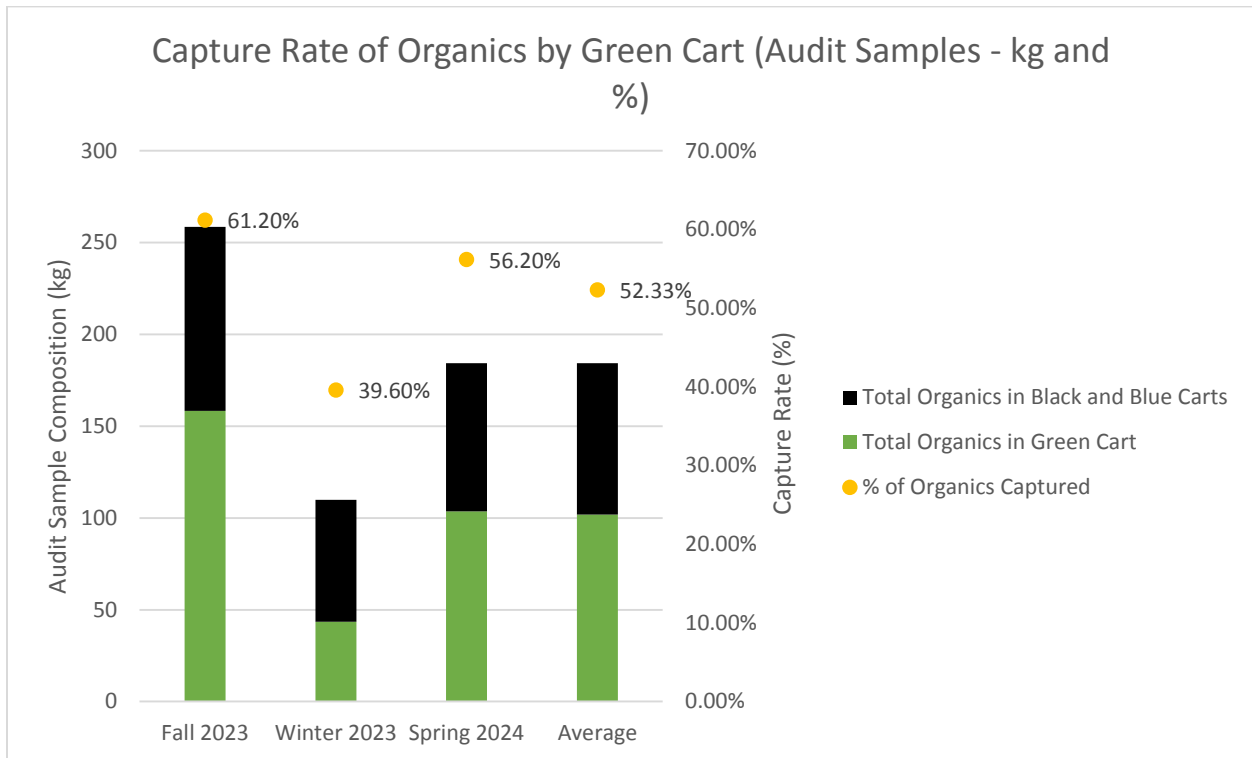


Common contaminants include plastic packaging as well as biodegradable and compostable plastics. Paper and cardboard was noted as contamination in the characterization study, since optimal diversion is the blue cart when the material is clean; however, food soiled paper/cardboard is an accepted material in the Green Cart. In the fall, contamination labelled as recyclable in the figures below was primarily corrugated cardboard (0.6%), in the winter were primarily composed of corrugated cardboard (2.5%) and mixed paper (0.7%), and in the spring boxboard (0.6%).

Capture Rates

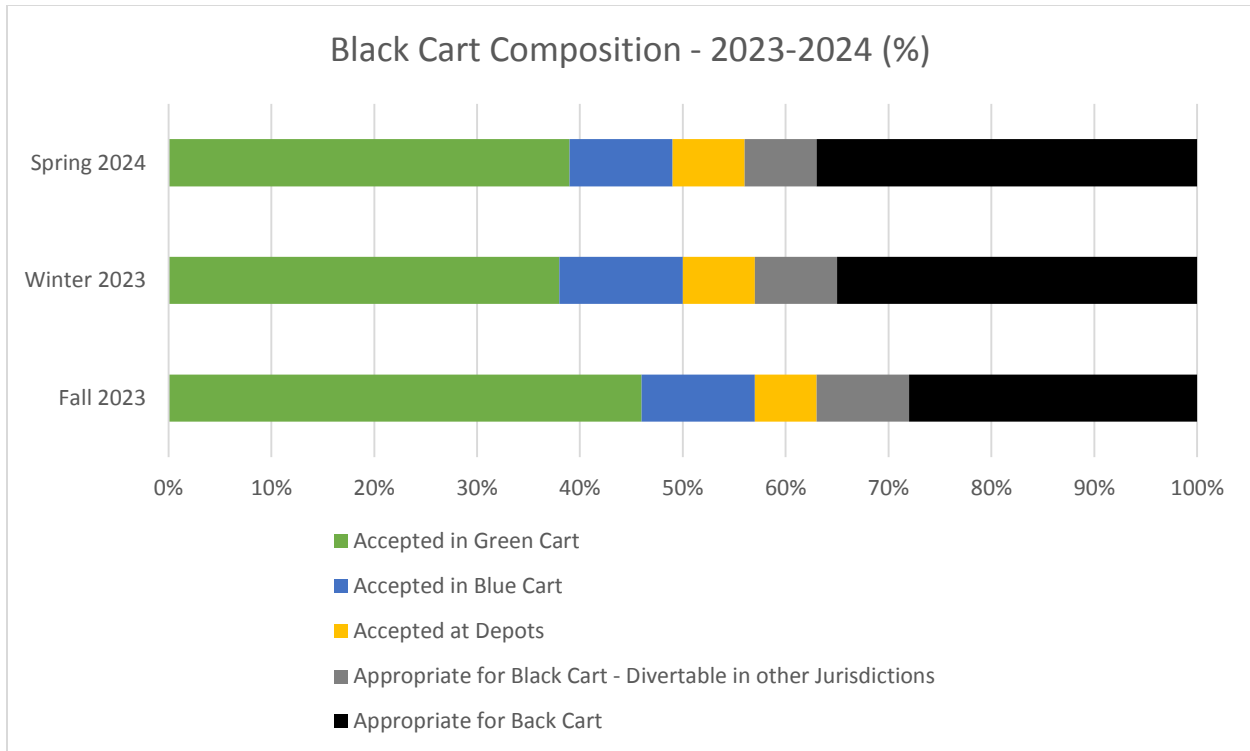
The capture rate is the percentage of organics materials that is correctly sorted into the green cart compared to the total amount disposed of in all three curbside carts. It is only calculated through waste characterization audits. The capture rate in Fall was

61.2%, in Winter 39.6%, and Spring 56.2%, for an average capture rate of 52.3%. The projected annual capture rate during the Green Cart program was 51% for the first year of operations based on an analysis of the performance of similar programs from other jurisdictions (co-mingled collections of food and yard waste, large carts). Program performance is in-line with projections. The analysis of other programs shows that as programs mature capture rates increase and continuous improvement in this area will be targeted in upcoming education.

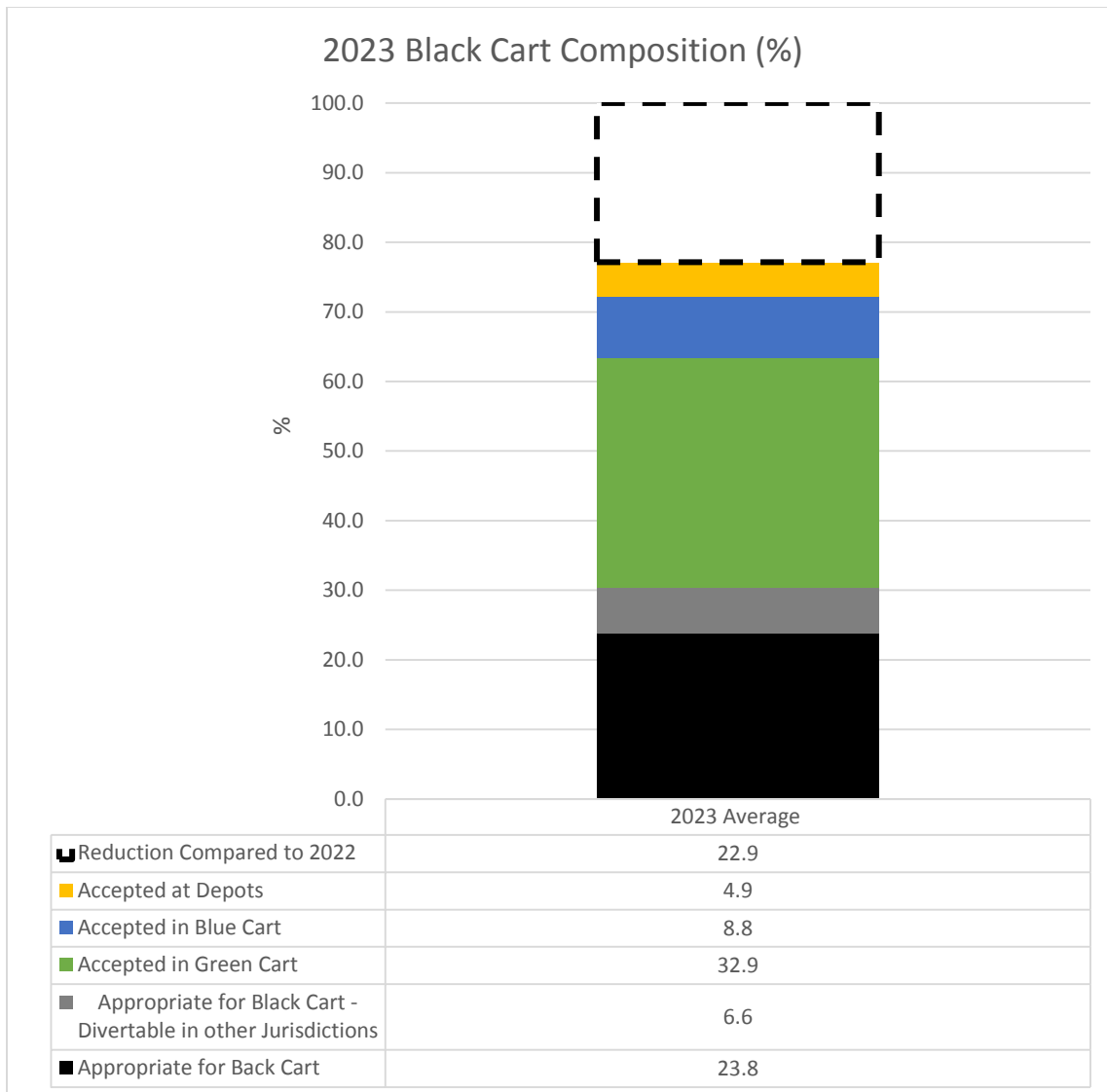


Black Cart Waste Composition

The black cart composition (or garbage diversion potential) is the percentage of materials that could be diverted through the City’s organics, recycling, depot programs, or programs that are available in other jurisdictions that was found in the black cart during waste characterization study audits. The total diversion potential for Fall from black carts was calculated to be 72% and consisted of 46% organic materials, of which approximately three quarters was food waste. For winter the total diversion potential for the black carts was calculated to be 65% and consisted of 38% organic materials, of which 97% was food waste. In Spring the diversion potential was 63% and consisted of 39% organics materials, primarily composed of avoidable food waste (18.5%), yard and garden debris (8.0%), unavoidable food waste (5.1%), and tissue/toweling (4.8%).



In 2023, an estimate of black cart composition that includes waste reduction can be calculated from the data available in the waste audits and the reduction in tonnages from 2022 to 2023. Compared to 2022, there has been a 22.9% reduction in materials disposed of and of the 77.1% of materials that remain in the black cart 30.4% are materials are appropriate for garbage (not divertible or no local diversion program), 32.9% are accepted in the Green Cart program, and the remaining 13.7% are accepted through Blue Carts or depots.



Satisfaction, Motivation, and Knowledge

Every two years the City conducts statistically representative Waste and Recycling Surveys. In 2023, there were two residential surveys, with [Survey 1](#) focusing mainly on recycling and [Survey 2](#) on the new city-wide Green Cart program as well as preparations for the Variable Black Cart program launch. These surveys provide insight into resident knowledge, behaviors, and barriers. Key findings include:

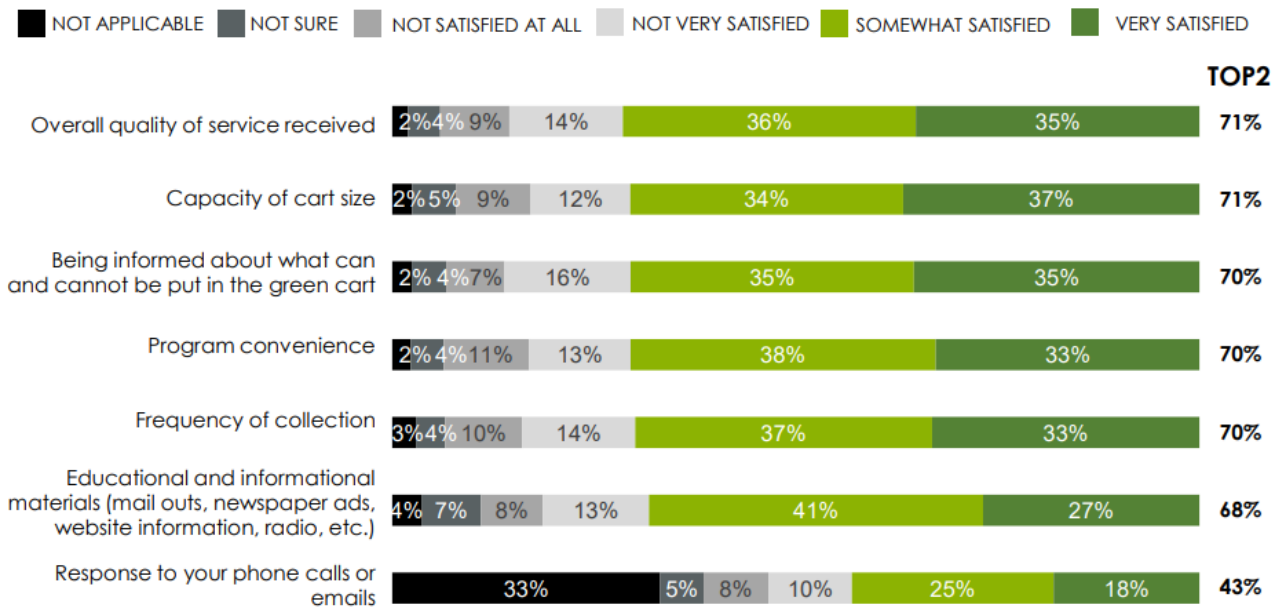
- Overall, residents seem to display good knowledge levels about the proper destination for many waste items. Most residents know how to optimally dispose of yard and garden waste (86% answered optimally), followed by dryer sheets and lint (76%), and soiled diapers and/or sanitary/hygiene products (75%). However, there is some confusion regarding optimal disposal of waxed paper (91%), followed by soils, sand, and gravel (88%), and biodegradable and oxodegradable bags (88%).

- About 3 in 5 residents (57%) state they put their green cart out for pickup every collection period, and 3 in 10 (29%) state that they put it out every second collection period.
- In general, most residents (82%) state that their green cart is less than full (three quarters full, half full, or one quarter full or less) on collection day. However, during peak organic waste seasons, 3 in 10 residents (29%) state that their green cart is full or overflowing.
- Most residents support the City of Saskatoon providing smaller green cart sizes, with 2 in 3 residents (TOP2: 67%) supporting this idea.
- Most residents (TOP2: 71%) that have a green cart are satisfied with the overall quality of service received, along with the capacity of their current cart size (TOP2: 71%).

The following excerpts highlight some of the relevant results regarding satisfaction, motivations, barriers, and behaviours.

Satisfaction with the Following Aspects of the Green Cart Program

The majority of residents (TOP2: 71%) that have a green cart are satisfied with the overall quality of service received, along with the capacity of their current cart size.



The following groups are most likely to be satisfied (TOP2) with the overall quality of service received:

- Residents ages 35 to 54 (77%)
- Residents in Ward 7 (78%)
- Female residents (77%)
- Households with 4+ occupants (80%)
- Residents that make a household income less than \$60K (79%)

The following groups are most likely to not be satisfied (BTM2) with the overall quality of service received:

- Residents ages 18 to 34 (28%)
- Residents in Ward 8 (35%)
- Male residents (30%)
- Households with 3 occupants (26%)
- Residents that moved to Canada in the past 5 years (26%)
- Residents that make a household income of \$60K to just under \$80K (35%)

Q8. How satisfied are you with the following aspects of the green cart program?

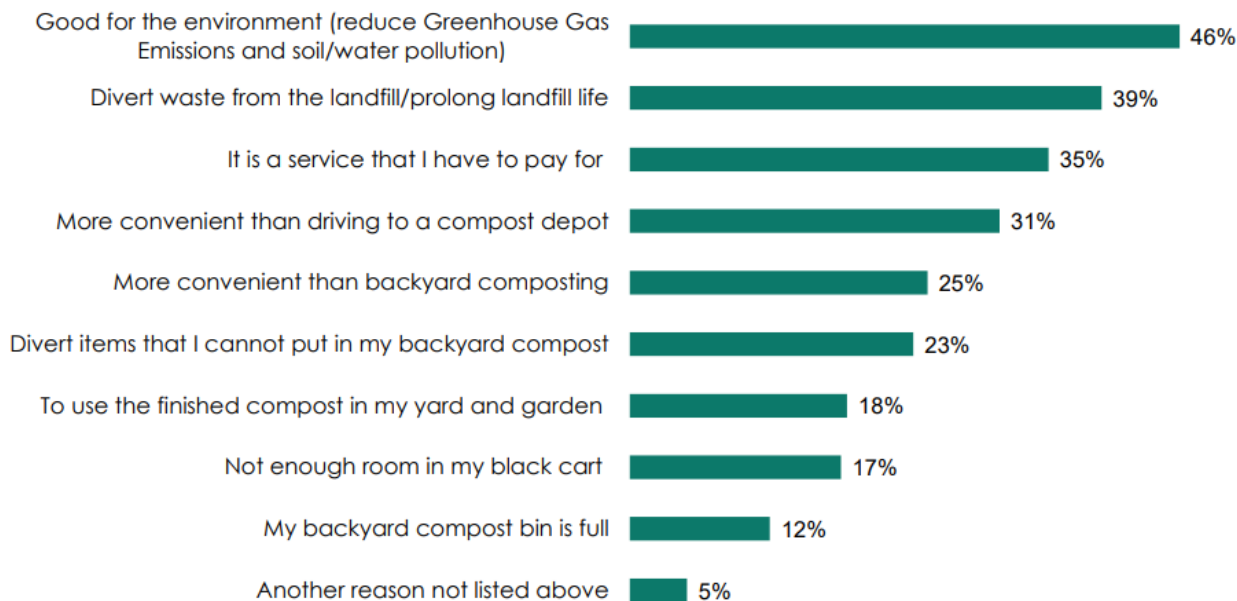
Sample Size: n=679

Base: Respondents that have a green cart



Primary Reason Households Participate in the Green Cart Program

Of the residents that have a green cart, the primary reason households participate in the green cart program is because it is good for the environment (46%), and it helps divert waste from the landfill and prolong landfill life (39%).



The following groups are most likely to mention how it's **good for the environment**:

- Residents ages 55+ (51%)
- Residents in Ward 7 (58%)
- Female residents (49%)
- Residents that rent their home (50%)
- Households with 1 occupant (57%)
- Residents that did not move to Canada in the past 5 years (50%)
- Residents that make a household income less than \$60K (57%)

The following groups are most likely to mention **diverting waste from the landfill/prolong landfill life**:

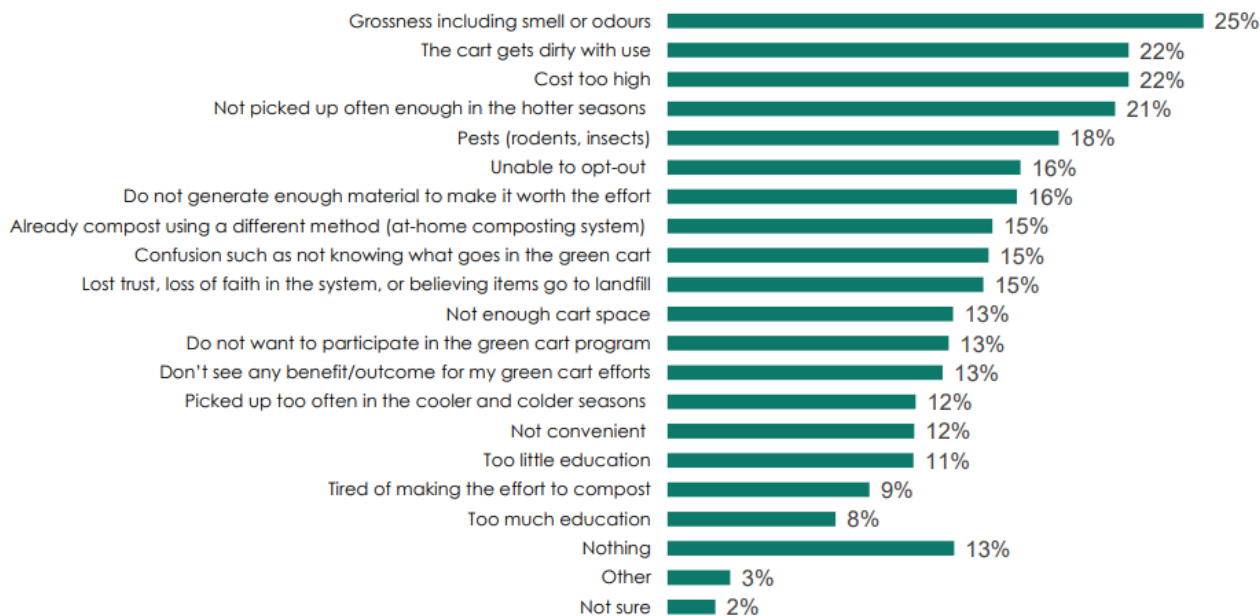
- Residents ages 55+ (46%)
- Residents in Ward 9 (60%)
- Female residents (44%)
- Residents that own their home (45%)
- Households with 1 occupant (46%)
- Residents that did not move to Canada in the past 5 years (45%)
- Residents that make a household income less than \$60K (46%)

Q9. What are the primary reasons your household participates in the Green Cart program? Please select all that apply.
 Sample Size: n=679
 Base: Respondents that have a green cart (multi-select)



What Discourages Residents from Using their Green Cart

Overall, the grossness such as smells or odours discourages residents from using a green cart or using their green cart more (25%), followed by the cart getting dirty with use (22%).



The following groups are most likely to mention **grossness including smell or odours**:

- Residents ages 55+ (29%)
- Residents in Ward 10 (43%)
- Residents that own their home (29%)
- Residents that did not move to Canada in the past 5 years (29%)
- Residents that make a household income that's \$120K or more (37%)

The following groups are most likely to mention **the cart getting dirty with use**:

- Residents ages 55+ (23%)
- Households with 4+ occupants (26%)
- Residents that did not move to Canada in the past 5 years (23%)
- Residents that make a household income that's \$120K or more (30%)

Q10. Which of the following things, if any, discourage or prevent you and/or others in your household from using your green cart or using your green cart more? Please select all that apply.
Sample Size: n=679
Base: Respondents that have a green cart (multi-select)



Cart Removals, Refusals, and Declarations

To be eligible for the curbside green cart program you must have a habitable unit.

Some habitable units such as basement suites can submit a declaration that indicating that the unit is uninhabited. There are 321 declarations currently which are exempt from billing and are not receiving the green cart service because their habitable unit in not occupied.

A green cart refusal occurs when an inhabited unit requests to have their green cart removed. There are 989 units which have refused their green cart. These units are still paying the monthly utility fee; however, they do not have a green cart at their unit.

Education/Enforcement/Administration Performance

Education

The Communications and Education Strategy for the first year of the Green Cart Program was presented to the Standing Policy Committee on Environment, Utilities and Corporate Services in October 2022. The Strategy outlined education and communication activities planned for December 2022 until December 2023, supporting the launch of the program. A Waste Reduction and Diversion Education plan was developed for 2024 which includes the education plan for City waste diversion programming which includes the green cart program.

A table summarizing 2023 work and a plan for 2024 is below.

Existing Program and Description	2023 Actions/Results	2024 Scope
<p>Waste Wizard The Waste Wizard is the name of the bundle of services provided through a contract with Recollect that includes the Waste Wizard App, collection calendar, reminders, website search tool, and sorting game for items for diversion or disposal.</p>	<p>Over 80 entries were updated to be reflective of the green cart program acceptable materials after the subscription green cart program ended and new program started.</p> <p>There were 16,001 app downloads in 2023 (compared to 8,534 in 2022), bringing the total number to 64,095. The top 5 searched items were tissue paper, protein and bones, pizza and pizza box and glass bottles and jars.</p>	<p>The waste wizard is monitored regularly to update, as necessary.</p> <p>Results from the Fall Survey and Waste Characterization will be used for a comprehensive review to address items where there is low knowledge or issues.</p>

	<p>The app currently holds a 4.8/5-star review, based on 358 reviews.</p>	
<p>Waste Reduction Wagon A mobile trailer that contains three games used by staff or volunteers to provide interactive education to the public on waste and recycling programs in Saskatoon.</p>	<p>Updated materials and staff training to include green cart.</p> <p>40 events attended with over 11,000 resident interactions.</p>	<p>The three sizes of black carts will be added to the display while cart exchanges are open; proper use of the green cart will be encouraged to help residents down-size carts.</p> <p>Animation of the Waste Wizard mascot will occur at select events in 2024.</p>
<p>Compost Coaches This program is a volunteer group coordinated by a contractor (currently the Saskatchewan Waste Reduction Council) focused on home composting. Compost Coaches work with 5 community gardens, staff composting displays at community events, give presentations, and perform home visits for residents who request one-on-one composting help</p>	<p>Trouble-shooting green cart issues was added to the Compost Coach program, which provides direct support to residents through the compost hotline or home visits.</p> <p>In 2023, the compost hotline received 45 inquiries regarding the green cart program.</p> <p>The group took part in 7 community events with 2308 resident interactions.</p> <p>37 workshops were delivered that reached 1076 people.</p>	<p>The Compost Coach program will continue to provide direct support to residents on home composting and proper use of the green cart.</p> <p>The contract expires at the end of this year and a program review is currently underway to ensure future educational programs align with goals to reduce food waste and maximize organics diversion for the curbside, multi-unit, and ICI sectors.</p>

<p>Newcomers Workshops Workshops target Newcomers and English as an Additional Language (EAL) students. This program is delivered through existing methods using recycling education as a theme for an English-language class facilitated by SWRC.</p>	<p>The curriculum was updated to include the new green cart program information.</p> <p>19 compost workshops, working with 11 organizations, and reaching 288 students.</p>	<p>Newcomer workshops provide composting and recycling workshops for those in EAL programs.</p> <p>In 2024 opportunities will be explored for expanding the curriculum to include education on all waste diversion programs as well information on reduce and reuse options</p>
<p>School-Based Environmental Education The City offers a suite of environmental education programs that schools can opt into that are a fit for green cart education:</p> <ul style="list-style-type: none"> • Student Action for a Sustainable Future (SASF) • Compost Coaches • Sanitary Sewer and Yellowfish Road <p>Schools fall under the Industrial, Commercial, and Institutional (ICI) sector.</p>	<p>A display was set up at the SASF showcase in April.</p> <p>Information was added to the sanitary sewer education about the acceptance of solidified fats and grease into the green cart.</p> <p>A school-organics pilot was initiated with selected schools.</p>	<p>The school organics pilot will be completed, and recommendations shared with school boards.</p> <p>Development of a toolkit for schools on how to implement a “Pack-in/Pack-Out” program for the students. This would encourage students to take organic materials home for disposal in the green cart.</p>
<p>Waste Reduction Education Room</p>	<p>On-site, processing focused education was included in the GPE contract. Due to the GPE being unable to fulfill the terms of the contract and an interim processing solution, no on-site or organics processing education was carried out.</p>	<p>There is the opportunity to develop an education room using existing and under-utilized space at the Material Recovery Centre (MRC). Program development and pilot are planned for 2024 and it could be operational in 2025. The program will provide the opportunity to give tours of the MRC,</p>

		landfill, future organics processing facility and educate on waste reduction including composting and recycling. It will be open to schools and the community.
<p>Customer Service Support Customer service is a source of information and support directly to residents. They can provide quick, accurate responses to inquiries and troubleshoot issues.</p>	An internal green cart knowledge base ensures that the Customer Care staff had the information available to respond to resident questions and concerns. It is updated based on questions Customer Care receives. Notifications shared for campaigns and at program launches (green cart tagging).	In addition to maintaining 2023 activities, the internal knowledge base will be updated to address residents' issues and areas of confusion identified in the survey and waste audits. There will be updates to the waste section of the Good Neighbour Guide.
<p>Awareness Campaigns</p>	A mass media green cart campaign took place during spring of 2023 for the launch. An additional campaign took place in the fall which included encouragement and seasonal support.	A mass-media green cart campaign is scheduled for summer 2024. The annual holiday campaign beginning in December 2024 will address seasonal waste including food and Christmas trees.
<p>Green Cart Tagging Program / Targeted Neighbourhood Education</p>	<p>Throughout September and October, green cart education audits were conducted using internal staff. During the audits, colored tags were placed on carts that were set out for collection, green if no unaccepted items found, yellow if unaccepted items found.</p> <p>Two neighborhoods had been identified as having high levels of garbage in green carts on a regular basis and were each audited on three separate collection days resulting in 1759 carts tagged in total (384 yellow, 1387 green)</p>	Using lessons learned from the 2023 Green Cart Tagging program, set out, capture rates, and contamination, a program will be designed to provide additional support for select neighborhoods to use the program properly.

	<p>Additional neighborhoods identified as medium priority, where contamination had been observed, but not resulting in loads regularly going to the landfill were audited once to maximize the number of carts inspected and therefore, households educated. A total of 3577 carts were tagged (254 yellow, 3323 green)</p>	
<p>Community Events</p>	<p>A staffed waste station was set up at the Civic Pancake Breakfast to help attendees sort garbage, organics, and recycling which also helped to reinforce what materials are accepted in the green cart program. The Waste Reduction Wagon was also present for attendees to learn about waste diversion.</p> <p>A float, including the Waste Wizard mascot, was entered in the Santa Claus Parade to build awareness around the green cart program and hand out BPI compostable bags to attendees.</p>	<p>As in 2023, a staffed waste station will be set up at the Civic Pancake Breakfast and a float in the Santa Claus Parade.</p> <p>Additional community events being explored for 2024 include:</p> <ul style="list-style-type: none"> - Rock your Roots - Pride Parade
<p>Roll-out Education Program and Starter Package</p>	<p>This work involved the development of, in coordination with Communications, an information package that was delivered to every curbside home in the kitchen pail attached to the green cart on how to use the green cart.</p>	

	<p>Additionally, if requested, the education team attended information sessions to help familiarize residents with the programs and answer questions. One-on-one information sessions were conducted with members of council, as requested.</p>	
<p>Retailer Communication</p>	<p>Direct mail-outs were delivered to applicable retailers by commissionaires to familiarize them with the green cart program and included information on acceptable compostable single use items and bags along with reinforcement that only BPI certified bags are permitted and no other single use item.</p>	
<p>Civic Staff Education</p>	<p>This strategy included providing information to develop internal Team Talks and MyCity posts to help educate civic staff the green cart program so that they answer questions from friends and family.</p>	
<p>Variable Black Cart Education</p>		<p>Communications and education for this new service level included education that helps households determine how much waste they produce, which cart size they should choose, and how to reduce their waste by using the green cart.</p>
<p>Education-First Enforcement</p>		<p>The City Waste Guide will be updated with program changes. In addition to usual distribution through education</p>

		<p>programs, they will be provided to Environmental Protection Officers, so they have updated education materials to support their education-first enforcement efforts.</p>
<p>Support Proper Elm Wood Disposal</p>		<p>Green cart education will include that elm wood is not an acceptable material and that proper elm wood disposal is at the landfill. Messaging in education materials and campaigns will be coordinated.</p>

Ongoing education and communication efforts are required to encourage program participation and increase capture rates, particularly in the winter months, by reducing program barriers and promoting benefits. Education and communications also help to reinforce proper program use which can reduce contamination in the green cart materials.

Enforcement

The City's Environmental Protection Officers (EPOs) focus on issues in the community related to Bylaw No. 9844, The Waste Bylaw by providing education and enforcement. In 2023, EPOs responded to 23 complaints regarding green carts, which included issues such as improper placement of unacceptable items in the green cart, carts left in the lane or other illegal dumping in the carts.

The EPOs start with education letters to residents and/or property owners, followed by phone calls and warning letters if the issue has not been corrected after a follow up inspection and lastly, they can issue a ticket if needed, but so far, have not issued any fines for green carts.

Customer Service

Resident calls and e-mails on the Green Cart program are received through the Customer Care Centre. Following the launch phase of the program, where there was an influx of calls regarding cart deployment and first collection. The issues and concerns about the program followed a seasonal pattern. In the summer and early fall, calls were regarding requests for more frequent collections or odours/pests. In the winter, calls were regarding requests for less frequent collection and unsuccessful collection due to materials freezing in the cart. With the introduction of a Customer Relationship Management system, better tracking is expected for future reporting.

Utility Administration

Beginning in May 2023, a monthly utility fee for the Green Cart Program was applied to City utility bills for eligible households. City staff completed the requirements updates needed in the billing system (Customer Information System) to implement the organics utility scope. Corporate Revenue administers the organics utility through billing and customer service support. Waste Operations determines eligibility, completes audits, any service reviews.

Organics Processing Update

Green Prairie Environmental Ltd. (GPE) was awarded a contract to process organics materials; however, GPE did not fulfill their obligations under the organics processing contract. As a result, Loraas Disposal North has processed organic materials from the program at their organics processing facility since May 2023.

The City required a long-term strategy for processing organics and on April 24, 2024, City Council directed that Administration proceed with a City-owned Organics Processing Facility. The facility will be City-owned and operated and will process Program and Depot material. Operations at the existing Depot will cease and all material will be received at the Material Recovery Centre. The facility could be operational in 2026.

Impacts on Other City Services

Black Cart Utility

Beginning in January 2024, households with curbside collection services were able to choose from three different black cart sizes. The first cart swap request period took place from January 8 to March 1 and resulted in 16,000 requests, which is approximately 21% of Saskatoon's curbside customers. There will be a second swap period beginning on July 8. During the program design phase, it was anticipated that as many as 25% of residents may swap to a smaller cart in 2024.

Communities that use similar approaches have seen their waste diversion rates increase by 5-17%, as residents improve their use of diversion programs and find new ways to reduce their general waste generation.

Different black cart sizes and a variable rate utility, encourage the use of the green and blue carts, and further waste reduction.

Compost Depot(s)

Overall traffic to the two compost depots was nearly 24,000 residential visits in 2023, which is just under half the number of visits from the previous year (51,380 visits in 2022). Nearly 8,200 customers used the "Dig-Your-Own" compost and mulch program in 2023 compared to 7,620 in 2022. In 2022, the compost depots and Christmas tree drop-off diverted 12,825 tonnes of organic material, while 9,752 tonnes were diverted in 2023.

In the Spring 2023 Waste and Recycling Survey 19% of residents, with green carts, reported that they continue to use compost depots for yard waste. While 82% of respondents using the compost depots were "very or somewhat satisfied" in the overall quality of service received.

In December 2023, City Council directed that the operations at the East Compost Depot cease.

Collection Location

To help to promote participation through consistency with other curbside collection programs, the green cart is collected in the same location as the blue and black carts. This was a change from the subscription green cart, which was collected front street regardless of where blue and black cart were collected.

Collection location affects collection efficiency, and in some cases, the type and size of equipment required to provide service. Increased health and safety incidents and lane maintenance costs are associated with the back lane collection. As well, waste bylaw infractions are more common with back lane collections. An upcoming report on collection location is planned for 2025.