

Edmonton Cart Rollout Update

RECOMMENDATION

That the February 4, 2022, City Operations report CO00921, be received for information.

Report Purpose

Information only

Committee is being informed of the Edmonton Cart Rollout progress, including early performance of the curbside waste collection service and continuous improvement efforts.

Executive Summary

- In 2021, approximately 250,000 single unit homes received a garbage cart and a food scraps/organics cart. Residents began sorting and setting out their waste in a new way as part of Edmonton's 25-year Waste Strategy.
- Automated cart collection is an industry standard for safe and efficient waste collection and facilitates stable and consistent waste utility rates into the future. Sorting food scraps and yard waste at home helps to divert organic waste from landfill, avoids harmful greenhouse gas emissions and generates useful products like compost.
- Edmontonians have adapted to the changes. As of December 2021, more than 98 per cent of carts are being set out properly. Administration continues to consider feedback from residents, along with program data and operational observations. This information guides service adjustments.
- 2022 will see the first full year of city-wide spring and fall yard waste collection, with adjusted dates, along with a new focus on encouraging more effective waste sorting.
- Despite significant impacts from the COVID-19 pandemic, cart delivery and the introduction of new service to all homes was completed on schedule and it is anticipated that the project will be closed out within budget in 2022.
- By diverting waste from landfill and starting all Edmontonians on a zero waste journey, the Edmonton Cart Rollout supports the City Plan's Big City Move to be Greener as We Grow and contributes to Council's strategic goal of Climate Resilience.

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REPORT

Edmonton's 25-year Waste Strategy and the Edmonton Cart Rollout

The Edmonton Cart Rollout is the first major project of Edmonton's 25-year Waste Strategy. The Edmonton Cart Rollout:

- Helps to effectively and efficiently divert food scraps and yard waste from the landfill, avoiding harmful landfill gas emissions.
- Introduces volume limits for curbside waste collection, helping Edmontonians be more aware of the waste they generate and consider actions to reduce waste.
- Introduces safe and efficient collection for food scraps and residual garbage, improving conditions for waste collectors and making it easier to minimize waste utility rate increases.

These outcomes help to achieve the goals defined in Edmonton's 25-year Waste Strategy, supporting the City Plan's Big City Move to be Greener as We Grow and contributing to Council's strategic goal of Climate Resilience.

In 2019 and 2020, approximately 8,000 homes participated in a demonstration that informed city-wide implementation. In response to the impacts of COVID-19, cart delivery that was originally planned for 2020 was delivered as a compressed citywide rollout to approximately 250,000 homes from March to August 2021. Cart delivery and the introduction of new service to all homes was completed on schedule and it is anticipated that the project will be completed within budget in 2022.

Cart-based Collection

As part of the transition to cart-based collection, Edmontonians had to learn new expectations for how to set out waste, including when to set out carts, blue bags and yard waste, where to place them and how to orient carts for successful pick-up. Based on lessons learned from the 8,000 home demonstration, the focus for 2021 was to maximize set-out compliance to ensure carts would be picked up by the automated collection vehicles. Efforts to improve overall program participation and sorting compliance will be the focus for 2022.

An outreach team was in the field for the first four weeks of cart-based collection in each phase to help residents adjust to the new set-out rules. Staff observed a high level of set-out compliance in the first week of each phase in most neighbourhoods. The team provided guidance to correct cart placement issues in the first two weeks of cart-based collection. Approximately 40,000 "Oops Tags" were issued with feedback on how to prevent set-out issues.

Administration observed that residents in the demonstration area who did not correct set-out issues following the first instance of direct feedback were very likely to continue to set out their waste incorrectly until the first instance when their waste was not collected. Applying this lesson, the Edmonton Cart Rollout outreach team provided feedback but only corrected very minor set-out issues in the third and fourth weeks of cart-based collection in each phase. Less than 20,000 "Oops Tags" were issued citywide in that timeframe. As of December 2021, over 98 per cent of carts are being set out properly.

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The operational transition to cart-based collection in southwest Edmonton (Phase 4 of the Edmonton Cart Rollout to approximately 49,000 homes) faced contractor challenges. During June and early July 2021, 13,000 homes in the area had their waste collected late. Administration supported the contractor to resolve the delayed collection. City staff and equipment were deployed to complete collection and all costs were recovered from the contractor.

The transition to automated collection otherwise met all targets for service transition. Please refer to Attachment 1 for highlights on education and resident support.

Food Scraps

The introduction of food scraps carts meant that residents were required to be more hands-on with sorting their waste. This was a significant change for many residents. All homes received a 120 litre food scraps cart. This is the minimum cart size that can be effectively collected by an automated truck and is large enough to contain food scraps produced by a household.

Homes also received a small pail stamped with sorting tips to collect food scraps in the house for transfer to the food scraps cart. In response to resident feedback from the demonstration area, residents were allowed to use Biodegradable Products Institute (BPI) or Bureau de Normalisation du Québec (BNQ) certified compostable bags for food scraps, if preferred.

Contamination was observed in some food scraps carts, and did not improve much with feedback provided by “Oops Tags”, especially as contamination is most often concealed by a closed cart lid. Further investigation in October and November 2021 showed that the sources of contamination in the food scraps carts were about 60 per cent garbage, 26 per cent recycling, 13 per cent plastic food packaging, and less than 1 per cent waste requiring special handling at an Eco Station. The contamination level in these carts varied from very low to 100 per cent (where food scraps carts were used exclusively to set out recycling).

From April 13 to December 31, 2021, just over 35,000 tonnes of organic waste was collected from food scraps carts. Approximately 60,000 tonnes of waste is forecast to be collected from food scraps carts in 2022 when all residents have carts for a full year and the City increases efforts to improve participation and sorting.

Yard Waste

The Edmonton Cart Rollout introduced spring and fall collection for separated grass, leaf and yard waste. Residents could also add yard waste to their food scraps carts, but there is no option to request a bigger food scraps cart or additional carts to accommodate more yard waste.

Although changes to yard waste collection have been especially challenging for some homes accustomed to setting out an unlimited volume of yard waste each week, these changes are driven by significant strategic and operational considerations:

- They align with a zero waste framework (the basis of the Waste Strategy) which focuses on activities that promote waste prevention, reduction, reuse, recycling and composting.
- They raise awareness that grass clippings, fallen leaves and most other yard trimmings are not considered waste, and encourage residents to make choices with an understanding that

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disposing of this material as waste, whether out of habit or for aesthetic and convenience reasons, is expensive, inefficient and can degrade the condition of their yard.

- They create a natural incentive to go bagless (leave grass clippings on the lawn), mulch and home compost, helping to keep nutrients and moisture in the ground.
- Yard waste is much more expensive to process when it is mixed with food scraps, and is more likely to end up in landfill when it is mixed with garbage.
- Compost generated from separated grass, leaf and yard waste is suitable for all applications (and provided back to Edmontonians for free at Eco Stations), whereas compost generated from mixed organic waste and pre-processed residual garbage is limited to agricultural and commercial uses.

To ease the transition to seasonal yard waste collection, the City has invested in the necessary pre-processing equipment to accept spring and fall yard waste in see-through plastic bags, making it easier for residents to store yard waste for their seasonal collection date. This adjustment was made in response to the feedback received from the demonstration phase in 2019, when only double-ply paper bags were accepted. Both demonstration phase residents and waste operations suggested adding plastic bags to increase participation and improve operational efficiency. Residents are also able to drop off of yard waste at all Eco Stations and Big Bin Events for free. In 2021, more than 2,500 tonnes yard waste was dropped off at Eco Stations by more than 45,000 residents and commercial customers.

A total of 4,697 tonnes of yard waste was collected in 2021 with very low contamination. In spring 2021, 538 tonnes was collected from homes in the demonstration area and rollout phases one and two and 4,159 tonnes in fall from all homes citywide.

Operational observations and feedback received from residents in fall 2021 included the following:

- Participating residents did a great job cleaning their yard and storing yard waste in bags until the collection day.
- Yard waste collection started too early for some residents. The volume was low on the two September collection dates and high in October and on the three Mondays in November.
- Residents would like to have a collection date after October 31 (to assist with the disposal of Halloween pumpkins).
- Residents in mature neighbourhoods preferred to have an increased number of collections.
- Residents were not satisfied that yard waste could only be collected in clear plastic bags or double-ply paper bags. Yard waste advertisements showed an orange background and led some residents to believe that orange bags were accepted. However, orange bags were not collected. Administration adjusted collection requirements and accepted any colour of see-through bags, as well as Halloween-themed bags starting in November.

Based on the feedback and observations received in fall 2021, yard waste collection will be adjusted in 2022 as noted in the Next Steps section of this report. Although some residents in mature neighbourhoods have expressed a strong desire for additional yard waste collection dates, there are no plans to change yard waste collection frequency at this time. In addition to compromising the strategic outcomes defined by the zero waste framework (the basis for the

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Waste Strategy), there are significant operational constraints and financial considerations to increasing the number of yard waste collection dates as outlined in Attachment 2.

Recycling

There was no change to sorting or setting out recycling in 2021, and the recycling volume collected was similar to that in previous years. As part of the business case for the Edmonton Cart Rollout, recycling carts were not recommended for a number of reasons, including:

- It was not possible to provide recycling carts to all households, and retrofit or replace the City's existing collection vehicles to enable automated collection, without an increase to waste utility rates. The City would have had to purchase more than 250,000 recycling carts and retrofit all manual collection trucks at a cost of over \$20 million.
- Mixed recycling is the safest stream of waste to collect by hand because it is light-weight.
- Blue bags give waste collectors an opportunity to spot and separate bags that are full of garbage or contaminants to ensure the collected recyclables stream is clean.
- A recycling cart would limit the amount of recyclables a resident can set out, which could unintentionally limit the amount of recycling being done, or promote putting extra recyclables into the garbage or food scraps cart.
- A large number of households were concerned about cart storage space and felt that two carts would be an easier change to manage than three carts.

Administration will continue to explore the possibility of cart-based collection for recycling and will review options in 2024. This will be done in alignment with the renewal of the recycling collection vehicles and service contracts. Another factor that will be considered is the Government of Alberta's future decisions on Extended Producer Responsibility (EPR). Legislation was introduced in November 2021 that enables EPR for Alberta. The details, regulations and impacts on the current recycling operations are still to be determined. Administration will continue to provide feedback and input to the Government of Alberta as this program develops.

Garbage

From April 13 to December 31, 2021, a total of 147,299 tonnes of waste was collected through the curbside collection program: 88,524 tonnes of garbage, 35,059 tonnes of food scraps, 4,697 tonnes of yard waste and 19,019 tonnes of recycling. While this total is similar to previous years, the amount of garbage collected was reduced significantly as a result of multi-stream collection.

Administration did not monitor contamination in garbage carts during the rollout due to the resource constraints with a compressed project schedule. Contamination was expected to be similar to that observed in the demonstration homes, where approximately 30 to 40 per cent of waste could be kept out of the garbage cart by properly sorting organic waste into the food scraps cart and recycling in blue bags. Overall performance of the program and resident comfort with the size and collection frequency of garbage carts will continue to improve as the City works to help residents reduce and sort their waste.

Next Steps

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2022 Education and Resident Support

- Research (March/April 2022) to learn more about resident experiences, identify any communications opportunities, understand the reasons for common challenges, and understand the community's overall experience with the program.
- Focus on encouraging and supporting residents to sort more and sort properly.
- Continued promotion of overall waste reduction, including going bagless and home composting to reduce yard waste.

2022 Yard Waste Management

- Later spring yard waste collection dates based on more complete fall cleanup in 2021 as a result of a late first snow.
- Later fall yard waste collection dates based on low volumes for September 2021, and resident feedback about the necessity of a post-October 31 collection date.
- Clear operational standards to collect yard waste in double-ply paper yard waste bags and any colour see-through plastic bags.
- Updated yard waste collection advertisements and education materials to ensure residents are aware of collection dates and acceptable bags.

2022 Collection Calendars

- New calendars for April 2022 to March 2023 will be mailed out to residents in March 2022.
- An online opt-out tool will be available for residents who use WasteWise for collection day reminders and are ready to go paperless.

Project Closeout and Transition

The Edmonton Cart Rollout will be completed by the end of June 2022.

Budget/Financial Implications

The Edmonton Cart Rollout was implemented within the approved \$64 million budget for both capital and operating expenses between 2020 and 2022. As in 2021, City Council approved a zero percent utility rate increase in 2022. Two consecutive years of zero percent rate increases have been achieved while delivering the transformational work outlined in the Waste Strategy. In October 2021, variable monthly utility rates based on garbage cart size were introduced for residents receiving curbside collection. Residents with a 240 litre garbage cart saw a slight increase in their monthly rate, and residents with a 120 litre garbage cart saw a decrease in their monthly rate.

COMMUNITY INSIGHT

The Edmonton Cart Rollout was shaped by the input of thousands of Edmontonians through the Future of Waste Public Engagement in 2018 and 2019, and refined by the experience of 8,000 residents in the demonstration phase in 2019 and 2020.

The rollout was also adapted by observing resident actions, monitoring traditional and social media coverage, and by analyzing 311 inquiries and other resident support channels. Messaging

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and support were adjusted to reach residents who lacked or were confused by program information (such as residents on steeply sloped streets who wanted additional cart set out guidance). Service provisions for residents with specific considerations were also adapted when gaps were identified. Additional resident feedback will be obtained through a survey and research in spring 2022 to build on these community insights and support continuous improvement.

GBA+

GBA+ principles have been applied throughout the planning and implementation of the Edmonton Cart Rollout to understand and address the unique needs of a diverse range of residents. Residents with specific service and communication considerations were proactively identified at the beginning of the project, and strategies were developed accordingly, with additional provisions developed as needs and challenges were identified. Attachment 3 outlines the service and support considerations for equitably serving these resident groups.

ATTACHMENTS

1. 2021 Education and Resident Support Highlights
2. 2022 Yard Waste Collection
3. Strategies for Residents with Specific Considerations