

Implementation Strategy

The first steps in implementing the new Waste Strategy focus most intensely on the first major task, the introduction of a Source Separated Organics (SSO) program. This will be supported by additional, focused waste reduction programming, and will be supported by a new bylaw. All efforts cumulatively involve a major change management effort that will impact close to 220,000 households. Changing how waste is managed at household or commercial enterprises, will require extensive and ongoing communication, stakeholder engagement, outreach and education. Providing sufficient customer support and information resources for all Edmontonians to learn about changes to waste sorting and collections services, new bylaws and new waste reduction opportunities, will be vital to the successful implementation of these new programs.

Having set a high standard for engagement through the Future of Waste public engagement process and the initial cart rollout, a continued emphasis will be placed on keeping engagement of stakeholders high through initiatives that will:

- Inform residents of details about how and when changes will impact waste collection, or other diversion activities
- Explain why these changes are happening and how they will provide long-term benefits to Edmonton
- Ask residents how they wish to be informed and educated to ensure that the transition is as convenient and successful as possible.
- Be flexible - seeking to go to Edmontonians in their communities, where they live, shop and relax, rather than requiring people to seek out information.
- Always asking what more can be done.

The first major change contemplated in the Strategy is the roll-out of a citywide SSO Program to single unit homes, a program that will require a significant behavioural shift for residents.

In addition, restrictions on single-use plastics and disposable materials are contemplated to take shape as early as January 2021 - which is mid-way through the launch of the SSO Program. The changes will impact businesses where restrictions will change the materials offered. Significant, simultaneous education will be required to ensure Edmontonians are equally ready to adapt to these changes while they are also changing habits within their own homes.

The level of confidence of Edmontonians about the changes, even among those who are enthusiastic, is varied. In Phase 1 engagement, 38 percent of respondents indicated they would feel comfortable making the change to a new

SSO Program immediately. This leaves 62 percent who need support to make the changes contemplated.

As part of the current rollout program, there are clear indications about the potential of the program and about the level of support required. This experience, along with key findings from both phases of engagement, will inform a roll-out communications plan to support all program changes.

Timing and Next Steps

Subject to approval of the strategy and its associated recommendations, Administration will begin to develop implementation programs to support the new program directions. Implementation planning will align with the overall proposed program rollout in Figure 3, which adheres to the March 2018 Council motion that called for the launch of the single unit residential program beginning in fall 2020.

Single Unit Residential Waste Set-Out

Program development planning is underway in anticipation of this program launch including:

- Development of a project charter for the citywide Single Unit Residential Set-out
- Briefing of waste industry participants on the strategy and planned procurements
- Initiation of procurement processes.
- Ongoing program analysis through the initial cart rollout and journey mapping initiatives.
- Development of a communications, marketing and outreach program, including a digital strategy.
- Establishment of an internal engagement committee to ensure ongoing communication with Waste Services staff to support program changes.

Non-Regulated Business Lines

- An RFP process has already been issued for the City's Construction and Demolition Recycling Facility and a decision on issuing a contract is expected in Q3.
- Subject to Council's approval, wind-down of Commercial collections will proceed with an assessment of:
 - Customer impacts and consideration of potential organizations to be included in the immediately to assess current customer and contractual requirements, labour impacts, contracts and assessment of wind-down costs and other impacts.
 - A timeline will be provided to council prior to the end of 2019.

Additional SSO Programming

1. Subject to approval of the strategy, planning for a multi-unit SSO programming, will commence including:
 - Assessment of an appropriate methodology for assessment of diversion in this sector.
 - Initiation of a business planning process.
 - Development of a stakeholder committee to advise on the forthcoming work.

2. Subject to approval of the strategy, planning for ICI-SSO Programming will commence including:
 - Assessment of an appropriate methodology, in cooperation with waste industry participants to measure diversion in this sector.
 - Initiation of a business planning process.
 - Development of a stakeholder committee to advise on the forthcoming work.

Waste Reduction Strategy

Between 2019 and 2022, current waste reduction programming will be adapted to support the city-wide launch of a new single-unit residential waste set out (CR_7173) and will focus on:

- Promoting grasscycling.
- Advancing opportunities, availability and awareness of options for alternate disposal of materials (Eco Stations, Reuse Centre, Big Bin Events).
- Expanding the reach of household and community composting programming.

In addition, by September of 2020, Administration will develop a methodology and performance framework be developed to measure the impact of waste reduction initiatives within the overall strategic framework. In addition, the framework will include recommendations on future program investment criteria.

Regional Initiatives

- In support of the overall strategy, Administration will continue to participate in the development of recommendations on regional waste through the Regional Waste Technical Working Group.
- Regional partners will be consulted about potential opportunities to work together as part of the City's current Organics Processing Facility planning process, with either a view of accessing processing capacity or participating in an investment or other capacity.

- The City will also reach out to regional partners in sourcing short-term organics processing opportunities.

Initial Cart Rollout

The Initial Cart Rollout currently underway has highlighted a number of successful engagement tools, through the work of the City's Communications and Engagement teams, and front-line Waste Services staff.

The use of high-touch tactics like canvassers, informational leave-behinds, public drop-in sessions, workshops and site visits, presentations, pops-up events and event displays and the Waste Hotline have proved successful in securing high resident adoption, and issues management. Further, the ability of these teams to respond directly to residents' unique challenges with customized information, with a focus on helping users remove barriers and find solutions to meet their unique needs, has made for a smooth transition to the new system. While it would be an unreasonable resource burden to accomplish this level of service citywide, versus the current scope of 8,000 homes, there are a number of key learnings and tactics the City can leverage from the cart rollout.

Tools will be developed to allow residents to access this level of service digitally. Triage protocols through web-based channels, 311, Waste Hotline, and collector-initiated outreach tools will also be developed to ensure those residents who require a higher level of personalized support, receive it.

Social Marketing/Customer Care Approach in the Initial Cart Rollout

The key learning from the initial cart rollout indicates a high level of receptiveness to the new program, with a significant amount of intervention required. The marketing team and field supervisors from Collections helps drive behaviour change by providing personalized support and feedback to residents through multiple face-to-face conversations.

Residents were contacted prior to the delivery of carts to raise awareness about the program and provide solutions to anticipated challenges. During the first four weeks of the cart rollout, canvassers visited all the residences that improperly set out their carts or were not using their carts. The canvassers explained the rules and helped residents find solutions to common cart placement issues. At the end of May - eight weeks into the demonstration - canvassers initiated their second round of visits to all of the homes in the project area to address issues residents are experiencing, gauge their satisfaction with the carts, and check back in on whether opinion on their cart size has changed.

In addition to providing valuable operational data, information collected by canvassers will also help inform the marketing and communications strategies for

any future roll out of carts. By comparing residents' anticipated challenges and the issues they ended up experiencing, Waste Services can help them adapt to the changes more easily by timing and emphasising specific messages. By looking at how non-compliant cart set outs are distributed differently across neighbourhood types, we can emphasize specific information on the common mistakes to different neighbourhood types. Comparing residents' opinions on their cart size before and after they receive the carts will help the City predict the size of cart that will be most appropriate for them.

Analytics

Staff engaging with residents and collecting waste use a comprehensive data collection approach to facilitate efficient collaboration and real time reporting through dashboards that note:

- Waste collected for each stream within every community to a high level of detail.
- Additional tips to note how well the initial cart rollout cart allocations accommodate the waste volumes of that residence and neighbourhood.
- Details of non-compliance and areas where follow-up is required. Canvassers record the topics discussed with residents, and the results of the conversation.
- The application also facilitates deeper analysis of trends relating to specific neighbourhoods and collection issues, and measures the long term effectiveness of contact with the residences.

The Waste Hotline records the details of calls into the application and uses it to reference previous contact with field supervisors, canvassers or other hotline calls. This allows the agent to quickly provide accurate information to the resident on the nature of the issue and recommended actions to resolve it. If required, the agent can issue follow up actions to the field supervisor or canvassers through the application. Entering all the Waste Hotline calls into the application allows for the analysis of call trends by a variety of factors and the calls impact on resident behaviours.

The application also supports tracking outcomes from canvassing and perceived challenges, resident satisfaction with their cart size, and how the program perception changes over time.

All of this data links together operational reporting with resident engagement statistics to provide a near real time picture of the status of the cart rollout project as well as facilitating long term analysis for both operational and behaviour change learnings. The collection and analysis of data complies with City of Edmonton policies and industry standards.

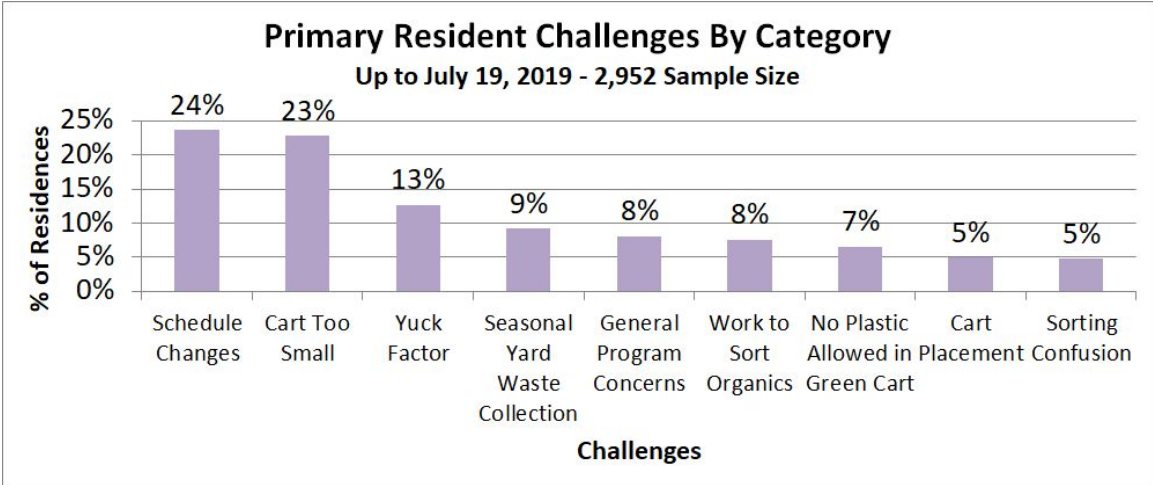
Initial Cart Rollout Areas - Key Operational Learnings

The information collected by canvassers, collectors, and supervisors during the Initial Cart Rollout to 8000 homes provides an overview of program performance and satisfaction, as well as highlight key issue areas to address as the program is launched City-wide.

Analysis is ongoing from this demonstration project to gauge how citizens will respond to the system and to ascertain the types and levels of support that will be required through the launch process. The following section provides some insights into learnings to date, followed by an outline of the tactics that will incorporate these learnings to support City-wide program launch.

Summary of User Barriers

Figure 10. Primary Resident Challenges



The most common challenges faced by residents using the new system is adjusting to the bi-weekly collection of garbage and the volume limits. While the “Yuck Factor” and work of sorting organic waste are prevalent challenges the lower prevalence of these issues indicates that adjusting to the new collection method is more difficult than developing new waste sorting behaviours.

This data was collected through door to door canvassing in the 14 weeks after cart delivery.

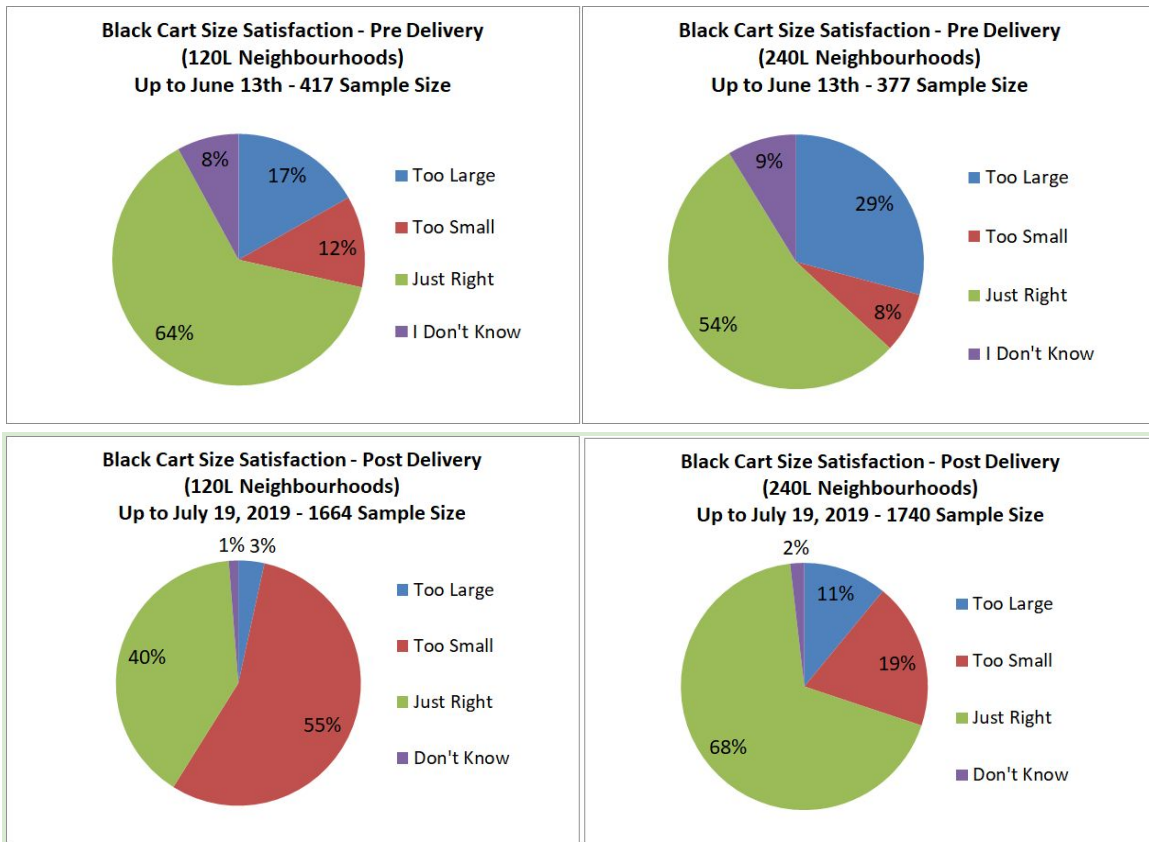
Impact to Collections Data Points

There are a number of key data points collected by the team that will impact the efficiency of start-up collections within the new program. These include:

- If the cart sizes selected are suitable for residents.
- Cart placement and set out guidelines.
- Special circumstances related to a specific neighborhood or type of housing.
- Refining the equipment needs.
- Refining the education needs.

A sample of learnings from this work includes the following:

Cart Size Satisfaction



These results indicate that residents in the 120L black cart neighbourhoods changed their opinion on the suitability of the cart size after using it. This is likely because residents had a difficult time considering how the change to the bi-weekly waste collection would impact their waste volumes.

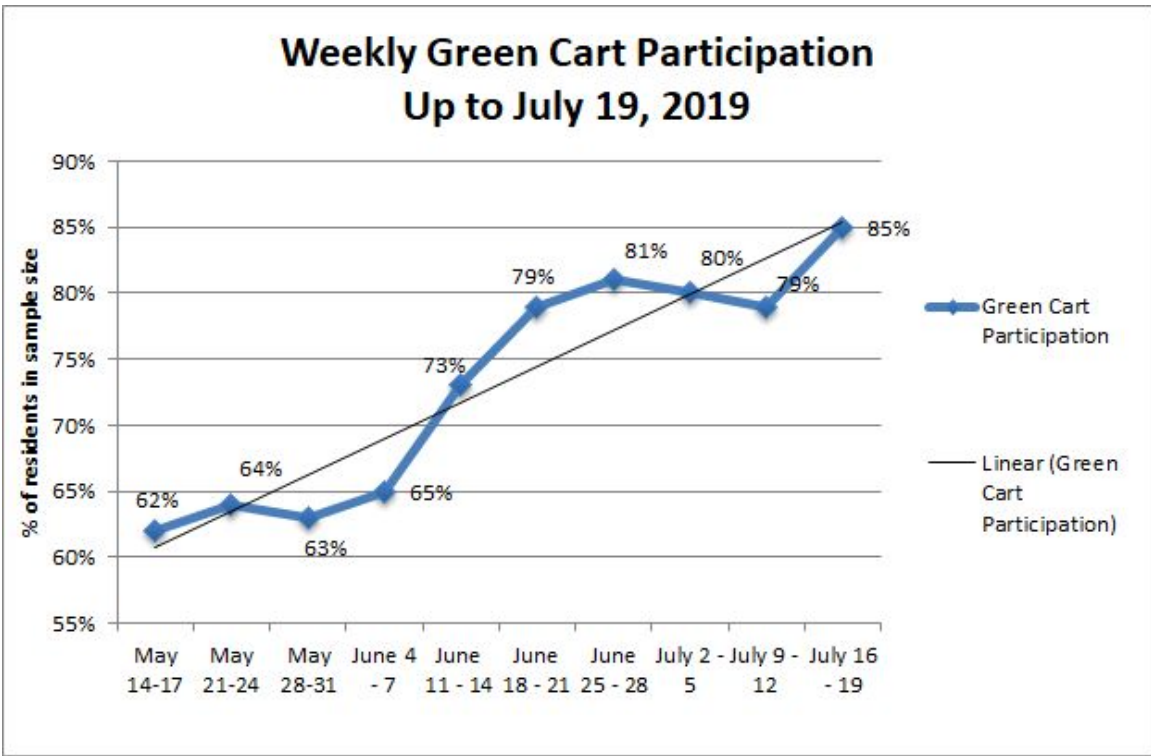
Residents were asked how they felt about their black cart size during door to door canvassing in the four weeks before cart delivery and the 14 weeks after cart delivery.

Impact to Processing Data Points

There are also a number of key data points collected by the team that will impact Processing. These include:

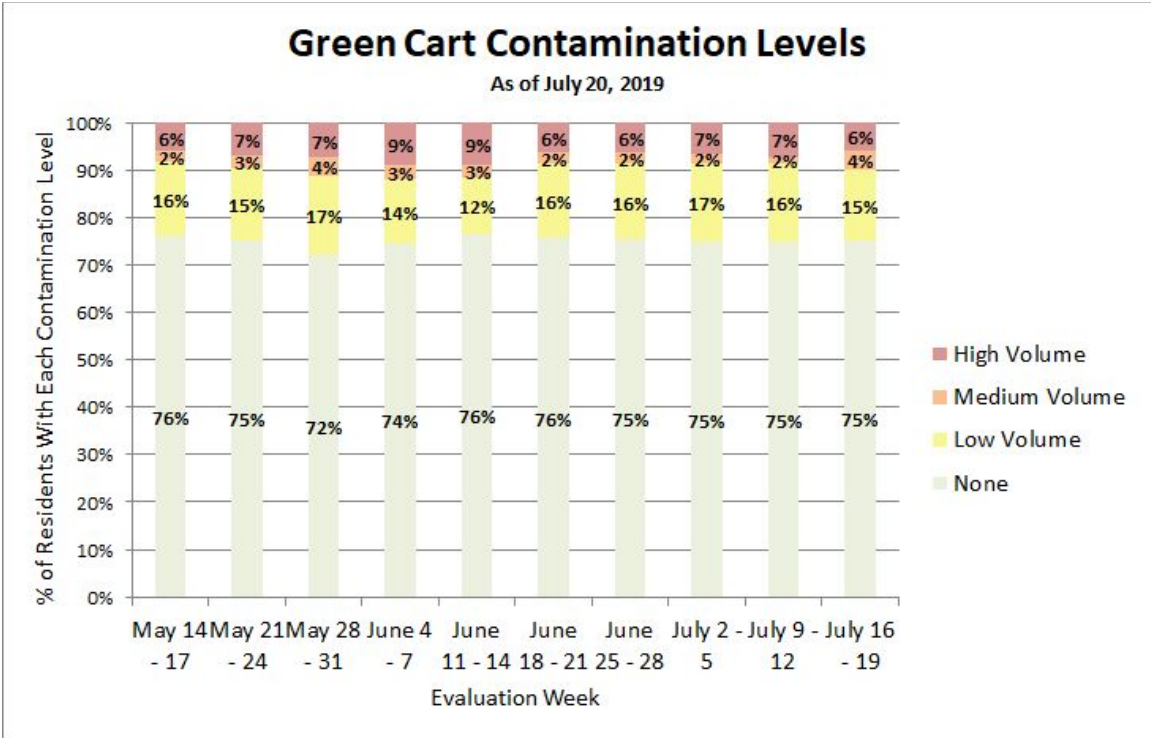
- The level of contamination in the organics stream which will help determine equipment needs and processing steps.
- Distribution of waste amongst the streams and the impact to overall tonnages sent to each processing facility.

Program participation



Usage of the green cart has been continually trending up over the spring and summer. Residents utilizing the yard waste top-up in the green cart has likely driven the steady increase in weekly participation since June as well as the availability of weekly collection over the summer, which aids in mitigating the “yuck factor”. The data above shows participation trends between May and mid-July, collected through a weekly visual set out inspection of a 20-25 percent sample size of each collection route in the demonstration area.

Contamination:



75% of green carts have been free of visible contamination during the spring and summer months. Together with the high participation, this shows that residents have quickly, and successfully, adopted the new sorting behaviours relating to SSO.

This data was collected through a weekly visual set out inspection of a 20-25 percent sample size of each collection route in the demonstration area. The contamination rate was determined by visual inspection of the bin with no touching of the waste which will under-report the actual contamination as non-visible contamination will not be counted.

Collector Feedback on the Initial Cart Rollout

Bi-weekly collector feedback sessions began after the launch of the initial cart rollout, and allow the project team to gather feedback from the collectors who worked on the automated trucks in the initial areas during the two weeks prior to the session.

Collectors expressed some challenges with the cart sizing, specifically with the 120L carts being small and top heavy and frequently falling over when touched

by the automated arms. Lack of level ground for cart placement and space constrictions on some routes are also a contributing factor.

Issues were also identified with cart placement, contamination and waste getting stuck in carts due to compaction. The collectors and field supervisors agreed that this will improve with proper ongoing education, clarification and enforcement.

Supporting a city-wide launch:

All of the foregoing data will help to support the education and outreach programming that will be developed to support the city-wide program launch. Key program elements will include:

Journey Mapping

A *user journey* is a timeline of user actions that describes the steps taken when navigating through waste services from their point of view. A *journey map* is a timeline of all touch points between users and the services available to them, including all channels in which they happen.

Journey mapping is an important addition to the planning process as it allows the department to gain a deeper understanding of all points of a journey, especially those that can often be missed by quantitative surveying. Through the definition of user personas, we will gain a better understanding of the categories of users, allowing us to better address their specific needs, tasks, expectations, satisfaction levels, and pain points throughout their journey.

The journey mapping project, currently underway in the first communities participating in the cart rollout, seeks to better understand how residents experience waste services in general, and the cart rollout specifically. This insight will allow the department to evolve services and resources to better support customers and will include:

- development of user personas for waste collection and drop-off services
- critical insight into how effective waste services are in bundling technologies to deliver increasingly digital experiences
- current levels of satisfaction/dissatisfaction with service levels
- which channels/touchpoints are the easiest to use and which are the most confusing
- depict the emotional alignment with service benefits

Journey mapping will inform operational decisions about how Waste Services' offerings are designed with the end-user in mind, ensuring users can accomplish their goals easier and faster, remove roadblocks, realize opportunities and build

habits around new processes. It will inform how we deliver, and how we talk about waste services going forward.

Further, once users' journeys are understood, Waste Services will be better able to identify key metrics and measures for tracking customer service management and user satisfaction.

Through the definition of key characteristics, Waste Services will gain a better understanding of the categories of users, allowing the Branch to better address their specific needs, tasks, expectations, satisfaction levels, and pain points throughout their journey. This will inform the development of impactful resources that speak to them directly, wherever they are in the process, through their preferred channels.

Digital Strategy

A digital strategy will inform the department's online marketing tactics and outline how it will reach its strategic goals online, while also improving residents access to digital information and services.

Digital tools enhance the capacity of the City to engage people individually and collectively, 24-7 and will work in a manner which is complementary to customer service programming through 311 and social marketing initiatives. Educational programming and broad-based information dissemination which can be personalized through digital platforms and potentially be embedded right in the carts. Beyond information resources, Waste Services will explore how digital services can help to deliver new programming, for example by:

- Allowing residents to go online to request a swap-out of their 240L black cart for a 120L cart, following an implementation period.
- Pushing notifications to subscribers to provide reminders about collection dates or any service changes.
- Delivering information through multiple information channels to ensure fast, efficient education and clarification for residents.
- Providing timely and customized feedback that facilitates one on one discussions, for example by allowing residents to initiate tickets about any service issue.
- Providing open and transparent access to data and performance metrics.

Through both phases of engagement, between 58 - 69 percent of respondents indicated their preference for online courses and information (videos, documents) to be made available to help them understand and learn about future changes to waste programs and services.

Building off the journey mapping work, development of a digital strategy will seek to maximize Waste Services' online presence to ensure residents have the information they need for a smooth transition to new programs.

Education and Outreach

Recognizing that not all stakeholders and the public can be engaged in the same way, different methods of educating and informing the public will be leveraged, based upon learnings from engagements, journey mapping and the Edmonton Cart Rollout. The most preferred source for receiving information about future changes to waste collection services are communications from the City (printed and electronic), information on the City of Edmonton website, and news/TV media.

The City's waste reduction programming will also support the transition to the new single-unit residential set out with programming that emphasizes not only the new rules but the potential impacts of:

- Grasscycling
- Managing food waste and maximizing recycling
- Use of alternative disposal opportunities (big bin events, ECO Stations, community recycling).

As programming is developed, the City will also leverage as many opportunities as possible to connect with residents in-person. Through public engagement, education and outreach efforts that support the cart rollout, it has been clear that having direct conversations with residents is an effective way to increase awareness of waste related matters, build trust with them and strengthen public support for potential program changes.

These efforts will continue by locating public outreach initiatives at high-traffic locations and events, such as shopping malls and recreation centres, and at strategically targeted public events such as the Edmonton Home and Garden Show.

This provides an opportunity to interact directly with large volumes of residents and educate them on the 'what, when, how and why' of program changes, as well as teach them about best practices for waste reduction, and sorting and separating waste at home.

Ongoing collaboration will occur with the City's Integrated Marketing and Communications team to deliver strategic, research-based change tools and tactics such as door-to-door canvassing initiatives and overall customer response that can be highly targeted towards solving customer challenges during program launch periods.

Many of the proposed program changes will have a significant impact on residents, businesses and organizations across the entire city. Our goal is to work with residents and stakeholders to support and enable them to participate successfully in new or different programs. The philosophy of the approach is to implement changes as collaboratively as possible with residents, rather than simply imposing the changes.