

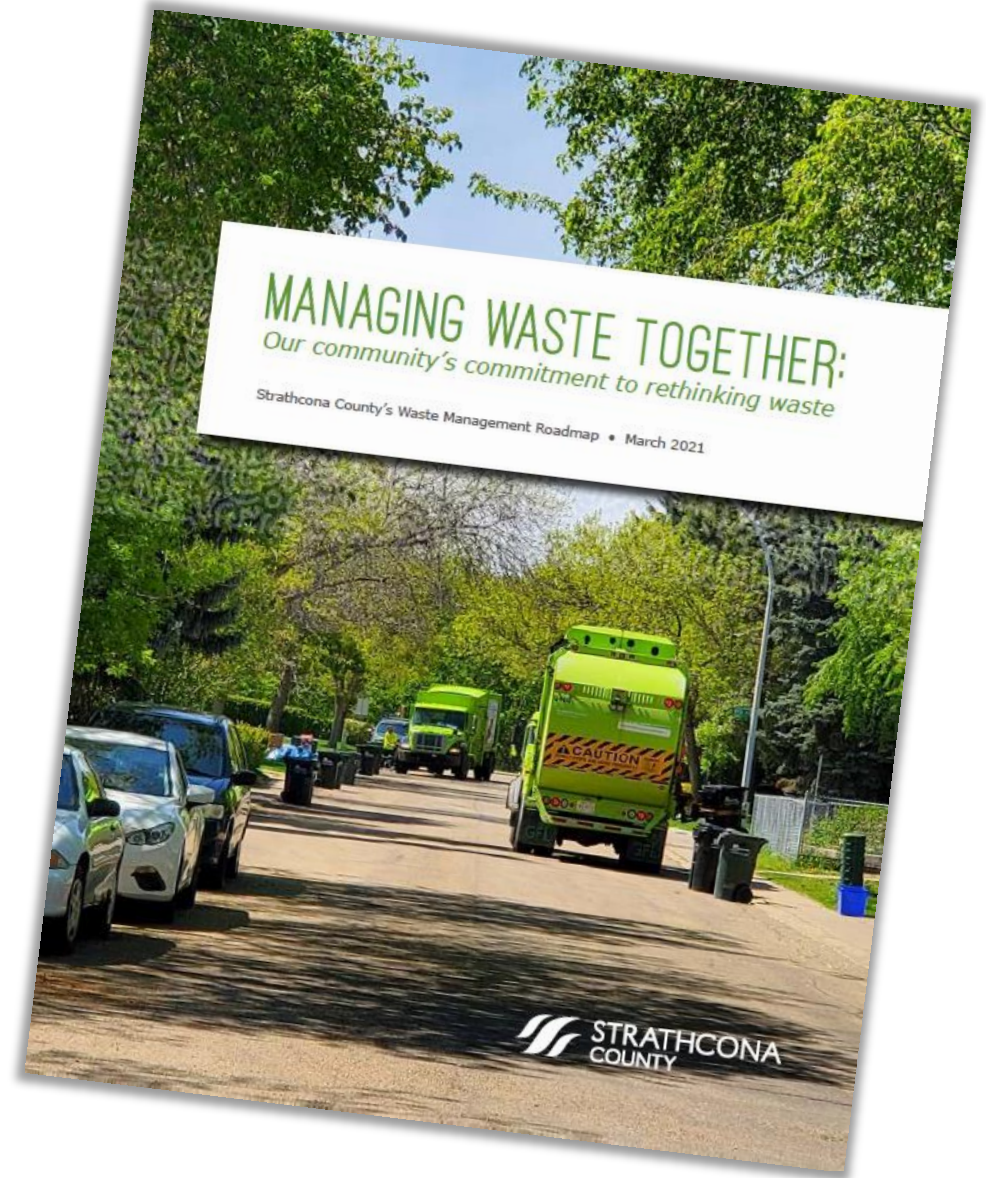
Strathcona County's Waste Management Roadmap

Priorities Committee Meeting
March 30, 2021

Purpose of the roadmap

This waste strategy:

- Reviews the entire system, reflects the interests of the whole community and expresses the philosophies and guiding principles for high level decision-making now and into the future.
- Sets a foundation for how the community will progress further in waste reduction and diversion from landfill.
- Identifies areas of focus that will inform short, medium and long term priorities in the implementation plan.



Process & inputs

- To develop the Roadmap, it is important to understand and integrate several inputs that influence waste management within Strathcona County.
- Utilities examined many aspects and gave thoughtful consideration for how these inputs interact and how they might evolve over the next 10 years.



Reflect

FOUNDATION

- There are several essential building blocks in waste management.
- These help support and guide the process, engagement and strategic outcomes.



Reflect

FOUNDATION

Beneficial, sustainable waste management solutions are needed to conserve materials and resources, protect valuable land and water from disposal sites and pollution, as well as create socioeconomic opportunities that increase the quality of life for a community.

Environmental:

When waste is minimized, recycled and composted, or disposed of in a safe, ethical, and responsible manner, it helps reduce the negative impacts on land, air and water.

Social:

Improved waste management connects communities, creates social inclusion, and activates contribution towards a common societal goal.

Economic:

Sustainable waste management has immense economic potential when properly facilitated and leveraged by public and private entities.



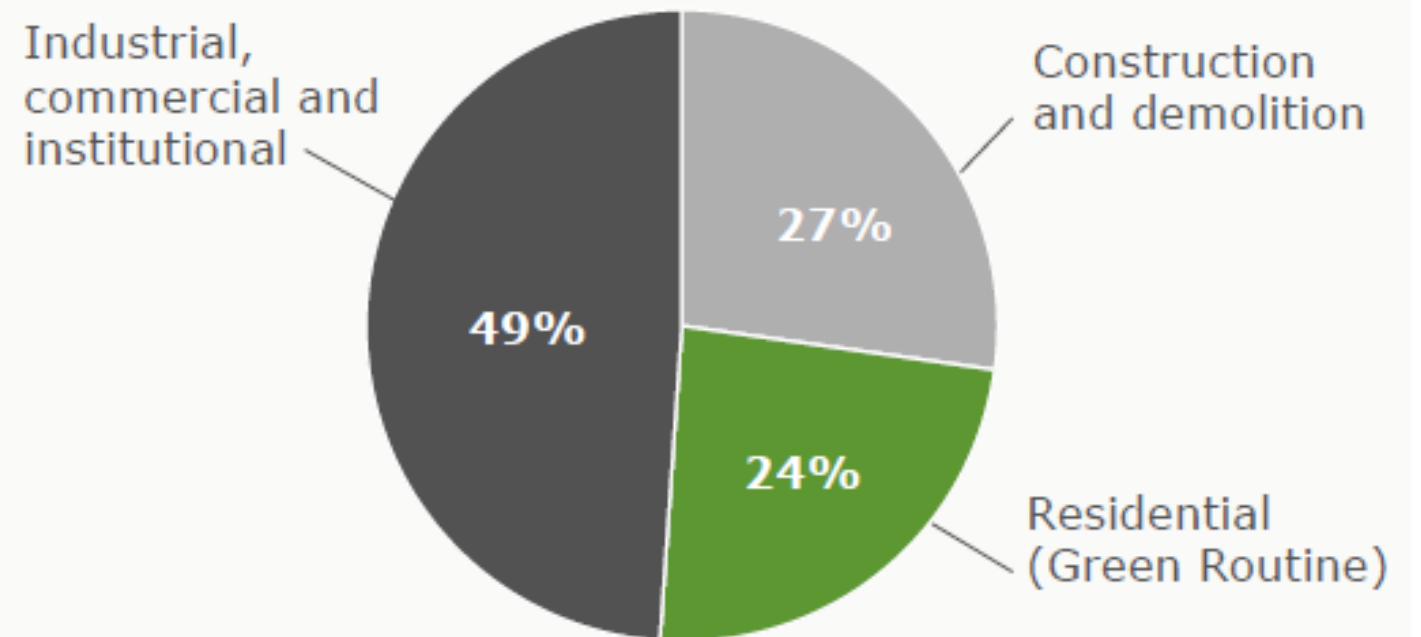
Review

CURRENT STATE IN STRATHCONA COUNTY

Under Alberta's Municipal Government Act, Strathcona County's responsibility is to provide services that are necessary or desirable for all or part of the municipality, while fostering the well-being of the environment.

- Waste generation within a municipality goes beyond the residential sector.

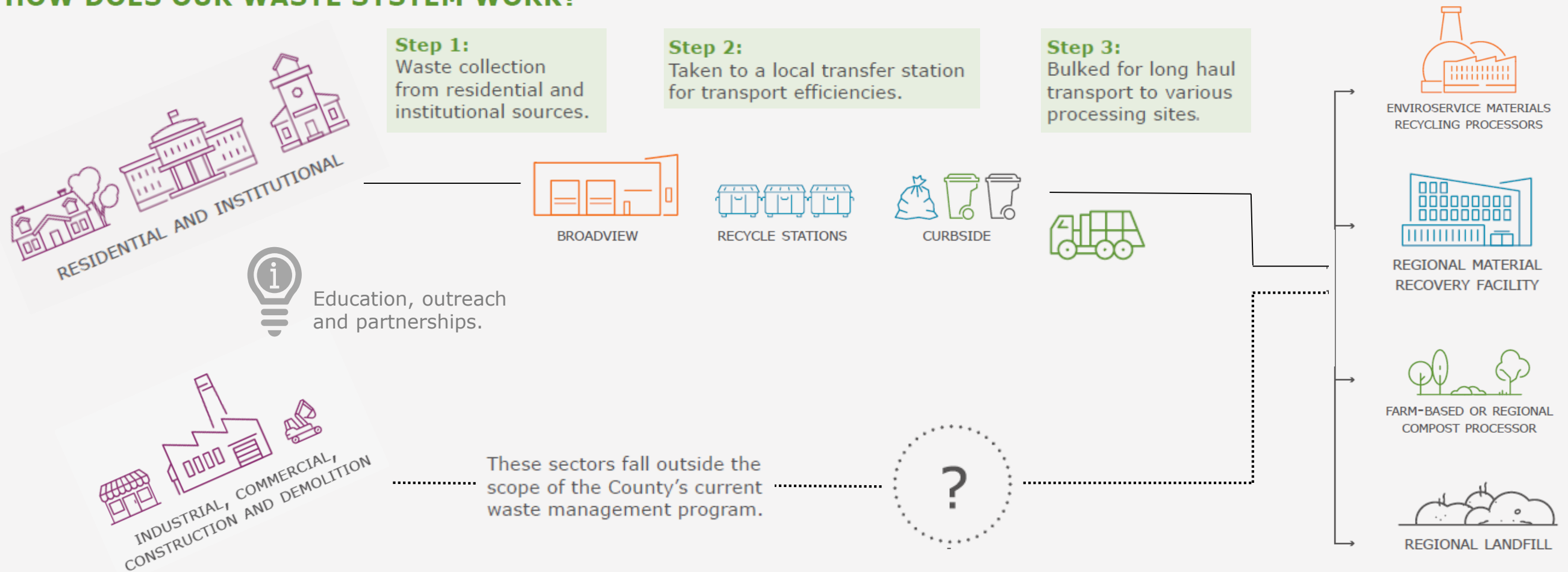
OVERALL WASTE GENERATION IN STRATHCONA COUNTY



Review

CURRENT STATE IN STRATHCONA COUNTY

HOW DOES OUR WASTE SYSTEM WORK?

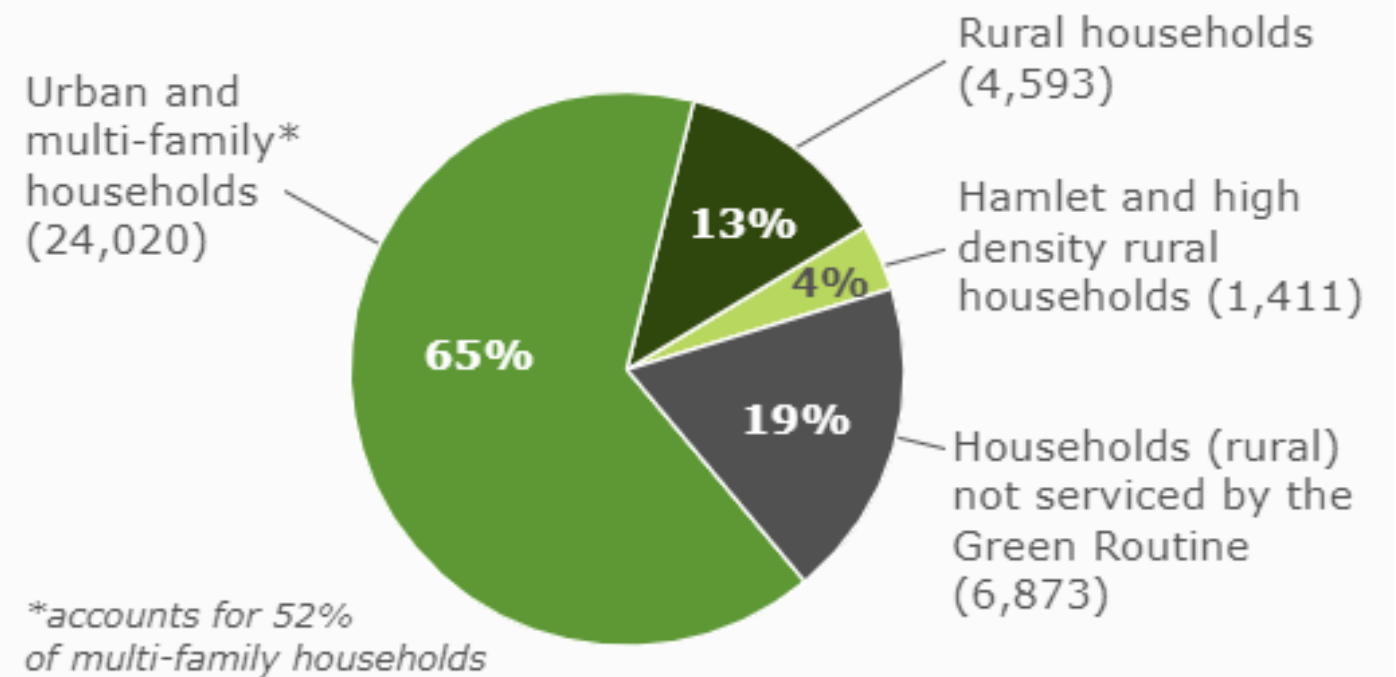


Review

PROGRAM PERFORMANCE AND PARTICIPATION

- The Green Routine services 30,027 of 36,888 households (81%).
- Roadside services are available to all properties within the County.
 - Mandatory services to all hamlet households.
 - Opt-in services for rural and multi-family households.
- For the past six years, rates have been maintained at \$25.45/month for urban and hamlet households and \$23.45/month for the typical rural household.

GREEN ROUTINE PROGRAM PARTICIPATION



Review

PROGRAM PERFORMANCE AND PARTICIPATION

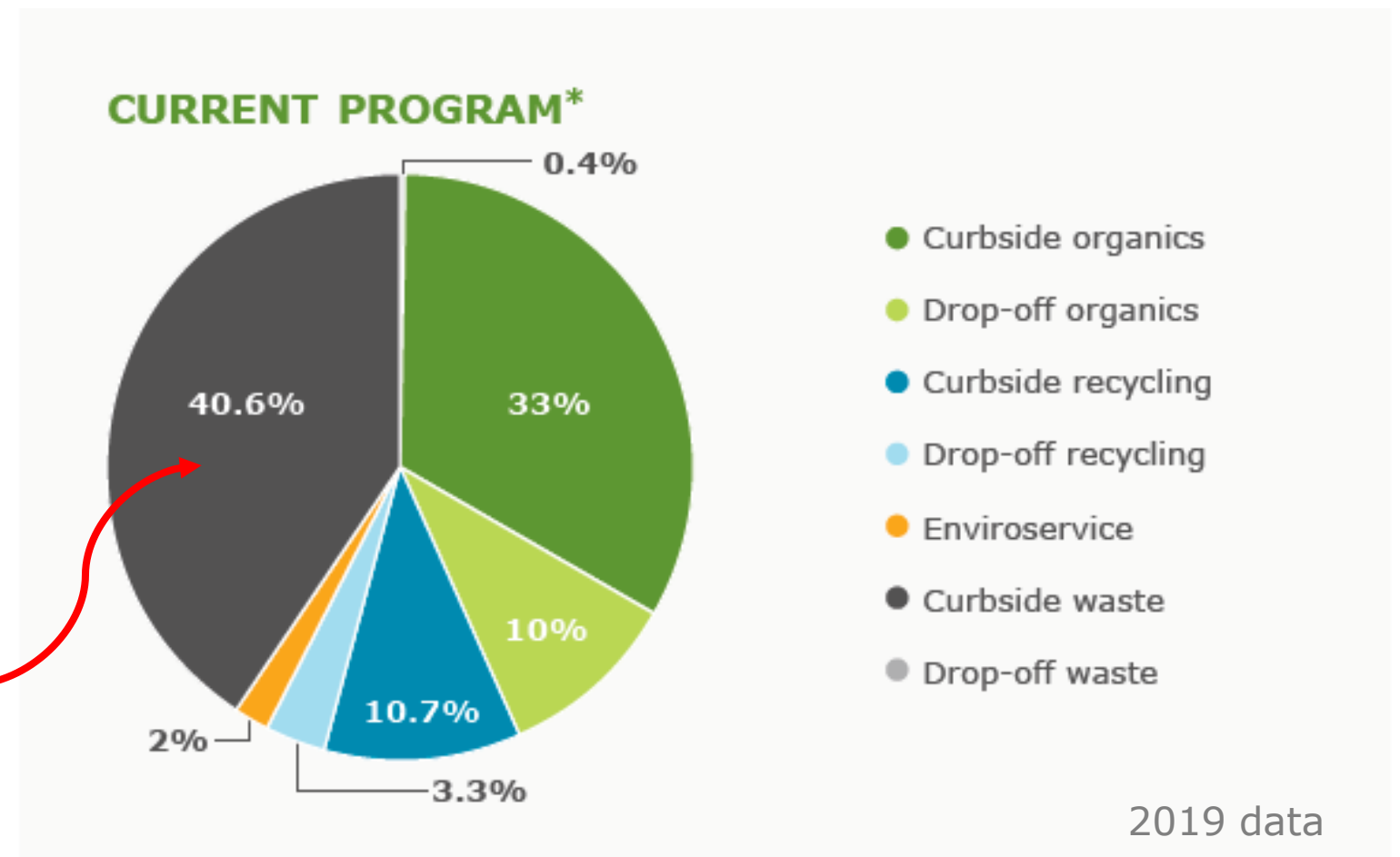
- Achieved 58% - 61% annual diversion over the last decade.

* Excludes data from 2020, as COVID-19 resulted in impacts to household and community behaviours and adjustments to service delivery.

- 56% in 2020



- The greatest opportunity for targeting improvement is exploring the black cart waste stream at curbside.

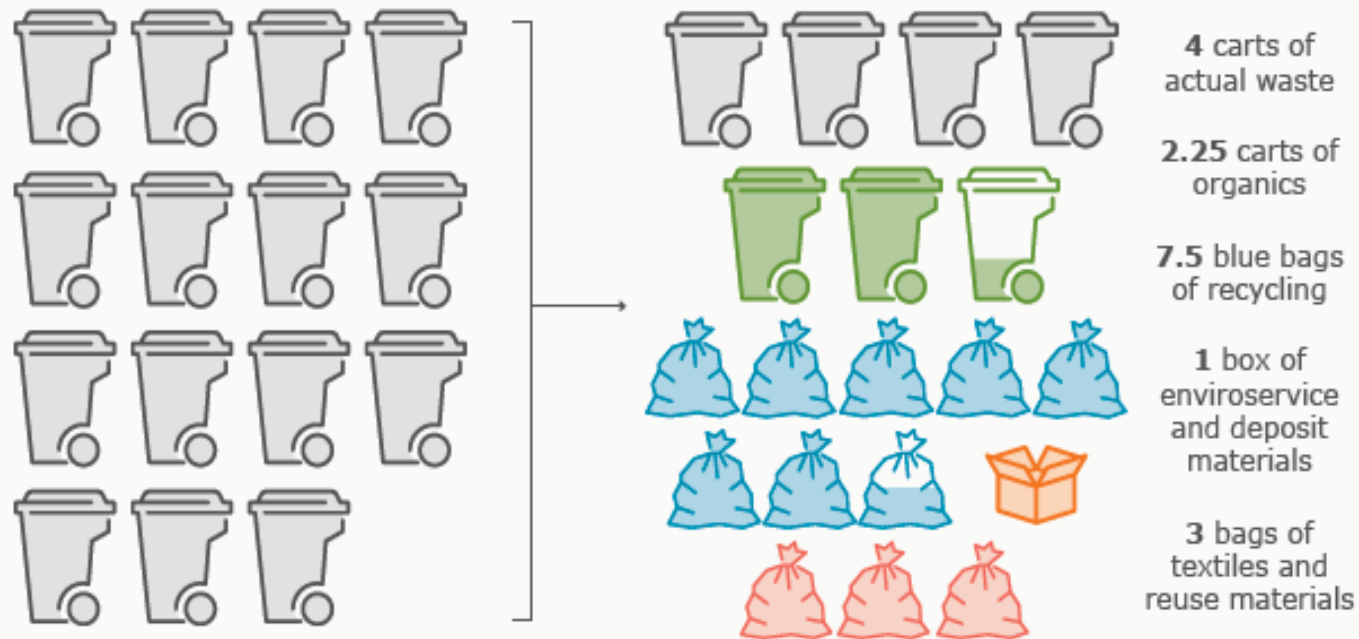


Review

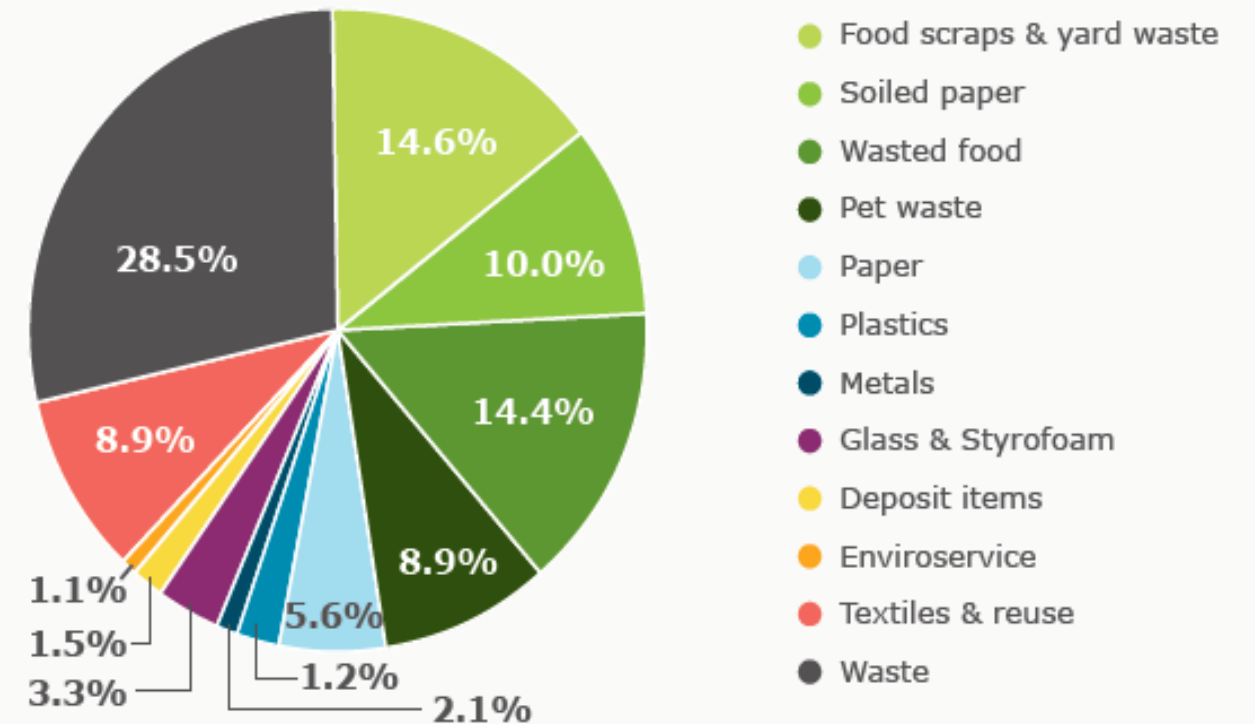
WASTE STREAM CHARACTERIZATION

In 2019, 15 waste carts were audited:

The carts were an average of 82% full, and contained (by volume):



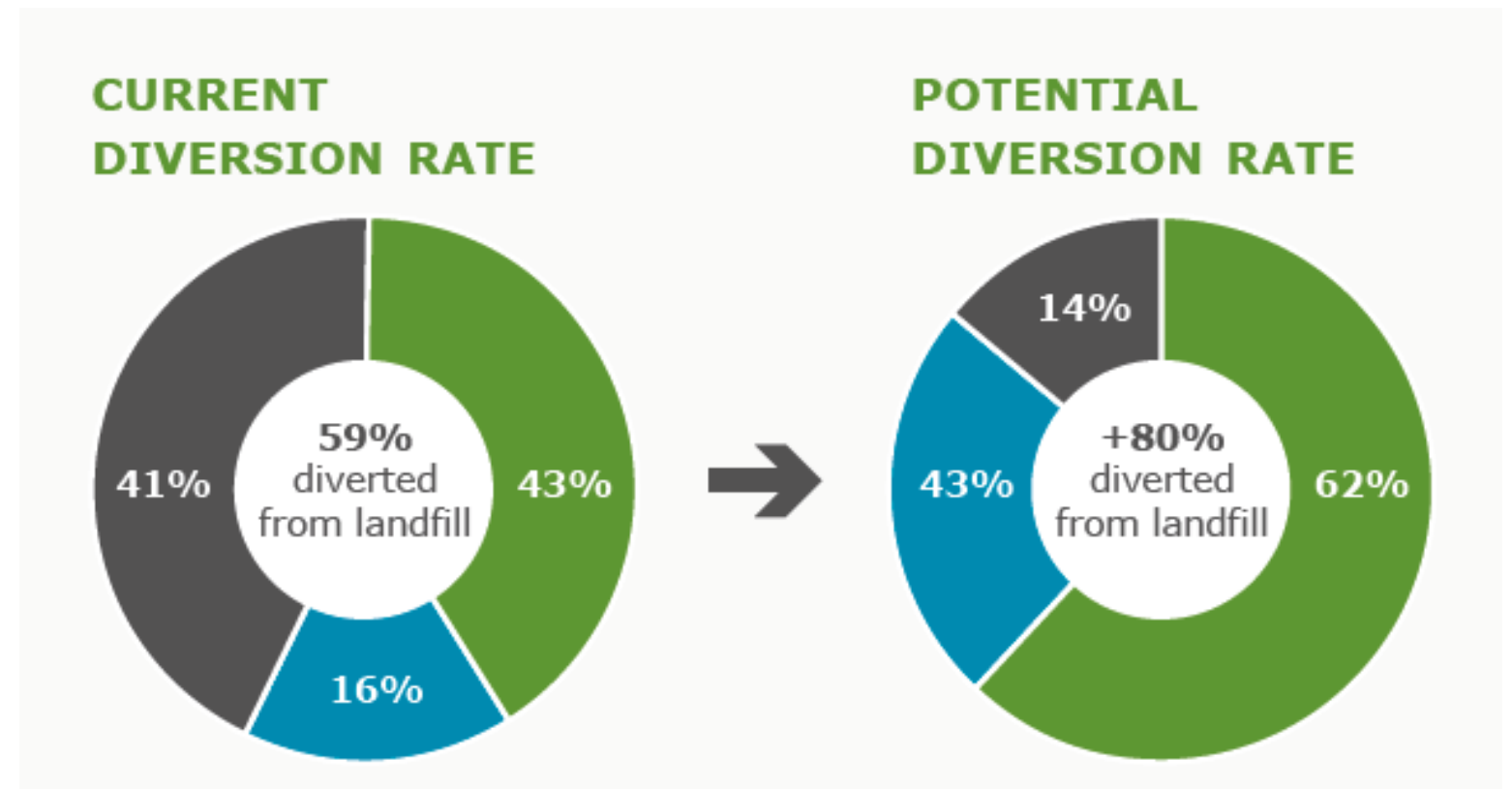
Overall in 2019, County waste was (by weight):



Review

PROGRAM PERFORMANCE AND PARTICIPATION

- Better compliance and sorting practices could lead to higher diversion rates.
- This is within the control of users and doesn't take into consideration waste prevention actions that could keep materials out of the cycle.



Research

ENVIRONMENTAL SCAN

- Growth & demographics
 - Bremner and higher densities
 - Average age and household sizes
- Economy
 - Circular Economy
 - Innovative plastics solutions
- Recycling market shifts
- Processing pressures and capacity
 - Organics capacity
 - Long-term lens for extending landfill life
- Measuring impacts
 - Shift away from diversion as a measure of success
- Focus on waste prevention
- Chemical recycling
 - Making resources from products
- Role of Waste-to-Energy (WtE)
 - Feedstocks and preprocessing
- Best practices review



Research



Circular Cities Project

- The Recycling Council of Alberta (RCA) is helping municipalities in the province to explore and support the creation of roadmaps for a sustainable circular economy.
 - Funding provided by Alberta Ecotrust and the Alberta Government's Community Environment Action Grant.
- Strathcona County is part of this foundational group to develop a [Circular Cities Roadmap](#) that contains strategies specific to the uniqueness of each community.
 - Direct linkages to the Waste Management Roadmap and updates to Environmental Framework.
- The RCA is seeking funding to assist with the next phase (implementation) in 2021.



the

Regulations

REGULATORY CONTEXT AND INFLUENCES

It is important to understand the roles and responsibilities of each level of government and what initiatives are currently underway.

Federal government

- Regulates the international and interprovincial movements of hazardous waste and recyclables
- Identifies best practices that will reduce the toxic pollution from the management of waste
- Canadian-Wide Strategy on Zero Plastic Waste (2018)

Provincial governments

- Establish waste reduction policies and programs
- Approve and monitor waste management facilities
- Commitment to establishing an Extended Producer Responsibility (EPR) policy
 - Consultation in 2021

Municipal governments

- Typically manage the collection, recycling, composting and disposal of household waste
- Operate processing and landfill facilities
- Influence management of waste from the commercial, institutional and construction and demolition sectors

Regional
Partnerships

Regulations

REGIONAL PARTNERSHIPS & ALIGNMENT

Edmonton Region Waste Advisory Committee (ERWAC)

- A voluntary group of regional municipalities that are committed to a collaborative approach to the implementation of joint strategies and solutions for waste minimization.
- This long-time regional voice has been focused on encouraging, facilitating and supporting policy development both within member municipalities and other external stakeholder groups, and relies mainly on the willingness of each municipality to implement suggested approaches.

Edmonton Metropolitan Region Board (EMRB) Metropolitan Region Servicing Plan Solid Waste Collaborative

The regional growth management board is formally committed to:

- collaborate on regional level planning for solid waste;
- share regionally relevant data and information about solid waste;
- contribute to the advocacy of a zero waste region; and
- research and analyze different waste service delivery options for the region.

Reach out

ENGAGEMENT PROCESS

- Marcomm Works Inc. provided the planning, implementation and reporting back for the public engagement process.
- Participants from across the County were invited to participate in a variety of engagement activities.
- A program of engagement, called **Talking Out the Trash**, was developed to gather resident and stakeholder input through an extensive survey, virtual discussion boards and online focus groups.



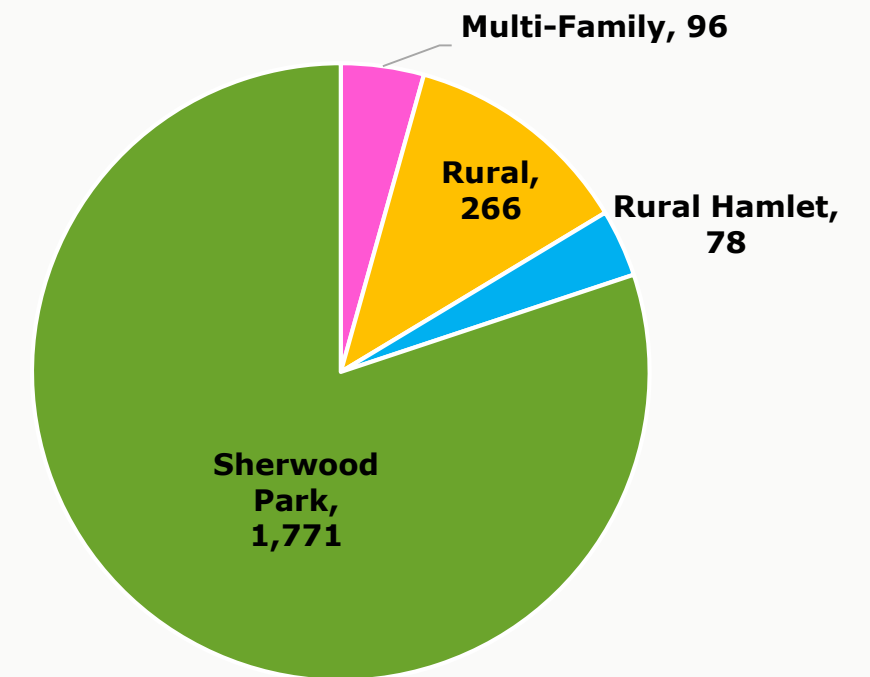
Reach out

ENGAGEMENT PROCESS

Important to note:

- With the onset of the COVID-19 pandemic early in 2020, the public engagement program required pivoting to adapt. Intent did not change, but the techniques shifted to solely providing virtual opportunities.
- Despite COVID-19, residents were very responsive to the survey.
- Online discussion boards and virtual focus groups were piloted.
- Commercial sector engagement was paused; we anticipate revisiting this in spring of 2021.

Survey Respondents

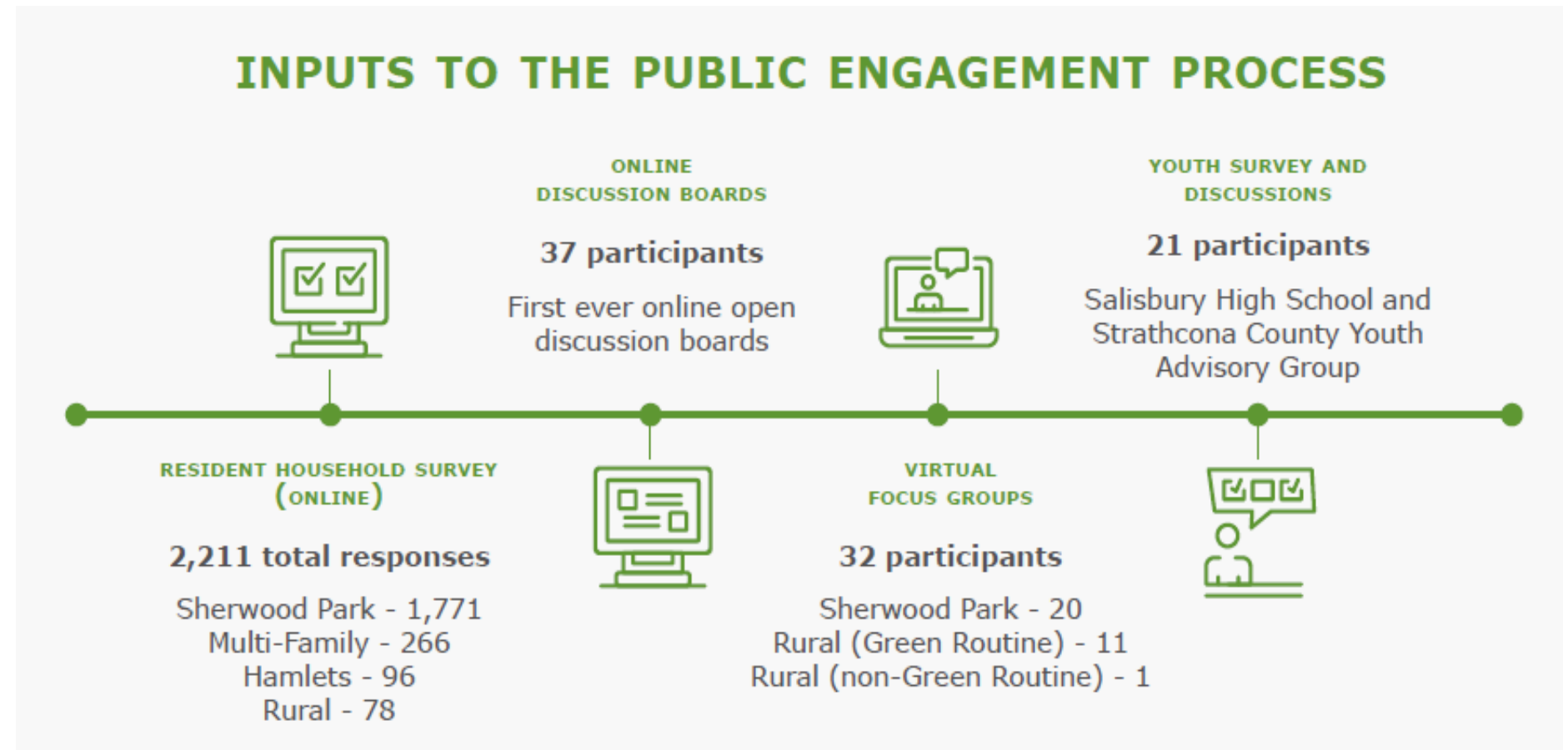


Reach out

ENGAGEMENT PROCESS

The focus of the overall engagement was to explore:

- current participation and assessment of behaviours;
- willingness to change behaviours and ways to improve our system;
- priorities and where we should focus our efforts;
- roles and responsibilities of waste generators throughout the community; and
- the future of waste management while balancing the needs and goals of the community.



Reach out

ENGAGEMENT PROCESS

Main themes captured through the public engagement process:

- Waste management is a shared responsibility; let's be leaders in waste management.
- Commercial sector needs to take a more active role.
- Desire for more convenience at the curb.
- Solutions required for non-recyclable packaging and materials out of the users' control; hold producers responsible (EPR).
- User pay systems require careful consideration; positive incentives are preferred to motivate.
- More creative education is required to inform stakeholders and instill positive habits.



Reach out

SURVEY HOUSEHOLD SELF-ASSESSMENT

Notable Findings: Household Self-Assessment



- **ORGANICS:** Over 70% of households are averaging filling less than half an organics cart; yet 65% of households indicate they are sorting all organics possible.



- **RECYCLE:** 97% of households indicate they recycle regularly, with almost 70% recycling everything possible.



- **WASTE:** 50% of households are managing to produce less than 75% of a full waste cart.

- **PRIORITIES:** Overall convenience was ranked a major priority for 89% of respondents, with diversion (68%), reliability (62%) and cost (57%) as other important priorities.
- **SATISFACTION*:** Over 90% approval for recycle station services and 75% support for curbside services.



BROADVIEW



RECYCLE STATIONS



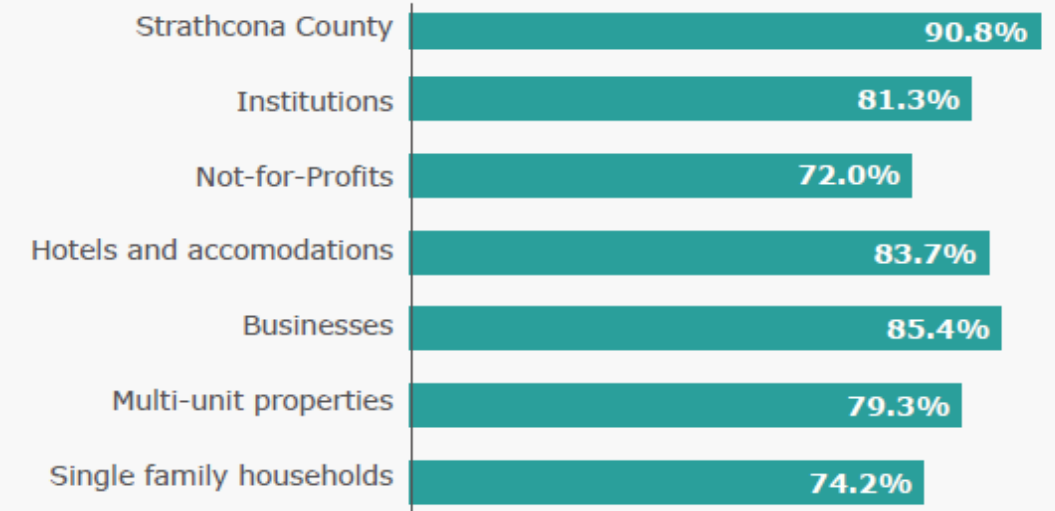
Reach out

PROGRAM PERFORMANCE AND PARTICIPATION

Notable findings:

- A large majority of participants believe that responsibility for waste management lies with all stakeholders in the County. The County was seen as most responsible as a governing body, regulator and service provider.
 - However, the larger sectors beyond residences were close behind in needing to be responsible for the waste they produce.
- Over 90% of respondents think it's important to have diversion opportunities everywhere they work, play, eat, shop and gather in the County.

RESPONSIBILITY FOR DIVERTING WASTE

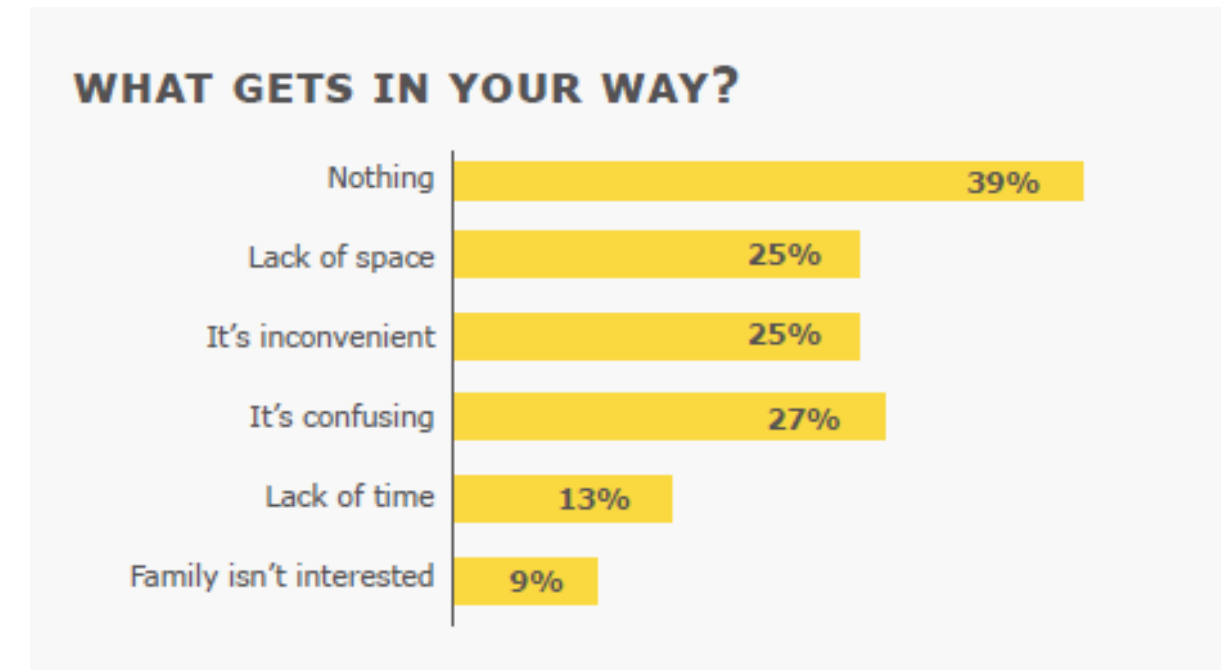


Reach out

PROGRAM PERFORMANCE AND PARTICIPATION

Notable findings:

- The participants shared that the number one way to have people participate more in good waste management is to make it more convenient, especially at the curb.
- The majority of participants also believe they would divert more waste if there is more clarity on how to participate in the waste management system.
- Participants in general want better solutions to not having to dispose of single-use plastics.



Reach out

EVALUATION, THEMES AND WHERE WE NEED TO GO

How what we heard is moving us to where we need to go

- Themed and patterned results were gathered from all of the input and feedback analyzed during the public engagement process.
- This 'what we heard' has been combined with research, best practices and County considerations to form the major outcomes that will guide 'where we need to go'.
- Nine overall themes were identified. These themes will support fostering a collective commitment and effort to rethink how we manage waste and ultimately divert less from the landfill.



Report

1. WORKING TOGETHER

WASTE MANAGEMENT IS EVERYONE'S RESPONSIBILITY



- Overwhelming support for a number of identified sectors within the community to be actively involved in diverting waste.
- Dynamic conversations developed around waste management being a 'shared responsibility.'
- Communities that are leading the way are pivoting their focus to a holistic and circular approach to their local waste systems that create connection and a shared responsibility between all waste generators.

Where we need to go

- ✓ A community that collectively commits to responsible waste management. We as an entire community are *Managing Waste Together*.
- ✓ Diversion opportunities and solutions that are consistently available or in places where people live, work, play, shop or stay in Strathcona County.
- ✓ A community that endorses and prioritizes the waste hierarchy, with an emphasis on rethinking our waste and waste prevention.

Report

2. BEYOND THE CURB

CREATING CONTINUITY WITHIN THE COMMUNITY



- The County, as a regulator, generator and service provider, should take the leading role.
- Target waste diversion for the business sector, with particular importance on places where you work, play, eat, learn, shop and gather.
- The MGA allows municipalities to set standards for an entire community. Local governments are starting to take action outside of the residential sector.

Where we need to go

- ✓ Businesses, institutions and organizations in the County are diverting organics and recycling from landfill.
- ✓ Successful community capacity building and collaboration that encourages best practices and knowledge sharing to support all organizations with their waste management practices.
- ✓ A community that collectively invests in the advancement of the circular economy and positions the County to become stronger and more resilient in the future.
- ✓ Strathcona County, as a waste generator, service provider and governing organization, is demonstrating leadership by maximizing diversion in public places and spaces, as well as operations.
- ✓ Regional partnerships and connections that strengthen consistency and equity in the non-residential sector for waste management across the Edmonton Metro Region.

Report

3. PLASTICS SOLUTIONS

PREVENTION, INNOVATION AND ADVOCACY



- A repetitive theme emerged related to single-use plastics and other non-recyclables that people are having to “throw away.”
- The County has to do more to collectively influence less of these products from entering the marketplace.
- Best practices and initiatives:
 - Federal plastic waste strategy
 - Extended Producer Responsibility
 - Single-use items strategy
 - Focus on waste prevention
 - Circular Cities Project

Where we need to go

- ✓ Strathcona County, as a municipal government, prioritizes and strengthens advocacy for stronger provincial and federal responsibility and investment in the areas of EPR, single-use items, plastics solutions, recycled-content standards and market development.
- ✓ People and organizations that value reduction of single-use items at the source and seek local opportunities for strengthening waste prevention initiatives.
- ✓ At the local and regional level, a community that collaborates to seek and support innovative solutions that foster a circular economy, with a priority on plastics.

Report



4. PROCESSING MATERIALS

FINDING OPPORTUNITIES AND VALUE IN WASTE

- A strong desire for the County to focus attention on improving opportunities for non-recyclable / marketable materials.
- Circular principles are founded in the idea of shifting the paradigm of how we manage our resources by keeping products and materials in use for as long as possible at their highest utility and value.
- Strathcona County continues to stay on top of processing and treatment options.

Where we need to go

- ✓ Resilient community that values waste as a resource and keeps goods and products in use by balancing local production with global supply changes.
- ✓ A thriving local economy that fosters economic productivity with new growth and business opportunities connected to a circular economy.
- ✓ Strong partnerships locally and regionally that strengthen processing capacity for all waste materials while extending landfill life in Alberta.

Report

5. CONVENIENCE IS KEY

MAKING REDUCTION AND DIVERSION SIMPLE AND ACCESSIBLE



- The majority of residents ranked convenience to have the utmost importance (+80%).
- Curbside options are preferred as convenience boosts rates of participation.
- Research indicates that it's best to consider making the behaviour you wish to discourage less convenient and more costly.
- A general lack of understanding for why the program changed, frustration with waste items out of their control and a disconnect with components of the broader waste system.

Where we need to go

- ✓ People and organizations have access to convenient and simple reduction and diversion opportunities in the County from every household through every hamlet.
- ✓ Everyone in the County has a collective understanding of the system, including sorting practices, benefits and outcomes that will achieve greater diversion from landfills.

Report

6. ASSESSING BEHAVIOURS

UNDERSTANDING DRIVERS AND WILLINGNESS TO CHANGE



- Exploring behaviours allows us to tackle any obstacles or barriers related to improving habits and develop pathways forward to progressing waste diversion.
- Residents' self-assessment indicated that their current level of effort is adequate. This is inconsistent with audit results.
 - There is a strong minority (35%) that acknowledge that more effort could be made. These are openings for improvements that would result in incremental progress.
- Community-based social marketing is a tactical approach that focuses on behaviours and tools to overcome barriers.

Where we need to go

- ✓ A cooperative waste management community that reaffirms everyone's roles and a shared responsibility, which in turn drives willingness to change and contribute to doing 'their part'.
- ✓ Waste reduction and diversion programs are implemented throughout the County that remove barriers and focus on encouraging positive behaviours.
- ✓ Reward, recognition and incentive-based tools provide inspiration for turning intent into action.

Report

7. WASTE MATTERS

CONNECTING OUTCOMES & EDUCATING USERS

- Residents are still experiencing confusion with sorting their waste and a disconnect to the 'why' it's important.
- Despite a robust education and outreach component of the Green Routine, a major theme emerged related to residents desire for more education and information. Must be user-friendly, easily available and timely.
- Creating connection to the importance of participating in the program. Reminders for the 'why' should hopefully reconnect residents to the waste that they generate and the role that they play in managing it.



Where we need to go

- ✓ A community that endorses the program by learning it and living it resulting in a stronger community identity and connectedness.
- ✓ People are inspired to take action through storytelling, connecting the narrative, reframing the conversation and creative campaigns.
- ✓ Programs and initiatives that are driven by champions in the community.

Report

8. TOOLS FOR CHANGE

INCENTIVES AND COMPLIANCE



- A majority of respondents believe that if they could save money, they would be willing to do more to divert waste.
- Support for positive reinforcements and incentives versus a more punitive approach.
- Respondents indicated that participants who are not contributing or sorting properly should be held more accountable.
- Equitable user-pay systems and consistently enforced compliance result in high performing waste programs.

Where we need to go

- ✓ People and organizations are encouraged by positive programming that inspires better performance in waste reduction and diversion from landfill.
- ✓ Equitable waste management system that maximizes efficiencies and promotes waste prevention, while improving environmental behaviours and flexibility for users.
- ✓ People and organizations are fully accountable for the waste they generate and compliant with diversion practices.

Report

9. TRACKING SUCCESS

COMMITMENT TO LEADERSHIP AND TARGETS



- A large response to the survey combined with passionate comments indicates residents' pride for their County and expectation that the County continue to be a leader in waste management.
- Desire to remain progressive, but to balance realistic targets with efforts, expectations and priorities of residents and the community.
- There is an industry shift to re-evaluate methodologies for measuring performance of a waste management program.
 - Regional Monitoring & Measurement Program

Where we need to go

- ✓ A forward-thinking community that has leading practices and progress in waste management throughout the County.
- ✓ Incremental actions are linked to achievable outcomes and overall targets that are balanced with expectations and priorities of residents.
- ✓ A measurement and monitoring system that reflects the entire waste management system and all waste generators within the County, as well as aligns regionally and provincially with industry standards.

Vision & Philosophies

Managing Waste Together:

Our community's commitment to rethinking waste

We are in this **together**;
everyone has a role to play.

...

Easy, **convenient** and understandable.

...

Equity and **flexibility** with positive
incentives that creates accountability.

...

Move towards a **circular economy**.

...

Be a **forward-thinking** community that has
leading practices in waste management.

...

Refocus on the **waste hierarchy**:

Rethink our use and design of materials
and move towards a closed loop model;

Reduce the amount of waste we generate;

Reuse what we can;

Recycle and compost into new materials;

Recover the remaining resources
to reinvest back into the economy; and

Residual disposal of actual waste—safely.

...

“TOGETHER WE VALUE WASTE AS A
RESOURCE AND ARE COMMITTED TO
RETHINKING OUR PRACTICES IN ORDER
TO MAKE STRATHCONA COUNTY THE
MOST LIVABLE COMMUNITY IN CANADA.”

Roll out

NEXT STEPS

- Strathcona County will use this Roadmap to guide new strategies and initiatives over the next 10 years.
- Create a communication plan to roll out the draft Roadmap to the community.
- Utilities expects to start a public engagement process with the commercial sector in Q2-2021 regarding current waste management practices and how diversion programs can be implemented across the community.
 - Update to Priorities Committee in July 2021
- Action items will be developed and outlined in an implementation plan (inclusive of commercial sector) that will have short, medium and long-term planning focuses.
 - Seek formal Council approval in September 2021.



Questions?