

Strathcona County's Green Routine 2.0

Waste Diversion Program Update

May 14, 2019 Priorities Committee Meeting

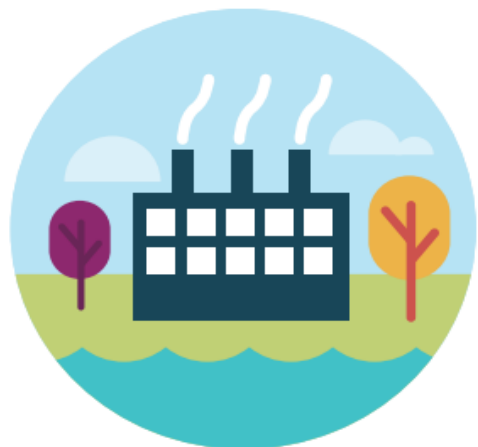
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Agenda

- Overview of program
- Update to Green Routine 2.0
- Outcomes & observations
 - Data collection
 - Waste characterization
 - Public survey
- What's next?
- Discussion



Strategic link



Goal 4

Ensure effective stewardship of water, land, air and energy resources

County uses best practice approach to waste management

Measure	Benchmark	Target
Residential waste diverted from landfill	58% (2018)	70% (2018)
Customer satisfaction with Green Routine	76% (2017)	75% (2018)

Curbside program

Green Routine curbside program

- 28,951 households
 - 85% hamlets, 15% rural
 - 52% of multi-tenant complexes & buildings
- Service 78% of households
- Only municipality in Alberta that offers direct collection services to rural households

Rates

\$0.05
decrease
over
5 years

- 2019 - Rate increase of \$0.30
 - \$25.45 for urban customers
 - Larger organics cart and weekly organics
 - \$22.35 for rural customers
 - Smaller organics cart & no weekly organics
- 2018 - No rate increase
- 2017 - Rate reduction by \$0.35 from 2016 rates
- 2016 - No rate increase
- 2015 - \$25.50 urban, \$22.40 rural – five month organics



Community recycling



Rural & urban

Broadview Enviroservice Station, Ardrossan Recycle Station and monthly events at South Cooking Lake



Enviroservice

A dedicated building for household hazardous waste (HHW), electronics, paint, oil, batteries, tires and other materials that require special recycling or disposal



Monitoring & education

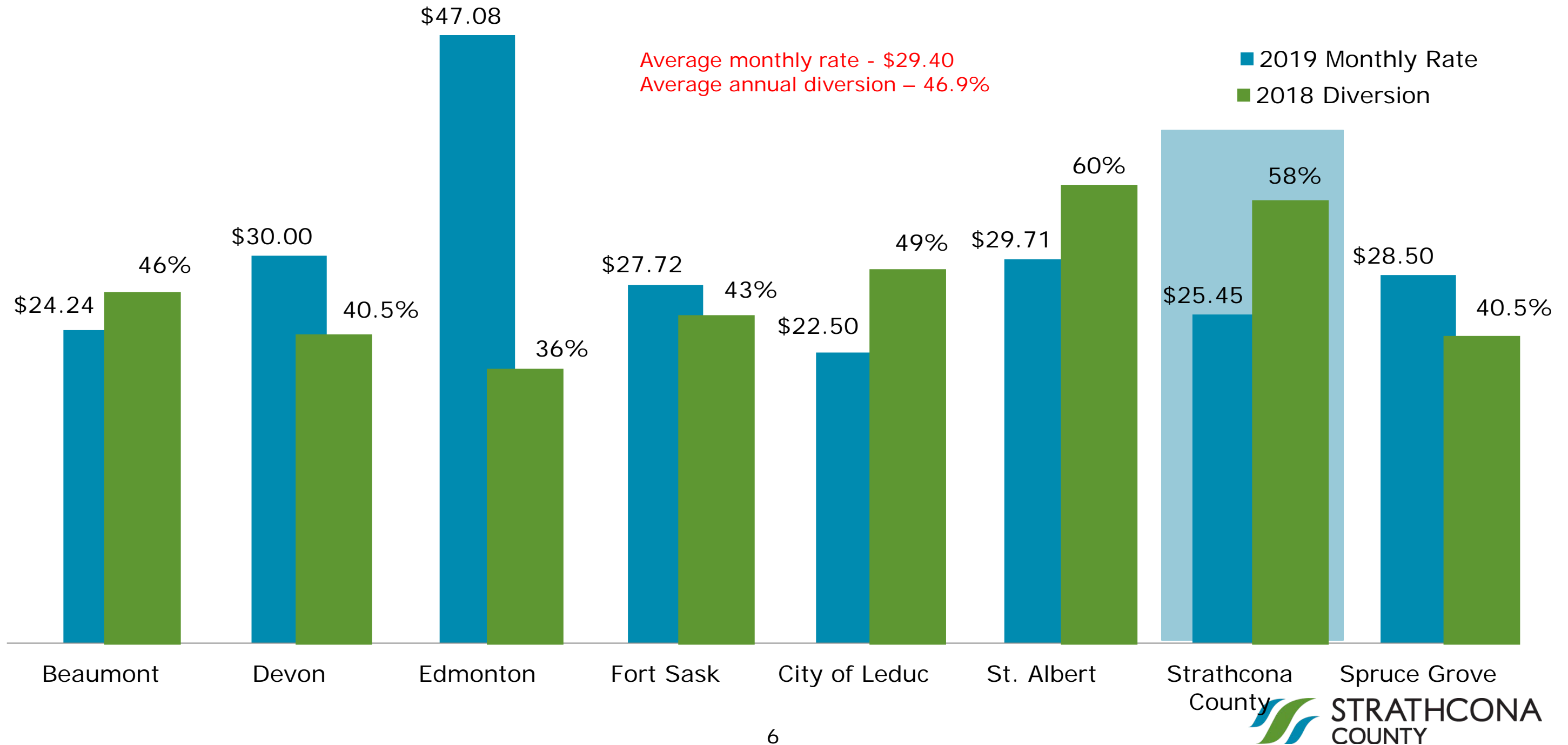
Gated and manned site at Broadview ensures materials are separated properly and diverted from landfill



Efficient & convenient

Our recycle stations provide convenient, easy and safe access to disposing of items, including glass and Styrofoam

Regional comparison



Program update

Green Routine 2.0



LOADING..

Blue bag changes

- Instability of international recycling markets resulted in changes to municipal blue bag programs
 - Recycling in Strathcona County is part of a global system
 - As of January 1, 2018, China required processors and municipalities to produce a clean, homogeneous stream of recycling
- Impacts:
 - Remove non-marketable recyclables and reduce contamination
 - Target education to request compliance from users
 - More separation and processing to ensure good recyclables reach market



Communicating the changes

- Announced the required changes on June 8, 2018
- Initial communication objectives:
 - Create awareness of changes to how residents sort waste prior to September 10 new collection practices
 - Create understanding there is time and opportunity to try changes
 - Create and maintain awareness about how efforts in recycling continue to make an important difference to waste diversion
- Through this period, a number of different education and communication methods were utilized to assist residents with the changes



Direct communication

- Waste sorting changes had potential to be confusing:
 - It was important to help residents focus on the top three things to remember; and
 - Provide different avenues for residents to find the complete list of changes
- Examples: door hangers (June and September), utility bill stuffers and handouts directly to users at recycle stations

GREEN ROUTINE 2.0

How will global changes to recycling affect you?

How we recycle in Strathcona County is part of a global recycling system. In January 2018, international markets placed restrictions on the recycling materials they take from North America.

Certain items that we once collected no longer have a market to be made into new products. This changes what we will accept at curbside for recycling.

We understand that change takes time.

We appreciate your efforts as we work together to clean up the blue bags as soon as possible. As of September 10, only blue bags with the correct items will be collected.

For a more detailed list of acceptable items visit Strathcona.ca/wastewizard.

Clean items accepted:

- Hard plastic containers, tubs and bottles. No lids or caps (e.g. detergent, condiment or shampoo bottles, large yogurt containers, ice cream pails, margarine containers)
- Aluminum and tin cans, pie plates and containers (clean and in original shape)
- Wrapping paper (no foil), greeting cards (decorations removed)
- Office paper, envelopes, craft paper
- Magazines, flyers, newspaper and catalogues
- Books with covers removed
- Cardboard, flattened (60 cm by 1m or smaller)
- Boxboard (e.g. cereal, cookie boxes)

The following items are not accepted in your blue bag but can be brought to the Broadview EnviroService Station:

- Styrofoam™ large packaging
- Tetra Pak™ without deposit (e.g. soup, broth, liquid eggs)
- Small metal items (e.g. coat hanger, nails)
- Glass - all types including jars

Items no longer accepted:

- Plastic bags, wrap (e.g. grocery bags, food wrap, resealable bags) and plant pots vegetable bags, cereal box liners)
- Plastic clamshells (e.g. berries, salad, bakery items)
- Single-serve plastic cups (e.g. yogurt, pudding, apple sauce)
- Single use plastic items (e.g. cutlery, straws, coffee pods)
- Plastic toys and other plastic items
- Styrofoam™ small (e.g. meat tray, take-out containers)
- To-go cups (e.g. coffee and drink cups, lids, and straws)
- Shredded paper, place in the green cart in a compostable bag

Questions? 780-449-5514
strathcona.ca/greenroutine
greenroutine@strathcona.ca

STRATHCONA COUNTY

Friendly reminder

Your blue bag was found to have items that will no longer be accepted after September 10. **All items must be clean and free of foods, liquids and dirt.**

The following items will not be accepted and must go in your black waste cart:

- plastic bags, plastic film, and flexible packaging
- plastic clamshells (e.g. berries, baked goods)
- small plastics (e.g. lids, caps, single-serve containers)
- plant pots, toys
- drink cups, lids and straws
- small Styrofoam (e.g. meat tray, take-out containers)

Please take these items to the EnviroService Station

- glass
- non-refundable Tetra Pak
- large Styrofoam

Please put shredded paper in a compostable bag in your green cart.

Questions?
780-449-5514
strathcona.ca/greenroutine

Changes to recycling

Due to global changes in the recycling market, changes to the Broadview Recycle Station will be in effect starting September 10, 2018. **All items must be clean and free of foods, liquids and dirt.**

The following items will not be accepted:

- plastic sheeting, tarps
- plastic bags, plastic film, and flexible packaging
- plastic clamshells (e.g. berries, baked goods)
- miscellaneous plastics (e.g. plexiglass, broken rain barrels, laundry baskets, plant pots, toys)
- small plastics (e.g. lids, caps, single-serve containers)
- garden edging, garden hoses
- small Styrofoam (e.g. meat tray, take-out containers)

The recycle station will continue to accept:

- hard plastic containers, tubs and bottles without lids or caps (e.g. detergent, condiment, shampoo)
- metal
- corrugated cardboard
- mixed paper
- glass
- refundable bottles
- large styrofoam
- non-refundable Tetra Pak containers

Shredded paper must be in a clear plastic or compostable bag and placed in the mixed paper bin.

RECYCLING CHANGES IN EFFECT

Blue bag changes started in June. Know before you throw!

Top three reminders:

- 1 Plastic film and plastic flexible packaging come OUT.**
Remove these materials from your blue bag, including **lids and caps**. They need to go in your black waste cart. Reuse where possible.
- 2 Styrofoam and glass come OUT.**
Remove these materials from your blue bag. You can take large Styrofoam packaging and glass (excluding mirrors and tempered glass) to the Broadview EnviroService Station (101 Broadview Road, Sherwood Park).
- 3 Keep your blue bags cleaner than ever before.**
Clean means taking extra care to ensure items in your blue bag are recyclable and free of food, liquids and dirt.

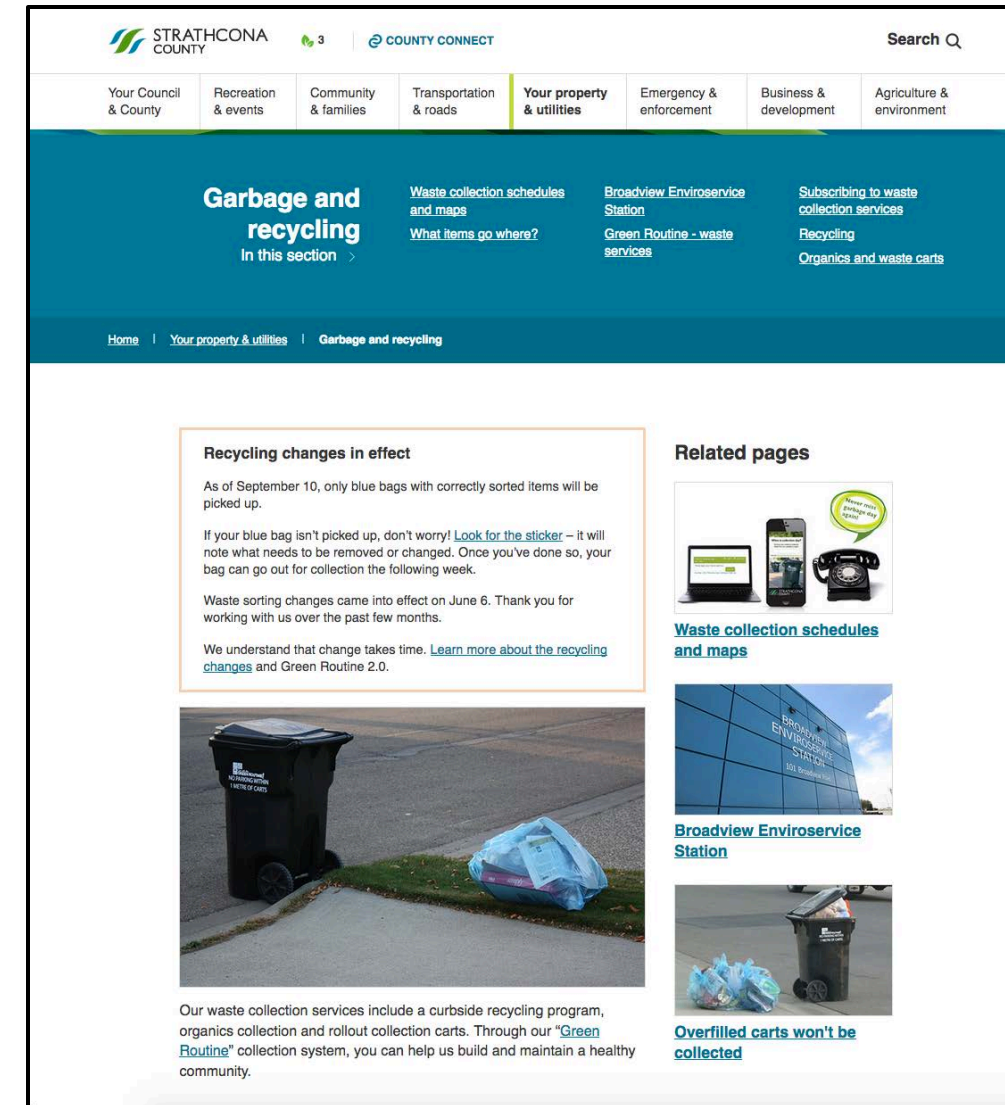
Beginning **September 10, 2018**, blue bags that are not sorted properly will not be collected.

Questions? 780-449-5514
strathcona.ca/greenroutine

STRATHCONA COUNTY

Website

- Important source providing details on why, how and what has changed
- Access to tools, apps and games to assist with sorting
- June 9 – 12 following social media announcement: 26,773 page views (90% unique views)
- High degree of interest in learning more – with 14 minutes average time spent on page



Social media



- Initial communication on Facebook generated an important conversation
- Waste management is clearly an important topic to residents
- Our first post on June 8, 2018 reached 109,431 people, with 58,000 reactions, comments and shares



- The first tweet had a 14% engagement rate – ten times higher than average
- Further messaging and communication approaches were developed based on social media conversation and understanding of resident needs and concerns



Media

- Important top messages came through:
 - We need to adapt to change and we understand that change takes time
 - Room for improvement in terms of contamination
 - Waste management is a shared responsibility

6 The Sherwood Park-Strathcona County News • Friday June 23, 2018

Opinion

Recycling: Not everything is an issue

Benjamin Proulx

We live in an age of outrage. People seem to enjoy getting mad, while pointing the finger at everybody they already don't support. We are in the prime of partisan play. But sometimes, just sometimes, issues aren't worthy of your anger.

At a local level, we're seeing that in changes to our recycling rules. Let me make this clear: You absolutely have the right to be outraged; however, I would argue it is by-and-large not worth the anger.

When residents learned they will no longer be able to put plastic film and glass in the blue bag, people exploded. The most common question we've heard is how the county can justify people now having to somehow fit all of that extra garbage into their black bins.

A

Maybe you go through hundreds of glass bottles per week. It would seem unlikely but if that's the case, just rinse them out. I clean empty glass jars and throw them into a cupboard. If you don't want to do that, put them up on a Facebook upcycling page, where people are consistently seeking glass jars. Or, as a last resort, don't use 300 jars of

ideal, and — surprise — life is a lot happier with less outrage.

But people are encouraged to be outraged, under some assumption that the world is out to get them, growing up anyone who disagrees with them.

Far-right Conservatives hate Liberals; far-left Liberals scoff at Conservatives. Centrists think both extremes are packed with idiots.

\$7,500 swing set

Politicians certainly don't help this 21st century mind-set. Official oppositions have begun simply misleading the public to support a false narrative of the party in power being evil. But here's an important spoiler: no party is filled with demons. Different political approaches should, ideally, lead to a better government.

ing is being made in it's Rachel Noteston's fault. It's not party has failed and white, federal Conservative Scheer's big lie of Commons want over Prime Trudeau purchasing set. Of course, that taxpayer dol-

to create a well-governed society. The point here is simple: out shouldn't be a go-to response to anything and everything. Take a step back. The recycling change is so minuscule that you won't likely notice an impact; if you do, look in your black bin to see what can be moved to the organics or to the blue bag — county statistics prove there's plenty in there that shouldn't be.

If you're still mad, that's on you.

bproulx@postmedia.com

The Sherwood Park-Strathcona County News • Friday June 22, 2018 11

Black bin usage below par

Less than one-quarter of black bin contents belongs in the black cart, county says, as debate is spurred by changes to recycling

Benjamin Proulx
News Staff

Sure, residents now have to put fewer types of items in blue bags — but it turns out they should also be putting far less into their black bins.

Between now and Sept. 30, Strathcona County is working to have residents adjust to new recycling regulations, which prevent glass and plastic films from being included in blue bag recycling.

Since the announcement was made, though, residents have widely expressed concerns over what the change means for existing capacity, either requesting larger or additional black bins to deal with higher levels of

waste, or more frequent black bin collection.

"We understand how this change might seem daunting," said Jeff Hutton, director of Strathcona County Utilities.

"While we know residents may be worried about whether they'll have enough space in their black carts, we're hoping they'll give these changes a try over the next few months."

Even with the changes, Hutton said, the county's 2017 Green Routine audits show that 80 per cent of blue bag materials will continue to be recyclable following the September deadline.

Continued > PAGE 13

A waste audit conducted in 2017 shows that count from landfills — with only one-quarter of such wa

8 The Sherwood Park-Strathcona County News • Tuesday September 4, 2018

Inspiring others to reduce and reuse

Strathcona County

When asked about her belief on whether or not one person can influence positive change in the environment, Colleen responded, "Yes, absolutely. It doesn't have to be a huge movement, but can instead come from one person with a great idea."

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Adjusting to recycling changes

Katie Berghofer
Councilor's Comment

I moved to Strathcona County in February 2003 from Edmonton. At that time, Edmonton had their blue bin recycle pick-up program, and the county had yet to implement a recycling strategy at the consumer level. My husband and I had already formed the habit of sorting our recyclables, so we kept doing it (not perfectly by any means), and for six years, we drove our recyclables to the drop-off location.

The Green Routine was rolled out in 2008, and we were excited about not having to drive our recyclables in any longer. We also welcomed our first child. Layla, that same year, making us concerned we would overfill our black bin with the trappings of a newborn. It took us a while to figure out, being new parents didn't help, but like the most of the county, we made it work. The results speak for themselves: pre-Green Routine, the county was only diverting 27 per cent of our waste from the landfill; however, in 2016, we had our best year, hitting 61 per cent.

In 2008, many residents were frustrated and unsure how to change their habits to fit this new system. 2018 brings a different social landscape and people are sharing ideas and best practices online. In fact,

only uses compostable cups and lids for their take-away coffee. If a non-profit can afford it, can't more companies?

As a consumer, I may have to forgo a few of my favourite local restaurants for a time being, but I will ensure I first have conversations with them about the benefits of environmentally-friendly products. Maybe I can bring in my own containers know about.

Here in Strathcona County, we have a local Greenmums and Wholes sustainable party and events of opt at www.gre are for residents. Take Since been participated run waste re One I really Food, Hate I 100 of us less money on g ting waste by choices. The was TRASH! joined many dents to learn Routine 2.0 also have fun at the same time.

Over the course of the summer, the Utilities department

staying true to my ethics even if they may not be popular. I told them the day we found out about the changes to the Green Routine, our family agreed to stop using plastic shopping bags. I had a couple mishaps, like when I went grocery shopping and left my reusable bags in the car. It didn't stop me, I had them put all my items back in the car (I trust me, I will only do that once). When I shared what I was trying to do, a resident voiced how happy she was to hear that; she thought she was alone.

This past year, Layla entered Grade 4, in which the curriculum includes learning about the 3 Rs of the environment: Reduce, Reuse and Recycle. I listened to Layla as she told me about her field trips to our Broadview EnviroService Station and even to Edmonton's Waste Management Centre. She started reading more attention of the three Rs.

bproulx@postmedia.com
hutton.com/BP_SAPRNews

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County 'adapting to global change'

Continued from > PAGE 4

"China used to be our primary market, especially for some of the paper products. Huge percentages of our paper products, and some of our plastics, were going to China," said Seidel, adding that North America's recycling habits are to blame here — not China.

"We were shipping very low-quality materials to them," she said, explaining that products were not properly cleaned or separated.

"They put up with it for years... but then what it did was create a massive waste problem there," Seidel added, stating the recycling council has known change was likely coming for a couple of years. "The bottom line is we've known since recycling began that if you put garbage into a recycling system, you're not going to get something good out of it. We always should have been doing a better job of preparing materials,

regardless of what the market was going to be."

The unusual shift in recycling habits coincidentally falls in line with the 10th anniversary of Strathcona County's Green Routine roadside pickup program — which gives Hutton hope that residents will adjust to the new guidelines.

"(Green Routine) went through its own change and adoption process, but I believe that it was strongly accepted by the community," he said. "This is a much smaller change."

"What this boils down to is, it's the plastic films, it's paper cups, and... we also need to make sure that products are clean — a little extra attention to rinsing out soup cans, for example," Hutton continued.

Plans are for a continued community engagement process as part of the rollout between now and September, including Utilities workers being present at events such as farmer's markets and in the community.

"At least (Strathcona County is) taking this head-on. Some other municipalities are playing a wait-and-see game, or almost trying to ignore it," she said, adding: "The other thing that needs to be acknowledged with Strathcona County is them being up-front and honest with their residents."

Hutton said one positive

Certain items that can no longer be included in blue bag/bin recycling, such as glass, must now be taken to the EnviroService Station in Sherwood Park.

Strathcona County residents get ready for new rules on what they can recycle

Published June 13, 2018

Global NEWS

News Hour Final

Strathcona County residents get ready for new rules on what they can recycle

Jeff Hutton

In September, people living in Strathcona County are going to have to make some changes to their recycling routine. Sarah Kraus explains what's changing and why. Watch video →

hona County changes recycling rules

Some plastics no longer accepted in the marketplace and can't be recycled.

Manager of waste management and community energy. LARRY FORD

The struggle to meet new marketplace demands conflicts with the global goal to reduce landfill waste where the Strathcona County plastics will now end up.

It's not ideal, in the short-term there will be more materials to two landfills," Seidel said. "We don't unfortunately have another option."

But Seidel said this "crisis" allows for important conversations to make long-term adjustments.

"There's going to be some solutions that come forward to address how we handle plastics," she said, noting that many of the county's 64,000 residents are disappointed in the market changes.

"The conversation has shifted to what can we do about it. That's what we're forming on."

An education campaign was launched in June to notify residents of the impending changes, Seidel said, and this has been reinforced by door-to-door conversations.

Glass and metal plastics are being freed out of blue bag collection in Strathcona County as a result of tightening international recycling markets, even though it means less materials to be recycled.

CBC

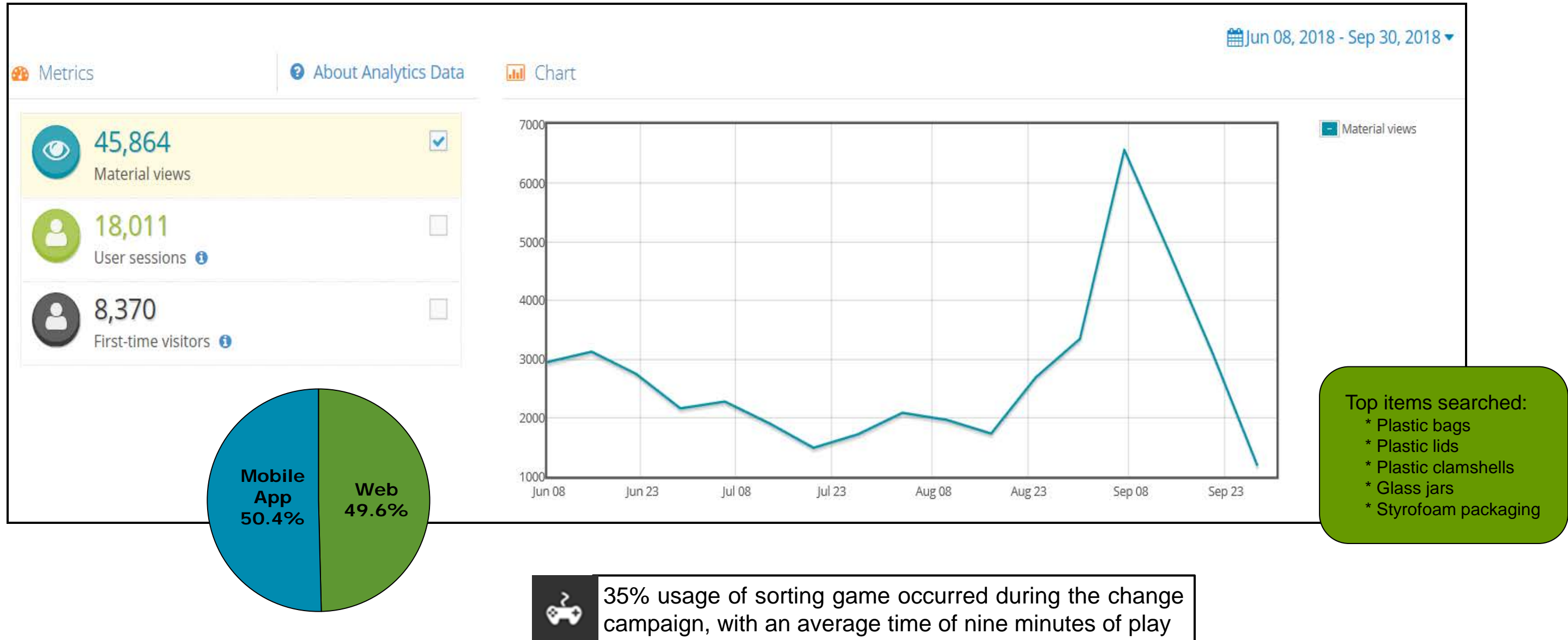
Strathcona County revises recycling rules due to China's restrictions

'If every small player does a small part, it adds up to a big change,' says utility director

Kaylen Small - CBC News - Posted: Jun 12, 2018 9:00 AM MT | Last Updated: June 12

Strathcona County will introduce new recycling measures in September. (Chris Watte/Reuters)

Waste wizard



Events & community engagement

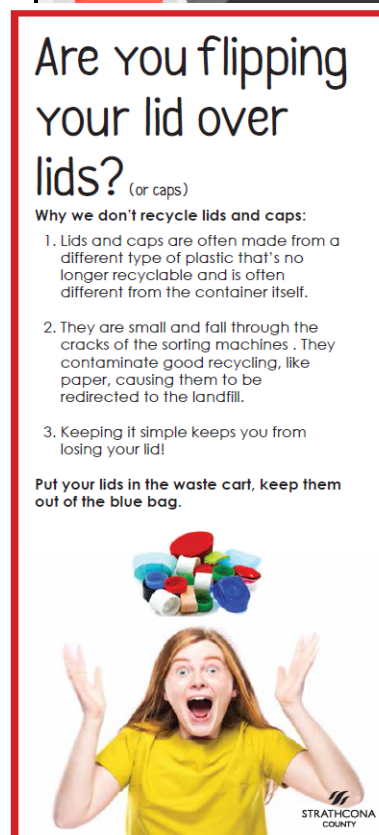
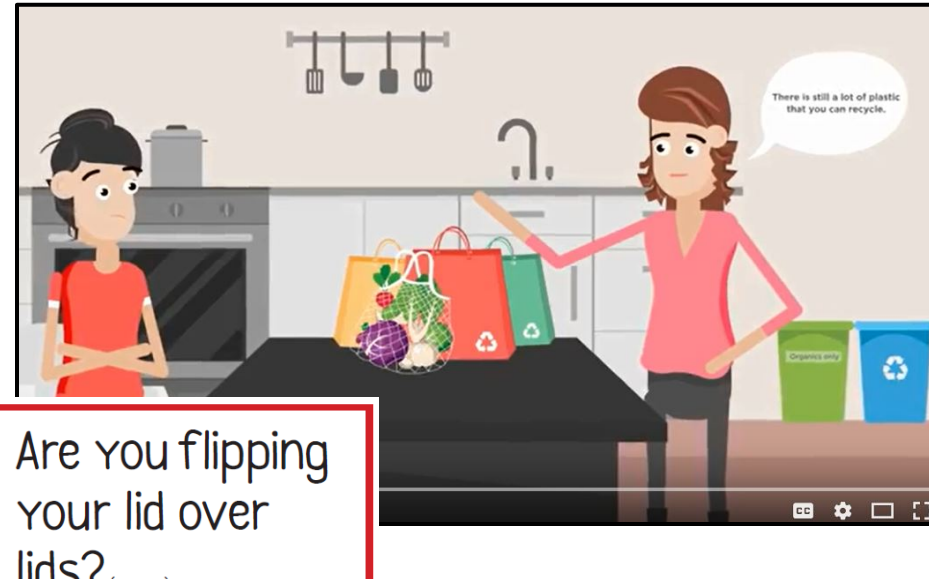
- Utilities hosted and attended a number of events to engage with residents regarding the changes
- Over the course of the summer, conversations changed from disapproval to discussions around solutions to the issue
- Offered in home assessments and assistance



Frequency & reach

- Addressing common inquiries and issues, and creating awareness of change:

- Truck decals
- 21 urban / rural road signs leading up to changes
- Videos (plastics, lids, glass, shredded paper)
- Table top ads at the mall



How did the changes go?

Outcomes & observations

Data collection

To gauge the impact that the blue bag changes have had to the program and its users, over the last six months Utilities has been monitoring and collecting data from a number of different sources:

- Frequency of corrections (ie. 'oops stickers')
- Occurrence of overfilled carts
- Number of additional black cart requests
- Rural customer accounts
- Set out rates for each material type
- Variance of material tonnages
- Characterization audits of all material types
- Waste diversion survey
- Recycle station education & compliance



Friendly reminders & corrections

- 'Oops stickers' are used to identify corrections needed to the blue bags
- Number of homes requiring 'oops stickers' after changes:

Two weeks following	One in six homes
Three to four weeks following	One in 12 homes
Six months following	One in 20 homes

- Number of overfilled black carts also provides a snapshot of how residents are adapting to change:

Lid up more than 3"	One in 12 homes
---------------------	-----------------

- First offenders may be stickered as a reminder, but still collected
- Carts with an open lid wider than 6" high could cause spillage and would be stickered and left for correction



Key Message: Corrections are becoming less frequent six months after changes

Extra black carts

- To address capacity concerns, residents can request an additional black cart, doubling their capacity for disposal
 - \$7 per month additional fee
 - \$50 administration & delivery fee
- Requests are common from households with larger families, kids in diapers or unwillingness to separate materials

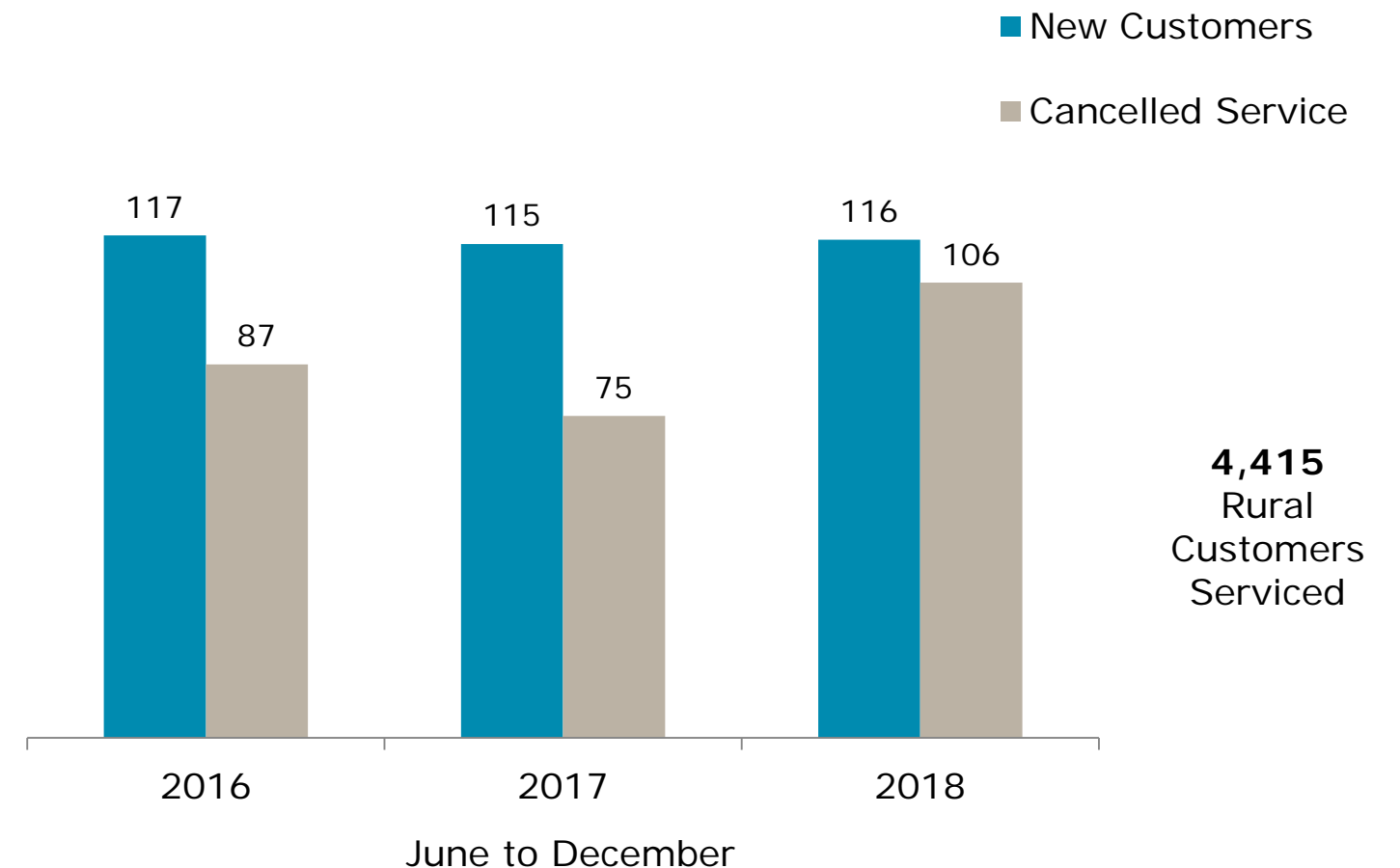


Additional Carts	Timeframe	Details
44	June to Dec 2017	Average amount of additional carts requested in a six month period
264	June to Dec 2018	Six times the average number of additional carts requested during similar period
711	Total since 2008	2.5% of total customer base has requested an additional black cart

Key Message: 97.5% of residents are managing with one black cart

Rural customer stops

- Outside of hamlets, rural customers can opt in or out of waste collection services with Strathcona County
- Utilities often see fluctuations in rural customer numbers on a monthly basis
- Since program changes, there was a larger number of rural customers that have stopped services compared to previous years
- Same time frame has seen roughly the same number of starts



Key Message: Changes saw an initial increase in rural stops, however it has not deterred new customers

Set out rates

- Determine set out rates through RFID readers, as well as manually monitoring routes in various neighborhoods
 - How often these households are setting out all three streams over the course of three cycles (six weeks)
- Only 54.2% of homes are participating in all three streams regularly
- Only 45.6% of households are setting out their organics bin in the winter (each cycle or monthly)
- 10% of households are not placing recyclable materials out at all
- Of the households with two black carts:
 - 60% are not using their organics bin, nor placing blue bag materials out for collection

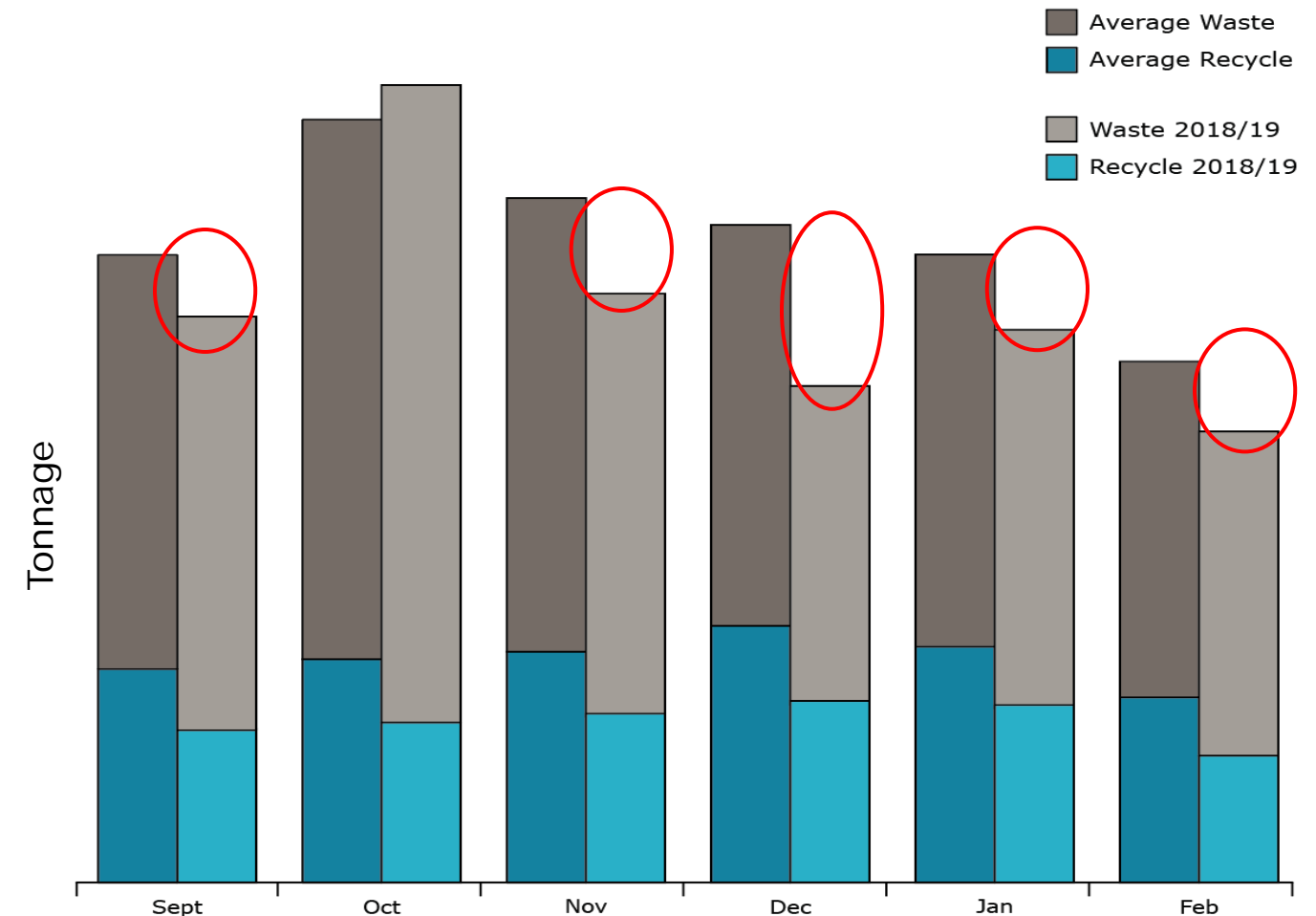
Set Outs Rates*	
Waste (biweekly)	83.3%
Organics (biweekly)	45.6%
Recycling (weekly)	50.8%

* Audits completed in winter months. Participation in organics and recycling could look quite different when averaging in spring through fall season

Key Message: In winter, residents set out recycling and organics 50% of the time

Tonnage variance

- Comparison of six months of waste and recycling tonnages to averages from two years prior (same time frame)
- As expected, recycling tonnages have decreased with the implementation of the changes
- However, this tonnage is not necessarily translating to the waste streams that we account for. Overall, program has generated 655t less
- Where's the waste going? Potentially:
 - More focus on reduction & reuse
 - Direct hauling to regional transfer / landfill sites
 - Use of alternate bins



Key Message: Recycle tonnages have decreased by 25%, yet we are not seeing this amount in the waste stream

Boxing week special

- A relief valve for residents post-Christmas to assist with managing the recent changes
- 401 bags (3.5 tonnes) brought to Broadview from December 27 – 30, 2018; approximately 15% were multiple trips
- Sample audit shows much of this material could have been diverted from landfill:
 - Organics
 - Textiles
 - Papers

Key Message: Less than 2% of customer base utilized relief valve – much of which could have been diverted to other streams

Strathcona County
Boxing week special

To help with extra holiday waste this year due to the recycling changes, Strathcona County is offering residents the option to drop off one bag of extra waste at Broadview Enviroservice Station from December 27 to 30 during regular building hours.

Drop off times:
December 27 11:30 a.m. to 7:30 p.m.
December 28 to 30 10 a.m. to 5 p.m.

- Please remove all organics and recycling
- Limit of 1 standard-size bag per household

Thank you for continuing to practice the Green Routine 2.0!

Questions?
780-449-5514
greenroutine@strathcona.ca
strathcona.ca/boxingweekspecial



STRATHCONA COUNTY

*** One-time special offer ***

Material characterization



~ 15 random
carts selected
per day



Sort each bag
individually



Pile into
major streams



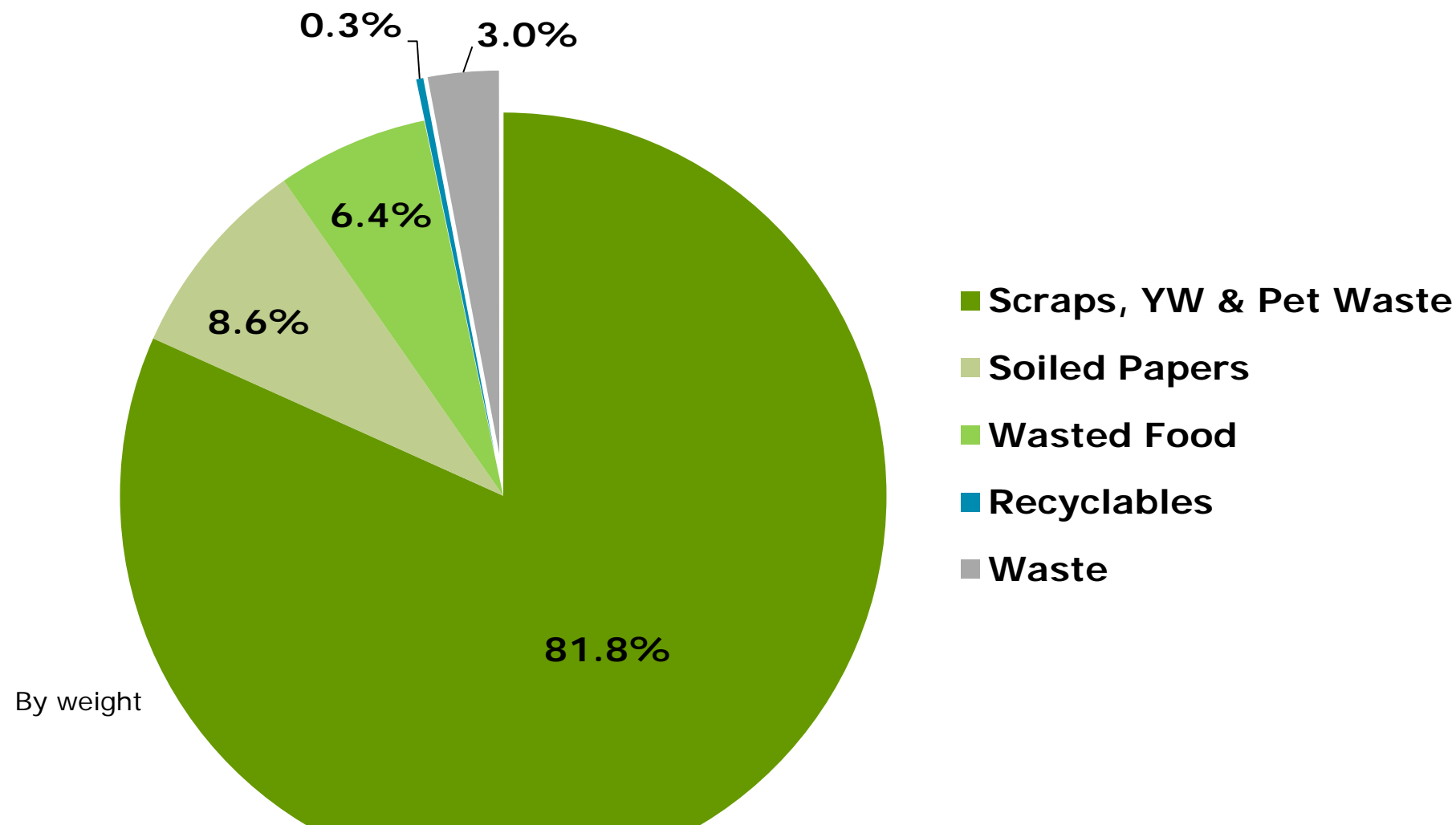
to assess
volume



Into 34
different
categories
and **weigh**

Material characterization - organics

What's in the green carts?



- Participating residents are relatively compliant with the organics, with ~ 3% contamination
 - Improvement from 2017
- Less use of plastic bags as kitchen catcher liners
- Waste can mostly be attributed to samples where green carts were being improperly used as waste carts (ie. whole bags of waste)
- Packaging was typically removed from wasted food, however still accounts for 590t being composted
- Some single-use coffee cups still appearing in organics stream

Key Message: Residents participating in the organics program are generally compliant

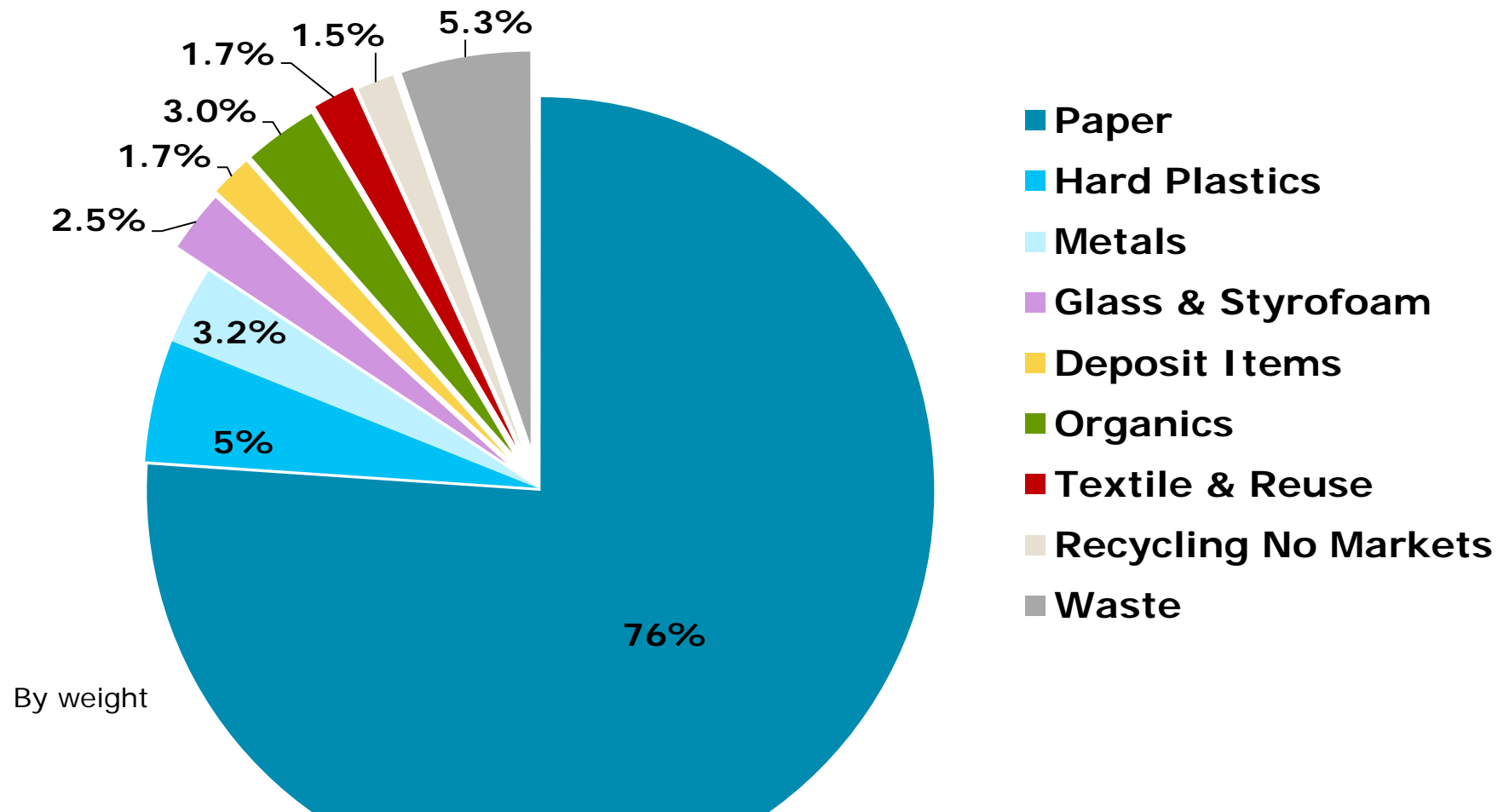
Material characterization - organics

What's in the green carts?



Material characterization - recycling

What's in the blue bags?



- 1.5 bags on average per household
- Approximately 40% of samples had identifiable contamination/undesirables
 - Unrinsed food containers
 - Plastic films
 - Single-use cups
- Bulk of recycling remains to be paper and cardboard
- Lots of compliant hard plastics
- Some glass and clamshells still found to be in blue bag
- Higher amount of actual waste compared to 2017

Key Message: As expected with the changes, there is an increase in 'contamination' in the blue bags

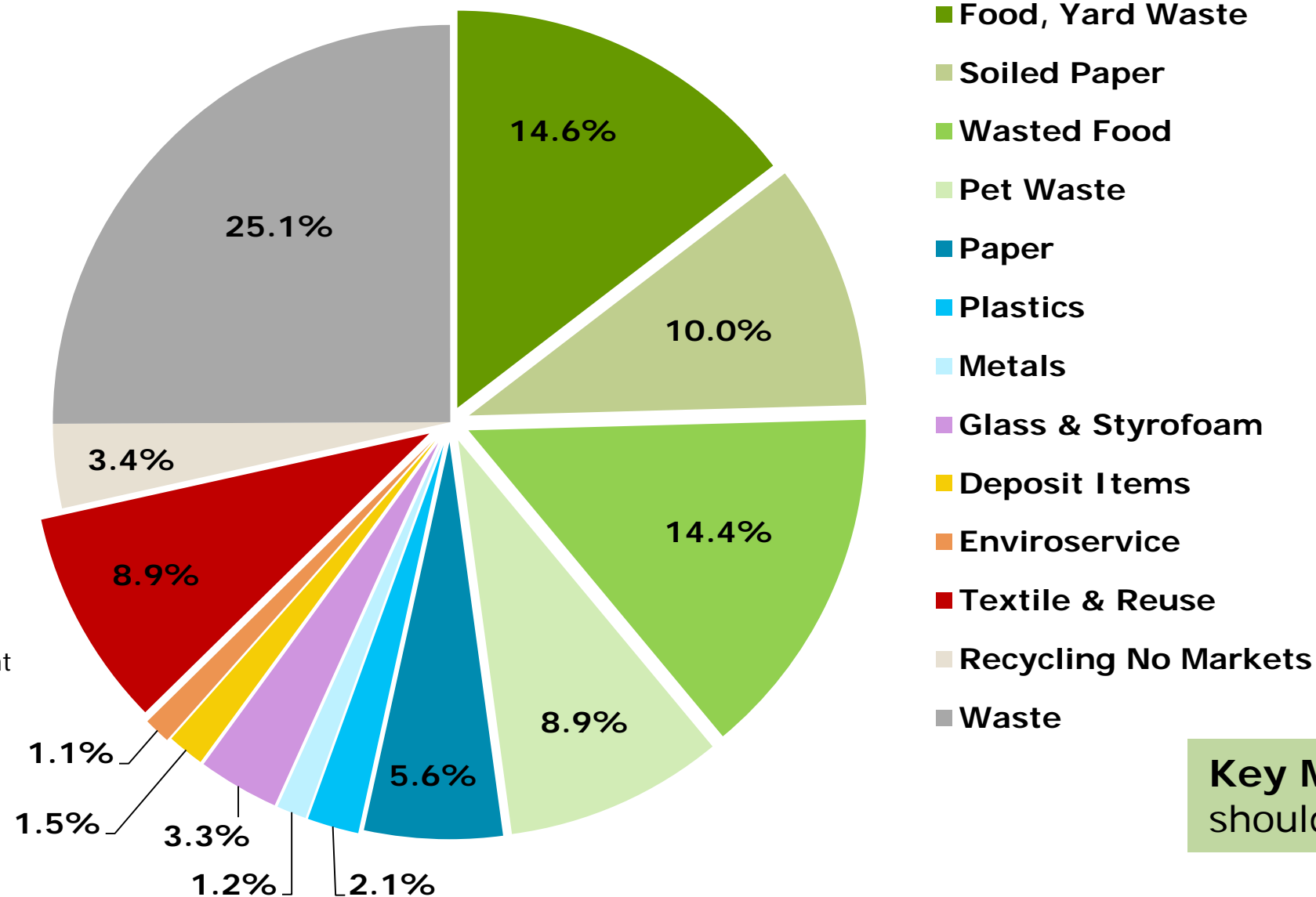
Material characterization – recycling

What's in the blue bags?



Material characterization - waste

What's in the black carts?



- 47.9% is still organic material
- Lack of separating packaging from wasted food
- Soiled papers - large by volume
- 1,981t of wasted food
- Textile & reuse has increased since 2017 audit (1,225t)
- Extrapolated to our annual waste tonnages, this equates to 9,840t that could be diverted
- On average carts sampled were 82% full compared to 74% full in 2017

Key Message: Over 70% of black cart material shouldn't be going to the landfill

Material characterization - waste

What's in the black carts?

- 9,840t could be diverted from the landfill

Textiles



Recyclables



Soiled Papers & Wasted Food



Material characterization - waste

What's in the black carts by volume?

- Since blue bag changes, users have identified lack of black cart capacity as a common concern
- Characterization studies tend to evaluate streams based solely on weight due to industry standard, however we wanted to demonstrate impacts to capacity / volume
- We sorted all categories into five streams and filled carts, bags and boxes:
 - Waste
 - Organics
 - Blue bags
 - Enviroservice & depot
 - Textile & reuse (donation)



Material characterization - waste

From 15 audited waste carts....

only four were actual waste



=



Four waste

2.25 organics

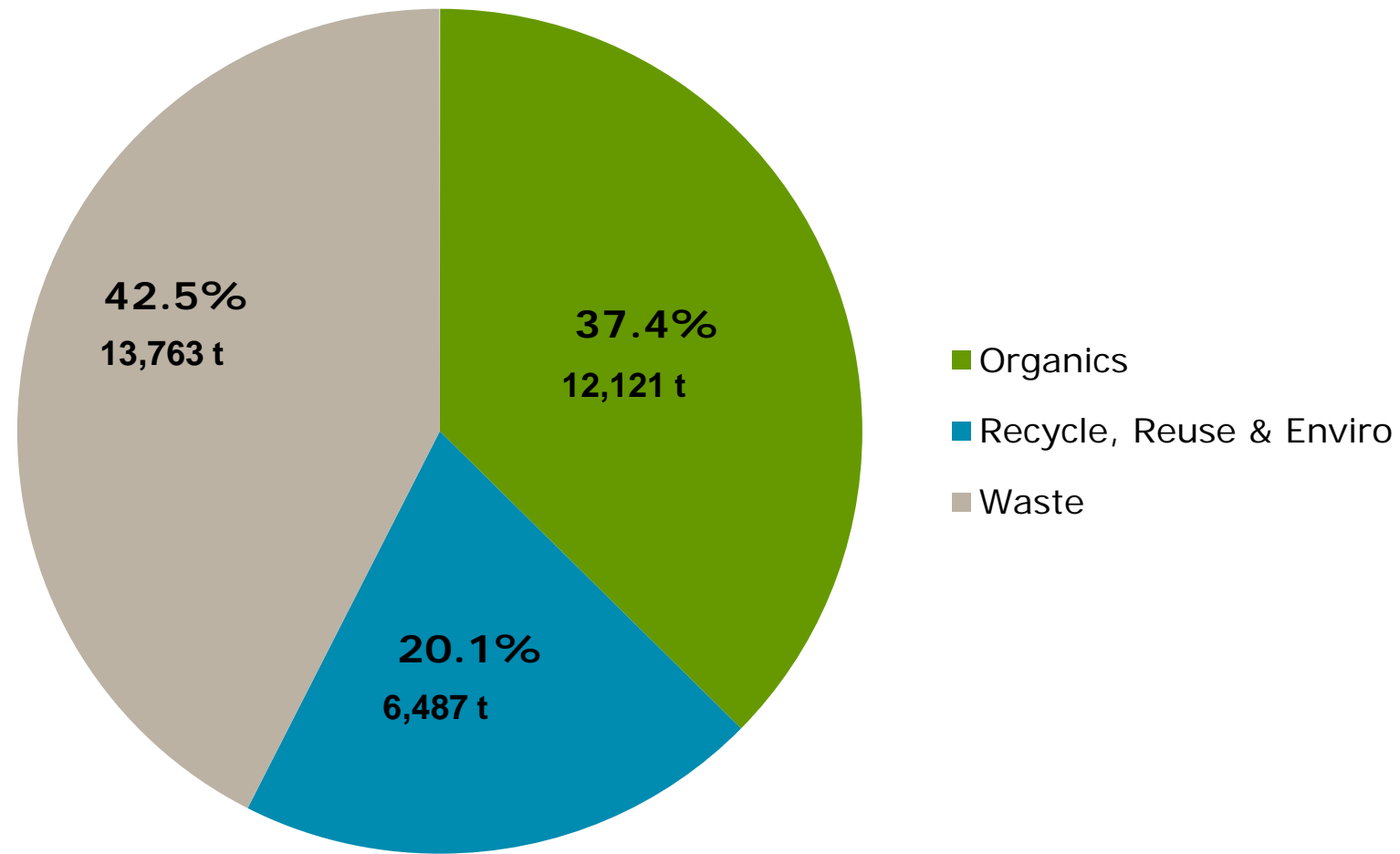
7.5 blue bags

One box of
enviro/depot
material

Three bags of
textiles/reuse
material

82% full

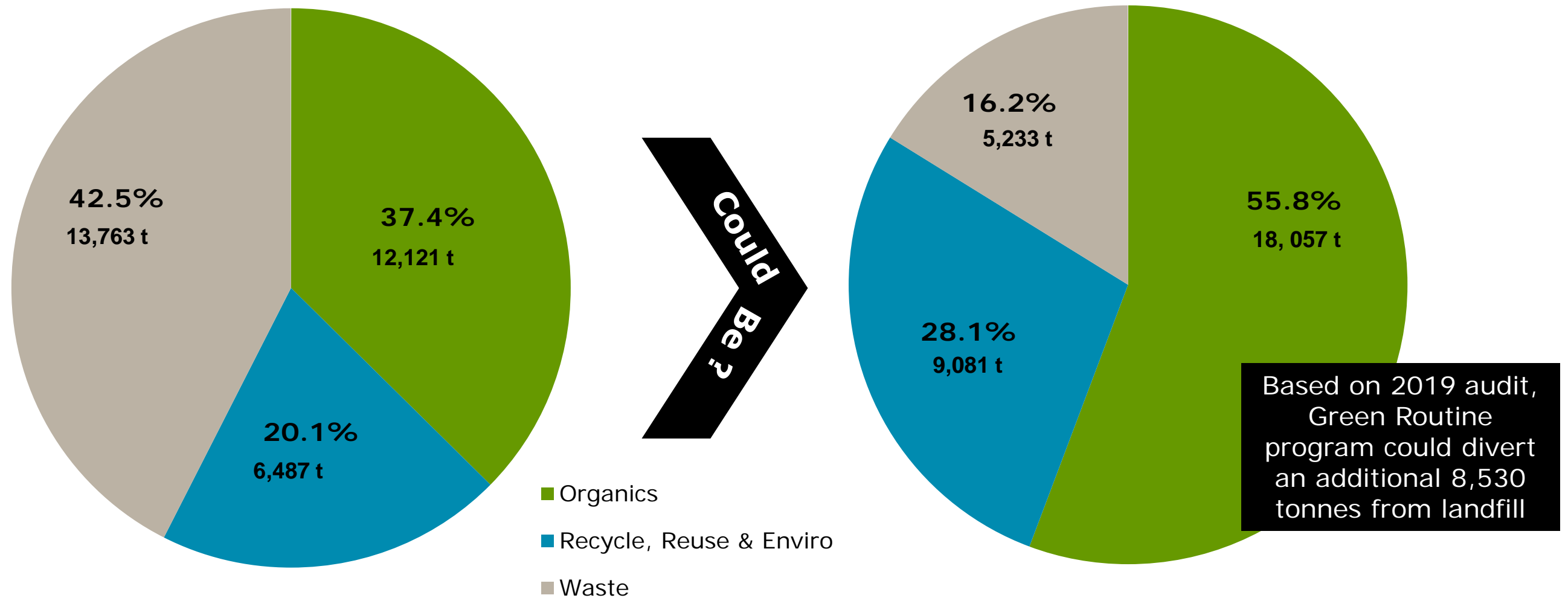
Program generation



In 2018...

- The Green Routine program generated a total of 32,371 tonnes of materials
 - 1,080 kilograms (1.08t) per household per annum
- Diversion from landfill was 57.5% or 18,608 tonnes

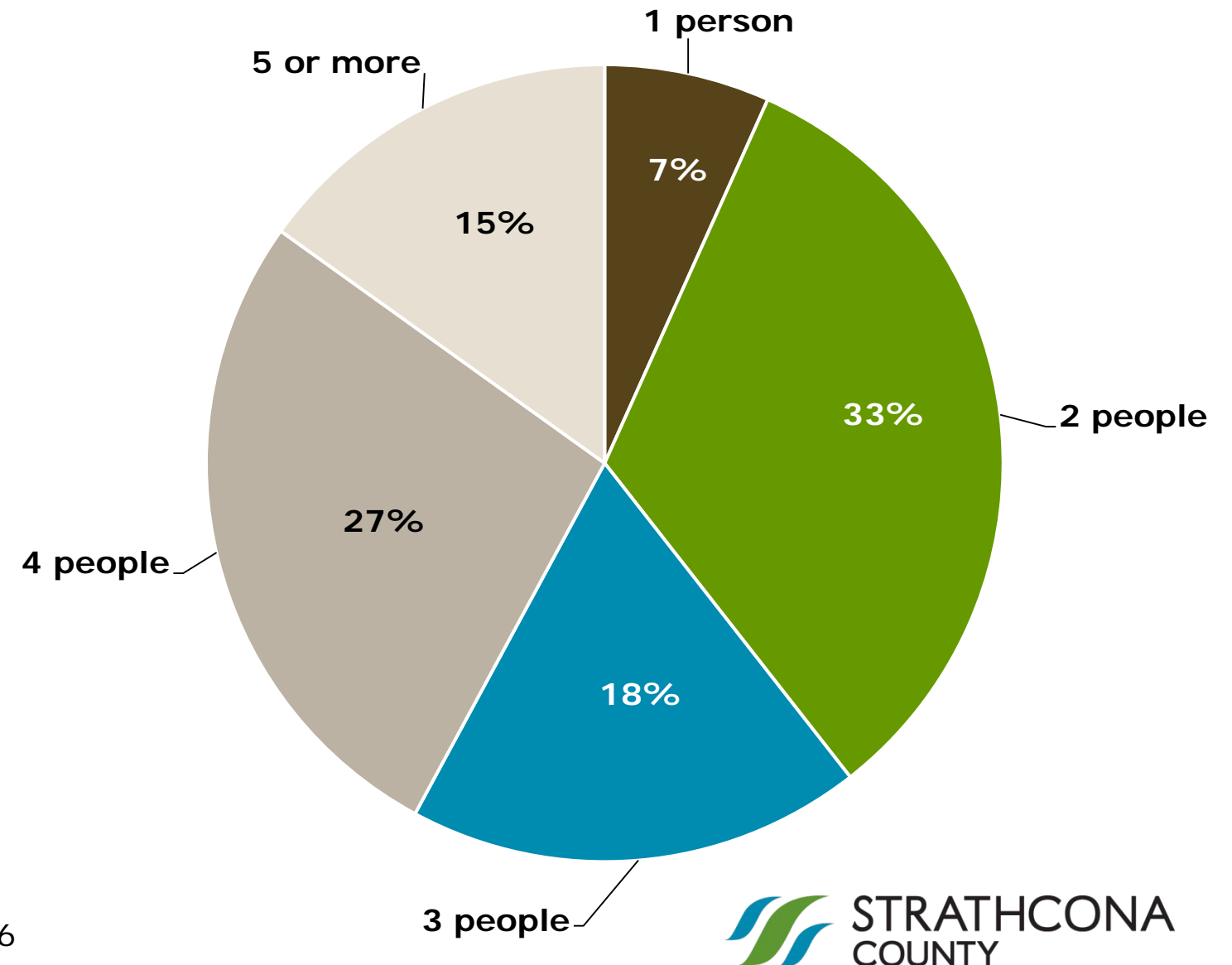
Program generation



Public engagement

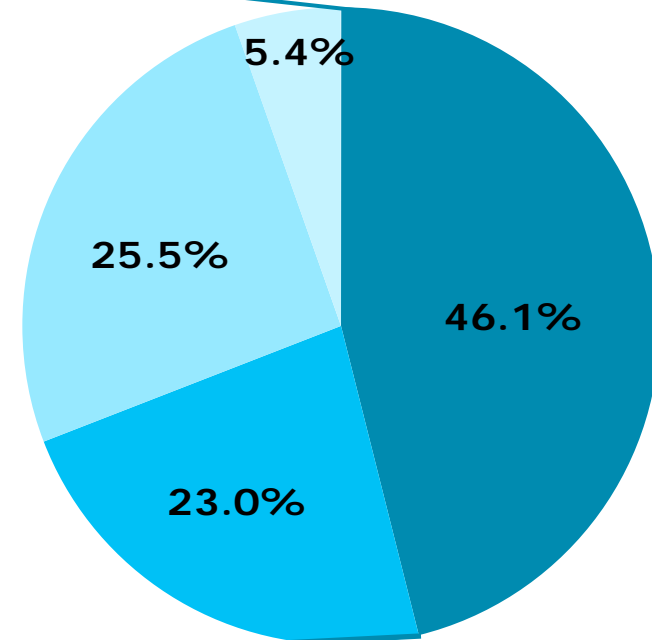
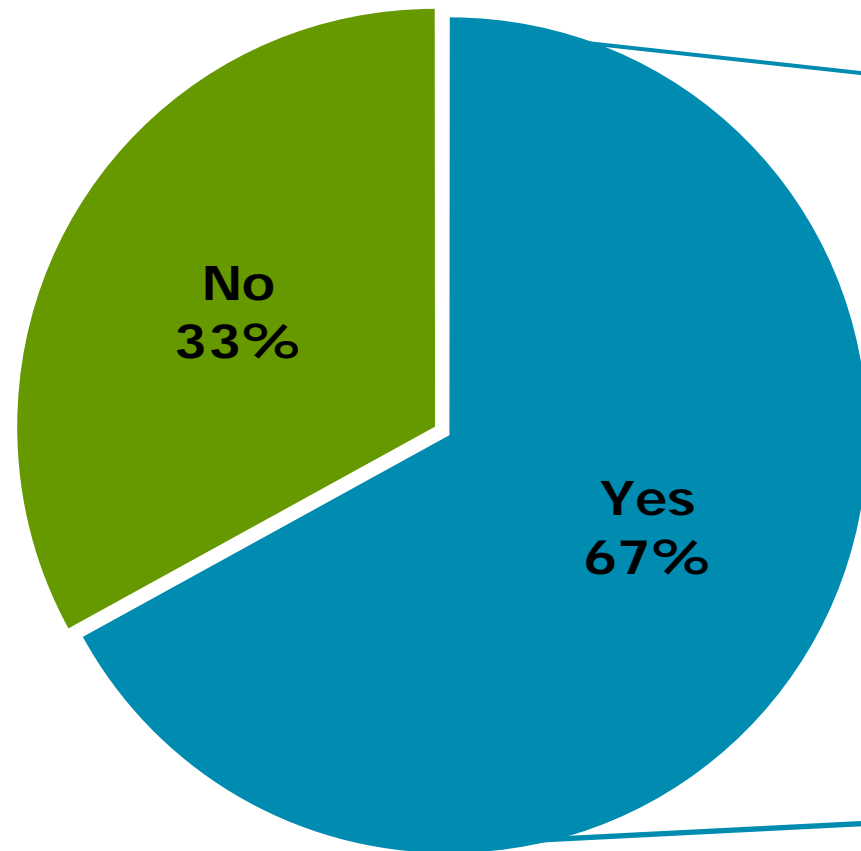
Household Size of Respondents

- February 11 – 24, 2019
- Access via SCOOP & survey gizmo
- Gauge how residents have adapted to the changes six months later
- Evaluate how residents use recycle stations and gather input on future waste collection service options
- 2,207 survey responses
- 98% of respondents receive Green Routine curbside collection



Survey results

In the past six months , were there times you did not have enough space in your cart?



- Every collection period
- Once a month
- A few times
- Once (event/holiday)

97%

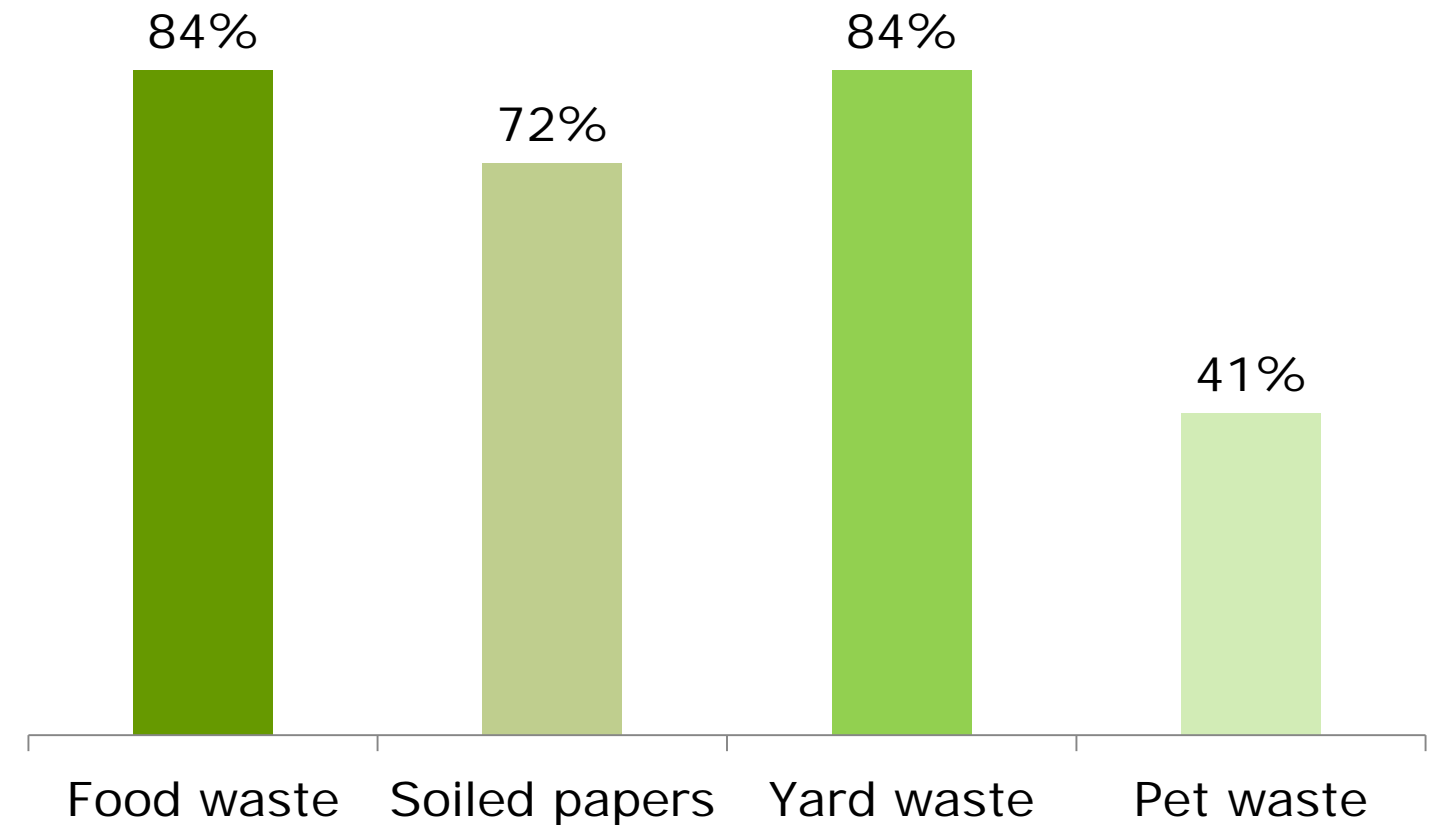
Respondents who were aware of the blue bag changes that came into effect on September 10, 2018

Survey results

Do you participate in the organics program? What materials?

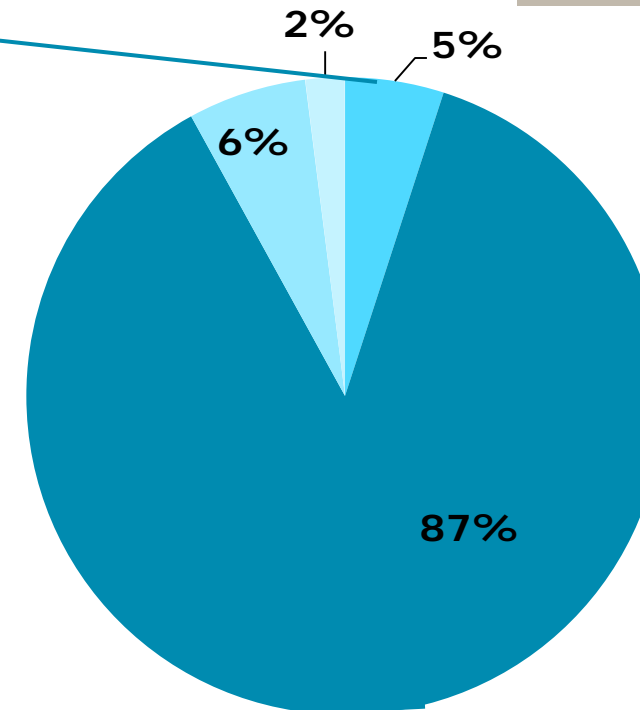
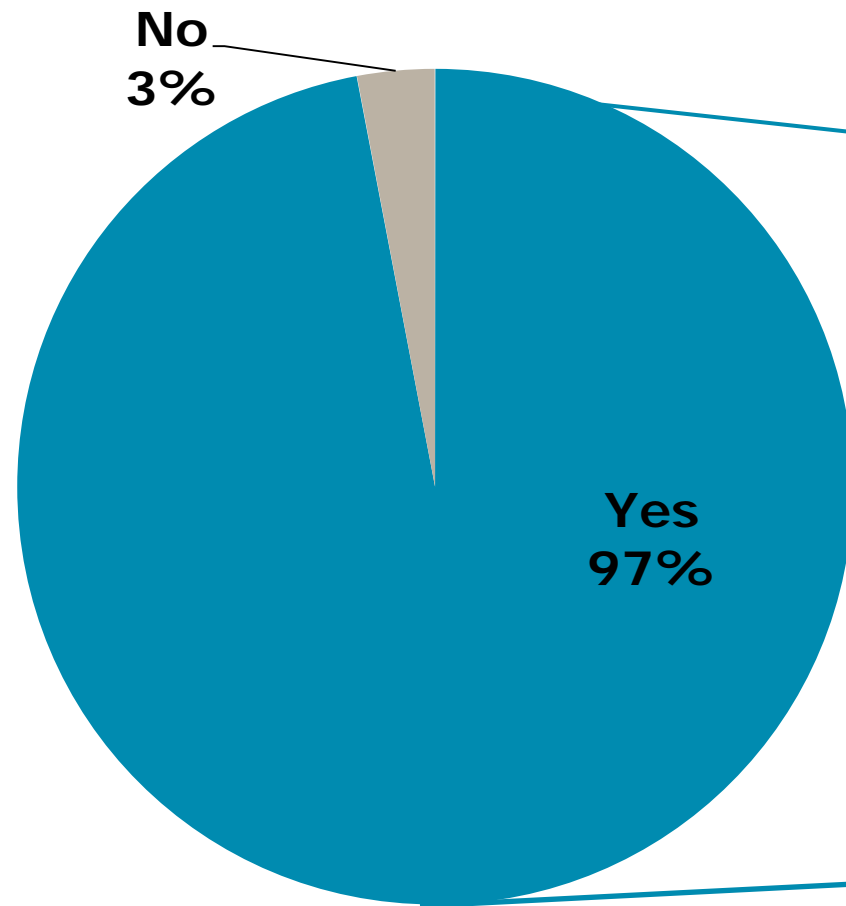
Response	Percent
Yes – all year	83.5%
Yes, seasonally only (ie. spring to fall)	12.1%
No	4.4%

- 15% of residents indicated that they don't participate in organics beyond yard waste materials
- Residents say they use the organics cart for food waste and soiled papers
- Less participation in pet waste



Survey results

Do you participate in the blue bag recycling program?
How & what frequency?



93%

Use clear blue plastic bags for collection

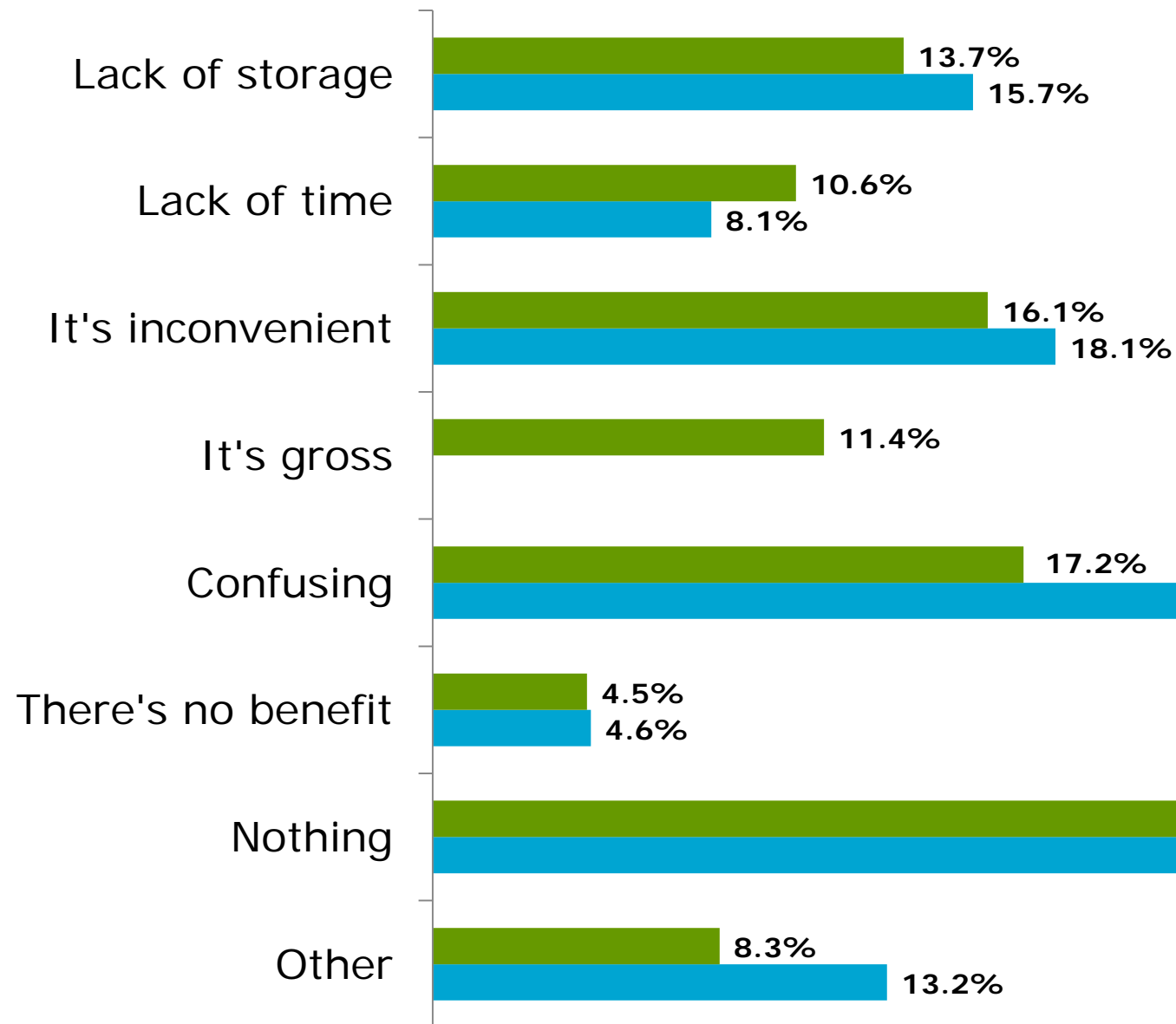
20%

Use reusable containers for collection

Weekly set out

- Less than 1 bag per week
- 1 bag per week
- 2 bags per week
- 3+ bags per week

Survey results



What stops you from sorting out your organics? Or recycling more?

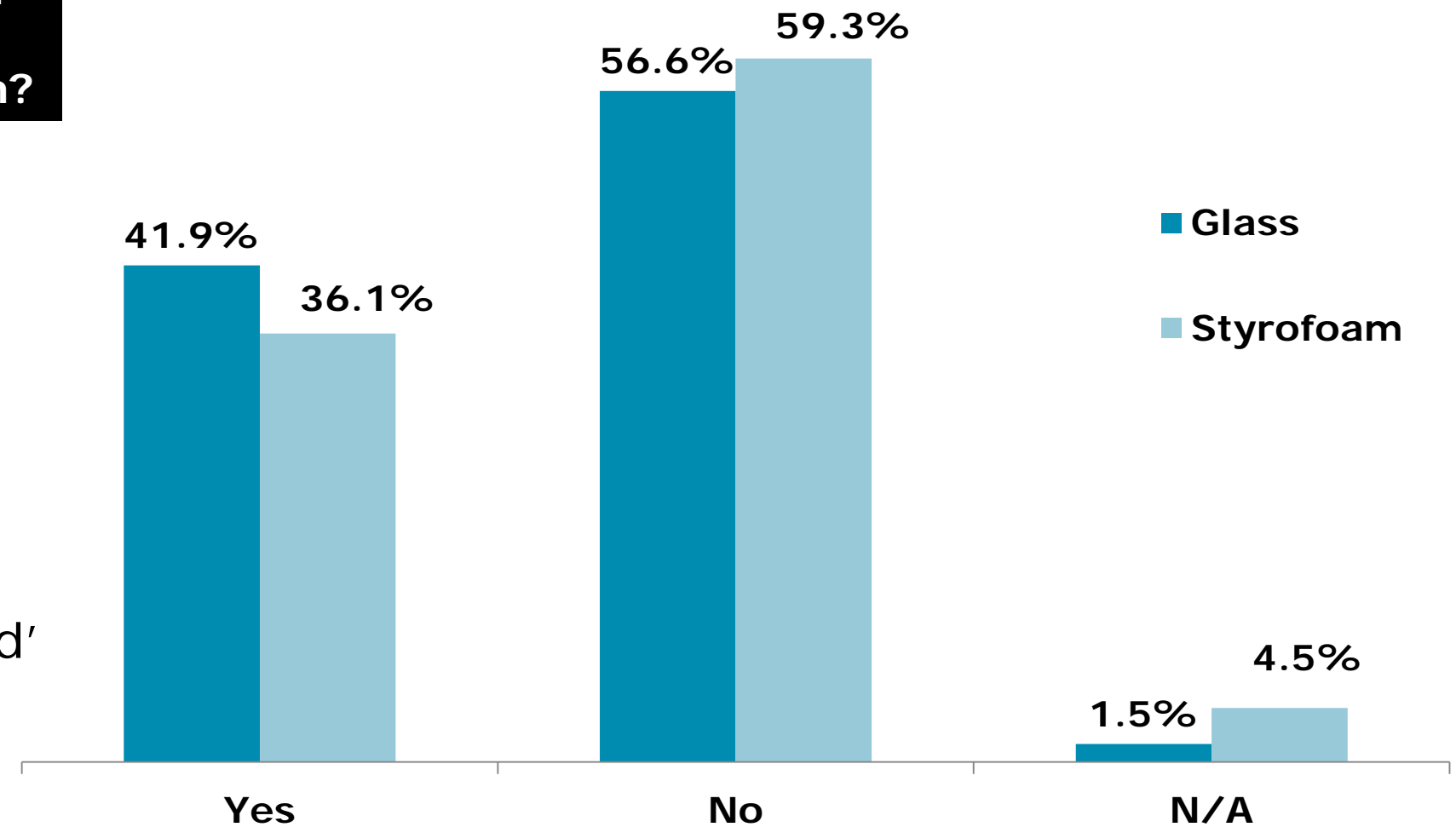
- A large amount of respondents indicated that nothing prevents them from sorting their materials, however storage, inconvenience and uncertainty are among the stronger reasons for not participating

■ Organics ■ Recycling

Survey results

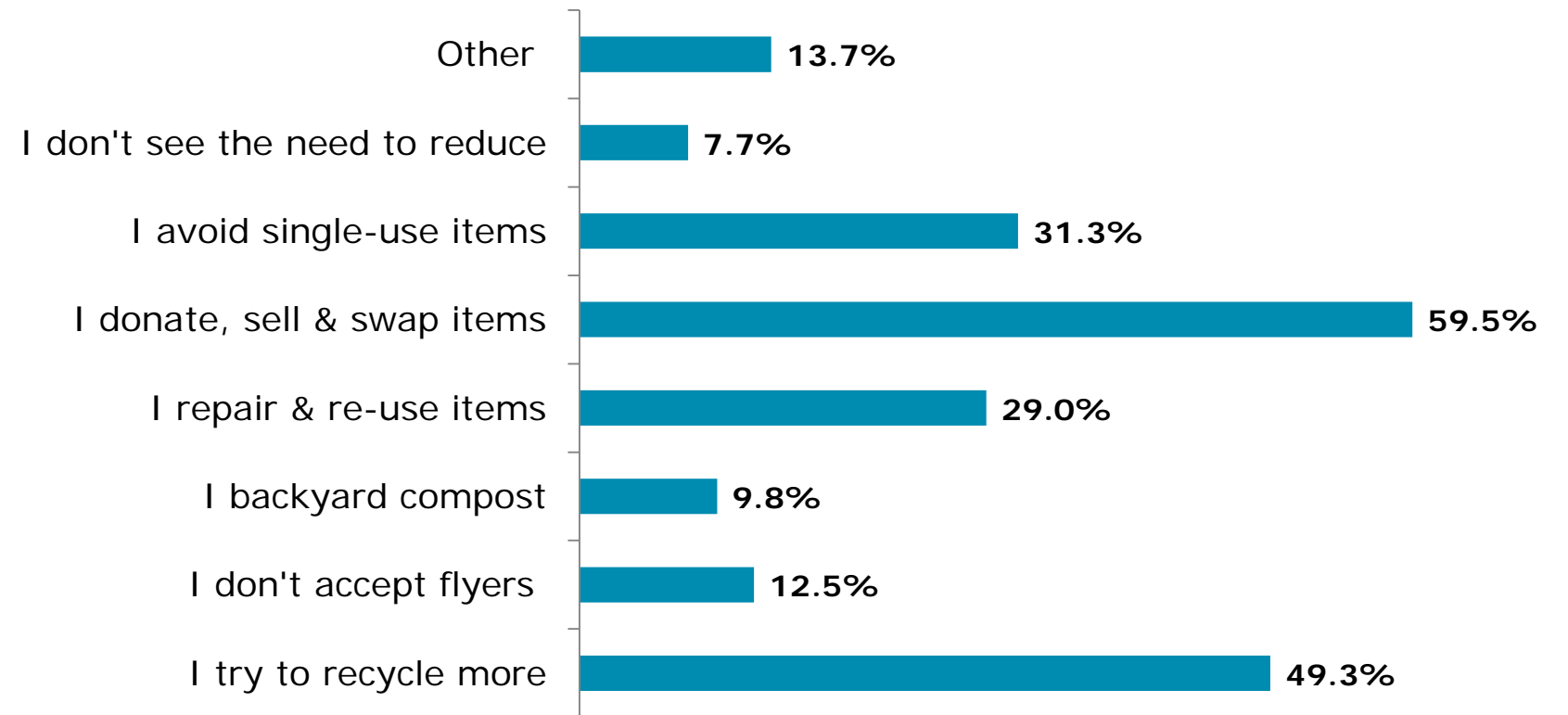
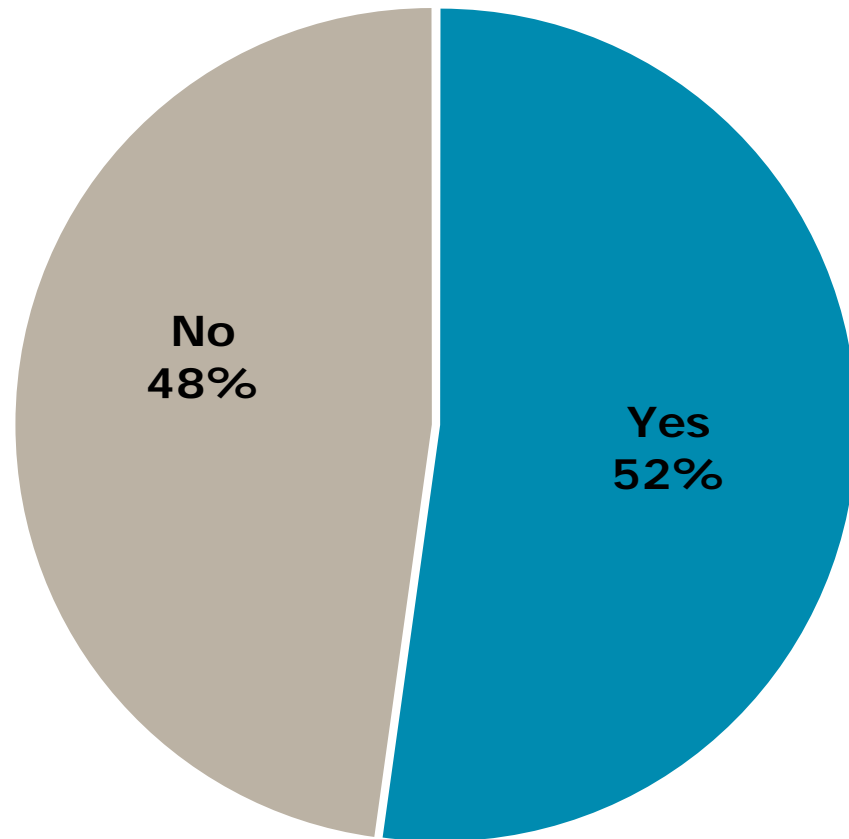
With the changes to what is accepted in the blue bags, do you take glass or Styrofoam to Broadview Recycle Station?

- Residents prefer convenience of curbside collection
- Majority of residents lack the willingness to take specific materials to a recycle station
- Not perceived as a routine 'errand'



Survey results

Have the global changes to recycling and plastics made you look for ways to reduce your household waste? How do you reduce your household waste?



Recycle stations impact

Broadview Enviroservice Station

- Better compliance
- Staff spending more time educating and assisting residents to ensure streams are clean
- Increase in the amount of glass and Styrofoam collected



Ardrossan Recycle Station

- 24/7 access by users
- Increase in contamination in recycle bins
 - Difficult for volunteers: Boy Scouts are having to sort through increased contamination and garbage
 - Increased staff time spent checking and cleaning site
- Glass and plastics are often heavily contaminated and loads are rejected



Survey results

Do you have any other comments on waste programs in Strathcona County?

Recurring comments

- Weekly waste or increase capacity of waste collection
- Find a way to pick up glass, Styrofoam and film plastics directly from households
- There still seems to be confusion around what plastics are acceptable
- Businesses need to do more, focus on single use plastics and change packaging
- Could the County explore innovative technologies to handle these materials? (plastics manufacturing, waste to energy researching)



Conclusions

- Disparity between actual and perceived participation in all three streams
 - Survey responses indicate that residents are fully participating in the program, yet data collected indicates there is room for improvement when separating organics and recycling
- Education for waste sorting, reduction and reuse needs to increase
- Convenience continues to be major motivator for participation
- Lack of understanding that waste management is a shared responsibility and connected to consumption
- Recent changes are a result of global issue, however motivation needs to occur at the local level (ie. “what’s in it for me?”)



The path forward

What's next?

Waste management hierarchy

- A simple five-step hierarchy, in order of priority, of waste management options:
 - industry best practices encouraging consideration beyond the basics of disposal and management of waste
 - categorizes and prioritizes the various options for dealing with waste, into a simple five-step hierarchy of waste management options
- Programs are shifting more efforts to integrating reduction and reuse into program deliverables



Opportunities & strategies

Waste reduction opportunity	Approach	Strategies
1,500 t	Modest	<ul style="list-style-type: none"> • Target specific materials through education • New recycling opportunities in processing • Focus on compliance through education and service monitoring of diversion streams • Focus on source reduction
+2,800 t	Progressive	<ul style="list-style-type: none"> • Implement incentive and disincentive 'pay as you throw' (PAYT) program • Target compliance for waste cart • Bylaw enforcement
+4,200 t	Advanced	<ul style="list-style-type: none"> • Direct 'actual waste' to waste to energy facility • Target industrial/commercial/institutional and construction/demolition sectors to create continuity of program within the community

External influence of provincial Extended Producer Responsibility



Modest - target through education

Using education and community based social marketing strategies, target materials that shouldn't be landfilled, in order of priority

Reduce

1

- Wasted food (2,571t)
- Single use items (340t, optics)

Reuse

2

- Textiles, household items and knickknacks (1,335t)

Recycle

3

- Strengthen people's commitment to recycling
- Soiled papers can be composted (920t)



Modest – reinforce recycling

What's on the horizon?

Recycle

3



- Increased opportunity for domestic markets
 - Processor focusing on sourcing domestic (North American) markets for fibres and metals
 - Plastics still heavily reliant on international markets
 - Western plastic processor expanding their capacity in fall of 2019
 - Potentially new processor coming online in 2020 for less desirable plastics
- Explore convenience and separation
 - Is there opportunity to look at how we separate blue bag materials at the curb or depot?
 - Collection contract up for extension March 31, 2021

Progressive - pay as you throw (PAYT)

What is pay as you throw?

- A system that charges users by the amount of waste they put out for collection. PAYT is based on two guiding principles of environmental policy:
 - the polluter pays principle
 - the shared responsibility concept

How?

- Customers select the appropriate number or size of containers for their standard disposal services. Residents who use larger carts or numbers of carts are charged more

Objectives

Economic: Under PAYT, waste management services is treated like other utilities that are charged by unit of consumption. Variable rates provide a recurring economic signal to modify behavior and allow small disposers to save money compared to those who use more service and impose more costs on the system

Environmental: Variable rates reward all behaviors – recycling, composting and source reduction. Reduction is the cheapest waste management strategy and thus of the highest priority, and it is not directly encouraged by recycling and composting

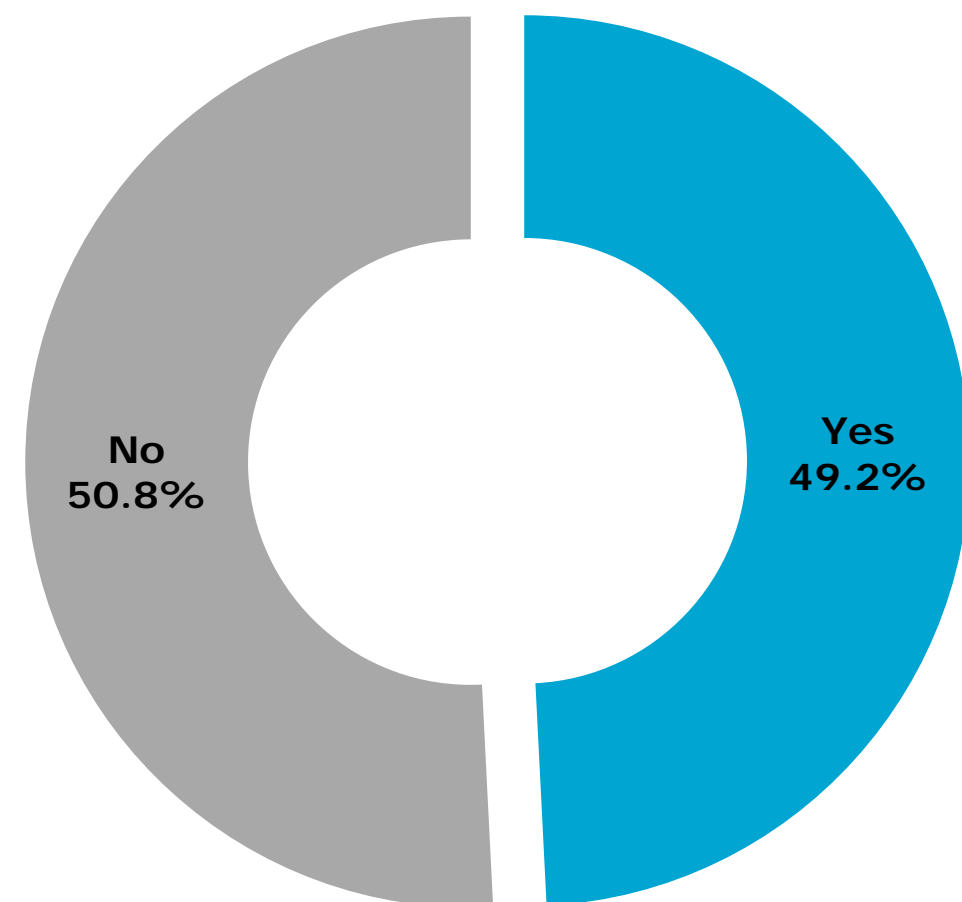
Social: Waste collection costs are distributed more fairly among the population, and in proportion to the amount of waste each user generates

Efficiency: Does not require additional collections or vehicles. Rather than fixed charges, which encourage over use of the service, PAYT encourages customers to use only the amount of service they need

Lack of Restrictions: Variable rates do not restrict customer choices. Customers are not prohibited from putting out additional garbage, but those who do put out more will pay more

Pay as you throw – survey results

Do you think households that create more waste should pay more and households that create less waste should pay less?



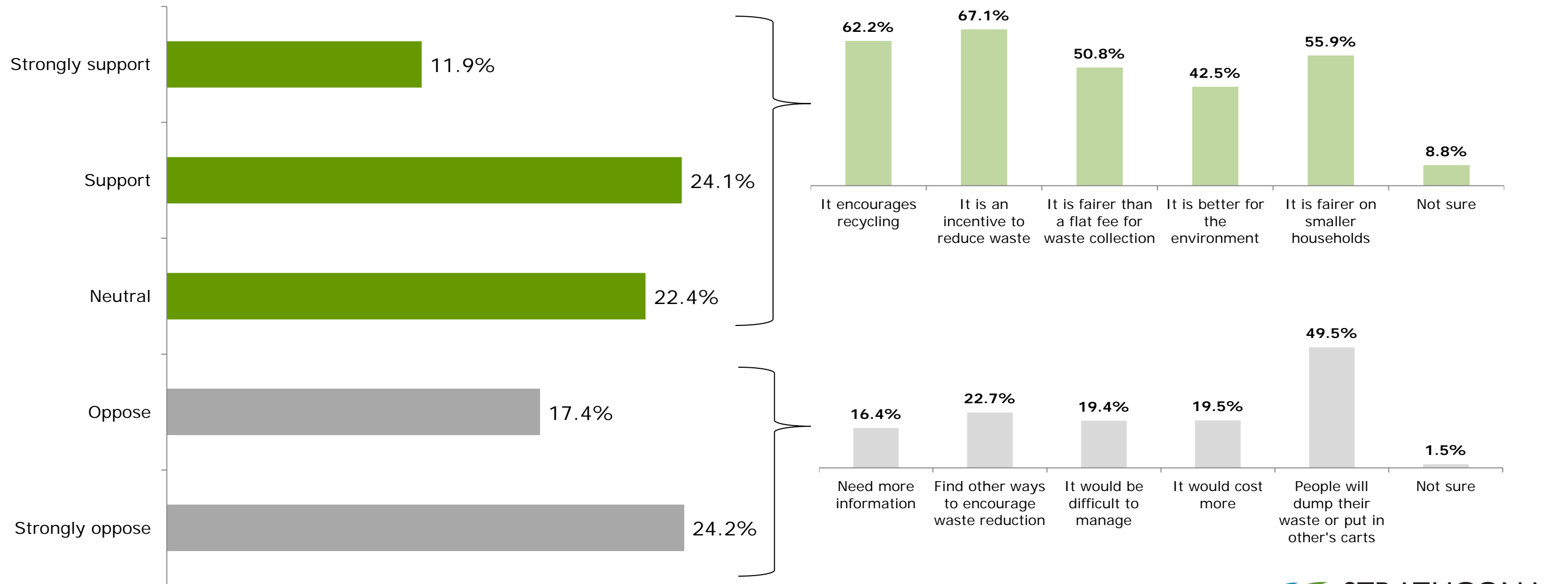
By household size

	1 person	2 people	3 people	4 people	5 people
Yes	65.7%	57.7%	49.9%	40.7%	34.6%
No	34.3%	42.3%	50.1%	59.3%	65.4%

- Willingness to pay is based on amount of waste generated and is directly correlated to household size
 - Support for equitable billing structure is higher amongst households with less number of people (who typically generate less waste)

Pay as you throw – survey results

Would you support a pay as you throw program in Strathcona County?

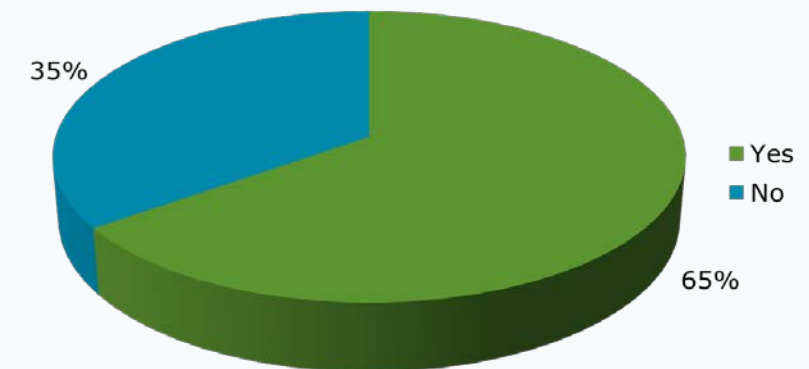


Progressive - compliance

- Update bylaw to include pay as you throw program
- In 2014, residents endorsed the pursuit of ensuring that there is program compliance
 - Re-engage residents to gauge support for continued enforcement
- Target materials in the waste cart through compliance
 - Audits
 - Positive reinforcement
 - Reminder stickers
 - Enforcement

Support for Enforcement

"... are you supportive of Strathcona County increasing enforcement to get residents to comply with Green Routine guidelines (enforcement could include reducing leniency on items that get collected or fines)?"



Key Message: Residents endorse the pursuit of ensuring that there is program compliance

2014 – Waste Management Satisfaction Survey

Advanced - waste to energy (W2E)

Recover

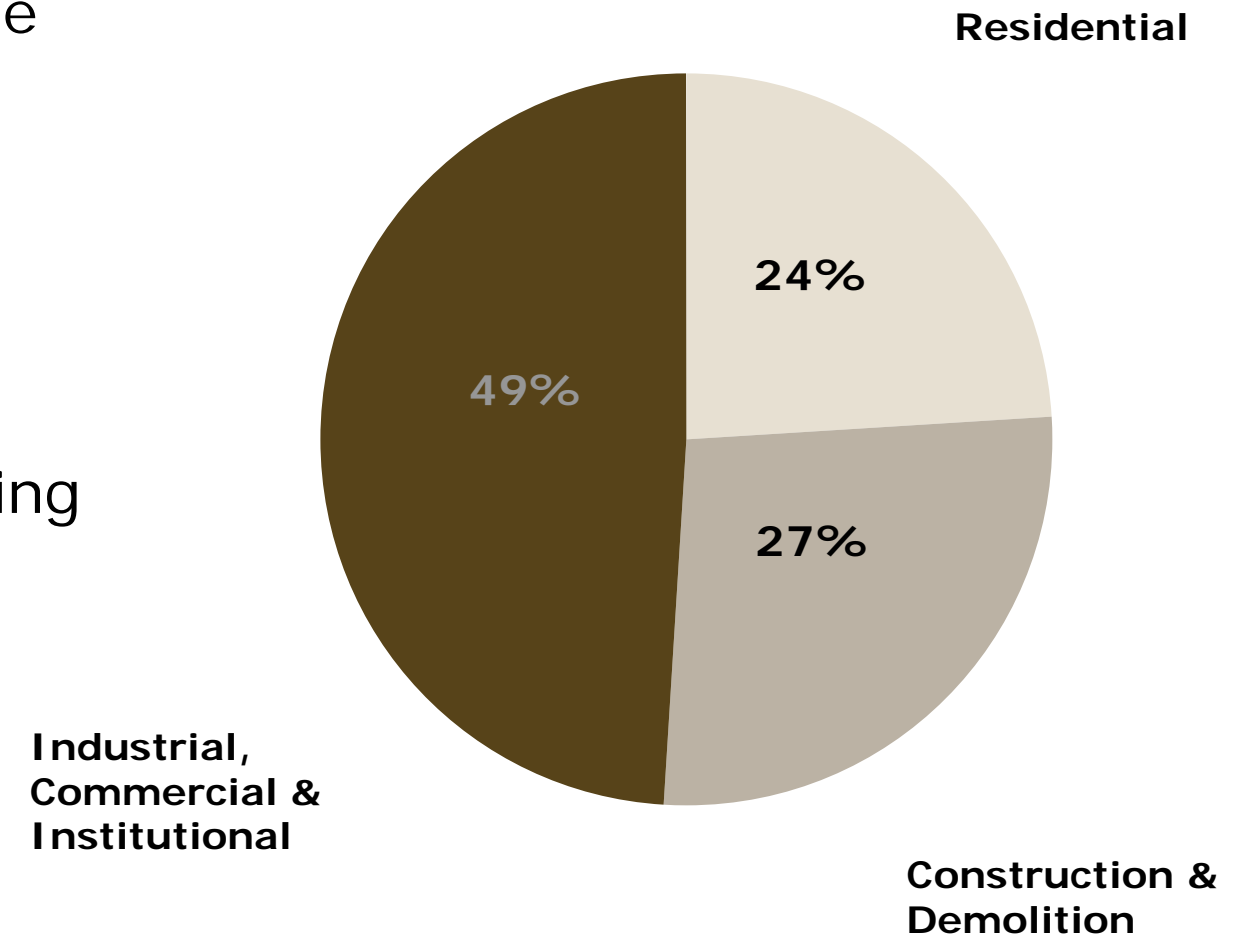
4



- W2E typically targets specific waste materials and comes at a higher processing cost
 - No organics, metals, hazardous waste materials
- There are a number of technologies and potential interested parties
- Landfill contract expires December 31, 2022
- Best practices approach for W2E ensures that you are targeting 'actual waste' that cannot be diverted from landfill

Advanced – commercial sector

- Large portion of the community's waste falls outside the Green Routine program
- Residents have expressed concern about waste streams that are 'out of their control'
- Is there action the County could take with the commercial sector to increase reduction and recycling consistency throughout the community that will support residents with their waste habits?
 - Develop waste management strategies
 - Voluntary vs. regulatory
 - Target single use items



Bring forward to Council

Administration will be submitting the following items into the 2020 – 2023 Business Plan & Budget process

- Development of a waste diversion approach (2020)
 - Set high level goals and principles for waste management practices in Strathcona County
- Examination of a pay as you throw program (2020-2022)
 - Engage residents on the specifics of a pay as you throw program
 - Do an environmental scan and research best practices

Discussion