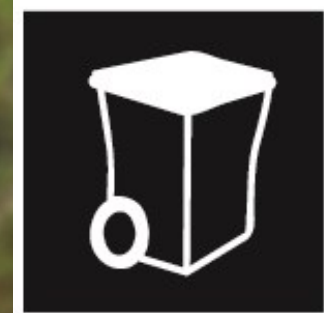


Strathcona County's Green Routine

Waste Diversion Program Update

May 15, 2018 Priorities Committee Meeting

LLS.11538447



Get with the
GREEN ROUTINE!

In 2008, Strathcona County introduced “The Green Routine”. This program was a response to residents’ desire to take action against waste.

The Green Routine is celebrating its tenth anniversary and still remains one of the best performing residential programs in Alberta.

Curbside



Green Routine Program

- 27,810 households.
 - 85% hamlets, 15% rural.
 - 52% of multi-tenant complexes & buildings.
- Service 80% of households.
- Only municipality in Alberta that offers direct collection services to rural households.

Three stream collection

- Organics and waste biweekly.
- Commingled recycling weekly.
- Extended seasonal organics weekly (hamlets only).
- Special events.

Rates

- No rate increase for 2018.
 - \$22.05 for rural customers.
 - Smaller organics cart & no weekly organics.
 - \$25.15 for urban customers.
 - Larger organics cart and weekly organics.
- Rate reduction in 2017 by \$0.35 from 2016 rates.
- No rate increase for 2016.

The Sidekicks



Extra Yard Waste Events

Time to get rid of
that **old couch?**



Large Item Pickup is here!

Large Item Collection

Recycle your
Christmas tree



Christmas Trees



Cart Management

Curbside Processing



Waste

GFL Transfer Station to
Roseridge Regional Landfill
(Morinville)



Organics

GFL Transfer Station to
Strickland Farms (Penhold)



Blue Bags

GFL Transfer Station to
GFL MRF (Acheson)



Large Items



Waste – Roseridge
Metals - Maple Leaf Metals
Mattresses – Re-Matt



Extra Yard Waste/Trees

Edmonton's Waste Management
Centre – Outdoor Site

COMMUNITY RECYCLING

Recycle Stations & EnviroSERVICE

Community Recycling



Rural & Urban

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



Enviroservice

A new dedicated building for HHW, electronics, paint, oil, batteries, tires and other materials that require special recycling or disposal.



Efficiencies

Introduced compactors and brush grinding to increase efficiencies at the Broadview Recycle Station.



Easy, Convenient

Our new site provides convenient, easy and safe access to disposing of items such as brush and yard waste.

Recycling Processing

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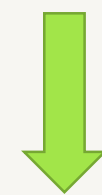
Cardboard & Mixed Paper
Cascades Recovery +



Made into new Cascades fibre products



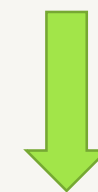
Plastics
GFL MRF (Acheson)
to plastics marketer



Plastics are sorted into marketable and unmarketable materials, and either shipped to China or disposed in landfill.



Glass
Edmonton's Waste
Management Centre



Sent to BC to be ground as a sandblasting agent.

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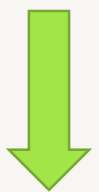
Metals & Mattresses
Metals - Maple Leaf Metals
Mattresses - 4 Good Home Services



White goods have Freon removed and metals are baled and shipped for market. Mattresses are broken down into fibre, wood and metals.



Brush & Yard Waste
Edmonton's Waste Mgmt
Centre - Outdoor Site



Composted on site and marketed for land reclamation projects.

Enviroservice Processing



Electronics
GEEP - EWMC



All materials are broken down and sorted. Electronics contain a lot of precious metals that have good markets.



Tires
Liberty Tire



Tires are shredded or crumbed and turned into manufactured products such as playground surface, or used in landfill leachate systems.



Paint
Clean Harbors to Calibre



Latex is sorted in to colors and recycled into EcoCoat. Oil based paints are used as a fuel blend.



Oil/Glycol
GFL Environmental



Residential oil collection is typically used for a fuel blend for cement plants, pulp mills, etc. Plastic containers are turned in to new containers, railway ties, fence posts, etc.



HHW, Tubes, Batteries & Tanks
Clean Harbors, Aevitus, Call2Recycle



HHW is sent to Swan Hills for destruction. Bulbs are crushed and glass is recycled. Batteries are sorted and precious metals are recovered. Car batteries are sent to Maple Leaf. Tanks to Tank Traders.

The background of the slide is a photograph of a paved road on the left and a green lawn on the right, separated by a white curb. A white rectangular frame is superimposed over the image, containing the text.

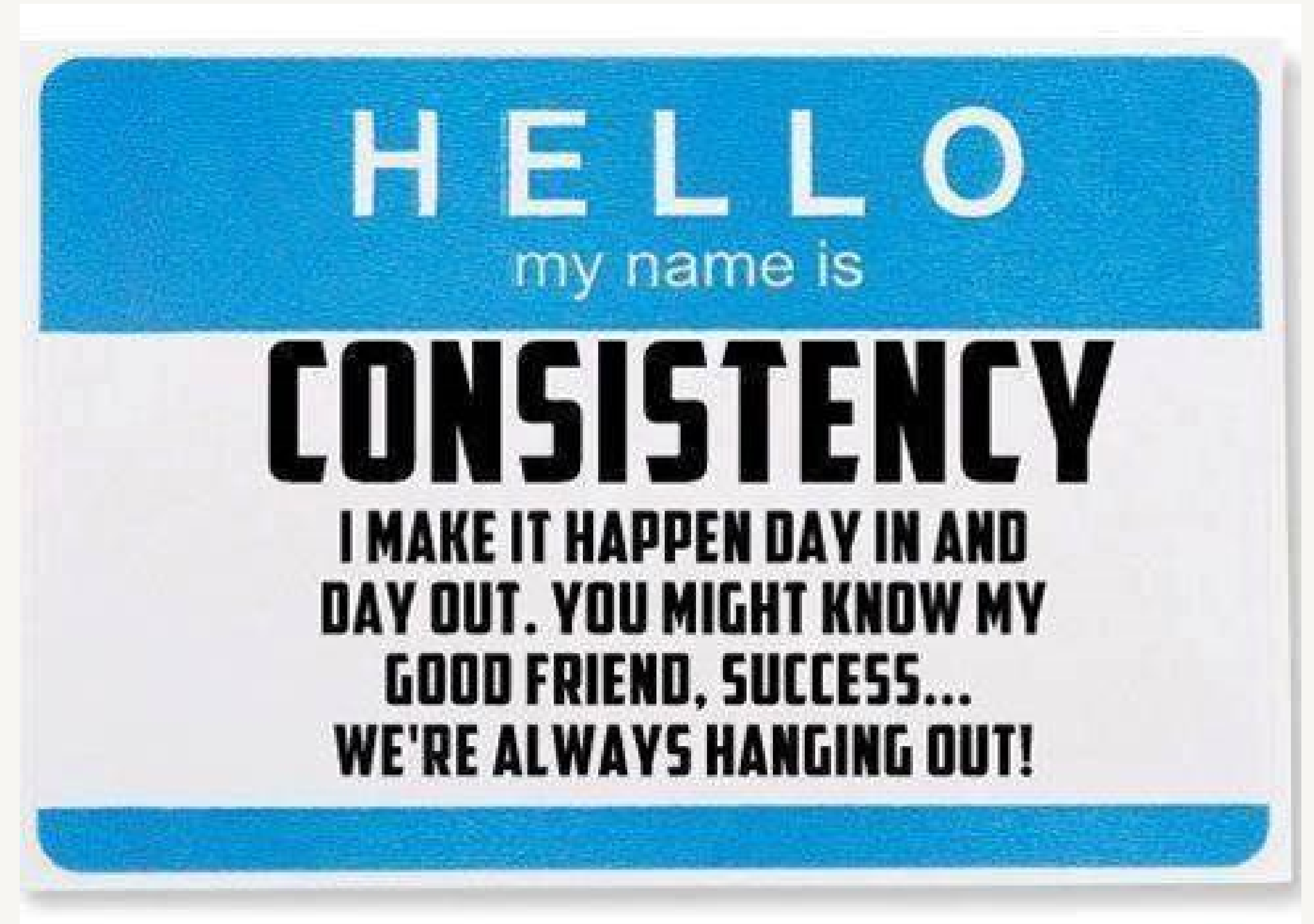
OUTREACH

Beyond the Curb

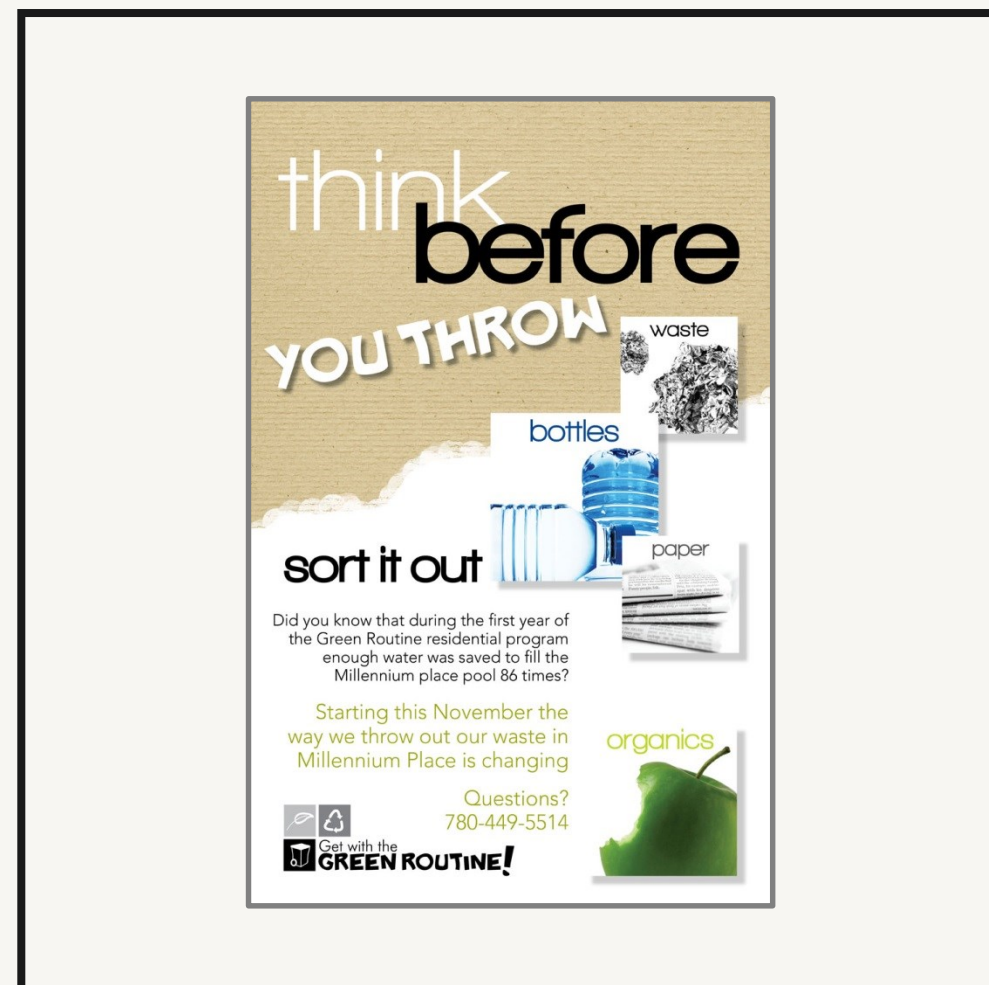
Consistency is Key

Routine | Throughout Community

One of the goals of the Green Routine program is to expand it in order to make it common place throughout the community. As residents travel from home to leisure activities, school and eventually to work, the idea is that a consistent program will be part of their routine and become second nature.



Modeling the Way



Sort It Out

Fun and catchy campaign to encourage users to better understand the program.



Consistent

Uniform labels, graphics, colors and messaging throughout facilities.



Tailored

Use examples specific to common items disposed of at facility.



Awareness

Specify end of life location for materials to better educate residents about their choices.

Zero Waste Community Events



Stations

Simple
& Familiar



Oodles of Opportunity

Easily
Accessible



Reduction

Smaller
Waste Cart

Event Super Squad

Waste-free event!

“Put us in the green cart!”

Did you know?
75 per cent of the waste from Canada Day 2015 was composted or recycled. Not landfilled.

“We will be sent for composting!”



This event is completely waste-free! You can put all the items below into the green organics cart.

- cups & lids
- sugar packets
- cutlery
- fruit
- plates
- stir sticks
- napkins
- left over food

 Thank you to our sponsor for providing the compostable cutlery.

 STRATHCONA COUNTY



Collaboration | Internal & External

The success of waste reduction at these events relies on good relationships with numerous groups. Internal departments, volunteer organizations and vendors make these events waste free.

Education @ Events



Engagement

Entertain the kids with an educational and fun activity, while engaging parents in conversations about the program.



Create Curiosity

Find new ways to draw people in so there is a better understanding about waste reduction in the community.



Tangible Issues

Showcase solutions to real problems residents are experiencing with the program.

Community Conversations

TRASHfest

Get ready to party!

Join us!
Tuesday, August 16
4 p.m. to 7 p.m.
Holy Spirit Catholic School staff (South) parking lot
151 Crimson Drive, Sherwood Park

August 16
4 pm to 7 pm

Join us on Tuesday, August 16 and learn about our waste system in Strathcona County. Enjoy some of these activities:

- bouncy castle
- information booths
- interactive sorting game
- hot dogs compliments of Investors Group
- green party idea tent courtesy of Greenmunch
- get up close with one of the new waste collection trucks

And so much more!

In case of inclement weather, the event may be cancelled. Check our website the day of the event.

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

STRATHCONA COUNTY

PooP-a-PALooZA!

Green Routine + man's best friend = pawsitively awesome!

Saturday, June 3rd
10 a.m. to 2 p.m.
Deermound Off Leash Park
23020 Twp. Rd. 522, Sherwood Park

STRATHCONA COUNTY



Meal plan

Time to plan your meals and get organized.

Healthy, clean, healthy, clean!

Stay healthy

Talk to a registered dietitian on how to eat healthy, even in a hurry.

healthy!

Save money

Learn how to use coupons, price matching and other techniques.

Save money!

Reduce waste

Reduce food waste and your carbon footprint.

Reduce waste!

Love food. Hate waste. Meal plan.

A simple way to reduce food waste is to plan your meals. We're here to help.

What to expect at this free session:

- meal planning sheets
- free recipes
- tips and tricks on how to do the Green Routine at home
- tips from a local shopping guru on how to save money with coupons, price matching and other tricks.
- in-depth knowledge of what happens to the organics in your green cart
- chance to talk to a registered dietitian about your nutritional concerns
- time to actually plan your meals

Join us for an evening of learning, fun and getting organized.

Questions?
780-416-6784
erin.wildeboer@strathcona.ca

STRATHCONA COUNTY

Tuesday, February 13
6 p.m. to 8 p.m.
Sherwood Park Log Cabin
50 Spruce Avenue
Free event

Green Routine Goes to School



Students | Superheroes In Training

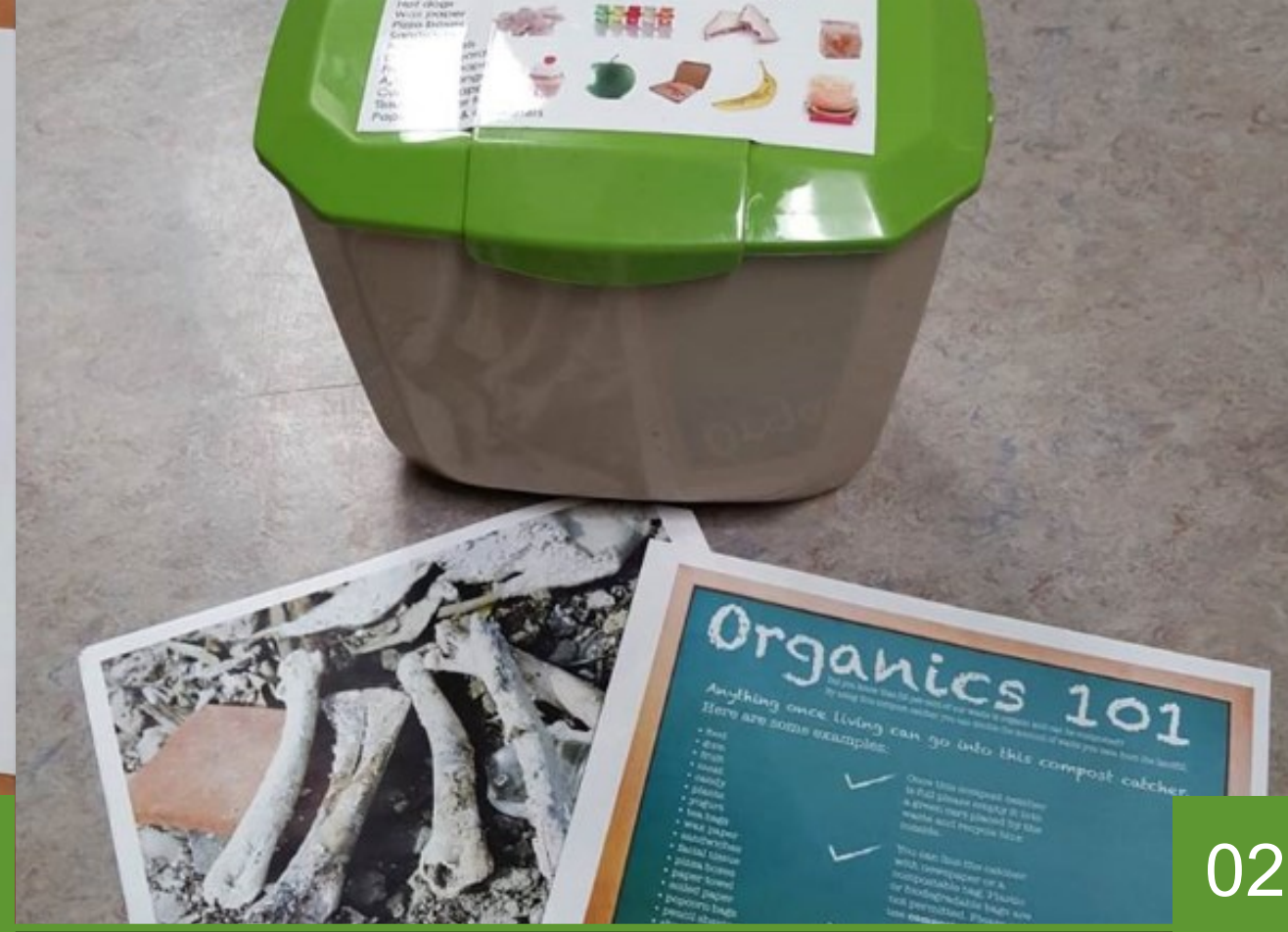
- Utilities partners with both school boards on procurement and program delivery.
- Educating our future homeowners.
- Creates consistency throughout their day.

Fighting Waste

- 1. The Gurus** | School Champions
Students take lead in their waste reduction program.
- 2. Starter Kit** | Every Classroom
Need the right tools to get the job done.
- 3. Creative Solutions** | Making It Work
Finding resourceful waste to participate in program.
- 4. Hands On Learning** | Makes It Stick
Link to curriculum where possible.
- 5. Site Tours** | Enviroservice
Breaking out of the classroom environment.
- 6. Relevant** | What's Cool?
Useful images that are relatable to the kids.



01



02



03



04



05



06

Multi-Family



Current | Bylaw Requirements

- The Waste Management Bylaw requires all properties to have, at minimum, fibre recycling.
 - Five buildings exceed this with organics.
- Newly built condo buildings must make provisions for three stream program.



RESULTS

How are we doing?

performance

Goals & Performance Indicators

Strategic Plan


Strategic goal

Improve the efficiency of resource usage;
minimize the volume of waste and its impact
on the community



Outcome

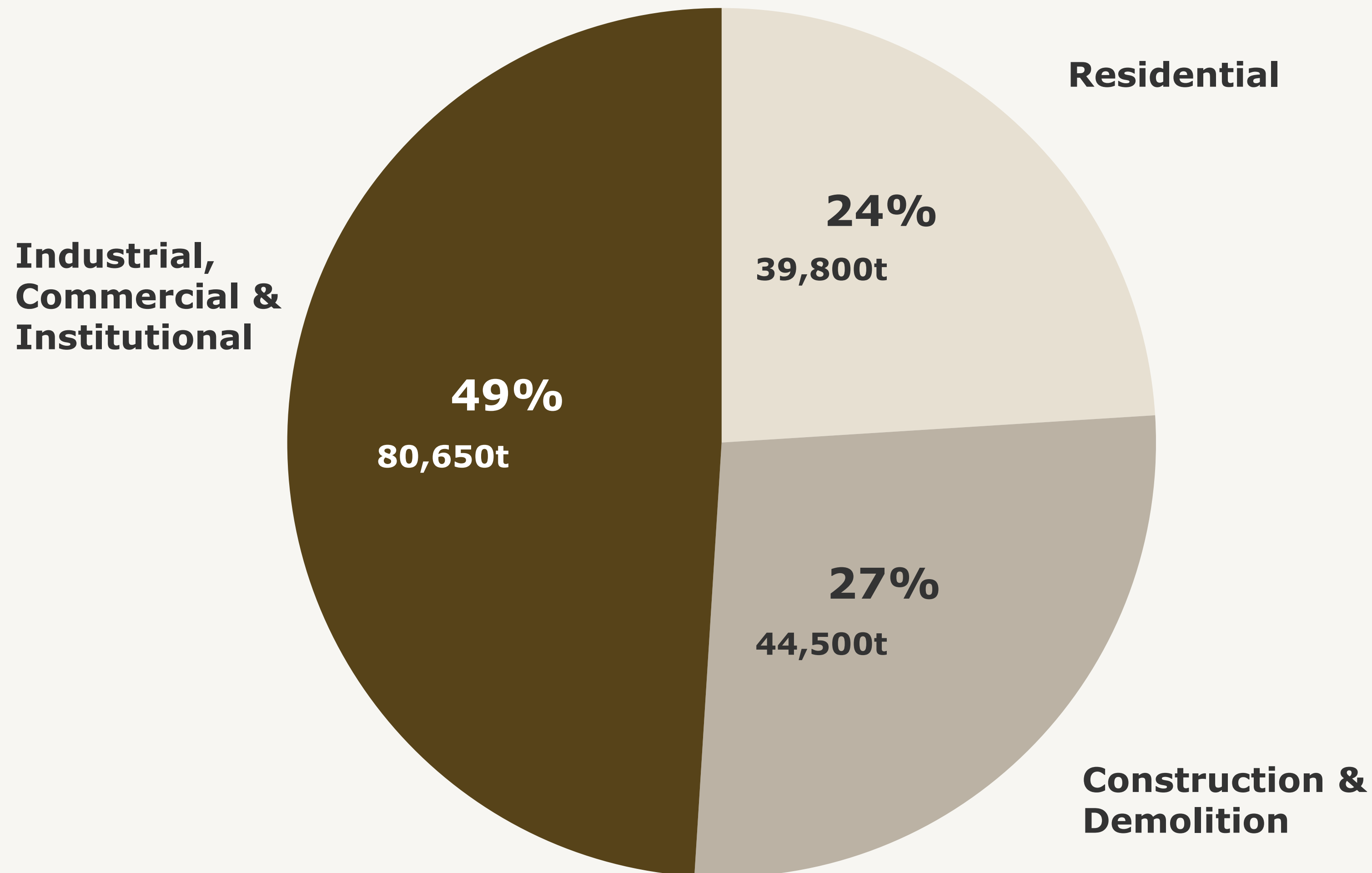
Environmental considerations
are foundational to all planning,
decisions and actions made in
Strathcona County



Department Business Plan Key Performance Indicators

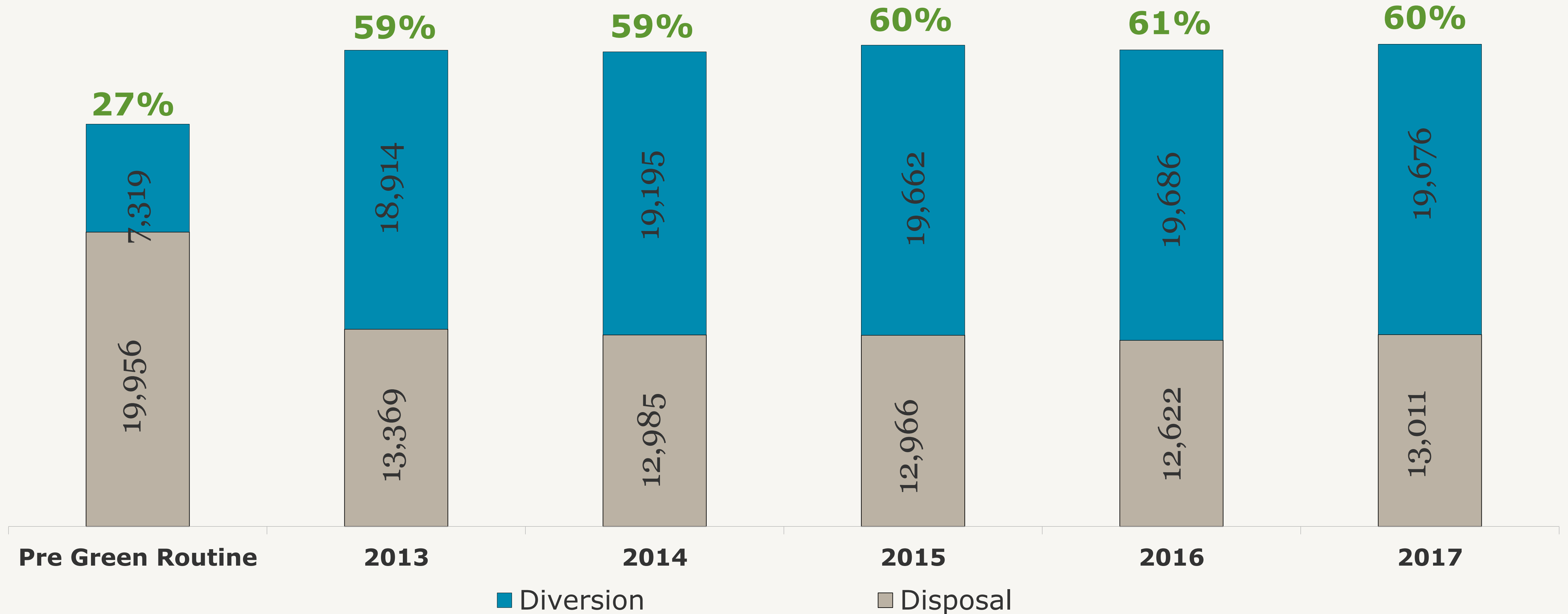
Measure	Benchmark	Target
Residential waste diverted from landfill	59% (2013)	70% (2018)
Customer satisfaction with Green Routine	74.4% (2012)	75% (2018)

Municipal Solid Waste



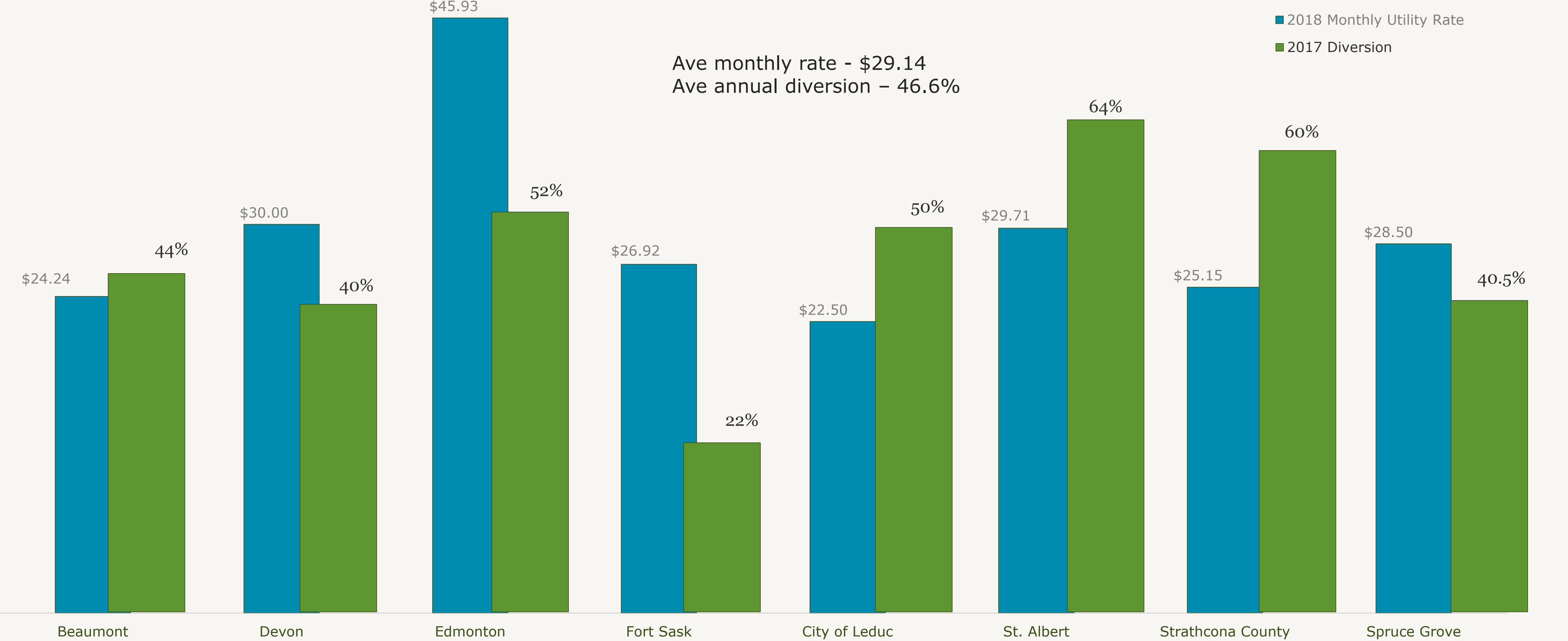
- MSW makes up all waste that is generated within municipal borders.
- Utilities currently focuses on the residential sector.

Diversion Performance



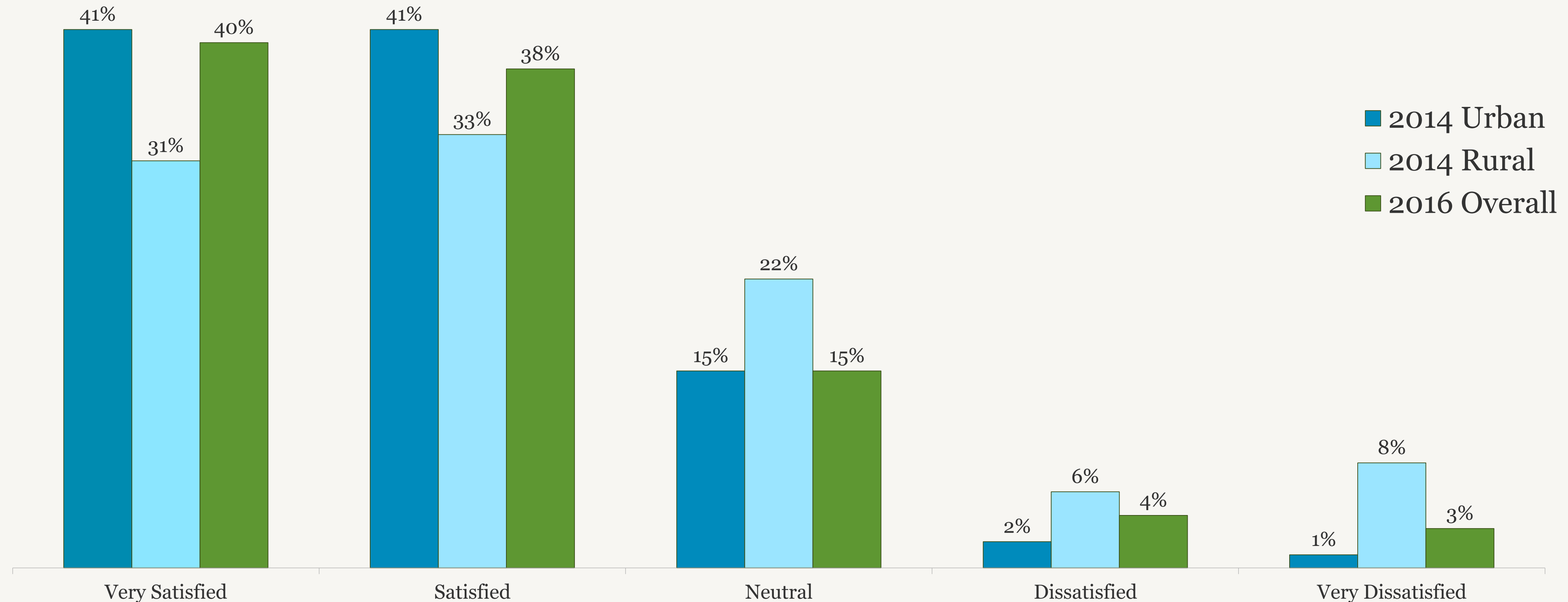
Key Message: Overall waste generation is not increasing despite growth, however diversion remains stagnant.

Regional Comparison



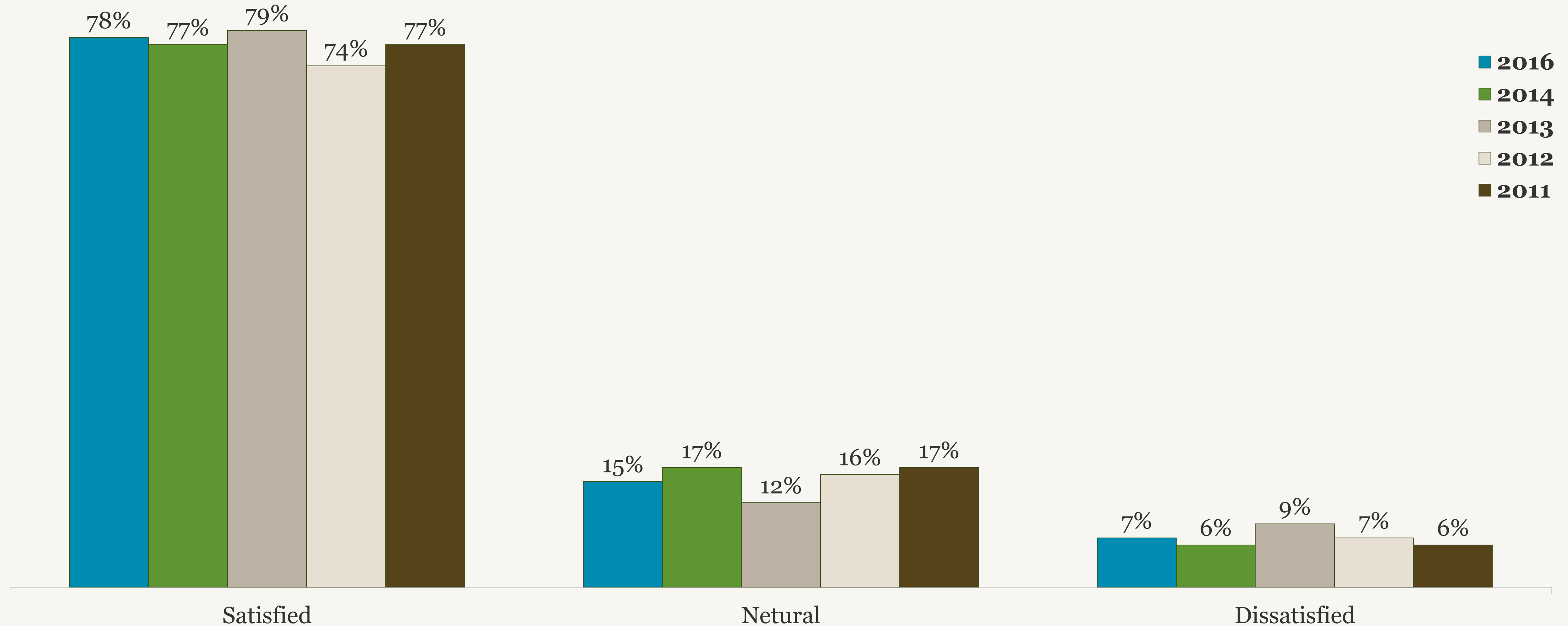
Key Message: Strathcona County is above average in terms of diversion from landfill and cost for service.

Public Satisfaction with Green Routine



Key Message: Achieving high satisfaction overall with our customers.

Satisfaction Trend



Key Message: Consistent satisfaction over the last five years.

Our Progress



1990s-2007

Solid Waste

With the implementation of the Green Routine, Strathcona County residents became waste heroes in the province of Alberta.

~60%

5 years

We've Plateaued



2008

Diversion Success

27%

Low diversion rates, impending landfill closure and resident requests steered us to a new path.

Over the last five years, the program has plateaued around 60%. We are now exploring how we can continue to improve on our diversion.

FURTHER EVALUATION

Looking for Ways to
Improve

Data Collection



Street Team | Curbside

- In 2015, Utilities initiated an auditing program to collect metrics and to request compliance from customers regarding contamination and overfilled carts.
- A GIS application was developed to support our street team in the collection of data.



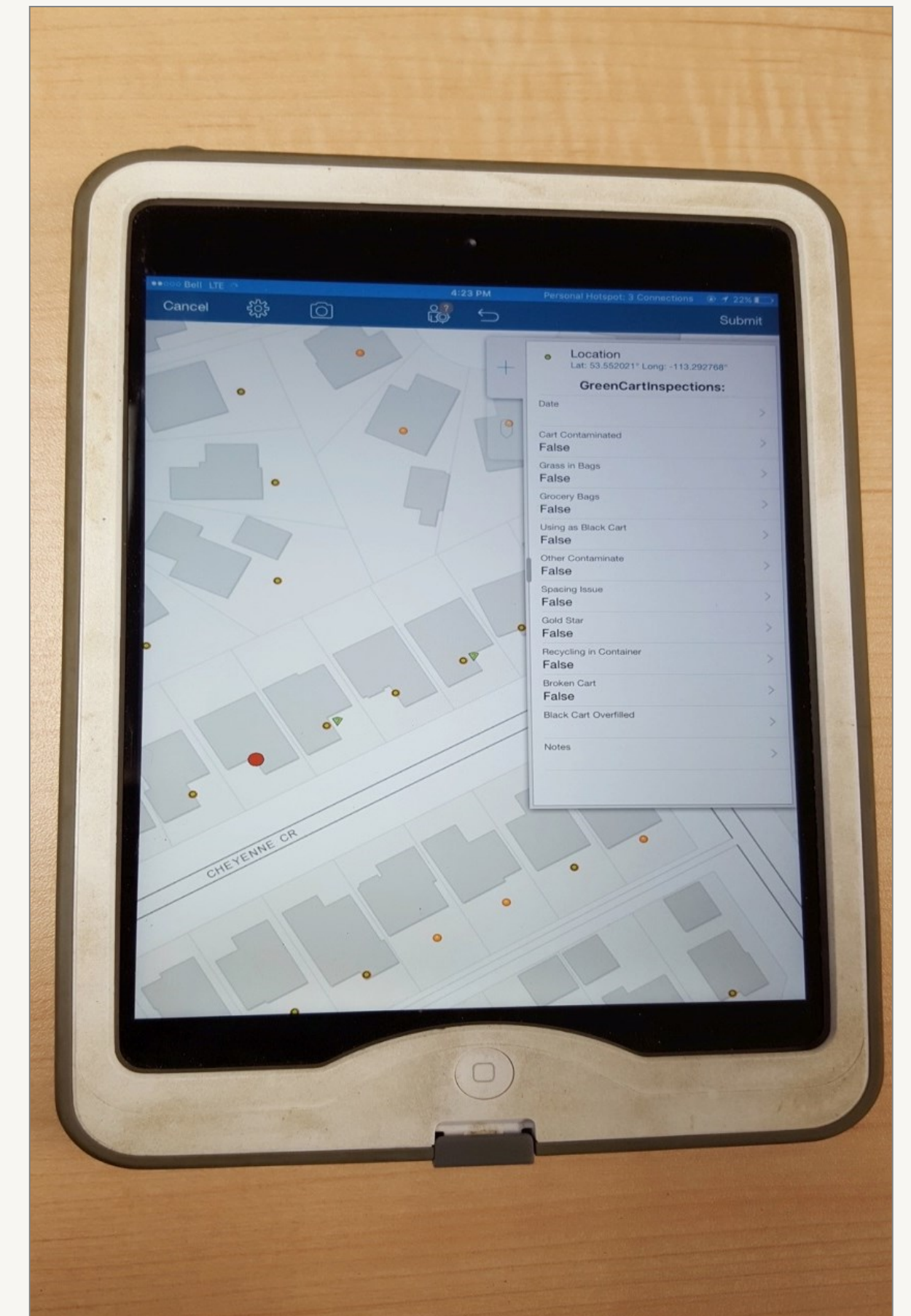
Data Collection

Summer students walk selected neighborhoods using a handheld device to collect data specific to the collection point. They inspect whether:

- Carts and recycling are appropriately placed & spaced.
- Streams are separated appropriately.
- The cart is broken and needs replacement.
- A container is being used for recycling.
- Carts are overfilled.

Audits improve efficiency and effectiveness of the program:

- Cart replacements.
- Efficiency of daily collections.
 - Spacing corrections
 - Proper preparation of materials
- Reduce contamination and associated costs.



Community Based Social Marketing



Prompts | Positive Reinforcement

Positive reinforcement is a powerful behaviour shaper, as these positive cues reassure our residents that they are on the right course and should continue. It also creates community visibility for a sustainable act that will inspire others to do the same.



What We Found

Since 2015, approximately 15,300 collection points have been inspected:

- 1,760 (11%) organic carts were heavily contaminated, stickered and needed correction.
- 765 (5%) organic carts required education regarding small amounts of contamination (ie. food packaging, plastic bag to line kitchen catcher) but still had their cart collected.
- 84% of residents are participating and complying, approximately 50% of these are excelling.



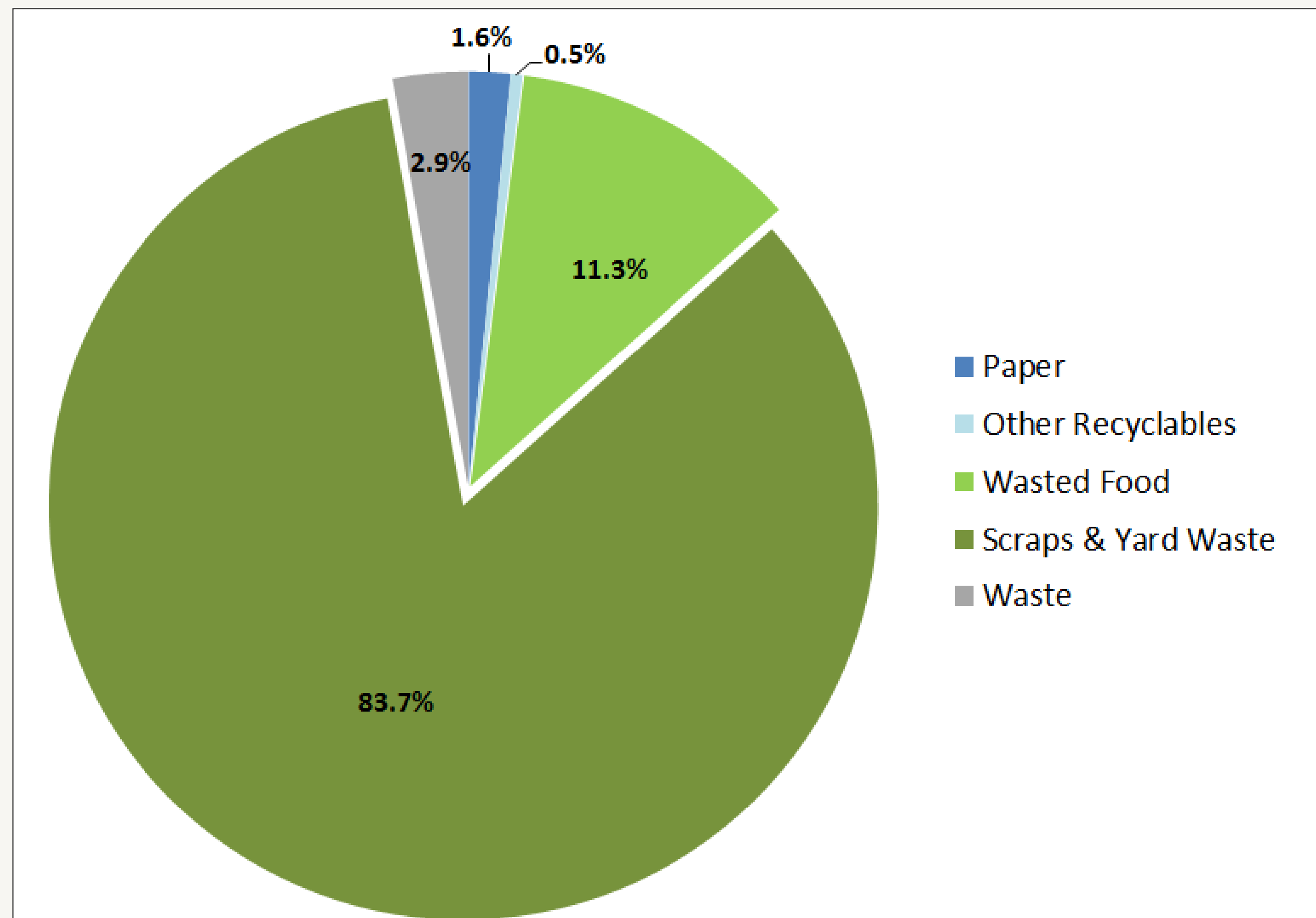
Waste Characterization Study



- In 2017, Utilities conducted a waste characterization audit on each waste stream.
- It benchmarks current practices and provides insight into program participation and customer behaviors. The data is used for:
 - Quantifying recyclables and organics.
 - Establishing a baseline for continued long-term measurement of system performance.
 - Understanding the differences between sub streams so recycling and recovery opportunities can be prioritized.

Waste Characterization Results

Green Carts| Organics Stream

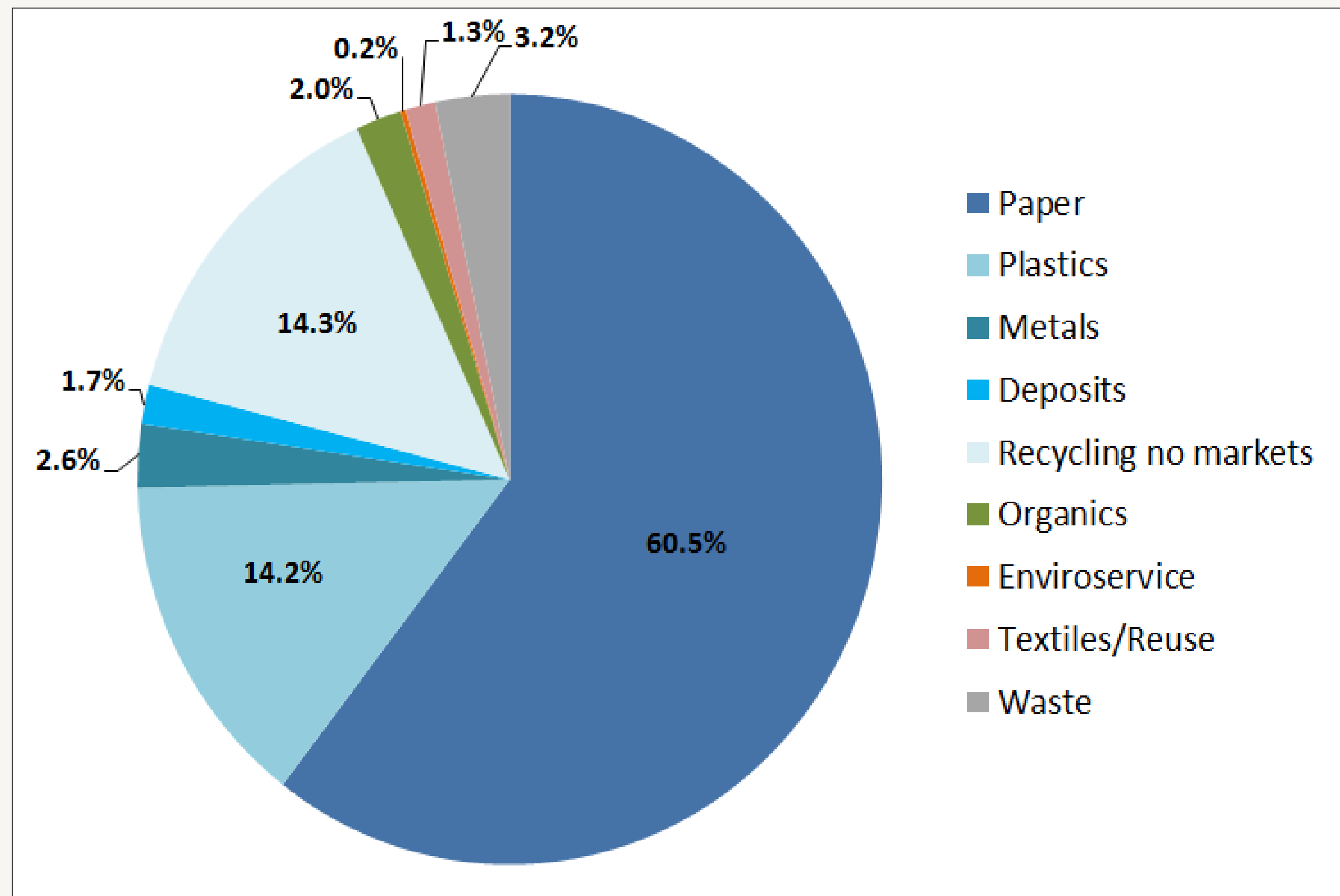


- Overall residents are fairly compliant with the organics stream, with just over 3% contamination.
- Majority of the contamination is plastic bags being used as kitchen catcher liners or food packaging.
- High percentage of wasted food found in the organics streams.
 - ~ 1,120 tonnes



Waste Characterization Results

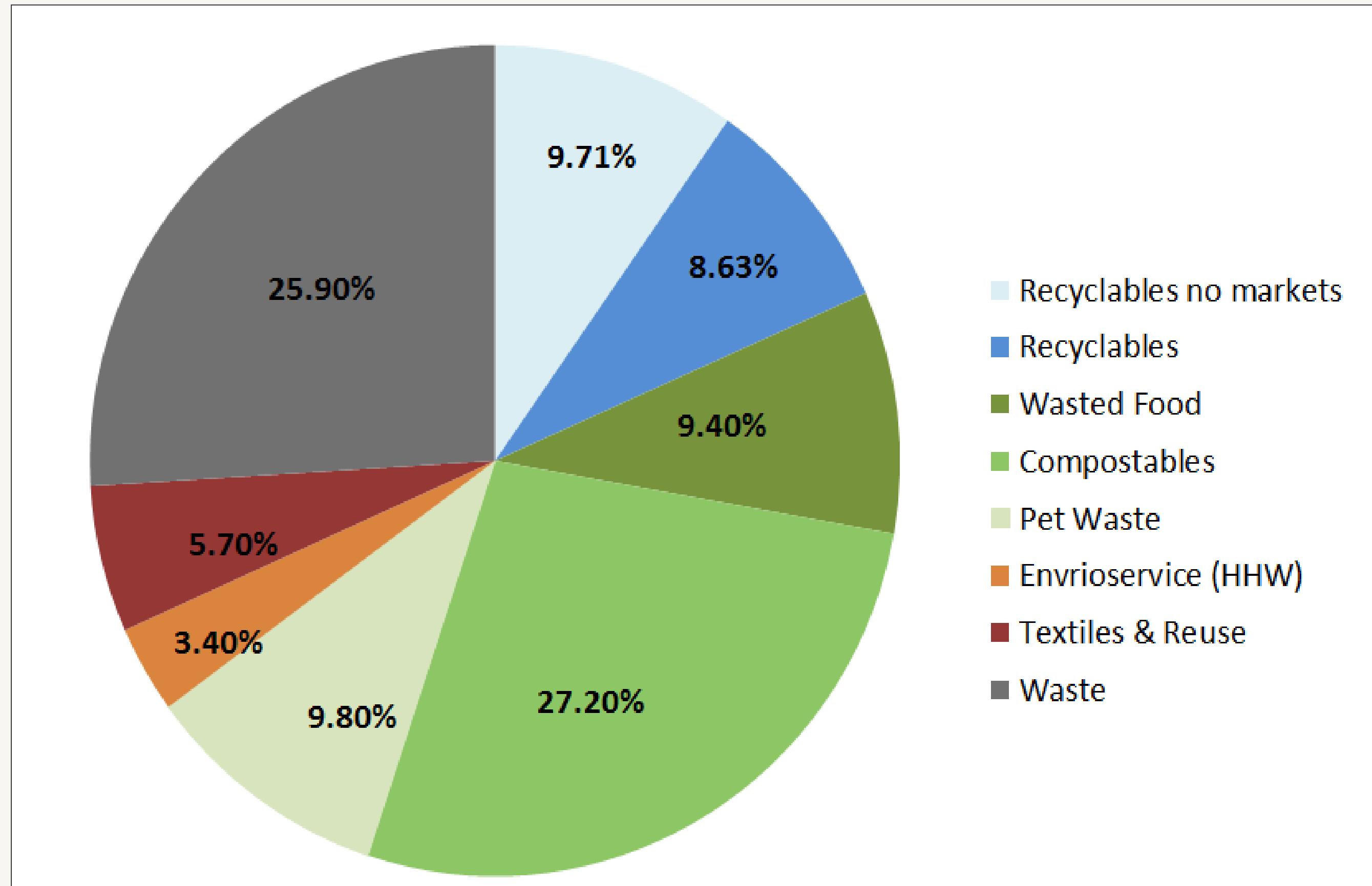
Blue Bags| Recycling Stream



- Residents are generally compliant.
- Over 6% is contamination that should be separated into the green or black cart.
- Approximately 14% (720t) of what is captured in the blue bag has difficult markets for recycling.
 - Requires an alternate recycling program or redirected to landfill.

Waste Characterization Results

Black Carts| Landfilled Stream



- Over 45% (5,500t) is organic materials.
 - Target wasted food, compostable papers and pet waste.
- Textiles and reuse remains a target.
- In terms of all three streams, approximately 7% is unmarketable recyclables – 60% of which is already being placed in the black cart.
- Audits confirmed that only 12% (3,600t) of true waste generated by residents should be going to the landfill.

ISSUES & NEXT STEPS

The Path Forward

Reduce & Reuse

The Waste Hierarchy is industry best practices that encourages consideration beyond the basics of disposal and management of waste.

It categorizes and prioritizes the various options for dealing with waste, into a simple five-step hierarchy of waste management options.

Next Step: Utilities to develop an education and outreach campaign that targets source reduction. Explore best practices in terms of measuring outcomes.



Target Specific Materials



Wasted Food



Textiles & Reuse



Styrofoam & Single Use Plastics



Pet Waste

Next Steps: Given the results from the waste characterization study, Utilities will be developing strategies to target specific materials that will have the biggest impact on diversion from landfill, either through recycling/composting or reduction.

Blue Bag Changes

Instability of international recycling markets will impact municipal blue bag programs.

- Recycling relies heavily on foreign markets.
- As of January 1, 2018, China is requiring processors and municipalities to produce a clean, homogeneous stream of recycling.

Next Steps: Utilities is currently discussing these impacts with our processor and other regional municipalities to determine changes that are required to local programs.

- Remove non-marketable recyclables and reduce contamination.
- Targeted education to request compliance from users.
- Higher processing costs and decrease in revenues.



Variable Cart Sizes

In 2017, Utilities conducted a pilot study that explored variable cart sizing by offering smaller waste and organics carts to different locations within the urban and rural areas.

The objective of the pilot:

- To evaluate the uptake by customers in varied neighbourhoods and housing types.
- To evaluate the motivation for changing (or not changing) cart size.
- To evaluate the impact on processing.

Next Steps: Potential to implement a Pay-As-You-Throw program that would reinforce equity in the collection system and reflect the amount of waste customers generate.



Multi-Family

Revisit whether all multi-family complexes and buildings should be participating fully in a diversion program that includes all recyclables and organic materials.

Next Steps: Engage this sector further and provide support.



Broadview Operations

Under the current model, both the residential and commercial sectors use the site, with the exception of the household hazardous waste (HHW) program which is only available for households.

Usage of the station may see further increases due to differences in regional processing rates and shifts in programming in other municipalities.

- May drive excessive volumes from landscape contractors and residents.
- Some hazardous materials fall outside of provincial subsidy program.

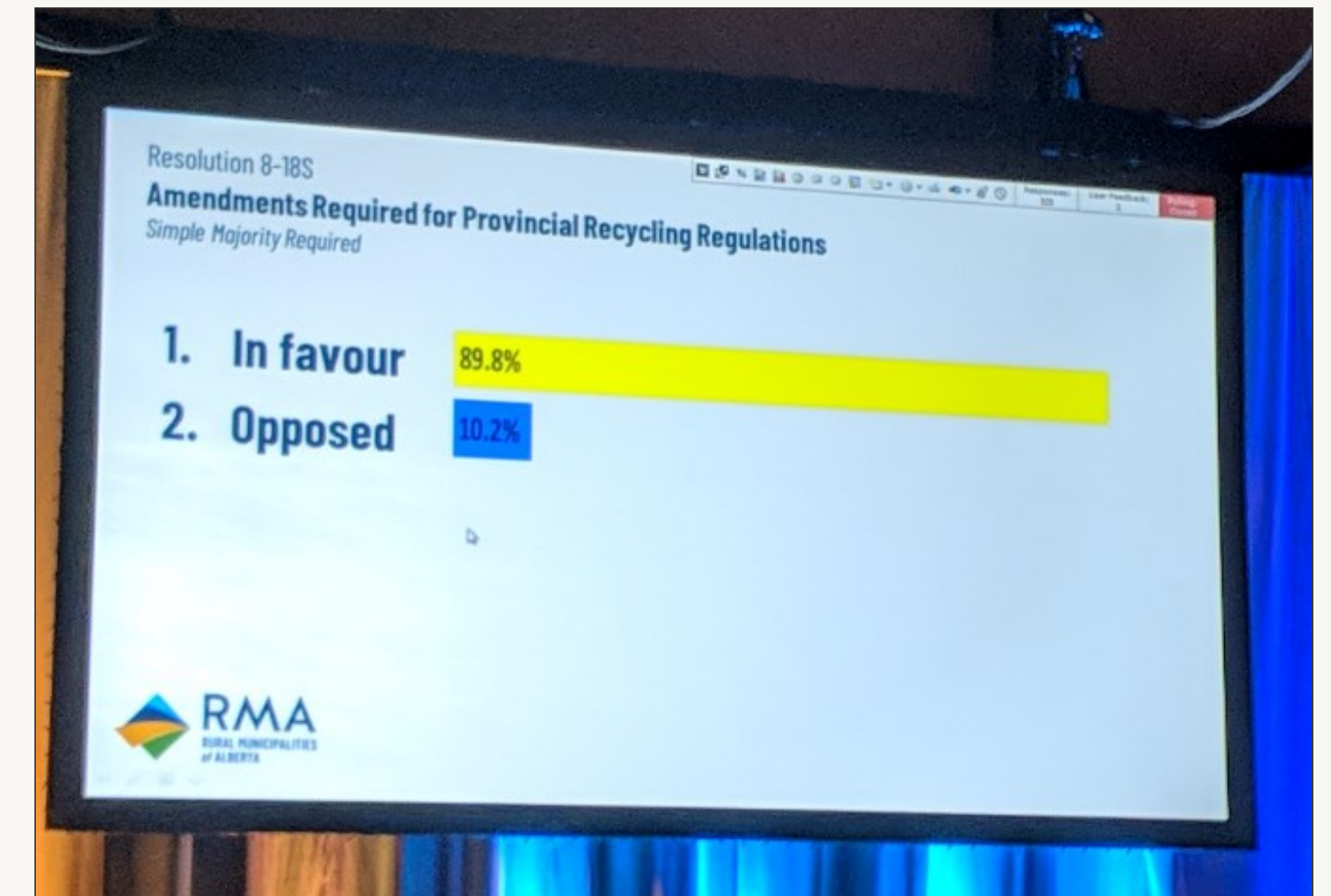


Next Steps: Utilities will be monitoring the site and conducting operational reviews.

Provincial Advocacy

- February 6, 2018 passed motions to advocate the provincial government to move forward on amending the existing recycling regulations, as well as enable a province wide Extended Producer Responsibility policy.
 - Request for decision was approved unanimously at the AUMA Municipal Leaders' Caucus on March 15.
 - Resolution was supported (89.8%) at the Rural Municipalities of Alberta (formerly AAMDC) convention on March 20.

Next Steps: Continued advocacy with the Province.



Residential Sector Target

Target	Approach	Strategies
61-65%	Current	<ul style="list-style-type: none">• Target specific material.• Focus on compliance through education and service monitoring of diversion streams.• Focus on source reduction.
66-75%	Progressive	<ul style="list-style-type: none">• Target compliance for waste cart.• Implement incentive and disincentive programs.• Bylaw enforcement.• Mandatory collection and/or source control (i.e. rural and multi family).
75%+	Advanced	<ul style="list-style-type: none">• Direct residuals to waste to energy facility.• Target industrial/commercial/institutional and construction/demolition sectors to create continuity of program within the community .

← **Provincial Extended Producer Responsibility**

Emerging Processing Impacts

- Edmonton Waste Management Centre
 - Closure of the City's co-composter has resulted in capacity issues for composting this material at their site; they could redirect it to landfill.
 - Alternate composting options exist in the region.
- Household batteries
 - Introduction of fees due to lack of provincial regulation.

Discussion