
Implementation of the SM4RT Living Solid Waste Master Plan

Committee of the Whole
Town of Newmarket
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Three key aspects of the SM4RT Living Solid Waste Master Plan

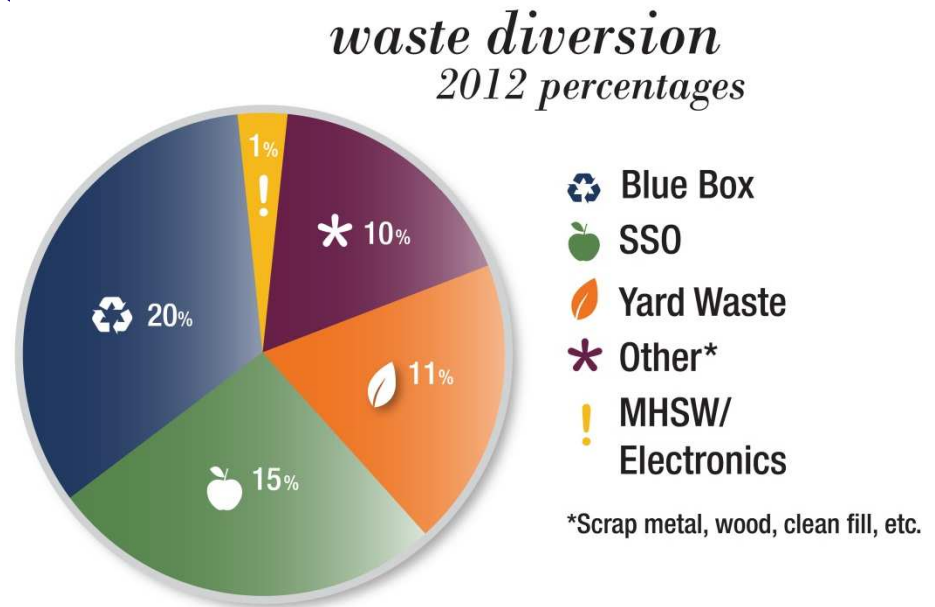
- q **Infra-stretching** through demand management achieved by waste reduction and public education
- q **Investment** in new capital with proposed expansion of Durham-York Energy Centre, SSO facility and CEC network
- q **Innovation** with partnership-based approach to deliver the SM4RT Living Plan



Where we are

- q Leaders in Ontario (2012)
 - q 57% WDO diversion (unverified)
 - q 82% diversion from landfill

- q Council endorsed 4Rs hierarchy
- q Inclusive blue box and green bin programs with high participation



Consistently ranking in the top of the WDO Large Urban category of diversion

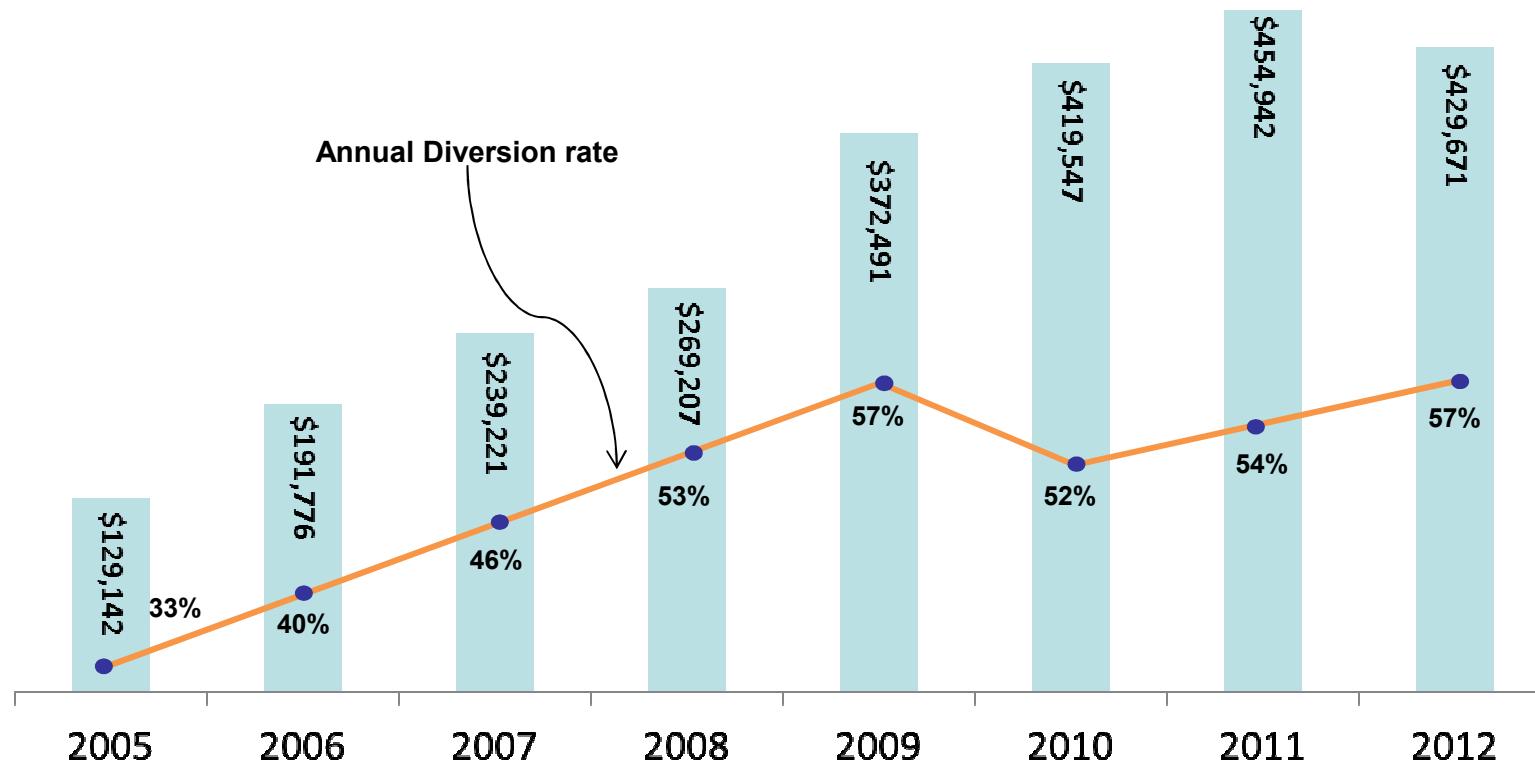
Where we want to go

- q Diversion has stalled in Ontario
- q Limited return on investment with additional diversion programs
- q Waste reduction focuses on cost avoidance through waste prevention



Measures of success in waste management at a tipping point - new Waste Reduction Act pending

Diminishing return on investment for additional diversion programs

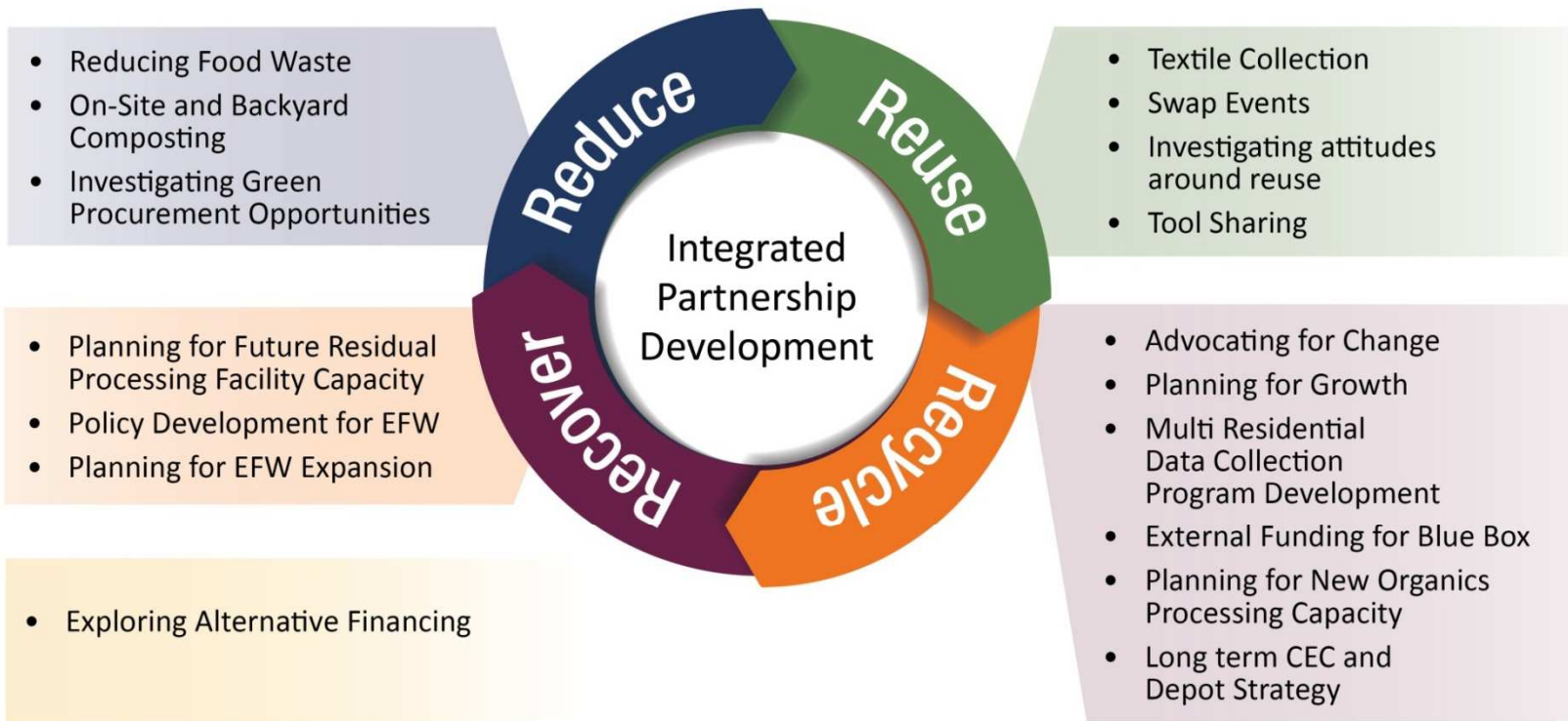


Cost per percent of diversion increased by \$300K over 8 years

Bending the curve to reduce waste generation



Priority initiatives to drive long-term performance



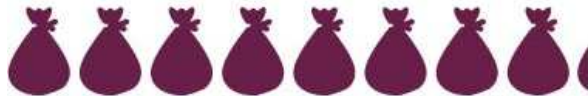
Implementation of priority initiatives in first five years projected to avoid up to \$62M in Regional and local net costs and reduce 166,000 tonnes of waste by 2031

Best practices for waste reduction

Best practices for waste reduction

UK WRAP REDUCTION PROGRAM
2008 to 2011

8.3 million tonnes



vs 7.2 million tonnes



*UK household food waste has fallen
by 1.1 million tonnes over three years*

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY



Around 31.75 million tonnes
of food waste was generated
in the U.S. in 2010 and
30.80 tonnes of that
was **thrown away**

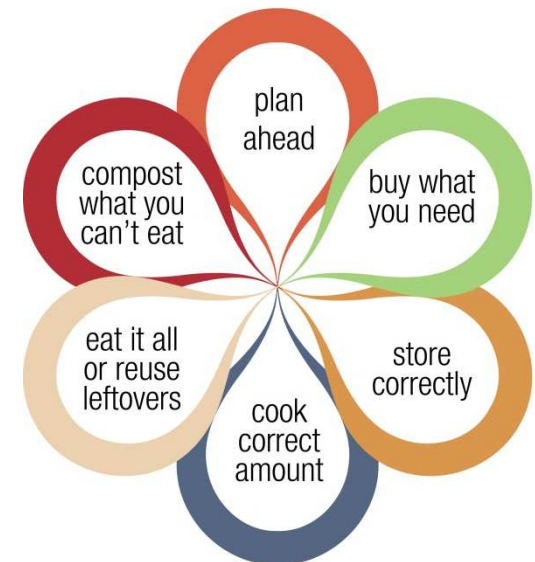
*Wasted food means wasted money
for businesses and residences.*

*Food waste reduction strategy based on best practices with conservative targets and
practical approach*

How We Are Going to Get There

- q Comprehensive evaluation identified impacts of each initiative from Phase 1 and Phase 2 research
- q Practical application of initiatives
 - q Understanding barriers to participation
 - q Working with community and industry partners
- q Conservative projections set based on program success in other jurisdictions
 - q Use of pilots and opportunities to recalibrate

***How to**
reduce food waste*



On-going monitoring of results with first Plan update in 2019 and every four years following to align with term of Council

Extended Producer Responsibility

- q Strong desire for reduced packaging and products that can be easily recycled expressed by residents during SM4RT Living Solid Waste Master Plan public consultation
- q Proposed Waste Reduction Act (Bill 91) places emphasis on extended producer responsibility for the blue box and other designated wastes
- q Municipalities currently engaged with Producers and waste industry on changing roles and responsibilities under proposed Waste Reduction Act

“Ontario producers and product stewards know that if they fail to address the environmental impacts of their products, they risk eroding consumer confidence and market share.”

Stewardship Ontario letter to Minister Bradley September 2013



Shifts costs for end-of-life management from tax base to producers encourages design for environment

Local Municipal partners integral in development and delivery



- Mandatory Material Separation By-law
- Unlimited Clear Bags for Residue
- Expanded Textile/Carpet Diversion Program
- Zero Waste for Schools Program
- Establish Retail Bag Policy for Markham
- Enhanced Promotion & Education
- Reuse Depot for Renovation Materials
- Curbside Electronics and Battery Collection Ban
- Establish Spring & Fall clean-up days
- Expanded Fall Leaf/Yard Waste Collection



- Food waste campaign ads on collection vehicles
- Investigating adoption of waste management development standards
- Curbside 'swap' events and data collection
- Increase use and production of community gardens
- Zero waste in school programs
- Textile/electronics collection in apartment buildings



- Development standards for waste management
- Three-stream collection at parks and public events
- Electronics collection in apartment buildings
- Recycling bins at community mailboxes
- Tracking and audits in apartment buildings



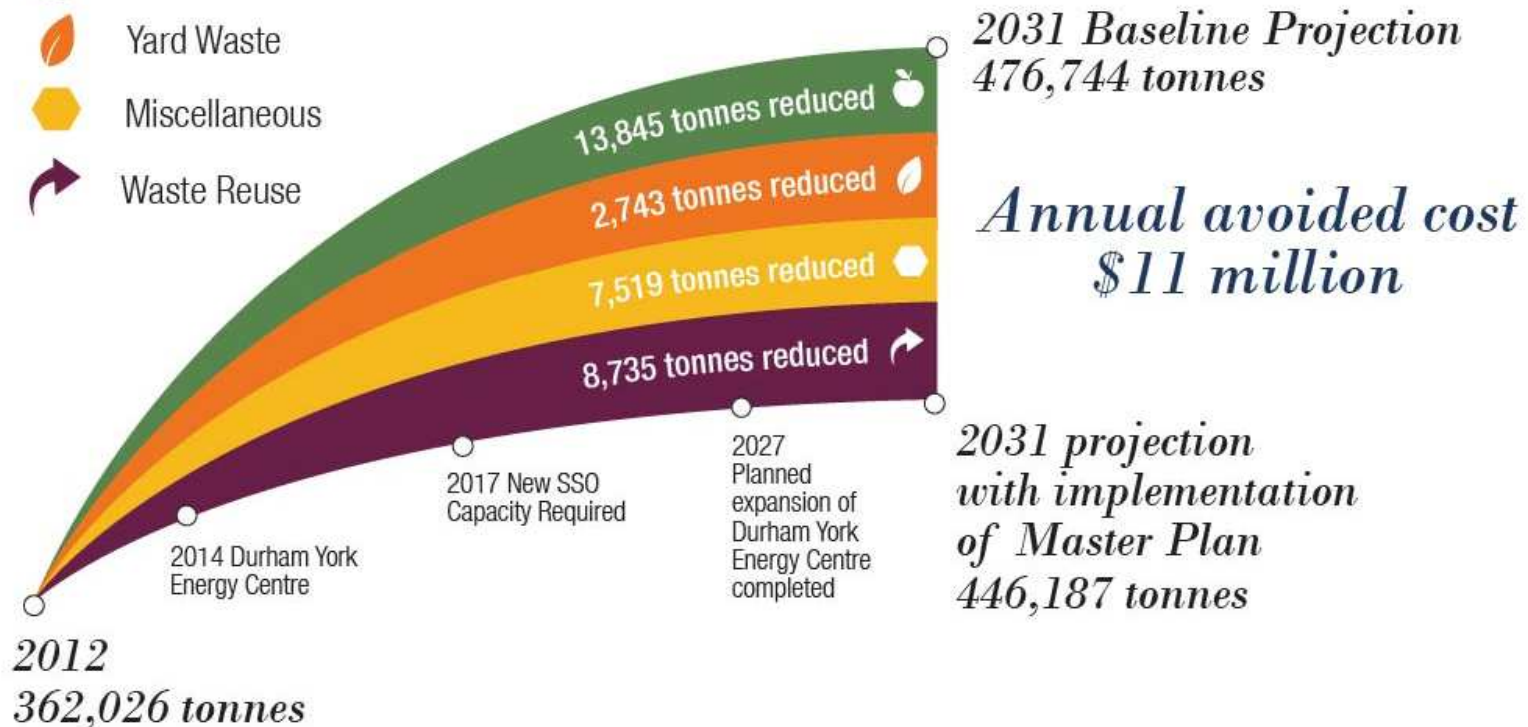
- Supporting composting pilots at community gardens
- Waste electronics collection in apartment buildings
- Textile collection in apartment buildings with charitable partners

*Projected overall impact of
first five years of implementation*

Annual reduction achieved by 2031

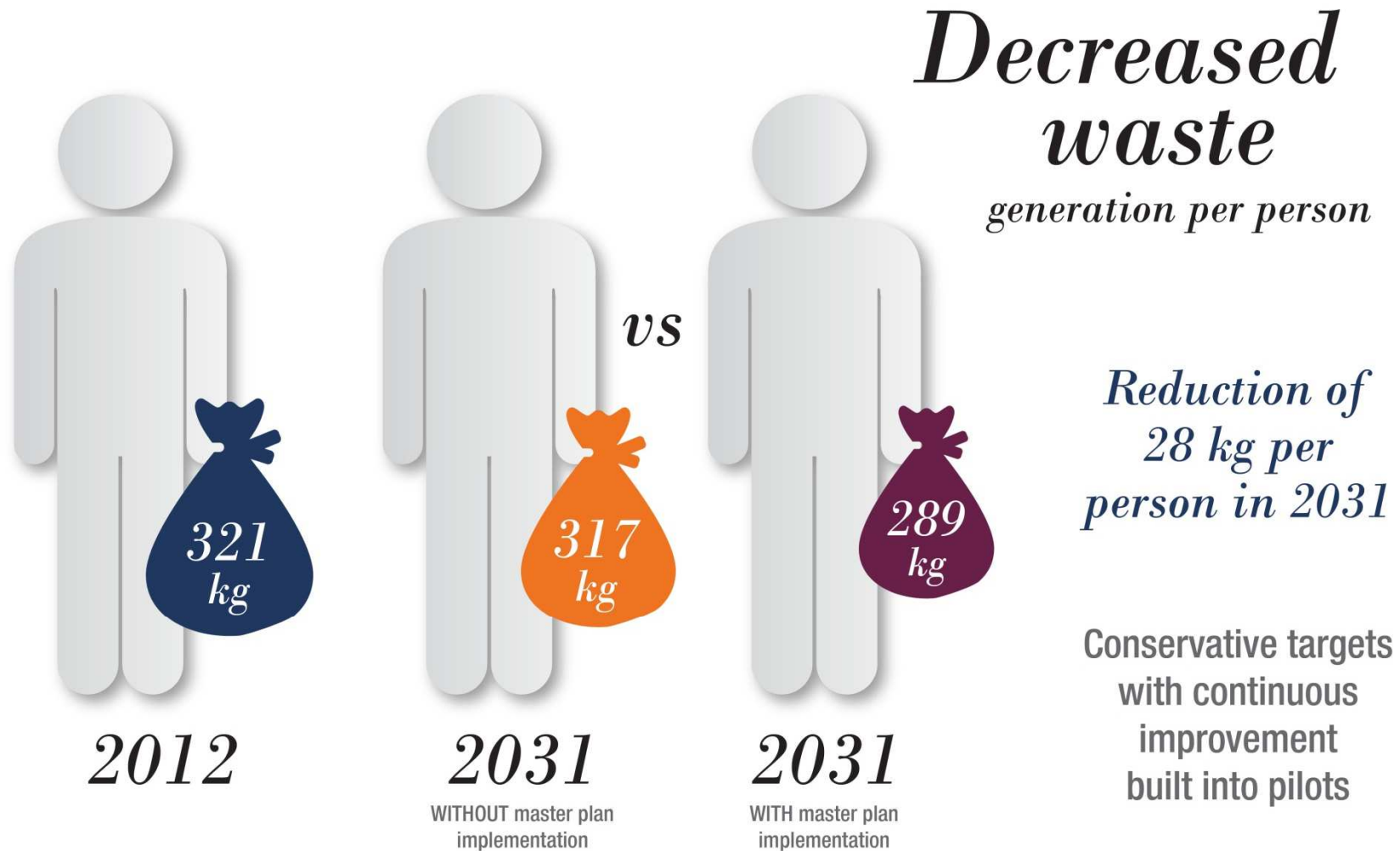
reductions by tonne:

-  SS0
-  Yard Waste
-  Miscellaneous
-  Waste Reuse



Opportunity to recalibrate Master Plan based on results realized

Waste generation per capita reduced in longer term



First five years of implementation reduces waste and avoids costs



\$8.5 million

*investment (2014 to 2031)
yields avoided costs of up
to \$62 million by 2031*

- q Implementation of Master Plan projected to yield \$11M annual avoided costs in 2031 based on system costs as of July 2013
- q Operating and Capital investments required for 2014 already include 2014 outlook approved as part of 2013 budget
- q Staff resources per 2013 budget forecasts four new staff between 2014 and 2018 to maximize implementation and drive reduction

*Master Plan implementation has no impact on 2014 Budget
Outlook as approved through 2013 Budget process*

First five years of implementation reduces cost per household over long term



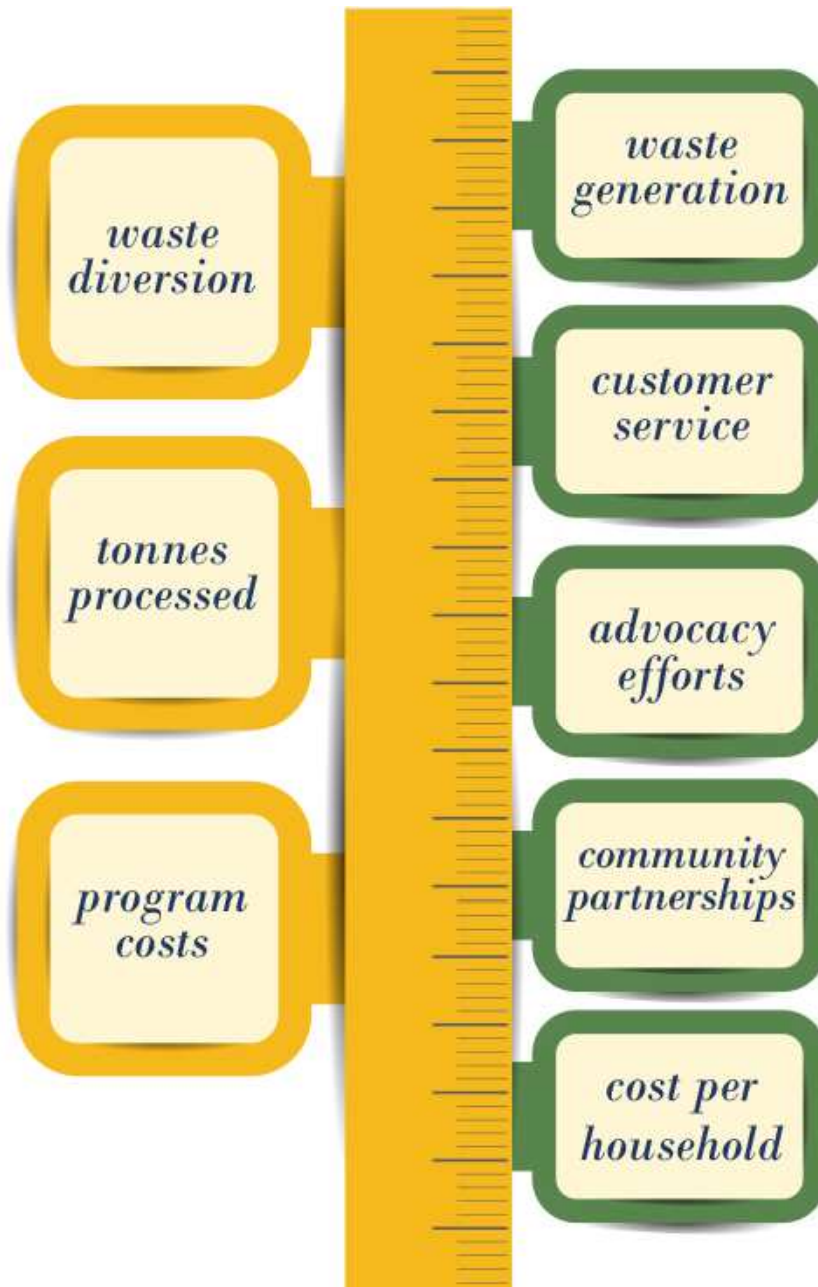
*Avoided cost
per household*

*Estimated avoided costs
of approximately \$22
per household in 2031*

Decrease in waste generation
by approximately 9% and an
increase of just over 1%
in diversion out to 2031

* Based on systems costs as of July 2013

Monitoring actual achievements along the way

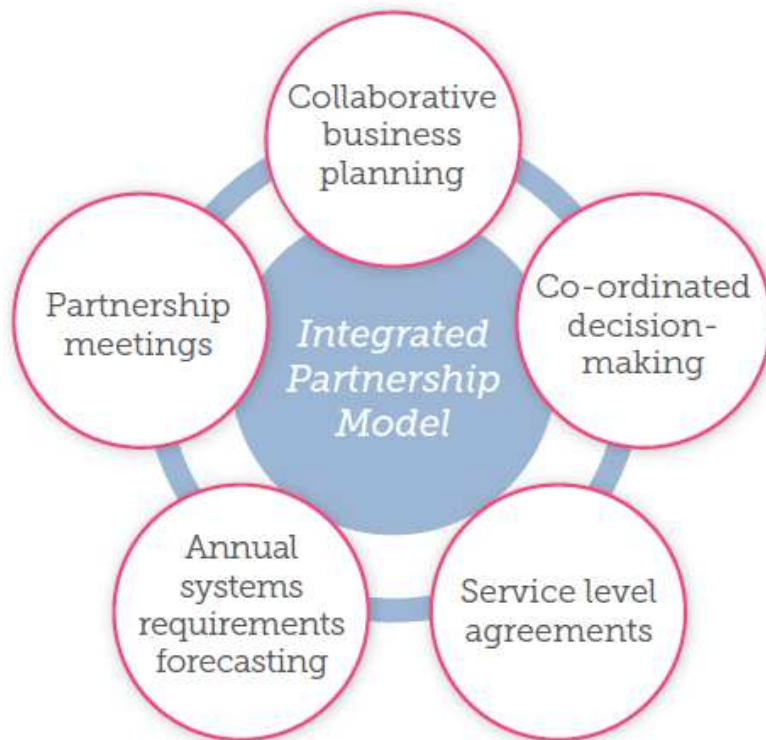


Setting new measures of success



Going beyond waste diversion to better measure program success and value to community

Partnership-focused delivery



- q Integrated partnership
 - q Coordinated decision-making
 - q Maintaining local autonomy
 - q Tailoring programs/pilots to suit local community needs and interests
 - q Data sharing
 - q Sharing of ideas, information and experience

Delivery reflects a “one taxpayer” approach for provision of seamless, cost-effective integrated waste management services.

2014 Priority Initiatives

- q Food Waste Campaign development
- q Composting pilots
- q Bindicator update to promote reuse
- q Research feasibility of Alternative Financing
- q Development standards and incentives
- q Planning for future processing capacity
- q Advocacy on Extended Producer Responsibility and sustainable packaging
- q Pilot best practices for waste management in Regional facilities

Next steps

- q Local Municipal Council presentations in Q4 2013
- q Public launch Q1 2014
- q Continue development and roll out of Implementation Plan