

WASTE & RECYCLING SERVICES



Waste Diversion Sector Updates

All Sectors Summary

This attachment serves as a summary of the waste diversion targets for all sectors. Progress and program details are presented for each sector in a Results Based Accountability format.

Waste in Calgary is generated by four sectors: Single Family residential (SF), Multi-Family residential (MF), Industrial, Commercial and Institutional (ICI), and Construction and Demolition (C&D).

In 2015, the ICI sector generated 35 per cent of the waste received at The City's landfills, followed by 35 per cent from SF residences, 12 per cent from MF, and 18 per cent C&D waste. These results are shown in Figure 1.

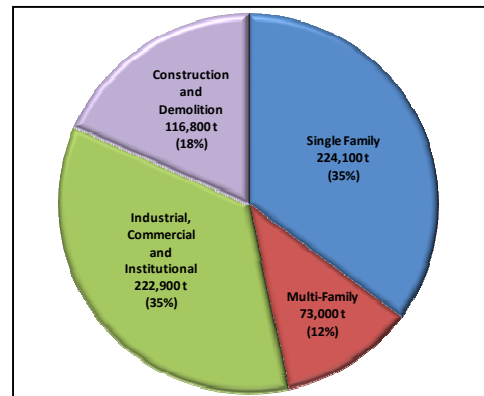


Figure 1: Breakdown of Waste Disposed in The City's Landfills (2015)

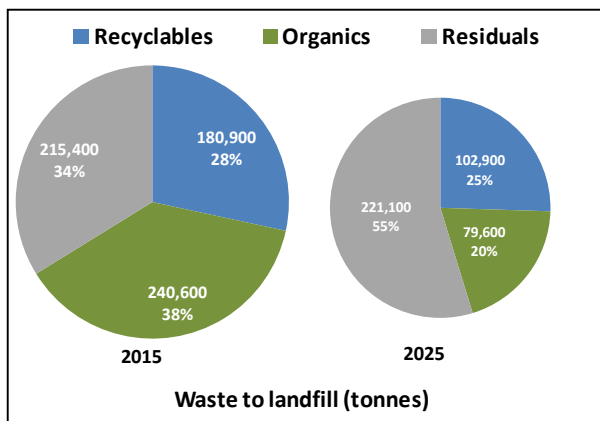


Figure 2: Forecasted Change in Waste Composition

In 2015 a total of 636,800 tonnes of waste was disposed at City of Calgary landfills. Of this, 64% was divertible.

With the implementation of additional diversion programs across all sectors, it is expected the amount of material sent to City landfills for disposal will be reduced to 403,600 tonnes by 2025. The amount of divertible material being sent to landfill will also be reduced significantly, as seen in Figure 2.

Figure 3 demonstrates the reduction in total landfill tonnage and how it correlates to The City's overall diversion target of 70% diversion by the year 2025.

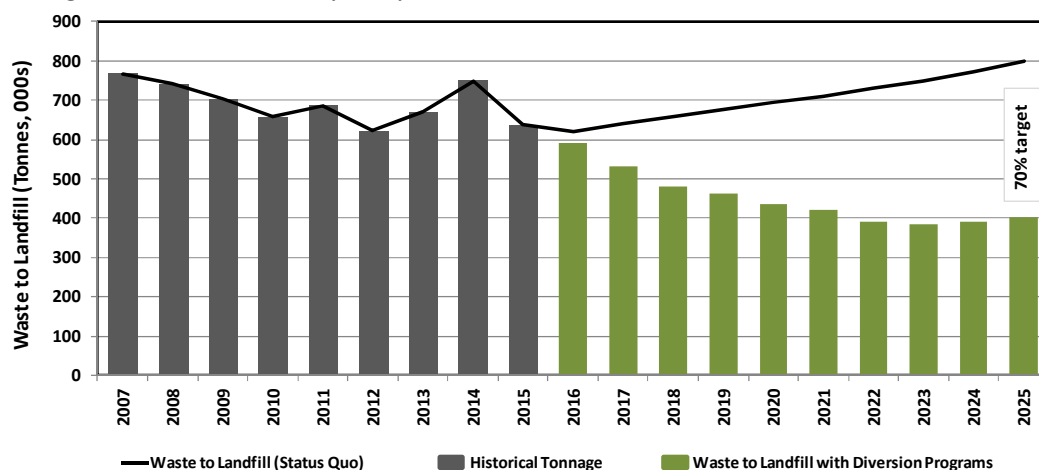


Figure 3: Waste Diversion Across all Sectors

SINGLE FAMILY SECTOR

Single Family Sector Target: 70 per cent waste diversion from landfill by 2025.

Program Approach: Support diversion in the single family sector by:

- Implementing Blue Cart recycling and recycling awareness campaigns.
- Implementing Green Cart food and yard waste program.
- Reducing waste generation rates through waste prevention.
- Increasing residential awareness and education on importance of recycling and diverting food/yard waste.
- Monitoring program effectiveness and reporting to Council on success of programs annually.

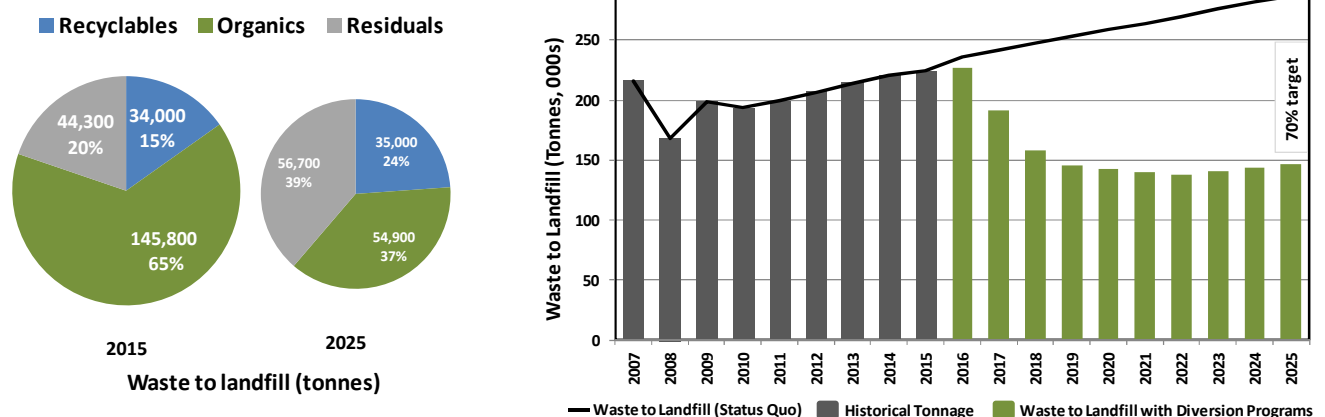
CUSTOMERS

- Single family residents (one to four dwelling units)

PERFORMANCE MEASURES

- Waste to landfill tonnages (total and kg/capita)
- Diversion tonnages (total and kg/capita)
- Quantity of divertible material in black cart
- Participation in Blue Cart program and Green Cart Pilot, and other Stewardship programs (i.e. beverage containers, electronics, tires, household hazardous waste)
- Customer satisfaction with diversion programs (Blue Cart and Green Cart Pilot)

CURRENT STATUS AND FUTURE PREDICTION



PROGRAM RATIONALE AND APPROACH

- Limited Food and Yard Waste Diversion – Currently, there is a large per cent of food and yard waste in the black cart.
- Diversion Opportunity – The Green Cart Program, which will be rolled out city-wide in 2017, will expand the diversion opportunities to residents.
- Supporting Programs – Diversion education, and provincial stewardship programs.
- Public Support – Public Engagement shows over 90 per cent support for a city-wide Green Cart Program.

PARTNERS WHO CAN HELP

Single family residents, provincial government, other municipalities, waste management consultants, recycling facilities, Recycling Council of Alberta and Green Calgary.

ACTION PLAN:

- Green Cart (city-wide) (2017)

STRATEGIC ALIGNMENTS

H1.1 Implement a residential Green Cart Program.
H6.1 Collaborate and create partnerships to achieve reduction and diversion outcomes.
H6.3 Deliver educational programs to foster behaviour change and enhance public awareness of resource management.

MULTI-FAMILY SECTOR

Multi- Family Sector Target: 65 per cent waste diversion from landfill by 2025.

Program Approach: Promote diversion in the MF sector by:

- Implementing mandatory recycling in multi-family residential complexes.
- Adding paper/cardboard and food/yard waste to the designated material lists (DML), and banning paper/cardboard and food/yard waste disposal.
- Increasing residential awareness and education on importance of recycling and diverting food/yard waste.
- Monitoring program effectiveness and reporting to Council on success of programs annually.

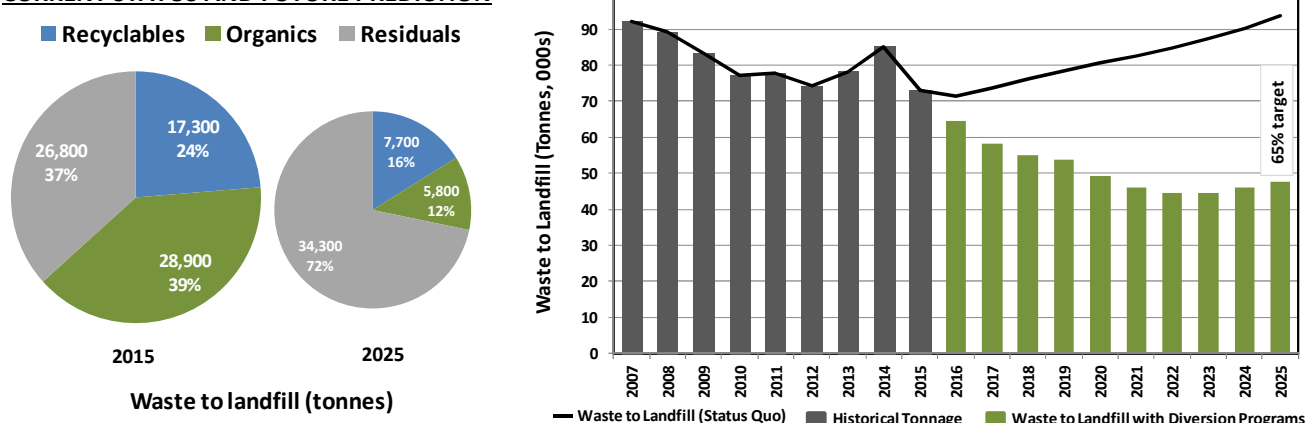
CUSTOMERS

- Multi- family residents (residential complexes with more than four units or share a private road)

PERFORMANCE MEASURES

- Waste to landfill tonnages (total and kg/capita)
- Diversion tonnages (total and kg/capita)
- Quantity of divertible material in garbage stream
- Awareness of the MF residential recycling program
- Support for the MF residential recycling program
- MF resident satisfaction with diversion programs (community recycling depot network)

CURRENT STATUS AND FUTURE PREDICTION



PROGRAM RATIONALE AND APPROACH

- Limited Recycling and Food and Yard Waste Diversion – Prior to the implementation of mandatory diversion and Designated Material program there are high percentages of recyclables and food/yard waste in the waste.
- Diversion Opportunity – Mandatory diversion (bylaw amendments) and other programs are expected to support the sector diversion target.
- Supporting Programs - Diversion education, and other waste reduction initiatives.
- Public Support – Public engagement in 2012-2013, 2015 and 2016 confirmed that there is strong support for programs that provide onsite diversion opportunities.

PARTNERS WHO CAN HELP

MF residents, multi-residential associations, MF complex owners/managers, private haulers, waste management consultants, recycling facilities, Green Calgary.

ACTION PLAN:

- Mandatory Recycling (2016)
- Paper/Cardboard on DML (2016) and Banned (2018)
- Stewardship Program Improvements (2017)
- Food and Yard waste on DML (2017) and Banned (2019)

STRATEGIC ALIGNMENTS

H1.1 Implement a residential multi-family recycling program.

H6.1 Collaborate and create partnerships to achieve reduction and diversion outcomes.

H6.3 Deliver educational programs to foster behaviour change and enhance public awareness of resource management.

INDUSTRIAL, COMMERCIAL, INSTITUTIONAL SECTOR

ICI Sector Target: 75 per cent waste diversion from landfill by 2025.

Program Approach: Promote diversion in the ICI sector by:

- Implementing mandatory recycling program in ICI establishments.
- Adding paper/cardboard and food/yard waste to the designated material list (DML), and banning paper/cardboard and food/yard waste disposal.
- Increasing awareness and education on the importance of recycling and diverting food and yard waste.
- Monitoring program effectiveness and reporting to Council on success of programs annually.

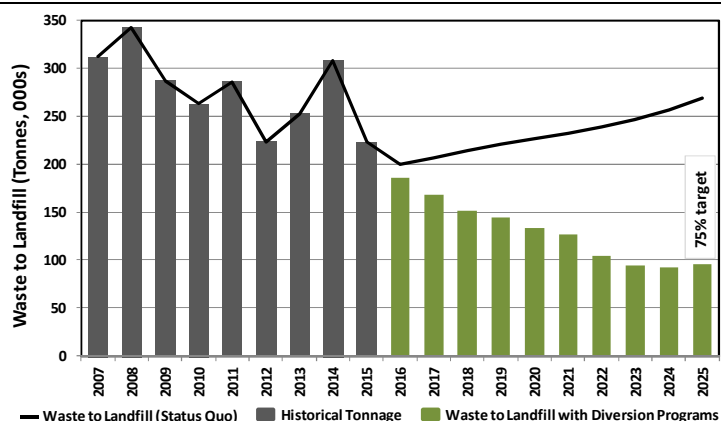
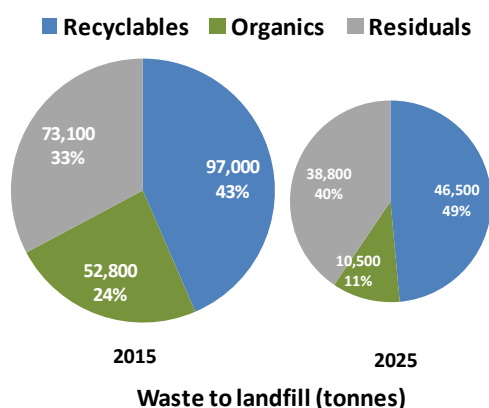
CUSTOMERS

- Industrial, Commercial and Institutional – often referred to as “Businesses and Organizations”

PERFORMANCE MEASURES

- Waste to landfill tonnages (total and kg/capita)
- Diversion tonnages (total and kg/capita)
- Quantity of divertible material in garbage stream
- Awareness of ICI diversion programs
- Support for the development of ICI diversion program options

CURRENT STATUS AND FUTURE PREDICTION



PROGRAM RATIONALE AND APPROACH

- Limited Recycling and Food and Yard Waste Diversion – Prior to the implementation of mandatory diversion and Designated Material program there are high percentages of recyclables and food/yard waste in the waste.
- Diversion Opportunity – Mandatory recycling and other programs are expected to support the sector diversion target.
- Supporting Programs – Recycling guide, DIY waste audit kit, “Finding the Right Hauler” guide, Green Team development, and other waste reduction initiatives.
- Stakeholder Support – Public engagement in 2011-2016 shows strong support for ICI sector focused diversion programs. The ICI Working Group (established in 2014) has aided in program design and implementation timelines.

PARTNERS WHO CAN HELP

Businesses, organizations, institutions, residents, local organizations, private haulers, waste management consultants, recycling facilities, Green Calgary.

ACTION PLAN:

- Paper/Cardboard to DML (2016) and Banned (2018)
- Mandatory recycling (2016)
- Stewardship Program Improvements (2017)
- Food and Yard waste to DML (2017) and Banned (2019)

STRATEGIC ALIGNMENTS

H1.1 Reduce industrial, commercial and institutional waste in our landfills.

H6.1 Collaborate and create partnerships to achieve reduction and diversion outcomes.

H6.3 Deliver educational programs to foster behaviour change and enhance public awareness of resource management.

CONSTRUCTION & DEMOLITION SECTOR

C&D Sector Target: 40 per cent waste diversion from landfill by 2025.

Program Approach: Promote diversion in the C&D sector by:

- Adding paper/cardboard to the designated material list (DML), and banning paper/cardboard disposal.
- Increasing awareness and education on the importance of reducing and recycling C&D waste.
- Monitoring program effectiveness and reporting to Council on success of programs annually.

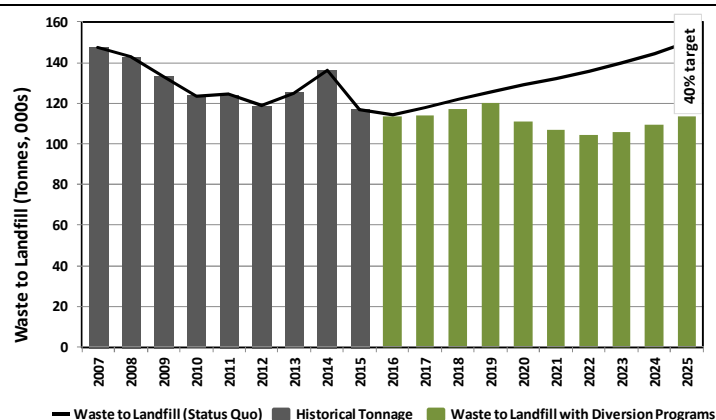
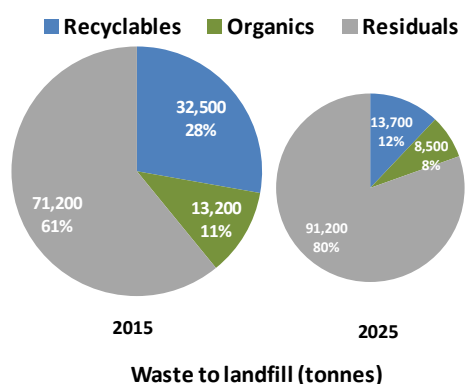
CUSTOMERS

- Individuals and businesses involved in the construction, renovation and demolition industry

PERFORMANCE MEASURES

- Waste to landfill tonnages (total and kg/capita)
- Diversion tonnages (total and kg/capita)
- Quantity of designated materials in the garbage stream
- Quantity of C&D materials recycled

CURRENT STATUS AND FUTURE PREDICTION



PROGRAM RATIONALE AND APPROACH

- Limited Recycling and C&D Material Diversion – Prior to paper/cardboard being added to the Designated Materials program and the implementation of landfill bans for paper/cardboard there is a high per cent of C&D divertibles in the garbage.
- Diversion Opportunity – The Designated Materials program, paper/cardboard ban and education campaigns are expected to support the sector diversion target.
- Supporting Programs - Diversion education, engagement, communications and waste reduction initiatives.
- Stakeholder Support – Public engagement and a previous working group in 2011-2012 demonstrated strong support for further C&D diversion initiatives and programs.

PARTNERS WHO CAN HELP

Construction, renovation and demolition companies and associations, C&D recyclers and processors, private haulers, residents, local organizations, waste management consultants, Recycling Council of Alberta, provincial government, and Green Calgary.

ACTION PLAN:

- Paper/Cardboard on DML (2016) and Banned (2018)
- Communications, education and engagement campaign (2017)

STRATEGIC ALIGNMENTS

H6.1 Collaborate and create partnerships to achieve reduction and diversion outcomes.

H6.3 Deliver educational programs to foster behaviour change and enhance public awareness of resource management.