Resource Productivity & Recovery Authority | Office de la Productivité et de la Récupération des Ressources

2015 Residential Blue Box Tonnage Highlights

March 2017

Background

Each year, the Resource Productivity and Recovery Authority (the Authority) requires municipalities, recycling associations and First Nations (“municipal programs”) to complete the Municipal Datacall to be eligible for Blue Box Program funding. This includes submitting tonnage and financial information for residential Blue Box material collected from local residents. In addition, the Authority requests the submission of tonnage data for all other non-Blue Box materials the municipal program oversees, including hazardous or special waste, waste electrical and electronic equipment, organics, garbage, and other materials.

This report is the first in a series of five reports based on data collected in the 2015 Municipal Datacall. It covers the tonnages of Blue Box materials marketed (i.e., sold to end markets) after collection and processing at a material recovery facility.

Municipal Datacall Reporting

In 2015, 243 municipal programs submitted information to the Authority through the Datacall, representing over 98% of Ontario’s total population. Table 1 below shows the total weight of each Blue Box material sent to market for recycling each year since 2010, as reported in the annual Municipal Datacall.

Table 1: Blue Box Tonnes Marketed (2010-2015)

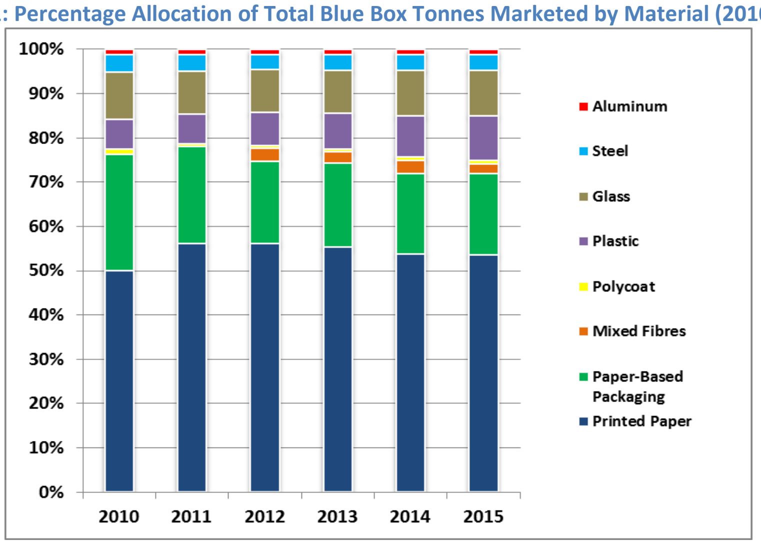
Material[1)]	2010 Tonnes Marketed	2011 Tonnes Marketed	2012 Tonnes Marketed	2013 Tonnes Marketed	2014 Tonnes Marketed	2015 Tonnes Marketed	2014- 2015 % Tonnes Change	5-year % Tonnes Change	% of Total 2015 Blue Box Tonnes
Printed [2)] and Mixed Papers[3)]	506,107	536,036	516,964	512,389	494,315	471,488	-4.6%	-6.8%	55.3%
Paper-Based Packaging[4)]	190,107	167,689	169,413	162,746	161,973	156,951	-3.1%	-17.4%	18.4%
Total Paper & Fibres	696,214	703,725	686,377	675,135	5%	628,439	-4.2%	-9.7%	73.7%
Polycoat[5)]	5,257	4,956	5,657	6,176	6,810	7,099	4.2%	35%	0.8%
Aluminum[6)]	10,843	10,314	11,208	10,606	10,862	10,465	-3.7%	-3.5%	1.2%
Steel[7)]	31,237	30,800	30,825	31,197	31,361	29,525	-5.9%	-5.5%	3.5%

Material[1]	2010 Tonnes Marketed	2011 Tonnes Marketed	2012 Tonnes Marketed	2013 Tonnes Marketed	2014 Tonnes Marketed	2015 Tonnes Marketed	2014- 2015 % Tonnes Change	5-year % Tonnes Change	% of Total 2015 Blue Box Tonnes
Glass[8]	85,071	88,335	87,224	93,430	90,083	86,559	-3.9%	1.7%	10.2%
Plastic[9]	58,621	66,720	71,634	83,591	89,101	90,351	1.4%	54.1%	10.6%
Totals	887,242	904,850	892,924	900,135	884,504	852,437	-3.6%	-3.9%	100%

[1] Stewardship Ontario's material allocation method is subject to change.
[2] Includes Newspaper, Household Fine Paper, Telephone Books, and Magazines and Catalogues.
[3] Includes Mixed Fibres not included in Printed Paper and Paper-Based Packaging. Mixed Fibres became a paper category starting in 2010.
[4] Includes Old Corrugated Cardboard, Old Boxboard, and a portion of Residential Mixed Papers and Mixed Fibres Packaging. Mixed Papers became a separate category in 2010.
[5] Includes Gable Top Containers and Aseptic Cartons.
[6] Includes Aluminum Food & Beverage Containers and Other Aluminum Packaging.
[7] Includes Steel Food & Beverage Containers, Aerosols, and Empty Paint Cans.
[8] Includes Flint Glass, Coloured Glass, and allocations of Mixed Glass.
[9] Includes PET, HDPE, Plastic Film, Tubs and Lids, Polystyrene, and other Mixed Plastic Packaging.

Figure 1 below illustrates the individual weights of Blue Box materials marketed in Ontario as a percentage of the total weight of all Blue Box materials marketed each year since 2010. Figure 1 helps illustrate an overall trend in the previous five-year period of the Blue Box Program of reduced printed paper and paper-based packaging, with increased plastic packaging. Glass and metal tonnages remained quite consistent over the same period. Blue Box tonnages from Table 1 were used to create Figure 1.

Figure 1: Percentage Allocation of Total Blue Box Tonnes Marketed by Material (2010-2015)



Trends

- The total tonnage of Blue Box materials marketed decreased by 3.6% between 2014-2015. The Appendix shows the annual percentage change for Blue Box materials since 2010. This is likely as a result of the lightweighting of packaging and less newspaper being supplied to the market.

- Mixed papers tonnes decreased by 24.1%. This is likely a reaction to fluctuating market commodity prices for printed paper and paper packaging, which can influence whether paper materials are marketed as a mixture, or as specific paper grades.
- In 2015, paper-based packaging, printed paper and mixed papers (Total Paper & Fibres) together made up 73.7% of total Blue Box materials marketed. The total tonnage for Paper & Fibres began to increase again after the recession in 2010, but has been slowly declining since 2011, possibly due to a shift from printed media to electronic media along with a transition from paper packaging.
- From 2010 to 2011, plastic tonnes increased modestly, but increased significantly (16.7%) from 2012 to 2013. In 2014, plastic tonnes increased by 6.6% and increased again in 2015 by 1.4%. This growth is likely due to more municipal Blue Box programs accepting a wider range of plastic container types and film. The trend of percentage growth lowering year to year can be attributed to light weighting of materials.
- Glass (10.2%) and plastic (10.6%) were the next largest contributors to Blue Box materials composition in 2015, based on total tonnes.
- Since 2010, printed paper tonnes have accounted for at least half of total Blue Box tonnes in Ontario.
- Between 2014 and 2015, aluminum tonnes decreased by 3.5%.
- Steel tonnes remained relatively consistent between 2010 and 2014. However, since 2014, there has been a 5.9% decrease in marketed tonnes.

Figures 2 and 3 below illustrate the trends in marketed tonnes for paper and containers from 2010 to 2015. For the past three years, plastic material has been noticeably increasing, compared to the other materials. Tonnages for all other materials remain constant, or are declining.

Figure 2: 2010-2015 Marketed Tonnage Trends for Paper-Based Packaging, Printed Paper, Total Paper, and Total Blue Box

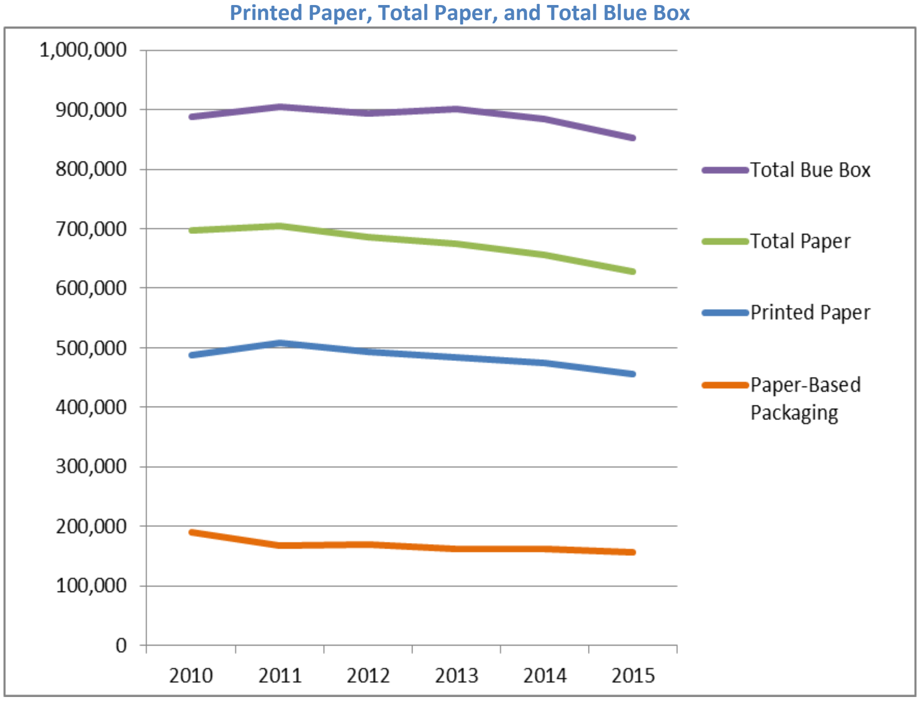
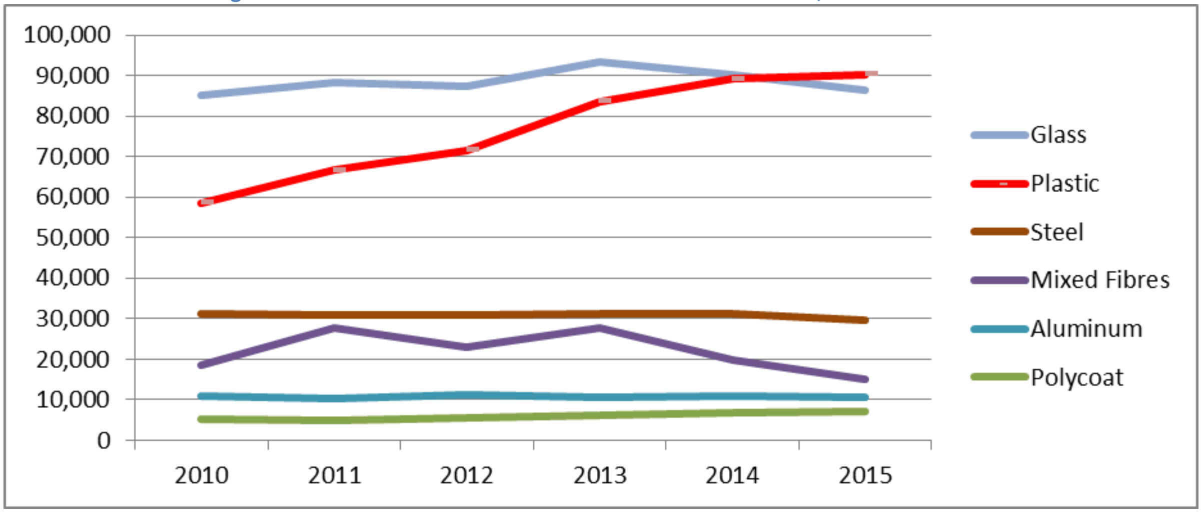


Figure 3: 2010-2015 Trends for Blue Box Materials under 100,000 Marketed Tonnes



The number of households with access to curbside and/or depot collection programs is shown in Table 2 below. The number of households includes both single-family and multi-family households. A multi-family household is a household in a building with at least eight units.

Table 2: Number of Households Receiving Blue Box Service (2010-2014)

Type of Service	2010	2011	2012	2013	2014	2015	2014-2015 % Change
Curbside[1]	4,722,135	4,808,387	4,816,618	4,846,457	4,874,210	4,939,602	1.3%
Depot Only	213,047	204,794	229,464	225,737	208,948	225,552	7.9%
Total	4,935,182	5,013,181	5,046,082	5,072,194	5,083,158	5,165,154	1.6%

1) May also have access to depot service for Blue Box materials, in addition to curbside service.

- From 2014 to 2015, there was a 1.3% increase (65,392 households) in the number of households receiving either curbside or depot Blue Box service. From 2010 to 2015 (5-year period), the increase in households with Blue Box service rose by 4.7%.
- In 2015, 95.3% of households in municipal programs reporting to the Authority had access to municipally provided Blue Box services, increasing from 94.8% in 2014, but still lower than the 97.1% and 97.2% reported in 2013 and 2012 respectively.
  - o With the removal of the City of Toronto household data, the provincial average of municipally serviced Blue Box services rises to 99.3%, correlating closely with percentages of 98.2%, 99.3%, and 99.4% from the 2014, 2013, and 2012 reporting years.
  - o Of the non-municipally serviced households in the City of Toronto, 100% are from the multifamily household category due to the option for private buildings in Toronto to utilize private contracting services for waste management.

- From 2014 to 2015, the household recovery rate (tonnage recycled per household of Blue Box material) remained consistent at 157 kilograms per household.
    - With the removal of the City of Toronto household data, the provincial average of municipally serviced Blue Box services rises to 99.3%, correlating closely with percentages of 98.2%, 99.3%, and 99.4% from the 2014, 2013, and 2012 reporting years.
    - Of the non-municipally serviced households in the City of Toronto, 100% are from the multifamily household category due to the option for private buildings in Toronto to utilize private contracting services for waste management.
- From 2014 to 2015, the number of households solely served by depot increased by 7.9%.
- Of the 243 reporting programs, a total of 86 programs have implemented bag limits. The average 2015 bag limit was 3.4 bags per collection week.
- A total of 122 programs have implemented some type of pay-as-you-throw (PAYT) user-pay system for garbage set at curbside for pick-up. The average 2015 PAYT fee was $1.32 per bag[1].

Table 3 below presents the expansion of Blue Box materials collected (either at curbside and/or depot) beyond the five basic Blue Box materials, which include: 1) newsprint; and food and beverage containers made of 2) PET plastic; 3) aluminum; 4) steel; and 5) glass. Participating programs must also collect *at least* two other items from a list of 12 supplementary Blue Box materials, some of which are listed with an asterisk in Table 3 below.

Table 3: Number of Households with Blue Box Service beyond the Five Basic Materials

Blue Box Material	2014 HHlds Served	2015 HHlds Served	% Change in HHlds	2015 Households Served as % of Total Households Reported
Paper-Based Packaging				
Corrugated Containers	5,081,468	5,164,846	1.6%	100.0%
Boxboard	5,080,683	5,159,204	1.5%	99.9%
Polycoat				
Gable Top Containers	5,000,957	5,086,247	1.7%	98.5%
Aseptic Cartons	4,894,919	5,007,066	2.3%	96.9%
Metals				
Aluminum Foil Packaging	5,025,149	5,115,776	1.8%	99.0%
Empty Aerosol Cans	4,479,297	4,488,662	0.2%	86.9%
Empty Paint Cans	4,725,247	4,801,305	1.6%	93.0%
Plastics				
HDPE Containers	5,067,698	5,133,918	1.3%	99.4%
Other Containers (#3,4,5,7)	5,004,712	5,082,015	1.5%	98.4%
Tubs & Lids	N/A	N/A	N/A	N/A
HDPE/LDPE Film (#2,4)	3,640,450	3,480,621	-4.4%	67.4%

[1] The average does not include the programs that included waste management fees in their yearly residential taxes.

Blue Box Material	2014 HHlds Served	2015 HHlds Served	% Change in HHlds	2015 Households Served as % of Total Households Reported
Polystyrene Crystal	4,119,292	4,235,572	2.8%	82.0%
Polystyrene Foam	3,306,374	3,362,275	1.7%	65.1%

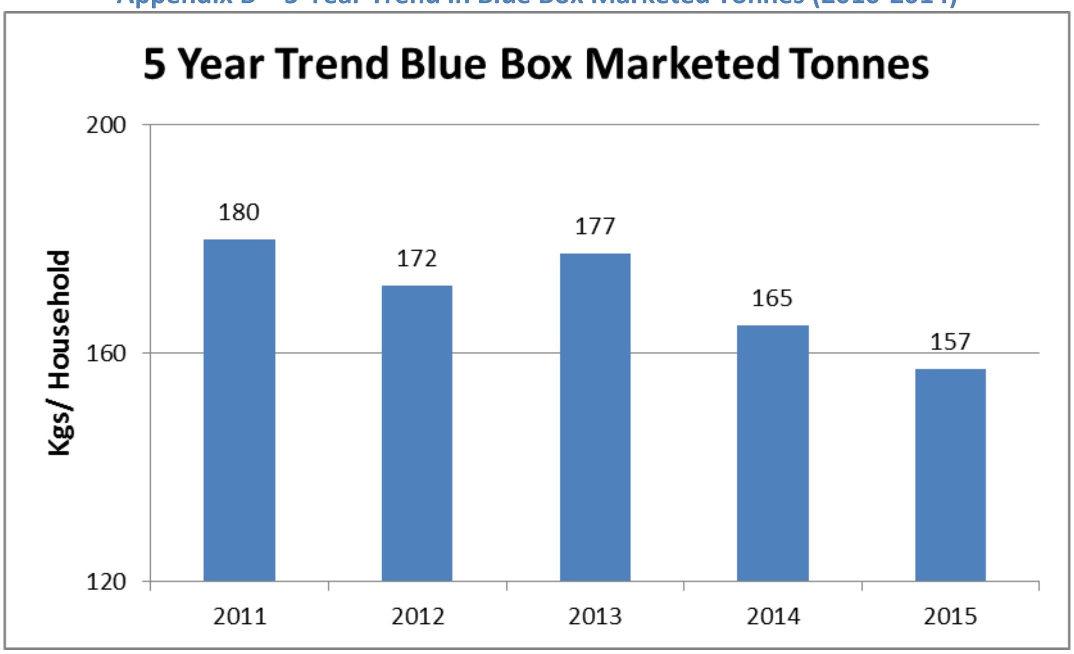
The largest change from 2014 to 2015 in Table 3 is a 2.8% increase in the number of households collecting polystyrene crystal packaging.

Starting with the 2013 Datacall, tubs and lids have been categorized as “Other Bottles & Containers”.

Appendix A – Annual Percentage Changes in Blue Box Marketed Tonnes (2010-2015)

Year-over-Year Change %	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Printed Paper	4.2%	-2.8%	-1.9%	-2.1%	-3.8%
Mixed Fibres	50.7%	-17.2%	20.0%	-28.8%	-24.1%
Paper-Based Packaging	-11.8%	1.0%	-3.9%	-0.5%	-3.1%
Total Paper	1.1%	-2.5%	-1.6%	-2.8%	-4.2%
Polycoat	-5.7%	14.1%	9.2%	10.3%	4.2%
Aluminum	-4.9%	8.7%	-5.4%	2.4%	-3.7%
Steel	-1.4%	0.1%	1.2%	0.5%	-5.9%
Glass	3.8%	-1.3%	7.1%	-3.6%	-3.9%
Plastic	13.8%	7.4%	16.7%	6.6%	1.4%
Total Blue Box	2.0%	-1.3%	0.8%	-1.7%	-3.6%

Appendix B – 5-Year Trend in Blue Box Marketed Tonnes (2010-2014)



For information on municipal program breakdowns of the 2015 Blue Box tonnages in this report and types of Blue Box materials marketed in 2015 by municipal program, please click on the titles of the following two spreadsheets: 2015 Blue Box Program Marketed Tonnes and 2015 Blue Box Program Accepted Materials.

For further information, please contact datacall@rpra.ca.