Data Report #1
2014 Blue Box Tonnage Highlights (Residential)

December 17, 2015

Background

Each year, WDO requires municipalities to complete the Municipal Datacall to be eligible for Blue Box Program funding. This includes submitting tonnage[1] and financial information for residential Blue Box material collected from local residents. In addition, WDO requests the submission of tonnage data for all other non-Blue Box materials the municipality 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 2014 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 2014, 237 municipalities, recycling associations and First Nations submitted information to WDO through the Datacall. These recycling programs represent 361 of Ontario's 444 municipalities and 20 First Nations, or 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 2009, as reported in the annual Municipal Datacall.

Table 1: Blue Box Tonnes Marketed (2009-2014)

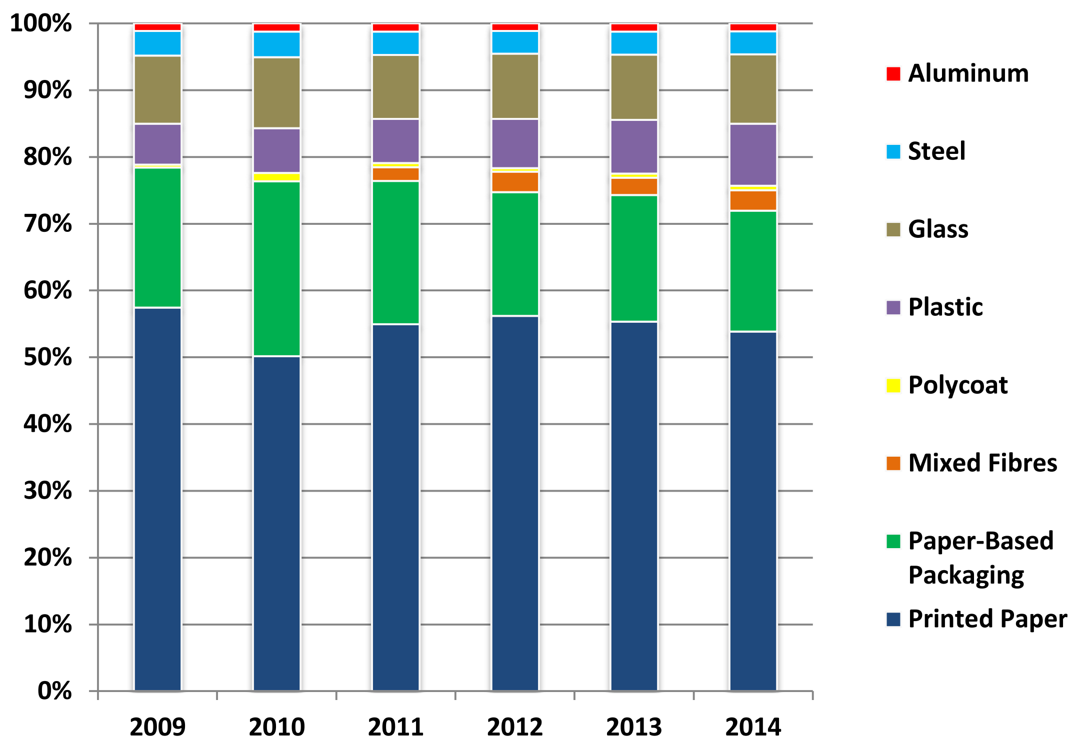
Material[1]	2009 Tonnes Marketed	2010 Tonnes Marketed	2011 Tonnes Marketed	2012 Tonnes Marketed	2013 Tonnes Marketed	2014 Tonnes Marketed	2013-2014 % Tonnes Change	5-year % Tonnes Change	% of Total 2014 Blue Box Tonnes
Printed Paper[2]	439,341	487,684	508,269	493,966	484,794	474,658	-2.1%	8.0%	53.7%
Mixed Papers[3]	N/A	18,423	27,767	22,998	27,595	19,657	-28.8%	N/A	2.2%
Paper-Based Packaging[4]	230,249	190,107	167,689	169,413	162,746	161,973	-0.5%	29.7%	18.3%
Total Paper & Fibres	669,590	696,214	703,725	686,377	675,135	656,288	-2.8%	-1.9%	74.2%
Polycoat[5]	5,254	5,257	4,956	5,657	6,176	6,810	10.3%	29.6%	0.8%
Aluminum[6]	10,840	10,843	10,314	11,208	10,606	10,862	2.4%	0.2%	1.2%
Steel[7]	33,384	31,237	30,800	30,825	31,197	31,361	0.5%	-6.1%	3.5%
Glass[8]	92,609	85,071	88,335	87,224	93,430	90,083	-3.6%	-2.7%	10.2%
Plastic[9]	58,537	58,621	66,720	71,634	83,591	89,101	6.6%	52.2%	10.1%
Totals	**870,214**	**887,242**	**904,850**	**892,924**	**900,135**	**884,504**	**-1.7%**	1.6%	**100.0%**

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 2009. 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 (2009-2014)



2013-2014

- The total tonnage of Blue Box materials marketed decreased by 1.7%. The Appendix shows the annual percentage change for Blue Box materials since 2009.
- Mixed papers tonnes decreased by 28.8%. 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.
- Polycoat tonnes increased by over 10%, indicating that more products were sold in polycoat packaging (e.g., gable top and aseptic cartons for beverages, soups, and sauces).
- In 2014, paper-based packaging, printed paper and mixed papers (Total Paper & Fibres) together made up 74.2% of total Blue Box materials marketed. The total tonnage for Paper & Fibres began to increase

again after the recession in 2009, but has been slowly declining since 2011, possibly due to a shift from printed media to electronic media.

- Glass (10.2%) and plastic (10.1%) were the next largest contributors to Blue Box materials composition in 2014, based on total tonnes.

Other Trends

- Since the recession of 2009, overall Blue Box tonnes marketed peaked in 2013 to 900,135, but have not recovered to pre-recession levels of more than 900,000 tonnes.
- Since 2009, printed paper tonnes have accounted for at least half of total Blue Box tonnes in Ontario.
- Aluminum tonnes remained constant from 2009 to 2011. This was followed by a notable 8.7% increase in 2012, and a moderate 5.4% drop in 2013 to return to the 2009-2011 level of below 11,000 tonnes. From 2013 to 2014, aluminum tonnes increased by 2.4%.
- Steel tonnes grew modestly until the recession in 2009. They declined slightly from 2009 to 2011, then rose marginally in 2012 (0.1%), 2013 (1.2%), and 2014 (0.5%).
- From 2009 to 2011, plastic tonnes increased modestly, but increased significantly (16.7%) from 2012 to 2013. In 2014, plastic tonnes increased by 6.6%. This growth is likely due to the ongoing trend of light-weighting, combined with more municipal Blue Box programs accepting a wider range of plastic container types and film.

Figures 2 and 3 below illustrate the trends in marketed tonnes for paper and containers from 2009 to 2014. 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: 2009-2014 Marketed Tonnage Trends for Paper-Based Packaging, Printed Paper, Total Paper, and Total Blue Box

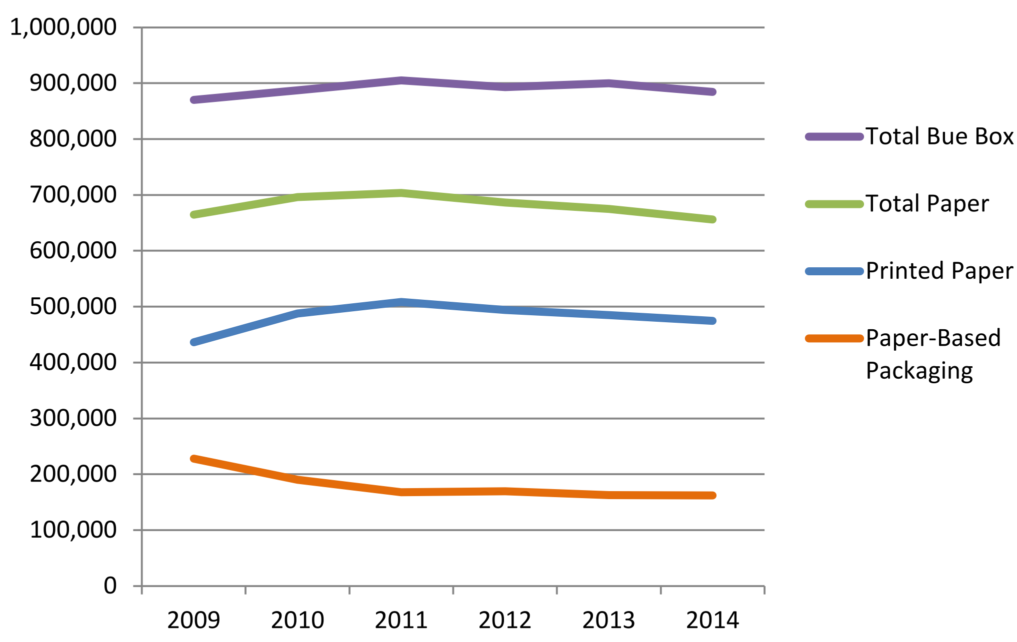
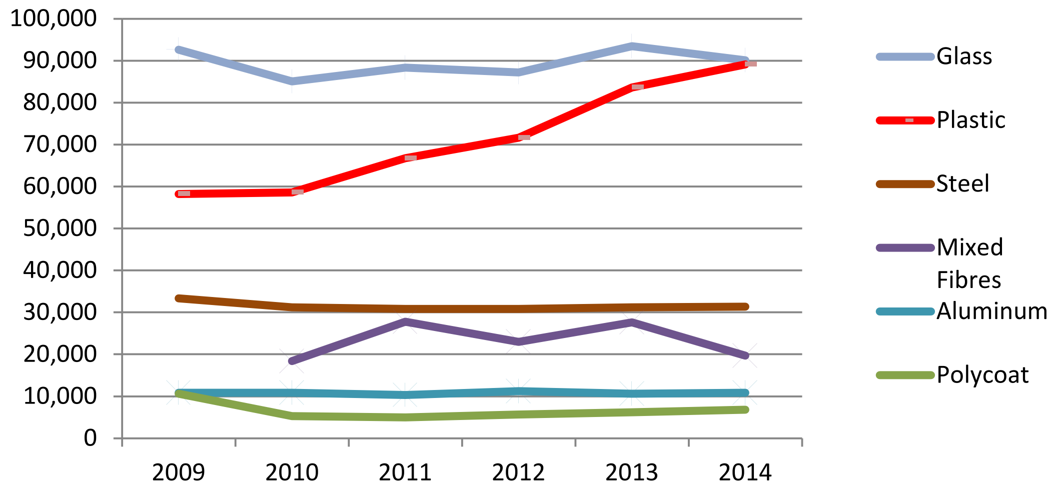


Figure 3: 2008-2013 Trends for Blue Box Materials under 100,000 Marketed Tonnes



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 Served by Curbside or Depot (2009-2014)

Number of Households Receiving Blue Box Service							
Type of Service	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2013-2014 % Change**
Curbside[1]	4,696,882	4,722,135	4,808,387	4,816,618	4,846,457	4,874,210	0.6%
Depot Only	215,812	213,047	204,794	229,464	225,737	208,948	-7.4%
Total	4,912,694	4,935,182	5,013,181	5,046,082	5,072,194	5,083,158	0.2%

- From 2013 to 2014, there was a 0.2% increase (10,964 households) in the number of households receiving either curbside or depot Blue Box service. From 2009 to 2014 (5 year period), the increase in households with Blue Box service rose by 3.4%.
- In 2014, 94.8% of households in municipalities reporting to WDO had access to a curbside Blue Box program. This represents an increase of 0.6% over 2013.
- From 2013 to 2014, the number of households solely served by depot decreased by 7.4%.
- From 2013 to 2014, the household recovery rate (tonnage recycled per household of Blue Box material) decreased slightly from 177 to 165 kilograms (-6.8%) per household. This decrease may be attributed to light-weighting of Blue Box materials.
- Of the 237 reporting programs, a total of 85 programs have implemented bag limits. The average 2014 bag limit was 3.4 bags per collection day.
- A total of 116 programs have implemented some type of pay-as-you-throw (PAYT) user-pay system for garbage set at curbside for pick-up. The average 2014 PAYT fee was $1.82 per bag[2].

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

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	2013 HHlds Served	2014 HHlds Served	% Change in HHlds	2014 Households Served as % of Total Households Reported
Paper-Based Packaging				
Corrugated Containers*	5,071,820	5,081,468	0.2%	100.0%
Boxboard*	5,066,393	5,080,683	0.3%	100.0%
Polycoat				
Gable Top Containers	4,957,977	5,000,957	0.9%	98.4%
Aseptic Cartons	4,885,015	4,894,919	0.2%	96.3%
Metals				
Aluminum Foil Packaging*	4,990,675	5,025,149	0.7%	98.9%
Empty Aerosol Cans	4,462,270	4,479,297	0.4%	88.1%
Empty Paint Cans	4,695,060	4,725,247	0.6%	93.0%
Plastics				
HDPE Containers	5,051,247	5,067,698	0.3%	99.7%
Other Containers (#3,4,5,7)[2]	4,955,745	5,004,712	1.0%	98.5%
Tubs & Lids[3]	304,085	N/A	N/A	N/A
HDPE/LDPE Film (#2,4)	3,905,616	3,640,450	-6.8%	71.6%
Polystyrene Crystal[4*]	4,156,393	4,119,292	-0.9%	81.0%
Polystyrene Foam*	3,096,708	3,306,374	6.8%	65.0%

The largest positive change from 2013 to 2014 in Table 3 is a 6.8% increase in the number of households collecting polystyrene foam packaging. More municipalities have been accepting this material in their Blue Box program.

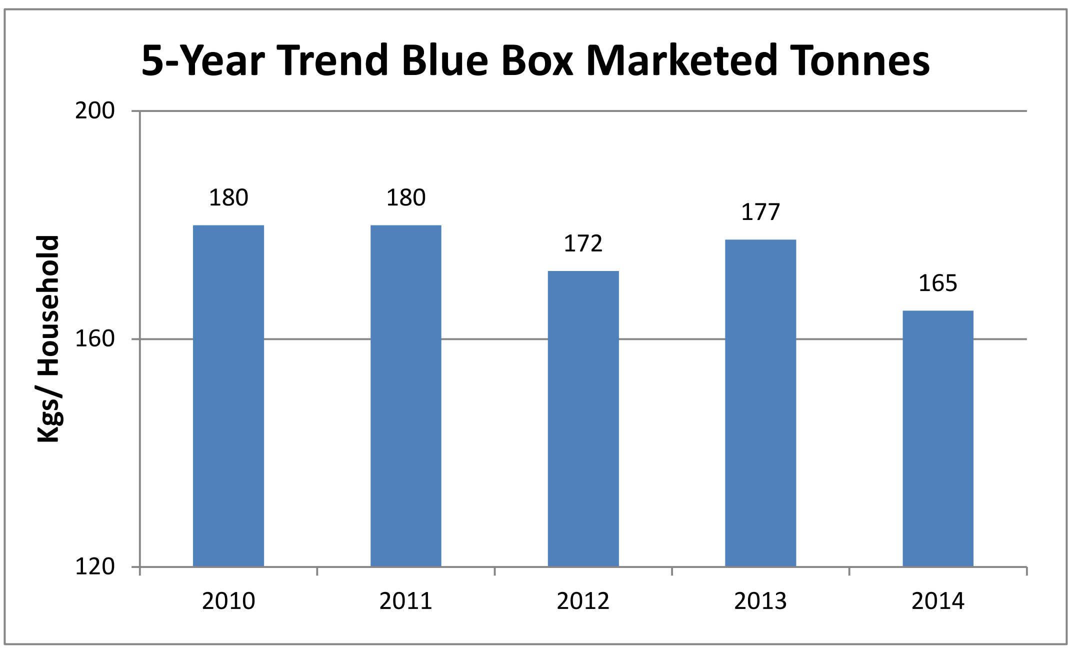
Starting with the 2013 Datacall, tubs and lids have been categorized as “Other Bottles & Containers”.

[2] The average does not include the programs that included waste management fees in their yearly residential taxes.
[3] For the 2012 Datacall, “Tubs & Lids” included plastic materials #4 and #5. As of 2013, these have been reported under “Other Bottles & Containers”.
[4] More municipal programs are now accepting this material.

Appendix - Annual Percentage Changes in Blue Box Marketed Tonnes (2009-2014)

Year-over-Year Change %	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Printed Paper	11.0%	4.2%	-2.8%	-1.9%	-2.1%
Mixed Fibres	N/A	50.7%	-17.2%	20.0%	-28.8%
Paper-Based Packaging	-17.4%	-11.8%	1.0%	-3.9%	-0.5%
Total Paper	4.0%	1.1%	-2.5%	-1.6%	-2.8%
Polycoat	0.1%	-5.7%	14.1%	9.2%	10.3%
Aluminum	0.0%	-4.9%	8.7%	-5.4%	2.4%
Steel	-6.4%	-1.4%	0.1%	1.2%	0.5%
Glass	-8.1%	3.8%	-1.3%	7.1%	-3.6%
Plastic	0.1%	13.8%	7.4%	16.7%	6.6%
Total Blue Box	2.0%	2.0%	-1.3%	0.8%	-1.7%

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



For information on municipal program breakdowns of the 2014 Blue Box tonnages in this report and types of Blue Box materials marketed in 2014 by municipal program, please click on the titles of the following two spreadsheets: 2014 Blue Box Program Marketed Tonnes and 2014 Blue Box Program Accepted Materials.

For further information, please contact wdostakeholdercommunications@wdo.ca.