Waste Diversion Ontario

Data Report #1
2013 Blue Box Tonnage Highlights (Residential)

November 28, 2014

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 based on data collected in the 2013 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.

Participation in the Municipal Datacall

In 2013, 226 municipalities, recycling associations and First Nations submitted information to WDO through the Datacall. These recycling programs represent about 400 of Ontario's 444 municipalities, 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 2008 as reported in the annual Municipal Datacall.

Table 1: Blue Box Tonnes Marketed (2008-2013)

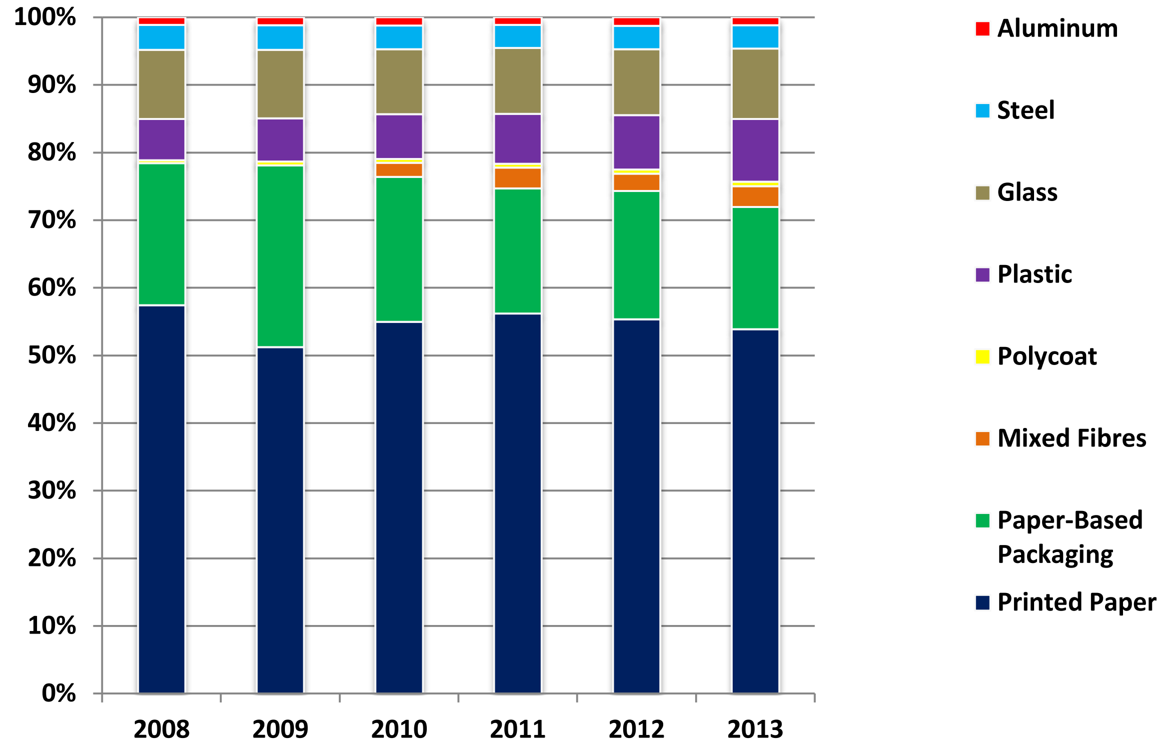
Material[1]	2008 Tonnes Marketed	2009 Tonnes Marketed	2010 Tonnes Marketed	2011 Tonnes Marketed	2012 Tonnes Marketed	2013 Tonnes Marketed	2012-2013 % Tonnes Change	% of Total 2013 Blue Box Tonnes
Printed Paper[2]	533,652	439,341	487,684	508,269	493,966	484,794	-1.9%	53.9%
Mixed Papers[3]	n/a	n/a	18,423	27,767	22,998	27,595	20.0%	3.1%
Paper-Based Packaging[4]	195,388	230,249	190,107	167,689	169,413	162,746	-3.9%	18.1%
Total Paper & Fibres	729,040	669,590	696,214	703,725	686,377	675,135	-1.6%	75.0%
Polycoat[5]	3,957	5,254	5,257	4,956	5,657	6,176	9.2%	0.7%
Aluminum[6]	10,693	10,840	10,843	10,314	11,208	10,606	-5.4%	1.2%
Steel[7]	34,138	33,384	31,237	30,800	30,825	31,197	1.2%	3.5%
Glass[8]	94,983	92,609	85,071	88,335	87,224	93,430	7.1%	10.4%
Plastic[9]	56,717	58,537	58,621	66,720	71,634	83,591	16.7%	9.3%
Totals	**929,528**	**870,214**	**887,242**	**904,850**	**892,924**	**900,135**	**0.8%**	**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.
4) Includes Old Corrugated Cardboard, Old Box Board, and a portion of Residential Mixed Papers and Mixed Fibres Packaging.
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 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 Plastics.

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 2008. 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 have 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 (2008-2013)



2012 - 2013

- The total tonnage of Blue Box materials marketed only increased slightly by 0.8%. The Appendix shows the annual percentage change for Blue Box materials since 2008.
- Mixed papers tonnes increased by 20%. We see this as a likely reaction to fluctuating market commodity prices, which can influence whether certain materials are separated or baled together.
- Polycoat tonnes increased by over 9%, indicating more products sold in this type of packaging (e.g., gable top and aseptic cartons for beverages, soups, and sauces).
- In 2013, paper-based packaging, printed paper and mixed papers (Total Paper & Fibres) together constituted 75.1% of total Blue Box materials marketed. The total tonnage for Paper & Fibres began to increase again after the recession, but has been slowly declining since 2011, possibly due to more

reliance on electronic media. Glass (10.4%) and plastic (9.3%) were the next largest contributors to the Blue Box composition in 2013, based on total tonnes.

Other Trends

- Since the recession of 2009, overall Blue Box tonnes have increased to approximately 900,000 tonnes, but have not yet recovered to pre-recession levels of more than 900,000 tonnes.
- Since 2008, printed paper tonnes have accounted for at least half of total Blue Box tonnes in Ontario.
- Aluminium tonnes remained constant from 2008 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 2008-2011 level of below 11,000 tonnes.
- Steel tonnes grew modestly until the recession in 2009. Steel tonnes declined slightly from 2009 to 2011, then rose marginally in both 2012 (0.1%) and 2013 (1.2%).
- From 2008-2010, plastic tonnes increased modestly. They experienced incrementally greater growth between 2011 and 2013, including a significant increase of 16.7% from 2012 to 2013. This sharp increase 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.

Figures 2 and 3 below respectively illustrate the trends in marketed tonnes for fibres and containers from 2008 to 2013. For the past three years, plastic material has been noticeably increasing, compared to the other materials.

Figure 2: 2008-2013 Marketed Tonnage Trends for Paper-Based Packaging, Printed Paper, Total Paper and Total Blue Box

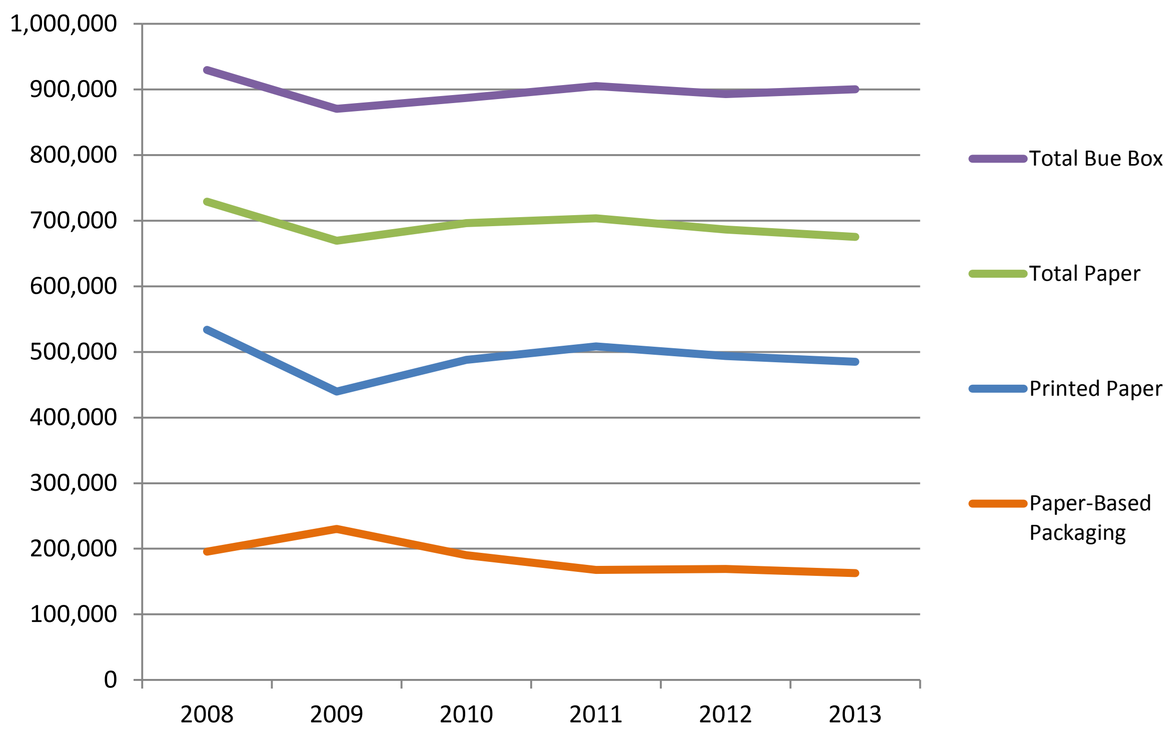
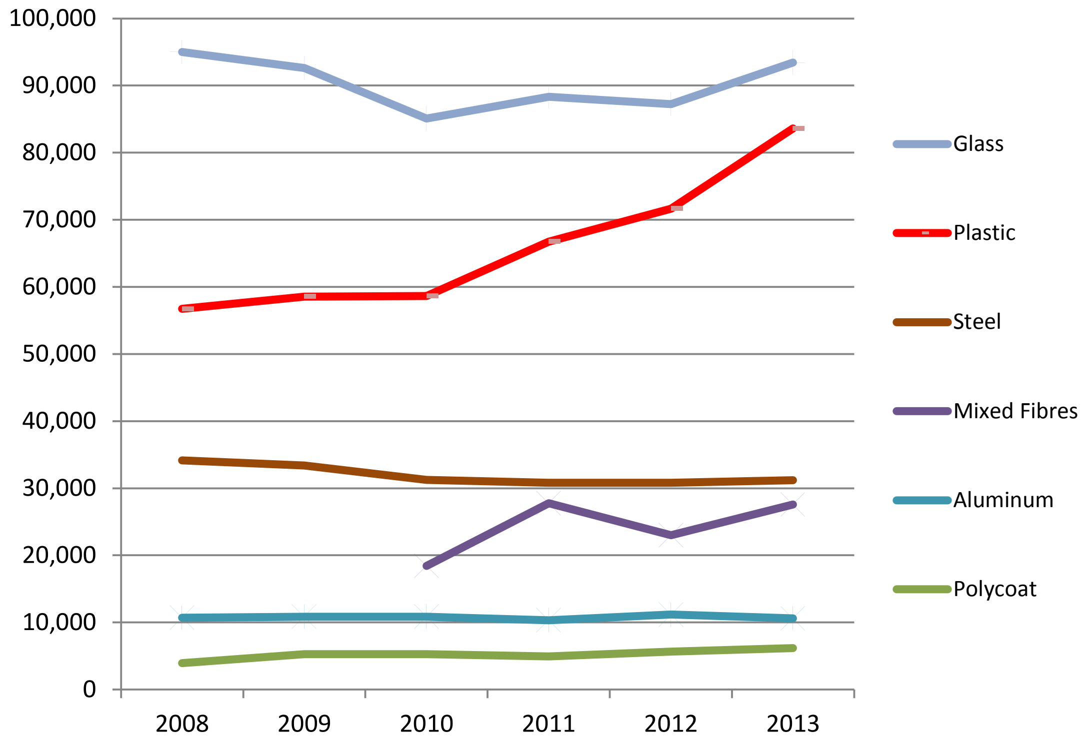


Figure 3: 2008-2013 Trends for Blue Box Materials under 100,000 Marketed Tonnes



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 household units.

Table 2: Number of Households Served by Curbside or Depot (2008-2013)

Number of Households Receiving Blue Box Service							
Type of Service	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2012-2013 % Change**
Curbside[1]	4,694,156	4,696,882	4,722,135	4,808,387	4,816,618	4,846,457	0.6%
Depot Only	245,922	215,812	213,047	204,794	229,464	225,737	-1.6%
Total	4,940,078	4,912,694	4,935,182	5,013,181	5,046,082	5,072,194	0.5%

- In 2013, the number of households with curbside collection increased by 0.6%, while the number of households solely served by depot decreased by 1.6%.
- From 2008 to 2013, the number of households receiving either curbside or depot service rose by 3%, with a 0.5% increase (26,211 households) from 2012 to 2013 alone.
- 97.1% of households in municipalities reporting to WDO have access to municipal Blue Box recycling service.
- From 2012 to 2013, the household recovery rate (tonnage recycled per household of Blue Box material) remained unchanged at 177 kilograms per household.

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

- Of the 226 reporting programs, a total of 72 programs have implemented bag limits. The average 2013 bag limit was 3.4 bags per collection day. A total of 119 programs have implemented some type of pay-as-you-throw (PAYT) user-pay system for garbage set at curbside for pick-up. The average 2013 PAYT fee was $1.43 per bag.

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; as well as 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

Material	2012 HHlds	2013 HHlds	% Change in HHlds	2013 Households Served as % of Total Households Reported
Paper-Based Packaging				
Corrugated Containers*	5,040,679	5,071,820	0.6%	100.0%
Boxboard*	5,037,526	5,066,393	0.6%	99.9%
Polycoat				
Gable Top Containers	4,904,364	4,957,977	1.1%	97.7%
Aseptic Cartons	5,037,526	4,885,015	-3.0%	96.3%
Metals				
Aluminum Foil*	4,968,481	4,990,675	0.4%	98.4%
Empty Aerosol Cans	4,338,213	4,462,270	2.9%	88.0%
Empty Paint Cans	4,406,091	4,695,060	6.6%	92.6%
Plastics				
HDPE Containers	5,010,179	5,051,247	0.8%	99.6%
Other Containers (#3,4,5,7)[2]	4,705,439	4,955,745	5.3%	97.7%
Tubs & Lids[3]	4,886,726	304,085	-93.8%	6.0%
HDPE/LDPE Film (#2,4)	3,887,156	3,905,616	0.5%	77.0%
Polystyrene Crystal[4]*	3,056,312	4,156,393	36.0%	81.9%
Polystyrene Foam*	3,224,864	3,096,708	-4.0%	61.1%

The largest positive change from 2012 to 2013 in Table 2 is a 36% increase in the number of households collecting polystyrene crystal (e.g., clamshells). Since there are more processors who accept this material, more municipal programs now collect this material.

The drop in tubs and lids (-93.8%) is due to reporting tubs and lids under a new category, “Other Bottles & Containers”, as part of the Datacall Redesign.

[2] For the 2013 Datacall, “Other Bottles & Containers” included plastic materials #3, #4, #5, and #7.
[3] For the 2012 Datacall, “Tubs & Lids” included plastic materials #4 and #5. As of 2013, these are being reported under “Other Bottles & Containers”.
[4] More municipal programs are now accepting this material.

Appendix - Annual Percentage Changes in Blue Box Marketed Tonnes (2008-2013)

Year-over-Year Change %	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Printed Paper	-17.7%	11.0%	4.2%	-2.8%	-1.9%
Mixed Fibres			50.7%	-17.2%	20.0%
Paper-Based Packaging	17.8%	-17.4%	-11.8%	1.0%	-3.9%
Total Paper	-8.2%	4.0%	1.1%	-2.5%	-1.6%
Polycoat	32.8%	0.1%	-5.7%	14.1%	9.2%
Aluminum	1.4%	0.0%	-4.9%	8.7%	-5.4%
Steel	-2.2%	-6.4%	-1.4%	0.1%	1.2%
Glass	-2.5%	-8.1%	3.8%	-1.3%	7.1%
Plastic	3.2%	0.1%	13.8%	7.4%	16.7%
Total Blue Box	-6.4%	2.0%	2.0%	-1.3%	0.8%

For further information, please contact wdostakeholdercommunications@wdo.ca, or (416) 226-5113.