

City of London

P&E Initiatives for Plastic Packaging Recovery



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1. Executive summary

This is the final report of project CIF 642.4 - P&E Initiatives for Plastic Packaging Recovery, implemented by the City of London beginning in 2012. The project goal was to increase recycling rates of plastics. This project supported a previous CIF project to distribute larger (22 gallon) Blue Boxes to all curbside households in conjunction with adding new plastics to the program. Waste Diversion Ontario - Continuous Improvement Fund (WDO – CIF) provided financial and technical support. Additional funds and technical support were provided by Stewardship Ontario under their Plastics are in program.

The cost to complete the project budget was \$16,360. The P&E initiatives included:

- print advertising
- ad panels on buses and on public space recycling bins
- TV ads
- community awareness
- production of a video

Between 2011 and 2012 there was a substantial increase in tonnes of plastics recycled – an increase of 24%. This may be attributed in part to the promotion of plastics recycling under this project. The following year, there was only a 1% increase. The 24% increase may also be a result of other significant Blue Box program initiatives implemented by London (and supported by CIF) since 2010. These include:

- implementing multi-residential best practices, including adding additional recycling container capacity (2010 through 2013)
- opening a city owned regional MRF (2011)
- adding more plastics (2011)
- providing large 22 gallon capacity curbside recycling containers to capture the large volume, lightweight plastics (2011)

The Plastic P&E campaign implemented by the City combined both traditional and non-traditional initiatives to engage our target audience. The traditional initiatives used the generic Plastic is In! campaign materials developed by Stewardship Ontario and adapted to reflect the City's two stream program. The non-traditional initiatives included working with two local community groups. Although no causal connection between increased capture of plastic recyclables can be made, staff are confident that community based social marketing is effective and that working with the community groups will have a long lasting impact on the youth and their families recycling behaviours.

The completion of this project work has helped improve blue box diversion and reach the objectives set in the City's Road Map to Waste Diversion.

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2. Introduction

The City of London currently provides Blue Box recycling to 172,000 households, including 53,500 households (31%) in multi-residential buildings (2014 WDO Datacall). Collection services are provided under a contract service with 19 trucks for curbside and two trucks for multi-residential. The City owned two-stream Regional Materials Recovery Facility (MRF) was opened in August 2011 and its operation is contracted to Miller Waste Systems.

Increasing the capture of Blue Box recyclables is part of London's overall waste diversion strategy identified in a City Public Consultation Documents:

Road Map 1: The Road to Increased Recovery and Zero Waste (2007)

Road Map 2: The Road to Increased Resource Recovery and Zero Waste (2013)

Increasing the capture of plastic material packaging is an integral component of the overall waste diversion strategies. To accomplish this, the City has undertaken a promotion and education (P&E) campaign to improve residents' awareness of the plastic packaging materials that are targeted in the Blue Box program.

3. Background

The City of London offers recycling collection to all residential properties including all multi-residential buildings. London has an expanded recycling program which allows a wide range of recyclable items in the program. In the fall of 2011, to coincide with the distribution of 22 gallon blue boxes to all curbside households, subsidized recycling carts in multi-residential buildings, the opening of a regional Materials Recovery Facility (MRF), and a new processing contract, London expanded the range of plastic items accepted to include all plastics 1 through 7. The two exceptions are plastic bags/wrap and polystyrene foam packaging. These items are not accepted in London's program.

While plastic bags are not permitted, large see-through plastic bags are allowed to contain recyclables. As a result, we are required to manage this material at the MRF. To reduce the negative impact of running plastic film through the MRF (i.e. wrapping around equipment), it is removed at the pre-sort stage. To avoid landfilling we have secured an end-market for this plastic.

4. Project description

The City completed a P&E campaign with the objective of increasing the capture of plastic packaging from residences through the Blue Box program. The project scope included two areas of focus for increased awareness of plastic recycling:

- 1: Traditional Media advertising
- 2: Community based awareness initiatives

4.1 Traditional media advertising

Stewardship Ontario created advertising artwork to promote plastics recycling under the campaign banner 'Plastic Is In'. London used the artwork with customization for a two-stream program. Stewardship Ontario's template artwork is shown below in figure 1.



Figure 1: Stewardship Ontario template artwork – Plastic is In! Campaign

London's ads were customized to represent our two stream recycling program, figure 2. The London ad was adjusted for use in different layouts and formats such as posters, bus panels, newspaper ads, and panels for public space waste containers. The table below shows the media used in the London campaign.



Figure 2: London's two stream adaptation of the Stewardship Ontario template

Table 1: Traditional media advertising

Time	Description	Cost
Fall 2012	WDO In-Kind Ad program in Daily & Weekly papers	In-kind
Fall 2012	Billboard ad, placed by Stewardship Ontario	In-kind
Fall 2012 - Winter 2013	London Transit Bus Panels	\$8,100
December 2012	CTV TV ads	\$1,400
Fall 2012 to current	EnviroBin Panels (public space recycling/waste containers)	\$2,700

4.2 Community based awareness initiatives

London worked with two community organizations for their assistance in promoting plastics recycling. This approach was taken to assist with messaging at a more grassroots, and neighbour-to-neighbour level, and to support the traditional media advertising within those communities. We provided program information to the groups to assist with technical understanding of recycling, however the groups were asked to develop their own strategies to promote the message. For the City's Waste Management team this was a new approach to promote recycling and as such this aspect of the project represented an opportunity for London staff to learn about how this could be used in other areas of waste diversion programs. The two groups and their strategies are described below.

Argyle Community Association www.discoverargyle.ca

ACA is an active community association in east London. In the past they have identified environmental issues as a priority. This group was approached and asked if they would work on promoting plastic recycling within their association and to the greater Argyle neighbourhood community. The following activities were organized by ACA:

- A tour of the MRF for ACA and community members
- A community meeting
- Posters about plastics recycling in neighbourhood businesses and community centres

Boys & Girls Club of London www.bgclondon.ca

The Boys and Girls Club of London is a non-profit organisation that provides activities for families, children and youth. This group was identified as a potential medium to encourage recycling among this age group. The group created a video that featured youth in a dance flash-mob scenario.

<https://youtu.be/VcqqUf5tYDA>

In addition to promoting recycling the opportunity provided employment to youth. The full cost of the video \$18,000. The portion allocated to this project was \$3,000.



Figure 3: Snapshots of video created by Boy's and Girl's Club of London

5. Plastics recycling tonnages

The most effect evaluation metric for City staff in evaluating the campaign is the tonnage of plastic packaging material sent to market from the City owned MRF. Table 2 & Figure 4 below show plastic packaging tonnes recycled from 2010 to 2014. A significant increase was observed between the 2011 baseline year and 2012 – an increase of 24%. This improvement has been sustained as reflected by the 2013 & 2014 tonnages for plastic packaging.

Table 2: Marketed plastics annual tonnage

Plastic	2010	2011	2012 ²	2013 ²	2014
PET	974	975	1302	1355	1484
HDPE	533	509	496	476	489
Mixed	208	391	530	530	538
Total	1715	1875	2329	2362	2511
Change over previous year		9%	24%	1%	6%
Film ¹		70	182	174	118

Notes:

1. Film plastic is not included in London's program. This is a contaminate resulting from the use of see-through bags used as recycling containers. It is recovered and recycled in the MRF process, but as it is not included in our program it is not promoted
2. Project work took place in late 2012 through early 2013 and some into later 2013

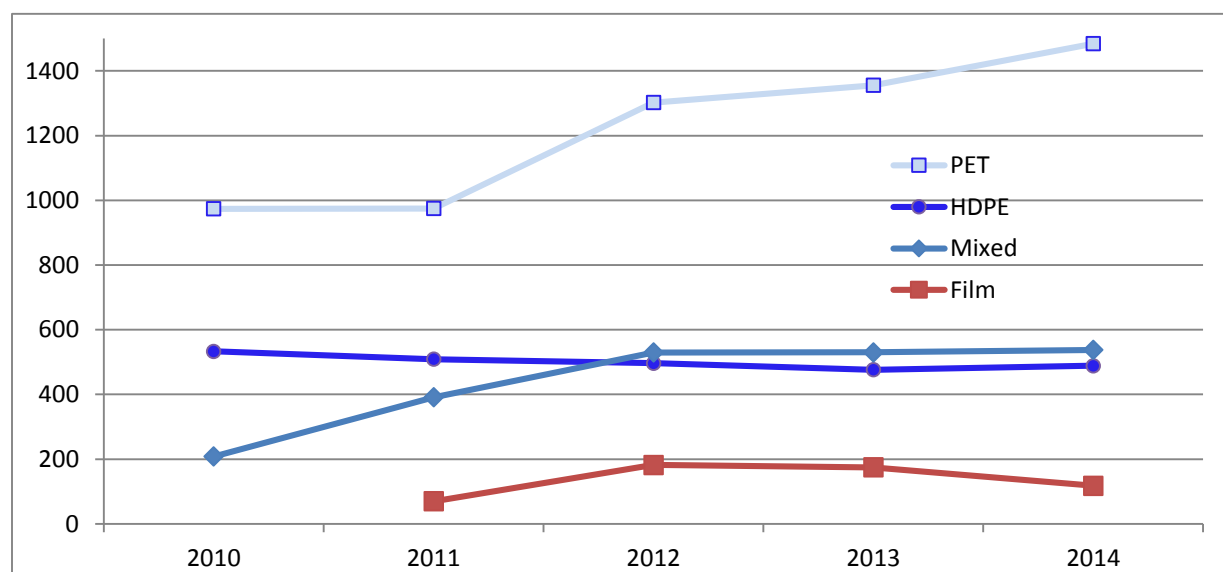


Figure 4: Marketed plastic recycling tonnage

6. Project Costs

Table 3: Project costs for P&E initiatives for increased plastic packaging recovery

Company	Description	Amount
Larmar	Bus Panels	\$6,302
Larmar	Bus Panels	\$1,800
Capital Colour	EnviroBin (public space) panels	\$1,398
CTV	TV ads	\$2,277
CTV Production		\$400
Design	London customization	\$900
Boys & Girls Club	Video	<u>\$3,000</u>
	Subtotal	\$16,077
	HST portion 1.76%	<u>\$282</u>
	Total project costs	\$16,359
	CIF Funding at 50%	<u>\$8,179</u>
	Stewardship Ontario Funding at 25%	<u>\$4,090</u>

7. Concluding comments

Between 2011 and 2012 there was a substantial increase in tonnes of plastics recycled. This may be attributed in part to the promotion of plastics recycling under this project. Additionally, other concurrent recycling initiatives, including CIF funded project may have resulted in increased plastics recycling. The additional initiatives included increased container capacity for higher volume recyclables in multi-residential (subsidized recycling carts) and curbside households (distribution of 22 gallon blue boxes), expanding the range of permitted plastics in the blue box (all plastic containers).

The Plastic P&E campaign implemented by the City combined both traditional and non-traditional initiatives to engage our target audience.

The traditional initiatives used the generic Plastic is In! campaign materials developed by Stewardship Ontario and adapted to reflect the City's two stream program. These materials were easily adapted to the City's use which was certainly a benefit in comparison to having had to develop the materials internally. Further the provincial rollout of the Plastic is In! campaign likely aided in the overall impact of plastic packaging recycling awareness of residents.

The non-traditional initiatives included working with two local community groups. Although no causal connection between increased capture of plastic recyclables can be made, staff are confident that community based social marketing is effective and that working with the community groups will have a long lasting impact on the youth & their families recycling behaviours.

Overall staff are confident the improvements made to the City's Blue Box program, including this campaign, are helping the City of London achieve its waste diversion goals.