

*#545.3 Alfred & Plantagenet – Large Curbside Containers*



Alfred & Plantagenet  
Multi-Residential Cart Recycling Program  
CIF Project Number #545.3

Final Report  
October 1, 2016

Prepared for:  
Waste Diversion Ontario  
Continuous Improvement Fund Office  
Barrie, Ontario

## **Acknowledgement**

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## Executive Summary

This is a final report accounting the implementation of the Township of Alfred and Plantagenet's cart recycling program for the multi-residential (MR) community. Funding and technical support was provided to the Township by the Continuous Improvement Fund in completing this project work.

In past years, the MR program in the Township has been a mixed bag of collection containers (some blue boxes, some carts, and some other containers) and participation / diversion varied widely between buildings. In 2015, the Township introduced a cart service program for the MR sector based on the best practice fundamentals for collection container capacity. The Township also created a MR database to keep track of buildings, contact person(s), on site capacity, and other key program information.

In total 50 recycling carts and more than 600 reusable bags were purchased through the CIF's Cooperative Container Procurement Program and distributed to MR residents by Township staff in the fall of 2015. To support the program launch, the Township distributed P&E materials to MR buildings promoting the recycling program and providing notice to residents of the cart program launch.

The program launch has been a resounding success. In comparing the first 8 months of 2015 versus 2016, the number of blue box recycling tonnes captured from the MR program has increased more than 20%. This is projected to divert an additional 23 tonnes of material from landfill annually.

The Township and residents are very pleased with the success of the MR cart program and are continuously looking to improve blue box performance and diversion of our recycling programs.

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# 1 Background

## 1.1 Community profile

Nestled in the heart of Eastern Ontario, the Township of Alfred and Plantagenet is home to approximately 8,000 residents settled in the seven essentially Francophone villages including Alfred, Curran, Lefavre, Pendleton, Plantagenet, Treadwell and Wendover.

The Township is advantageously located between two major urban centres; Ottawa, 45 minutes to the west and Montreal 75 minutes to the east. The US border at Cornwall Ontario is only 45 minutes to the south.



Figure 1: Map of Township of Alfred & Plantagenet (outlined in red)

## 1.2 Waste management system

The municipality of Alfred and Plantagenet provides residents with multi-stream recycling through weekly curbside collections.

Population	Permanent – 8019
Households (single family)	4319
Blue Box Tonnage (2015 Datacall submission)	714 MT
Municipal Grouping	Small Rural
Blue Box Program net cost (2015 Datacall submission)	\$304,604
Annual P&E Budget	\$3,000

The municipality targets all materials accepted through the Blue Box program, including polystyrene. The municipality collects these materials through a single stream recycling program.

As of 2015, collection is completed by Cool Containers and Rental; based on a set fee for the contract year. Materials are trucked to Recycle Action at 1301 Spence Avenue in Hawkesbury, Ontario; processing costs are at a per tonne rate.

### 1.3 Current waste management performance

In the past few years leading up to this project work, the Township has effectively rebranded our recycling program through investments in promotion and education. CIF project #604.4 and #604.12 provided funding and resources in establishing the Township's communication plan for blue box recycling and targeting plastics packaging. A portion of the funding received under #604.12 was allocated to producing the P&E materials used in this project work.

The multi-residential (MR) sector in the Township is home to approximately 600 households. The buildings represent a wide variety of families. These range from very high income to social assistance living arrangements. The recycling rates of buildings in the Township vary widely also, but in 2015 approximately 86 tonnes of blue box materials was diverted through the MR recycling program; resulting in an average recycling rate of approximately 138 kilograms per MR household unit.

### 1.4 Program challenges

The MR households had previously been provided with a mixed bag of collection containers depending on the building. With the new program roll out in the fall of 2015, MR households now have a uniform cart program collecting blue box materials in the same single stream method as the curbside (single family) program.



Figure 2: New recycling carts collected by contractor

## 2 Approach

In transitioning the MR sector to the cart program, there were a number of implementation steps involved as described in the following section.

### 2.1 Implementation

#### 2.1.1 Site visits & the MR database

Site visits were completed on collection days, before pickup, in the fall of 2015. These visits included establishing building contact (superintendents, building manager, etc) and completing baseline measuring and monitoring activities (i.e. how many carts were on site, etc.). This information was used to update the Township's existing excel MR database.

#### 2.1.2 Evaluate systems needs and budget

In determining the number of 95 gallon carts needed for the program, the updated MR database was used to identify the number of carts that were currently located at buildings around the Township. Then, the best practice number of carts was calculated for each address based on the ratio of 1 cart for every 7 units at an address. The best practice number of carts identified was then increased by 1 cart for each address to ensure adequate recycling container capacity was available to residents. In total 54 carts were estimated to be required for the program.

Concurrently, the number of superintendent's handbooks required for the program had to be determined and was estimated by counting the number of MR buildings receiving service – 24.

#### 2.1.3 Purchase containers and distribute P&E materials

Carts and reusable bags were purchased through the CIF's Cooperative Container Procurement Program which provides municipalities and first nations groups with economies of scale fixed prices for the purchase of carts, blue boxes, and reusable bags. The Township purchased 50, 95 gallon blue recycling, carts and 1,000 reusable bags for the MR program.

In anticipation of launching the new cart program, the Township designed, printed and distributed P&E materials to MR residents and superintendents. The main messages of the materials included the following:

- Carts are coming
- Proper sorting
- Participate in Blue Box recycling

The materials were delivered to residents prior to cart delivery.

#### 2.1.4 Delivery of recycling containers

Carts and reusable bags were received from the suppliers and distributed to residents September 10, 2015 by municipal staff.



## 2.2 Monitoring and measurement methodology

In monitoring the impacts of this project, the Township monitored the number of blue box tonnes collected through the MR recycling program, the fullness of carts placed out for collection at MR buildings, and communicated with the collection and processing contractors to ensure that residue rates remained in check with the new program.

### 2.2.1 MR blue box recycling tonnes

The amount of blue box material collected from MR buildings was monitored during the first 8 months of 2015 vs the first 8 months of 2016. The collection contractor collects material from MR buildings on a separate route from the curbside program which allows for this separation, identification, and measuring of MR materials.

### 2.2.2 Monitoring cart fullness

In updating the Townships MR database, the number of carts and their respective fullness on collection day was recorded. These metrics will be compared post implementation.

### 2.2.3 Communicating with contractors

In communicating with the collection and processing contractors, the Township is attempting to ascertain anecdotal information regarding the performance of the program. The Township will be examining the impact of the additional container capacity on the amount of material recycled and the residue of the recycling stream (garbage/organics ending up in the recycling containers).



Figure 3: Material collected in MR Cart program



### 3 Project results and analysis

#### 3.1 Project results

Figure 3, below presents the monthly tonnes of blue box recycling materials collected from the Township's MR households over the first 8 months of 2015 versus 2016. Over the 8 month period, the amount of material increased approximately 12.4 tonnes or 22% from 2015 to 2016. The projected annual blue box recycling is estimated at 109 tonnes or an increase of 23 tonnes from 2015.

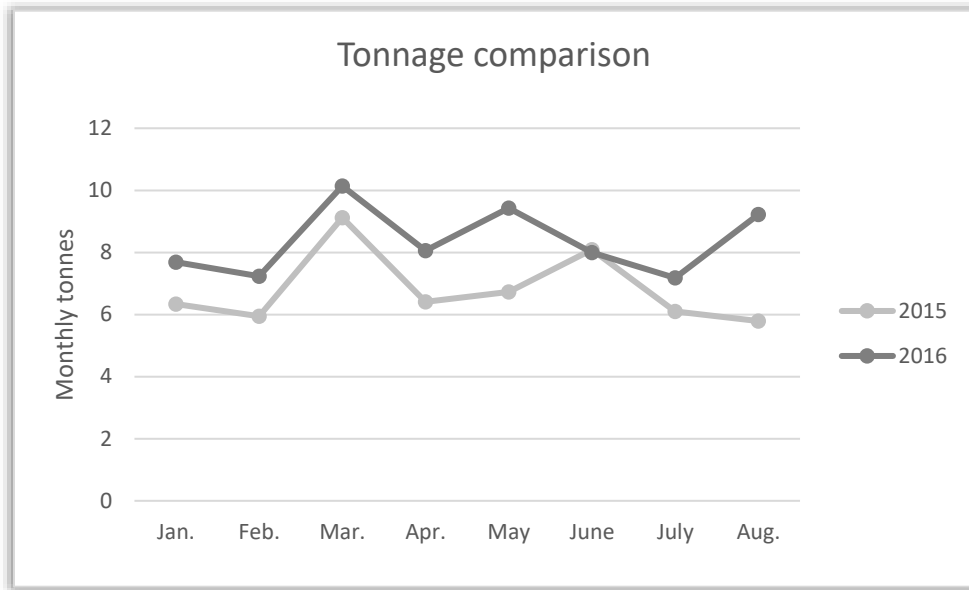


Figure 4: Tonnes of blue box materials collected from MR

The Township has been in regular communication with the collection and processing contractors and is pleased to note that there has not been an increase in the amount of residue (contamination) in the MR blue box recycling program.

#### 3.2 Analysis of results

The implementation of the cart program has been a success. Providing carts to MR building in the Township's service area has provided a uniform level of service to residents.

The increasing amount of blue box recycling materials being collected by the MR program is impressive. This is all material that is not entering our landfill, but rather is being recycled. This is a great result for the Township.

#### 3.3 Lessons learned

The Township struggled with ongoing monitoring of the MR program. In the future, the Township plans to regularly update the MR database list of buildings and contact person(s). The ongoing performance monitoring of buildings (cart fullness) will not be continued.

## 4 Project budget

The budget for this project versus the actual costs are presented in the table below. The actual project costs come in under budget approximately \$1,600.

**Table 1: Project budget vs actual**

Item	Description	Units	Budget	Actual
Carts	360 Litres recycling carts	50	\$ 5,000.00	\$ 3,772.50
Reusable bags	Reusable recycling bags	1000	\$ 1,000.00	\$ 1,120.75
Container distribution	Staff to complete cart/bag/P&E distribution		\$ 1,000.00	\$ 860.00
P&E materials	Promotion and Education materials		\$ 500.00	\$ -
<b>total</b>			<b>\$ 7,500.00</b>	<b>\$ 5,753.25</b>

Primarily, the costs of recycling carts were lower than anticipated in part due to the cheaper per cart costs of purchasing carts through the CIF cooperative tender.

## 5 Conclusions

The implementation of the Township's MR cart program has been a success. Residents are happy with the uniform level of service that is provided to the MR program and the amount of recycling collected has risen dramatically since the program was launched.

As a small community, the ongoing measuring and monitoring of the program suggested by best practices has proven too arduous for us. The Township plans on keeping the MR database regularly up to date, but will not likely be monitoring building specific performance in the future. The Township does intend to continuously promote the recycling program to all residents through our blue box communications planning.