

CIF 432

**Town of Aylmer
Implementing Multi-residential
Best Practices**

Final Project Report, December 2013

Town of Aylmer

CIF Project number #432

Acknowledgement:

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Executive summary

This is the final report of a project implemented by the Town of Aylmer between August 2011 and December 2013. The project goal was to increase recycling rates by implementing best practices in the municipal multi-residential recycling program. Waste Diversion Ontario - Continuous Improvement Fund (WDO – CIF) provided financial and technical assistance and were employed to work with the Town of Aylmer staff in completing the project.

The Town of Aylmer currently provides blue box recycling to 2906 households, including 181 household units in multi-residential buildings. The best practices that were implemented during this project included: creating a database of multi-residential properties, evaluating the recycling performance of individual buildings and increasing the number of recycling containers at buildings, training superintendents, and distributing new promotion and education materials to residential and building staff. Additional work included in this project was the distribution of in-unit containers along with P&E material to increase recycling convenience for residents of multi-residential buildings. The following project deliverables were achieved:

- Increased recycling capacity: added 18 95-gallon carts to achieve the recommended best practice ratio of 1 cart for every 7 units (50 litre/unit);
- In-unit containers: door-to-door/bulk distribution of 161 in-unit recycling bags to: 1) promote recycling, 2) increase in-unit storage capacity and 3) make recycling more convenient to residents;
- New Promotion & Education materials: resident flyers, posters and superintendent handbooks hand-delivered by municipal staff and building superintendents.

The cost to complete this project was approximately \$5,000. The Town of Aylmer received \$2,500 in funding from Waste Diversion Ontario's Continuous Improvement Fund. The Town estimates that annually a further 14.5 tonnes of blue box materials are now being collected through the municipal blue box programming as a result of multi-residential programming initiatives.

1 Introduction

The Town's new Solid Waste Management Program commenced on May 01, 2012. Under the new program, the Town provides for weekly pick-up of recyclables. As of 2012, the Town sends blue box materials to the new regional MRF in London, Ontario and operates a two-stream Recycling Program with an expanded list of program materials, including: cardboard, boxboard, #3-7 plastics, poly-coated paperboard containers, and spiral wound cans, and steel containers.

With the introduction of the new solid waste management program, the Town of Aylmer began blue box service to multi-residential (MR) properties. To facilitate the inclusion of MR programming, the Town of Aylmer applied for MR Best Practice (BP) implementation funding from the Continuous Improvement Fund (CIF).

The project outcomes were:

- Increased recycling capacity through the addition of carts,
- Increased convenience for recycling by providing in-unit recycling bags,
- Providing new promotion and education material.

The benefits of this project are not limited to the project outcomes listed above. For example, by creating a database of multi-residential buildings and offering valuable resources to the properties, the Town of Aylmer hopes to further increase its diversion rate. The value of executing this project was also realized in getting to know property managers, residents and front line staff within each building, and this allowed Staff to look at offering and improving other services.

2 Background: multi-residential recycling program overview

471 MR units exist in the Town of Aylmer's municipal area, based on Statistics Canada estimates. Multi-residential units make up 16% of the households in Town. The Town Staff conducted initial site visits, gathering basic site information, as well as conducting performance evaluations of 25 multi-residential sites.

Table 3.1: Number of households in municipality

	Households	Percent
Single Family	2,435	84%
Multi-res	471	16%
Total	2906	100%

3 The project scope

The project scope included four main phases:

- Phase 1: Develop and maintain a database of buildings
- Phase 2: Benchmark recycling performance
- Phase 3: Increase recycling container capacity
- Phase 4: Provide promotion & education materials and training

Each of the phases is discussed in the following sections.

4.1 Phase 1: Develop and maintain a database of buildings

Creating and maintaining a database of all multi-residential properties is an important step towards implementing best practices. To obtain the list of multi-residential properties, the Town of Aylmer found a number of potential sources of data, including:

- Municipal departments, such as Community Services
- Property management or rental associations had listings of their members' buildings and contact information for owners and property managers.
- Real-estate agency's in each of the different municipalities
- Waste Collection Contractors

4.1.1 Sources & collection methodology

The most effective resource in collecting preliminary data was through the municipal department, using the tax roll data, and through MPAC.

While some preliminary data was collected through real-estate agencies as discussed above, in-person site visits were completed at each building to collect detailed information. Information recorded during the site visits included how well the recycling program was currently working, building characteristics that may create recycling challenges or opportunities (e.g., room for recycling bins), contact information for the on-site representative (e.g. superintendent) and the role that the on-site staff play in managing the building's recycling program. Staff members arranged all of the site visits to the buildings. The visits were set up either on the collection day of the multi

residential property or one day prior to collection day. Detailed notes were reported on each building. Each site was rated on their performance level and recycling area.

The following **Performance** based information was collected at the site visit:

- Number and type of carts
- Cart fullness (empty, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{4}$, full)
- Recycling area (inside, outside)

The following **Barriers** based information was collected at the site visit:

- Labels on carts
- Accessibility
- Recycling capacity
- Loose materials
- Area well lit
- Signage and educational pieces regarding recyclables
- Any visible overflow or contamination

Overall the site visits went well. A key challenge for the Town was staffing resources towards follow-up visits to the MR properties. All properties required multiple visits to identify property contacts and complete site assessments. The resources required to complete the visits and incorporate the collected data into the MR database was a strain on the Town's staffing resources.

4.1.2 Database and completeness of data

An Excel spreadsheet was used to compile the data collected from the site visits, detailing all properties with sufficient information to further contact the buildings. However, the data collected during the site visits was compiled into a separate spreadsheet.

4.1.3 Data maintenance

To ensure that the data is kept up-to date, the Town of Aylmer is committed to doing updating the database whenever interactions with building contacts or collection staff occur. Visual spot checks are being conducted to ensure that recycling carts are not overflowing, damaged or contaminated.

4.1.4 Summary and recommendation

After successful completion of phase 1: Develop and maintain a database of buildings, the Town of Aylmer had an up-to date database of all the multi-residential buildings. This information will be used for future projects as well as for promotional and educational information dissemination.

Recommendation 1: It is recommended that the Town updates that database regularly; and

Recommendation 2: It is recommended that Visual inspections of the sites occur annually.

4.2 Phase 2: Benchmarking recycling performance

A key step in implementing program improvements is to benchmark current performance so that future recycling targets can be established, and so that program improvements can be tangibly measured as the Town moves towards meeting these desired targets.

Evaluating performance is a quantitative assessment that measures the following:

- 1) How much each building is recycling (kg/unit), and
- 2) How much is being recycled by all the buildings collectively.

Performance indicators such as container fullness and contamination were monitored during site visits. Performance data collected during site visits is based on estimates only, and is not based on precise weights. However, if done consistently, research suggests that performance data has been found to be within 10-15% accuracy of actual weights. Obtaining this information from each building was helpful, both for flagging low performing buildings and for highlighting top performers. Low performers were flagged for follow-up strategies and top performers provided useful as model buildings. Estimating how much is being recycled helps us to understand how much the buildings are diverting from landfills. This also provided a baseline measurement against which future recycling improvements can be compared.

4.2.1 Procedure for estimating recycling rates

Baseline recycling rates were estimated for all multi residential properties that receive municipal curbside collection. Additionally, a follow up visit was undertaken to measure the recycling rate of our 'featured building' after the additional carts were delivered.

As site visits were completed, staff estimated recycling rates in each building by:

- Counting the number of carts/containers/bins
- Estimating the fullness of the carts/containers/bins
- Estimating contamination levels

Estimates were based on a visual inspection and represent a brief snapshot of each building at the time of the visit. This data was recorded manually and then incorporated into an electronic Excel spreadsheet.

4.2.2 Recycling rate estimates

Site visits took place in August 2012. In some cases, recycling rates could not be estimated as on-site recycling areas were restricted or because each resident had their own blue box.

4.2.3 Barriers to Recycling

Barriers to recycling lower the recycling rate considerably, and it is therefore essential to eliminate as many barriers as possible. The evaluation was completed and information was recorded in the MR database. Site visits were completed at all 25 buildings in Town.

To reduce contamination, corrective action has been considered for the barriers that have been identified. For example, posters and labels have been distributed to all buildings. The posters are intended to reduce contamination and increase capture rates, as a lack of promotional and educational materials at the facilities was identified.

Container overflow was identified as another barrier. Where applicable, the number of recycling carts has been increased to implement best practices. This will increase the capture rate of recyclables and will limit the container overflow.

Overall, Staff and superintendents have met with a positive response to the program enhancements that have been made. The extra recycling carts have become an asset to the buildings and the promotional materials have increased the knowledge of the residents, hopefully encouraging them to recycle more.

4.3 Phase 3: Increase recycling container capacity

Having enough storage space for recyclables is one of the most critical factors in a successful recycling program, and it is important to address this first before other program improvements are put in place. During Phase 1, baseline container quantities were recorded and information was collected about where containers could be relocated within the building to provide more convenience to residents. Site visits also provided the opportunity to determine if additional containers were required, and where additional containers would be stored and ultimately used. Superintendents agreed that container capacity was important, and many were unaware that they could be provided with additional containers.

4.3.1 Type of recycling containers

MR buildings participating in the municipal blue box collection are supplied with 360 liter carts (96 US gallons). Carts distribution is tracked based on how many carts have been provided to individual buildings. If a cart is broken, it can be exchanged for a new one. Continuous Improvement Fund aided with funding the purchase of recycling carts to expand and implement best practices in multi-residential properties. With the help of this funding, 24 recycling carts were purchased, and the Town increased recycling container capacity to meet the Best Practices. The carts were delivered to properties that did not have enough recycling carts to meet the 50L (1 Cart per 7 units) of capacity recommended per household. Additional carts were used to replace damaged carts, as well as to add inventory to those buildings with large families who produce more recyclables.

4.3.2 Collection container capacity

Based on the provincial diversion rate target of recycling 70%, it is recommended that each residential unit be provided with a minimum of 50 litres of storage capacity. This is equivalent in size to a standard 14 gallon blue box. In terms of multi-residential containers, the following guidelines are recommended by CIF and are considered best practices:

- 360 litre carts – one cart for every seven residential units
- Bulk bins - one cubic meter for every 15 residential units (ie., a 4-yard bin for 60 units)

These guidelines represent a minimum standard and it is assumed that at the individual building level there will be ranges depending upon a number of factors. Before the above described program enhancements, recycling capacity did not meet Best Practices. After the program enhancements however, the Best Practices standards are being met or exceeded.

Challenges faced in implementing the Best Practices capacity ratio were mainly due to barriers such as space and program management at the building level. Some properties have limited space available and could not accommodate any extra bins. Other challenges posed were lack of interest, extra capacity was not needed and management could not, or did not want to, handle the carts.

4.4 Phase 4: Provide promotion & education materials

4.4.1 Print materials

A project goal was to distribute new print materials to promote recycling and educate building residents and staff about what can and cannot be recycled. The Town of Aylmer had access to print templates (resident flyers, posters and signs for buildings, container labels and a guidebook for superintendents, property managers and building owners) through the CIF website. The template materials were used and were customized with Town specific information.

The *CIF Best Practice Guidelines* recommends strategies for distribution of print materials which included that the Town must take responsibility for:

- Distributing print materials directly to residents,
- Distributing and displaying posters at multi-residential properties, and
- Applying labels to recycling containers.

Promotion and Education materials are integral to any successful program. As such, the following steps were taken:

- 1) Flyers were created to enhance the knowledge on acceptable recyclable items. The flyers were distributed in each multi-residential in-unit recycling bag.
- 2) Posters were created to promote recycling in and around the property. Posters were distributed when bag deliveries occurred. Posters were posted on each floor, when applicable, and in any laundry rooms, lobby's mail rooms and recycling rooms.
- 3) Container labels were to be put on each recycling cart. The labels were delivered during the multi-unit recycling bag deliveries.

4.4.2 Promotional Material

The Town invested in producing in-unit recycling bags for the residents in all of the multi residential buildings. The bags have colour graphics illustrating what is recyclable in the Town, and are great for storing and transporting recyclables. The bags are aimed to improve the recycling rate of the buildings by providing convenience to the residents. The bags were purchased under a multi-municipal co-operative purchase agreement and as a result the price per bag was as much as three to four times less than budgeted.

4.4.3 Timing of Promotion and Education campaign

The promotion and education campaign targeted at the multi-residential units in the Town of Aylmer was successfully completed over one and a half years. This timeframe

was needed to ensure that all the best practices requirements were implemented. The following is what was accomplished over this time period:

- Site visits at 25 buildings
- Evaluation of buildings and estimates of quantity recycled per building
- Database of 25 properties developed, updated
- Increased number of recycling containers by 16
- Printed and distributed P&E material
- Distributed 161 in-unit recycling bags
- Built relationships with residents and building staff

5. Project budget and schedule

Table 5.1 Project budget, planned and actual

	Per unit cost	Units Implemented	Total Cost	CIF Funding
Site visits	\$70	25	\$1,750.00	\$875.00
Carts	\$62.44	24	\$1,500.00	\$750.00
Resident Bags	\$0.80	161	\$640.00	\$320.00
Final Report	\$1,000.00		\$1,000.00	\$500.00
Total			\$4,890.00	\$2,485.00

6. Concluding comments

This project was undertaken to enhance the multi-residential recycling in the Town of Aylmer. The enhancement included increasing the number of carts, in-unit blue bags, and providing P&E material. All multi-residential buildings with six or more units were included in this project. The implementation of the best practices in Multi-Family recycling is aimed to increase diversion from landfill, decrease contamination of materials, increase capture rates, and increase participation in recycling. Improvements in recycling rates can already be seen in buildings in the Town.

The next steps for the Town will be to recruit the remaining MR buildings to the municipal blue box service. Overall, this project has been a solid success.