

CIF fund #359
Multi-residential Recycling:
Town of Smiths Falls



August 2011

Executive summary

This is the final report of a project implemented by The Town of Smiths Falls. The project goal was to increase recycling rates by purchasing 98 - 360 litre carts for use in Multi-res buildings to coincide with expansion of collection of new material (plastics 3-7) roll out in 2011. Waste Diversion Ontario - Continuous Improvement Fund (WDO - CIF) provided financial aid for Smiths Falls staff in completing the project.

Smiths Falls currently provides blue box and yellow box recycling to roughly 2,485 single-family households, and about 33 multi-residential buildings. The number of multi-residential buildings provided with municipal recycling service stayed the same during this project, but they were given larger recycling containers and had an increase in capture rates. The best practices that were implemented during this project included: creating a database of multi-residential properties, evaluating the recycling performance of individual buildings, increasing the number of recycling containers at buildings and distributing new promotion and education materials to residential and building staff. Ninety-eight 360 litre recycling containers were added to the program, increasing the recycling capacity greatly in each building.

This project is part of Smiths Falls' goal to increase our solid waste diversion rate to 70% by December 2015. This is to be done through the implementation of an advanced waste management program, namely a redesigned recycling program. As the program progresses through its stages we intend to further conserve resources, reduce environmental impacts and greenhouse emissions, reduce the overall dependence on the landfill and in turn reduce costs associated with waste management. This will correspond with the newly redesigned communications strategy of promoting Smiths Falls as a tourist destination, as well as a leader in green communities.

For more information on this project, please contact Vanessa Bernicky, Engineering Technologist and Environmental Coordinator for the Town of Smiths Falls at vbernicky@smithsfalls.ca or (613)283-4124 ext.1147.

Introduction

In 2010, the Town of Smiths Falls was responsible for managing its residential waste, including weekly curb-side collections of garbage and recyclables. This consists of two bags of waste with a maximum weight of 23kg (50lbs) each and unlimited plastics, as long as they are contained within a bin, comprising of selected number 1 & 2 small-mouthed plastics, clear and coloured glass, metal cans, newspaper, magazines, mixed household paper, aluminum trays and foils, empty aerosol and paint cans, and corrugated cardboard and boxboard. Collection contractor source separated materials into trucks.

The new Waste Management Strategy has helped address a number of waste management challenges that the Town of Smiths Falls has faced. In particular, the primary concern for the town is meeting the obligations of the WDO, which requires municipalities to have a Recycling Plan in place, while simultaneously addressing and conforming to the requirements of the Ministry of Environment's directives. In addition, there has also been an increase in public pressure to strengthen environmental consideration, especially in respect to updating collection to mirror that of modern cities. The town hopes to address these concerns, and is also aiming to reduce the costs associated with waste management through the diversion of materials by recycling additional materials with our existing composting, as well as an updated curb-side collection schedule to maximize this process. Continuous Improvement funding was applied for and we were eligible to receive 50% of our costs to complete upgrades to program (Total cost to date: \$62,300+). We received an Approved funding total of \$34,598.00.

Goal of New Project:

Following the program's successful introduction to single family residents, the focus is now being shifted to multi-residential residents. Previous audits found that multi-residential buildings had the lowest number of participants in the recycling program. About 70-80% of the population in Smiths Falls is recycling, but multi-residential buildings only account for a small percentage of this number.

The Total population of Smiths Falls is approximately 8,974, and the total population of Smiths Falls living in multi-residential buildings is roughly 1,864. That's about 21% of the population. If that whole 21% of people

participated in the recycling program, the Town of Smiths Falls' overall recycling and waste diversion rate would be increased greatly. By stressing potential money savings, and providing contact information, the goal is to increase the participation rate in apartment buildings to be consistent with the rest of the Town's participation rate.

Background: multi-residential recycling program overview

The Town of Smith Falls purchased 98 - 360 litre carts for use in Multi-res buildings to coincide with expansion of collection of new material (plastics 3-7) roll out in 2011. Carts were purchased co-operatively with neighbouring municipalities and through the CIF cart tender to decrease program costs.

- Approximately 33 buildings contain 11+ units in Smiths Falls
- About 21% percent of the Town's population live in multi-residential buildings
- Recycling program details:
 - 3 day collection schedule in which households set out waste once a week, a two stream recycling system in which fibre is collected one week and containers are collected the next week. Garbage is collected every week
 - Yellow bins and blue bins were provided to every non-multi-residential household at the beginning of the new program at no cost the residents. If they would like new bins or additional bins, they must be purchased. Apartment buildings are provided with blue and yellow totes at no charge

The project scope

The project scope included four main phases:

Phase 1: Develop and maintain a database of buildings

Phase 2: Increase recycling container capacity

Phase 3: Provide promotion & education materials to increase use of new totes

Each of the phases is discussed in the following sections.

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 and their contact information, we used available information from municipal departments such as planning and taxation. Some property management associations had listings of their members' buildings and contact information listed online.

Sources & collection methodology

While some preliminary data was collected by the methods discussed above, in-person site visits to each building were completed to collect detailed information such as how well the recycling program is currently working, the number of bins each building has, and building characteristics that may create recycling challenges or opportunities (e.g., room for recycling bins).

Data Collection Process

Methodology – university summer student visited each multi-residential building to examine pre-existing and current conditions. This included the number of recycling bins available, the presence of recycling guides posted in the area, and the accessibility of the recycling areas.

Drive-bys were also conducted on recycling days to examine which buildings were utilizing their recycling containers and how many they were using.

All of this information was recorded in a notebook and then transferred onto an excel spreadsheet (see appendix 1).

One challenge that arose a couple times was not being able to get into locked recycling areas, so information in these areas came primarily from drive-bys rather than recycling area inspections.

Database and completeness of data

Excel spreadsheets were used to house the data collected from site visits. The inspection project was successful in creating a database of information about all of the properties, however there were some variables that may have prevented the information from being as accurate as it could have been. These variables exist mainly in the drive-by inspections, in which buildings were examined for the number of recycling containers they set out. The most likely variable is the possibility that some buildings wait until their containers are full before they setting them out. All of the multi-residential buildings within Smiths Falls that have over 11 units were included in the database.

Data maintenance

After the initial investment to create an up-to-data database has been done it is important to protect this investment by maintaining the database and ensuring a process of keeping it up-to-date. To do this we will continue to do regular inspections of the conditions of multi-residential buildings. These inspections will likely occur at the same time as our regularly performed waste and recycling audits.

Phase 2: 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 site visits, 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 are required and where additional containers would be stored and ultimately used.

Type of recycling containers

Recycling storage space is referred to as 'capacity' and is the shared recycling containers used by building residents to deposit their recyclables. We obtained ninety-eight 360 litre carts to be distributed throughout local multi-residential buildings as part of our project. To determine which buildings needed carts we observed their existing conditions. For example, if a building set out a cart that was overflowing or if they set out multiple boxes that were very full, we contacted them and asked them if they'd like an additional cart. Other times building owners contacted us themselves and requested additional carts or carts to replace their damaged or inadequate ones. Since the addition of extra carts at multi-residential buildings, there has been much less overflow in their recycling areas and therefore the areas are more accessible for residents as well as waste pickup trucks.

How much recycling capacity is being provided?

Since distributing an additional ninety-eight 360 litre carts the capacity per unit in Smiths Falls multi-residential buildings has increased greatly. The initial capacity was only about 9 litres per unit, and after the project the capacity is now about 45 litres per unit. Though this is not quite the recommended 50 litres per unit, it is most definitely an improvement from 9 litres per unit. These 45 litres per unit include 95 gallon carts as well as 14 gallon bin, with the 95 gallon units being the primary use, and the 14 gallon bins being used for any over flow, or for small buildings that opted out of a 95 gallon cart.

Table 1: Total number of recycling containers

	Baseline August 2010	Post implementation August 2011
Units with recycling service	850	850
95 gallon carts (360 L)	<5	98
14 gallon bins (53 L)	120	50
Total program capacity in litres	7,440	37,930
Capacity per unit (l/unit)	8.8	44.7

Other Initiatives to Increase Recycling

In February 2011, a new waste by-law was passed that stated that "every owner of an apartment building shall provide adequate facilities and enclosures for the storage of garbage satisfactory to the Director of Administration & Planning Services" and that "recycling totes (360L) shall be supplied by the Town and are to be maintained by the apartment owner or his/her designate". It was also stated that "every resident shall participate in the municipal recycling program", and that "any person violating any of the provisions of this by-law, either by doing any act forbidden or by failing to do any act required by this by-law is guilty of an offence and on conviction shall be liable to a penalty pursuant to the Provincial Offences Act".

Phase 3: Provide promotion & education materials

Print materials

At the beginning of our new waste management program our goal was to distribute new print materials to promote recycling and educate Smiths Falls residents and staff about what can and cannot be recycled. These materials were distributed to single-family homes as well as multi-residential homes. Recycling guides were also distributed and put up in the recycling areas of all the multi-residential buildings.

Table 2: Summary of Promotion & Education materials used (see appendix 2 for examples)

Promotion & Education component	Number distributed	Method of distribution
Recycling Area Guides	66 2 in each recycling area	By university student during site visits
Summary Sheets	30	Handed out during site visits
Recycling Guidebook	850	By mail or provided during site visits

Outreach Activities

University summer student approached apartment dwellers with presentations and "How To's" to enhance diversion within these locations. Due to limited space for group presentations within buildings and a high number of rainy days, many presentations couldn't be held, so only a small number took place. During these presentations additional recycling guidebooks were handing out and any questions that residents had were answered. For the buildings that could not participate additional recycling area guides were still distributed and summary sheets were posted in the lobbies and recycling areas.

Timing of Promotion & Education Campaign

Site visits at all buildings were done several times throughout the months of May to August to ensure that if any changes were made they could be recorded right away. Because of these visits occurred at least once a month the database was always up to date and evaluations were always current. Distribution of print materials also began in May. Presentations for apartment dwellers took place in July. Roll out of new 95 gallon totes is now complete and all buildings that required additional recycling containers have obtained them and are now using them.

Conclusion

Overall, the multi-residential project was a success. New larger totes were successfully distributed and, as a result, recycling capacity for each building and unit has increased greatly. Conditions of multi-residential recycling have successfully been stored in an up-to-date database, and any issues that existed have been accommodated. Promotion and education print material was distributed to all buildings; all residents received recycling guidebooks and all recycling areas now have guides to assist residents in sorting their recyclables. Some presentations were done at buildings and any questions that residents had were answered.

As of now the additional recycling containers are being used to their full capacity. This means that the capture rate has increased in multi-residential buildings and that, subsequently, the diversion rate has increased as well. Since the roll out of the larger recycling containers, recycling tonnage has increased about 16%. This is not only a success for multi-residential buildings, but also for the Town of Smiths Falls as a whole. Increased diversion in multi-residential areas means an overall increase in diversion in the whole town (+ 8%), and therefore means that we are one step closer to achieving our final goal of reaching a 70% diversion rate by December, 2015.

Thank you, Continuous Improvement Fund, MWA, WDO, Stewardship Ontario and Ministry of Environment, for your support.

Chelsey McCord, Environmental Assistant
Vanessa Bernicky, A.Sc.T., rcca, Engineering Technologist/ Environmental
Co-ordinator
Town of Smiths Falls

Appendix 1:

Address	Blue	Yellow	Dumpster?	Communal?
27 Alfred St.	1	1 (+2 boxes)	no	yes
31 Main St.	yes	yes	yes	no
7 Maple Ave.	yes	yes	no	no
6-12 Main St.	yes	yes	yes	n/a
30 Maple Ave	yes	yes	no	no
14-30 Robinson Ave	yes	yes	no	no
57 Chambers St.	yes	yes	no	no
36 Chambers St. W	yes	yes	no	no
Willowdale	3	2	yes	yes
4-12 Main St.	yes	yes	yes	n/a
1 Beckwith St., 3-5 Main St. E	yes	yes	yes	yes
24 Bourke St.	use yellow	2	yes	yes
26 Bourke St.	use yellow	4 boxes	yes	yes
18-20 Philip St.	0	0	yes	yes
43 Empress Ave.	yes	yes	no	no
30 McGill St.	3 boxes	3 boxes	yes	yes
10 Armstrong Dr.	3	2	no	yes
12 Toulon St.	1	1	yes	yes
22, 24, 28 Toulon St.	1	1	yes	yes
2 Pearl St.	2	2	yes	yes
10 Pearl St.	1 box	1 box	yes	yes
20 Pearl St.	1	1	yes	yes
26 Pearl St.	5 boxes	use blue	yes	yes
40 Pearl St.	2	2	yes	yes
46 Bell Ave.	2	2	yes	yes
33 Marsha Dr.	4	1	yes	yes
37 Marsha Dr.	3	2	yes	yes
41 Marsha Dr.	2	2	yes	yes
195 Carss Ave.	1	2	no	yes
165 Carss Ave.	1	1	no	yes
11 River St.	yes	yes	no	no

YellowBox Recycling

New Beginnings, New Recycling, New Containers!



The Yellow Box is for Containers.

Only put containers into the Yellow Box.

Items should be Clean, Crushed and Flattened for easy handling!

Yellow box collected Jan. 11-13, 2011

Note:

Yellow Box collection week alternates with Blue Box week.

Brochure with details coming soon...

New



What goes in

- Glass bottles & jars (and lids)
- Metal cans (steel and aluminum)
- Plastic small-mouth screw-top food & drink containers
- Aluminum trays & foil (clean)
- Empty metal paint cans (dry, lids removed)
- Gable end milk & juice cartons
- Juice and soup boxes (e.g. tetra-pak)
- Plastic wide-mouth dairy containers



DON'T put in

- Film plastic (bags & cellophane)
- Polystyrene (e.g. Styrofoam trays & cups)
- Paper coffee cups
- Coffee and drink cups
- Clear or black plastic trays or boxes
- Plant pots and trays
- Containers that held hazardous products

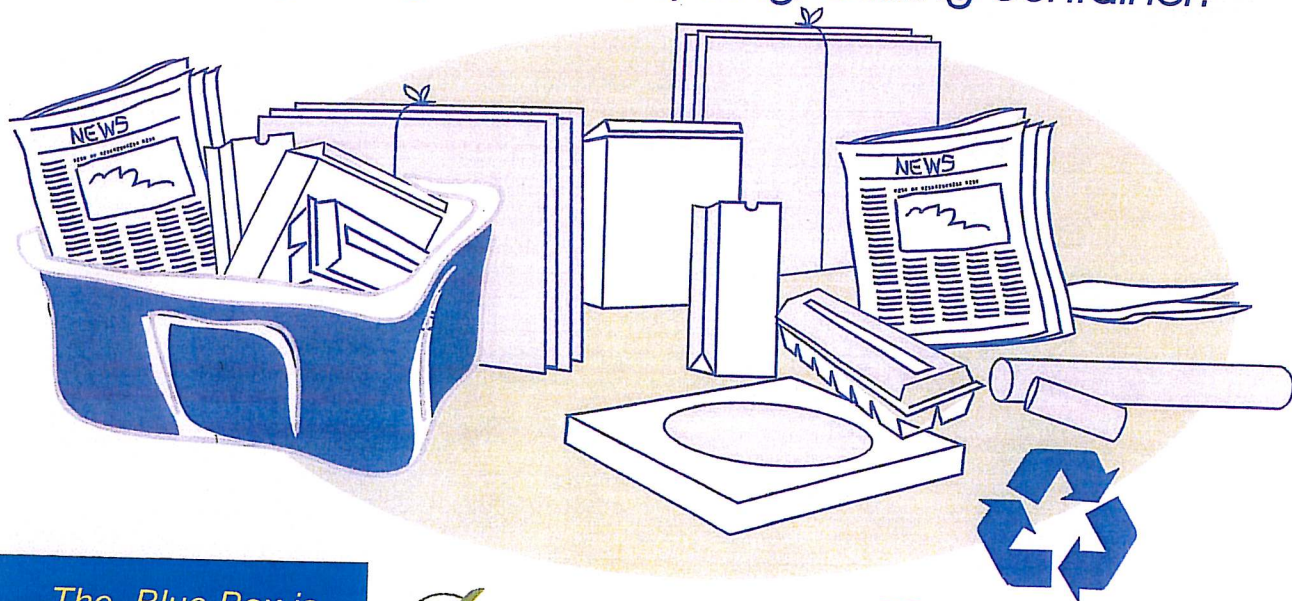
See BlueBox InfoCard for accepted Fibres...



Questions? - www.smithsfalls.ca 613-283-4124

BlueBox Recycling

New Beginnings, New Recycling, Existing container!



The Blue Box is for Fibre!

Only put in paper products in the Bluebox.

Blue Box collection Starts on January 5th, (week one) and will alternate with Yellow Box collection (January 12th, wk. 2)

Brochure with details Coming soon...



What goes in

- Boxboard (cereal boxes, rolls from paper towels and toilet tissue, shoe boxes, tissue boxes)
- Soft & hard cover books
- Telephone books
- Corrugated cardboard (flattened/bundled/tied)
- Detergent boxes
- Egg cartons (paper)
- Kraft (brown) paper bags
- Magazines, catalogues, junk mail & office paper
- Newspapers and flyers (plastic bags removed)
- Pizza boxes (clean)



DON'T put in

- Soiled paper
- Pizza boxes with food residue on them
- Plastic egg cartons
- Reports with plastic spines
- Waxed cardboard

See YellowBox InfoCard for acceptable Containers...



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