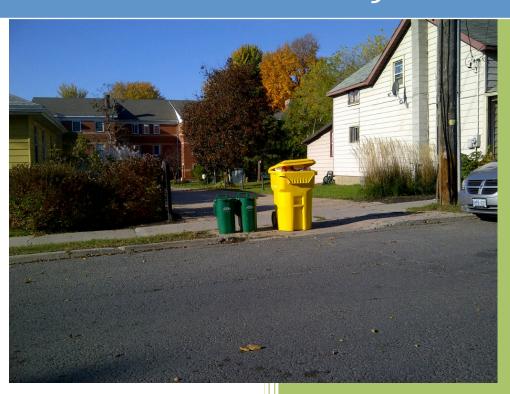
Final Report

CIF #301

Multi-residential Recycling: Implementing Best Practices *Town of Perth*



Final Project Report, August 2012

Town of Perth

CIF #301

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1. Executive summary

This is the final report of a project implemented by The Town of Perth between May 2010 and December 2011. The project goal was to increase recycling rates by implementing best practices in the municipal multiresidential recycling program. Waste Diversion Ontario - Continuous Improvement Fund (WDO – CIF) provided financial and technical assistance and consulting services provided by REIC were employed to work with Municipal staff in completing the project.

According to MPAC data for 2010, the Town of Perth population was 6421. The Municipality currently provides blue box recycling to 2913 households including 1326 units in multi-residential buildings. Collection services of curbside waste, organics and recycling are provided to residents using contracted services. Once recyclable materials have been collected, they are taken directly to a materials recycling facility, located in Carp, Ontario. Organics are taken to the Municipality's compost facility.

The number of multi-residential buildings provided with municipal recycling service remained the same during this project, however large (360L) carts were provided to twenty-eight (28) buildings for the collection of recycling.

A new tender in 2010 resulted in reduced costs compared to the previous system by consolidating all curbside waste services into one contract with one contractor (weekly organics, alternate week fibre/container recycling, and bi-weekly garbage).

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 estimating the overall program recycling rate, increasing the number of recycling containers at buildings and distributing new promotion and education materials to residential and building staff.

In a separate CIF-funded project (#255), support was provided for the development of a new tender for an expanded list of recyclable materials. The implementation aspect of the project included the distribution of a

second large-capacity (23 gallon) recycling container and expansion of the nature of materials included in the program (container collection). This program is also available to households in multi-residential units.

Multi-residential and single-family household are collected on the same routes so data specific to multi-residential households is not available. Data for the full program is presented below.

	2008	2009	2010 Program launched June 2010	2011
Tonnes marketed	526	477	540	535
% change		-9%	13%	-1%

There was an increase noted in the overall recycling program tonnage in 2010 compared to 2009. This may be due to a combination of factors, including the new larger box, the additional materials accepted, the Promotion and Education and Awareness program, and the addition of multiresidential recycling carts along with public area and special events recycling bins. However, when compared to 2008 there is a much less significant increase, suggesting that the 2009 lower tonnage may be due to other factors.

The Town of Perth is appreciative for the funding received from Waste Diversion Ontario and Continuous Improvement Fund which has enabled improvements in the recycling diversion rate. These improvements will add to the lifespan of the Perth Landfill site.

The cost to complete the project budget was \$ 12,256. The Town of Perth was approved up to \$6,128 funding from the Continuous Improvement Fund.

For further information about the project, please contact Alfred von Mirbach, Consultant, REIC, alfred@ecoperth.on.ca or Jamie McCarthy, Engineering Technologist, Town of Perth at jmccarthy@perth.ca.

2. Introduction

In June 2010, the Town of Perth received approval for funding from WDO – CIF to improve the recycling program at multi-residential buildings within the Municipality. The number of multi-residential buildings provided with municipal recycling service remained the same during this project, however large (360L) wheeled carts were provided to twenty-eight (28) buildings for fibre and containers recycling. The yellow cart was a new initiative to divert containers from the Perth landfill site. The blue cart also included an expanded list of recyclable materials, thus diverting more waste and extending the lifespan at the Municipal landfill site.

All curbside waste services were consolidated into one contract with one contractor (weekly organics, alternate week fibre/container recycling, and biweekly garbage).

During this project, site visits were conducted at 28 of 33 multi-residential buildings in the Town, all of which had at least 6 units each. Data was collected to determine the best method to encourage recycling at these buildings. Promotion and education materials were provided to landlords and tenants. Letters were delivered which outlined the program and also included limited-time CIF incentives to purchase 360 litre wheeled carts for recycling. Blue and yellow recycling bags were provided to apartment-building residents for storing and transporting recyclables to the carts.

3. Background: multi-residential recycling program overview

As part of Project #301, the Town of Perth purchased 72 – 360 litre wheeled carts for use in multi-residential buildings. Carts were purchased cooperatively with the Town of Smiths Falls and through the CIF cart tender incentive in order to reduce costs and comply with best practice procedures.

- In 2009, approximately 33 buildings in the Town contained over 6 units each with a total of 568 units.
- There are 1326 units other than single-family homes which comprise about 46% of all households within the Town of Perth.

Table 3.1: Recycling in Dwellings with 6 Units or More (2009)

Type of Dwelling	# of Units	Recycling
Multi-units (5)	30	1
Condo Apts.		
23 Rogers Rd.	26	
19 John St.	18	
103 North St.	20	
22 Welland St.	17	
Apartments		
55 Drummond St. E.	7	
10 Craig St.	19	
29 Cockburn St.	7	
75-77 Harvey St.	57	
99 Harvey St.	11	
16 Herriott St.	10	
5 Rogers Rd.	23	
23 Gore St E.	10	
27 Gore St W.	7	
29 Gore St W.	9 7	
38 Drummond St W.	7	
26 Drummond St W.	11	
8 Daines Pl.	19	
10-12 Daines Pl.	17	1
16 Harris St.	9	
18 Haggart St.	32	
20 Haggart St.	30	1
30 Mather St.	36	1
32 Mather St.	30	1
31 Mather St.	18	1
33 Mather St.	18	1
6 Sunset Blvd.	16	
45 Sunset Blvd.	11	
41 Sunset Blvd.	73	
Total	568	6

Multi-residential buildings or businesses may participate in the recycling program within the following guidelines:

• The Town of Perth offers curbside collection of "residential quantities" of organics (weekly), recyclable containers and paper (alternate week) and garbage (bi-weekly).

- For organics or recycling, "residential quantities" is deemed to be any amount up to one 360 litre roll-out cart of any given recycling or organic material stream, or up to 6 individual lifts (blue/yellow boxes or 2 small green bins) per collection.
- For garbage, up to 6 regular bins or bags are allowed, each of which must have a bag tag. Containers must be placed on or near the roadside where the contractor's vehicle can easily access it without having to back in.
- In order to use 360 litre containers, it is the responsibility of multiresidential building owners or businesses to purchase the containers, and to ensure that they are compatible with the contractor's lift arm.
- The Town attempts to maintain an inventory of blue and yellow boxes and green bins, as well as blue, yellow and black carts which are sold on a cost recovery basis.
- A maximum of two flattened cardboard bundles, no more than 30" x 30" can be set out by any given business for curbside collection.
- Larger amounts of cardboard are accepted free of charge at the municipal landfill site on Wildlife Road but they too must be clean and flattened.
- Businesses and industries can bring their large quantities of residential waste directly to the Perth Landfill site, paying the going tip fee.
- Bag tags are provided to landlords and single-residence taxpayers at a limit of 40 tags per household per year. Tags may be purchased thereafter at a cost of \$2.50 per tag.
- Additional carts and bins may be purchased from the Town on a costrecovery basis.

Table 3.2: Number of households in Town of Perth (2010)

	Households	Percent
Curbside	1587	54%
Multi-res	1326	46%
Total	2913	100%

Table 3.3: Number of households with municipal blue box program (2010)

	Curbside	Multi-res	Total
All households	1587	1326	2913
Households with municipal blue box program	1587	1326	2913
% with blue box program	54%	46%	100%

4. The project scope

The project scope included three main phases:

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

Each of the phases is discussed in the following sections.

CIF also provided funding support for the development of a new tender in the Town of Perth that included the change to two-stream collection from single stream collection and processing for an expanded list of recyclable materials. The implementation aspect of the project included expansion of the nature of materials included in the program (container collection).

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 Perth used MPAC, tax-roll, and local GIS data for basic information including addresses, owners, number of units, etc.

4.1.1 Sources & collection methodology

While some preliminary data can be collected by the methods discussed above, Town staff conducted in-person site visits to each building in May 2010 to collect detailed information such as how well the recycling program is 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.

The site visit form is found in the Appendices at the end of this document.

4.1.2 Database and completeness of data

The Town of Perth used an Excel database program to house the data collected from the site visits. Eighty-five percent (28 of 33) of multi-residential buildings in the Municipality were visited and data have been updated.

Table 4.1: Database summary

Buildings		Recycling provided by Town of Perth	Site visits completed ²	Data updated ²
28	33	33	28	28

Notes

Table 4.2: Carts in Dwellings with 6 Units or More (2009 & 2010)

Type of	# of Units	2009 Carts	2010 Carts	Total
Six-Plex (5)	30	1		1
Condo Apts.				
23 Rogers Rd.	26		5	5
19 John St.	18		2	2
103 North St.	20			
22 Welland St.	17		4	4
105 North St.	85		4	4
1830 Rogers Rd.	27		6	6
Apartments				
55 Drummond St. E.	7		2	2
10 Craig St.	19		5	5
29 Cockburn St.	7			
75-77 Harvey St.	57		8	8
99 Harvey St.	11		2	2
5 Rogers Rd.	23		7	7
23 Gore St E.	10			
27 Gore St W.	7			
29 Gore St W.	9			
38 Drummond St W.	7			
26 Drummond St W.	11			
8 Daines Pl.	19			
10-12 Daines Pl.	17	1	6	7
16 Harris St.	10			
18 Haggart St.	32		4	4
20 Haggart St.	30	1	4	5
16 Herriott St.	10		4	4
30 Mather St.	36	1		1
32 Mather St.	30	1		<u> </u>
31 Mather St.	18	1		1
33 Mather St.	18	1	2	3
6 Sunset Blvd.	16		1	1
40 Sunset Blvd.	6		2	2
45 Sunset Blvd.	11		4	4
41 Sunset Blvd.	73			
Total	687	6	72	78

 $^{^{\}scriptsize 1}$ Total number of buildings of six or more residential units.

 $^{^{2}}$ Site visits and data updates were completed at all buildings where access was permitted.

4.1.3 Data maintenance

The Town of Perth used follow-up surveys, by a combination of phone, email and site visits to update the multi-residential cart database after rollout of the program. Going forward, the database will be updated when a landlord or building supervisor purchases additional blue or yellow carts or bins. The backup data is derived from work orders which are created for these purchases.

As Perth is such a small market, the numbers do not warrant a larger investment in a statistical database program or in detailed replicable surveys, etc., such that larger programs could allow.

4.1.4 Barriers to Recycling

During site visits to multi-residential buildings in Perth several barriers to recycling were observed. At eleven of the 28 buildings visited, different carts were required to enable the new contractor to pick up recycling. In 10 buildings it was difficult for the operator to access the recycling bins. Recycling was stored in an exterior building at 11 buildings, resulting in reduced access by residents. In six of the 28 buildings, there was limited storage space for recycling, resulting in overflowing bins or lack of participation by residents. See Appendix III for site visit data.

Table 4.3: Barriers to recycling (Site Visit to 28 Buildings)

Barrier to increased recycling	Require corrective action	% of total	Set high standard model	% of total
No problems noted	12	43%	16	57%
Difficulty with collection by new contractor	11	39%	17	61%
Operator Access to empty Bin	10	36%	18	64%
Exterior Building	11	39%	17	61%
Limited Interior Storage Space	6	21%	22	79%

4.2 Phase 2: Increase recycling container capacity

Site visits provided the opportunity to determine if additional containers are required and where additional containers would be stored and ultimately used.

4.2.1 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. The Town of Perth program used 360L (95 gallon) carts, purchased by unit owners from the town at a 50% reduction, thanks to CIF funding. Any additional carts are available at \$90/unit. Containers are available in blue and yellow for fibre and container recycling. See Table 4.4 for capacity summary.

4.2.2 How much recycling capacity is being provided?

Based on the provincial target of recycling 70% of all recyclables 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 (95 gallon) carts – one cart for every 7 residential units.

Seventy-two (72) 360 litre carts were purchased for distribution to multi-residential buildings in the Town of Perth. As of this writing, 72 blue and yellow carts have been purchased by various units, along with 6 which were in use prior to implementation of the new program. This would be equal to 78 carts for 686 units in the Town of Perth, which does not meet the suggested capacity of 50 litres per unit. However, this does represent a 1077% increase over cart use at these buildings prior to 2010! Also, residents at these units received a total of 255 blue and yellow collection bags to transport recyclables to the carts.

Table 4.4: Total number of recycling containers

	Baseline February 2010	Post implementation December 2011
Units with recycling service	568	686
360 litre carts	6	78
Total program capacity in litres	**2160	**28080
Capacity per unit (I/unit)	*3.8	*40.93

^{*}A 95 gallon cart is 360 litres. **A cubic yard is 765 litres.

4.3 Phase 3: Provide promotion & education materials

4.3.1 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.

A letter was sent to each landlord to promote the program. An opportunity was given to purchase a 360 litre recycling cart in blue or yellow at a special subsidized price for a limited time, with purchases thereafter on a cost-recovery basis, to an upset limit of 1 blue or yellow cart per 7 units. Thirteen multi-residential and/or business owners received rebates for purchases of these carts. Special laminated signage was provided to go over each cart indicating what could be recycled into the blue and yellow carts, with laminated paper stickers to be placed on each cart purchased. Promotional materials which were distributed to each unit included two (blue and yellow) durable reusable recycling bags and a customized Apartment Recycling Info Card. As well, a bookmark was sent with each utility bill. The promotional efforts resulted in purchases of 72 new carts in total for 33 buildings. Purchases continue due to word of mouth and the success of the promotion and education program.

5. Project budget and schedule

Table 5.1 Project budget, planned and actual

Description	Unit	Quantity (est.)	Unit Cost (est.)	CIF Approved (upset limit)	Cost
Site visits, performance evaluation, build database, distribute P&E materials, considerations: • approx. 22 building, 500 units (average 22 unit/bldg.)	Building	22	70	770	770
Provide 95 gallon carts for buildings of 6 or more units: • provide minimum of 50 litre capacity per unit • minimum of 2 carts per building for 2 streams • quantities are estimated, includes delivery & labels • 2 stream program, blue cart for fibres, yellow for co-mingled,	Cart	100	55	2750	3337
P&E print cost: • Posters, signs, flyers, super's handbook	Printed materials	Est.	750	750	767
In unit bags: • 2 per residential unit • 1 yellow, 1 blue	Recycling bag	1000	2.5	1250	843
Final report: • lower cost due to small program	Report	1	1000	500	500
Total				\$6,020	\$6,217

The cost of carts was more than budgeted. This was due to the fact that yellow carts were more expensive than expected because of the unique die casting required for that particular colour.

Table 5.2 Project schedule, planned and actual

Project Deliverables	Planned	Actual	Percent Complete	Expected Completion Date	Completion Date
Site Visits	22	28	127%	October 2010	October 2010
Print P&E materials	22	25	101%	November 2010	November 2010
Distribute containers	44	71	161%	November 2010	April 2011
Submit final report	1	1	100%	December 2010	August 2012
Percentage	100%		100%		

6. Concluding comments

Thanks to support by the Continuous Improvement Fund and Waste Diversion Ontario, the multi-residential recycling program in the Town of Perth has been a great success.

During the campaign, site visits were made to 28 buildings to evaluate the needs of each building and a database was developed for these buildings. The number of recycling carts increased by 72 to 78 in total, resulting in a significant capacity increase at multi-residential buildings. Promotional and educational material was distributed to landlords and tenants to increase awareness of the program. Most buildings in the Town of Perth are now using blue and yellow carts for recycling fibre and containers, thereby diverting waste from the Municipal landfill. This is a cost and environmental benefit for the multi-residential program and also for the Town of Perth as a whole.

7. Appendices

P&E Material Photos Site Visit Form

Appendix 1 - P & E Materials Distributed





www.Perth.ca or 613-267-3311

• Telephone backs







Appendix II – Photos of Multi-residential containers

