



City of  
Peterborough

# **PUBLIC SPACE RECYCLING**

## **Project #565.7 (Best Practices)**

Prepared For:

Waste Diversion Ontario

Continuous Improvement Fund Office

92 Caplan Avenue, suite 511

Barrie, Ontario L4N 0Z7

Prepared by:

The City of Peterborough

500 George Street North

Peterborough, Ontario

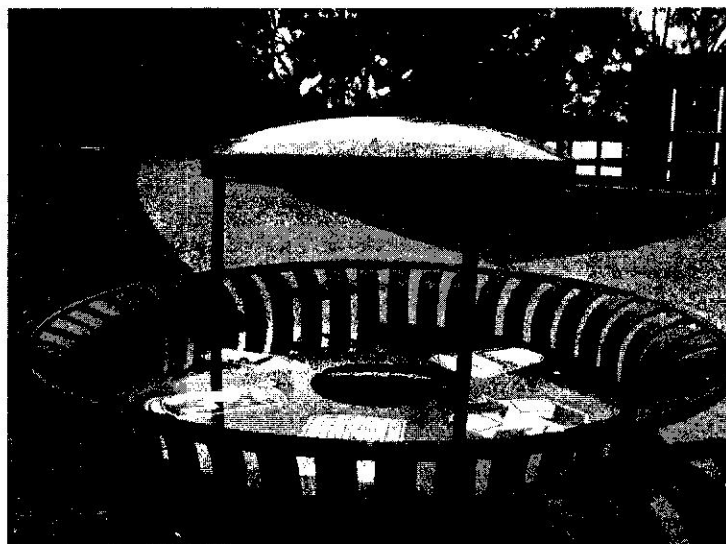
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# CURRENT SITUATION - OVERVIEW

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The City of Peterborough is located along the Trent Severn Waterway, on the Otonabee River in Central-Eastern Ontario. It has a population of 75,000 people. Peterborough has a very successful 2-stream recycling system, which includes weekly collection from all households and small businesses. It is also blessed with 30 kilometres of multi-use trails, which are heavily used for recreational and commuting purposes. Many of the trails are paved, and have directional signage, benches, washroom facilities and garbage receptacles for users' convenience. The Trans-Canada Trail crosses the City in an east-west direction, mainly along an abandoned rail corridor. This trail is an integral part of the City's transportation system, running right through the downtown core and beyond in both directions. The Rotary Greenway Trail runs in a north-south direction, along the east bank of the Otonabee River, and covers almost the entire length of the City. Several more trails branch off these two main corridors, rounding out an extensive, well-connected network that helps to make Peterborough a great place to walk and cycle.

The City has never had permanent recycling receptacles available along its trail system. Therefore, in reaction to a high demand for these services from the public, and to increase the city's diversion of recyclables, it was decided to apply for CIF funding for support of a Public Space Recycling project. The application was approved in April 2011 (Project #565.7), for 41% of all recycling-related costs associated with the project, to a total of \$6,830.00 including tax. The project consisted of researching the most appropriate recycling / garbage receptacles, and identifying the best locations to place them along the trail system. The report outlines the particulars of the project, which was carried out between March – October, 2011.



# GOALS & OBJECTIVES

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## Goals

To provide recycling receptacles for trail users in Peterborough, thereby increasing the collection and recycling of materials in public spaces.

## Objectives

1. Purchase as many containers as budget will allow, to go at strategic trail locations.
2. Increase recycling diversion in the City
3. Increase the visibility and awareness of recycling in public spaces
4. Satisfy demand of residents for more public space recycling opportunities

## Tasks

1. Continuous Improvement Fund (CIF) Application for Public Space Recycling Program Project #565.7 (Best Practices)
2. Talk to various departments regarding project i.e. Planning regarding Peterborough's direction and Transportation about busiest locations
3. Quotations for Recycling and Garbage receptacles
4. Purchasing of Receptacles
5. Work with Public Works regarding collection of materials and installation of receptacles
6. Work with a designer to create graphics for the receptacles
7. Install the receptacles
8. Place the graphic stickers on the recycling receptacle
9. Evaluation of the receptacles

# BEST PRACTICES FOR PUBLIC SPACE RECYCLING

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## ***BEST PRACTICES FOR PUBLIC SPACE RECYCLING***

- *Clear & Consistent Signage*
- *Placement of the Recycling Bins*
- *Design of the Recycling Bins*
- *Communication with Park Staff, Vendors and Collection Crews*

### **BEST PRACTICES FOR PUBLIC SPACE RECYCLING**

Stantec Consulting Limited conducted a review to identify potential best practices for recycling in public and open spaces. These best practice principles were used in Peterborough as guidelines for our Trail Recycling / Trash bins.

#### **Clear & Consistent Signage**

In most cases, the majority of people using these containers are local residents who frequently use our trail system. Although, it was noted that Individuals using the new trash/recycling bins along the trails may not be from Peterborough and therefore, not aware of recycling practices in Peterborough. Peterborough has a large number of tourists in the summer months and two post-secondary institutions (Trent University and Sir Sanford Fleming College). Therefore, graphic stickers of recyclable materials were placed on the top of the lids of each recycling bin. The stickers depict an aluminum can, coffee cup, pop bottle, juice box and the international symbol for recycling, the mobius loop.

#### **Placement of the Recycling Bins**

A team was formed to discuss the placement of each of the ten (10) bins. The team was comprised of City of Peterborough Staff from Parks, Public Works, Transportation and Waste Management. Dialogues regarding the trail locations and proximity to washrooms; intersections; children's playgrounds and trailheads (where more than one trail meet) were held to identify areas with high traffic flow. The City of Peterborough Parks department was able to provide valuable information as to where increased amounts of waste are picked up. Discussions also included the placement of the bins for collection during the winter months as sometimes this is an issue.

### Placement of the Recycling Bins (Continued)

The trash and recycling bins have been permanently fastened to concrete flooring. Bins were placed side-by-side to avoid the possibility of a user missing the recycling bin if it was placed back-to-back. The waste bin is paired with the recycling bin to avoid contamination. This has been identified as the best way to obtain recyclables, but keep contamination minimized. We did not target recyclable fibers, as it was felt the quantity would not warrant a separate bin.

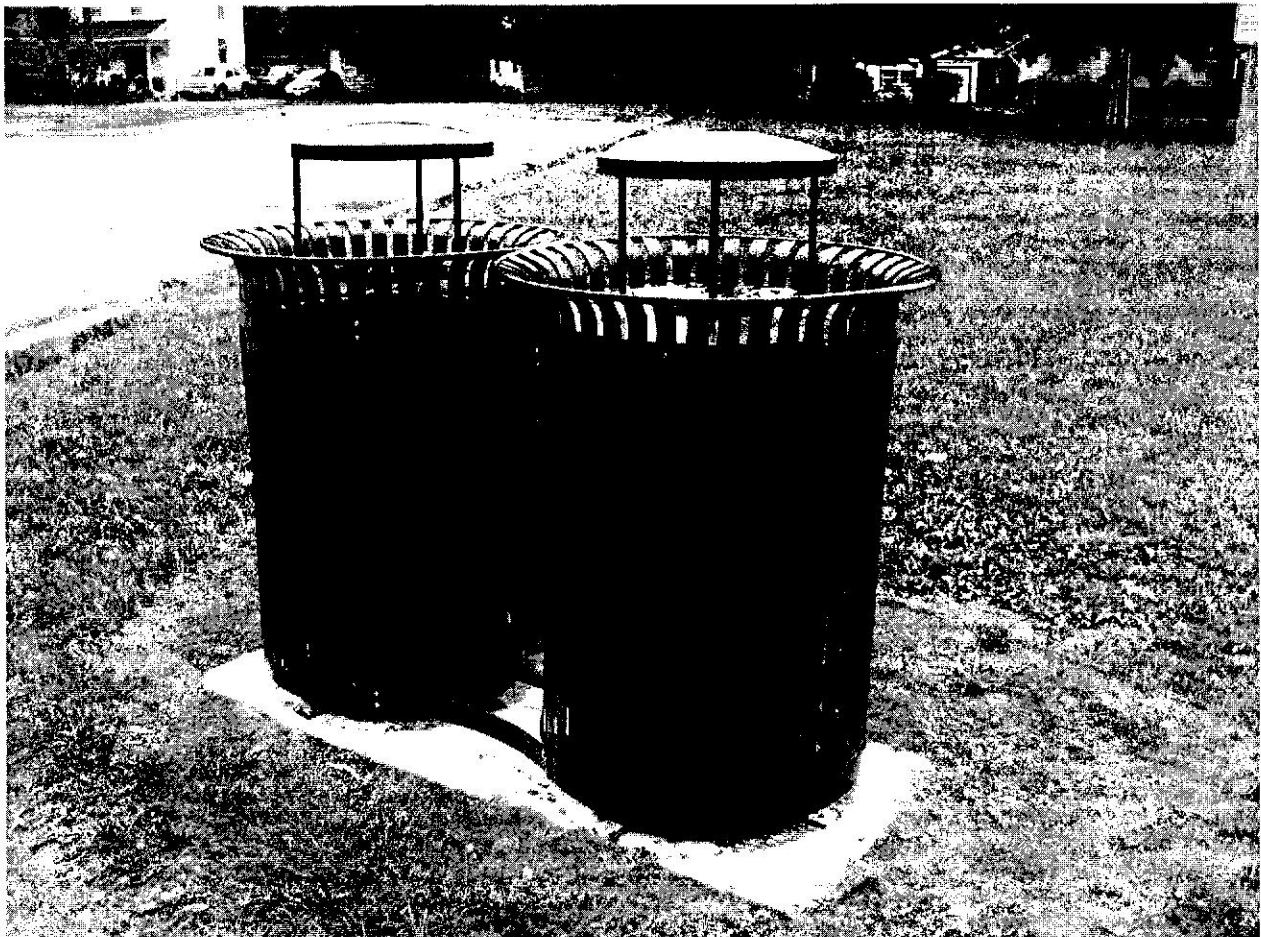
It was felt that the ten (10) sites chosen were high traffic areas and would generate the greatest concentration of waste and recycling. The bins were placed at trailheads whenever possible, so that more than one trail could take advantage of these bins. Bins were also placed close to washrooms and children's playground whenever possible. Collection during the winter months can be challenging, therefore, this was also a factor in the location of the bins. A map of Peterborough and the trail system as well as the 10 trash / recycling bins can be found on the last page of this report (Appendix A).

**TABLE 1: Description of Receptacle Locations**

Bin #	Site	Trail	Description
1	Rogers Cove	Rotary Trail	North side of trail next to the parking lot by the washrooms
2	Beavermead	Rotary Trail	Trail head intersection (across from washrooms)
3	Hazlitt Street	Rotary Trail	North-east corner at the trail intersection
4	Armour Road	Rotary Trail	Near the post at the Rotary Greenway Trail crossing
5	Parkhill Road	Rotary Trail	South of Parkhill Road and east side of the trail (by Inverlea Bridge)
6	Hilliard Street	Rotary Trail West	South-West corner of Hilliard and George Streets (between the trail and sidewalk)
7	Monaghan Road	Crawford Trail	North-West of trail at the sign (by the CIBC)
8	Hilliard Street	Parkway Trail	West of Hilliard and south of the trail (same side as St. Paul's School)
9	Chemong Road	Parkway Trail	West of Chemong and south of trail
10	Bonaccord Street	Trans Canada Trail	North of Bonaccord and east side of the trail (outside of gate)

### Design of the Recycling Bin

The bin design chosen by The City of Peterborough is currently used in numerous parks across the City and we wanted to keep the look as consistent as possible. The bins have a 32 gallon liner for each, one for recycling and one for trash. They are made from galvanized steel and finished with a durable powder coat paint. The bins are equipped with anchor bolt mounting tabs to deter theft or vandalism and are permanently fastened to concrete flooring. They have a convex, recycling / waste lid with a large steel bonnet top (blue lid and bonnet top for the recycling lid and a black lid and bonnet top for waste). The convex lid is designed so that water and snow will slide away from the opening. The protective canopy will limit rain and or snow entering the containers. The garbage container opening is much larger (6 inches) than the recycling container opening (4 inches) ensuring that garbage will not fit into the recycling opening.



## SWOT Analysis

### Strengths

- Working with various City Department's and getting information regarding the bins that are part of the streetscape improvements image as well as staff knowledge and experience.
- The bins are very nice and appealing and the graphics are easy to understand
- Beautifully maintained trails along Peterborough that are very well utilized.
- Bins compliment the benches purchased at some parks around the City.
- CIF Funding which we are able to purchase more bins with the money
- Public Works collects from same bins at Veteran's Park so are familiar with the design
- Increase recycling diversion in the City and satisfy the demand for more recycling in public spaces by the residents

### Weakness

- Time constraints with staff
- Budget to purchase more bins
- Collection is inconsistent in the Winter months

### Opportunities

- More recycling and less waste to the landfill – extending the lifespan of the landfill
- Connect with the Community
- Increased revenue from the sale of recovered recyclable materials
- Eliminating litter along the trails
- Create social norms – environmental sociology

### Threats

- Compliance by the public
- Vandalism - graffiti on bins (hopefully will not happen)
- Contaminated recyclables

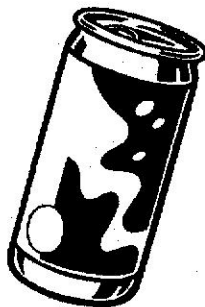
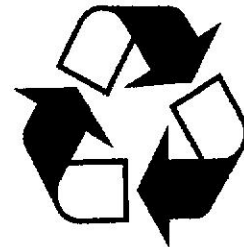
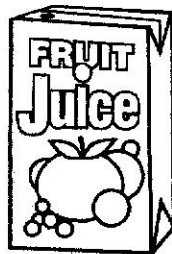
# MESSAGES & FREQUENCY OF MESSAGING

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## Clear & Consistent Signage

High quality graphic stickers that list acceptable materials were placed around the bin container lid. These images clearly indicate the types of waste that should be deposited into the recycling bin. This was critical to achieving increased diversion rates as well as low contamination. Unacceptable materials were not listed on the containers.

The colour chosen for the lid and canopy in Peterborough for the bin was the recycle blue. The graphic stickers were done in white / blue. The mobius loop was included as one of the stickers.





# COMMUNICATION CHANNELS & TOOLS

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## Communication with Park Staff, Vendors and Collection Crew

The City of Peterborough Waste Management Division has an excellent working relationship with City Parks, Public Works and Transportation staff. A team was formed to include members from each of these divisions. The Park staff and collection crews are very knowledgeable and were a critical part in the placement of our bins.

The waste / recycling collection of the bins are done weekly. All the trails, with the exception of Hilliard Street by St. Paul's School, had only a garbage barrel at each location before the project. Therefore, all recycling collected at these sites is a 100% increase from before the new containers were installed.

Upon speaking with the Parks Department, they have noted that the recycling bins have been  $\frac{3}{4}$  full each week with little contamination.

## Ongoing Tools for all Residents in the City of Peterborough

### Fridge Magnet & Notepad

- A fridge magnet and notepad that lists the Waste Management department information has been purchased for residents of Peterborough.



### Website Information

- The City of Peterborough Waste Management website provides program and service changes, seasonal programs and program highlights. The site includes a designated area for resident comments or questions. Links to our website can also be found on the websites of local environmental groups and neighbouring municipalities.

### Radio Campaign

- The City of Peterborough is currently partnering with the County of Peterborough and producing radio advertisements promoting recycling. These advertisements are heard numerous times during the day.
- The December campaign is an impostor's type ad focusing on Christmas items (bows, foil, balls of tape etc...) and "holiday" items that belong in your blue box. This radio advertisement is very similar to the newspaper advertisement that The City and County are planning on running this Christmas season.

#### Telephone Queries

- Residents are able to call one dedicated telephone number for questions or report issues. Staff will provide assistance or re-direct the call for action and follow-up.

#### Annual Waste Reduction & Conservation Calendar

- An annual calendar is produced each year by the City of Peterborough Waste Management department. The calendar is full of waste diversion, energy and green tips and information. It is distributed in December through local newspapers and is free to every household. It is also found on The City's website.

#### Waste Management Guide

- This guide provides valuable information regarding all waste programs and services in the City of Peterborough. This guide is also free to every household. The guide is updated as deemed necessary, usually every year or two and is distributed to residents through the local newspaper.

#### Newspaper Advertisements

- To coordinate with our radio advertising, an advertisement has been designed for insertion into our local newspaper.
- A new cart label (for our multi-residential buildings) design will also be used (sometime in 2012) as a template for an advertisement placed along the bottom or top of the newspaper. Signs of a similar design are also going to be used as directional tools at our MRF Drop-Off Depot to give residents an easy to read, visual guide.

**THAT'S A WRAP!**

As the holiday season wraps up for another year, remember to recycle everything you can from your Christmas celebrations.

<b>RECYCLE: ✓</b>	<b>GARBAGE: ✗</b>
♻️ GREETING CARDS	✗ BUBBLEWRAP
♻️ REGULAR WRAPPING PAPER	✗ PLASTIC "BLISTER PACKS"
♻️ TISSUE PAPER	✗ METALLIC OR CELLOPHANE WRAP
♻️ CARDBOARD PACKAGING	✗ RIBBONS AND BOWS
♻️ BULKY STYROFOAM*	✗ CARDS WITH A PLASTIC COVER

\*Bulky Styrofoam can be taken to the 24/7 Pido Road Drop-Off Depot. Please use clear plastic bags to transport if possible.

#### Corporate Communications

- The telephone system for the City of Peterborough "On-Hold Message" provides information about recycling as well as Waste Management services.

#### Tax Bill Inserts

- The Waste Management department takes advantage of this free communication tool whenever possible. The tax bill is sent to all residents of Peterborough and is a great way to get important information and messaging out to the residents of Peterborough.

#### Media Releases and Public Service Announcements

- These releases are regularly done for new programs and services. They are also used to notify residents of collection changes and the beginning and ending of programs (i.e. green waste collection).

#### CHEX

- Whenever possible, usually quarterly, the local television station does advertisements with the Waste Management Department about seasonal messages.
- A segment will be done to promote the new bins along our trail system in the Spring of 2012. Due to the installation of the bins in October it was felt that the Spring would be a better time to promote these bins rather than in the Winter months when the trail usage declines.

#### Local Welcome Wagon

- This local group has offered to give new residents of Peterborough a package of our Waste Management information. This group currently gives each new resident a blue recycling bag, waste management guide, calendar and Stream 1 & 2 brochure. They also inform the new resident that they are entitled to a new blue box to be picked up at City Hall.
- Welcome Wagon also distributes a map and guide that lists all the trails in Peterborough.

#### OMG Recycling Containers in Downtown Peterborough

- The City of Peterborough is in the midst of producing display advertising on the front and back of the recycling / trash containers in the downtown core.
- The messaging on these containers will be "Plastics Is In" (a multi-municipal blue box campaign recently done with Stewardship Ontario).

# SCHEDULING

**TABLE 2: Schedule of Tasks to be Performed for Project**

TASK	DETAILS	TIMELINE
Continuous Improvement Fund (CIF) Approvals	Public Space recycling Program Project #565.7 (Best Practices)	April 2011
Research	<ul style="list-style-type: none"> <li>- Talk to Planning Department regarding the City's direction</li> <li>- Talk to Public Works regarding collection</li> <li>- Talk to Parks regarding placement</li> <li>- Talk to Transportation about high traffic trails</li> <li>- Get approvals in department to go ahead</li> </ul>	March / April 2011
Quotations	Get 3 quotations from vendors – Purchasing By-Law in Peterborough requires three	March 2011
Purchase Containers	Do purchase order for containers	April 2011
Public Works	Get pricing for installation of containers	April 2011
Graphics	Get quotes and graphics from vendors for stickers for the bins	April 2011
Parks Department	Drive to each site to see if it is suitable and pick exact location of bin at that site	September 2011
Installation of Containers	Public Works made concrete pad and installed each container	October 2011
Installation of Graphics	Placement of stickers on each bin	October 2011
Evaluation	Talk to Collection Crew regarding the amount of recycling materials they are picking up	November 2011
Future Evaluation	Waste audits of trail recycling and garbage receptacles	Summer 2012

When the containers arrived at our Public Works site, it was noticed that every container had a recycling blue lid and bonnet. The garbage container was to have a black lid and black bonnet while the recycling container was to have the recycling blue lid and bonnet. Therefore, the vendor took the garbage containers back and fixed them – so there was a delay of a month in the installation of these bins to the trail locations.

The Hilliard Street (By St. Paul's School) container has not yet been installed due to major construction at this site and the closure of the road. This container will be installed in the Spring of 2012.

It would be wonderful if we could purchase more of these containers along our trail system in Peterborough.

# BUDGET

## PURCHASING

The City of Peterborough purchased ten (10) Wellington Trash / Recycling Containers from King Luminaries Burlington, Ontario. The details:

- 32 gallon liner for each bin – recycling and trash
- made from galvanized steel
- bins that are permanently fastened to concrete flooring
- permanently secured, convex, recycling / waste lid
- large steel bonnet top
- blue lid and bonnet top for recycling lid and black lid and bonnet top for waste

These bins were purchased because we have these same bins in our Veteran's Memorial Park and these bins would compliment the current ones at this park. The Planning Department at the City of Peterborough is considering purchasing more of these bins to further compliment the City surroundings.

**TABLE 3: Project Costs**

ITEM	QUANTITY	COST	CIF FUNDING	COST TO PTBO
Wellington Trash Receptacle	10	\$9,985.00	\$0.00	\$9,985.00
Wellington Recycle Receptacle	10	\$9,985.00	\$4,093.85	\$5,891.15
Graphic Labels	14	\$385.00	\$157.85	\$227.15
Concrete Pad & Installation Costs	10	\$5,732.24	\$2,350.20	\$3,382.04
<b>SUBTOTALS</b>		<b>\$26,087.24</b>	<b>\$6,601.90</b>	<b>\$19,485.34</b>

This project has been granted 41% of the blue box related project costs up to a maximum of \$6,830.00 including taxes, in funding from the Continuous Improvement Fund.

# EVALUATION

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As the recycling bins are new to the trails and previously only had a garbage barrel before these bins were placed, the recycling is 100% more than collected previously. The collection crews are reporting that the bins are  $\frac{3}{4}$  full each week. We plan to conduct waste audits of the material during the Summer of 2012 when the trails are more heavily used.

It is unfortunate that the bins were installed in October as the "high" seasons (Spring and Summer) for collection along the trails was missed. While placing the recycling stickers on the bins, many residents commented on how nice the bins were and how happy they were that they had been installed.

Further evaluation of these bins and the collection will be ongoing.

## APPENDIX A

