

**Municipality of West Perth Blue Box Enviro-Net Pilot Project
E & E Fund – Project no. 289
Final Report
October 2008**

Stewardship
ONTARIO



This Project has been delivered with the assistance of Stewardship Ontario's Effectiveness and Efficiency Fund, a Fund financed by Ontario municipalities and stewards of blue box waste in Ontario. Notwithstanding this support, the views expressed are the views of the author(s), and the Association of Municipalities of Ontario and Stewardship Ontario accept no responsibility for these views.

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Background

West Perth is a primarily rural municipality with a population of approximately 9,000. The municipality receives 2-stream collection services from Bluewater Recycling Association (BRA).

The Municipality was approached by Concept Enviro-Net, a Montreal-based supplier of a flexible netting-type lid for blue boxes. The nets were touted by the supplier as a practical and economical solution to the litter problem caused by blue box materials and to the lack of blue box capacity. The municipality of West Perth received funding support from Stewardship Ontario's E&E Fund to pilot the nets and to test their effectiveness in preventing roadside litter, especially on busy roadways where blowing Blue Box material is an issue, and in increasing capacity and capture.

It should be noted that the Town of Markham ran a net pilot project simultaneously as West Perth's pilot. The pilot was run on a larger scale (1,940 households) and it tested a lid manufactured by NUCOVE, based out of Aurora. The results are documented under E&E project 286. The Region of Peel was planning on piloting the same lids on 1,200 households back in the Spring of 2008, but this was put on hold pending contract renegotiation discussions with its collection contractor.

In Quebec, at least two Montreal-area burrows have made the Enviro-Net available to their residents. In Outremont, one net was directly handed out to 150 households. Staff¹ indicated that the primary driver for the nets was litter control and that they were very effective in this sense. It was also indicated that a welcomed side-effect of using the nets was increased capacity. Although no quantitative monitoring was carried out, according to the collection contractor, residents who use the net put more material in their Blue Box. Notwithstanding this, the pilot was not carried forward because of the contractor's position that the nets required additional work on their part, and their demand that the collection contract be augmented by 50 to 75% to account for this.

In Ville Mont-Royal, the same model of net was initially distributed directly to householders by summer students and subsequently made available to residents at City Hall. Although no data on the number of nets currently in use is available, the staff person² indicated that residents' overall appreciation was positive. As in Outremont, the main driver for their use was litter control.

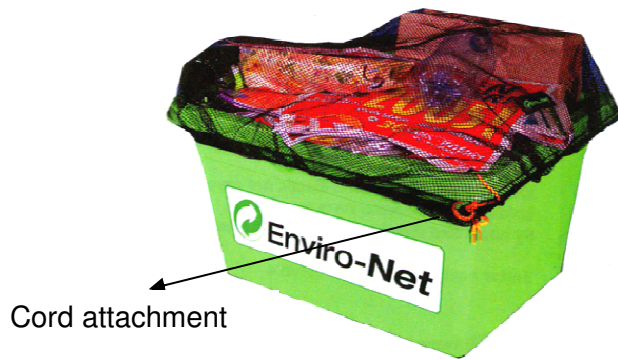
How the net works

The net comes with a cord (similar to a sturdy shoe string) attached to it, sewn into the edge binding. The cord is then attached to the blue box by threading it through a hole anywhere along the top edge of the box and tying it with a knot. Most boxes already have existing small holes in the top edge and if necessary a small hole could be drilled. When the collector removes the net, it stays fastened to the box.

The net is shown in the illustration below.

¹ Alain Leduc, Environmental Advisor, City of Montreal

² Christiane Séguin, Works Department, Ville Mont-Royal



Project Details

The Municipality purchased 1,000 blue box nets in December 2007. Residences located along highways 8 and 23 (rural) and streets on the outskirts of Mitchell (urban) were targeted for use of the nets. See Appendix 1 for a map of the targeted areas.

Nets were available for purchase at the municipal office for a nominal fee of \$2 each. In order to provide an incentive to residents to purchase the nets, they were informed that the purchase fee would be refunded upon completion of a user survey – in effect making the nets available free of charge. The survey period was to cover the winter and spring months thereby covering a wide variety of weather conditions.

Program Promotion

Residents were notified of the availability of the nets through two ads in the local weekly newspaper, the Mitchell Advocate, on December 19, 2007 and January 9, 2008 (see Appendix 2). The newspaper estimates its circulation at that time was approximately 2,400 households, and that 75-80% of these are located in West Perth. According to Statistics Canada, there are 3,141 households in West Perth, so the add would have potentially been seen by 61% of the town's households.

A notice was placed on the municipal website (see Appendix 3) and an article appeared in the local newspaper on January 16, 2008 (see Appendix 4). A demonstration of the nets was given at the annual spring home and garden program and an exhibit was set up to display a blue box with a net covering. In early January, 495 letters were mailed to residents who lived in the targeted areas. Letters were further mailed to those who had purchased a net, requesting them to fill out a survey at the Municipal office and receive their \$2 refund.

Program Results

The number of nets purchased by residents fell far short of what was anticipated. As of April 2nd 2008, only 154 nets had been purchased by 111 households and businesses. In early April, West Perth Council decided not to distribute nets free of charge in order to achieve a more defined monitoring area. Council members felt that the low uptake of the net did not warrant the net and postage expenditure.

It was originally thought that recycling weights provided by the collection contractor would be monitored to determine the impact of the nets, if any, on capture rates. However, the contractor, Bluewater Recycling Association (BRA), reported that the small number of nets in use and their dispersion over a wide area would have a negligible impact on recycling rates. Any noticeable changes in tonnage would instead likely be attributable to other factors such as weather variability and the LCBO bottle deposit program (which came into effect at the same time as this pilot project).

In the absence of tonnage data, one alternative would have been to conduct a visual assessment of pre- and post- box fullness for those households using the nets. Unfortunately, this was not possible due to staffing limitations.

Collection Efficiency

The collection contractor provided a number of negative issues associated with collection efficiency, including:

- Increasing collection time to remove nets
- Increased spillage at removal because of overfilled boxes
- Users either attached net incorrectly or not at all
- Some users who cut a small hole in center of net making removal of items difficult
- Overfilled boxes not sorted (i.e. increase in contamination between streams)

One positive comment noted by the drivers was that there was less spillage from boxes before collection if they had been turned over due to snowplowing or high winds.

From a collection efficiency point of view then, the assessment of the net pilot is overall negative. Instead of nets, BRA favours addressing the capacity issue through the provision of additional containers or carts, recognizing this is a more expensive alternative. It should be noted that BRA has decided to move to a cart-based collection system, addressing both issues of capacity and litter. The Association launched its first cart program in October 2008 in the Town of St. Marys, and plans to convert approximately 90% of households to the new collection system over the next four years.

Survey Results

There were a total of 53 survey respondents, just under half of number of individual household net users. The average length of net use by survey respondents was just under 3 months. Respondents were asked to indicate their level of agreement with a number of statements regarding the nets on a scale of 1 to 5 (1 = strongly agree; 5 = disagree).

A copy of the survey is available in Appendix 5. The main survey findings are as follows. The numbers in brackets indicate the number of respondents. Please note that some respondents did not answer all of the survey questions.

Statement	1 Strongly Agree	2	3	4	5 Disagree
The enviro-net was convenient and easy to use.	81% (43)	11% (6)	2% (1)	6% (3)	0
The net helped to increase the amount of material in the blue box	75% (40)	11% (6)	4% (2)	8% (4)	2% (1)
The net helped to keep materials contained in the blue box.	83% (44)	6% (3)	9% (5)	2% (1)	0
The enviro-net was durable, the quality was good.	83% (44)	9% (5)	8% (4)	0	0
I would recommend the enviro-net to other blue box users.	84% (43)	4% (2)	6% (3)	6% (3)	0
Using the enviro-net made the household more conscious about recycling and waste reduction.	38% (20)	17% (9)	23% (12)	9% (5)	13% (7)
This project inspired our household to look at other waste diversion options.	21% (11)	25% (13)	31% (16)	10% (5)	13% (7)
I plan to continue using the enviro-net.	82% (41)	6% (3)	10% (5)	0	2% (1)

The majority of respondents (49 respondents - 92%) felt the net was convenient and easy to use and it helped to increase the capacity of their blue box (46 respondents - 86%). A large majority of respondents (89%) felt the net helped to keep materials contained in the box. Several users (24) commented specifically that the nets were an excellent tool to prevent items from blowing out of the box.

A sample of general comments provided by survey respondents is reproduced below:

- “We live on the highway so it is very useful in helping the materials stay in the box and not blow down the road.”
- “Very applicable for preventing wind blowing papers and light materials off site.”
- “The best thing is that when the big trucks go past, the pop cans now stay in the box.”
- “It was terrific in the country with our constant wind – kept light things contained.”
- “The netting was easy to use; the tie-up is a good idea.”
- “Good project. All should be encouraged to use it.”
- “Stuff stayed in the box easier, it stretches nicely.”

Net Durability

The short survey period (three month) does not allow any conclusion to be drawn on the net's durability. The net appears to be strong and durable. The Town of Ville Mont-Royal has been using the Enviro-Net for over two years and reports only having to replace one net because of overstretching in that time period.

Cost benefit analysis

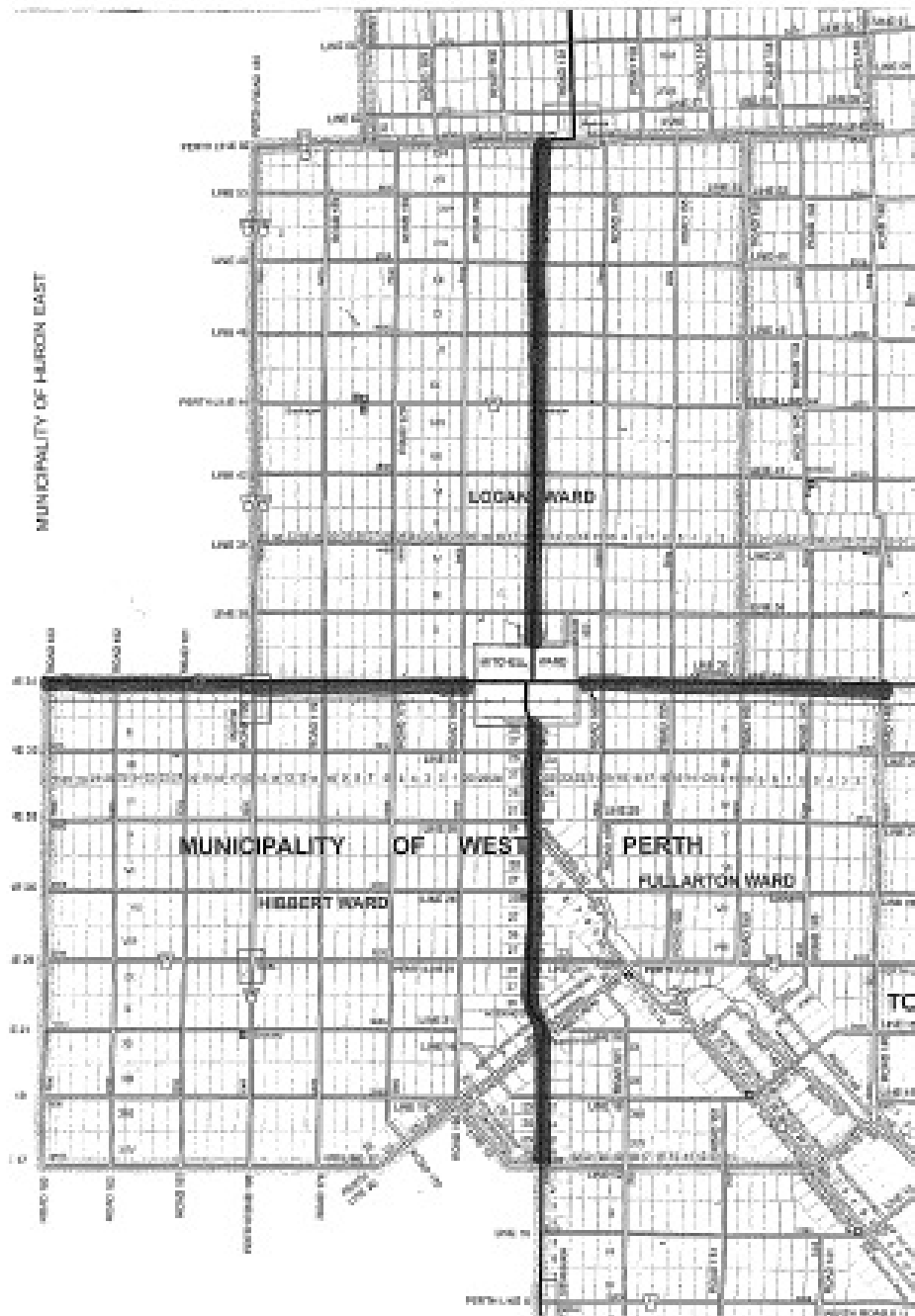
Due to the limited number of nets in use it is not possible to carry out a cost benefit analysis. Compared to the \$8 purchase price of an additional blue box – which is prohibitive to some residents – a \$4 price tag for a net covering for an existing box is considered economical.

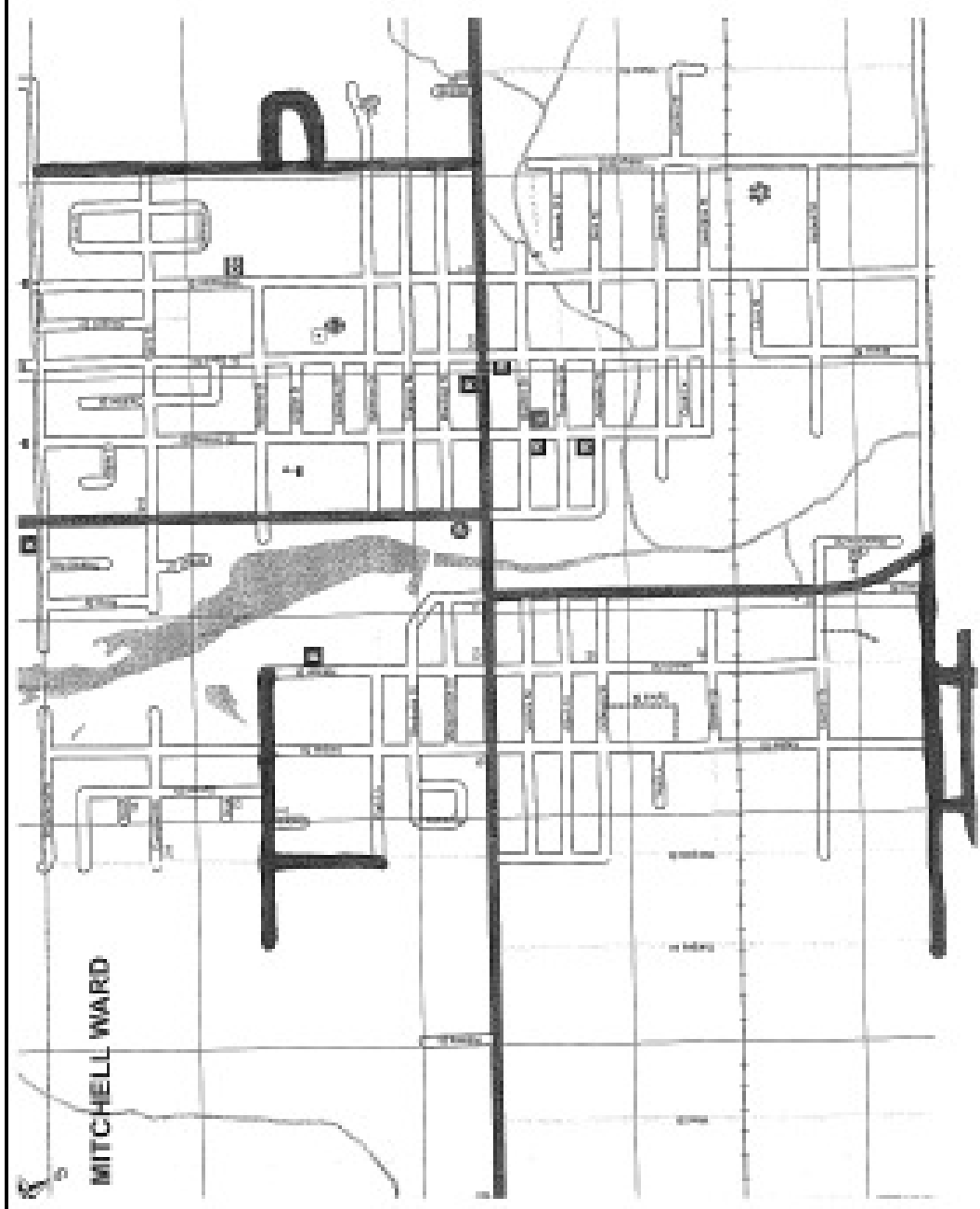
It is difficult to establish a cost benefit analysis of reduced litter as most property owners would collect the wind-blown litter from their property. The collection of litter on public property would be reduced with the use of the nets and thus reduce time and expense required by municipal staff.

Recommendations

Based on the results of this pilot project, the main benefit of the nets appear to be a reduction in wind-blown litter. Whether the nets actually provide additional blue box capacity and contribute to a greater capture of recyclable materials, remains to be seen. More monitoring is needed to draw meaningful conclusions. Such monitoring requires that a much larger number of nets be in use in a defined target area. To ensure such uptake, it may be necessary to deliver the nets free of charge directly to the householders.

Appendix 1 – Targeted pilot areas





MITCHELL WARD

PLACE IT! SELL IT!

(51)

classifiedextra

www.mitchelladvocate.com

Mitchell Advocate

Classified Rates

Get Quick Results...
call

348-8431

Deadline...
9:30 a.m. Mondays

- 1 Insertion... *8.00*
- 2 Insertions... *7.50*
- 3 Insertions... *7.00*

*based on 25 words per ad - extra words for 20¢ each.

1 For Sale



Municipality of West Perth

Now Available:

NEW! Flexible net covering
for your blue box

Prevents recyclables from blowing out
of the box and increases capacity.

Pick up your net for \$2 at the
Municipal Office.

169 St. David St, Mitchell
(Any questions call 519-348-8429).

You will receive a full refund when
you come in to the office to complete a
short survey after 4-6 months of use.



Pillow Top

\$999

17 Apartments

**NOW AVAILABLE:
New! Flexible net covering for your blue box**



Prevents recyclables from blowing out of the box and increases capacity.

Pick up your net for \$2 at the Municipal office, 169 St. David St., Mitchell

(Any questions: Call 519-348-8429)

You will receive a full refund when you return a short survey after 4-6 months of use.

Local News

Pilot project aims to reduce litter, increase recycling in West Perth

HILARY LONG
writes

The Municipality of West Perth has received a grant from Stewardship Canada and is now looking for residents to take part in a pilot project for a new blue bin set covering.

Christine Baker, representative with West Perth, said the municipality was approached by the company that makes the Enviro-Net, to see if the municipality would be willing to try the flexible nets. The grant was accepted in August.

The aim of the nets is to reduce litter and increase bin capacity.

"In our municipality there does tend to be some sharing with the high winds and in high traffic areas and these nets seemed like a cost-effective way to help reduce the potential littering as well as to increase recycling," Baker said.

The net is very flexible, it will increase the capacity, but

how much would vary by the material being placed in the bin," she said.

The municipality has purchased 1,000 and they are available at the municipal office on St. David St. in Mitchell. The Enviro-Nets are being sold for \$2 and participants are asked to fill out a short survey after about six months of use at which time the \$2 will be refunded.

"It's very easy to use, it's reasonable, it will increase capacity and one of the main goals is to increase recycling," Baker said, noting something recycling is a great of the municipality.

West Perth is one of the first municipalities in Grant to test the net. Francis Yellibou, President of Bismarck Recycling Association, said this is the first municipality they serve

the amount of time it's going to take to remove the nets and

recyclable material in West Perth, but collection did not start in Mitchell until March.

For more information, call the municipality at 219-548-8429.

In the past year, 2007, BREA collected 263.91 tons of

recyclable material in West Perth, but collection did not start in Mitchell until March.

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MUNICIPALITY OF WEST PERTH
ENVIRO-NET PILOT PROJECT
User Satisfaction Survey

Please indicate your response to the following statements:

<i>Strongly agree</i>			<i>Disagree</i>		
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The enviro-net was convenient and easy to use.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The net helped to increase the amount of material in the blue box (capacity).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The net helped to keep materials contained in the blue box.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The enviro-net was durable, the quality was good.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I would recommend the enviro-net to other blue box users.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Using the enviro-net made the household more conscious about recycling and waste reduction.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	This project inspired our household to look at other waste diversion options.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I plan to continue using the enviro-net.

General comments:

In what ways were you able to increase your recycling?

What are your general comments on this product and/or this pilot project?

Thank you for taking the time to fill out this survey.