



Hamilton

1170 – 120 King Street West  
Hamilton ON L8P 4V2  
www.hamilton.ca

Waste Management Division, Public Works Department  
Physical Address: 120 King Street West, Suite 1170  
Phone: 905.546.4440 Fax: 905.546.4473  
Email: wastemanagement@hamilton.ca

**Stewardship Ontario  
Effectiveness and Efficiency Funding Project #125  
City of Hamilton  
Phases II and III – Baseline waste audits and Analysis and Evaluation**

*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.*

*Copyright © 2007,  
All rights reserved. No part of this publication may be reproduced, recorded or transmitted in any form or by any means, electronic, mechanical, photographic, sound, magnetic or other, without advance written permission from the owner.*



# Hamilton

## Executive Summary

The City of Hamilton’s Waste Watch Communication and Education Project consists of a 4-year communication strategy the goal of which is to enable the City to reach 65% waste diversion by 2008.

The strategy is planned around one-year increments with each year focusing on the program that contains the most diversion potential. For 2005-06, the strategy’s focus was the Blue Box Program.

The City of Hamilton applied for funding support to Stewardship Ontario’s Effectiveness & Efficiency Fund (E&E Fund) for the Blue Box Program component of its communication strategy. The application was recommended by Waste Diversion Ontario’s Municipal – Industry Program Committee (MIPC) and approved by the Board of Stewardship Ontario in early 2006, as E&E Project # 125. The E&E Fund’s support covered the following three deliverables:

- Consumer research: Conduct a Public Opinion Survey to determine residents’ awareness and knowledge of the blue box program
- Baseline waste audits: Conduct pre and post waste audits to determine set-out, participation, capture, and diversion rates before and after the implementation of the communication campaign
- Analysis and Evaluation: Summarize project learnings

### Phase I: Consumer Research

The City of Hamilton retained Ehl Harrison Consulting Inc. and Informa Inc. in late 2005 to conduct a public opinion survey to determine public attitudes towards its curbside recycling program. The specific goals of the research were to:

- Assess the level of awareness and usage of the blue box recycling program;
- Assess the level of awareness, usage and satisfaction with the waste collection calendar;
- Determine waste management practices within the home; and;
- Provide a demographic analysis of City of Hamilton recyclers.

This research was carried out in two parts: a telephone survey conducted among a random sample of 702 Hamilton residents with access to curbside recycling; and four focus groups evenly divided between female and male household heads, all with access to curbside recycling. *Note: the detailed Consumer Research report is presented under separate cover.*

### Segmentation of Recyclers

The research categorized residents in to one of four segments described below. The research revealed that Hamilton enjoys a large contingent of true believers and strivers.

“TRUE BELIEVERS”	“STRIVERS”
<ul style="list-style-type: none"> <li>• Engaged, hold core values</li> <li>• Informed and active</li> <li>• Educators</li> <li>• Enthusiastic</li> <li>• Female skew</li> <li>• Welcome program improvements</li> </ul>	<ul style="list-style-type: none"> <li>• Believe in recycling/core value</li> <li>• Want to be good recyclers</li> <li>• Confused, lack information</li> <li>• Can be motivated</li> <li>• Missing tools (bins or list)</li> <li>• Collection problems?</li> </ul>

<b>“DOUBTERS”</b>	<b>“DEAD BEATS”</b>
<ul style="list-style-type: none"> <li>• Focus on first generation items</li> <li>• Limited core values</li> <li>• Respond to community pressures</li> <li>• Can be motivated</li> <li>• Lack education/facts</li> <li>• Collection problems?</li> </ul>	<ul style="list-style-type: none"> <li>• Recycle little or no items</li> <li>• Lack core commitment/resistant</li> <li>• Motivated by negative ‘sticks’</li> <li>• Male skew with hostility</li> <li>• Disenfranchised/oppositional role</li> </ul>

Recommendations: Building on Success

Based on the outcomes of the benchmark survey and the focus groups, a number of key recommendations were made.

Operations

- Collection service seems to be an issue, especially in the urban centre. This could be improved by offering collectors "ambassador" training and reinforcement of blue box messaging and goals. Collectors could become community educators.

Education / Motivation

- Hamilton is one of few municipalities able to use television as a communication medium for recycling messages. The potential to reach many people is great. The use of mass media messages should be continued to encouraging positive recycling habits.
- TV ads should be refined and clarified. The personality developed to carry the messages was a 40-year old resident dressed up in blue spandex wearing a cape and mask called 'Blue Box Man'. If Blue Box Man is retained, it is suggested that the City delete mixed messaging. Blue Box man must model correct recycling habits. It would be useful to reduce the speed of the messaging to aid viewer comprehension. The sub-titles / balloons are confusing to viewers. One important message is to show a demonstration of effective waste reduction (before and after efficient recycling). Blue Box man could be dressed in recyclables.
- In absence of Blue Box Man, the City should pursue the development of a strong visual identity for the recycling program. This could be related to its 65% diversion goal by 2008, the positive impact of recycling; or the development of another recycling icon.
- Print media campaign should continue to include room-by-room guides.
- Feedback on status of recycling in Hamilton should be provided to residents
- Neighbourhoods should be targeted to strengthen the program by identifying problems.
- Where do recyclables go? Feature recycling outcomes – new packages and products, clever re-use / arts and crafts.
- There is an opportunity to enhance recycling rates by limiting the number of bags of garbage and promoting these limits. If this is done, limits should be enforced.

Tools – Blue Boxes

- More and better designed blue boxes should be provided to facilitate recycling. (I.e. larger capacity option for curbside collection, smaller capacity option for various rooms in the house). Residents should be called randomly to determine whether they need a calendar or additional blue boxes.

Enhance Collection

- Focus group residents highlighted an interest in organic collection. Following a successful pilot phase, this program will likely enjoy broader acceptance across the City.

### Future Research

- Continue to test education messages on a regular basis to see what is working.
- Monitor impacts of specific campaigns, participation, capture rates and behaviour changes.
- Carry out random spot checks of collectors and curbside recyclers to determine service efficiency.

### **Phase II: Waste Audits**

#### 2004

The Waste Management Division's waste audits and composition studies carried out in 2004 indicated that there was a relatively low recycling rate for fibre and packaging items generated outside the kitchen (i.e. in bathrooms, bedrooms, and living room). As a result of this finding, a campaign using television, newspaper and direct mail (Canada Post delivery) was initiated, as described above. One of the main goals of this campaign was to prompt residents to recycle more of the materials that are disposed of in rooms other than in the kitchen.

#### 2005

The City undertook further waste audits in 2005. Two neighbourhoods in each collection zone were chosen as sample areas to represent a variety of locations, housing and demographics for a total of 120 households. The capture rates were as follows:

<b>Estimated Recyclables Capture Rate – City-Wide</b>		
<b>PAPER</b>	Newspaper – Dailys and Weeklys	88.9%
	Newspaper – Other	34.4%
	Telephone Books / Directories	77.6%
	Magazines & Catalogues	63.4%
	Mixed Fine Paper	31.1%
	Books	1.2%
<b>PAPER PACKAGING</b>	Corrugated	88.5%
	Kraft Paper	21.7%
	Boxboard / Cores	51.9%
	Molded Pulp	54.0%
	Gable Top Cartons	60.0%
	Aseptic Containers	11.3%
<b>PLASTICS</b>	PET Beverage Bottles	68.8%
	PET Other Bottles & Jars	55.6%
	HDPE Beverage Bottles	78.8%
	HDPE Other Bottles & Jugs	67.0%
	Polystyrene Packaging	19.4%
	Wide Mouth Tubs & Lids	45.4%
	Large HDPE & PP Pails & Lids	10.8%
	Polyethylene PE Plastic Bags & Film – Packaging	10.3%
	Polyethylene Plastic Bags & Film – Non-Packaging	3.7%
<b>METALS</b>	Aluminum Food & Beverage Cans	60.6%
	Aluminum Foil & Foil Trays	12.2%
	Steel Food & Beverage Cans	74.7%
	Steel Aerosol Cans	14.9%
	Steel Paint Cans	0.0%
<b>GLASS</b>	LCBO Clear	72.7%
	LCBO Coloured	89.5%
	Clear	79.6%
	Coloured	34.8%

## 2006

Ten (10) areas of the city were identified to be used for the waste audits. In each of these areas, a street was chosen and ten (10) homes were randomly selected from that street. The areas to be audited each represented a different area of the city. Factors such as age of neighbourhood, size of home, economic and geographical factors were all considered when identifying preferred study areas. It was intended that the sample of one-hundred (100) homes provide a representative sample of the city as a whole.

The results were as follows:

<b>Single-Family Waste Audit Capture &amp; Diversion Rates</b>			
<b>Material Category</b>	<b>2006 January Audit</b>	<b>2006 June Audit</b>	<b>2006 August Audit</b>
Paper	76%	80%	91%
Paper Packaging	68%	68%	82%
Plastics	38%	51%	60%
Metals	63%	72%	78%
Glass	89%	92%	89%
Organics	n/a	51%	34%
Overall Capture Rate	70%	75%	84%
Overall Capture Rate (incl. organics)	n/a	66%	63.8%
Overall Diversion Rate	33%	54%	55%

### **Phase III: Analysis and Evaluation**

#### Summary

Results from the single-family waste audits showed material capture rates to be consistent with the findings of the Public Opinion Survey undertaken in the fall of 2005. Specifically, capture rates for well-known blue box recyclables such as glass, aluminum cans, and newspapers are considerably higher (80-95%) than recyclables such as polystyrene packaging, plastic film, aseptic containers and aluminum foil (10-25%), which have been added to the program in the past few years. An important finding of the public opinion survey was that a lack of knowledge on recycling program changes and the acceptability of new materials prevented residents from diverting the maximum amount of their waste. This correlates with the low capture rates observed in the audits for new blue box additions.

#### Lessons Learned

- Mascot Distracted From The Message – love him or hate him Blue Box Man took all the attention away from the message of ‘what goes in’ the blue box.
- Multi-Media Approach – in Hamilton, there is no one single medium that can be used to reach all residents and therefore information must be disseminated through multiple sources. Note: this will differ amongst Ontario municipalities.
- Get Outside The Kitchen – capture rates continue to show that recycling is well received in the kitchen but forgotten in other key areas of a household, such as the bathroom, laundry room and living room.
- Grocery Store List Principle – focus on items that have low capture rates. Like forgetting your grocery list when you go to the store, residents remember only the most common items on the blue box list – those items that have been acceptable since the inception of most curbside collection programs.
- Hit Singles Principle – create a sustained campaign that releases a ‘hit single’ on a continual basis, rather than trying to promote too many all at once. This follows on the Grocery Store List Principle.

## Communication Strategy Recommendations

The following recommendations are being implemented to varying degrees as we move forward and re-visit our strategic direction. All of these recommendations are taken into consideration with all communication-related decisions. This is a decision-making based list of recommendations, much like a check list, that all communication tactics are run through to ensure they are in line with our strategic direction.

- **Do Few Things Well**  
Do few things well, rather than too many things unwell, by focusing communication efforts on programs with the highest waste diversion potential.
- **Recognize Lifestyle Diversity**  
Lifestyles are affected by multiple characteristics including age, attitudes, context, economics, education, gender, habits, language, occupation, ownership, race, renting, routines, social class, time.
- **State the Problem**  
'Garbage' must be defined and repositioned. The problem must be presented visually.
- **Advertising and Public Relations**  
Designs must be simple, original, consistent and constant. A multi-media approach must target emotions and beliefs while showing the consequences of action / inaction. Public relations offers the opportunity to be provocative, controversial, and distinct so that the content sells itself.
- **We Can't Do This Alone**  
While the City of Hamilton must be known as the authority on waste management programs and services, relationships must be developed with a widespread stakeholders list. We must create a catalyst for community-minded leaders that residents can relate to. The impact that individuals, and individual actions, have must be obvious.
- **Reward and Recognition**  
Waste audits should be used as a micro level communication tool. Individuals need to be recognized for meeting / exceeding targets by developing an award system for model recyclers and composters.
- **Evaluation**  
Regular communication audits, in the form of public opinion surveys and proactive testing of messaging and materials via focus groups must be an integral part of communication planning
- **Funding**  
We must continue to seek funding for communication initiatives from additional sources and partnerships.
- **Evolution**  
Communications must adapt to changes in the waste management system, lifestyles, and society.