

January 6, 2011

Mr. Andy Campbell
Continuous Improvement Fund Office
92 Caplan Avenue, Suite 511
Barrie, Ontario L4N 0Z7

Dear Mr. Campbell,

Re: Continuous Improvement Fund Project # 290 (Best Practices) Waste Recycling Plan Development

On July 6, 2010, Haldimand County received a notification letter that it had been approved for funding by CIF for the development of a Waste Recycling Plan for Haldimand County.

We are pleased to inform you that Haldimand County has completed the development of the Waste Recycling Plan and it was adopted by Council on December 20, 2010.

Enclosed are copies of:

- the Waste Recycling Strategy
- the invoice paid to Cambium Environmental for preparing the WRS
- the resolution of Council adopting the WRS

If you have any questions in regards to this project, please contact me at 905-318-5962 extension 183 or e-mail me at nmundy@haldimandcounty.on.ca.

Yours truly,

Nicole Mundy
Waste Management Supervisor, Haldimand County

Paul Mungar, Director Environmental Services and Fleet & Facility Management,
Public Works Department

Heather Hewson, Finance Department

Kohler Office, 1162 Kohler Road, Cayuga, Ontario N0A 1E0
Phone: (905) 318-5962 · Fax: (905) 772-3779
www.haldimandcounty.on.ca

Resolution No. 17
Date: December 20, 2010

THE CORPORATION OF
HALDIMAND COUNTY
COUNCIL RESOLUTION

<input type="checkbox"/> Bartlett	<input type="checkbox"/> Boyko	<input type="checkbox"/> Dalimonte	<input type="checkbox"/> Grice	<input type="checkbox"/> Morison	<input type="checkbox"/> Shirton	<input type="checkbox"/> Hewitt
Moved By: <i>[Signature]</i>						

<input checked="" type="checkbox"/> Bartlett	<input type="checkbox"/> Boyko	<input type="checkbox"/> Dalimonte	<input type="checkbox"/> Grice	<input type="checkbox"/> Morison	<input type="checkbox"/> Shirton	<input type="checkbox"/> Hewitt
Seconded By: <i>[Signature]</i>						

THAT the Minutes of the December 13, 2010 Council in Committee Meeting be adopted, except the following Recommendation as it was adopted at the December 13, 2010 Special Council Meeting:

Recommendation #19

RE: Council Member Appointment to the Haldimand
County Utilities Board of Directors

Defeated
(Unanimously _____)
(_____)

[Signature]

Carried
(Unanimously _____)
(_____)

Recommendation No. 8
Date: December 13, 2010

THE CORPORATION OF
HALDIMAND COUNTY

COUNCIL IN COMMITTEE RECOMMENDATION

☐ CMS

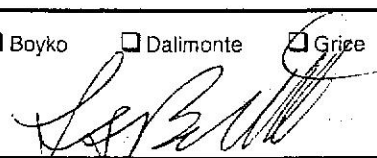
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☐ PED

☒ Bartlett ☐ Boyko ☐ Dalimonte ☒ Grice ☐ Morison ☐ Shirton ☐ Hewitt

Moved By: 

☐ Bartlett ☐ Boyko ☐ Dalimonte ☒ Grice ☐ Morison ☒ Shirton ☐ Hewitt

Seconded By: 

1. THAT Report PW-SW-14-2010 Re: Municipal Waste Recycling Strategy dated November 19, 2010 be received;
2. AND THAT Council adopt the Waste Recycling Plan for Haldimand County as part of the Best Practices requirement for blue box program funding.

Defeated

(Unanimously _____)

(_____ , _____)

Carried

(Unanimously _____)

(_____ , _____)



Municipal Waste Recycling Strategy

prepared for

HALDIMAND COUNTY

November 30, 2010

Prepared with assistance from Waste Diversion Ontario

Cambium Environmental Inc.

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1.0 INTRODUCTION

This municipal waste recycling strategy (MWRS) was initiated by Haldimand County to develop a plan to increase the efficiency and effectiveness of the recycling program and maximize the amount of blue box material diverted from disposal. This MWRS has been developed with the assistance of Waste Diversion Ontario's Continuous Improvement Fund (CIF), 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 Waste Diversion Ontario and Stewardship Ontario accept no responsibility for these views and using the CIF's *Guidebook for Creating a Municipal Waste Recycling Strategy* (Trow, 2010). The CIF Guidebook for Creating a Municipal Waste Recycling Strategy (Trow, 2010) was used to develop Haldimand County's Strategy.

It is recommended that this plan be updated in 3-5 years. Haldimand County is undertaking the development of a MWRS to meet the following:

- Maximize Best Practices funding
- Identify and demonstrate continuous improvements toward Best Practices
- Clarify long term Blue Box diversion goals for the municipal program
- Identify cost effective solutions to maximize Blue Box diversion

Specifically, the MWRS will provide the following:

- Planning effective and efficient recycling programs through program concept and design.
- Forecasting waste and recyclable material generation
- Planning how to optimize recycling of identified materials
- Implementing and monitoring the plan
- Reviewing the MWRS and making continuous improvements

Haldimand County is responsible for managing its residential solid waste and operates a full range of waste management services as outlined in Table 1.



Table 1 Waste Management Services

Waste Management Initiative	Provided	To be Examined in 2011
Diversion of construction and demolition waste		Negligible
Drop-off depots for Christmas recycling	✓	
Free drop-off of yard waste seasonally at landfill sites	✓	
Free electronic equipment drop-off - registered in the Ontario Electronic Stewardship program	✓	
Free scrap metal disposal at the landfills	✓	
Free tire disposal at landfill sites - registered in the Ontario Tire Stewardship program	✓	
Green cart identified as an initiative to be examined		✓
Household hazardous waste days - registered in the Municipal Hazardous or Special Waste program	✓	
Monthly bulky item collection (call-in-service)	✓	
Operation of a recycling transfer station	✓	
Seasonal yard waste collection programs (urban areas)	✓	
Subsidized backyard composters	✓	
Waste Disposal sites	✓	
Weekly garbage collection	✓	
Weekly recycling collection	✓	

2.0 OVERVIEW OF THE PLANNING PROCESS

This MWRS was prepared by Cambium Environmental Inc. (Cambium) and Haldimand County municipal staff.

The development of the MWRS included the following steps:

- Planning process, overview, and information review.
- Assess current trends, practices, systems, and future needs.
- Review and evaluation of recycling options, systems design, monitoring, and reporting.
- Completion of the MWRS.

The next steps in this process include:

- Council endorsement of this MWRS.
- Recommendations to Council on initiative to implement timelines.



To ensure the public and **local stakeholders** were able to participate in the preparation of this MWRS to elicit feedback from residents **prior to the creation of the Plan**. To accomplish this, Public Notices were published in all local publications over a **3-week period to solicit** comments and feedback.

Once the draft plan was prepared, **Public Notices** were published in all of the local publications inviting the public to review the Plan and provide feedback. For more details on the public consultation process, see Section 4.0.

3.0 STUDY AREA

The study area for this MWRS includes Haldimand County (Figure 1). Haldimand County was established in 2001 as a result of the restructuring of the former Regional Municipality of Haldimand-Norfolk and its six lower tier area municipalities. Haldimand County is located in southern Ontario and borders the Regional Municipality of Niagara to the east, the City of Hamilton to the northeast, the County of Brant and the Mississauga's of New Credit and Six Nations reserves to the north, the County of Norfolk to the west, and Lake Erie to the south.

Haldimand County is an urban/rural area with approximately 52% of the residents living in the urban areas and 48% in the rural areas. The major urban areas include Caledonia, Cayuga, Dunnville, Hagersville, Jarvis, and Townsend (Urban & Environmental Management Inc., May 2007).

This MWRS will address the residential recycling sector.

4.0 PUBLIC CONSULTATION PROCESS

The public consultation process followed in the development of this MWRS consisted of the following activities:

- A meeting with municipal staff to discuss the current status and planned changes for the blue box program.
- Public Notice in the following newspapers on three (3) occasions during the weeks of August 29, September 5, and September 12, 2010:
 - The Chronicle
 - The Regional News This Week
 - The Sachem
 - The Haldimand Press

A copy of the Public Notice is included in Appendix A.

No comments or inquiries were received during the Public Consultation period of September 1 to 17, 2010.

Once the draft Plan was prepared the following public consultation process was followed:



- A Public Notice was posted in the local papers stating that the MWRS was posted on the County's website for public review/comment.
- The MWRS was posted on the Haldimand County website with a ten day comment period.
- Public was invited to contact the project coordinator to provide input on the Plan.

A copy of the second Public Notice is included in Appendix A.

Only one inquiry was received during the Public Consultation period of November 17 - 29, 2010. The inquiry received was regarding whether Haldimand County had immediate plans to add a Green Cart program to the curbside collection program. Since this inquiry was not related to the blue box program and was outside the scope of this MWRS, it has not been addressed within this report.

5.0 STATED PROBLEM

Management of municipal solid waste, including the diversion of blue box materials, is a key responsibility for all municipal governments in Ontario. The factors that encourage or hinder municipal blue box recycling endeavours can vary greatly and depends on a municipality's size, geographic location, and population.

Haldimand County's blue box program changed from a 6-stream curbside collection program to a 2-stream program known as Recycle² on October 4, 2010. The program consists of weekly collection of the following items in two separate streams:

Stream 1 – Fibres

- Paper
- Boxboard
- Corrugated Cardboard
- Plastic Bags

Stream 2 - Containers

- Metal Food and Beverage Cans, Foil Plates and Trays
- Paper or Cardboard Cartons including Tetrapaks
- Glass Jars and Bottles
- Empty Paint Cans and Empty Aerosol Cans
- Plastic Bottles, Jars, Jugs, and Tubs (#1, 2, 4, 5, and 6)
- Polystyrene (#6) and Styrofoam
- Cardboard spiral packaging

More details on the Recycle² program are provided in the Haldimand County Recycle² Sorting Guide included in Appendix B.

The key drivers that led to the development of this MWRS include:

- Maximize Best Practices funding.
- Increase the efficiency and effectiveness of the recycling program.
- Maximize the amount of blue box material diverted from disposal.



6.0 GOALS AND OBJECTIVES

Haldimand County has identified a number of goals and objectives for the MWRS. These are presented in Table 2.

Table 2 Waste Recycling Goals and Objectives

Goals	Objectives
To maximize diversion of residential/municipal solid waste through the blue box/recycling program thereby increasing the tonnage of blue box material that is recycled	<p>By the end of 2012, aim to divert 23 % of municipal solid waste through the blue box program by the implementation of simple measures (priority initiatives). This would be an annual increase of 2% per year for 2011 and 2012 based on the current recycling rate of 18.8% of all waste.</p> <p>This would be accomplished through the additional tonnage accessible for recycling through the increase to the types of materials that can now be accepted for recycling and through increased promotion of the recycling program.</p> <p>Beyond 2012, evaluate the current waste diversion rate with a view of establishing new targets based on the program status.</p>
Increase program effectiveness	<p>By the end of 2012, increase the capture of blue box municipal solid waste by 4 % from the current rate. Special focus is on increasing the capture rate of paper products and plastics in the recycling program as these materials were shown to have a low capture rate based on audits that were done on the waste stream.</p>
Reduce costs of the recycling program	<p>By the end of 2012, attempt to achieve a reduction in recycling costs by increasing the tonnage of recyclables collected at each stop thereby increasing program efficiency and garnering higher revenues from the sale of recyclables.</p>
Promote Recycling in "Other" Rooms (i.e. rooms other than the kitchen)	<p>Consideration will be given to dedicating a page in the annual residential Waste and Recycling Guide and/or including an interactive tool on the municipal website to provide information on recyclable items in every room of the house. This approach is being proposed to address studies that have found that residents tend to focus recycling efforts on the kitchen while neglecting other areas of their homes.</p>

7.0 CURRENT SOLID WASTE TRENDS, PRACTICES, SYSTEM AND FUTURE NEEDS

7.1 COMMUNITY CHARACTERISTICS

In 2009, Haldimand County had a population of 45,212. The municipality is home to 19,343 total households which includes multifamily locations as well as seasonal dwellings. The majority of the seasonal dwellings are located on private roads and Haldimand County does not provide individual curbside collection services to these locations; however, they are serviced through common collection points (Haldimand County, 2009).

7.2 CURRENT WASTE GENERATION AND DIVERSION

Currently, Haldimand County **generates** approximately 16,516 tonnes of residential solid waste per year (Haldimand County, 2009). **Of this, 3,113 tonnes**, or 18.8 percent, is diverted through the blue box program (Haldimand County, 2009). **Currently, the highest** tonnage material collected is papers, while the least is metals. This only means that there is more paper available for collection than metal and does not reflect on the capture rate of the materials.

Table 3 summarizes the current waste generation and blue box diversion rates.

Table 3 Residential Solid Waste Generated and Diverted Through Blue Box

Residential Waste Stream/Blue Box Material	Tonnes	Percent of Total Waste
Total Waste Generated	16,516	-
Papers (ONP, OMG, OCC, OBB, and fine papers)	2,287	13.8
Metals (aluminum, steel, mixed metal)	242	1.5
Plastics (containers, film, tubs lids)	311	1.9
Glass	272	1.6
Total Blue Box Material Currently Diverted	3,113	18.8

Note: The values in the above table are as reported in the 2009 WDO Municipal Datacall (Haldimand County, 2009).

As Table 4 indicates, Haldimand County's current diversion rate is slightly **below average** for its Waste Diversion Ontario (WDO) municipal grouping.

Table 4 Average Blue Box Diversion Rate (2009)

	Recycling Diversion Rate	Residential Waste Diversion ¹
Haldimand County	18.8%	29%
Municipal Grouping: Rural Collection - South	21.37%	-

Notes: 1. In addition to recycling, this percentage includes the diversion of yard waste, municipal special or hazardous waste, tires, scrap metal, electronic equipment, grass clippings through the collection bin, and other waste diversion initiatives.

7.3 POTENTIAL WASTE DIVERSION

To estimate Haldimand County's current waste composition, a waste audit was conducted in March and April of 2008 (Jacques Whitford, 2008).

The study revealed that an additional 2,983 tonnes of blue box materials are available for diversion, of which approximately 811 tonnes are still currently in the waste stream. Estimates of blue box material available for diversion are listed in Table 5.

Table 5 Current and Potential Diversion

Material	Total Available in Waste Stream ¹ (tonnes/year)	Currently Recycled ² (tonnes/year)	Potential Increase ³ (tonnes/year)
Papers (ONP, OMG, OCC, OBB, and fine papers)	1,434	2,287	0
Metals (aluminum, steel, mixed metal)	289	242	47
Plastics (containers, film, tubs lids)	1,075	311	764
Glass	185	272	0
Total	2,983	2,812	171

Notes: 1. The total available in the waste stream tonnages were calculated from the percentages of each material from the 2008 waste audit multiplied by the total waste generated tonnage multiplied by the target capture rate of 70%.

2. The currently recycled tonnages are as reported in the 2009 WDO Municipal Datacall.

3. The potential increase is the currently recycled tonnage subtracted from the total waste available in the waste stream tonnage.

Diverting the blue box material remaining in Haldimand County's waste stream has the potential of increasing the recycling rate to 23.8%. An attempt to achieve this diversion rate would be accomplished using annual targets based on a 2% increase in tonnages collected per year commencing in 2011 and being repeated for 2012.

7.4 EXISTING PROGRAMS AND SERVICES

Currently, Haldimand County has the following policies and programs in place to manage residential solid waste:

- The Recycle² program was launched on October 4, 2010.
- Each single family dwelling and business received a free 22 gallon blue box and an information kit explaining the Recycle² program.

The Recycle² program was designed to operate within Haldimand County with a partnership with Niagara Region for processing. This new partnership with Niagara Region increased the types of materials accepted in the blue box program. The following materials were added to the program: clam shell containers, empty paint and aerosol cans, drinking boxes and other Tetra Paks™, and cardboard spiral packaging. This contract with Niagara Region is expected to increase blue box tonnages collected and increase the diversion rate and reduce net program costs.

The Recycle² label has been attached to every type of promotion and education material with respect to recycling to establish recognition. This will provide a firm structure that can be built upon to keep residents focussed on the program.

Collection services of regular waste are provided to the residents using Egger Excavating Limited, while recycling services are provided by HGC Management Inc., both of which are under contracts which end on December 31, 2012. Disposal and recycling services are paid for primarily through municipal taxes. Once recyclable materials have been collected, they are transferred to Niagara Recycling, located in Niagara Falls, Ontario.



Important collection-related ~~milestones~~ **that may** affect how collection services are administered include:

- Introduction of Recycle² **2-stream recycling** on October 4, 2010.
- Recycling processing **moved to Niagara Recycling** as of October 2010.
- Waste collection contract **ends December 31, 2012.**
- Recycling collection contract **ends December 31, 2012.**

Waste Diversion Ontario groups municipalities in cost bands based on similar geography, population, and proximity to end-markets for recyclables. Haldimand County belongs to the Municipal Grouping : Rural Collection –South. The groupings were established to recognize that rural municipalities and northern remote locations do not have the same amount of competition available to them when tenders are sought for recycling collection and processing of recyclable material that large urban centres have.

In 2009, the total annual recycling costs for Haldimand County were \$1,459,504 (Haldimand County, 2009). This amounts to \$471 per tonne, or \$32 per capita. As Table 6 shows, net annual recycling costs for Haldimand County are **below average** for its WDO municipal grouping.

Table 6 Net Recycling Cost (per tonne per year)

	Net Recycling Cost
Haldimand County	\$471 per tonne in 2009
Municipal Grouping: Rural Collection – South Average Net Cost per Tonne ¹	\$517.26 per tonne in 2009

Notes: 1. Source: WDO 2009 Final Blue Box Data.

A list of the other municipalities represented by this grouping and their program costs are included in Appendix C.

In 2009, Haldimand County staff initiated a Materials Recovery Facility (MRF) optimization study to explore ways of making the recycling program more efficient through cost reduction. The study recommended four ways of reducing net recycling costs:

- Move from 6 stream to 2 stream recycling curbside collection of materials.
- Forge processing partnerships with a large urban centre to capitalize on economies of scale.
- Increase the number of material types being collected.
- Establish a recycling transfer station to increase access to the number of MRF's that could accept Haldimand County's materials.

All of these recommendations were implemented through the launch of the Recycle² program on October 4, 2010.

7.5 ANTICIPATED FUTURE WASTE MANAGEMENT NEEDS

Solid waste generation rates in Haldimand County are expected to increase over the next 5 years (the planning period for this project). Table 7 depicts the expected growth rates for solid waste generation and blue box material recovery, based on projected population growth rates which are based on historical population data from the Haldimand County Planning Department (2008 Community Profiles, 2010).

Table 7 Anticipated Future Solid Waste Generation Rates and Available Blue Box Material

	2010	2015
Population	45,212	48,033
Total Waste (tonnes) (includes recycling tonnage)	14,799	15,500
Blue Box Material Available (tonnes)	2,983	3,160

8.0 PLANNED RECYCLING SYSTEM

8.1 OVERVIEW OF PLANNED INITIATIVES

Haldimand County reviewed a number of options for consideration in its MWRS. The options were then scored based on a number of criteria, which included:

- **% Waste Diverted** – This refers to how much waste an option may potentially help to divert. Some options may divert more waste than others, while other options may not directly divert waste but instead support other programs or initiatives that do.
- **Proven Results** – Some options are considered tried and true, while others may be newer and less proven.
- **Reliable Market/End Use** – Markets should be available for materials collected by municipalities for recycling. This criterion considers if a market is available for the recyclable materials in question or if a suitable end use exists.
- **Economically Feasible** – This refers to whether an option is economically feasible for the municipality considering it. Municipalities will need to weigh the cost of the option against their ability to afford it and the resulting benefit.
- **Accessible to the Public** – This considers if the option will be easy or difficult for the public to access or use. This will depend in large part on how the option interfaces with the target audience.



- **Ease of Implementation** – Some options are less costly and easier logistically and politically to implement than others. This criterion considers the level of cost and effort involved in implementing the option (Trow, 2010).

A summary of the options reviewed and their scoring is provided in Appendix C.

Once scored, the top ranking waste recycling options were organized into Priority Initiatives (total score of 80 or greater out of 100) and Future Initiatives (total score of 70 to 79 out of 100). The estimated cost for implementing the priority initiatives is estimated to be approximately \$18,000 plus staff time, while the implementation of the future initiatives is estimated at staff time only. Table 8 presents the Priority Initiatives and Future Initiatives and their estimated costs. A review of these initiatives and their steps for implementation are reviewed on the following pages.

Table 8 Priority and Future Initiatives

Initiatives	Implementation Costs	Operation Costs
Priority Initiatives		
Public Education and Training Program ¹	\$18,000	Staff Time
Training of Key Program Staff	Staff Time	Travel Costs to Free Training Sessions (estimated at \$2,000)
Bag Limits	Staff Time	Staff Time
Estimated Total Cost (Priority Initiatives)	\$18,000 plus staff time	\$2,000 plus staff time
Future Initiatives		
Multi-municipal Collection and Processing of Recyclables	Staff Time	Additional costs likely negligible or could result in lower costs
Estimated Total Cost (Future Initiatives)	Staff time only	Likely no cost

Notes: 1. The Blue Box Program Enhancement Best Practices Report (KPMG, 2007) recommends spending \$1 per household on Promotion and Education for existing recycling programs.

It should be noted that Haldimand County uses Generally Accepted Principles for effective procurement and contract management. The Contract templates for developing the recycling collection and processing tenders were utilized for the preparation of the current recycling program contracts.



8.1.1 **PRIORITY INITIATIVES**

Initiative: Public Education and Training Program

Overview: Public education and promotion programs are crucial for ensuring the success of local recycling programs. Well-designed and implemented education and promotion programs can have impacts throughout the municipal recycling program, including participation, collection, processing, and marketing of materials. Furthermore, having a promotion and education plan contributes toward the amount of WDO funding a municipality receives as identified in the Best Practices section of the WDO municipal datacall. For example, the benefits of public education and promotion programs include:

- Greater participation levels and community involvement.
- Higher diversion rates.
- Less contamination in recovered materials, potentially leading to higher revenues.
- Lower residue rates at recycling facilities.

Implementation: To better publicize the Recycle² program and capture more blue box materials, an extensive promotion and education program was implemented in 2010.

Haldimand County would like to be seen as a leader in the community by increasing recycling and decreasing waste at their facilities.

Another strategy is to update the website to be more user friendly and interactive. Haldimand County also intends to educate and re-educate County employees and the recycling collection contractor's front line staff.

Haldimand County also intends to increase the frequency of the waste audits to undertake them once every two (2) years and use the information they generate to determine the direction for the future of the recycling program and to gauge the County's progress towards the annual diversion targets. As new provincial programs are mandated and provincial diversion targets are revised, the County's goals and objectives will change in order to meet environmental directives and needs while satisfying the initiatives of the County.

Initiative: Training of Key Program Staff

Overview: A well-trained staff can lead to greater cost and time efficiencies and improved customer service. Knowledgeable staff (including both front line staff and policy makers) has a greater understanding of their municipal programs and can perform their responsibilities more effectively. There are a number of low-cost training options available.

Implementation: With the initiation of the Recycle² program in 2010, a focus was placed on the training of key program staff. To maintain the momentum of this initiative, key program staff will be provided with access to low-cost training opportunities provided by Waste Diversion Ontario. The training received can be used to satisfy Best



Practices criteria for staff **training for completion** of the annual WDO Datacall which bodes favourably for Haldimand County for funding **received**.

Initiative: Review of Bag Limits

Overview: Bag limits restrict the number of bags of garbage a resident can dispose of per collection. This encourages residents to divert more recyclable material in order to not exceed the bag limit.

Implementation: The current bag limit for residential waste is 3 bags per household per week. A waste audit completed in 2008 indicated that the average number of bags of waste set out by residents was 1.8 per week (Jacques Whitford, 2008). It is recommended that the bag limit be monitored in 2011 and 2012 with a view of adopting a two bag limit per household per week in 2013, if waste diversion targets are not achieved.

8.1.2 FUTURE INITIATIVES

Initiative: Multi-municipal Collection and Processing of Recyclables

Overview: Small and medium-sized municipalities often face considerable cost and capital challenges when looking to collect and process recyclables from its residents. However, working collaboratively with other municipalities to provide these services can increase economies of scale and allow for the sharing of resources.

Implementation: An optimization study was completed in 2009 on the MRF co-owned by Haldimand County and Norfolk County which indicated that the existing MRF was experiencing efficiency related challenges due to aging equipment. The study confirmed that the facility had become undersized and would have to be expanded in order to meet program growth (2cg Waste Management Consulting Services, 2009). Haldimand County made the decision to divest itself of its share of the jointly-owned MRF and build a recycling transfer station in Haldimand County. Haldimand County tendered the processing of its recyclable materials and awarded a five year contract to Niagara Region who will accept the material at their MRF for processing. This contract went into effect on October 4, 2010.

8.1.3 CONTINGENCIES

Even the best planning can be delayed by a variety of foreseen and unforeseen circumstances. Predicting and including contingencies can help to ensure that these risks are managed for minimum delay.

Table 9 identifies contingencies for possible planning delays.



Table 9 Waste Recycling Strategy Contingencies

Risk	Contingency
Insufficient funding	Delay lower-priority initiatives
Public opposition to planned recycling initiatives	Improve public communications, engage community/stakeholders to discuss initiatives/recycling plan
Lack of available staff	Prioritize municipal goals and initiatives

9.0 MONITORING AND REPORTING

The monitoring and reporting of Haldimand County's recycling program is considered a Blue Box program fundamental best practice and will be a key component of this MWRS. Once implementation of the strategy begins, the performance of the Waste Recycling System will be monitored and measured against the baseline established for the current system.

- The baseline that will be used for bag set-outs is 1.8 bags per household per week that was established through curbside audits in 2008. Once the results are measured, they will be reported to Council and the public through the annual summary report on waste management activities.
- The baseline recycling diversion rate is 18.8% and it represents the 2009 recycling rate.
- Recycling tonnages will be analysed annually and compared to the previous year's performance taking into account recycling program changes, new provincial legislation, and any new municipal program changes that could impact program recovery targets.

The approach for monitoring Haldimand County's waste recycling program is outlined in Table 10.



Table 10 Recycling System Monitoring

Monitoring Topic	Monitoring Tool	Frequency
Total waste generated and disposed (by type and by weight)	Conduct waste audit	Every 2 years
Diversion rates achieved (by type and by weight)	Formula: (Blue Box materials + other diversion) ÷ Total waste generated *100%	Annually
Planning activities	Describe what initiatives have been fully or partially implemented, what will be done in the future	Annually
Program participation	Customer survey (i.e. telephone, online); monitoring set-out rates	Every 2 years
Customer satisfaction	Customer survey (i.e. telephone, online); tracking calls/complaints received to the municipal office	Every 2 years
Review of MWRS	A periodic review of the MWRS to monitor and report on progress, to ensure that the selected initiatives are being implemented, and to move forward with continuous improvement	Every 3-5 years

10.0 CONCLUSION

Haldimand County currently has a low recycling diversion rate of 18.8% and low cost (\$469/tonne) when compared to the average diversion rate (21.37%) and cost (\$517.26/tonne) for the municipal grouping.

A staged process to increase the capture of blue box material and reduce cost per tonne is recommended.

Firstly, it is recommended that by the end of 2012, the County aim to divert 23 % (compared to the 2009 diversion rate of 18.8%) of municipal solid waste through the blue box program by the implementation of simple measures (i.e. priority initiatives). The following low-cost priority initiatives are recommended to increase the capture rate: increase public education, training of key program staff including contracted collection staff, and annual monitoring of the bag limit with a view to reducing it if waste diversion efforts stall.

The following future initiatives are recommended for consideration to further increase the effectiveness of the blue box program: multi-municipal collection and processing of recyclables.

It is also recommended that the County track annual tonnages of recyclable materials collected to gauge progress towards the annual diversion targets. In addition to this it is recommended that a regular auditing program be implemented to undertake bi-annual waste audits to determine which materials need to be targeted for promotion to bolster their recycling capture rate. It is also recommended that this MWRS be updated every 3-5 years.



REFERENCES

- 2008 Community Profiles. (n.d.). Retrieved August 24, 2010, from Haldimand County Planning Department
- 2cg Waste Management Consulting Services. (2009). *Material Recovery Facility Optimization Study In the Counties of Haldimand and Norfolk*.
- Haldimand County. (2009). *Waste Diversion Ontario Municipal Datacall*.
- Jacques Whitford. (2008). *Waste Composition Audit*.
- KPMG. (2007). *Blue Box Program Enhancement and Best Practices Assessment Project*.
- Ministry of the Environment. (2004). *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*. Queen's Printer for Ontario.
- Trow. (2010). *Guidebook for Creating a Municipal Waste Recycling Strategy*.
- Urban & Environmental Management Inc. (May 2007). *Haldimand County Solid Waste Master Plan Update*.



Appended Figures

WASTE RECYCLING STRATEGY

HALDIMAND COUNTY, ONTARIO

Legend

- Expressway
- Highway
- Other Road
- [] Study Area
- River
- Lake

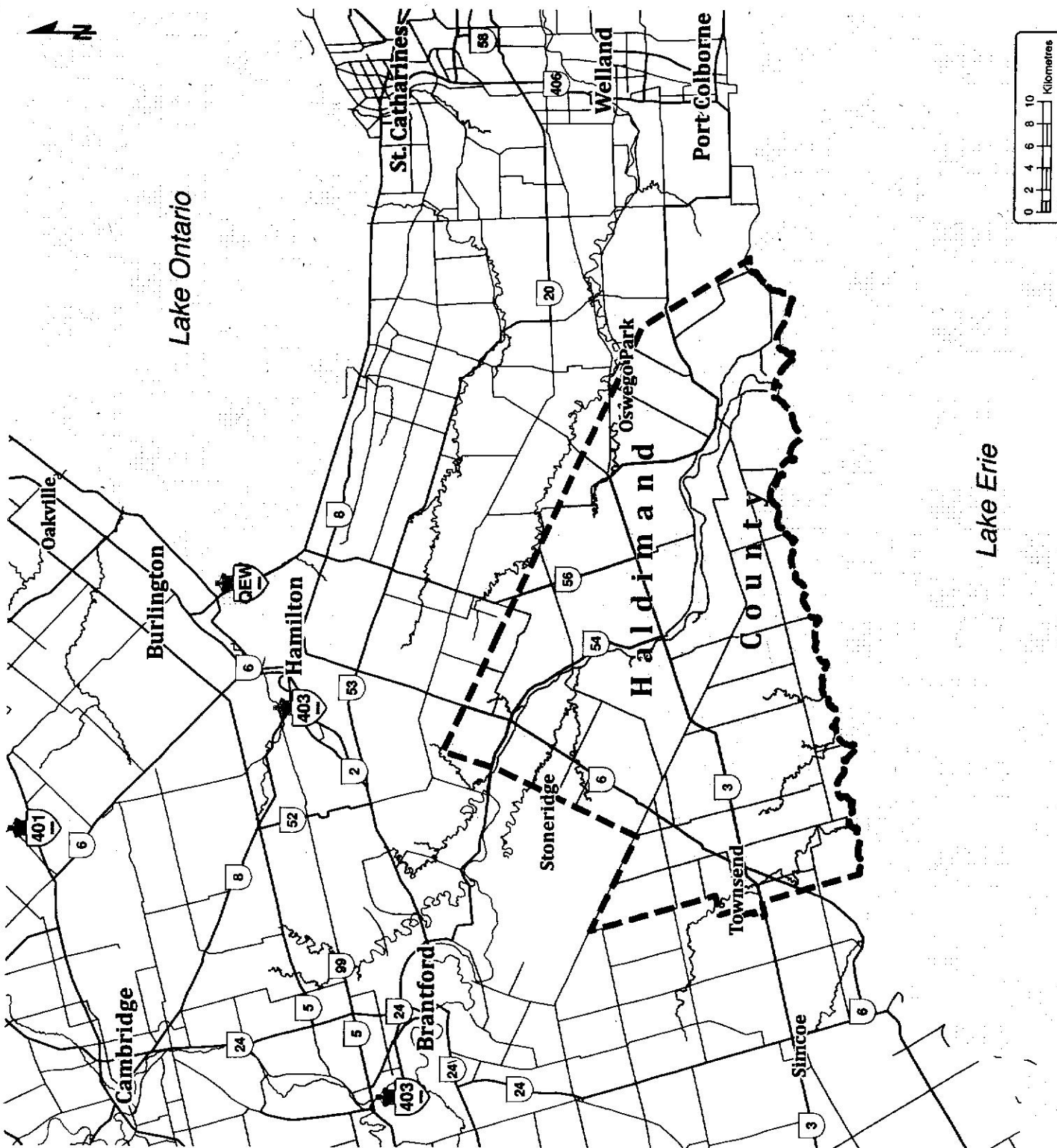
Source: © Queen's Printer of Ontario, 2010
(this does not constitute an endorsement by the MNR or the Ontario Government)



P.O. Box 325, 2085 Whittington Drive
Peterborough, Ontario, K9J 6X4
Tel: 1 (705) 742.7800
Fax: 1 (705) 742.7907
www.camblum-env.com

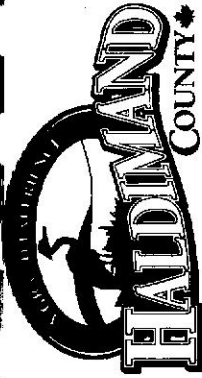
REGIONAL LOCATION PLAN

Project No.:	1768-001	Date:	October 2010
Scale:	1:500,000	Projection:	NAD83- UTM zone 17N
Created by:	GMH	Checked by:	Figure: 1
			CMT





Appendix A
Public Notice



ADMINISTRATION OFFICES

• Cayuga: 905-318-5932 • Hagersville: 905-318-5732
• Caledonia: 905-318-5367 • Dunnville: 905-318-3272
HEALTH & SOCIAL SERVICES: Caledonia 905-318-5367

EMAIL: info@haldimandcounty.on.ca

EMPLOYMENT

FAPO Helpers (up to 13) – Facilities & Parks Operations
Temporary Part Time

For additional details on this position please visit the
Employment Opportunities section of the Haldimand County
website.

Applications will be accepted until Sept. 8, 2010 at 4:30 p.m.

.....

Children's Services Coordinator

Temporary Full Time, Simcoe

The Corporation of Norfolk County as the administrator of
Haldimand and Norfolk Social Services offers a competitive
salary and an excellent benefits package. Qualified
candidates are invited to submit detailed resumes to Norfolk
County by 4:30 p.m. on September 3, 2010.

NOTICE OF CONSULTATION

HALDIMAND COUNTY MUNICIPAL WASTE RECYCLING STRATEGY

Haldimand County is completing a Municipal Waste
Recycling Strategy (MWRS), which is an essential tool in the
achievement of Best Practices in the management of blue box
recycled materials.

The development of the MWRS will include several stages,
from policy to implementation, monitoring, and improvement.
The stages cover:

- Where are we now? (i.e. policy, administration details)
- Where do we want to go? (i.e. waste forecasts, diversion targets)
- How do we get there? (i.e. system design, infrastructure requirements)
- How do we track and measure our progress? (i.e. evaluation, reporting)

Haldimand County invites interested parties to submit
comments or inquiries with respect to the Haldimand County
Municipal Waste Recycling Strategy. Comments will be
accepted until September 17, 2010. Please contact Ms.
Nicole Mundy at Haldimand County at
environmental.services@haldimandcounty.on.ca or (905)
318-5962 Ext. 183 to submit your comments.

UPCOMING MEETINGS COUNCIL IN COMMITTEE SEPTEMBER 13 • 9:30AM

All Planning Application Reports relating to the Public Meeting portion
of the Council in Committee Meeting will be on the County website
by 12:00 Noon Wednesday, prior to the above meeting date.
The reports can be accessed by clicking "Council Documents" from the
Quick Links menu at <http://www.haldimandcounty.on.ca>
All agendas are available on the County website the
Friday prior to the meeting date.
All meetings are televised on Mountain Cablevision Channel 99.

LABOUR DAY OFFICE CLOSED

The following facilities will be CLOSED

Monday, September 6

Haldimand County Municipal Offices
Haldimand County Public Library – all Branches
Haldimand County Museums – all locations

GARBAGE COLLECTION

There will be NO garbage or recycling
collection on:

Monday, September 6

Instead, all regular curb side pickups this particular week
will be delayed by a day starting on Tuesday and finishing
up on Saturday.

TOM HOWE LANDFILL SITE

– CLOSED Monday, September 6

CANBOROUGH TRANSFER STATION

– CLOSED Monday, September 6

BID OPPORTUNITIES

The below document(s) are available from the Cayuga
Administration office unless otherwise noted on the County
website.

RO 10-033	Sand Dome Repairs
RFP ES-WW-01-2010	Haldimand County Nanticoke Water Treatment Plant Upgrade
RO 10-023	Options Study
	Motor Grader Route – Oneida

Tenders, Quotations & Requests for Proposals will be received
on the specified CLOSING date before 2:00:00PM (local time)
at the Cayuga Administration Office unless otherwise noted on
the website. Lowest/highest or any tender not necessarily
accepted. For complete tender details, please visit the County
website.

OFFERS BEING FOR VACANCIES

WINDY LINE, DUNNVILLE, ONTARIO

Haldimand County has recently declared the following
property surplus to the needs of the municipality. The publicly
owned property is now being offered to interested parties.

- Legal Description: Part Lot 5, Concession Sherbrooke,
Haldimand County.
- Approximately 0.15 acres of un-serviced land located on
private road.
- Lot Dimensions: 15.25 ft. X 45.72 ft. – All dimensions
approximate.
- Current zoning – agricultural.
- Property has limited uses – in its current state no structures,
buildings or dwellings are permitted.
- An aerial view map can be found on the County's website
at www.haldimandcounty.on.ca
- Haldimand County makes no representations or warranties
whatsoever on the subject lands. Property is being sold as
is, where is and gives no opinion, consent or assurance to
the buyer respecting the intended use of the property.
It is the responsibility of potential buyers to research all
details related to the property including permitted uses and
property values.
- Offers must be in the form of an official Agreement of
Purchase and Sale from the Ontario Real Estate
Association, completed in full and including deposit.

Sealed offers will be accepted no later than Tuesday,
September 7, 2010 at 4:30 p.m. and must be sent to the
attention of:

Haldimand County
Manager, Support Services
111 Broad Street East, Dunnville, ON N1A 2X4

Any questions should be emailed to [Cathy Case](mailto:ccase@haldimandcounty.on.ca), Manager of
Support Services at ccase@haldimandcounty.on.ca



NOTICE

NOTICE

At its meeting to take place on November 22, 2010 at 6:00 pm, Haldimand County Council will consider passing a by-law to close and to sell the portion of unopened road allowance between the geographic Township of North Cayuga and Canborough, now in Haldimand County, more particularly described as Parts 2 and 3 on Reference Plan 18R-6679, part of PIN 38134-0390 (IT). A copy of the relevant report CS-CL-10-2007 can be found on the County website under Council Documents/Reports Considered By Council/2007/20070924 for your reference.

If clarification is required, contact the Clerk at 905-318-5932 Ext 249.

WINTER POLICIES

Winter Parking Restrictions

Haldimand County Winter Parking Restrictions are now in effect as per By-law No. 302/02 from November 15 until April 15. Please visit the County website for more details or contact your local Municipal Office.

Sidewalk/Roof Snow Removal

Haldimand County has a Removal of Snow and Ice from Sidewalks and Roofs By-law No. 301/02. Please visit the County website for more details or contact your local Municipal Office.

BID OPPORTUNITIES

The below document(s) are available from the Cayuga Administration office unless otherwise noted on the County website.

ADMINISTRATION OFFICES

• Cayuga: 905-318-5932 • Hagersville: 905-318-5732
• Caledonia: 905-318-5367 • Dunnville: 905-318-3272
HEALTH & SOCIAL SERVICES: Caledonia 905-318-5367

EMAIL: info@haldimandcounty.on.ca

EMPLOYMENT OPPORTUNITIES

Coordinator of Strategic Initiatives

• Permanent Full-Time

For additional details on this position please visit the Employment Opportunities section of the Haldimand County website.

Applications will be accepted until November 21, 2010 at

NOTICE OF PUBLIC CONSULTATION

HALDIMAND COUNTY MUNICIPAL WASTE RECYCLING STRATEGY

Haldimand County is completing a Municipal Waste Recycling Strategy (MWRS), which is an essential tool in the achievement of Best Practices in the management of blue box recycled materials.

The development of the MWRS will include several stages, from policy to implementation, monitoring, and improvement. The stages cover:

- Where are we now?
- Where do we want to go?
- How do we get there?
- How do we track and measure our progress?

Haldimand County invites interested parties to review the Municipal Waste Recycling Strategy in draft form. To access, please visit the Haldimand County website and click the link

UPCOMING MEETINGS

COUNCIL NOVEMBER 22 • 6:00 PM

All agendas are available on the County website the Friday prior to the meeting date.
All meetings are televised on Mountain Cablevision Channel 99.

PROPERTY TAXES

Property Tax Payment Plans Available

The County has two types of Pre-Authorized Payment Plans available to ratepayers. Enrolment is free.

Instalment Plan - the instalment amount will be withdrawn automatically from your account on the applicable tax due date. This will take place four times per year. Sign up deadline is 30 days prior to the tax due date.

Monthly Plan - monthly deductions will be withdrawn automatically from your account on the first of each month. Enrolment is available twice a year, to start January 1 or July 1. All taxes must be current before the application is accepted. The deadline to sign up for the Monthly Payment Plan to start January 1, 2011 is December 10, 2010.

Applications are easy to complete and are available at all Satellite Offices or on the Haldimand County website.

DOG LICENCES

2011 Haldimand County Dog Licences

2011 DOG LICENCES are now on sale. Licences purchased after January 1, 2011 will be subject to a \$10.00 late fee. Licences may be purchased at County Offices and select local businesses. Additional information, locations & the application form can be found on our website: www.haldimandcounty.on.ca

FOOD HANDLER COURSE

Food Handler Course



*Municipal Waste Recycling Strategy
Haldimand County
November 30, 2010*

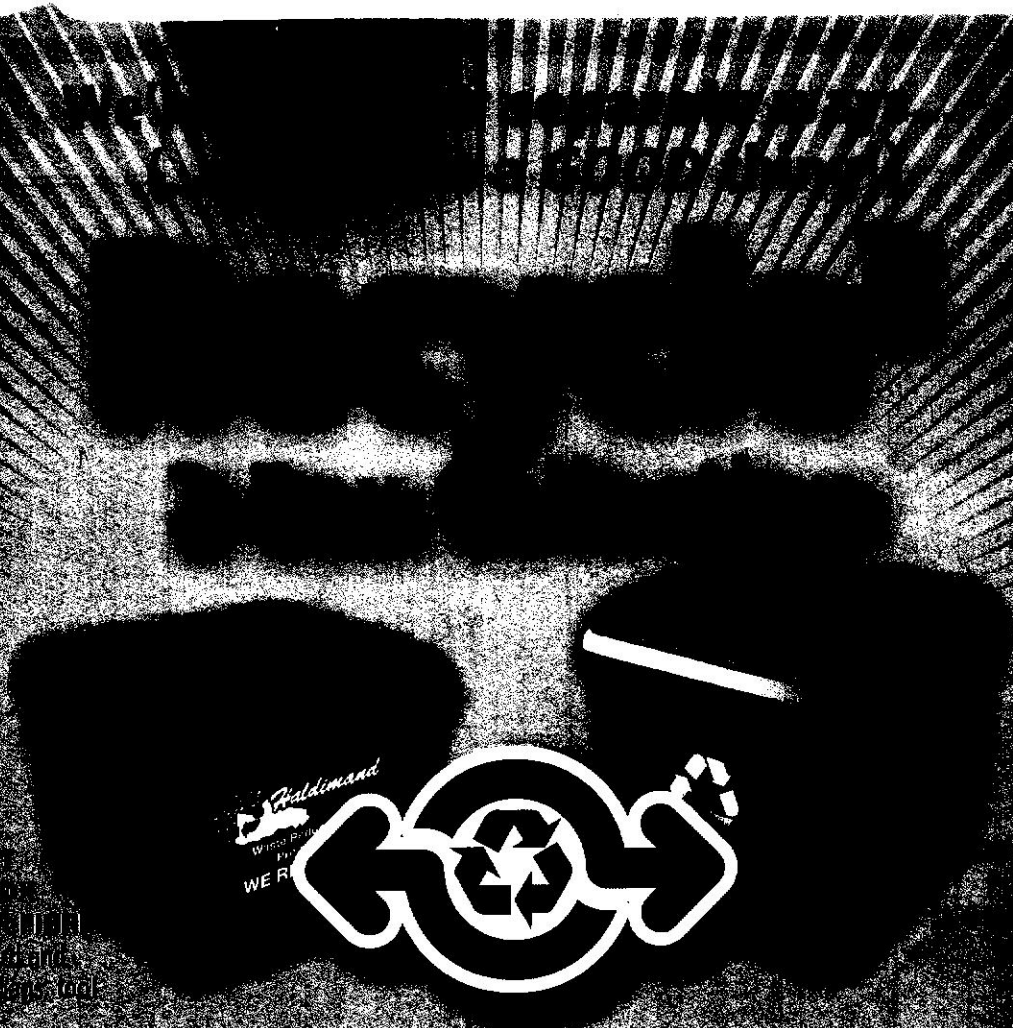
Appendix B

Recycle² Sorting Guide



Keep this useful
sorting guide near
your recycling!

www.haldimandcounty.on.ca



**Begin in Haldimand County
October 4, 2010**

Important changes are coming to
Haldimand County's Recycling Program

Starting on October 4, 2010, Haldimand County will be implementing a new recycling program. This program will allow residents to recycle a wider range of materials, including:

- Paper and cardboard
- Plastic
- Glass
- Metal
- Appliances
- Electronics
- Tires
- Stumps
- Limbs
- Limbs
- Limbs

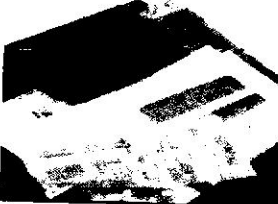

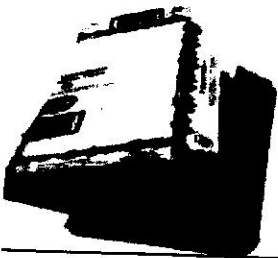

PAPER FIBRES BOX

Selected papers, cardboard, boxboard and plastic bags.

Place only accepted paper fibres and bagged plastic bags in your existing **SMALL RECYCLING BOX**.

Plastic containers, glass, cans, etc. should be placed in your new **LARGE CONTAINER BOX**. See right for details.

Begin

	ACCEPTED	HOW TO PREPARE	NOT ACCEPTED
PAPER 	<ul style="list-style-type: none"> ✓ Newspapers ✓ Magazines ✓ Catalogues ✓ Envelopes ✓ Flyers, junk mail ✓ Paperbacks, phone books and hardcover books ✓ Shredded paper 	<ul style="list-style-type: none"> • DO NOT place paper items inside grocery or clear recycling bags, except shredded paper. • Shredded paper (<i>only</i>) must be placed inside a firmly-tied clear plastic bag. • Discard covers from hardcover books. 	<ul style="list-style-type: none"> ✗ No gift wrapping paper or greeting cards. ✗ No paper beverage or take-out coffee cups ✗ No coated paper bags (e.g. pet food bags) ✗ No chip bags or other foil
BOXBOARD 	<ul style="list-style-type: none"> ✓ Boxes for cereal, tissue, pop, crackers, laundry soap, toothpaste, pasta, etc. ✓ Shoe and gift boxes ✓ Paper cores from paper towel and toilet tissue rolls 	<ul style="list-style-type: none"> • Remove liners and plastic windows (e.g. from tissue boxes). • Flatten and place inside another boxboard box. 	<ul style="list-style-type: none"> ✗ No milk or juice cartons, boxes or Tetra-Paks™ (Place in Large Container Box.) ✗ No frozen food packaging (e.g. paper ice cream cartons or frozen dinner boxes, etc.) ✗ No paper beverage or take-out coffee cups ✗ No foil-lined food containers ✗ No cardboard spiral containers (e.g. frozen juice, chilled dough in Large Container Box.
CORRUGATED CARDBOARD 	<p>All corrugated cardboard, including:</p> <ul style="list-style-type: none"> ✓ Shipping or packing boxes ✓ Clean "delivery" or take-out pizza boxes ✓ Moulded cardboard egg cartons, take-out beverage trays 	<ul style="list-style-type: none"> • Remove leftover food and any paper liners. • Remove wrap from cases of bottled water or pop (place with plastic bags, as directed below). • Flatten excess or oversize cardboard; place in a cardboard box or tie in bundles no larger than 91cm x 91cm x 20cm (3ft x 3ft x 8in). 	<ul style="list-style-type: none"> ✗ NO frozen food boxes (including pizza). (The wax coating prevents them from being recyclable) ✗ No food residue, liners, lids or plastic
PLASTIC BAGS 	<ul style="list-style-type: none"> ✓ Retail shopping or grocery bags ✓ Bread, frozen vegetable and outer milk bags ✓ Dry cleaning bags ✓ Clean bubble wrap ✓ Plastic from cases of toilet tissue, paper towels, bottled water and pop 	<ul style="list-style-type: none"> • Remove receipts from bags. • Stuff all plastic bags into one bag and tie handles firmly. 	<ul style="list-style-type: none"> ✗ No plastic wrap other than types listed ✗ No "inner" milk bags (in contact with milk) ✗ No chip-bags or other foil bags

REMEMBER: ONLY plastic bags and shredded paper should be bagged. Place all other paper items (unbagged) directly into your small recycling box.

Boxes must not exceed 18 kg (40lbs) each. Excess materials? Use a cardboard box for paper fibres. For containers, use an extra small box if you have one. Or save for next week's collection.

** Save these items for your next HHW Event or visit www.makethedrop.ca for retailer accept HHW items year-round.










GE CONTAINER BOX

plastic, metal, foil and foam containers.

Place **only accepted**
CONTAINERS in your new blue
LARGE CONTAINER BOX.

Plastic bags, cardboard and other accepted paper
products should be placed in your **SMALL PAPER**
FIBRES BOX. See left for details.

April 4, 2010

	ACCEPTED	HOW TO PREPARE	NOT ACCEPTED
 METAL FOOD AND BEVERAGE CANS, FOIL PLATES AND TRAYS 	<ul style="list-style-type: none"> ✓ Pop and other beverage cans ✓ Tins for soup, beans, fruit and vegetables, etc. ✓ Foil pie plates, foil cake or roasting pans and other foil food trays 	<ul style="list-style-type: none"> • Empty and rinse. • Place lid inside metal can and squeeze opening. • Labels are accepted. • Discard foil-lined cardboard lids from foil baking dishes. 	<ul style="list-style-type: none"> ✗ No foil-lined cardboard lids (e.g. from foil baking pans) ✗ No foil wrap (e.g. butter, cigarettes) ✗ No coat hangers ✗ (Return to dry cleaner) ✗ No pots, pans or baking trays ✗ No propane cylinders** ✗ No needles or syringes** ✗ No appliances or scrap steel
PAPER OR CARDBOARD CARTONS 	<ul style="list-style-type: none"> ✓ Milk and juice cartons ✓ Drinking boxes and other Tetra-Paks™ ✓ Cardboard spiral packaging (e.g. frozen juice, chilled dough tubes, baby formula containers, potato chip cans) 	<ul style="list-style-type: none"> • Empty and rinse. • Discard plastic lids or caps. • Discard straws and plastic wrap. • Place metal tops and bottoms from spiral containers in the box. 	<ul style="list-style-type: none"> ✗ No lids, caps, straws or plastic wrapping
GLASS JARS AND BOTTLES 	<p>All clear and coloured food and beverage glass jars and bottles</p> <p><i>Note: Take beverage alcohol containers to The Beer Store and collect your deposit.</i></p>	<ul style="list-style-type: none"> • Empty and rinse. • Discard lids and caps. • Labels are accepted. 	<ul style="list-style-type: none"> ✗ No broken glass (Wrap, label and place with garbage.) ✗ No light bulbs ✗ No glass containers ever used for pesticides or other household hazardous materials** ✗ No drinking glasses or ceramics ✗ No Pyrex™ or other bakeware ✗ No window glass or mirrors
EMPTY PAINT CANS AND EMPTY AEROSOL CANS 	<p>EMPTY paint and aerosol cans:</p> <ul style="list-style-type: none"> ✓ Household interior or exterior paint, stain or varnish ✓ Aerosol air freshener, shaving cream, household cleaners, hair spray, etc. 	<p>***MUST BE EMPTY***</p> <ul style="list-style-type: none"> • Paint cans must not contain more than ¼" (6mm) of dried paint. • <u>Remove lids</u>; place in box separately. • Discard plastic lids from aerosol cans. 	<ul style="list-style-type: none"> ✗ No cans containing more than ¼" (6mm) of liquid paint** ✗ No partially full aerosol cans** ✗ No plastic paint cans ✗ No propane cylinders**
PLASTIC BOTTLES, JARS, JUGS AND TUBS  <p>Only those containers with one of these codes on the bottom:</p> 	<ul style="list-style-type: none"> ✓ Beverage bottles ✓ Dish soap or laundry detergent bottles ✓ Ketchup, peanut butter jars and bottles, etc. ✓ Yogurt and margarine tubs ✓ Bleach jugs or cleaning product bottles ✓ Shampoo bottles ✓ Clear plastic bakery, produce and egg containers 	<p>Look for one of the accepted codes:</p>  <ul style="list-style-type: none"> • Empty and rinse. • <u>Discard lids and caps.</u> 	<ul style="list-style-type: none"> ✗ No plastics with codes 3 or 7 ✗ No Plastic Bags: Place these in your small Paper Fibres Box. ✗ No plastics that have contained pesticides or other household hazardous products.** ✗ No food wrap (e.g. cling wrap, plastic meat wrap, etc.) ✗ No plastic paint cans ✗ No lawn edging, tarps or hoses ✗ No plastic blister packs ✗ No plastic toys
POLYSTYRENE CODE 6 AND STYROFOAM™ 	<ul style="list-style-type: none"> ✓ Foam food or meat trays ✓ Foam containers ✓ Foam cups ✓ Foam packaging 	<ul style="list-style-type: none"> • Look for code 6 on containers. • Empty and rinse. • Discard any paper liner or plastic covering. 	<ul style="list-style-type: none"> ✗ No plastic lids ✗ No foam packing "peanuts"



order an additional box, call HGC Management at 1-888-729-1911.
 For more information about Recycle², visit www.haldimandcounty.ca

Windsor 905-318-5932

Dunnville 905-318-5932

Windsor 905-318-5367

Hagersville 905-318-5367

Haldimand's New Recycle² System Begins October 4, 2010.

Previously Asked Questions About Recycle²

What is Recycle²?

Recycle² is a new recycling program that allows residents to place their recycling materials in a designated bin. The bin is placed on the curb and is used to collect recycling materials. The bin is used to collect recycling materials from residents who have a curbside recycling bin. The bin is used to collect recycling materials from residents who have a curbside recycling bin. The bin is used to collect recycling materials from residents who have a curbside recycling bin.

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What materials can be recycled?

Recycling materials include paper, cardboard, plastic, glass, and metal. Recycling materials include paper, cardboard, plastic, glass, and metal. Recycling materials include paper, cardboard, plastic, glass, and metal. Recycling materials include paper, cardboard, plastic, glass, and metal. Recycling materials include paper, cardboard, plastic, glass, and metal.

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FSC info
to come



Appendix C
List of Rural Collection- South Communities

Program Name	Calculated Blue Box Tonnes Marketed	Total Gross Costs	Gross Costs Per Tonne	Total Gross Revenue	Material Revenue / Per Tonne	Other Revenue/Per Tonne	Total Net Cost	Net Cost Per Tonne	Identification of Single Tier or located within Regions, Counties or Districts
Rural Collection									
ALFRED AND PLANTAGENET, TOWNSHIP OF	404.44	\$216,880.17	\$535.75	\$150.00	\$0.00	\$0.37	\$216,530.17	\$535.38	Prescott & Russell
ALGONQUINS OF PIKAWANAGAN	21.83	\$33,965.79	\$1,555.62	\$0.00	\$0.00	\$0.00	\$33,965.79	\$1,555.62	n/a
AMARANTH, TOWNSHIP OF	249.34	\$40,053.28	\$160.64	\$0.00	\$0.00	\$0.00	\$40,053.28	\$160.64	Dufferin
ASHFIELD-COLBORNE-WAWANOSH, TOWNSHIP OF	361.49	\$117,752.94	\$325.74	\$0.00	\$0.00	\$0.00	\$117,752.94	\$325.74	Huron
ATHENS, TOWNSHIP OF	201.74	\$64,074.28	\$317.61	\$0.00	\$0.00	\$0.00	\$64,074.28	\$317.61	Leeds & Grenville
BANCROFT, TOWN OF	363.78	\$181,449.01	\$498.79	\$1,828.69	\$2.35	\$2.67	\$179,622.32	\$493.77	Hastings
BAYHAM, MUNICIPALITY OF	384.04	\$150,931.29	\$393.01	\$0.00	\$0.00	\$0.00	\$150,931.29	\$393.01	Elgin
BECKWITH, TOWNSHIP OF	406.77	\$219,058.79	\$538.53	\$43,364.24	\$106.61	\$0.00	\$175,694.55	\$431.93	Lanark
BONNECHERE VALLEY, TOWNSHIP OF	246.14	\$84,012.42	\$341.32	\$4,223.50	\$0.00	\$17.18	\$79,788.92	\$324.17	Renfrew
BRANT, COUNTY OF	2,130.07	\$884,918.46	\$415.44	\$3,476.00	\$0.00	\$1.63	\$881,442.46	\$413.81	Brant
CENTRAL ELGIN, MUNICIPALITY OF	798.52	\$315,346.83	\$394.91	\$0.00	\$0.00	\$0.00	\$315,346.83	\$394.91	Elgin
CHATSWORTH, TOWNSHIP OF	402.06	\$94,214.00	\$234.33	\$0.00	\$0.00	\$0.00	\$94,214.00	\$234.33	Grey
CHIPPÉWAS OF NAWASH FIRST NATION	3.58	\$28,310.72	\$7,918.14	\$0.00	\$0.00	\$0.00	\$28,310.72	\$7,918.14	Grey
CHIPPÉWAS OF RAMA FIRST NATION	47.02	\$99,084.91	\$2,107.17	\$0.00	\$0.00	\$0.00	\$99,084.91	\$2,107.17	Grey
CLARENCE-ROCKLAND, CITY OF	1,462.23	\$321,797.40	\$220.07	\$7,845.00	\$0.00	\$5.37	\$313,952.40	\$214.71	Prescott & Russell
DEEP RIVER, TOWN OF	503.63	\$103,597.43	\$205.70	\$380.00	\$0.00	\$0.71	\$103,237.43	\$204.96	Renfrew
DRUMMOND-NORTH ELMLEY, TOWNSHIP OF	498.79	\$237,299.15	\$475.75	\$53,291.25	\$106.84	\$0.00	\$184,007.90	\$368.91	Lanark
DUTTON-DUNWICH, MUNICIPALITY OF	153.18	\$49,610.80	\$323.85	\$0.00	\$0.00	\$0.00	\$49,610.80	\$323.85	Elgin
EAST GARAFRAXA, TOWNSHIP OF	178.11	\$45,671.59	\$256.42	\$0.00	\$0.00	\$0.00	\$45,671.59	\$256.42	Dufferin
EAST LUTHER GRAND VALLEY, TOWNSHIP OF	208.97	\$68,289.49	\$326.80	\$83.50	\$0.00	\$0.40	\$68,205.99	\$326.40	Dufferin
EDWARDSBURGH CARDINAL, TOWNSHIP OF	400.40	\$49,145.96	\$122.74	\$0.00	\$0.00	\$0.00	\$49,145.96	\$122.74	Leeds & Grenville
ELIZABETHTOWN-KITLEY, TOWNSHIP OF	306.71	\$154,607.61	\$504.08	\$3,185.79	\$4.90	\$5.48	\$151,421.82	\$493.69	Leeds & Grenville
FRONT OF YONGE, TOWNSHIP OF	101.66	\$39,346.20	\$387.05	\$0.00	\$0.00	\$0.00	\$39,346.20	\$387.05	Leeds & Grenville
GEORGIAN BLUFFS, TOWNSHIP OF	634.17	\$224,413.23	\$353.87	\$925.00	\$5.64	\$1.46	\$223,488.23	\$352.41	Grey
GREATER NAPANEE, TOWNSHIP OF	1,052.11	\$283,432.81	\$269.40	\$961.00	\$0.00	\$0.82	\$282,571.81	\$268.58	Lennox & Addington
GREY HIGHLANDS, MUNICIPALITY OF	643.45	\$271,756.33	\$422.35	\$1,521.80	\$1.18	\$1.18	\$270,234.53	\$419.98	Grey
HALDIMAND, COUNTY OF	3,112.68	\$1,730,483.07	\$555.95	\$264,797.44	\$85.07	\$0.00	\$1,465,685.63	\$470.88	Haldimand
HASTINGS HIGHLANDS, MUNICIPALITY OF	337.30	\$160,340.00	\$475.36	\$0.00	\$0.00	\$0.00	\$160,340.00	\$475.36	Prescott & Russell
HAWKESBURY JOINT RECYCLING	1,149.25	\$431,531.10	\$375.49	\$0.00	\$0.00	\$0.00	\$431,531.10	\$375.49	Hastings
HIGHLANDS EAST, MUNICIPALITY OF	376.58	\$147,121.79	\$390.68	\$19,068.53	\$0.00	\$0.00	\$128,053.26	\$340.04	Haliburton
HORTON, TOWNSHIP OF	203.35	\$76,562.69	\$376.50	\$289.20	\$0.00	\$1.42	\$76,273.49	\$375.08	Renfrew
HOWICK, TOWNSHIP OF	157.92	\$70,450.50	\$446.10	\$50.00	\$0.00	\$0.32	\$70,400.50	\$445.79	Huron
KILLALOE, HAGARTY, AND RICHARDS, TOWNSHIP OF	165.30	\$71,265.35	\$431.13	\$970.43	\$4.93	\$0.58	\$70,354.92	\$425.62	Renfrew
LANARK HIGHLANDS, TOWNSHIP OF	350.29	\$181,888.90	\$519.25	\$20,136.00	\$0.00	\$57.48	\$161,752.80	\$461.77	Lanark
LAURENTIAN HILLS, TOWN OF	184.26	\$58,280.38	\$316.30	\$0.00	\$0.00	\$0.00	\$58,280.38	\$316.30	Renfrew
LOYALIST, TOWNSHIP OF	911.61	\$392,750.02	\$430.83	\$96,051.09	\$104.89	\$0.47	\$296,698.93	\$325.47	Lennox & Addington
MADAWASKA VALLEY, TOWNSHIP OF	277.34	\$105,324.08	\$379.77	\$0.00	\$0.00	\$0.00	\$105,324.08	\$379.77	Elgin
MALAHIDE, TOWNSHIP OF	410.85	\$186,104.88	\$452.98	\$325.00	\$0.00	\$0.00	\$185,779.88	\$452.18	Renfrew
MCNAB-BRAESIDE, TOWNSHIP OF	606.07	\$121,184.05	\$199.95	\$0.00	\$0.00	\$0.00	\$121,184.05	\$199.95	Elgin
MEAFORD, MUNICIPALITY OF	773.65	\$200,763.01	\$259.50	\$324.25	\$0.00	\$0.00	\$200,438.76	\$259.08	Grey
MERRICKVILLE-WOLFORD, VILLAGE OF	159.60	\$22,546.89	\$141.27	\$136.50	\$0.00	\$0.86	\$22,410.39	\$140.42	Leeds & Grenville
MISSISSIPPI MILLS, TOWN OF	651.22	\$310,280.51	\$476.46	\$84,423.97	\$129.64	\$0.00	\$225,856.54	\$346.82	Lanark
MONO, TOWN OF	731.84	\$167,269.15	\$228.56	\$0.00	\$0.00	\$0.00	\$167,269.15	\$228.56	Dufferin
MONTAGUE, TOWNSHIP OF	187.91	\$113,313.72	\$603.04	\$21,864.28	\$114.75	\$1.71	\$91,429.44	\$486.57	Lanark
MULMUR, TOWNSHIP OF	292.91	\$122,899.48	\$419.59	\$220.00	\$0.00	\$0.75	\$122,679.48	\$418.84	Dufferin
NORTH DUNDAS, TOWNSHIP OF	586.43	\$370,766.93	\$632.24	\$40,447.21	\$68.97	\$0.00	\$330,319.72	\$563.27	Stormont, Dundas & Glengarry
NORTH GLENGARRY, TOWNSHIP OF	1,222.80	\$510,692.10	\$417.64	\$120,208.09	\$97.79	\$0.51	\$390,484.01	\$319.34	Stormont, Dundas & Glengarry
NORTH GRENVILLE, MUNICIPALITY OF	1,083.05	\$281,384.10	\$259.81	\$18,429.01	\$14.58	\$2.43	\$262,955.09	\$242.78	Stormont, Dundas & Glengarry
NORTH HURON, TOWNSHIP OF	408.65	\$95,855.30	\$234.08	\$168.00	\$0.00	\$0.41	\$95,487.30	\$233.66	Huron
NORTH STORMONT, TOWNSHIP OF	395.28	\$145,628.31	\$368.44	\$0.00	\$0.00	\$0.00	\$145,628.31	\$368.06	Stormont, Dundas & Glengarry
OTTAWA VALLEY WASTE RECOVERY CENTRE	2,978.81	\$1,944,204.28	\$652.69	\$329,292.89	\$95.83	\$14.72	\$1,614,911.39	\$542.13	Renfrew
PLYMPTON-WYOMING, TOWN OF	298.04	\$197,037.71	\$658.90	\$0.00	\$0.00	\$0.00	\$197,037.71	\$658.90	Lambton
RIDEAU LAKES, TOWNSHIP OF	786.15	\$290,244.94	\$369.20	\$9,700.30	\$0.00	\$0.00	\$280,544.64	\$356.86	Leeds & Grenville
RUSSELL, TOWNSHIP OF	1,251.23	\$273,559.85	\$218.63	\$1,309.00	\$0.00	\$1.05	\$272,250.85	\$217.59	Prescott & Russell
SOUTH DUNDAS, TOWNSHIP OF	547.51	\$201,944.33	\$368.84	\$434.00	\$0.00	\$0.79	\$201,510.33	\$368.05	Stormont, Dundas & Glengarry

Program Name	Calculated Blue Box Tonnes Marketed	Total Gross Costs	Gross Costs Per Tonne	Total Gross Revenue	Material Revenue / Per Tonne	Other Revenue/Per Tonne	Total Net Cost	Net Cost Per Tonne	Identification of Single Tier or located within Regions, Counties or Districts
SOUTH FRONTENAC, TOWNSHIP OF	926.73	\$503,614.04	\$543.43	\$104,201.34	\$110.90	\$1.54	\$389,412.70	\$430.99	Frontenac
SOUTH GLENGARRY, TOWNSHIP OF	611.20	\$205,483.77	\$336.20	\$0.00	\$0.00	\$0.00	\$205,483.77	\$336.20	Stormont, Dundas & Glengarry
SOUTH STORMONT, TOWNSHIP OF	673.29	\$166,298.81	\$247.00	\$236.75	\$0.00	\$0.35	\$166,062.06	\$246.64	Stormont, Dundas & Glengarry
SOUTHGATE, TOWNSHIP OF	528.31	\$380,261.79	\$719.77	\$450.13	\$0.00	\$0.85	\$379,811.66	\$718.92	Grey
SOUTHWEST MIDDLESEX, MUNICIPALITY OF	451.56	\$178,423.63	\$395.13	\$10,981.01	\$23.25	\$1.06	\$167,442.62	\$370.81	Middlesex
SOUTHWOLD, TOWNSHIP OF	172.37	\$41,110.23	\$238.51	\$0.00	\$0.00	\$0.00	\$41,110.23	\$238.51	Elgin
ST. CLAIR, TOWNSHIP OF	694.31	\$171,904.23	\$247.59	\$81,760.99	\$87.82	\$1.13	\$110,143.24	\$158.64	Lambton
STONE MILLS, TOWNSHIP OF	603.99	\$353,493.04	\$585.27	\$2,380.00	\$0.00	\$3.94	\$351,113.04	\$581.33	Lennox & Addington
THAMES CENTRE, MUNICIPALITY OF	995.20	\$236,592.39	\$237.73	\$212.45	\$0.00	\$0.21	\$236,379.94	\$237.52	Middlesex
THE BLUE MOUNTAINS, TOWN OF	795.57	\$317,069.77	\$398.54	\$33,650.60	\$42.09	\$0.21	\$283,419.17	\$356.25	Grey
THE NATION MUNICIPALITY	782.09	\$244,601.43	\$312.75	\$288.00	\$0.00	\$0.37	\$244,313.43	\$312.39	Prescott & Russell
WEST ELGIN, MUNICIPALITY OF	130.97	\$139,896.27	\$1,068.16	\$2,333.75	\$17.54	\$0.27	\$137,562.52	\$1,050.34	Elgin
WEST GREY, MUNICIPALITY OF	767.02	\$207,099.32	\$270.00	\$1,596.00	\$0.00	\$2.08	\$205,503.32	\$267.92	Grey
WHITEWATER REGION, TOWNSHIP OF	400.44	\$100,518.75	\$251.02	\$548.00	\$0.00	\$1.37	\$99,970.75	\$249.65	Renfrew
Totals	41,296.11	\$16,606,665.68	\$397.90	\$1,369,079.30	\$17.76	\$2.88	\$15,237,586.38	\$517.26	
Total Municipalities > 69		Average >							



Appendix D

Waste Recycling Option Scores
