

A Waste Recycling Strategy for
County of Brant
Final

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Appendix 1 Waste Recycling Option Scores

1.0 Introduction

This Waste Recycling Strategy (Strategy) was initiated by the County of Brant (County), to develop a plan to increase the efficiency and effectiveness of its Blue Box recycling program, maximize the amount of Blue Box material diverted from disposal and to help maximize Blue Box funding provided by the stewards (i.e. producers) of packaging waste (i.e. materials that end up in the Blue Box), as managed by Waste Diversion Ontario (WDO). This document was developed with support from the Continuous Improvement Fund (CIF) with 75% of the costs provided from CIF. It is recommended that this Strategy be updated at least every five years.

The development of a Strategy is considered to be a Best Practice (BP) and acts as a standalone document that functions as a tool for the County's waste management staff specific to the Blue Box Program. The Continuous Improvement Fund (CIF) *Guidebook for Creating a Municipal Waste Recycling Strategy* (March 2010) was used to help develop this Strategy, along with considerable feedback from municipal staff. This Strategy uses the most recent WDO Datacall data (2012 submitted data for 2011 reporting year) as its starting point.

The Strategy is a short term guidance document for staff and is specific to Blue Box only. All reference to diversion rates is specific to residential Blue Box diversion rates and does not incorporate overall waste diversion rates. This document will highlight best practices suited for the County's municipal grouping of Rural Collection South as classified by Waste Diversion Ontario

Specifically, the purpose of this Strategy is to:

- Help the County maximize WDO Blue Box funding in the upcoming Best Practice section of the WDO data call;
- Act as a high level strategic roadmap and planning document to assist the County with future decision making specific to the Blue Box program;
- Assess current performance of the Blue Box program that can be used as a baseline to assess future performance (2013-2017);
- Set long-term Blue Box diversion goals and cost targets; and,
- Identify and implement Best Practice initiatives to help improve future performance for the County of Brant.

Throughout this Strategy, references are made to Blue Box capture rates and Blue Box diversion rates.

A **Blue Box diversion rate** provides specific reference to the County's Blue Box program. It does not include other divertible tonnes captured through leaf and yard waste, pilot organics program, backyard composting, MHSW, scrap metal, or electronic recycling (WEEE). A Blue Box diversion rate is calculated using the total residential blue box tonnes divided by the total residential waste tonnes.

A **Blue Box capture rate** also provides specific reference to the County's Blue Box program and does not include other divertibles. The Blue Box capture rate represents the Blue Box tonnes that the County is capturing out of the waste stream based on composition data for Rural Collection South programs.

2.0 Overview of the Planning Process

This Strategy was prepared by the environmental consulting firm 2cg Inc in conjunction with County of Brant staff. The development of the Strategy included the following steps:

- Gather relevant data from the County
- Prepare Draft Strategy;
- Receive feedback from County staff; and
- Prepare final Strategy.

The next steps include:

- Receipt of this Strategy by the County's Public Works Committee; and
- County consideration of the Blue Box supporting initiatives in the future.

3.0 Study Area

The study area for this Strategy is the County of Brant, located north of Lake Erie, with the communities of Norfolk County and Haldimand County bordering the South of Brant, Oxford County the West of Brant and the City of Hamilton bordering the East. The County is 60% urban and 40% rural and covers approximately 850 square kilometers.

Figure 1 is a map depicting the County of Brant.

Figure 1- Map Depicting the County of Brant



This Strategy addressed the following sectors:

- Residential single family;
- Multi-residential;
- Downtown businesses.

4.0 Consultation Process

County staff were consulted in the development of this Strategy consisting of the following activities:

- Review of Draft Strategy with staff;
- Incorporation of staff comment and feedback ; and
- Finalization of Strategy to be forwarded to Public Works Committee

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 endeavors can vary greatly and depends on a municipality's size, geographic location and population.

The County faces some Blue Box recycling challenges that this Strategy can address including:

- Program costs
- Sufficient resources to implement and maintain new diversion programs; and,
- Large geographic area with low population density.

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

- Maximize Best Practices funding for the Blue Box program;
- Increase overall Blue Box capture rate in a cost effective manner.

6.0 Goals and Objectives

This Strategy development process identified a number of goals and objectives for the County. The Strategy goals are summarized in the following table (Table 6.1).

Table 6.1 County's Recycling Goals and Objectives

Waste Recycling Goals and Objectives		
Goals	Objectives	Current Situation (2011)
To continue to be cost effective while increasing program infrastructure.	Compare program with comparable programs in the area to maximize efficiencies.	Net Cost = \$359/tonne (\$774,993/2,156 tonnes)
To maximize capture and diversion of residential Blue Box.	In 2014-2015 aim to divert 23% of all residential municipal solid waste through the Blue Box program. Beyond 2015 <u>consider</u> setting target to divert a minimum of 25% through the Blue Box program.	Blue Box Diversion Rate is 19% (2,156 Blue Box Tonnes/11,500 total residential waste tonnes)

7.0 Current Solid Waste Trends, Practices and System and Future Needs

Community Characteristics

Referencing the recent WDO Datacall submission (2011), the County has a population of 30,841, 13,691 single family households and 14 multi-family households (13,705 total households).

Existing Waste Management Services

The County provides the following waste management services that include:

- Weekly residential curbside garbage collection with a 5 bag limit;
- Bi-weekly single stream residential curbside blue box for a broad range of materials (excluding film and polystyrene);
- Two Blue Box depot sites (landfill and transfer station);
- Leaf and yard waste drop off depot and seasonal leaf collection for urban areas;
- Bulky items are accepted at the municipal landfill for a fee;
- One household hazardous waste event day in the fall;
- Support of “at home” waste diversion programs, such as backyard composting with the provision of subsidized backyard composters, and promoting grass cycling;
- Education and promotion of waste reduction programs; and
- Long term planning for waste management (Waste Diversion Plan 2007).

Current Recycling Program

The County has a 10 year Blue Box curbside collection and MRF processing contract with Emterra (Burlington, ON). The Emterra MRF is located approximately 50km from Burford, ON. The combined contract commenced in 2007 and ends in 2017. The County is charged a flat rate of \$370 per tonne (2012 rates) to collect, process and market the Blue Box material. In accordance with the existing contract, the contractor retains 100% of the revenue from material sales.

The County uses the 16 gallon Blue Boxes and recently (2010) launched a single stream public education campaign supported with a collection calendar distributed to all households, print newspaper ads and a recently established Smart Phone APP entitled **MY-WASTE** which reminds smart phone users in advance of all collection days, provides alerts when collection days change due to a holidays, etc.

The County collects a broad range of Blue Box material (single stream) which includes the following:

Containers	Fibres
<ul style="list-style-type: none"> Glass bottles and jars 	<ul style="list-style-type: none"> Newspaper, flyers, magazines, inserts and office paper.
<ul style="list-style-type: none"> Metal food and beverage containers, empty aerosols, paint cans & foil/pie plates and spiral cardboard cans 	<ul style="list-style-type: none"> Boxboard, corrugated cardboard, brown paper bags, spiral cores.
<ul style="list-style-type: none"> Plastic containers (1-5) excluding expanded PET shells, polystyrene cups and trays and plastic film. 	<ul style="list-style-type: none"> Aseptic Containers (Tetra Paks) Polycoat (Milk and Juice Cartons)

Upcoming important Blue Box-related milestones that may affect how collection services are administered within the County include:

- Collection and processing contract expiry in 2017;
- Landfill capacity to be exceeded in less than 8 years (2020) based on current fill rate;

Current Waste Generation and Diversion

Table 7.1 depicts total waste quantities managed by the County in 2011 as gathered from the County's 2011 Datacall submission. This table does not include any information on self management of wastes by residents (e.g. backyard composting, deposit return).

Table 7.1 2011 Residential Waste Quantities

Waste Material	Tonnes 2011
Curbside Garbage Collection	7,525
Curbside Blue Box Collection	2,083
Blue Box Depot	73
C&D Material	1,390
Leafs and Xmas Trees	182
Scrap Metal	117
White Goods	28
Bulky Items	21
Tires	52
MHSW	27
Total	11,498

In 2011, the County managed a total of 11,498 tonnes of residential waste (garbage and all divertibles) respectively.



In 2011, the County diverted close to 3,973 tonnes/year of material of which 2,156 tonnes per year is characterized as Blue Box material. This represents an overall residential diversion rate of 35% (3,973 Divertible Tonnes/11,498 Total tonnes).

A Blue Box diversion rate is typically lower than an overall diversion rate as its focus is specific to the weight of Blue Box material that is diverted from the total residential waste stream.

Table 7.2 summarizes the 2011 residential waste generation and the **Blue Box** diversion rate.

Table 7.2 County's Residential Blue Box Diversion Rate (2011)*

Residential Solid Waste Generated and Diverted (Through Blue Box Only)		
Residential Waste Stream/ Blue Box Material	Tonnes	Percent of Total Waste (Referencing Norfolk County 2011 Composition)
Total Waste Generated (all drop off and curbside programs)	11,500	-
Papers (ONP, OMG, OCC, OBB and fine papers)	1,610	14.0%
Metals (aluminum, steel, mixed metal)	150	1.3%
Plastics (containers, tubs and lids)	230	2.0%
Glass	167	1.5%
Total Blue Box Recyclables Diverted from Landfill	2,156	18.8%

* Emterra provides a total combined weight and does not segregate material into categories. Composition percentages reference recent data from the Municipality of Norfolk County.

The 2011 residential Blue Box diversion rate was about 19% (2,156 Blue Box Tonnes/11,500 residential total tonnes inclusive of curbside garbage, drop off divertibles/event and Blue Box material managed by the County).

The County's recovery rate for Blue Box materials based on 13,705 total households is about 157 kg/hshld, which is somewhat lower than the reported 2010 Provincial average of about 180 kg/hshld.



Waste Diversion Ontario divides municipalities into a number of municipal groupings for comparison purposes. The County is included in the Rural Collection South grouping with 75 other municipalities.

Table 7.3 shows that the County's current Blue Box diversion rate is **slightly lower than the average for its municipal grouping.**

Table 7.3 Residential Blue Box Diversion Rate Comparison to Rural Collection South Rate (2010 GAP analysis in Datacall)

Average Blue Box Diversion Rate (2011)	
Brant County (2011)	19%
Municipal Grouping: Rural Collection South (2010)	22%

Blue Box Program Costs

In 2011 the cost to manage the Blue Box program was approximately \$774,993. This represents a Blue Box program cost of \$359/tonne (collection, processing and administration, no revenue from sale of material as per current contract).

The County of Brant's full Blue Box program amounts to \$25 per capita or \$56 per household.

As Table 7.4 shows, 2011 annual recycling costs for the County are **below average for the Rural Collection South Municipal Grouping.**

Table 7.4 County's Blue Box Costs vs. Rural Collection South Costs

Recycling Cost (per tonne)	
Brant Blue Box Program Costs (2011)	\$ 359
Average Net Costs for Rural Collection South Programs (2010 posted Datacall results)	\$ 458

Potential Waste Diversion

The County's projected waste composition for available Blue Box material to potentially be captured from the waste stream was estimated using Small Urban and Rural Collection waste composition data presented in the CIF Guidebook as a comparable sampling composition based on the geographic and demographic configuration of the County.

Table 7.5 depicts how calculations can be conducted to determine the possible Blue Box tonnes available in the residential waste stream for a program with similar

demographics as the County (using the Small Urban and Rural waste audit sample). Referencing the County's total waste tonnes of 11,500 tonnes and applying the sample waste audit composition percentages to the commodities of paper, metals, plastics and glass, it has been estimated that the County potentially has 34% Blue Box material in the residential waste stream. Converting the percentage into tonnes represents approximately 3,910 tonnes.

Table 7.5 Representative Waste Audit Data (Small Urban and Rural)

Current and Potential Diversion			
Waste/Resource Material	Composition (%) (Small Urban & Rural Sample Audit)	Total Residential Waste Generated (tonnes)	Total Blue Box Material in Waste Stream (tonnes)
Papers (ONP, OMG, OCC, OBB and fine papers)	22	11,500	2,530
Metals (aluminum, steel, mixed metal)	2		230
Plastics (containers, film, tubs and lids)	6		690
Glass	4		460
Total Blue Box Materials	34	11,500	3,910

Currently, the County is capturing 2,156 Blue Box tonnes from the residential waste stream representing a capture rate of 55% (2,156 current Blue Box tonnes/3,910 potentially available Blue Box tonnes). The CIF guidebook has recommended a target capture rate of 80% Blue Box material for the Small Urban and Rural municipalities.

If the Small Urban and Rural municipalities are striving toward a target capture rate of 80%, this would mean that the County would need to collect an additional 972 tonnes of Blue Box material as depicted in Table 7.6.

Table 7.6 Capturing 80% of Available Blue Box Material from Brant's Residential Waste Stream

Current and Potential Diversion					
Waste/Resource Material	Estimated Blue Box Material in Waste Stream	Target Blue Box Capture Rate (%)	Blue Box Material Available for Diversion	Blue Box Material Currently Diverted (tonnes)	Blue Box Material Remaining in waste Stream
Papers (ONP, OMG, OCC, OBB and fine papers)	2,530	80	2,024	1610	414
Metals (aluminum, steel, mixed metal)	230		184	150	35
Plastics (containers, film, tubs and lids)	690		552	230	322
Glass	460		368	167	201
Total Blue Box Materials	3,910	80	3,128	2,156	972

Capturing 80% of Blue Box material from the County's Blue Box program would raise its Blue Box diversion rate to 27% (i.e. (2,156+972)/ 11,500 total tonnes).

The new tonnes would increase Blue Box diversion by about 8 percentage points.

Anticipated Future Waste Management Needs

A typical growth rate for small urban and rural programs is approximately 1% per annum over the next 10 years. Applying this growth rate to the current WDO reported population of 30,841 will assist with basic forecasting of WDO reported Blue Box program tonnages.

Table 7.7 Forecasting 80% Capture of Blue Box Material from Residential Waste Stream

Anticipated Future Solid Waste and Blue Box Recovery Rates			
	Current Year	Current Year + 5	Current Year + 10
Population	30,841	32,414	34,068
Total Waste	11,500	12,087	12,703
Blue Box Material Available	3,128	3,288	3,455



8.0 Planned Recycling System

The following section outlines some possible initiatives that could be implemented from 2012-2017 to help increase Blue Box diversion, capture and reduce costs.

The County has a reasonably performing Blue Box program with lower than average program costs. Improving performance further will focus on maximizing the capture of recyclables using current program elements and then adding some new initiatives to the exist program to spur further capture of recyclables.

In general Priority initiatives could include improvements to:

- Promotion and Education Program
- Capacity of Existing Blue Boxes
- Reduce Bag Limits

In general Future initiatives could include:

- User Fees
- Weekly Blue Box collection

8.1 Possible Strategy to Increase Recycling

The County presently diverts approximately **19%** of all its residential wastes through its Blue Box program with a capture rate of about **55%**, which is 25% below the target capture rate of **80%** based on programs of similar size and demographics.

Given the lower Blue Box diversion and capture rate but moderate Blue Box program costs a phased approach is proposed. This will ensure that results can be closely monitored by the County's existing Municipal staff.

It is anticipated that it should be possible to also increase the capture rate of the Blue Box program within the context and costs of the current program structure. This would be done by encouraging residents to recycle more of their wastes using the existing program infrastructures but enhancing the program through greater awareness and public education, supported by bag limits, and future consideration to user pay for waste, etc.

A reasonable preliminary goal would be to increase capture rate to achieve a **23%** diversion rate as a result of the Blue Box program.

A second and aspirational future goal would be to achieve a **27%** diversion rate as a result of the Blue Box program. The minimum future goal would be to at least reach the group average of **22 to 23%** diversion rate.

The following table highlights the estimated number of tonnes that would need to be captured to attain 23% and 27% diversion rates. It includes consideration of the impact of 1 % population growth in the County and 80% capture rate.

Table 8.1 Forecasting Diversion Rates

Capture Rates to Meet Waste Diversion Goals			
	% Waste Diversion		
	Current (19)	23	27
	tonnes captured/year		
2011	2,157	2,645	3,105
2015	2,267	2,780	3,263
2020	2,383	2,922	3,430

It is anticipated that it should be possible to capture additional Blue Box materials within the existing County structure.

It should also be possible to capture additional Blue Box materials with the existing program when attaining a 23% diversion rate as a result of the Blue Box.

Table 8.2 Forecasting Diversion Rates

Meeting 23% Blue Box Diversion Rate		
Current Capture (19%)	tonnes/year	2,157
23% Capture	tonnes/year	2,645
23% Capture (additional tonnes)	tonnes/year	488
Per household	kg/year	35.6
Per household	kg/week	0.7

On average this would amount to each household recycling an additional 35kg/year or 0.7 kg /week.

8.2 Overview of Planned Initiatives

A number of waste recycling options and Best Practices that could be implemented and/or expanded were reviewed with County staff and scored based on a series of criteria, which included:

- Estimate of waste diverted (%);
- Proven Results;
- Reliable Processing Facilities/End Use;
- Accessible to Public; and
- Ease of Implementation.

A summary of scores is provided in Appendix 1.



This exercise does not commit to a final decision for the County but acts as a guide to assist with prioritizing future decisions.

From there a refined list of options were summarized into two tables:

- Possible Priority Initiatives (Table 8.3); and
- Possible Future Initiatives (Table 8.4).

These options can be considered by the County as part of this Strategy.

Table 8.3 Priority Initiatives (2012-2015)

Initiative	Estimated Implementation Cost	Estimated Annual Operating Cost	Implementation Time Line	Comments
Enhance Existing Public Education and Promotion (P&E) Program CIF Promotion and Education Tool available https://blueboxpe.wdo.ca/	Staff time to develop P&E outreach materials + materials (range \$5 K - \$10K depending on level of promotion.)	\$2,500 to maintain enhancements.	On-going for the next 5 years.	Intent to better publicize program and capture more Blue Box materials- supported with changes to collection program (bag limits, user fees, possible weekly blue box).
Purchase larger capacity Blue Boxes (22 gal.)	Make use of group purchase through Stewardship Ontario/ CIF. Approx. \$5/box.	None-possible staff time to distribute boxes. Offer as an alternative to existing Blue Boxes.	2013	Support program with updated flyers handed out with new Blue Boxes.
Reduce Bag Limits	Staff time	Could result in shift in collection costs from waste to Blue Box.	2013	Current limit is 5 bags/wk, consider reducing to 3 bags/wk to start based on survey results.



After residents have adjusted to these initiatives, consideration can be made for future initiatives outlined in Table 8.4.

Table 8.4 Future Initiatives (2015+)

Initiative	Estimated Implementation Cost	Estimated Annual Operating Cost	Implementation Time Line	Comments
Weekly Blue Box Collection	Staff time and possible increase in curbside collection costs by approx. 7% based on CIF guidebook.	Could result in shift in collection costs from waste to blue box and possible overall reduction in costs.	Consider as program enhancement when negotiating new collection contract.	Supports goal to increase capture rate to 80% and blue box diversion rate to 27%.
User Pay	Staff time and supported by enhancement of Promotion & Education costs.	Could result in increased capture of revenue for the County.	Consider as program enhancement after other infrastructures in place (bag limit, weekly collection).	This would reduce amount of waste to collect. This would require discussions with Council.

Some descriptions outlining Best Practice Initiatives outlined in the previous Initiatives Table are highlighted below. Fundamental best practices, outlined in the CIF guidebook for creating a Waste Recycling Strategy are based on the KPMG /RW Beck Best Practices Report 2007. These best practices are for municipalities to use a combination of policy mechanisms and incentives to stimulate recycling and discourage excessive generation of waste.

Bag Limits

A best practice that can support the existing County Blue Box program is residential waste bag limits. Bag limits can generally be administered without capital expense and are typically regarded as a low-cost initiative, but require significant and ongoing public education.

Currently, the County bag limit is five bags and is not stringent enough to encourage a reduction in weekly waste quantities set out by residents for curbside collection. Best practices outlined in the KPMG/RW Beck Report is to increase participation and



capture rate of a Blue Box program by employing a limit to the number of bags a household can set out for collection (e.g. 3-4 bags per household per week).

The following table excerpted from the CIF guidebook suggests effective bag limit levels for various Blue Box recycling programs. Programs with bi-weekly Blue Box collection have a somewhat higher bag limit of three bags per week compared to programs with weekly Blue Box collection.

Table 8.3 provides information depicted in the CIF guidebook.

Table 8.3 Suggested bag limits

Recycling System	Collection Frequency	Garbage	Suggested Bag Limit	Add Kitchen Organics	Suggested Bag Limit
Multi-Sort	Weekly	Weekly	3	Weekly	2
	Bi-weekly	Weekly	4	Weekly	3
Two Stream	Weekly	Weekly	3	Weekly	2
	Bi-weekly	Weekly	4	Weekly	2
	Alternating weeks	Weekly	3	Weekly	2

As a point of reference for the County, recent collection survey results depict that the average residential waste set out per week is approximately 2 bags per household.

County of Brant Curbside Garbage Collection Survey

April 2012				
URBAN AREAS			RURAL AREAS	
Eligible Properties Surveyed	119		Eligible Properties Surveyed	101
Set Outs	97		Set Outs	75
Total Bags Curbside	171		Total Bags Curbside	153
Set Out Rate	82%		Set Out Rate	74%
Average Bags/Household	1.8		Average Bags/Household	2.0

March 2012				
URBAN AREAS			RURAL AREAS	
Eligible Properties Surveyed	372		Eligible Properties Surveyed	239
Set Outs	278		Set Outs	149
Total Bags Curbside	490		Total Bags Curbside	291
Set Out Rate	75%		Set Out Rate	62%
Average Bags/Household	1.8		Average Bags/Household	2.0

Survey To Date (since December 2011)				
URBAN AREAS			RURAL AREAS	
Eligible Properties Surveyed	1223		Eligible Properties Surveyed	957
Set Outs	931		Set Outs	662
Total Bags Curbside	1766		Total Bags Curbside	1327
Set Out Rate	76%		Set Out Rate	69%
Average Bags/Household	1.9		Average Bags/Household	2.0

User Pay

Economic incentives are diverse. The objective is to place a cost on disposing of residential waste and an importance on Blue Box diversion.

Full User Pay or Pay-As-You-Throw (PAYT) has the potential to recover a portion or all of waste management costs from system users. The recent collection surveys conducted within the County indicate that residents have an average set out of 2 bags per household per week. If the County were to implement a Full User Pay program, it is anticipated that this average set out rate could potentially drop to 1 bag per household per week. Further, depending on the fee applied to the bag, potential savings in collection fees may further be supported by a potential gain in revenue from bag tag sales.



Weekly Blue Box Collection

An assessment of Blue Box program enhancements report (KPMG 2007) concluded that programs in Ontario with weekly collection of recyclables and household organics and bi-weekly collection of garbage are the most efficient in terms of the amount of waste diverted. It is important to reference those programs with bi-weekly collection of recyclable materials where residents had sufficient containers to store materials for two weeks (e.g.: 22 gal. large capacity Blue Boxes) were more cost effective. An examination of Blue Box collection costs with respect to collection frequency found that the average cost per tonne of collecting Blue Box materials bi-weekly averaged 7% less than the costs for collecting weekly

8.3 Contingencies

The Priority initiatives can be impacted if there is no County funding available. However, there is CIF funding available so at least some of the initiatives should be able to be implemented.

The Future initiatives will be decided as an outcome of future waste and Blue Box material collection/processing RFP's. If no future initiatives are implemented then the County will revert to Priority initiatives.

9.0 Monitoring and Reporting

The monitoring and reporting of the County's recycling program is considered a Blue Box program fundamental best practice and is a key component of this Waste Recycling Strategy. Once implementation of components of this Strategy begins, the performance can be monitored and measured against the baseline established for the current system. Once the results are measured, they can be reported to Council and the public on an annual basis or pre and post program implementation. The recommended approach for monitoring the County's Strategy based on the current staff complement is outlined in Table 9.1.

Table 9.1 Blue Box Monitoring Strategy

Recycling System Monitoring		
Monitoring Topic	Monitoring Tool	Frequency
Measurement of Blue Box materials captured.	Documented total weight data as outlined in this Strategy and compare it to target capture rates (80%) annually.	Annually
Diversion rate (Blue Box)	Document Blue Box Diversion Rate Formula: (blue box materials diversion) ÷ total waste generated * 100%.	Annually
Program participation	Documented curbside setout studies or curbside participation studies to determine frequency of curbside set out, number of boxes, fullness and type of boxes used.	Once every 2-3 years (if launching a new program-pre and post program launch).
Program cost	Document Blue Box program costs to reflect each cost area to determine overall cost composition.	Annually
Customer satisfaction	Customer survey to determine program effectiveness (e.g., telephone inquiry with offer of free composter for participation, etc.); Continue to tracking calls/complaints received at the municipal office. Ensure the data log is monitored semi-annually to determine if there are repeat incidents and opportunities for improvements.	Every 3 years do semi-formal exercise of asking public opinion on response time and effectiveness. Maintain data log and monitor it every 6 months.
Planning activities	Document the initiatives that have been fully or partially implemented and what will be done in the future. This offers your program benchmarking guidelines and accountability.	Annually
Review of Recycling Strategy	A periodic review of this Recycling Strategy to monitor and report on progress and to move forward with continuous improvement.	Overall annual updating for the next 5 years. Every 5 years to re-evaluate and refine list.

10.0 Conclusion

The County currently has a moderate Blue Box program diversion rate (19%) and a moderate program cost (i.e. \$359/tonne). A staged process to increase the Blue Box program diversion rate and keep costs low was **recommended**.

It is recommended that the County annually monitor its progress against this Strategy and update this Strategy as it sees fit. It is **recommended** that this Strategy be fully updated in 2017.

Appendix 1
Waste Recycling Option Scores

