

A Waste Recycling Strategy for
The Municipality of Killarney
FINAL

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Appendix 1 Waste Recycling Option Scores

1.0 Introduction

This Waste Recycling Strategy (Strategy) was initiated by the Municipality of Killarney (Municipality), to develop a plan to further increase the efficiency and effectiveness of its recycling program and to maximize the amount of Blue Box material diverted from disposal. As recommended by the Continuous Improvement Fund (CIF), this Strategy should be reviewed annually and updated at least every five years.

It should be noted that this Strategy is specific to the Blue Box only. All reference to diversion rates is explicit to residential Blue Box diversion rates and does not incorporate overall waste diversion rates from other diversion programs supported by the Municipality.

Specifically, the purpose of this Strategy is to:

- Maximize Best Practices funding in the 2011 Datacall year;
- Identify and demonstrate continuous improvements toward Best Practices;
- Clarify long term Blue Box diversion goals; and
- Identify cost effective options to maximize Blue Box diversion for the Municipality.

The Municipality faces some waste management challenges that this Strategy can address including:

- Low Blue Box capture and diversion rates;
- Distance to end processor;
- High seasonal population;
- No waste diversion enforcement incentives (i.e.: illegal dumping by-law, bag limits); and
- Lack of public space recycling.

This Strategy was developed with financial support from the CIF. The CIF's *Guidebook for Creating a Municipal Waste Recycling Strategy* was used to help develop this Strategy.

Background

Blue Box programs in Ontario are partly funded by Waste Diversion Ontario (WDO). In return the Municipality must report to WDO (i.e. annual Datacall) on its current recycling program, including Blue Box diversion rates and Blue Box program costs. The results of the Datacall influence the amount of funding that the Municipality receives for its Blue Box program.



All municipalities are divided into a number of different groupings of similar municipalities by WDO. The performance of municipalities in each grouping is compared by WDO who uses the results as part of their funding allocation strategy, where poor performers within a municipal grouping can lose a portion of their funding.

The Municipality was assigned to the Rural Depot North municipal grouping by WDO and like all other municipal programs, has no control over this designation. It is apparent that there are programs within the Rural Depot North group with different characteristics in terms of permanent and seasonal population, proximity to processing facilities, geographic size and density as well as overall program delivery and available staffing.

The Blue Box Performance Factor (previously Efficiency and Effectiveness Factor), which is calculated from the results of the Datacall, plays a significant role in determining funding that a municipality in a particular grouping will receive from WDO to fund their Blue Box programs. This factor is based on the fixed and variable costs to operate a Blue Box program; the capture rate of Blue Box wastes and adherence to Best Practices as reported in the most recent Datacall.

Table 1.1 depicts WDO Performance Factors of the Rural Depot North Municipal Group (2011), to which the Municipality belongs.

Table 1.1 2011 Blue Box Performance Factors for Rural Depot North Programs

Program Name-Small Urban	Blue Box Tonnes Marketed ¹	Net Costs	Recycling Rate ³	Net Costs per Tonne ²	Performance Factor within Group
BONFIELD, TOWNSHIP OF	49 T	\$26,072	17.7%	\$531.74	48%
CALVIN, MUNICIPALITY OF	62 T	\$14,378	72.5%	\$232.77	97%
CARLING, TOWNSHIP OF	104 T	\$119,682	22.5%	\$1,147.37	21%
CASEY, TOWNSHIP OF	51 T	\$8,322	90.0%	\$163.22	98%
CHARLTON AND DACK, MUNICIPALITY OF	4 T	\$9,314	4.9%	\$2,469.40	20%
COCHRANE TEMISKAMING WASTE MANAGEMENT BOARD	1,630 T	\$571,331	30.3%	\$350.49	84%
CONMEE, TOWNSHIP OF	10 T	\$3,992	12.7%	\$383.48	48%
EMO, TOWNSHIP OF	46 T	\$12,260	29.5%	\$268.44	88%
FRENCH RIVER, MUNICIPALITY OF	148 T	\$43,213	45.2%	\$291.46	92%
GILLIES, TOWNSHIP OF	20 T	\$15,003	35.4%	\$739.47	66%
HARLEY, TOWNSHIP OF	55 T	\$8,077	90.0%	\$147.78	98%
HILLIARD, TOWNSHIP OF	24 T	\$15,688	62.6%	\$658.42	86%
HUDSON, TOWNSHIP OF	27 T	\$9,158	29.6%	\$337.45	85%
HURON SHORES, MUNICIPALITY OF	151 T	\$24,056	39.4%	\$159.29	95%
JOHNSON, TOWNSHIP OF	83 T	\$8,623	63.9%	\$104.22	98%
KEARNEY, TOWN OF	94 T	\$178,152	30.9%	\$1,894.40	20%
KERNS, TOWNSHIP OF	18 T	\$6,122	52.6%	\$337.83	92%
KILLARNEY, MUNICIPALITY OF	41 T	\$45,644	14.8%	\$1,102.50	20%
MACDONALD, MEREDITH & ABERDEEN ADDITIONAL, TOWNSHIP OF	76 T	\$9,085	34.8%	\$119.55	96%
MACHAR, TOWNSHIP OF	71 T	\$15,416	28.2%	\$218.49	90%
MCDOUGALL, MUNICIPALITY OF	143 T	\$166,734	27.6%	\$1,167.77	29%
MCKELLAR, TOWNSHIP OF	73 T	\$96,564	17.2%	\$1,322.82	20%
MCMURRICH/MONTEITH, TOWNSHIP OF	47 T	\$52,100	21.6%	\$1,101.70	21%
NEEBING, MUNICIPALITY OF	55 T	\$31,168	15.2%	\$570.17	36%
OCONNOR, TOWNSHIP OF	21 T	\$9,847	26.8%	\$475.53	72%
OLIVER PAIPOONGE, MUNICIPALITY OF	127 T	\$64,470	20.4%	\$509.12	58%
PERRY, TOWNSHIP OF	159 T	\$156,072	37.9%	\$981.52	56%
RAINY RIVER, TOWN OF	29 T	\$11,519	27.4%	\$395.37	79%
SAGAMOK ANISHNAWBEEK FIRST NATION	58 T	\$48,184	57.9%	\$829.72	79%
SEGUIN, TOWNSHIP OF	439 T	\$195,448	31.4%	\$445.67	80%
SHUNIAH, MUNICIPALITY OF	82 T	\$41,979	11.9%	\$510.59	28%
SIOUX NARROWS NESTOR FALLS, TOWNSHIP OF	15 T	\$35,893	4.5%	\$2,352.00	20%
ST. JOSEPH, TOWNSHIP OF	90 T	\$26,615	32.9%	\$295.41	88%
ST.CHARLES, MUNICIPALITY OF	63 T	\$52,587	23.9%	\$831.24	40%
STRONG, TOWNSHIP OF	152 T	\$116,122	47.6%	\$761.80	76%
TARBUTT & TARBUTT ADDITIONAL, TOWNSHIP OF	174 T	\$24,572	24.7%	\$141.12	93%
THE ARCHIPELAGO, TOWNSHIP OF	156 T	\$381,673	15.9%	\$2,449.14	20%
WHITESTONE, MUNICIPALITY OF	100 T	\$92,134	20.5%	\$920.91	26%
				Average >	62%

This data collected from the 2009 WDO Datacall reporting year determines 2011 WDO funding for this group. The Municipality's 2011 Blue Box Performance Factor is **20%** which is significantly lower than the group average of **62%**. This is why it is important to implement and report Best Practices in the 2011 Datacall as this will have a positive impact on the Municipality's Performance Factor allocation for the 2013 reporting year.

A municipality can influence its Performance Factor different ways. Adhering to Best Practices is one way to improve the Performance Factor.



Table 1.2 depicts the values for each of the questions within the Best Practice section of the Datacall.

Table 1.2 Overview of Best Practices Assess in Datacall

Initiative	Impact on Best Practices Score
Blue Box recycling plan (2011 Strategy)	12.5%
Established performance measures (within the 2011 Strategy)	25.0%
Multi-municipal planning approach	8.3%
Optimization of collection and processing operations	12.5%
Training of staff in key competencies	8.3%
Appropriately planned, designed and funded communications program	8.3%
Established and enforced policies that induce waste diversion(as defined within the 2011 Strategy)	25.0%

This Strategy will put the Municipality of Killarney in a position to better meet WDO's Best Practices funding requirements.

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

A **Blue Box diversion rate** provides specific reference to Killarney's Blue Box program. It does not include other divertible tonnes captured through scrap metal diversion. A Blue Box diversion rate is calculated using the total residential blue box tonnes (39 tonnes) divided by all of the waste tonnes (838 tonnes of waste and Blue Box recyclables).

A **Blue Box capture** rate also provides specific reference to Killarney's Blue Box program and does not include other divertibles. The Blue Box capture rate represents the Blue Box tonnes that Killarney is currently capturing out of the waste stream (39 tonnes) and comparing it to the information provided in the composition audit data for small rural programs for available Blue Box material in the waste stream.

2.0 Overview of the Planning Process

This Strategy was prepared by environmental consulting firm 2cg Inc in conjunction with municipal staff and Recycling Committee.

The development of the Strategy included the following steps:

- Gather relevant data from the Municipality;

- Post notification of the Strategy on the Municipal website to obtain feedback
- Submit a Draft Strategy to the Recycling Committee and Municipal staff for review and comment;
- Gather and compile additional information from the Municipality to prepare Final Strategy; and
- Submit a final Strategy to the Municipality.

The next steps include:

- Council endorsement of this Strategy; and
- Council decision on which Blue Box supporting initiatives to consider implementing in 2011-2012.

3.0 Study Area

The study area for this Strategy is the Municipality of Killarney. Killarney is the name of the largest populated area within the municipality representing a population of approximately 424 permanent residents and 196 households. Smaller settlements exist at Hartley Bay and Bigwood. The municipal boundaries of Killarney encompass the geographic townships of Rutherford and George Island, Hansen, Goschen, Sale, Attlee, Kilpatrick, Travers, Struthers, Allen and Bigwood in the District of Sudbury, Killarney and part of Carlyle in the Manitoulin District and the northern part of Henvey in the Parry Sound District.

Killarney town site is located about 67km west of Highway 69 via Highway 637, along the northern shore of Georgian Bay in the District of Sudbury. Killarney is 100km south of Sudbury and 200km east of North Bay. Travel time to Toronto represents approximately 5 to 6 hours. Killarney is commonly associated with Killarney Provincial Park, located east of the town site which occupies much of the municipality's expanded boundary.

The geographic area of the Municipality is depicted in Figure 1.

This Strategy addressed the following sectors:

- Residential single family;
- IC&I sector (downtown Killarney and Channel Street Area); and
- Seasonal cottagers.

4.0 Public and Stakeholder Consultation Process

Stakeholder groups included in this consultation included:

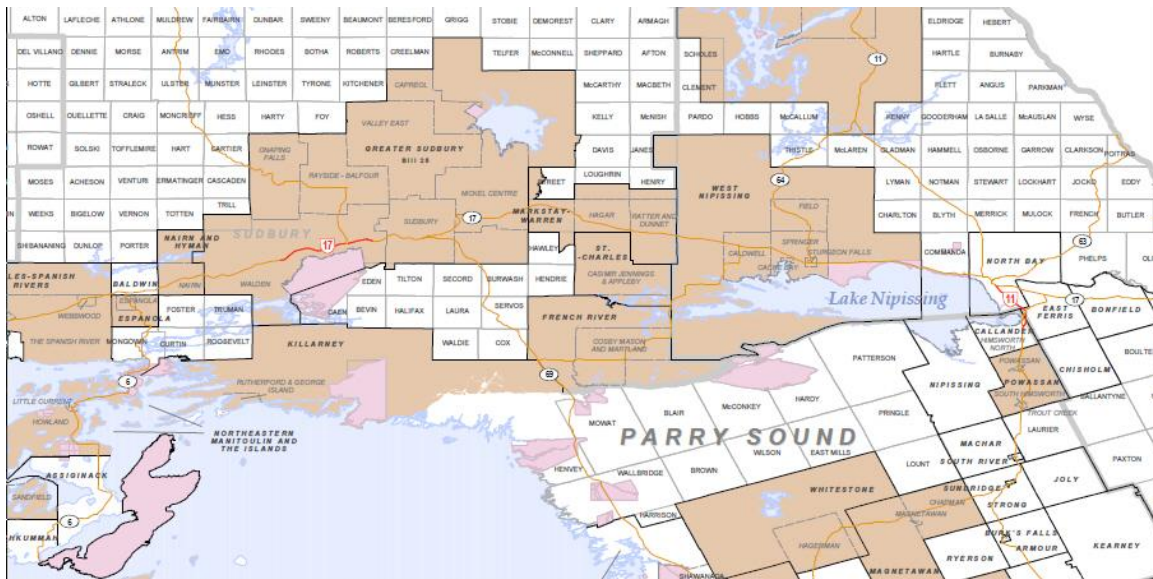
- Municipal staff;
- Municipal website;

- Municipal Recycling Committee; and
- Council.

The public and stakeholder consultation process followed the development of this Strategy and consisted of the following activities:

- Notification of Strategy on web-site with opportunity for public feedback;
- Recycling Committee participation in a Ranking of Best Practices suitable for the Municipality;
- Recycling Committee and staff review of the Draft Strategy; and
- Posting of Final Report on the municipal website and submission of Final Report to municipal council to adopt.

Figure 1 Area Map depicting the Municipality of Killarney and Surrounding Areas



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 key challenges facing the Municipality are:

- Low population density with very high seasonal fluctuations;
- Diminishing disposal capacity;
- Lack of communication between Municipal Wards when establishing waste management policies or programs;

- Lack of lead time or short-term planning prior to implementing Municipal waste management programs;
- Distance to available processors impacts program costs; and
- Low Blue Box tonnages impacts program costs.

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

- Maximize Best Practices funding for the Blue Box program; and
- Increase overall Blue Box capture rate in a cost effective manner within a planned / phased-in approach.

6.0 Goals and Objectives

This Strategy development process identified a number of goals and objectives for the Municipality. These are presented in Table 6.1.

Table 6.1 Municipality's Recycling Goals and Objectives

Waste Recycling Goals and Objectives	
Goals	Objectives
To reduce Rural Depot Costs	In 2011-2012, keep current depot costs close to the reported Rural Depot North WDO group average (\$982/tonne). Beyond 2012, strive toward the CIF recommended target cost for Rural Depot North programs as set out in the Guidebook (\$720/tonne).
Increase Promotion and Education (P&E)	Increase awareness of the depot program with a P&E program to increase tonnes and subsequently reduce overall costs per tonne and increase Blue Box diversion rate. In 2011-2012, apply for funds from CIF to offset P&E costs.
To maximize capture and diversion of residential Blue Box	In 2015, aim to divert 15% of municipal solid waste through the Blue Box program and <u>consider</u> over time to strive toward the CIF suggested target to capture 65% of the available blue box material from the waste stream but with more realistic preliminary milestones of 25%, 35%, 45% .

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

Community Characteristics

The population for the Municipality is 454. The Municipality has approximately 196 permanent single family households and 737 seasonal single family households (cottages). Unique to Killarney is the seasonal population spike. Killarney's economy relies heavily on summer tourism (wilderness lodges, campgrounds and retail services geared toward campers, cottagers and commercial fishing). By water, Killarney is accessible to boaters on both Georgian Bay and Lake Huron. The small channel between George Island and Killarney has several marinas with docking facilities for approximately 250 boats. These marinas are popular during July and August and represent a large proportion of the day tourists visiting the town site. Killarney also represents one of the main access points by road from highway 69 for residents owning island cottages along the North Channel. Island cottagers park their vehicles and boats at Killarney marinas for the season and access services (fuel, food, etc.) at the general store.

Existing Recycling Programs and Services

Current waste management programs include:

- Weekly curbside garbage collection for the town site of Killarney, conducted by municipal forces (no bag limit for waste);
- Bi-weekly curbside blue box collection for the town site of Killarney (Single Stream collection in clear plastic bags);
- Three blue box recycling depots located at disposal sites (Killarney, Hartley Bay and Key River (open 5 days per week for residents; 7 days per week for the seasonal commercial sector during the summer (May to October); and 2 days per week in the winter);
- Seasonal public drop off areas for waste and blue box materials along the waterfront at the town site of Killarney (Channel Street Depots), servicing seasonal residents;
- Spring bulky waste collection conducted by municipal forces; and
- Scrap Metal and Tire recycling depots at all waste disposal sites.

The Municipality collects an expanded range of Blue Box material which includes the following:

Containers

Fibres

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<ul style="list-style-type: none"> • Glass bottles and jars (bagged separately) 	<ul style="list-style-type: none"> • Newspaper, flyers, magazines, inserts and office paper.
<ul style="list-style-type: none"> • Metal food and beverage containers & foil/pie plates 	<ul style="list-style-type: none"> • Boxboard, corrugated cardboard, brown paper bags
<ul style="list-style-type: none"> • Plastic containers (1-6) excluding expanded polystyrene 	<ul style="list-style-type: none"> • Office paper

Glass is bulked into bags for handling purposes as the curbside Blue Box material is hand tossed into an open trailer. Blue Box material is delivered to the Sudbury MRF, approximately 1.5 hours north of Killarney.

Photo 1 depicts the depot system at Killarney waste disposal site.



Photo 1 Killarney Blue Box Depot

Photo 2 depicts the public drop off area at the marina (Channel Street).



Photo 2 Public Drop off (Channel Street)

Current Waste Generation and Diversion

Table 7.1 depicts total waste quantities managed by the Municipality in since the program launch in 2006.

Year	2006	2007	2008	2009	2010
Estimated Tonnages	29	35	40	47	39

In 2010, the Municipality managed 838 tonnes of waste. Seasonal downtown commercial waste is blended with the residential waste as part of the collection program. There are no weigh scales at the site to segregate residential from commercial material. Waste quantities are measured by survey contours that are converted into tonnes. Comingled Blue Box weights are available from the processor (Sudbury MRF).

For the purposes of this Strategy, residential Blue Box diversion rates were calculated using the baseline total residential waste tonnes of 838 tonnes (garbage and divertibles). Of this 39 tonnes (5%) was diverted through the Blue Box program.

Table 7.1 2010 Total Residential Waste Quantities

Waste Material (2010)	Quantities (Tonnes)
Waste Collection	710
Blue Box Collection	39
Scrap Metal	87
WEEE	2
Total	838

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

Table 7.2 Municipality's Residential Blue Box Diversion Rate (2010)

Residential Solid Waste Generated and Diverted Through Blue Box		
Residential Waste Stream/ Blue Box Material	Tonnes	Percent of Total Waste
Total Waste Generated	838	-
Papers (ONP, OMG, OCC, OBB and fine papers)	27	3.3%
Metals (aluminum, steel, mixed metal)	5	0.6%
Plastics (containers, film, tubs and lids)	4	0.5%
Glass	3	0.4%
Total Blue Box material diverted	39	4.7%

Table 7.3 indicates that the Municipality's current Blue Box diversion rate is well below its WDO municipal grouping of Rural Depot North.

Table 7.3 Residential Blue Box Diversion Rate Comparison to Rural Depot North Rate

Average Blue Box Diversion Rate (2009)	
Municipality of Killarney	5%
Municipal Grouping: Rural Depot North	19%

It is important to note that the Strategy focus is on the Blue Box program and reference to diversion rates and capture rates is specific to Blue Box recyclables and does not incorporate overall waste diversion rates from other sources such as scrap metal or tires.

For comparison the Provincial Blue Box recovery average is 171 kg/hshld while the Municipality's is 41kg/hshld.

In 2010 the total program costs to collect curbside and depot Blue Box tonnes were \$49,325. This amounts to \$808 per tonne, \$108 per capita or \$52 per household. Costs include curbside collection costs for the town site of Killarney, collection from the Channel street public drop off area, the three rural depot sites at the landfill sites, transferring and processing material at the Sudbury MRF (\$89/tonne processing fee). The Municipality does not receive revenue rebate from the sale of Blue Box material.

Table 7.4 shows, net annual recycling costs for the Municipality are **below average** for the WDO Rural Depot North municipal grouping program costs.



Table 7.4 Municipality's Blue Box Costs vs. Rural Depot North Costs

Recycling Cost (per tonne per year)	
Killarney (Net Costs)	\$ 808
Municipal Grouping: Rural Depot North	\$ 983

The Rural Depot North WDO municipal grouping encompasses 38 municipal programs. Programs where costs are below average tend to capture more tonnages per capita, have revenue rebate and have not had recent capital investments/upgrades to their program.

Potential Waste Diversion

The Municipality's current waste composition was estimated using data provided in the CIF Waste Recycling Strategy Guidebook for Small Urban and Rural Programs (Worksheet 7c page 32 of the Guidebook). This composition includes the average percentage of Blue Box material typically found in these programs.

The Guidebook does not offer specific data pertaining to Rural Depot North programs because this information is either not current or is unavailable. As part of the follow up to this Strategy, the Municipality may choose to request a formal audit be conducted by WDO from a sampling of Rural Depot North programs (inclusive of Killarney) to generate an accurate representation of waste composition for the area. Referencing audit data from similar sized programs will be useful for future comparisons (2012-2015) of the Municipality's Blue Box performance.

It is estimated, as depicted in Table 7.5, that approximately 34% of the waste stream is potentially Blue Box material (based on the composition sampling provided in the CIF guidebook). It is estimated that 285 tonnes/year of Blue Box materials are available in the waste stream based on a total waste tonnage of 838 tonnes/year. Currently, 39 tonnes of Blue Box material is collected per year by the Municipality through the Blue Box program.

The current Blue Box capture rate of Blue Box materials is 13.6% (39 tonnes collected/285 tonnes available recyclables). This means that there are potentially 246 tonnes of Blue Box materials still available to capture out of the Killarney waste stream.

Table 7.5 Potential Available Blue Box Material from Killarney

Current and Potential Diversion			
Waste/Resource Material	Composition (%) (from Small 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	838	184
Metals (aluminum, steel, mixed metal)	2		17
Plastics (containers, film, tubs and lids)	6		50
Glass	4		34
Total Blue Box Materials	34	838	285

The CIF Guidebook suggests a target capture rate of 65% of Blue Box material from municipalities in the Rural Depot North grouping. It is anticipated that this target is a challenge for Killarney due to its relative isolation from nearby diversion outlets, is predominately a rural depot based program with a low permanent population.

As depicted in Table 7.6 (a), to meet the 65% capture rate the Municipality would need to collect 146 tonnes of Blue Box material. This represents an additional 107 tonnes of Blue Box material through the curbside and depot programs to achieve this target (i.e. $146 - 39 = 107$ tonnes).

Capturing 65% of Blue Box material from the Municipality's residential waste stream would raise its Blue Box diversion rate to close to **22%** (i.e. 39 Current Blue Box tonnes + 107 additional tonnes/total residential waste of 838 tonnes). The 107 new tonnes would increase Blue Box diversion by about **18** percentage points.

Table 7.6 Capturing 65% of Available Blue Box Material from Killarney's Waste Stream

Current and Potential Blue Box Diversion			
Waste/Resource Material	Total Available in Waste Stream (tonnes/year)	Currently Recycled (tonnes)	Potential Increase (tonnes/year)
Papers (ONP, OMG, OCC, OBB and fine papers)	120	27	93
Metals (aluminum, steel, mixed metal)	11	5	6
Plastics (containers, film, tubs and lids)	33	4	29
Glass	22	3	19
Total Blue Box Materials	185	39	146

A more realistic short term goal (2013) for Killarney is to strive toward a 45% capture rate of Blue Box material from the waste stream which represents approximately 128 tonnes of available Blue Box material from the waste stream. This represents an additional 89 tonnes of Blue Box material from the curbside and depot programs to achieve this target (i.e. $128 - 39 = 89$ tonnes), as depicted in Table 7.6 (b).

Table 7.6 (b) Capturing 45% of Available Blue Box Material from Killarney's Waste Stream

Current and Potential Blue Box Diversion (45% Capture Rate)			
Waste/Resource Material	Total Available in Waste Stream (tonnes/year)	Currently Recycled (tonnes)	Potential Increase (tonnes/year)
Papers (ONP, OMG, OCC, OBB and fine papers)	83	27	56
Metals (aluminum, steel, mixed metal)	8	5	3
Plastics (containers, film, tubs and lids)	23	4	19
Glass	15	3	12
Total Blue Box Materials	128	39	89

Capturing 45% of Blue Box material from Killarney’s residential waste stream would raise its Blue Box diversion rate to close to **15%** (i.e. 39 Current Blue Box tonnes + 89 additional tonnes/total residential wastes of 838 tonnes). The 89 new tonnes would increase Blue Box diversion by about 10 percentage points.

Anticipated Future Waste Management Needs

It is estimated that Killarney’s growth rate is approximately 1% per annum over the next 10 year planning period. Table 7.7a depicts the expected growth rates for solid waste generation and Blue Box material recovery. The data reflects a projected population growth rate of 1% with a reduced Blue Box capture rate of 45% (15% Blue Box diversion rate) to better reflect the current curbside and depot structure of Killarney. Over the longer term (15 years +), Killarney can strive toward 65% Blue Box capture rate as recommended for Rural Depot North programs and as depicted in Table 7.7b.

Table 7.7a Forecasting 15% Diversion & 45% capture of Blue Box Material from Residential Waste Stream

Anticipated Future Solid Waste and Blue Box Recovery Rates (45% Capture)			
	Current Year	Current Year + 5	Current Year + 10
Population	454	477	501
Total Waste	838	881	926
Blue Box Material Available	128	135	142

Longer term objective specific to Blue Box diversion:

Table 7.7b Forecasting 22 % Blue Box Diversion & 65% Capture of Blue Box Material from Residential Waste Stream

Anticipated Future Solid Waste and Blue Box Recovery Rates (65% Capture)			
	Current Year	Current Year + 5	Current Year + 10
Population	454	477	501
Total Waste	838	881	926
Blue Box Material Available	185	195	205



8.0 Planned Recycling System

The following section outlines some possible strategies that are suitable for Killarney to consider that will aid in the increase in **Blue Box diversion and capture rates** in the upcoming years.

Based on the very low Blue Box diversion and capture rates and the high seasonal population a **phased-in approach** is proposed to the existing depot and small curbside system with emphasis on promotion and education (P&E) for both the permanent and seasonal residents and increases to Blue Box capture (not waste) from public spaces. This will ensure that results can be closely monitored by existing staff with possible support from part-time seasonal staff (summer students, volunteers, Recycling committee members, cottagers associations, etc).

It should be possible to gradually increase the capture rate of the Blue Box program within the context and costs of the current depot and curbside program. This would be done by encouraging residents to recycle more of their wastes using the existing program infrastructures and by enhancing the program through greater awareness in areas beyond the home including public parks, community centres, cottage associations, Killarney Provincial Park, or perhaps the Recycling Committee members and the local school in Killarney. The enhanced community awareness can be supported with a `Council 3 R's training session conducted by staff members and supported with handouts for distribution at events, training for all three depot site attendants and supplying literature to share with public at along the Channel Street area businesses catering to the seasonal population (marinas, lodges, etc).

As pointed out by Municipal staff, transportation costs continue to be the primary obstacle for the program due to proximity of available processors. Further, the closest processor charges a fixed rate of \$89/tonne and offers no revenue rebate arrangements for its municipal clients. It may be beneficial for the Municipality to negotiate a longer term processing/collection contract with the current hauler, supported by a re-launch of a P&E program beyond the current method of using tax bill inserts to convey Blue Box information.

Supporting waste bag limits, landfill bans and increases in tipping fees for commercial wastes are instrumental in increasing blue box participation and reducing total waste sent for disposal. **The idea is to make diversion systems easier and disposal systems harder for the participants.**



8.1 Possible Strategy to Increase Depot Recycling

The Municipality presently diverts approximately **5%** of its wastes through its Blue Box program (2010). The average for municipalities of its type is approximately **19%** (2009).

Given that the Blue Box program is well below average for Blue Box diversion and but below average for costs and is primarily a rural depot based program in northern Ontario, a practical preliminary goal (2011-12) would be a **10%** waste diversion rate from Blue Box collection (i.e. 5 percentage points more than current rate) with a focus on P&E, proper public space recycling receptacles, and waste diversion infrastructures (i.e.: removal of the waste depots at the Channel street marina area to eliminate abuse and waste coming from outside the municipal boundaries, implement and enforce the Municipal illegal dumping by-law, initiate waste bag limits and mandatory recycling by-laws, etc) to reduce overall waste generation and quantities entering the local disposal sites.

A second and aspirational future goal (2015) would be to achieve a **15% Blue Box** diversion rate as a result of the Blue Box program. This would result in attaining the lower target of 45% capture rate of Blue Box materials with consideration toward options to support Best Practices that have now been in place for two or more years, such as the use of clear bags for garbage to support the mandatory recycling by-law, possible increases in waste tipping fees for residents disposing of recyclables in the waste, all supported by continued public education to both the permanent and seasonal residents.

The minimum future goal would be to at least reach an average **10%** Blue Box diversion rate and work towards increasing the rate over time through increases in overall Blue Box tonnes collected at the Site.

Table 8.1 highlights the estimated number of tonnes that would need to be captured to attain 10% and 15% diversion rates of Blue Box material from the waste stream. It includes consideration of the impact of population growth in the Municipality (1% growth) and reflects a lower Blue Box capture rate target of 45%.

Table 8.1 Forecasting Diversion Rates

Capture Rates to Meet Waste Diversion Goals			
	% Waste Diversion		
	Current (5)	10	15
	tonnes captured/year		
2010	39	84	126
2015	41	88	132
2020	43	93	139

It is anticipated that it should be possible to capture additional Blue Box materials within the existing Depot structure and town site curbside program (Status Quo).

8.2 Overview of Planned Initiatives

The best approach for increasing the capture rate and decreasing transportation costs is to phase possible changes to the current program and support the changes with a new longer term collection and processing contract (7 years).

With that in mind a number of options were reviewed 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 the options to improve Blue Box programs presented in the CIF Guidebook were reviewed by staff. The scores are to establish a point of reference for priority areas of the Blue Box program and do not reflect actual policy recommendations. The scoring is provided in Appendix 1.

Another comment from staff was the consideration of establishing a regional meeting of neighbouring municipal programs to brainstorm possible Blue Box handling initiatives for the future which may lead to future inter-municipal co-operation and potential to reduce overall Blue Box program costs.

This exercise does not commit to a final decision but acts as a guide to assist with making 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 staff and Council as part of this Strategy. The Municipality may choose one or several initiatives or perhaps alter suggested initiatives to suit immediate needs of the existing Blue Box program now that baseline diversion and capture rates have been established.

Table 8.3 Priority Initiatives (2011-2012)

Possible Priority Initiatives (Immediate Future 2011-2012)				
Initiative	Estimated Implementation Cost	Estimated Annual Operating Cost	Implementation Time Line	Comments
<p>Enhance Existing Promotion and Education (P&E) Program</p> <p>(CIF Promotion and Education Tool available) https://blueboxpe.wdo.ca/</p>	<p>\$5,000-\$8,000</p> <p>CIF priority area=50% funding in 2011.</p>	<p>\$1,000 to maintain new enhancement (flyers, website maintain)</p>	2011	<p>Intent to better publicize program and capture more Blue Box materials- supported with flyers handed out at Transfer Site, Events, etc.</p>
<p>Mandatory Recycling By-law</p>	<p>Staff time and supported by P&E program.</p>	<p>Staff time</p>	2011	<p>Forces residents to participate in blue box program for both curbside, depot and public space recycling. Establish a fine for non-compliance and advertise the fine on municipal signs in public spaces.</p>
<p>Recycling By-laws and Illegal Dumping By-laws</p>	<p>Staff time and supported by P&E program.</p>	<p>Staff time.</p>	2011	<p>Approve and enact on the originally proposed illegal dumping by-law.</p>



Possible Priority Initiatives (Immediate Future 2011-2012)				
Initiative	Estimated Implementation Cost	Estimated Annual Operating Cost	Implementation Time Line	Comments
Training of Key Program Staff (depot attendant and administration staff)	Staff time	Free training is available from CIF (CIF Blue Box Recycler Training Courses). MWA Spring workshop mwa@municipalwaste.ca Estimate \$2,500/year in costs.	On going	Better educated staff translates into better educated public.
Public Space Recycling	\$5,000-\$10,000 CIF funding available with supporting P&E material.	\$1,000 to maintain system	2011-Spring 2012	Work with volunteer groups and use summer students to launch program. Remove Channel street waste bins and provide smaller recycling receptacles. Enforcement through newly established by-laws and posted notification signs.

Possible Priority Initiatives (Immediate Future 2011-2012)				
Initiative	Estimated Implementation Cost	Estimated Annual Operating Cost	Implementation Time Line	Comments
Permanent Resident Campaign	\$2,500	\$500	2012	Possible summer students or launch committee volunteer through Killarney area.
Bi-annual inter-municipal waste planning meetings	Staff time	Staff/Council time	2011-2012	Keep an open line of communications between the Wards of the community to establish an integrated approach to all waste management planning inclusive of the Blue Box program.
Following Generally Accepted Principles (GAP)	Staff time to prepare a contract for collection and processing contract	None	2012	In general it is prudent to develop a 5 year length that will result in reduction in costs. Consider revenue rebates.

The following table outlines possible **future initiatives** to take into consideration to improve Blue Box diversion and capture rates.



Table 8.4 Future Initiatives (2013-2015)

Possible Future Initiatives				
Initiative	Estimated Implementation Cost	Estimated Annual Operating Cost	Implementation	Comments
Bag Limits for waste	Staff time supported by P&E program	Staff time	Phase into 2012-enforce in 2013	Ensure bag limit is supported by earlier established illegal dumping by-law and mandatory recycling by-laws.
C&D Diversion Program	Staff time	Existing landfill staff time. Will increase overall working hours of existing staff.	2012-2013	Ban construction waste from disposal. Increase tipping fees for non-segregated material (mixed loads of scrap metal, clean lumber, drywall etc.)
Rural Depot North Regional Meeting	CIF support and staff time and location to host meeting	None	2012-2013	Discuss benefits of consolidating multi-municipal contracts for long term savings.
Clear Bags for Waste	Staff time and Depot Attendant Time	Staff time	2015	Incentive to participate in program.
User Fees for Bagged Wastes	Staff time and Depot Attendant Time	Staff time	2015+	Enforcement of program. Consider \$1/bag

Additional details of some key priority and future initiatives are described below.

Rural Depot North Regional Meeting

Located within a 1 hour travel distance to the Municipality is the Municipality of French River that also operates independently of Killarney but hauls material to the same processing contractor. Consideration could be made to request the CIF to organize a Rural Depot North Regional meeting in the fall of 2011 or Spring 2012 to offer 'round table' discussions for neighbouring programs with emphasis on a long term multi-municipal processing/collection agreements as part of cost-saving mechanisms for the area.

CIF Promotion and Education Tool and Best Practices

It is **recommended** that the Municipality increase its level of public P&E with financial and other assistance from the CIF. Successful promotion will require significant staff

time and should be considered when launching a P&E campaign (summer students, part time staffing, school groups, volunteers from cottager associations, possible share of students with Conservation Authority, etc).

CIF provides a free online tool that provides the Municipality with all the elements needed to run a successful Blue Box P&E program. After completing a questionnaire, a customized marketing plan and materials will be prepared.

The marketing plan is a 3-year plan that is organized in seven sections including:

- Program Guiding Principles;
- Goals;
- Key Messages;
- Target Audiences;
- Resources;
- Tactics; and
- Tracking.

The costs noted in Table 8.3 reflect possible flyer preparations, mail outs, and advertising to promote the participation of the rural Blue Box program.

The CIF guide book lists the use of media reported by P&E leaders in five broad categories:

- Print (ads, brochures, calendars, newsletters);
- Broadcast (local TV, radio, Public Service Announcements);
- Electronic (website, emails, electronic newsletters to groups); and
- Outreach (special events, in-school education, landfill contractor hand outs).

Many municipalities in Ontario distribute calendars to the community as a method of communicating a variety of messages. These calendars often contain recycling information, garbage related information and sometimes many other environmental or civic issues. Some areas mark on the calendar the waste and recycling pickup days, and provide other tips or information in the margins or at the bottom of pages. Some contain a variety of facts, tips and hints.

On the Recyclers Knowledge Network, which is accessed at <http://vubiz.com/stewardship/Welcome.asp> there is information on Municipal Promotion and Education, including the report, 'Identifying Best Practices in Municipal Blue Box Promotion and Education.' This document outlines information collected from focus groups commenting on recycling education calendars. In sessions where time permitted, the participants were asked to examine some example recycling information calendars.



Comments received from the focus groups on preferred calendars include the following:

- The most popular size – 8.5 x 11;
- The most popular images – large nature photos; and
- The most popular content – brief facts, tips and general environmental information, recyclable materials lists, pick-up schedules.

In conjunction with a possible installation of new recycling public space depot containers specific to recycling, the Killarney recycling program could effectively be “Re-launched” and supported by an education campaign designed to inform the residents of any other new initiatives (mandatory recycling by-law, illegal dumping by-law, etc.) and reinforce proper recycling procedures. P&E is a key element of a successful blue box program. It was rated as a fundamental Best Practice in the July 2007 report: *Blue Box Program Enhancement and Best Practices Assessment Project* (KPMG and RW Beck). Moreover, townships and municipalities know that the best way to convince residents to recycle and to do it properly is with a strong and consistent P&E program.

Further suggestions to enhance the Killarney P&E program:

- Hand out information flyers at the landfill sites; and
- Offer information flyers at all commercial establishments (LCBO, Library, resorts, marinas).

The following lists sources and links to effective P&E:

- MWA website outlining a report entitled: Research Report: Identifying Best Practices in Municipal Blue Box Promotion and Education, (2005) County of Oxford –AMRC;
- City of Hamilton website and CIF : Blue Box Recycling Public Opinion Survey (March 2006); and
- CIF website: McConnell Weaver Communication Management: Enhanced Blue Box Recovery: Benchmark Survey and Focus Groups (2006).

Drop-off Depot Best Practices

The rural drop off depots at the Killarney Sites could use some signage and perhaps new roll-off bins too reduce the double handling of material provided that a collection contractor can offer cost effective hauling rates to the area.

A report commissioned by WDO through the Effectiveness and Efficiency Fund entitled; Best Practices for Rural Depot Recycling (2006), outlines the following key factors for effective rural recycling depots:



- **Depot Accessibility** – clean, easy to load depot containers with sufficient turning radius for vehicular traffic and an area separate from congestion of waste disposal traffic;
- **Supportive infrastructure to reduce contamination and increase participation** including provisions of Blue Boxes to seasonal residents to segregate recyclables at the cottage, illegal dumping and mandatory recycling by-laws, the use of clear bags and bag limits for waste;
- **Entrance signage** at the depot site and simple messaging on the depot container, using graphics and minimal text for easy reading; and
- **Depot attendant actively involved in monitoring recycling depot** –hand out literature to new residents, sell Blue Boxes at the depot site for residents.

Members of 2cg Inc. staff prepared the Rural Depot Study report and found that successful depot programs were achieved through the front-line promotion efforts made by the depot attendant and supported by enforcement mechanisms from the municipality (by-laws).

Typically, the leading rural depot systems in Ontario are sites depicting a level of “hands-on” involvement associated with a depot attendant that translates into a perception by residents that the depot site is being monitored to prevent contamination issues, as well as offering a worthwhile service. The attendant acts as the front-line defence against material contamination as well as a knowledge base for all waste management related concerns from the general public. The attended is regularly kept informed of recent waste management policies and enforces by-laws at the site and distributes flyers to all seasonal and new residents to ensure continued commitment to the program. A few examples of effective municipal depots sites are listed below:

The Township of Algonquin Highlands (Rural Depot South)

- Township staff regards the depot attendant as the main enforcement mechanism supporting their program policies (2004).
- The attendant monitors the recycling depot site to ensure recyclable material is not entering the waste disposal area of the site. The attendant also provides residents with promotional literature regarding the mandatory recycling by-law and also asks **all** inbound residents if they have any recycling to segregate prior to entering the waste disposal site.

The Township of Minden Hills (Rural Depot South)

- The Township’s depot attendant inspects residents’ bagged residential waste as they enter the waste disposal site including periodically shaking waste bags to determine if recyclable material is hidden inside. Where recyclables are detected, residents are directed to the recycling depot prior to the waste area.



- Township staff indicated this type of periodic inspection has proven to be an effective incentive for residents to separate their recyclables, word of mouth provides sense of motivation to encourage recycling participation.

Supporting the promotion activities of the depot attendant is the necessary enforcement mechanisms (policies) established by the municipality. There is substantial supporting documentation indicating the effectiveness of waste diversion policies, such as pay-as-you-throw programs, mandatory recycling by-laws, illegal dumping by-laws, backyard burning by-laws, and higher waste disposal site tipping fees (Enviros 2001- User Pay Report).

A few examples of Best Practices pertaining to enforcements policies at depot sites are listed below:

Township of Melancthon (Rural Depot South)

- The Township uses clear bags for garbage to encourage participation and increase capture rates of recyclables at the depot site (2004).
- The Township also has a User Pay program in place - \$1/bag (2002).
- Three months prior to each enforcement launch, information was provided to residents at the waste disposal site.
- The Township experienced increases in recyclable tonnage immediately after program launch.

Township of Algonquin Highlands (Rural Depot South)

- The Township implemented a mandatory recycling by-law (2004) prohibiting residents from disposing of recyclables in the waste disposal sites.
- Within the first year of program launch, the program increased tonnages by 40%.

Township of Tay Valley (Rural Depot South)

- The Township of Tay Valley established a Waste Management Advisory Committee to liaise with the Township Council.
- The Advisory Committee conducted a survey to determine the effectiveness of the recycling depot. Based on the responses from the survey, the Township increased the depot's hours of operation and developed an educational newsletter.

Townships of Conmee, Gillies, Neebing, O'Connor, Oliver Paipoonge and Shuniah (Rural Depot North)

- Six Townships joined together to develop a cooperative solid waste recycling plan to increase the efficiency and effectiveness of their recycling programs and maximize the amount of recyclable material diverted from disposal.
- Representatives from each of the six municipalities formed the Joint Municipal Recycling Committee (JMRC) to develop a waste recycling diversion plan. The

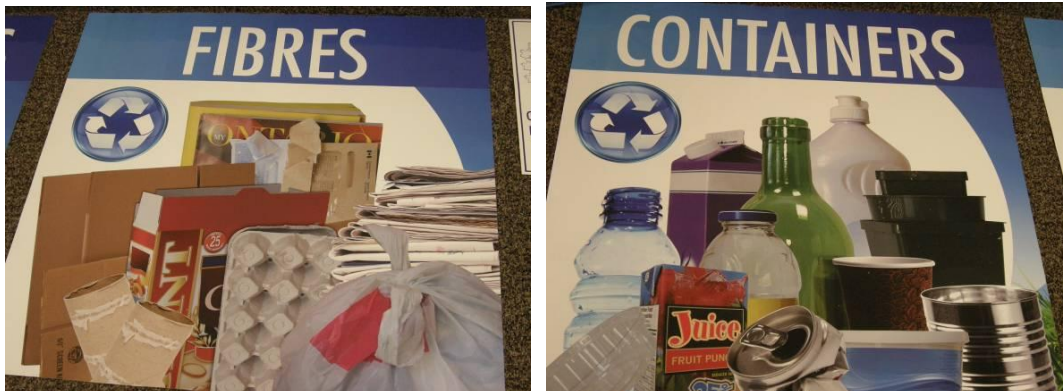
JMRC applied to the CIF for financial support and expertise to develop a cooperative recycling plan (2009).

Township of Madawaska Valley (Rural Depot South)

- A report prepared for the Township (Blue Box Best Practises Report –Genivar August 2010 CIF #260) recommended the importance of targeting both the administrative and enforcement requirements to improve depot capture rates. The report recommended the Township generate annual reports for all best practice elements that require monitoring and reporting including recycling plan review, blue box targets and performance, effectiveness of P&E, and operational reviews as well as consider policy support in the form of bag limits or user fee charges per bags at the depot sites.

The following photos depict an example of depot graphics used by the County of Peterborough for their rural depot bins to increase participation and reduce contamination. These adhesive signs affixed to the depot bins at the landfill sites are effective mechanisms for quick communication and reduces language barriers for seasonal visitors.

County of Peterborough Depot Graphics- 2009



Training of Key Program Staff in Core Competencies

This is outlined as a fundamental Best Practice and identified in the KPMG Blue Box Program Enhancement and Best Practices Assessment Final Report. The full report is available through www.stewardshipontario.ca/bluebox/efund/bestpractices.htm.

Specific to Killarney, staff are multi-disciplinary with time restraints. A possible solution is to hire seasonal staff to assist with program campaigns (summer students). Further, CIF and Stewardship Ontario offer low cost workshops and training sessions throughout the year: Ontario Recycler Workshops listed on the WDO website www.wdo.ca.

As a result, consideration to phasing in some of the Best Practices depot enhancements discussed above as part of priority initiatives (2012, 2013) could be implemented.

Public Space Recycling Best Practices

Public space recycling (PSR) gives residents and seasonal visitors the opportunity to recycle while in public places. It can also be used to reinforce the Municipality's Blue Box program and the diversion enforcement mechanisms to support PSR.

CIF commissioned a literature search in the summer of 2009 to identify potential best practices for recycling in public spaces. The search identified a broad range of programs across North America and overseas and is available through the CIF website at www.wdo.ca/cif/projects (Project 159 Open Space Recycling Literature Search).

The key points found in the literature search for public space recycling were the need for:

- On-going monitoring of the public space site (remove or add bins where necessary);
- **Offer small opening to the bins to prohibit abuse from bagged waste or bulky waste items entering the recycling;**
- Offer signage with graphics based messaging instead of text based messaging to reduce language barriers; and
- **Do not hide or enclose a public space depot as it encourages abuse.**

Another project (CIF Project 152), partially supported by the CIF, was conducted by Refreshments Canada in partnership with the City of Sarnia in 2008. The report outlined the purpose of public space recycling was to capture 'Away from home beverage containers' and when PSR was used properly, it became an integral part of the municipal recycling program to achieve municipal diversion targets of container material. The Sarnia report highlighted the following:

- Beverage container diversion increased by 64%;
- It is important to twin garbage and recycling bins to reduce contamination;
- Fibre recovery is weak; and
- Community 'champions' or volunteers (Scouts, Seniors Groups) to help monitor the public recycling stations and educate users reduced contamination.

The City of Toronto conducted a waste audit of their public space recycling bins in 2008 and discovered the following:

- Small individual bins that were twinned with garbage and labeled, received 10% less contamination than recycling bins set out individually without labels;

- Small recycling bins with lids had less contamination than recycling bins without lids; and
- `Inconvenience illegal dumping' by making bins highly visible and with small opening reduced recycling contamination.

Examples of PSR containers used in rural areas or near marinas are depicted in the following photos.



Photo 1 Twinned PSR -Mini-Molok Litter Bin & Wire Mesh Container Cage
 Purchase Price: (2010) approximately \$1050/Mini Molok, \$1,200 Mini Molok with Bear Lid)



Photo 2 Twinned Bear Proof Lid PSR -Hyd-A-Bag for Litter and Hyd-A-Bag for Single Stream Recycling
 Purchase Price: (2010-New) approximately \$1,500/for dual unit



Photo 3 Twinned Eco Media PSR -Cans, Plastic Bottles -Litter System designed to have capital cost paid for by advertisers



Photo 4 Bear Proof Molok Drop off Depots (Algonquin Park Entrance) -Cans, Plastic Bottles -Litter Purchase Price: (2010) approximately \$1500/Molok, with Bear Lid

As a point of reference, information gathered from the WDO Datacall that is summarized on the WDO website at www.wdo.ca sites that in 2009:

- A total of 108 programs have implemented bag limits to support waste diversion programs. Most bag limits are set between 2 and 4 bags per collection.
- A total of 103 programs have reported implementing some form of a pay-as-you-throw (PAYT) system for garbage set at curbside to support waste diversion programs. The most common cost is \$1 to \$2 per additional bag of garbage set out.

8.3 Contingencies

The priority initiatives can be impacted if there is no municipal 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 the waste and Blue Box material collection/processing tender. If no future initiatives are implemented then the Municipality will revert to priority initiatives.

9.0 Monitoring and Reporting

The monitoring and reporting of the Municipality’s recycling program is considered a Blue Box program fundamental best practice and will be a key component of this Waste Recycling Strategy.

Once implementation of the Strategy begins, the performance of the Waste Recycling Strategy will be monitored and measured against the baseline established within this Strategy for the current system. Once the results are measured, they can be reported annually to Council and the public. Some suggested approaches for monitoring the Municipality’s Strategy is outlined in Table 9.1.

Table 9.1 Blue Box Monitoring Strategy

Recycling System Monitoring		
Monitoring Topic	Monitoring Tool	Frequency
Meet regularly with collection contractor	Meet with collection contractor to identify any problems with Blue Box collection(e.g. contamination)	Monthly
Measurement of Blue Box materials captured.	Documented total weight data as outlined in this Strategy and compare it to target capture rates (70%)	Annual summary
Diversion rate (Blue Box)	Document BB Diversion Rate Formula: (Blue box materials diversion) ÷ Total waste generated * 100%	Annual summary
Program participation	Documented Curbside Set-out Studies or Curbside Participation Studies to determine frequency of curbside set out, number of boxes, fullness of boxes, and type of boxes used. Compare to the number of bags of waste set out at the curbside.	Once every 1-2 years.
Program Accuracy	Segregate residential Blue Box material tonnage from Commercial tonnage. Easier if have supporting weight scale system. Ensure all sites track number of bagged residential waste vs ICI waste to determine accurate blue box diversion rates from residential sector.	On going
Program Cost	Document Blue Box Program Costs to reflect each cost area to determine	Once every 1 year.

Recycling System Monitoring		
Monitoring Topic	Monitoring Tool	Frequency
	overall cost composition (shows where high cost areas). Incorporate a revenue column to depict annual revenues from Blue Box program.	
Customer satisfaction	Customer survey (e.g., telephone); tracking calls/complaints received to the municipal office.	Every 3 years
Opportunities for improvement	Customer survey (e.g., telephone); tracking calls/complaints received to the municipal office	On-going
Planning activities	Describe what initiatives have been fully or partially implemented, what will be done in the future	Annually
Review of Recycling Strategy	A periodic review of the Recycling Plan to monitor and report on progress, to ensure that the selected initiatives are being implemented, and to move forward with continuous improvement	Annual for current initiatives- 5 yrs to re-evaluate & refine lists.

10.0 Conclusion

The Municipality currently has a low Blue Box waste diversion rate (5%) and a low program cost for its Blue Box recycling program. The emphasis is on the need to improve the Blue Box diversion/capture rate.

A staged process to increase capture rate and maintain the per tonne cost is **recommended**.

There are some fairly low cost priority initiatives that can be implemented to help boost the capture rate within the context of the current program. There are a number of low cost future initiatives that could be implemented with specific emphasis on waste diversion enforcement initiatives.

It is recommended that the initiatives be reviewed annually and implemented as budget allows.

It is **recommended** that this Strategy be fully updated in 2015.

Appendix 1
Waste Recycling Option Scores

Waste Recycling Option Scores-Reflecting Current Blue Box Program (July 2011)

Suitable? Y/N	Description of Options/Best Practices (For more information: <i>More information: Blue Box Program Enhancement and Best Practices Assessment Project Final Report, Volume 1</i>)	Criteria (Score out of 5)						Total Criteria Score	Score x/100
		% Waste Diverted	Proven Results	Reliable Market/ End Use	Economically Feasible	Accessible to Public	Ease of implementation		
Promotion and Outreach									
Yes	Public Education and Promotion Program -CIF funds up to 50% of PE costs for small programs	1-3%	5	n/a	4	5	4	18 out of 20	90
Yes	Training of Key Program Staff (Administration and depot attendants -eg: encourage hosting a northern area recycling meeting-invite CIF to attend etc.)	1-3%	5	n/a	3	n/a	5	13 out of 15	86
Collection									
No	Optimization of Collection Operations	0%							
Yes	Bag Limits (for waste)	3-5%	5	n/a	5	5	5	20 out of 20	100
Yes	Enhancement of Recycling Depots (new signs, new bins, traffic flow, etc-up to 50% funding available through CIF for capital and promotion and education at the depot site)	3-5%	5	n/a	4	5	5	19 out of 20	95
No	Provision of Free Blue Boxes	1-3%							
Not at this time	Collection Frequency (weekly blue box?)	3-5%							

