



WASTE RECYCLING STRATEGY

**TOWNSHIP OF MADAWASKA VALLEY
COUNTY OF RENFREW, ONTARIO**

Prepared for

THE CORPORATION OF THE TOWNSHIP OF MADAWASKA VALLEY

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The Township of Madawaska Valley acknowledges the support of Waste Diversion Ontario's Continuous Improvement Fund for their technical and financial assistance in the development of this Waste Recycling Strategy.

While the Township has made every attempt to achieve accuracy in the initial stages of development of the various aspects of this Strategy, the Township states that this version of the Strategy is a foundational document for review and updating/improvement in 2011.

With a municipal election undertaken in the fall of 2010, it is the anticipated intent of the municipality to continue with the baseline work summarized in this version of the Strategy, for continuous improvement in the municipality's Blue Box recycling programs in the future.

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1.0 INTRODUCTION

1.1 BACKGROUND

The Township of Madawaska Valley (Township) is situated in rural eastern Ontario, approximately 78 kilometres (km) west of Renfrew, Ontario and 155 km west of Ottawa, Ontario, in the County of Renfrew (Figure 1). The Township is considered rural, with the exception of the Village of Barry's Bay which is regarded as urban, and has been reporting annual Blue Box recycling statistics to Waste Diversion Ontario (WDO) since 2005 under program code 567.

Currently, the Township operates three (3) waste disposal/transfer sites (WDS/WTs), of which only the Bark Lake WDS accepts Residential and Industrial, Commercial and Institutional (IC&I) waste for disposal. The Wilno and Radcliffe WTS operate as waste transfer stations only, with waste transferred to the Bark Lake WDS for waste disposal and Blue Box recycling transfer from the Township to the Ottawa Valley Waste Recovery Centre (OVWRC) Material Recovery Facility (MRF) for processing. In 2009, the Township began Organic Waste Collection at the Township's Depots and for Curbside collection within the Village of Barry's Bay, in order to increase waste diversion and decrease waste landfilled at the Bark Lake site. The Bark Lake WDS also stockpiles leaf and yard waste, white goods, refrigerants, scrap metal, tires, and construction and demolition (C&D) waste as part of the Township's waste diversion programs. Similarly, the Wilno WTS stockpiles tires, scrap metal, white goods, and refrigerants, and the Radcliffe WTS stockpiles tires, scrap metal, white goods, refrigerants, and ashes. In 2009, the Township operated a Curbside collection program for Residential and IC&I Blue Box recycling, Organic Waste, and waste (Garbage) within the Village of Barry's Bay, including 703 single family households, 48 multi-family households, and 107 IC&I stops. All Garbage must be in "clear bags", and each Garbage bag must have an affixed bag tag approved by the Township, and the fee per bag tag is \$1.00.

All Blue Box recycling tonnages, costs, and related data discussed in this Waste Recycling Strategy (WRS) are Residential only, unless otherwise stated.

The Township would like to thank WDO and the Continuous Improvement Fund (CIF) for the funding support and resource material made available to help with the formulation of this WRS.

1.2 PURPOSE AND SCOPE

This WRS was initiated by the Township to develop a plan to increase the efficiency and effectiveness of its Blue Box recycling programs and maximize the amount of Blue Box material diverted from disposal.

Specifically, the purpose of this WRS is to maximize waste diversion from disposal to the most feasible extent possible within the Township.

The Township intends to provide waste and Blue Box recycling services to all residents, property owners, and IC&I generators within the Township limits in the most cost-effective and efficient manner as possible, as part of the long-term sustainability and self-sufficiency of the Township.

The Township faces a number of waste management challenges, which this WRS will help address. In particular, the priority factors and drivers for the Township's development of a WRS are improving cost and service efficiencies, the Council of the Township of Madawaska Valley direction, and in order to meet the Best Practice requirements of WDO for maximized funding.

This WRS was developed with support from the Council of the Township of Madawaska Valley, WDO, and CIF and using the CIF's *Guidebook for Creating a Municipal Waste Recycling Strategy (Guidebook)*.

2.0 OVERVIEW OF THE PLANNING PROCESS

2.1 WASTE RECYCLING STRATEGY PLANNING PARTICIPANTS

This WRS was prepared through the efforts of:

- Township of Madawaska Valley (Municipality).
- Greenview Environmental Management Limited (Consultant).
- Continuous Improvement Fund (CIF).
- Waste Diversion Ontario (WDO).

2.2 WASTE RECYCLING STRATEGY METHODOLOGY AND TIMELINE

The first step towards the formulation of a WRS for the Township began on April 27, 2010 where the Township attended the CIF Waste Recycling Strategy Working Session in Huntsville, Ontario, which reviewed the need for municipal WRS as part of WDO's Best Practice questions and examined the CIF WRS templates and the *Guidebook*. Following this workshop, the Township recognized its own need for a WRS in order to maximize funding from WDO and as a means to promote increased diversion of Blue Box material within the municipality. Consequently, the Township included the preparation of a WRS as part of its 2010 waste management planning activities.

On April 30, 2010, the Township submitted its annual 2009 Datacall to WDO, and which was subsequently amended by WDO at a later date. The final Generally Accepted Principles (GAP) Diversion Rate for the Township in 2009, as calculated and amended by WDO, was reported as 35% (WDO, 2010).

On March 24, 2010, the Township was approved for funding for the preparation of a *Township of Madawaska Valley - CIF #260 - Blue Box Recycling Program Best Practice Assessment Report* (Report; Genivar Consultants LP, 2010). Discussions related to the *Report* were on-going throughout the summer of 2010 between the Township, the Township's consultants Greenview Environmental Management Limited (Greenview), and the representative of CIF, and a final *Report* was published by the representative of CIF on August 23, 2010. The *Report* concluded that, with respect to WDO Best Practices, the areas of focus for the Township should be related to initiating Multi-municipal planning, optimization of collection operations, improved Depot signage, and additional policy support (Genivar Consultants LP, 2010). The *Report* also indicated that improvements to Depot recovery and possible expansion of Curbside collection within the Township would be beneficial with respect to Diversion Rate and Capture Rates (Genivar Consultants LP, 2010).

On October 7, 2010, the Township was approved by for funding by WDO and CIF for the formulation of a WRS, and discussions between the Township and Greenview for the preparation of the WRS began in October 2010 and continued through December 2010. From October to December 2010, the WRS worksheets and WRS document were prepared, with the assistance of CIF's *Guidebook*. The Township was approved for 75% of the cost of the WRS, up to \$10,000.

On December 7, 2010, the Township was approved for funding from WDO and CIF for a Communications (Promotion and Education; P&E) Plan, specifically with respect to P&E efforts and materials, and for the distribution of Large Blue Boxes to households within the Township. A comprehensive Communications (P&E) Plan for the Township is anticipated for early 2011, and details related to the distribution of Large Blue Boxes are expected from WDO and CIF in January 2011.

The WRS is considered a dynamic strategy, and revisions and updates to the WRS are anticipated by the Township as per the Township's commitment to continuous improvement.

The next steps in the WRS process may include, but are not limited to:

- Continued discussion, amendments, and implementation of the WRS.
- Implementation of Priority Initiatives.

3.0 STUDY AREA

The study area for this WRS includes the entire Township of Madawaska Valley (Figure 1), County of Renfrew, which encompasses a total land area of 670.11 square kilometres (km²) and a population density of 6.5 people per km² (Statistics Canada, 2006). The population in 2009 was reported by the Township to be 4,385, with an estimated seasonal population of 2,736, and estimated equivalent population of 5,076.

The Township is reported to have 2,937 single family households, 48 multi-family households, and 775 seasonal dwellings. Based on information provided by the Township, the number of households per serviced road kilometre (hh/km) was reported in 2009 to be 11.06 hh/km.

This WRS will address the Residential sector; however, the Township also provides waste (Garbage) and Blue Box recycling services to the IC&I sector including small business, commercial, and institutional enterprises operating within the Township's limits. Any improvements with regards to waste diversion in the Township that are attained with this WRS are interpreted to benefit both the Residential and IC&I sectors, despite the focus being on Residential waste diversion.

All Residents and IC&I generators in the Village of Barry's Bay receive full Curbside collection for waste (Garbage) and Blue Box recycling. All Residents and IC&I generators in the Township are permitted to bring waste (Garbage) and Blue Box recycling to the Township's Depot at the Bark Lake WDS, located at 21956 Highway 60, approximately 11 km west of the Village of Barry's Bay. Ratepayers are also permitted to bring waste (Garbage) and Blue Box recycling to the Township's Wilno and Radcliffe WTS for transfer and processing. The total number of Residential households serviced by Curbside collection (urban) in 2009 was 751, while the total number of Residential households serviced by Depot collection (rural) in 2009 was 2,234. In 2009, there were 107 reported IC&I stops in the Village of Barry's Bay.

Table 1 and Table 2 (below), indicate the interpreted split between the Residential and IC&I Blue Box recycling percentages, for both Curbside and Depot collection (WDO, 2010).

Table 1 Curbside Collection Percentages of Total Blue Box Recycling

Curbside Collection	
Residential	82%
IC&I	18%
Total	100%

Table 2 Depot Collection Percentages of Total Blue Box Recycling

Depot Collection	
Residential	90%
IC&I	10%
Total	100%

4.0 PUBLIC CONSULTATION PROCESS

To date, the Township has not conducted any Public Consultation Events (PCE) specifically related to the formulation of the WRS.

The Township is committed to continuous improvement and the involvement of the public in municipal decision making. The role of future PCEs as part of the future development of the WRS will be discussed by the Council of the Township of Madawaska Valley in 2011.

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.

The priority drivers that led to the development of this WRS include:

1. Improving cost/service efficiencies within the Township.
2. Council direction.
3. WDO requirements – Best Practices (maximize funding).

6.0 GOALS AND OBJECTIVES

This WRS has identified a number of goals and objectives for the Township. These are presented below:

Table 3 Waste Recycling Goals and Objectives

Goals	Objectives
To maximize diversion of Residential/IC&I solid waste through the Blue Box and bulk recycling programs	<ul style="list-style-type: none"> • Attain a GAP Diversion Rate of 50% by October 31, 2011 (WDO Datacall) • Attain a Blue Box Diversion Rate of 37% by October 31, 2011 (Worksheet 7c)
To maximize the Capture Rate of Blue Box materials through existing and future programs	<ul style="list-style-type: none"> • Attain a 70% Capture Rate by 2015 • 2008 Capture Rate = 61% (WDO, 2010)
To improve the cost-effectiveness of recycling in our community	<ul style="list-style-type: none"> • Reduce recycling costs per tonne by 10%
To increase participation in the recycling program	<ul style="list-style-type: none"> • Raise participation in Blue Box program to 90%
To expand the lifespan of the Bark Lake WDS	<ul style="list-style-type: none"> • Extending the existing capacity allows for additional planning time for future waste management requirements
To manage Township-generated waste within the Township or as close to home as possible	<ul style="list-style-type: none"> • Dispose of all Township-generated waste within the municipal borders
To increase community knowledge/awareness of the current Blue Box recycling program	<ul style="list-style-type: none"> • Increase Blue Box Promotion and Education (P&E) spending by 25% per year for five (5) years; integrated with "Communications Plan"

An additional aspect of the WRS may consider broader community goals and objectives. To date, this has not been reviewed in detail as part of the WRS development.

7.0 CURRENT SOLID WASTE MANAGEMENT PROGRAM

7.1 COMMUNITY CHARACTERISTICS

In 2009, the Township was reported to have a permanent population of 4,385. The municipality is home to 2,985 Total Households or dwellings. Of these, 2,937 are single-family households and 48 multi-family households. There are also an additional 775 seasonal dwellings, which are generally occupied during the months of June to September. The Equivalent Population of the Township of Madawaska Valley, based on full-time and seasonal Residential populations, was estimated to be 5,076 in 2009.

7.2 CURRENT WASTE GENERATION AND DIVERSION – RESIDENTIAL (TOTAL - 2009)

In 2009, the Township of Madawaska Valley generated approximately 1,894.38 tonnes of Residential solid waste per year. Of this, 410.85 tonnes, or 21.7% percent, was diverted through the Blue Box program. In 2009, 113.14 tonnes of Containers (commingle), 125.20 tonnes of old corrugated cardboard (OCC), and 172.51 tonnes of Fibres were collected by the Township. IC&I solid waste and Blue Box recycling tonnages are not included in the reported data above.

Since the Township of Madawaska Valley offers Curbside Blue Box services to residents of the Village of Barry's Bay and Depot services to all other residents of the Township, the following is a further breakdown of Residential Blue Box recycling activities in 2009.

Table 4 (below) summarizes the current waste generation and Blue Box Diversion Rates.

Table 4 Residential Solid Waste Generated and Diverted Through Blue Box (2009)

Residential Waste Stream/Blue Box Material (2009)	Tonnes	Percent of Total Waste
Total Waste Generated	1,894.38	-
Fibres (ONP, OMG, OCC, OBB and fine papers)	297.71	15.7%
Containers (commingle)	113.14	6.0%
Total Blue Box Material Currently Diverted (2009)	410.85	21.7%

As Table 5 (below) indicates, the Township's 2009 Blue Box Diversion Rate was above average for its WDO municipal grouping.

Table 5 Average Blue Box Diversion Rate (2009)

Location	Blue Box Diversion Rate (2009)
Township of Madawaska Valley	21.7%
Municipal Grouping: Rural Collection - South	21.4%

7.5 POTENTIAL WASTE DIVERSION

To determine the Township's 2009 waste composition, the composition of the Blue Box recycling stream was estimated using the approximations from the *CIF Guidebook*.

Based on the *Guidebook* and CIF worksheets, a total of approximately 702.81 tonnes of Blue Box recyclable materials were available for diversion in 2009, of which approximately 291.96 tonnes remained in the waste stream. Estimates of Blue Box material available for diversion are listed in

Table 6 (below).

Table 6 Current (2009) and Potential Diversion

Material	Total Available in Waste Stream (2009) (tonnes/year)	Currently Recycled (2009) (tonnes/year)	Potential Increase (tonnes/year)
Fibres (ONP, OMG, OCC, OBB and fine papers)	397.82	297.71	100.11
Containers (commingle)	305.00	113.14	191.86
Total	702.82	410.85	291.96

Based on Table 5 and Table 7 (above), 15.4% of the Total Residential Waste Generated remains available for recycling, which could raise the Town's Blue Box Diversion Rate to 37.1% (Appendix A; Worksheet 7c).

7.6 EXISTING PROGRAMS AND SERVICES

In 2009, the Township had the following policies and programs in place to manage Residential solid waste:

- 1) User Pay – Curbside Bag Tags @ \$1.00 per tag
- 2) Tipping Fees
- 3) Mandatory Recycling (By-Law Number #2009-88)

For this WRS, Waste and Recycling Coverage is defined as the percentage of Total Households that are serviced by Curbside or Depot collection. Curbside collection is provided to 751 households in the Village of Barry's Bay (urban), while Depot collection services are provided to 2,234 households in the rural areas of the Township. Curbside collection services of regular waste (Garbage) were provided to the residents of the Village of Barry's Bay by the Township for 37 weeks in 2009, with a Waste Coverage Percent of 25.2%. Curbside Blue Box recycling services were provided to residents of the Village of Barry's Bay for 52 weeks in 2009, with a Recycling Coverage Percent of 25.2%. Additionally, the new Curbside Organic Waste program was provided for 26 weeks in 2009.

Depot collection services for Residential waste (Garbage), Blue Box recycling, and Organic Waste is available for the remaining 74.8% of Total Households within the Township not serviced by Curbside collection. The Bark Lake WDS is the primary Depot for the Township; however, Depots are available to rate-payers at the Wilno and Radcliffe WTS on select days.

Disposal and recycling services are paid for primarily through municipal property taxes, bag tags for waste (Garbage) and through User Fees at the Bark Lake WDS and Wilno and Radcliffe WTS. All Blue Box recyclables from Curbside collection and Depots at the Bark Lake WDS and Wilno and Radcliffe WTS are collected by Ottawa Valley Waste Recovery Centre (OVWRC) and taken directly to their MRF in Pembroke, Ontario.

Upcoming important collection-related milestones that may affect how collection services are administered are included in Table 7 (below).

Table 7 Collection Service Milestones

Material	Service Provider	Contract Start	Contract End
Blue Box Recycling (MRF)	Ottawa Valley Waste Recovery Centre (OVWRC)	No Contract	No Contract

In 2009, the total net annual recycling costs for the Township were \$185,889.86. This amounts to \$452.45 per tonne, or \$36.62 per capita. As Table 8 (below) shows, net annual Blue Box recycling costs for the Township are above average for its WDO municipal grouping.

Table 8 Net Recycling Cost (per tonne per year - 2009)

Location	Cost per Tonne (2009)
Township of Madawaska Valley	\$452.45
Rural Collection - South	\$ 419.64

7.7 ANTICIPATED FUTURE WASTE MANAGEMENT NEEDS

Solid waste generated rates in the Township of Madawaska Valley are expected to be relatively consistent over the next 20 year planning period, based on a 0.6% decrease in population in the Township from 2001 to 2006 (Statistics Canada, 2006). Table 9 (below) depicts the expected growth rates for solid waste generation and Blue Box material recovery (based on projected population growth rates).

Table 9 Anticipated Future Solid Waste Generation and Available Blue Box Material

	2009 (Current)	2014 (+5 Years)	2019 (+10 Years)
Equivalent Population	5,076	5,045	5,015
Total Waste (tonnes)	1,894.38	1,883.01	1,871.72
Blue Box Material Available (tonnes)	702.81	698.60	694.41

8.0 SELECTED INITIATIVES OF THE WASTE RECYCLING STRATEGY

8.1 OVERVIEW OF PLANNED INITIATIVES

The Township reviewed a number of options for consideration in the development of its WRS. The options were then scored based on a Priority Level:

Table 10 Planned Initiative Priority Levels

Priority Level	Description
5	High
4	Medium High
3	Medium
2	Medium Low
1	Low

A detailed overview of the options reviewed and their scoring are provided on Worksheet 8 in Appendix A, and a summary of the options are included in Worksheet 9 in Appendix A and Table 11 and Table 12 (below).

Once scored, the top ranking WRS options were organized into Priority Initiatives and Future Initiatives. The estimated cost for implementing the Priority and Future Initiatives are listed in Table 11 and Table 12 if available; however, if no cost is listed, the value is to be determined as part of the continuous improvement and evaluation of the WRS. An assessment of these initiatives and their steps for implementation are reviewed on the following pages.

Table 11 Priority Initiatives

Priority Initiatives	Priority Level	Approximate Total Costs	Anticipated Start Date	Anticipated Completion Date
Public Education and Promotion Program (P&E)	5	<u>Proposed Budget</u> 2010 to 2015 = \$22,306.48	January 2011	On-going
Provision of Free Blue Boxes	5	Minimum = \$5,000 to \$10,000 (dependent on funding from CIF)	Early 2011 (if available from CIF)	Late 2011 (if available from CIF)
Training of Key Program Staff	4	Variable; Course Specific	January 2011	On-going
Enhancement of Recycling Depots	4	Depot Enhancements = ~ \$100,000	January 2011	On-going
Multi-Municipal Planning	4	To be Determined	January 2011	December 2011
Following GAP for Effective Procurement and Contract Management	4	No Cost – Stewardship Ontario Model Tender Tool is free to use by all municipalities	January 2011	December 2011
Optimization of Collection Operations	3	Additional Collection Vehicle = ~ \$200,000 (required if Curbside collection is expanded)	January 2011	March 31, 2011

Table 12 Future Initiatives

Future Initiatives	Priority Level	Approximate Total Costs	Anticipated Start Date	Anticipated Completion Date
Diversion Incentive Program	2	To be determined	Early 2011 (Participation Rate Field Survey)	June 2011
Collection Frequency	2	To be determined	On-going	On-going

8.2 PRIORITY INITIATIVES

The following is a review the Priority Initiatives identified during the formulation of the WRS, and as identified on Worksheets 8 and 9 in Appendix A. Each Priority Initiative is listed below, in order of Priority Level:

Initiative: Public Education and Promotion (P&E) Program (Priority Level = 5)

Overview:

- Increase Blue Box-specific P&E spending in Township (2009 P&E Spending = \$1585).
- Proposed increase in P&E spending = 25% per year until 2015.

Implementation:

- Develop budget and schedule for P&E Program.
- Determine P&E materials/concepts/tools to be utilized.
- Hire specialist(s) to assist with selected promotional aspects of P&E Program.
- Initiate P&E Program.

Initiative: Provision of Free Blue Boxes (Priority Level = 5)

Overview:

- By providing free large Blue Boxes (20+ Gallon) to residents, increases in Capture Rate and Blue Box Diversion Rate are anticipated.
- Helps ensure residents have sufficient storage capacity for Blue Box Recyclables.

- Maximizes sorting at source and minimizes sorting at Curbside.

Implementation:

- Confirm funding availability with CIF in January 2011.
- Coordinate with CIF and initiate the tender process for the manufacture of Large Blue Boxes.
- Integrate Large Blue Box distribution into P&E Program.
- Distribute Large Blue Boxes to all Households (Depot pickup/door-to-door delivery/other).

Initiative: Training of Key Program Staff (Priority Level = 4)

Overview:

- As courses become available, Operations Manager of Public Works and Operations Staff are most appropriate candidates for additional training.
- Applicable associations/organizations for training: WDO, Municipal Waste Association (MWA), Association of Municipalities of Ontario (AMO), Stewardship Ontario (SO), and Solid Waste Association of Ontario (SWANA).
- Township-initiated training for staff anticipated for early 2011.

Implementation:

- Include potential training program costs in municipal budget.
- Monitor training programs available each year and evaluate applicability/benefit to Township Blue Box recycling program.

Initiative: Enhancement of Recycling Depots (Priority Level = 4)

Overview:

- In comparison to Curbside collection, recycling Depots provide an inexpensive means to divert Blue Box recycling from disposal.
- A clean, well maintained, and visually communicative Depot improves site effectiveness.

Implementation:

- Review option to upgrade site to include "Visual" signage.
- Review option of enhancing site conditions (landscaping, general cleanliness, maintenance).

- Review option of providing additional part-time staff to assist in user education; Co-op programs and government programs are options.
- Review option of closing the Wilno WTS.
- Review options of upgrading public drop off area at Bark Lake WDS and Radcliffe WTS.

Initiative: Multi-municipal Planning (Priority Level =4)

Overview:

- Multi-municipal planning and collaboration can increase economies of scale and help reduce costs for smaller municipalities for their recycling programs.
- Potential municipal partners: Madawaska Valley (MV), Madawaska Valley (KHR), South Algonquin (SA), Greater Madawaska (GM), Bonnechere Valley (BV), Brudenell, Lyndoch and Raglan (BLR), Killaloe, Hagarty and Richards (KHR).

Implementation:

- The initiation of discussions to be investigated by Council in early 2011.

Initiative: Following GAP for Effective Procurement and Contract Management (Priority Level = 4)

Overview:

- Tender tool available to municipalities to ensure completeness and accuracy.
- No current Blue Box MRF contract; use of Stewardship Ontario Model Tender Tool anticipated for establishing a contract anticipated for 2011.

Implementation:

- Management of new Request for Proposals (RFP)/contracts will use the Stewardship Ontario Model Tender Tool.
- RFP process anticipated to begin in early 2011.
- Completion of RFP process anticipated for December 2011.

Initiative: Optimization of Collection Operations (Priority Level = 3)

Overview:

- Optimizing Collection operations can reduce financial, capital and human resources involved in waste diversion management.
- Township is anticipating the investigation of an expanded Curbside collection program in 2011.

Implementation:

- Negotiate more favourable Blue Box recycling materials list with MRF.
- Meetings with neighbouring municipalities; Multi-municipal participation to be reviewed by Council.
- Review Township capital expenditure requirements for municipal Collection; additional Township Curbside collection truck would be required if Curbside collection program is expanded.

8.3 FUTURE INITIATIVES

The following is a review the Future Initiatives identified during the formulation of the WRS, and as identified on Worksheets 8 and 9 in Appendix A. Each Future Initiative is listed below, in order of Priority Level:

Initiative: Diversion Incentive Program (Priority Level = 2)

Overview:

- Encourage Residents towards increased diversion of Blue Box recyclables.

Implementation:

- Initiate discussion with Township on specific Diversion Incentive options.
- Implementation of Bag Limits and/or no bag tags required if participating in Blue Box recycling to be discussed.
- If Diversion Incentive Program is approved, include new Diversion Incentives in P&E Program, and on concepts/materials/tools.
- Conduct a Participation Rate Field Survey in early 2011.

Initiative: Collection Frequency (Priority Level = 2)

Overview:

- When Blue Box recycling collection frequency is greater than Garbage frequency, greater diversion of Blue Box materials is anticipated.
- Blue Box recycling collection frequency is already greater than Garbage collection frequency in Township (alternating weeks between Fibres and Containers (commingle)).

Implementation:

- Not applicable – Current Township collection frequency considered to satisfy WDO Best Practices.

8.4 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 minimal impact or delay. Table 13 (below) identifies a set of contingencies for possible planning delays.

Table 13 Waste Recycling Strategy Contingencies

Risk	Contingency
Insufficient funding	<ul style="list-style-type: none"> • Explore and apply for other funding sources • Delay lower-priority initiatives • Increase proportion of municipal budget to solid waste management • Raise/implement user fees
Public opposition to planned recycling initiatives	<ul style="list-style-type: none"> • Improve public communications • Engage community/stakeholders to discuss initiatives/recycling plan
Lack of available staff	<ul style="list-style-type: none"> • Prioritize department/municipal goals and initiatives • Hire summer students to help with planning (may be available funding) • Co-op programs with local educational institutions?
Permit requirements	<ul style="list-style-type: none"> • Identify permit requirements early on in process • Establish a “permit requirements” checklist
Public apathy and non-compliance	<ul style="list-style-type: none"> • Increase P&E spending • Create reward structure for compliance/participation • Increase enforcement – Fines
Enforcement of recycling policies	<ul style="list-style-type: none"> • Use Township Waste Management By-Law #2009-88

9.0 MONITORING AND REPORTING

The monitoring and reporting of the Township's recycling program is considered a Blue Box program fundamental Best Practice and will be a key component of this WRS. Once implementation of the strategy begins, the performance of the WRS will be monitored and measured against the baseline established for the current system. Once the results are measured, they will be reported to Council and the public.

The approach for monitoring the Township's WRS is outlined in Table 14 (below).

Table 14 Waste Recycling Strategy Monitoring

Monitoring Topic	Monitoring Tool	Frequency
Diversion Rates Achieved (by type and by weight)	<u>Blue Box Diversion Rate:</u> <ul style="list-style-type: none"> (Blue Box materials ÷ Total Waste Generated) * 100% <u>GAP Diversion Rate:</u> <ul style="list-style-type: none"> Calculated by WDO in annual Datacall [(All Diversion) ÷ Total Waste Generated] * 100% 	<ul style="list-style-type: none"> Annually Annually
Program Participation	<ul style="list-style-type: none"> Monitoring Curbside and Depot Participation Rates MRF Tonnages Tracking – spreadsheets/graphs 	<ul style="list-style-type: none"> On-going
Ratepayer Satisfaction / Opportunities for Improvement	<ul style="list-style-type: none"> Ratepayer survey (by mail in tax mailings) Tracking calls/complaints received to the municipal office/Depot site (Bark Lake WDS) 	<ul style="list-style-type: none"> Every 1 to 3 years On-going
Planning Activities	<ul style="list-style-type: none"> Prepare "Annual Waste Diversion Monitoring Report" 	<ul style="list-style-type: none"> Annually (Winter)
Review of WRS	<ul style="list-style-type: none"> A periodic review of the WRS to ensure that the selected initiatives are being implemented and to move forward with continuous improvement 	<ul style="list-style-type: none"> Annually
Waste Disposed (Garbage)	<ul style="list-style-type: none"> Capacity surveys (integral for determining Total Waste Generated) Periodic weighing of waste trucks 	<ul style="list-style-type: none"> Annually Monthly/Random
Depot Participation	<ul style="list-style-type: none"> Waste Site Records (record book) Depot Participation Rates 	<ul style="list-style-type: none"> Daily On-going

10.0 CONCLUSIONS AND RECOMMENDATIONS

This WRS was initiated by the Township to develop a plan to increase the efficiency and effectiveness of its Blue Box recycling program and maximize the amount of Blue Box material diverted from disposal. Specifically, the purpose of this WRS is to maximize Blue Box diversion from disposal to the most feasible extent possible within the Township. The WRS was prepared with assistance from CIF using the *Guidebook* and worksheets made available by CIF to municipalities in order to facilitate continuous improvement of municipal Blue Box recycling programs in accordance with Best Practices, as identified by WDO.

Currently, the Township provides Curbside waste (Garbage) and Blue Box recycling services to Residents and IC&I generators within the Village of Barry's Bay and Depot Garbage and Blue Box recycling services to the remaining Residents within the Township. The Priority Factors/Drivers that led to the development of the WRS are improving cost and service efficiencies within the Township, Council of the Township of Madawaska Valley direction, and in order to maximize Best Practice funding from WDO.

In 2009, the Township was determined by WDO to have a GAP Diversion Rate of 35% (WDO, 2010), and using Worksheet 7b (Appendix A) was determined to have a Blue Box Diversion Rate of 21.7%. A WDO-calculated Capture Rate of 61.00% was identified in the 2009 WDO Datacall for the Township for the 2008 calendar year (WDO, 2010); a 2009 Capture Rate will be available following completion of the 2010 Datacall in April 2011.

The Township has identified that the main areas of improvement for the Blue Box recycling program include:

- Increasing Blue Box-specific P&E spending.
- Discussion on increasing enforcement of mandatory Blue Box recycling policies (Township By-Law #2009-88).
- Negotiating a new Blue Box recycling MRF contract and expanded materials list.
- Investigations related to increasing current staff levels.
- Discussion on the expanding of the Curbside Blue Box program.
- Increasing Blue Box and GAP Diversion Rates within the Township.
- Increasing Capture Rate within the Township.

In order to achieve improvement in the Blue Box recycling program, the Township has identified Priority Initiatives as a means to achieve their diversion goals including:

- Development of a comprehensive P&E Program.

- Provision of free Blue Boxes for Residents in 2011 (if available).
- Training of Key Program Staff.
- Enhancement of Recycling Depots.
- Initiation of Multi-municipal Planning.
- Following GAP for Effective Procurement and Contract Management.
- Optimization of Collection Operations

Future Initiatives will be reviewed consistent with continuous improvement activities and review of the WRS on an on-going basis. The Township intends to develop a detailed work plan in order to meet the goals of the Priority Initiatives of the WRS. By October 31, 2011, the Township aims to achieve a Blue Box Diversion Rate of 37% and a GAP Diversion Rate of 50%.

11.0 CLOSING

Greenview has prepared this *Waste Recycling Strategy* in accordance with Blue Box Best Practice Activities, Section 3.4 of the 2009 WDO Municipal Datacall for the Township of Madawaska Valley.

This report is governed by the attached Statement of Service Conditions and Limitations (Appendix D).

All respectfully submitted by,

GREENVIEW ENVIRONMENTAL MANAGEMENT LIMITED

Dan Hagan, B.Sc. (Geology)
Project Technologist

Tyler H. Peters, P.Eng.
Project Manager

12.0 REFERENCES

County of Renfrew, 2010. <http://www.CountyofRenfrew.on.ca>.

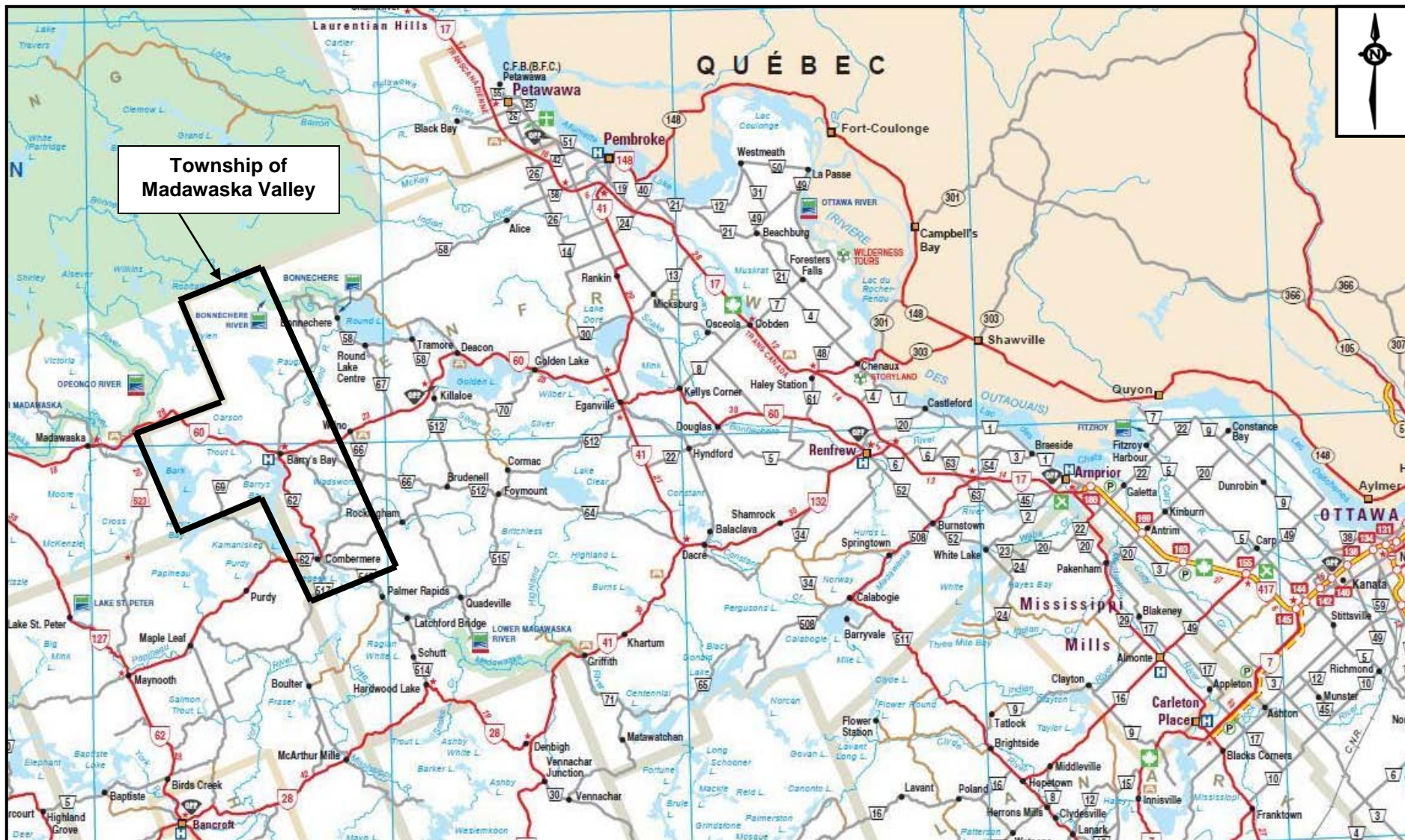
Genivar Consultants LP, 2010. *Township of Madawaska Valley - CIF #260 - Blue Box Recycling Program Best Practice Assessment Report*. August 2010.

Statistics Canada, 2006. <http://www.statcan.gc.ca/>.

Trow Associates Inc., 2010. *Continuous Improvement Fund (CIF) - Guidebook for Creating a Municipal Waste Recycling Strategy*. March 2010.

Waste Diversion Ontario, 2010. *2009 Waste Diversion Ontario Municipal Datacall Summary Report (Revised) – Township of Madawaska Valley*. June 24, 2010.

FIGURES



Source: MTO Road Maps



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69 Cleak Avenue, P.O. Box 100
Bancroft, Ontario K0L 1C0
tel: (613) 332-0057
fax: (613) 332-1767
email: solutions@greenview-environmental.ca

CREATED BY:	ESD
CHECKED BY:	THP
DATE:	DECEMBER 2010
SCALE:	NTS

CLIENT:	TOWNSHIP OF MADAWASKA VALLEY
TITLE:	
REGIONAL LOCATION PLAN	

PROJECT NO.:	101.10.009
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FIGURE:	1
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APPENDIX A

Continuous Improvement Fund Waste Recycling Strategy Worksheets



Worksheet 1
Introduction Summary
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Introduction Elements	
Municipalities Involved	Township of Madawaska Valley County of Renfrew, Ontario
Description of municipal obligation for managing municipal waste	The Township of Madawaska Valley intends to continue to provide waste and recycling services to all residents, property owners and IC&I generators within the township limits, further to the Waste Diversion Act (as amended), in the most cost-effective and efficient manner as possible, as part of the long-term sustainability of the township.
Purpose and goals of Waste Recycling Plan	To maximize waste diversion from disposal to the most feasible extent possible within the Township of Madawaska Valley.
Reasons for developing Waste Recycling Strategy (summarize from worksheet 5)	The priority factors/drivers for the Township of Madawaska Valley to formulate a Waste Recycling Strategy (WRS) are to improve cost and service efficiencies, the direction of the Council of the Township of Madawaska Valley, and to maximize the available Best Practice funding from Waste Diversion Ontario (WDO).
Support received to prepare the plan	The Council of the Township of Madawaska Valley. <ul style="list-style-type: none"> Resolution of Council = #11-0410-10 Continuous Improvement Fund (CIF) <ul style="list-style-type: none"> Funding approval received from CIF



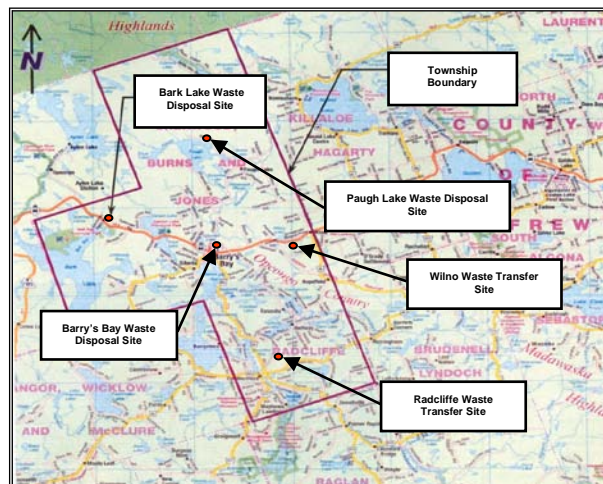
Worksheet 2
Planning Process
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Planning Process	
Plan Development Participants	<ul style="list-style-type: none"> • Township of Madawaska Valley (Municipality) • Greenview Environmental Management Limited (Consultant) • Continuous Improvement Fund (CIF) • Waste Diversion Ontario (WDO)
Completed Steps	<ul style="list-style-type: none"> • Secured funding for WRS development • Completion of WRS Worksheets • Meetings with Township • Version 1.0 of WRS Report
Next Steps	<ul style="list-style-type: none"> • Meetings with Township Staff to Discuss Implementation / Amendments
Public Engagement (may include information from worksheet 4)	<ul style="list-style-type: none"> • Public consultation to be considered for 2011



Worksheet 3
Study Area
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Study Area Characteristics	
<p>Our study area includes the following municipalities/areas:</p>	<p>Township of Madawaska Valley County of Renfrew</p> <p><u>Land Area</u> = 670.11 km² (Statistics Canada, 2006) <u>Population Density</u> = 6.5 per km² (Statistics Canada, 2006) <u>Equivalent Population</u> (2009) = 5,076 (estimated) <u>Households</u> = 2,937 Single Family / 48 Multi-family <u>Seasonal Dwellings</u> = 775 <u>IC&I Stops</u> = 107</p>
<p>Our Waste Recycling Strategy will consider the following sectors:</p>	<p>Residential Single Family & Multi-Family IC&I – small business, institutional, commercial Township Data (www.CountyofRenfrew.on.ca) Services = 104 Commercial = 57 Tourism = 53 Manufacturing = 22 Social Organizations = 7</p>



Source: MapArt – Ontario Road Atlas



Worksheet 4
Public Consultation Options
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Applicable? Y/N	Public Consultation Options	Comments
To be determined	Stakeholder Outreach	Interview key local stakeholders (e.g., resident associations, community groups, small business associations or leaders, etc) to identify key issues, concerns, and opportunities.
To be determined	Public Consultation Events	Public Consultation Events (PCE) are excellent ways to update the public on your planning activities and to obtain their feedback. <ul style="list-style-type: none"> •Diversion •Best Practices (WDO) •Promotion and Education (P&E)
To be determined	Website Feedback (Town Website)	Township of Madawaska Valley Website: http://www.madawaskavalley.ca The Township website is used to publish important information regarding waste management activities and will be used to promote the WRS and disseminate information to the public. Please see the above link for available information.
To be determined	Meetings	Meetings could be used as a forum for discussion on the WRS. The purpose would be to engage members of the public in the development of the WRS.
To be determined	Notices and Mail-outs	Notices/mail-outs are regularly sent to residents in tax mailings, and could be used as part of the WRS to inform the public on diversion-related subjects.
To be determined	Surveys (mail)	Surveys/questionnaires could be used to consult the public with regards to the WRS. The surveys/questionnaires could be sent by mail to residents across the Township.



Worksheet 5
Waste Diversion Factors and Drivers
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Relevant in our case? Yes/No	Factor/Driver	Comments
Yes	WDO Requirements	WDO requires municipalities to have a Waste Recycling Strategy (WRS) in place (Best Practice Funding).
No	Population Growth	Population growth can lead to increases in waste generated. Potential population growth is not seen as a driving factor in the Township of Madawaska Valley. Increases in seasonal and transient population can lead to increases in waste generated.
Yes	Council Direction	Council Resolution = 11-0410-10
Yes	Public Awareness	Increased environmental awareness of public. Municipal service demands.
Yes	Improving cost/service efficiencies	Decreasing costs and improving efficiencies of Curbside and Depot Collection is important for the sustainability of the Township.
Yes	Restricting factors (e.g., a lack of local markets or MRFs)	Minimal service available from local MRFs <ul style="list-style-type: none"> • Beaman Waste Management = Closure in 2011 Available MRFs after 2011 <ul style="list-style-type: none"> • Ottawa Valley Waste Recovery Centre (OVWRC) • Waste Management (WM)

Priority Factors/Drivers	
1.	Improving Cost/Service Efficiencies
2.	Council Direction
3.	WDO Requirements – Best Practices (maximize funding)



Worksheet 6
Waste Recycling Goals and Objectives
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Recycling Specific Goals and Objectives				
Relevant? Yes / No	Goals	Objectives	Comments	
Yes	To maximize diversion of residential/municipal solid waste through the blue box/recycling program	<p>Attain a GAP Diversion Rate of 50% within the Township by October 31, 2011</p> <p>Attain a Blue Box Diversion Rate of 37% by October 31, 2011 (Worksheet 7c)</p>	<p><u>2009 GAP Diversion Rate</u> = 35%</p> <ul style="list-style-type: none"> Possibility of Expanded Curbside Collection within Township <p><u>2009 Blue Box Diversion Rate</u> (Worksheet 7c) = 21.7%</p>	
Yes	To maximize capture rates of blue box materials through existing and future programs	<p>Attain a 70% Capture Rate within the Township by 2015</p> <p>2008 Capture Rate = 61% (WDO, 2010)</p>	<p>A 70% Capture Rate within the Township appears to be an achievable target.</p> <ul style="list-style-type: none"> Increased P&E as part of a Communications (P&E) Plan Increased enforcement of Waste Management By-Law 	
Yes	To improve the cost-effectiveness of recycling in our community	<ul style="list-style-type: none"> Reduce recycling costs per tonne by 10% 	<ul style="list-style-type: none"> Compaction? New MRF Contract? Decrease Residual content of recycling materials? 	
Yes	To increase participation in the recycling program	<ul style="list-style-type: none"> Raise participation in Blue Box program to 90% 	<ul style="list-style-type: none"> Additional P&E Campaigns Schools, etc – demonstrations, education Free Blue Boxes? (CIF) Penalties/Rewards (Waste Management By-Law) Participation Rate Field Survey = 2011 	
Yes	To expand the lifetime of our landfill	<ul style="list-style-type: none"> Extending the existing capacity allows for additional planning time for future waste management needs 	<ul style="list-style-type: none"> Extensive Blue Box P&E campaign required 	
Yes	To manage our waste in our community or as close to home as possible	<ul style="list-style-type: none"> Dispose of all locally generated waste within municipal borders 	<ul style="list-style-type: none"> Restricting Factor = Lack of local MRFs 	
Yes	To increase community knowledge/awareness of current Blue Box Recycling programs	<ul style="list-style-type: none"> Increase BB P&E spending as part of "Communications Plan" Proposed 25% per year increase 	<p>2009 = \$ 1,585.00</p> <p>2010 = \$ 1,981.25</p> <p>2011 = \$ 2,476.56</p> <p>2012 = \$ 3,095.70</p>	<p>2013 = \$ 3,869.63</p> <p>2014 = \$ 4,837.04</p> <p>2015 = \$ 6,046.30</p>



Table 7a
Community Characteristics (for municipalities working individually)
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Characteristic	Value
Permenant Population (2009) ¹	4,385
Seasonal Population ²	2,763
Equivalent Population	5,076
Total Households/ Dwellings	2,985
Single-Family Households	2,937
Multi-Family Households	48
Total Seasonal Dwellings	775
Month of Seasonal Increase	June to September
Municipal Grouping	Rural Collection - South

Notes:

1. From Municipal Clerks Department (used in 2009 WDO Datacall - Township of Madawaska Valley).
2. Based on Seasonal Population being 63% of Current Population.



Table 7b
Waste Generated and Blue Box Materials Diverted (for municipalities working individually)
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Residential Waste Stream - TOTALS		
Residential Waste Stream/ Blue Box Material	Tonnes Currently Diverted	Percent of Total Waste
Total Waste Generated ¹	1,894.38	-
Papers (ONP, OMG, OCC, OBB and fine papers)	297.71	15.7%
Containers - commingle (aluminum, steel, mixed metal, plastic, glass)	113.14	6.0%
Total Blue Box material diverted	410.85	21.7%

Residential - TOTAL; amended (tonnes)	
Papers (ONP, OMG, OCC, OBB and fine papers)	297.71
Containers - commingle (aluminum, steel, mixed metal, plastic)	113.14

Residential - TOTAL (tonnes)		
OCC ⁴	125.20	410.85
Fibres ⁴	172.51	
Containers (commingle) ⁴	113.14	

Residential Waste Stream - CURBSIDE		
Residential Waste Stream/ Blue Box Material	Tonnes Currently Diverted	Percent of Total Waste
Total Waste Generated ²	473.60	-
Papers (ONP, OMG, OCC, OBB and fine papers)	201.55	42.6%
Containers - commingle (aluminum, steel, mixed metal, plastic, glass)	46.82	9.9%
Total Blue Box material diverted	248.37	52.4%

Residential - CURBSIDE; amended (tonnes)	
Papers (ONP, OMG, OCC, OBB and fine papers)	201.55
Containers - commingle (aluminum, steel, mixed metal, plastic)	46.82

Residential - CURBSIDE (tonnes)		
OCC	102.79	248.37
Fibres	98.76	
Containers (commingle)	46.82	

Residential Waste Stream - DEPOT		
Residential Waste Stream/ Blue Box Material	Tonnes Currently Diverted	Percent of Total Waste
Total Waste Generated ³	1,420.79	-
Papers (ONP, OMG, OCC, OBB and fine papers)	96.16	6.8%
Containers - commingle (aluminum, steel, mixed metal, plastic, glass)	66.32	4.7%
Total Blue Box material diverted	162.48	11.4%

Residential - DEPOT; amended (tonnes)	
Papers (ONP, OMG, OCC, OBB and fine papers)	96.16
Containers - commingle (aluminum, steel, mixed metal, plastic)	66.32

Residential - DEPOT (tonnes)		
OCC	22.41	162.48
Fibres	73.75	
Containers (commingle)	66.32	

Notes:

1. From 2009 Waste Diversion Ontario Municipal Datacall Summary Report (Revised) - Township of Madawaska Valley - Section 7.

2. Assumed 25% of Total Waste Generated = Curbside Collection.

3. Assumed 75% of Total Waste Generated = Depot Collection.

4. From 2009 Waste Diversion Ontario Municipal Datacall Summary Report (Revised) - Township of Madawaska Valley - Section 6.1.

* All tonnages are Residential only.



Table 7c
Calculating Material Available for Recycling (for municipalities working individually)
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Table 1: Reasonable Blue Box Diversion Goals		
Municipal Grouping	Capture Rate Target for Blue Box Materials	Net Cost Target (\$/tonne)
Rural Collection – South	70%	\$410.00
Rural Depot – South	70%	\$390.00

Potential Future Blue Box Diversion Rate - TOTAL								
Waste/Resource Material	Composition (%) (from local or sample audit)	Total Residential Waste Generated (tonnes)	Total Blue Box Material in Waste Stream (tonnes)	Target Blue Box Capture Rate (%) (see Table 1, above)	Blue Box Material Available for Diversion (tonnes)	Blue Box Material Currently Diverted (tonnes)	Blue Box Material Remaining in waste Stream (tonnes)	Material Remaining in Waste Stream for Diversion (% of total waste stream)
Mixed Fibres (ONP, OMG, OCC, OBB and fine papers)	30.00%	1,894.38	568.31	70%	397.82	297.71	100.11	5.3%
Containers -commingle (aluminum, steel, mixed metal, plastic, glass)	23.00%		435.71		305.00	113.14	191.86	10.1%
Total Blue Box Materials	53.00%	1,894.38	1,004.02	70%	702.81	410.85	291.96	15.4%
<i>Current Blue Box Diversion Rate</i>						21.7%		
<i>Additional Blue Box Diversion Rate</i>								15.4%
<i>Potential Future Blue Box Diversion Rate</i>								37.1%

Notes:
 * All tonnages are Residential only.



Worksheet 7d
Existing Programs and Services
Municipal Waste Recycling Strategy
Township of Madawaska Valley

What policies or programs are currently in place at the local or regional level for managing residential solid waste in your area?			
<input checked="" type="radio"/> User Pay = \$1.00 per Bag Tag <input checked="" type="radio"/> Tipping fees <input type="radio"/> Bag limits ____ /week	<input checked="" type="radio"/> Mandatory recycling (By-Law # 2009-88) <input type="radio"/> Solid Waste utility <input type="radio"/> Take backs		
How are waste and recycling collection services provided to the residential sector?			
Collection Service	Waste Coverage (%)	Recycling Coverage (%)	Upcoming Milestones (e.g., contracts, etc)
Municipal collection	25.2%	25.2%	<u>Garbage Collection:</u> <ul style="list-style-type: none"> • Municipal Service <u>Blue Box Recycling - Collection:</u> <ul style="list-style-type: none"> • Municipal Service
Drop-off (at landfill or depot)	74.8%	74.8%	<u>Blue Box Recycling/Garbage – Depot:</u> <ul style="list-style-type: none"> • Municipal Service
How are waste and recycling services financed?			
	Waste	Recycling	
Payment Type (fixed or variable user fees, tax base, a mix of above, etc)	Tax Base (variable) User Fees	Tax Base (Variable)	
Where are recyclable materials taken after collection?			
<input checked="" type="radio"/> Transfer Station – Curbside Collection (Location: Bark Lake WDS) <input checked="" type="radio"/> Transfer Station – Depot Collection (Location: Bark Lake WDS/Wilno WTS/Radcliffe WTS) <input type="radio"/> Directly to Materials Recycling Facility			



Table 7e
Program Costs (for municipalities working individually)
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Blue Box Recycling Costs	\$/Year
Total Net Residential Recycling Costs ¹	\$185,889.86
Net Residential Recycling Costs per tonne	\$452.45
Net Residential Recycling Costs per capita	\$36.62
Net Residential Recycling Costs per household	\$62.27

Notes:

1. From 2009 Waste Diversion Ontario Municipal Datacall Summary Report (Revised) - Township of Madawaska Valley - Section 6.2.

* All tonnages are Residential only.



Table 7f
Anticipated Future Waste Management Needs (for municipalities working individually)
Municipal Waste Recycling Strategy
Township of Madawaska Valley

	Current Equivalent Population	Total Waste Generated (tonnes)	Waste per Person (kg/person/year)
Solid Waste Generated per Capita (kg/person/year)	5,076	1,894.38	373.23

	Current Equivalent Population	Blue Box Material Available (tonnes)	Blue Box Material per Person (kg/person/year)
Blue Box Material Available per Capita (kg/person/year)	5,076	702.81	138.47

	Current Year	Current Year + 5	Current Year + 10
Equivalent Population	5,076	5,045	5,015
Total Waste (tonnes) ¹	1,894.38	1,883.01	1,871.72
Blue Box Material Available (tonnes) ²	702.81	698.60	694.41

Notes:

1. Total Waste (tonnes) - Current Year +5/+10 calculated using ("Equivalent Population" x "Waste per Person" / 1000)

2. Blue Box Material Available (tonnes) - Current Year +5/+10 calculated using ("Equivalent Population" x "Blue Box Material per Person"/1000)

* All tonnages are Residential only



Worksheet 8
Overview of Recycling Plan Options
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Suitable? Y/N	Description of Options/Best Practices	Priority Level	Estimated Costs	Schedule for Completion		
		5 – High 4 – Medium High 3 – Medium 2 – Medium Low 1 – Low		Anticipated Start Date	Anticipated Completion Date	Actual Completion Date
Yes	<p>Public Education and Promotion (P&E) Program</p> <p>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 P&E plan contributes toward the amount of WDO funding a municipality receives as identified in best practice section of the WDO municipal Datacall. For example, benefits of public education and promotion programs include:</p> <ul style="list-style-type: none">• 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 <p>Stewardship Ontario has prepared a Recycling Program Promotion and Education Workbook and other materials, which are available on Stewardship Ontario's Recyclers' Knowledge Network (http://vubiz.com/stewardship/Welcome.asp).</p>	5	<p>2009 P&E = \$1585.00 (Blue Box-specific)</p> <p>-----</p> <p>2010 = \$1,981.25 2011 = \$2,476.56 2012 = \$3,095.70 2013 = \$3,869.63 2014 = \$4,837.04 2015 = \$6,046.30</p>	January 2011	On-going	
Yes	<p>Training of Key Program Staff</p> <p>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) have a greater understanding of their municipal programs and can perform their responsibilities more effectively. There are a number of low-cost training options available. The CIF holds periodic Ontario Recycler Workshops that discuss recycling program updates (www.wdo.ca/cif/orw.html). The MWA, Waste Diversion Ontario (WDO), the association of Municipalities of Ontario (AMO), Stewardship Ontario and the Solid Waste Association of Ontario (SWANA) can also be sources of information guides, workshops, or training on recycling or solid waste management.</p> <ul style="list-style-type: none">• Operations Manager of Public Works• Operations Staff (Curbside & Depot) <p>(The TWP currently has 1 full-time and 3 part-time waste management staff. The municipality uses 2-3 Public Works staff for Curbside collection in the Village of Barry's Bay)</p>	4 (Variable)	<p>Variable</p> <p>* Course Specific</p>	January 2011	On-going	



Worksheet 8
Overview of Recycling Plan Options
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Suitable? Y/N	Description of Options/Best Practices	Priority Level	Estimated Costs	Schedule for Completion		
		5 – High 4 – Medium High 3 – Medium 2 – Medium Low 1 – Low		Anticipated Start Date	Anticipated Completion Date	Actual Completion Date
Yes	<p>Optimization of Collection Operations</p> <p>The purpose of optimizing collection operations is to collect more recyclables using fewer financial, capital and human resources. This requires critically assessing both collection and processing operations (as the two are closely linked) and making changes that reduce costs while at the same time increases capture of blue box materials. The relevant options for optimization vary according to the size, composition and location of municipalities, as well as their available processing options.</p> <ul style="list-style-type: none">Negotiating more favorable Blue Box material list with MRF? (OVWRC)Multi-municipal approach?Curbside containers/sortingExpanding Curbside collection activities	3	<p>Additional Curbside Collection Truck = ~ \$200,000</p> <p>(required if Curbside collection is expanded)</p>	January 2011	March 31, 2011	
Yes	<p>Diversion Incentive Program</p> <p>Bag limits restrict the number of bags of garbage a resident can dispose of per collection. This encourages residents to divert more recyclable materials in order to not exceed the bag limit.</p> <p>Bag limits can also be used in conjunction with bag tags (e.g., user fees). For example, some municipalities allow residents to dispose of a number of bags for free, with additional bags requiring a purchased bag tag.</p> <p>Clear Bags can help with determining Capture Rate/Blue Box recycling in waste stream.</p> <ul style="list-style-type: none">Bag Limits?If recycling, no Bag Tags required?Determine Participation Rate of Township of Madawaska Valley (Curbside)<ul style="list-style-type: none">Participation Rate Field Survey (Early 2011)Monitoring Plastic Bag vs. Blue Box use for recyclingSet Out Rates (demographics?)Ratepayer surveys?	2	<p>Costs covered with P&E Program</p>	Early 2011 (Participation Rate Field Survey)	June 2011	



Worksheet 8
Overview of Recycling Plan Options
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Suitable? Y/N	Description of Options/Best Practices	Priority Level	Estimated Costs	Schedule for Completion		
		5 – High 4 – Medium High 3 – Medium 2 – Medium Low 1 – Low		Anticipated Start Date	Anticipated Completion Date	Actual Completion Date
Yes	<p>Enhancement of Recycling Depots</p> <p>Where curbside collection programs are not feasible, recycling depots provide an inexpensive means for municipalities to divert recyclable materials from disposal. Enhancements to recycling depots may include (but are not limited to):</p> <ul style="list-style-type: none">• Providing satellite depots to improve public access and convenience;• Enhancing the conditions at the landfill depot (e.g., landscaping, general cleanliness, maintenance);• Incorporating friendly, easy-to-read, visual signage• Providing additional part-time staff to address seasonal fluctuations and visiting traffic.• Supplemental staffing - Co-op Program with local Educational Institutions (High School/College/University)?• Closure of Wilno WTS ?• Bark Lake WDS = upgrade public drop off area (Depot)• Radcliffe WTS = minor upgrades to public drop off area (Depot)	4	<p>Depot Enhancements = ~ \$100,000</p> <p>-----</p> <p>Part-Time Staffing = Government Subsidized Programs for Summer Students</p>	January 2011	On-going	
Yes	<p>Provision of Free Blue Boxes</p> <p>Providing free blue boxes helps to ensure that residents have sufficient storage capacity for recyclables. While this is initially done at the roll-out of the blue box program, many municipalities offer free boxes to new residents or residents moving into new homes. Some municipalities also offer one extra free box or bin for residents per year. However, in municipalities offering only basic recycling services, one blue box container may be sufficient.</p> <ul style="list-style-type: none">• 2010 program – CIF Funding was available to supply one (1) free large box to all households (50% of costs paid by CIF)• 20+ Gallon Blue Boxes are a requirement of program• <u>2011 – Check on available funding with CIF for Township in January 2011</u>	5	<p>(2011) To be confirmed with Continuous Improvement Fund (CIF)</p> <p>Minimum = \$5,000 to \$10,000</p>	Early 2011 (if available)	Late 2011 (if available)	



Worksheet 8
Overview of Recycling Plan Options
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Suitable? Y/N	Description of Options/Best Practices	Priority Level	Estimated Costs	Schedule for Completion		
		5 – High 4 – Medium High 3 – Medium 2 – Medium Low 1 – Low		Anticipated Start Date	Anticipated Completion Date	Actual Completion Date
Yes	<p>Collection Frequency</p> <p>The efficiency of curbside collection of recyclables is dependent on a number of factors, including the rural nature of the community, the types of recyclable materials included in the recycling program, the type of equipment used to collect the recyclables, among other things. In some circumstances, bi-weekly collection of recyclables can be more cost-effective than weekly collection, assuming that collected tonnages remain the same overall and residents have enough storage capacity to accommodate storing their blue box materials for two weeks.</p> <p><u>2010 Curbside Collection Schedule</u></p> <p>January to March 2010 – Bi-weekly Garbage/Weekly Blue Box/ Bi-weekly Organics April to October 2010 – Bi-weekly Garbage/Weekly Blue Box/Weekly Organics November to December 2010 – Bi-weekly Garbage/Weekly Blue Box/Bi-weekly Organics</p> <ul style="list-style-type: none">Collection frequency already considered to satisfy Best Practices	2	To be determined	On-going	On-going	
Yes	<p>Multi-Municipal Planning</p> <p>Small and medium-sized municipalities often face considerable cost and capital challenges when looking to collect and transfer 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.</p> <p>A committee comprised of representatives from local municipalities can help municipalities work toward common regional goals. Committee members can identify opportunities for beneficial collaborations between municipalities and can provide support and feedback on each other's waste diversion programs.</p> <ul style="list-style-type: none">Potential Municipal Partners = Madawaska Valley, Brudenell, Lyndoch, and Raglan,Bonnechere Valley, South Algonquin, Greater Madawaska, Killaloe, Hagarty and Richards	4	To be determined	January 2011	December 2011	



Worksheet 8
Overview of Recycling Plan Options
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Suitable? Y/N	Description of Options/Best Practices	Priority Level	Estimated Costs	Schedule for Completion		
		5 – High 4 – Medium High 3 – Medium 2 – Medium Low 1 – Low		Anticipated Start Date	Anticipated Completion Date	Actual Completion Date
Yes	<p>Following Generally Accepted Principles for Effective Procurement and Contract Management</p> <p>A considerable number of municipalities in Ontario contract out the collection and processing of recyclables. To ensure that municipalities obtain good value for money, Municipalities should follow generally accepted principles (GAP) for effective procurement and contract management. Key aspects of GAP include planning the procurement well in advance, issuing clear RFPs, obtaining competitive bids, and including performance-based incentives.</p> <ul style="list-style-type: none">All future tenders/RFPs should use the <u>Stewardship Ontario Model Tender Tool</u> (Best Practice Questions WDO Datacall)	4	No Cost – Stewardship Ontario Model Tender Tool is free to use by all municipalities	January 2011	December 2011	



Worksheet 9
Summary of Priority and Future Initiatives
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Priority Initiatives	Score	Approximate Total Cost
Public Education and Promotion (P&E) Program	5	<ul style="list-style-type: none"> 2009 P&E (Blue Box-specific) = \$1,585 Proposed Budget (2010 to 2015) = \$22,306.48
Provision of Free Blue Boxes	5	<ul style="list-style-type: none"> To be confirmed with CIF (January 2011) Minimum = ~ \$5,000 to \$10,000
Training of Key Program Staff	4	<ul style="list-style-type: none"> Variable; course specific Start = January 2011
Enhancement of Recycling Depot	4	<ul style="list-style-type: none"> Depot Enhancements = ~ \$100,000 Part-time Staffing = To be determined
Multi-municipal Planning	4	<ul style="list-style-type: none"> Multi-municipal Planning = on-going Costs to be determined
Following Generally Accepted Principals (GAP) for Effective Procurement and Contract Management	4	<ul style="list-style-type: none"> No cost – Stewardship Ontario Model Tender Tool is free to use by municipalities To be used in 2011
Optimization of Collection Operations	3	<ul style="list-style-type: none"> Additional Township Collection Vehicle = ~\$200,000 (required if Curbside collection is expanded)
Future Initiatives	Score	Approximate Total Cost
Diversion Incentive Program	2	<ul style="list-style-type: none"> To be determined Participation Rate Field Survey planned for Early 2011
Collection Frequency	2	<ul style="list-style-type: none"> To be determined



Worksheet 10
Contingencies
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Risk	Contingency
Insufficient Funding	Explore and apply for other funding sources
	Delay lower-priority initiatives
	Increase proportion of municipal budget to solid waste management
	Raise/implement user fees
Public Opposition to Planned Recycling Initiatives	Improve public communications
	Engage community/stakeholders to discuss initiatives/recycling strategy
Lack of Available Staff	Prioritize department/municipal goals and initiatives
	Hire contract staff (students) to help with planning (may be available funding)
	Co-op students from local educational institutions?
Permitting and Approval Requirements	Identify permit requirements early on in process
	Establish a “permit requirements” checklist
Public Apathy/Non-compliance	Promotion and Education (P&E)
	Create reward structure for compliance/participation
Enforcement of Recycling Policies	Increased enforcement of Waste Management By-Law for Township (By-Law # 2009-88)



Worksheet 11
Monitoring and Reporting Program Outline
Municipal Waste Recycling Strategy
Township of Madawaska Valley

Monitoring Item / Criteria	Monitoring Tools	Frequency
Diversion Rates Achieved (by type and by weight)	<u>Blue Box Diversion Rate:</u> <ul style="list-style-type: none"> (Blue Box Materials ÷ Total Waste Generated) X 100% <u>GAP Diversion Rate:</u> <ul style="list-style-type: none"> Calculated by WDO in annual Datacall [(All Diversion) ÷ Total Waste Generated] X 100% 	<ul style="list-style-type: none"> Annually Annually
Program Participation	<ul style="list-style-type: none"> Ratepayer survey (e.g., by mail in tax mailings) Monitoring Curbside and Depot set-out rates MRF Tonnages Tracking – using spreadsheets/graphs 	<ul style="list-style-type: none"> On-going
Ratepayer Satisfaction / Opportunities for Improvement	<ul style="list-style-type: none"> Customer survey (e.g., by mail in tax mailings); Tracking calls/complaints received to the municipal office / Depot sites 	<ul style="list-style-type: none"> Every 1 to 3 years On-going
Planning activities	<ul style="list-style-type: none"> Prepare an “Annual Waste Diversion Monitoring Report” for Township 	<ul style="list-style-type: none"> Annually (January)
Review of Waste Recycling Strategy (WRS)	<ul style="list-style-type: none"> A periodic review of the WRS to monitor and report on progress, to ensure that the selected initiatives are being implemented, and to move forward with continuous improvement 	<ul style="list-style-type: none"> Annually
Waste Disposed (garbage)	<ul style="list-style-type: none"> Capacity Surveys (integral for determining Total Waste Generated) Periodic Weighing of Waste Trucks 	<ul style="list-style-type: none"> Annually Monthly / Random
Depot Participation	<ul style="list-style-type: none"> Waste Site Records (record book) Depot Set-out rates 	<ul style="list-style-type: none"> Daily On-going

APPENDIX B

Township of Madawaska Valley – CIF #260 Blue Box Recycling Program Best Practice Assessment Report

Genivar Consultants LP, August 2010

**Township of Madawaska Valley
CIF # 260**

**Blue Box Recycling Program Best
Practice Assessment Report
August 2010**

Prepared for:
The Continuous Improvement Fund
92 Caplan Avenue, Suite 511
Barrie, ON L4N 0Z7

Prepared by:
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600 Cochrane Drive, 5th Floor
Markham, Ontario L3R 5K3

Project No. MA-10-138-00-MA

Executive Summary

On behalf of the Continuous Improvement Fund (CIF), a recycling program assessment was conducted for the Township of Madawaska Valley. The assessment approach was developed by CIF and is used to systematically review program status against the best practices questions found in the WDO Municipal Datacall. Program performance is also reviewed since this too is a factor that influences WDO funding.

Observations, conclusions and potential opportunities for improvement were developed primarily as a result of a one-day interview and site visit, which was conducted on June 1, 2010. The output of the process is a high-level analysis: prior to implementing any of the potential opportunities it may be necessary to examine their appropriateness and practicality in more detail. Where initiatives call for capital investment, a cost/benefit and/or payback analysis is required, as might be a feasibility review.

A preliminary comparison to municipalities within its WDO municipal grouping was performed. Madawaska Valley collection costs are well below the average but depot and transfer costs are considerably higher than the average. A second comparison to selected Ontario municipalities was made where Madawaska Valley was shown to perform well with respect to relative gross and net cost per tonne. The performance measure E&E Factor is the best within this limited comparison although, within the larger municipal grouping, this value ranks as 36th out of 71 municipalities (WDO 2010) as a relative measure against which funding is allocated.

A review against each of the following best practices questions was performed. In the case of Madawaska Valley, a number of questions are being addressed. Best practice questions 1 and 2, for instance, are being addressed through the development of a Waste Recycling Strategy.

1. Blue box recycling plan as part of an integrated waste management plan
2. Established performance measures
3. Multi-municipal planning approach
4. Optimization of collection and processing operations
5. Training of staff in key competencies
6. Appropriately planned, designed and funded communications program
7. Established and enforced policies that induce waste diversion

Questions 3 through 7 represent areas of opportunity for Madawaska Valley. In general it was concluded Madawaska Valley operates an efficient and economical recycling program, and that program operators are aware of potential opportunities as well as issues of related cost. A number of recommendations are offered in the report, all of which can be considered in the spirit of prudent management already exercised by the Township.

Recommendations target both the administrative and report requirements that will help Madawaska Valley secure a maximum share of the best practice funding available, but also improve material recovery and cost efficiency aspects that are used to measure program performance. These take several forms: annual reporting, staff training, enhanced program promotion, operating adjustments, potential economies of scale, and changes to contractual or third party agreements. Specific recommendations include:

- Review the Township's existing Waste Strategy against the WDO requirements, and amend or append to it a new section that defines blue box specific objectives and targets and solidifies data collection processes
- Collect, document and analyse program data to support ongoing program evaluation
- Review and establish specific blue-box targets reported to the WDO

- Generate an annual report 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
- Structure future contracts to separate transfer/haul and processing costs
- Initiate discussions with other municipalities about joint services for collection, processing, depot/transfer, marketing, and promotion and education. High depot/transfer costs and the prospect of common P&E materials are good topics of discussion
- Review collection requirements for corrugated cardboard.
- Attend recycling training that meets the WDO best practice training requirement.
- Obtain CIF assistance to boost promotion and education efforts through CIF Project #192, Small Program P&E Plans, and through CIF funding assistance
- Consider additional policy support such as bag limits or user charges at the depots

By following up with the noted recommendations it is hoped that Madawaska Valley will be in a position to attain the goals of the CIF program assessment, namely the implementation of program improvements and strategies that improve recycling program effectiveness and efficiency.

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

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1 Introduction

1.1 Madawaska Valley

Madawaska Valley operates a mixed collection system, with curbside service provided to 751 households in the village of Barry's Bay, and the remaining 2,234 households serviced by depots. All residents receive garbage, blue box recyclables and green bin organics collection through the system.

Blue box materials are collected in a two stream, alternate week system: Containers are collected curbside on one week, fibres and OCC are collected on the other week. Both streams are received continuously at depots. Garbage collection is provided every other week and residents are required to purchase bags at \$1.00 per bag, with no bag limit. All Municipal Datacall blue box material categories are acceptable for collection in the recycling program. The Township owns and operates the collection system, including curbside collection and the three recycling depots at the Bark Lake, Wilno and Radcliffe sites. Under a contract with the Ottawa Valley Waste Recovery Centre (OVWRC), blue box materials are hauled to the OVWRC for processing.

The Township marketed a total of 411 tonnes of blue box recyclables in 2009. Madawaska Valley is categorized as a "Rural Collection – South" municipality by the WDO, and the Township achieved an impressive 35% residential diversion rate in 2009, well above the 27% average for the municipal grouping. This performance is abetted by the fact that the Madawaska Valley recovery rate for recyclables, at 61%, exceeds the average of 53%, likely because the Township also supports an organics collection program.

1.2 Best Practice Questions and the WDO Municipal Datacall

Starting in 2010 the answers to the "best practice" questions in the Waste Diversion Ontario (WDO) Municipal Datacall will have a bearing on the amount of funding made available to individual municipal programs. Over a three year period the percentage value relative to overall funding will escalate from a starting point of 5%, to 15% and finally to 25% in 2012. Under the model being implemented by the WDO, funding will be awarded based on a three part formula, with the Best Practice questions forming the first, a performance factor (possibly the E&E Factor) forming the second, and program cost making up the final portion.

Given the increasing significance of the Best Practices portion of the funding distribution model, the Township of Madawaska Valley asked the Continuous Improvement Fund (CIF) to fund an assessment of their program against each of the Best Practice question categories. The objective is to position Madawaska Valley to maximize their performance against each question, since each will have a point value and will be tabulated to arrive at an overall score that will determine how much of the Best Practice question portion will be made available to the municipal program operator. CIF retained GENIVAR to perform the assessment.

The values for each of the best practice sections in the Datacall are as follows:

1. Blue box recycling plan as part of an integrated waste management plan	12.5%
2. Established performance measures	25.0%
3. Multi-municipal planning approach	8.3%
4. Optimization of collection and processing operations.....	12.5%
5. Training of staff in key competencies.....	8.3%
6. Appropriately planned, designed and funded communications program.....	8.3%
7. Established and enforced policies that induce waste diversion.....	25.0%
TOTAL.....	100.0%

More detail is provided in Appendix A, a PowerPoint presentation made at the October 15, 2009 Municipal Waste Association Fall Workshop held in Toronto. The questions as published by the WDO appear in Appendix B.

Each of the main WDO best practice questions is divided into a series of sub questions, each worth a proportionate share of the total question. More specifically, sub-questions that are in bold print count against the total. Theoretically, if a question worth 12.5% has five bolded sub questions, the answers to those sub questions would count for 2.5% each.

In practice, however, there are a number of issues with respect to the sub questions that make it difficult to advise with accuracy the exact financial impact of each sub question. Inquiries were made of the WDO and of the Municipal Support person for municipal MIPC members to try and clarify, but it is evident that the application of the questions is still a work in progress (this is the first Datacall in which the questions will actually be applied against funding).

Despite the fact that there may be a few questions for which the financial implications of the sub-questions is unclear, parties associated with the best practice questions and how they are evaluated are aware of the concerns and working to develop a fair approach. It is still prudent therefore to work towards meeting the best practice questions, where appropriate, given their increasing significance within the funding allocation formula.

2 The Program Assessment and Best Practices Review

The approach used in this report was developed by CIF and is used to systematically assess program status against those best practices with which the Township is unable to comply as noted in the Township's Datacall submission. The exercise is more than a strict assessment of Madawaska Valley practices: question #6 calls for a program review, making it is necessary also to discuss program performance as well in order to assess both practices and performance, the Continuous Improvement Fund (CIF) program assessment model uses the best practice questions to examine all areas of program performance. The CIF developed a recycling program assessment to provide an objective and thorough assessment of the participating program's blue box program.

The approach is partly based on the site visit and assessment process utilized as part of the Blue Box Program Enhancement and Best Practices Assessment Project (Best Practices Project).

There are a number of goals and objectives associated with the CIF approach, including:

- Recommending, for implementation, recycling program effectiveness and efficiency improvements through examination of program components , and
- Providing municipal recycling programs with timely and objective input to aid decision making about program improvements, upgrades, contracts, tenders and any other program development issues.

Observations, conclusions and potential opportunities for improvement outlined in this report are developed primarily as a result of a one-day interview and site visit, which was conducted on June 1, 2010. The output of the process is a high-level analysis: prior to implementing any of the potential opportunities it may be necessary to examine their appropriateness and practicality in more detail. Where initiatives call for capital investment, a cost/benefit and/or payback analysis is required, as might be a feasibility review.

3 Preliminary Review and Analysis

It is important to note that the overall funding formula employed by the WDO contains two elements other than the best practice questions. In total, funding will be distributed according to a combined model: best practice questions, a performance factor (possibly the E&E factor or a modified version of same), and program cost. It is important for all program operators to assess and improve program cost and performance measures in a system where *relative* position regarding program performance may have a direct bearing on funding. This means that the broad assessment undertaken here is much more than an exercise to confirm practices; programs will be driven to examine cost and recovery in order to maximize funding eligibility.

Table 3.1 - WDO Funding Allocation Formula

Allocation Method	2010	2011	2012
Datacall Best Practice Questions	5%	15%	25%
Program Performance	30%	40%	45%
Net Cost	65%	45%	30%

Madawaska Valley has no control of the process or rationale used by WDO to categorize the program within a WDO municipal grouping, which in this case is referred to as the Rural Collection – South category. There are municipalities in this grouping with widely divergent characteristics in terms of population, geographic size, location, and program delivery. Reporting of data also varies depending on contract structures and operating relationships. Regardless, WDO uses municipal groupings for comparative reasons and as part of funding allocation strategies where poor performers within a municipal grouping can lose a portion of their funding.

When compared to municipalities within the WDO municipal grouping, Madawaska Valley is seen to have collection costs well below the average. The collection figure likely reflects the small geographic size of the curbside collection area and a system that uses collection vehicles that shares time between garbage, recyclables and organics collections.

Depot and transfer costs, on the other hand, are considerably higher than the average. Even when it is understood that this includes processing costs (reported as \$17 in the Municipal Datacall, which is the processing cost associated with the segregated corrugated cardboard) the figure is high and is not totally explained by either transportation or processing costs. Other factors, and quite possibly a lack of competition in the area for these services, may come into play here. According to the WDO information, blue box recovery for Madawaska Valley is about 8% higher than the average.

Table 3-2 Comparative Analysis: Madawaska Valley within its WDO Municipal Grouping

		Madawaska Valley	Madawaska Valley	Group Average*	Group Range*
	Year	2009 (reported)	2008	2008	2008
	Households	2,985	2,985	4,291	230 – 19,199
	Tonnes Reported or Calculated	447	453	582	3 – 3,017
Residential	Collection Cost / Tonne	\$ 111	\$ 101	\$ 224	\$ 0 - 453
	Processing Cost / Tonne	\$ 17	\$ 0	\$ 40	\$ 0 - 381
	Depot-Transfer Cost / Tonne	\$ 242	\$ 257	\$ 63	\$ 0 - 631
	Promotion and Education Cost / Tonne	\$ 3.55	\$ 6.81	\$ 6	\$ 0 - 40
	Calculated Administrative and Interest on Municipal Capital / Tonne	\$ 19	\$ 18	\$ 23	\$ 2 - 263
	Gross cost / Tonne	\$ 430	\$ 383	\$ 451	\$ 72 - 5,524
	Net Cost / Tonne	\$ 411	\$ 369	\$ 451	\$ 72 - 5,524
	% Recovery	Unavailable	61	53	7 - 94
	E&E Factor **	Unavailable	6.05	7.98***	0.62 - 34.45

* The WDO Municipal Grouping for Madawaska Valley is the “Rural Collection – South” grouping which included 69 Municipalities in 2008, and now has 71 (2010).

** The Efficiency and Effectiveness Factor (E&E Factor) is expressed by dividing a recycling program's efficiency (net cost per tonne) with its effectiveness (percent of materials recovered). Better performing programs have a relatively low cost per tonne in the numerator combined with a relatively high recovery rate in the denominator, resulting in a low E&E Factor. The figure of record with the WDO at the time of this report was prepared was from the previous year. While the E&E Factor is considered to be a reasonable measure, it has limitations. For instance, a poor performing program with a very low cost per tonne could possess a low E&E factor.

*** Calculated excluding outliers w/ E&E factors > 100

To obtain another perspective, a number of other Ontario programs were selected for the purpose of comparison. The attributes used to make the selection included mixed depot / curbside collection system, population size, number of households serviced and program tonnage.

Table 3-3 Comparative Analysis: Madawaska Valley versus selected Ontario Programs (2008)

Program Name	Calculated Blue Box Tonnes Marketed	Total Gross Costs	Gross Costs Per Tonne	Total Gross Revenue
Township of Elizabethtown-Kitley	400	\$ 91,827	\$ 229	\$ 132
Municipality of West Elgin	170	\$ 113,311	\$ 668	\$ 2,467
Township of Stone Mills	564	\$ 393,339	\$ 698	\$ 46,337
Township of Madawaska Valley	416	\$ 159,532	\$383	\$ 5,794

Program Name	Material Revenue Per Tonne	Other Revenue Per Tonne	Total Net Cost	Net Cost Per Tonne	E&E Factor
Township of Elizabethtown-Kitley	\$ 0	\$ 0.33	\$ 91,695	\$ 229	6.70
Municipality of West Elgin	\$ 14	\$ 0.11	\$ 110,844	\$ 653	28.29
Township of Stone Mills	\$ 0	\$ 82	\$ 347,002	\$ 616	10.00
Township of Madawaska Valley	\$ 13	\$ 1.33	\$ 153,738	\$ 369	6.05

In general recycling performance is measured as cost per tonne, and the limited comparison above reveals that Madawaska Valley performs well with respect to relative gross and net cost per tonne. The performance measure E&E Factor is the best within this limited comparison, but within the larger municipal grouping this value ranks as 36th out of 71 municipalities (WDO 2010) as a relative measure against which funding is allocated. This would indicate that there is some risk to Madawaska Valley when competing for that portion of municipal funding allocated according to program performance. It should be noted, however, that in previous WDO funding allocation schemes (2007, 08 and 09) Madawaska Valley has always been treated as a better performing program. This means that, in any of the changing “cost containment” or “incentive” funding allocation approaches employed, Madawaska Valley has not been penalized or lost funding because of poor performance.

4 Program Analysis using the Best Practice Question Review

The best practices questions in final form have been posted on the WDO website and appear here in Appendix B. In the following section, a general finding is documented for all WDO headings, with additional narrative offered on those questions and specific sub-questions that either require attention by Madawaska Valley, or have been identified in the program assessment.

4.1 Development and implementation of an up-to-date blue box recycling plan as part of a Waste Diversion System or Integrated Waste Management System

- h) Does the plan require performance monitoring against Blue Box diversion targets?
- k) Was a monitoring report presented to Council/Committee/board in 2009?

As part of the Environmental Assessment for landfill expansion Madawaska Valley has a waste management strategic plan that includes some direction with respect to recycling. The plan is dated 2007 and is therefore current as required by the WDO five year plan review cycle. The plan notes that, as part of the preferred approach to waste management in the Township, it is best to maximize waste diverted via the establishment of mandatory recycling and bag limits to complement the established user-pay system, with consideration of expanding of the current curbside blue-box program.

To fully meet the WDO Waste Recycling Plan requirement, however, it may be prudent to amend the plan or develop a separate waste recycling strategy. Township representatives, in fact, are planning to complete a waste recycling strategy by the end of 2010 using the guidelines set out by the CIF.

The existing Waste Management Strategic Plan does not address blue box specific targets. Diversion targets appear to be related to the overall provincial target of 60%, which speaks to the entire waste stream and is not blue box specific, and the types of targets specific to blue box programs include recovery rates, participation rates, contamination rates, unit costs (per hhld, per tonne) and any other element of participation or service that can and should be monitored for the betterment of the program. The WDO best practice question is blue box specific and as part of the waste recycling strategy process the Township will have the opportunity to establish distinct blue box specific targets.

It may also be helpful to review how the diversion number associated with sub-question g) (What is the Blue Box diversion target for 2009?) is reported. The Township reports to the WDO a target of 45%, yet as part of the WDO Municipal Datacall process the Township receives confirmation of their blue box diversion rate for the previous year: 61% The WDO further explains how this rate is calculated: blue box material tonnes marketed divided by blue box materials available for collection. The WDO expression "blue box diversion" is more commonly referred to as the blue box recovery or blue box capture rate.

Based on general municipal performance in Ontario, 45% is a reasonably challenging target for overall diversion and possibly, in some cases, the amount of diversion of the total waste stream attributed to blue box recycling. Blue box recovery in Ontario, however, exceeds 60% (as does recovery in Madawaska Valley) and the reporting of a 45% target should be reviewed in this context.

Representatives from Madawaska Valley have attended a CIF sponsored workshop which offers guidance with respect to the development of an appropriate plan, and as a result are aware of basic plan elements as outlined in the *CIF Guidebook for Creating a Municipal Waste Recycling Strategy*.

With respect to sub-questions h) and k), the Strategic Plan does not appear to address performance monitoring and reporting as required. There are, in fact, several instances within the best practice questions where monitoring, reporting and review are required. Madawaska Valley is encouraged to develop an annual reporting regime that includes monitoring program for all best practice elements that require monitoring and reporting: plan review, blue box targets and performance, effectiveness of P&E, and operational reviews.

4.2 Establishing defined performance measures including diversion targets, monitoring objectives and a continuous improvement program

- b) Does your program collect specific program data to evaluate the effectiveness of recycling programs before and after implementation?

It is generally assumed that a municipality addressing question #1 of the WDO Datacall (above) will in the process resolve any deficiencies with respect to this question, #2. Because the strategic plan is by nature a high level strategy, it does not appear to contain the detail required in 2 b). Attention should be given to defining blue box specific objectives and targets and solidifying data collection processes. In the case of 2 b), the question is not whether the municipality has actually done an evaluation, but whether data is collected to support an evaluation if and when program implementations occur.

There are a number of different program aspect for which data can be collected and evaluated. An example of this would be the development of an enhanced Promotions and Education (P&E) program. It is helpful at the outset to inventory what sources of information would be used to determine the effectiveness of a promotions campaign. This could include invoices that track processing costs, weigh slips, participation studies or set out studies. The type of information collected should reflect the objectives of the campaign, which could target:

- participation
- material recovery (general or a specific item)
- material contamination
- how boxes are placed at the curb or what is an acceptable recycling container
- any combination of the above

The data collected should first be used to establish a baseline for the objective prior to the implementation, and then revisited over time to measure progress. In the case of Madawaska Valley, a natural starting point might be the measurement of material recovery and data sources might be processing invoices, haulage records and Datacall reporting. After initiating a program to increase recovery these sources would be reviewed and compared to baseline to determine whether there has been an increase that can be attributed to the P&E program. Processing volumes are a natural starting point, but frequency of haulage may also provide insight as might a participation study.

With respect to the latter, a curbside participation study can be done quite easily and inexpensively. Participation is a measure over time and measures the percentage of households who put their blue box (or equivalent) out for collection. In weekly collection systems a household is considered to participate if they place their blue box out *once per month*. In the case of Madawaska Valley which collects fibres and containers on alternate weeks, one full collection cycle is actually two weeks. However, residents have an opportunity to participate weekly so participation would be measured based on a four week period. For each of the four collection days a staff person would be asked to drive down a number of streets, based on a representative sample, to record which addresses have placed their blue box out for collection. This route would be exactly the same for all four collection days. After the fourth survey all homes recorded will have placed the blue box out at least once. If there were 40 homes in the sample area (about 5% of the households getting curbside collection in Madawaska Valley) and 28 put recyclables at the curb at least once in the four collection period, the Township would have a curbside blue box participation rate of 70%.

Madawaska Valley may also want to monitor recycling participation at the depot sites. This may be as simple as recording whether users bringing garbage to the site also brought separated recyclables over a fixed period of time and repeating the exercise after implementation of the communications plan.

4.3 Multi-municipal planning approach to collection and processing of recyclables

- a. Does your municipality deliver and/or provide recyclable material collection services jointly with one more other municipalities through an agreement?
- b. Does your municipality deliver and/or provide Blue Box recyclable material processing services jointly with one more other municipalities through an agreement?
- c. Does your municipality deliver and/or provide Blue Box recyclable material transfer/depot services jointly with one more other municipalities through an agreement?
- d. Does your municipality deliver and/or provide Blue Box recyclable material marketing services jointly with one more other municipalities through an agreement?
- e. Does your municipality deliver and/or provide Blue Box recyclable material public education services jointly with one more other municipalities through an agreement?
- f. If none of these services (collection, processing, depot/transfer, marketing, and promotion and education) are currently being delivered and/or provided jointly with another municipality, has your program synchronized the expiry date of its recycling contract with the recycling contracts of neighbouring municipalities?
- g. Has your municipality approached other municipalities about jointly providing recycling (collection, processing, depot/transfer, marketing, and promotion and education) services?

The WDO requirement is intended to place a dollar value on efforts by municipalities to seek opportunities to gain economies of scale by partnering with their neighbours. This approach is uncommon in some parts of the province, and in fact the notion of pooling resources or services may occasionally meet with resistance. On the other hand, some municipalities have banded together in order to develop collective systems that pool recyclables and services in an effort to obtain efficiencies. A number of the municipal partnerships have created board or authority structures to manage waste, such as the Bluewater Recycling Association, the Essex Windsor Solid Waste Authority, the Ottawa Valley Waste Recovery Centre, and Quinte Waste Solutions. Each has evolved to meet the needs of a collective group, and in some cases beyond delivery of blue box service. Some, for instance, are full service waste management entities.

Regardless, there may be local sensitivities to the approach. Some decision makers worry that consideration of co-operative tendering for waste services or recycling may usurp local authority or promote amalgamation. There are enough examples to demonstrate that municipalities can easily maintain their authority and still work collectively to enhance their recycling programs. The most obvious example is the case of the six municipalities in York Region who joined together to issue a collection tender for regionalized three stream collection. These participants maintained their autonomy throughout the process, structuring a request for proposals that allowed them to stay within the joint project if they realized a benefit and opt out if the collective service package for cost and service was not seen as an improvement. The “York Region North Six” successfully worked together to secure a garbage collection and waste diversion services contract that saved the partners, collectively, about \$900,000 annually for seven years (an average of \$150,000 each annually) while increasing the frequency and number of waste diversion programs.

The development of the “York Region North Six” was funded, in part, by the E&E Fund (predecessor of the CIF) under project #214. E&E Fund reports are available for viewing on the Recycling Knowledge Network, at <http://vubiz.com/stewardship/Welcome.asp>.

At the very least the local options should be explored since the WDO questions on multi-municipal collection will continue to drive home the point. At 8.3% of the total best practice questions, the overall value to Madawaska assuming the current funding average of \$47,630 (2007 through 2009) remains relatively steady would be about \$990 in 2012, when the Best Practice questions represent 25% of the WDO funding allocation. This amount is not likely to create much pressure to act purely for the sake of

meeting the WDO Best Practice questions; on the other hand, failure to at least initiate the process is in effect a failure to investigate possibilities that might improve Madawaska recycling performance in a number of other areas, and in 2012 a considerable portion of the funding allocation (45%) will be based on program performance likely measured using the E&E Factor.

Currently Madawaska Valley reports that it is not working with other municipalities. The nature of the WDO question is such that not all sub-questions can be answered positively immediately and not all are appropriate. A starting point is required, and that starting point is as basic as inviting neighbouring municipalities to discuss potential opportunities.

An inaugural meeting on the matter can focus on developing an inventory of practices and timelines. Issues for discussion could include:

- Contracting versus municipal service for recycling, including who uses municipal capital
- Collection, transfer and processing contracts, including expiration dates and opportunities to harmonize contract periods in a manner that at least allows consideration of a collective operating approach
- Program particulars: who collects what materials, how often and how much. Are programs similar enough, or could they be, to permit collective P&E approaches, such as pooling of P&E efforts through the development of common materials?
- How do service costs compare? Are there any particular cost elements, for instance depot and haulage costs, that could be brought forward for a common solution? Is there any way to explain cost variations?

General comparisons between cost and recovery will help each municipality identify operational priorities and the general information sharing may lead to program improvements even before coordinated, collective actions are taken.

The process of coordinating contracts and operations takes time, and the first and most immediate step for Madawaska and its neighbours is to document their meeting invitations or e-mails, meeting times, related resolutions or letters, and agendas such that the municipality can continue to demonstrate and prove if asked that it has approached or worked with others. Cooperative operational arrangements, such as joint procurement of services and regional transfer points, will follow over time where appropriate and workable.

4.4 Optimization of operations in collections and processing by following generally accepted principles (GAP) for effective procurement and contract management

- a) Are any of your collection services municipally operated?

Have you worked with, or applied for funding through the Effectiveness and Efficiency Fund or the Continuous Improvement Fund pertaining to collection optimization projects?

Has your municipality undertaken a review of your Blue Box program in relation to the Blue Box Program Enhancement and Best Practices Assessment Project Report?

- d) Do you own your own collection capital?

If so, have you worked with, or applied for funding through the Effectiveness and Efficiency Fund or the Continuous Improvement Fund pertaining to collection optimization projects?

- e) Are any of your processing services provided by a contractor?

If so, was your last tender/RFP developed using a recycling tender/procurement tool such as the Stewardship Ontario Model Tender Tool?

As a result of the timing of the municipal visit for this project, observations regarding blue box set out were made but the actual collection vehicles and process were not observed. As a result there is no comment regarding collection efficiencies or practices, but according to the WDO submission these have been reviewed in the last two years.

The issue of potential expansion of the curbside collection program to additional households was discussed during the visit. The decision to expand curbside service is often a politically challenging one since it is difficult to determine exactly what the curbside service cut-off should be. More specifically, those who do not receive curbside service might ask why others do, and there may be very little to explain why a firm line was drawn where it was.

Madawaska Valley provides garbage and Blue Box collection services to 751 of 2,985 households within the Township, with the remaining households serviced by three depot sites. Curbside collection is provided in the urban areas of the Township (Barry's Bay), and the depots are provided for the low-density rural population. This arrangement is typical of many smaller rural municipalities with low population densities in Ontario, as shown in Table 4-1.

Table 4-1 Mixed Curbside/Depot Rural Collection Systems ¹

Program Name	Reported and/or Calculated Marketed Tonnes	HH Serviced by Curbside Collection	HH Serviced by Depot Collection	Kgs per HH	Total Collection Cost	Collection Cost per Curbside HH ²
Highlands East (Municipality)	347.56	260	4,292	76.35	\$ 17,248.04	\$66.34
Madawaska Valley (Township)	416.29	751	2,234	139.46	\$ 42,061.50	\$56.01
Lanark Highlands (Township)	322.70	441	3,100	91.13	\$ 27,357.86	\$62.04
Armour (Township)	258.70	494	2,255	94.11	\$ 26,800.90	\$54.25
Merrickville-Wolford (Village)	188.03	427	713	164.93	\$ 17,000.00	\$39.81
West Elgin (Municipality)	169.64	1,041	1,410	69.21	\$ 44,319.10	\$42.57

¹ Based on the 2008 WDO Municipal Datacall

² Calculated as 'Total Collection Cost' divided by 'HH Serviced by Curbside Collection'

We were unable to find examples of municipalities with population densities similar to that of Madawaska Valley (6.5 per km²), and which have implemented full curbside collection. A preliminary look at WDO and Statistics Canada data, shown in Table 4-2, reveals that there are no full curbside collection systems in communities with population densities less than 10 per km².

Table 4-2 Population Density and Collection System for Select Ontario Municipalities ¹

Program Name	Reported and/or Calculated Marketed Tonnes	HH Serviced by Curbside Collection	HH Serviced by Depot Collection	Collection Cost per Curbside HH ²	Kgs per HH	Pop'n Density (per km ²) ³
Papineau-Cameron (Township)	39.61	467	70	\$51.35	73.76	1.9
Highlands East (Municipality)	347.56	260	4,292	\$66.34	76.35	4.4
Lanark Highlands (Township)	322.70	441	3,100	\$62.04	91.13	5.0

Madawaska Valley (Township)	416.29	751	2,234	\$56.01	139.46	6.5
Armour (Township)	258.70	494	2,255	\$54.25	94.11	7.6
Mulmur (Township)	313.87	1,609	0	\$54.30	195.07	11.6
Montague(Township)	215.29	1,367	0	\$62.13	157.49	13.0
North Stormont (Township)	418.38	2,638	0	\$38.17	158.60	13.1

¹ Based on the 2008 WDO Municipal Datacall

² Calculated as 'Total Collection Cost' divided by 'HH Serviced by Curbside Collection'

³ Statistics Canada, 2006

In the case of Madawaska Valley the interest in expanding curbside collection stems from the desire to recover more material. There is some guidance that may be helpful to the Township in this regard: the answer is not a simple yes or no but instead a suggestion on how expansion might be implemented if a decision is made to extend the curbside service.

Guidance is available in the Blue Box Program Enhancement and Best Practices Assessment Project Final Report (2007) for both northern and southern small rural Blue Box programs. It says:

Use of drop-off depots for recovering recyclables is a Best Practice in low density rural areas, where curbside recycling is cost prohibitive. It is more cost effective to employ the use of depots in areas where curbside collection costs exceed \$50 per household per year. This is almost always the case for rural communities generating less than 2,000 tonnes per year.

The report notes that with respect to obtaining higher participation and capture rate, curbside collection is preferred over depot systems and suggests that when it is feasible, curbside blue box collection should be offered to every eligible household. Small rural communities that elect to provide curbside collection should:

- employ measures that increase the amount of material collected per stop and maximize collection efficiency;
- for curbside programs, provide sufficient rigid collection containers free of charge; and
- schedule collection of Blue Box materials to be at least as frequent as waste collection.

The per household curbside collection costs for Madawaska Valley were \$56.01 and \$66.20 in 2008 and 2009 respectively. The best practices report suggests that collection costs should be maintained below \$50 per household. The average per household collection cost for rural Ontario municipalities in WDO's Rural Collection - North and Rural Collection - South categories reporting separate collection/processing costs is just above \$42 per household.

The best practices report identifies the number of households per km of road as a criterion in determining when curbside collection may not be feasible. Less than 10 hh/km may be too dispersed for full curbside collection services. Household per road km density data is not available for all communities, but Madawaska Valley has reported 11.06 hh/km in 2009.

This discussion, however, does not necessarily mean that Madawaska Valley should rule out the possibility of extending curbside collection. What it means is that any decision to do so should be supported by appropriate policies and P&E aimed at maximizing recovery.

There are a number of options that Madawaska Valley may consider to increase recovery while maintaining a watchful eye on related cost. An incremental approach is encouraged, in which adjustment to the program are made starting with low to medium cost measures and moving to potentially more costly operations options that impact service frequency or geographic expansion. The Township could:

- implement a promotional campaign to address recovery and review and enforce policies that support recycling
- improve signage at the recycling depots
- engage in a program “refresh” that includes the distribution of new blue boxes, either for the curbside area or across the entire municipality
- establish and promote bag limits (see policy discussion) for both curbside and/or depot users
- extend the bag tag policy to depots (see policy discussion)
- consider increasing service frequency to the existing curbside collection area while enhancing the promotion and enforcement support for recycling by depot users
- offer the existing level of curbside service (alternating weeks for fibre and containers) to select additional areas
- offer increased level of curbside service (weekly for fibres and containers) to select additional areas

While it is difficult to predict the overall impact on cost and recovery, a monitoring plan should be devised that will allow the Township to regularly check their performance in both areas. There will be additional discussion about program promotion below, however for the purposes of this section it is noted that any changes to service frequency, availability of curbside collection or depot recycling should be preceded and supported by a meaningful educational and promotional campaign, part of which may be funded by the CIF.

As noted earlier in the report, depot and transfer costs are considerably higher than the average. Even when it is understood that this includes processing costs (reported as \$17 in the Municipal Datacall, which is the processing cost associated with the segregated corrugated cardboard) the figure is high and is not totally explained by either transportation or processing costs. Opportunities to reduce associated costs related to both transfer and haul as well as processing occur when agreements are renewed or re-tendered, starting with an opportunity to obtain pricing which clearly separates transfer and processing costs. This allows the municipality to determine which of the two costs require attention.

Also, if the current agreement stipulates that the processor keeps all revenues for the recyclables, then the processor has taken on the risk of marketing recyclables in a volatile commodities market. In this case it is highly possible that the processing price has been established to mitigate this risk such that losses are minimized. One way to know what the risk premium might be is to ask for two prices: a price where the municipality receives the revenues (or most of the revenues) and a price where the contractor receives the revenues. The difference between the first, in which the processor is quoting purely on the price for providing a service, and the second in which the contractor is actually assuming market risk, will be what the municipality is being asked to pay to cover the risk.

	<p style="text-align: center;">Corrugated Cardboard Collection: The Township may wish to require users to bundle corrugated in order to facilitate more efficient collection</p>
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4.5 Training of key program staff in core competencies

- a) Within 2007, 2008 and 2009, have staff responsible for Blue Box recycling attended recycling-specific workshops or courses totalling 4 days or more, individually or collectively?
- b) Was the training received from a workshop/course provided by an industry association, post-secondary educational institution or recognized body which, based on successful completion of the course and/or course assessment, offers a certificate of completion or certification?
- c) Was the course/workshop primarily dedicated to blue box recycling (minimum 50% by content and/or time)?

This is a particularly onerous requirement for small municipalities, however represents a fundamental best practice within the Best Practices Project. In order to assist municipalities in obtaining the required funding, the E&E Fund supported the development and implementation of a training program that meets the requirement and which, at least until the end of 2011, is offered free of charge to recycling program operators and decision makers in Ontario municipalities.

All aspects of best practice question 5 are addressed in the training. The fundamental training is a 4 day course and the additional specialized courses in data management, promotion and education, contract management and material markets are two days each. The course has been built to an academic standard and would be suitable as part of a certification program, and includes an assessment aspect: a 2 hour exam for the 4 day course and a post-course assignment for the specialized two-day courses. The content, in this case, is 100% blue box recycling and far exceeds the 50% required in the WDO question.

The course is currently organized by the Municipal Waste Association, which is now publicizing a course offering in Ottawa, September 27 to October 1, 2010. More details are available by contacting the MWA at (519) 823-1990. Other opportunities for training include SWANA courses, and less formal approaches including the Ontario Recyclers Workshop (CIF) and MWA workshops, however the latter two workshop approaches do not qualify against all best practice training questions, most notably 5 b) which requires the completion of a course assessment.

4.6 Appropriately planned, designed, and funded promotion and education program

- a) Does your program currently have a communications plan (either a stand-alone plan or as part of a larger plan document) with identified goals and measurable objectives that is regularly updated?
- b) Does your plan include a monitoring and evaluation component (an example would be: identification of 'spikes' in recovery or overall annual tonnages coinciding with specific P&E efforts)?

It is generally acknowledged that a promotion and education (P&E) program is a necessary component of a healthy recycling system. P&E can be a very cost effective way to improve program performance by increasing participation and recovery, and decreasing contamination of recycling streams.

Research suggests that the public's perception of a recycling program's effectiveness is closely tied to the program's actual effectiveness (Gamba and Oskamp 1994 in SGS 2006). Effective P&E, along with a well-designed program, leads to a perception of increased effectiveness and better program performance.

There are four key factors to consider in developing an appropriate P&E program (Best Practices Project 2007):

- Design – the main idea here is to create a strong icon or identifier, to “brand” communication materials so residents instantly recognize the information as relevant to recycling or waste management. Madawaska Valley does practice branding and the use of graphic icons to identify municipal and program material.

- Funding – the best practices reports that those municipalities reaching 60% recovery of available blue box material spend in the area of \$1 per household per year on promotion and education. This amount represents a floor spending level and in 2008 the Township achieved this level of spending; in 2009 reported spending dropped to about 53¢ per household.
- Deployment – it is generally recommended that programs be promoted consistently and repeatedly to get and keep public attention.
- Monitoring and evaluation – an ongoing record of program performance can be reviewed to determine whether a promotional approach or campaign has made a difference. Monitoring and evaluation is difficult for small programs with limited resources. However, it is important to have a way to assess the effectiveness of P&E strategies. One suggestion provided in the literature is simply to look for spikes in material recovery or reductions in contamination based on material tonnages.

Best practices in P&E program design boil down to having a well-organized communications plan. This is stated clearly in the Best Practices Project report and echoed in the Quinte reports. A review of rural recycling depot programs revealed that most “promotional work was generally done in bits and pieces by various staff members.” In order to obtain the greatest effect and operate a cost effective P&E program, two elements should be in place: a communications plan outlining objectives, target audiences, key messages, tactics, timing and a monitoring mechanism; and, a designated person to oversee the communications plan.

In a practical sense it is a challenge for small programs like Madawaska Valley to dedicate the time and resources to accomplish all these things, but there are a number of options that would allow the municipality to consider upgrading its P&E efforts. Appendix D includes sample communications and communications monitoring plans that may be adapted to the Madawaska Valley situation, or might be useful if and when Madawaska reviews and possibly implements strategies to increase recovery. A well conceived and targeted P&E program may be helpful in attaining local targets, which at the very least, in the case of Madawaska Valley, be raised to a more challenging level.

Madawaska Valley can also inquire about CIF Project #192, Small Program P&E Plans, which is in place to help small municipalities develop P&E Plans as well as develop communication materials using templates, through on-line resources. In the case of Madawaska Valley, the on-line information includes illustrations of materials, but the CIF program may help the Township to synchronize the appearance of their promotional materials with other municipalities and increase program profile.

The remaining discussion in this section will focus on P&E best practices for recycling depots, including recommendations and observations made in both the Best Practices Project (2007) and Quinte (2006, 2008) reports. During the June 2, 2010, site visit the depot sites were closed to the public and observations about the interaction of site staff with the public unavailable. The following is offered to assist Madawaska Valley in evaluating management of recyclables at depots.

	
<p>Depot sites where signage related to recycling could be improved. While there is no question that depot attendants are well informed, signage that makes recycling self-evident is considered a best practice</p>	

During the site visit it was possible to view the depot sites and in one case, at Bark Lake, see the attendant in action. Based on observations made at the sites it would appear that recyclables are being recovered and that the quality of the material is good. The attendant at the Bark Lake site was active and knowledgeable, consistent with the best practice of having a strong presence at the site to direct residents and users. The main element missing was good signage, another best practice. Even with a good attendant, sites can sometimes get busy and people may come in and out while staff are attending to other issues. Clear signage telling people where and what to recycle serves not only as an operating guide but also to educate.

The Phase 2 Quinte report provides several recommendations that address deployment issues in P&E for rural recycling depots. The recommendations highlight the importance of making depots accessible and easy to use for residents. Some of these recommendations were even pilot tested by Quinte Waste Solutions to determine their effectiveness.

Good signage is very important in a rural recycling depot, where residents are sorting and depositing materials themselves. Best practices for depot signage identified in Best Practices Project report include the following:

- The use of universally recognizable graphics and symbols, photos or displays of acceptable / unacceptable materials. Pilot tests conducted as part of the Quinte report showed that graphics, as opposed to text-only signage, resulted in a reduction in sorting errors made by the public.
- Clear, visible lettering and bright colours.
- Styles and fonts consistent with the rest of the municipal recycling program.
- Clear labelling of individual bins to increase ease of use and reduce contamination.
- Large, visible signs near depot entrance indicating acceptable / unacceptable materials.
- Signs prohibiting illegal dumping in appropriate locations.
- Clear directional signs, where depots aren't visible from main roads.
- Weatherproof information area at the site with take-away pamphlets.

Recycling depot attendants can also play a central role in communicating key messages to residents. Attendants, supported with training and dedicated time to interact with residents, are able to make recycling depots more accessible, improve understanding of how to use the program, and enforce illegal dumping and municipal recycling policies. The Best Practices Project and Quinte reports further recommend that printed P&E materials should be made available to the public at recycling depots, either through a weatherproof display area, or to be distributed directly by depot attendants.

Promoting municipal recycling programs and educating residents about how to use them are universal best practices. In addition to P&E practices at depot sites, depot programs should use a variety of other media to reinforce existing recycling programs and introduce changes to the recycling program. These include but are not limited to calendars, mail outs, newspaper ads, radio and television ads and outreach at special events.

The Phase I Quinte report recommends promoting the recycling depot in high traffic areas such as grocery stores and post offices. However, when this strategy was pilot tested it was found that posters place in these high traffic areas had very little effect and were not observed by most residents. This demonstrates that while posters can play a role in a P&E strategy, it is essential to have a mix of P&E materials and tactics to ensure that key messages are received by target audiences.

4.7 Established and enforced policies that induce waste diversion

- a) Does your program provide Blue Boxes (or the equivalent) free of charge, or below cost?

One of the practices recognized in the best practices report is the provision of free blue boxes to residents. There is a correlation between household recycling capacity and participation in that a lack of capacity – more specifically meaning that when the household blue box or boxes are full – will result in recycling materials being placed in the garbage. The provision of free replacement blue boxes is seen to both assure that recycling capacity if available in the household and act to promote the program.

A third benefit is that the provision of containers by the municipality improves the compatibility of containers to the collection operation: functionally and ergonomically. Left to provide their own containers, well meaning residents have been known to purchase and use covered containers (slows down collection crews) or containers that are too large (too heavy when full) or too small (low to the ground, collector must stoop to lift).

- b) Does your program have any of the following policies in place?

- Bag limits
- Recycling incentive program for households that rewards increased recycling, set-out and participation

The policies noted above represent only those WDO noted policies that Madawaska Valley currently does not employ. The Township, in fact, has tackled the most ambitious of the policy areas by implementing a pay-as-you-throw (PAYT) program. The most obvious policy, one that the Best Practices identifies as having meaningful impact on recycling recovery and for which much of the groundwork would have been done when the PAYT policy was enacted is bag limits. Bag limits are cited in the Best Practices Project as one of several policies that limit solid waste services in a manner that results in higher recovery rates for blue box materials. The project report notes that bag limits can be correlated to increases in recovery, and based on the information in the report the following relationship is described:

Weekly bag Limit	Blue box recovery
5	45%
4	50%
3	52%
2	54%
1	57.5%

The critical issue for the Township may be the impact of such a policy given that the WDO already recognizes that Madawaska Valley has a 61% blue box recovery rate, however the development, promotion and implementation of a bag limit policy may still positively impact current levels and help Madawaska Valley achieve even higher recovery rates.

The Best Practices Project report provides additional guidance with respect to bag limits, noting that the suggest weekly bag limit for a program that collects recyclables on alternate weeks and has weekly garbage collection is 3. If kitchen organics are also diverted from the waste stream then the bag limit can be dropped to 2.

In general this is a policy that, with enough advance notice for residents, would be enforced with the same type of curbside and depot based enforcement practices used to uphold other waste by-laws and policies.

The adoption of an incentive policy allows great latitude since there are any number of ways to encourage recycling through recognition, or monetary awards or prizes. In some respects Madawaska Valley already employs an incentive system by adopting a user pay program for curbside collection: the disincentive to create garbage because of user pay is an incentive to recycle. Madawaska Valley, however, does not use the principal of user pay for garbage delivered to depots in the same way. The belief is that because people deliver their waste to the sites they can not be “charged” for a service they don’t get.

The contention (as was stated at the site meeting) that the \$1.00 garbage bag charge represents a “charge” for service is an interesting point. In general garbage bag charges, with the exception of programs that are fully self-financed on volume or weight-based collection fees, are generally arbitrary rounded numbers (i.e. \$1, \$2, etc) and imposed to place a value on waste. The purpose is to support waste diversion, and while there is an element of cost recovery the overall driver behind such a policy is to change wasteful behaviour. From a policy perspective there is nothing preventing Madawaska Valley from considering bag limits or user charges at their depots.

In the *Municipal Solid Waste Audit Summary Report* prepared for the Township by Integrated Environmental Waste Services in June 2008, it is shown in Figure 6 that the percentage of residential waste recycled at the sites are less than that of the curbside program (Bark Lake Landfill 27%, Wilno TS 31%, Radcliffe TS 38%, residential curbside 44%). If this is still the case in 2010 and Madawaska Valley is still interested in increasing overall capture for reasonable cost, policies that apply to the depots may be worth considering.

The Township still incurs expense for the management of the waste after it is delivered to a site, is still responsible for managing and extending to the greatest degree possible its landfill asset, and finally it is also committed to escalating waste diversion targets. It may wish to consider tiered PAYT and/or bag limit approach for depot users.

In general, however, the adoption of any one of the policies noted in the question qualifies Madawaska Valley when being assessed against the question, and Madawaska Valley is currently able to confirm four of the six policy approaches mentioned. The objective for adoption of any further policies is more directly related to improving program performance through increased recovery, and not simply to meet the WDO best practice requirement.

5 Conclusions and Recommendations

5.1 Conclusions

Madawaska Valley operates an efficient and economical recycling program, with a collection system designed in-house to meet the needs of a small municipality. There is good policy support for the recycling program at the curbside, including every other week garbage collection and pay-as-you-throw bag charge of \$1.00. During the site visit for this report it appeared that program administrators were interested in improving the recovery level of the program, and while a subsequent review of program data would suggest that there is some room for improvement in this area it is also noted that the Township performs relatively well with respect to the material recovery and cost elements of recycling. .

There are a number of recycling program areas to be reviewed by Madawaska Valley staff, including multi-municipal co-operation, collection and transfer optimization, depot signage, and additional policy support. There may be some opportunities to increase recovery at the depots and review curbside approaches that will enhance capture rates, which are already respectable but can be improved.

While collection costs are low, depot/transfer costs are very high. In general recycling performance is measured as cost per tonne, and Madawaska Valley performs well with respect to relative gross and net cost per tonne. The performance measure E&E Factor value ranks as 36th out of 71 municipalities (WDO 2010) within the Township's municipal grouping as a relative measure against which funding is allocated. This would indicate that there is some risk to Madawaska Valley when competing for that portion of municipal funding allocated according to program performance.

Because Madawaska is a well managed program, there are likely relatively few, if any, single actions that will, on their own, produce big jumps in recovery or reduced cost. The recommendations that follow can be considered collectively or separately and reflect a general trend to continuous improvement of the system that may be helpful in increasing the performance of the program. Other recommendations will assist the Township in meeting the WDO best practice reporting requirement.

An area of interest for the Township during the visit was the potential for expansion of the curbside collection program to additional households. The Township of Madawaska Valley, at 139 kg/hhld/yr, has a good recycling capture rate when compared to similar mixed curbside/depot municipalities, but overall WDO data shows that some municipalities approach 200 kg/hhld. It is generally noted that these programs offer complete curbside service. The decision to expand curbside service is often a politically challenging one since it is difficult to determine exactly what the curbside service cut-off should be. More specifically, those who do not receive curbside service might ask why others do, and there may be very little to explain why a firm line was drawn where it was.

The WDO and best practice data is less clear about whether there is any meaningful difference between weekly service and alternating weekly service. The general theory is that if a program offers the appropriate amount of recycling capacity in the home – in other words the number of blue boxes or carts have been matched to the collection frequency – then there should be no barriers to participation. During the waste recycling strategy process the Township may wish to evaluate the options, but we could find no data that would suggest that a well planned, well promoted alternate week program was any less effective than a weekly program.

5.2 Recommendations

Review the existing Waste Strategy against the WDO requirements, and amend or append a new section: To fully meet the WDO Waste Recycling Plan requirement it may be prudent to amend the plan or develop a separate waste recycling strategy. Attention should be given to defining blue box specific objectives and targets and solidifying data collection processes, things that do not appear in the existing Waste Strategy document.

Collect, document and analyse program data: In the case of best practice question 2 there is a requirement to collect data to support ongoing program evaluation.

Review and establish specific blue-box targets: Especially the diversion number associated with sub-question g) (What is the Blue Box diversion target for 2009?). The Township reports to the WDO a target of 45%, yet as part of the WDO Municipal Datacall process the Township receives confirmation of their blue box diversion rate for the previous year: 61%. This gives the impression that the existing target somewhat meaningless when in fact it is simply a difference between the definitions used by both parties to define targets.

Generate an annual report: Madawaska Valley is encouraged to develop an annual reporting regime that includes monitoring program for all best practice elements that require monitoring and reporting: plan review, blue box targets and performance, effectiveness of P&E, and operational reviews.

Structure future contracts to separate transfer/haul and processing costs.

Initiate discussions with other municipalities: Approach other municipalities about jointly providing recycling (collection, processing, depot/transfer, marketing, and promotion and education) services. One issue in common with neighbouring municipalities is very high depot/transfer costs. This, and the prospect of common P&E materials, are good topics of discussion.

Review collection requirements: Corrugated cardboard collection, for instance, appears to be unregulated with respect to bundling and size. Although bundling requirements can sometime be seen as discouraging participation, recycling is offered to commercial users for free and a reasonable requirement to bundle or prepare material for easier collection might be fairly well received and facilitate more efficient collection. Commercial clients might even be asked to provide input as to what is reasonable in this regard.

Take an incremental approach to increased recovery: Adjustments to increased curbside collection availability and/or frequency should be staged, and should be accompanied by efforts that will promote maximum recovery for the cost. Program changes can be made starting with low to medium cost measures and moving to potentially more costly operations options that impact service frequency or geographic expansion, only after due consideration during the waste recycling strategy process..

Attend recycling training: The WDO best practice training requirement calls for 4 days of training annually for municipal waste managers, and that training should be at least 50% blue box recycling specific. In order to assist municipalities in meeting this requirement, the E&E Fund supported the development and implementation of a training program that meets the requirement and which, at least until the end of 2011, is offered free of charge to recycling program operators and decision makers in Ontario municipalities. A recycling course will be held in Eastern Ontario in the fall: the Municipal Waste Association is now publicizing a course offering in Ottawa, September 27 to October 1, 2010. More details are available by contacting the MWA at (519) 823-1990.

Obtain CIF assistance to boost promotion and education efforts: CIF Project #192, Small Program P&E Plans, is in place to help small municipalities develop P&E Plans as well as develop communication materials using templates, through on-line resources. Madawaska Valley may choose to apply for this assistance in conjunction with neighbouring municipalities.

Consider additional policy support: From a policy perspective there is nothing preventing Madawaska Valley from considering curbside bag limits or user charges at depots.

By following up with the noted recommendations it is hoped that Madawaska Valley will be in a position to attain the goals of the CIF program assessment, namely the implementation of program improvements and strategies that improve recycling program effectiveness and efficiency.

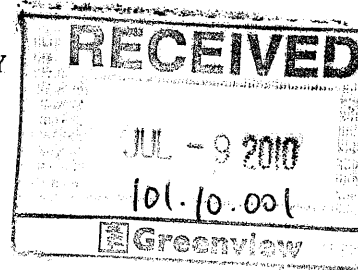
APPENDIX C

Waste Management By-Law #2009-88

THE CORPORATION OF THE TOWNSHIP OF MADAWASKA VALLEY

BY-LAW NUMBER 2009-88

Being a by-law to regulate the management of municipal solid
waste within the Township of Madawaska Valley.



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THE CORPORATION OF THE TOWNSHIP OF MADAWASKA VALLEY

BY-LAW NUMBER 2009-88

Being a by-law to regulate the management of municipal solid waste within the Township of Madawaska Valley.

WHEREAS Section 11, Subsection 3 (3) of the Municipal Act 2001, as amended, gives municipalities the authority to pass by-laws respecting matters within the spheres of jurisdiction including waste management matters;

AND WHEREAS the Council of the Township of Madawaska Valley deems it desirable to consolidate all rules and regulations for the designation, collection and disposal of waste materials within the municipality;

AND WHEREAS the Township has deemed it advisable to establish a comprehensive policy to regulate the management of municipal solid waste generated within the municipality;

NOW THEREFORE the Council of the Corporation of the Township of Madawaska Valley enacts as follows.

1.0 HEADINGS NOT PART OF BY-LAW

1.1 The headings in the body of this By-law form no part of the By-law but are inserted for convenience of reference only.

2.0 SHORT TITLE

2.1 This By-Law shall be known and may be cited as the "Comprehensive Waste Management By-Law".

3.0 DEFINITIONS AND INTERPRETATIONS

3.1 For the purposes of this By-law, the definitions and interpretations given in this By-law shall govern. In this By-law, 'shall' is mandatory; words in the singular include the plural; words in the plural include the singular; words used in the masculine gender include the feminine.

3.2 As used in this By-Law, the following terms have the meanings indicated:

3.2.1 **Approved Container** shall mean a garbage container, or a recycling container as prescribed in Schedule 'B' Waste Container Requirements.

3.2.2 **Ash or Ashes** shall mean the solid residue of any household fuel after such fuel has been consumed by fire and includes soot, but shall not include ashes, which accumulate as a result of building construction or demolition.

3.2.3 **Backyard Composter** shall mean a ventilated plastic container or similar container designed to contain and facilitate the decomposition of household organic materials excluding meat, fish, poultry, and dairy products.

3.2.4 **Blue Box** shall mean an approved container which meets the requirements described in Schedule 'B' Waste Container Requirements, and available for replacement as defined in Schedule 'F' Fees Relating to Waste Management.

3.2.5 **Brush** shall mean wooden branches less than 10 centimeters in diameter, as described in Schedule 'G' Leaf and Yard Waste Management.

3.2.6 **Bulky Waste** shall mean the specific materials described in Schedule 'A' Waste Materials and Sorting Guide.

3.2.7 **Collection Area** shall mean the designated portion of the Township of Madawaska Valley where waste collection service is provided by the Township.

3.2.8 **Commercial** shall mean anything pertaining to premises occupied and used solely for retail, wholesale, or service purposes, including recreational, office, non-

residential, commercial and non-institutional purposes, and shall not include a portion of a domestic residence.

- 3.2.9 **Construction and Demolition (C&D) Waste** shall mean the specific materials described in Schedule 'A' Waste Materials and Sorting Guide.
- 3.2.10 **Corrugated Cardboard** shall mean and include all material made from corrugated paper, excluding wax or plastic-coated cardboard, packaged according the requirements of Schedule 'A' Waste Materials and Sorting Guide.
- 3.2.11 **Curbside Collection** shall mean the collection of waste for designated residents, and industrial, commercial and institutional premises within the Village of Barry's Bay according to the requirements of Schedule 'A' Waste materials and Sorting Guide, Schedule 'B' Waste Container Requirements, and Schedule 'D' Waste Collection and Disposal.
- 3.2.12 **Curbside Recycling Container** shall mean a Blue Box or Green Bin provided by the Township.
- 3.2.13 **Customer Recycling Receptacles** shall mean clearly marked recycling containers located in public areas of Industrial, Commercial, Institutional, and Restaurant premises. Said receptacles shall be plainly visible, identified as recycling receptacles and clearly state the materials accepted.
- 3.2.14 **Depot Site(s)** shall mean the Township of Madawaska Valley's waste and recycling depots as follows:
- Bark Lake, 21956 Highway 60, Certificate of Approval #A413404
 - Radcliffe (Combermere), 242 Old Barry's Bay Road, Certificate of Approval #A412091
 - Wilno, 17961 Highway 60, Certificate of Approval #A413401
- 3.2.15 **Domestic** shall refer to anything pertaining to premises occupied and used solely as human habitation.
- 3.2.16 **Employee Recycling Receptacles** shall mean clearly marked recycling containers located in private areas of Industrial, Commercial, Institutional and Restaurant premises. Said receptacles shall be plainly visible, identified as recycling receptacles and clearly state the materials accepted.
- 3.2.17 **Enforcing Officer** means a Municipal By-law Enforcement Officer appointed for the Township to enforce the provisions of the Township of Madawaska Valley By-laws, or a person specially appointed by Council to enforce only specific provisions of this By-law.
- 3.2.18 **Garbage Bag** shall mean an approved bag which meets the requirements as described in Schedule 'B' Waste Container Requirements.
- 3.2.19 **Garbage Container** shall mean an approved container which meets the requirements for a garbage container described in Schedule 'B' Waste Container Requirements.
- 3.2.20 **Goods Exchange Day** shall be those days designated on Schedule 'E', Waste Management Collection Schedule for placing usable items at the curb for collection by other persons as prescribed in Schedule 'J' Goods Exchange Day Program.
- 3.2.21 **Goods Exchange Day Item** shall mean an item which meets the requirements described in Schedule 'J' Goods Exchange Day Program.
- 3.2.22 **Green Bin** shall mean an approved organics recycling container which meets the requirements described in Schedule 'B' Waste Container Requirements.

- 3.2.23 **Green Box** shall mean an approved organics recycling container which meets the requirements described in Schedule 'B' Waste Container Requirements.
- 3.2.24 **Household and/or Domestic Waste** shall mean Residual Waste generated from a domestic location.
- 3.2.25 **Industrial, Commercial, and Institutional (IC&I)** shall mean any premise utilized for industrial, commercial, and/or institutional purposes.
- 3.2.26 **IC&I Small Quantity Generator** shall mean a industrial, commercial, and/or institutional premise that is not required to submit a waste generator registration report under subsection 18 (1) of Regulation 347 under the Environmental Protection Act (as amended).
- 3.2.27 **Industrial** shall mean anything pertaining to premises wherein processing, wholesale, preparation or manufacturing uses are carried on.
- 3.2.28 **Institutional** shall mean anything pertaining to schools, hospitals, libraries, places of worship, Township-owned properties, facilities which provides community support services or other non-profit agency or other property designated by the Township.
- 3.2.29 **Leaf and Yard Waste** shall include only those materials defined as such in Schedule 'G' Leaf and Yard Waste Management as being organic materials accepted at the Bark Lake Waste Disposal Site - Leaf and Yard Waste Compost Area.
- 3.2.30 **Leaf and Yard Waste Compost Area** shall mean the Leaf and Yard Waste Compost Area at the Bark Lake Waste Disposal Site.
- 3.2.31 **Lumber** shall mean all machined dimensional lumber, pressure treated lumber, plywood, particleboard, and C&D lumber.
- 3.2.32 **Madawaska Valley Garbage Bag Tag** shall mean a specific sticker purchased from the Township or its authorized agents, at a fee approved by Council, to be affixed to each garbage bag set out for collection by the Township as described in Schedule 'B' Waste Container Requirements.
- 3.2.33 **Municipal Hazardous or Special Waste (MHSW)** shall mean the products and substances listed in Schedule 'H' Municipal Hazardous or Special Waste Management.
- 3.2.34 **Municipal Hazardous or Special Waste Depot** shall mean the collection of MHSW at specific Township locations on specific MHSW days, or at a designated MHSW Depot within the Township for the purpose of receiving and diverting MHSW from residents of the Township and any other participating municipalities.
- 3.2.35 **Occupant** shall mean a person or persons over the age of eighteen (18) years in possession or control of a property.
- 3.2.36 **Owner** includes any registered owner, occupant, resident, lessee or tenant of residential dwelling and includes any person managing any residential building on behalf of the owner.
- 3.2.37 **Person** shall mean an individual, association, partnership, corporation, municipality or an agent or employee of such a person.
- 3.2.38 **Premises** shall mean and include one self-contained dwelling, commercial or institutional unit, and in cases where buildings are subdivided and in possession of two or more occupants, each occupant shall be deemed to be an occupant of premises within the meaning of this By-law.

- 3.2.39 **Prohibited Waste Material** shall mean that materials improperly included in a designated waste container as specified in Schedule 'A' Waste Materials and Sorting Guide, thereby contaminating the majority of intended materials in a specific waste container.
- 3.2.40 **Refrigerant Appliances** shall mean any appliance that contains or did contain a refrigerant substance including, but not limited to, refrigerators, freezers, air conditioners, and dehumidifiers.
- 3.2.41 **Recyclable Materials** shall include all those materials defined in Schedule 'A' Waste Materials and Sorting Guide as being recyclable in the Township.
- 3.2.42 **Recycling Tote** shall mean a green or blue 240 or 360 litre, wheeled cart used for the storage of recyclable material primarily by IC&I premises as described in Schedule 'B' Waste Container Requirements.
- 3.2.43 **Residual Waste** means all waste materials remaining after Recyclable Materials, Source Separated Organics, Leaf and Yard Waste, MHSW materials, C&D, and Bulky Waste are removed from the waste stream, as detailed in Schedule 'A' Waste Materials and Sorting Guide.
- 3.2.44 **Restaurant** means an establishment where food and drink are prepared, served and consumed, and includes a drive-in restaurant and a take-out restaurant, the latter being restaurants where the food and drink may be consumed outside the confines of the restaurant premises.
- 3.2.45 **Scavenging** shall mean to sort through and collect materials from waste or recyclables placed out for collection or deposited at the Depot Site(s).
- 3.2.46 **Source Separated Organics** mean those organic recyclable materials, as separated by the generator, and described in Schedule 'A' Waste Materials and Sorting Guide.
- 3.2.47 **Township** shall mean The Corporation of the Township of Madawaska Valley, and would include a person, agent, contractor, etc., the Township has entered into a contract with to perform all or part of its duties hereunder.
- 3.2.48 **Waste** includes ashes, garbage, refuse, domestic waste, industrial waste, municipal refuse, and all defined recyclable materials owned by any person, deemed unwanted, useless, or the general nature thereof, generated from within the Township as described in Schedule 'A' Waste Materials and Sorting Guide.
- 3.2.49 **Waste Electronic and Electrical Equipment (WEEE)** shall mean all electronic components and their associated housings and peripherals as described in Schedule 'I' Waste Electronic and Electrical Equipment Management.
- 3.2.50 **Waste Electronic and Electrical Equipment Depot** shall mean a staging area, bunker, or other facility located at a Township depot site the express purpose of receiving WEEE in accordance with Schedule 'I' Waste Electronic and Electrical Equipment Management.
- 3.2.51 **Waste Management Calendar** shall mean a prescribed schedule set out by the Township of Madawaska Valley detailing the days upon which acceptable waste materials are collected within the designated area of the Township of Madawaska Valley as detailed in Schedule 'E' Waste Management Collection Schedule.
- 3.2.52 **Waste Management System** means any facilities or equipment used in, and any operations carried out for, the management of waste including the collection, handling, transportation, storage, processing, or disposal of waste, by an owner, occupant, manager, tenant, employer, or employee of any commercial, industrial, institutional, or restaurant premises in the Township; without limiting the generality of the foregoing, a Waste Management System includes any facilities or equipment used in or on the commercial, industrial, institutional or restaurant premises, and includes the collection, handling, transportation, storage, processing

or disposal of the waste, including recyclables, by any owner, occupant, manager, tenant, employer, or employee, invitee, customer or other inhabitant of the said premises.

4.0 WASTE COLLECTION

4.1 Recyclable Materials

4.1.1 No person shall place any Recyclable Material at any location within the Township except in a location and in a manner as prescribed by Schedule 'A' Waste Materials and Sorting Guide and Schedule 'B' Waste Container Requirements.

4.1.2 All acceptable Recycling Material containers shall be placed at the curb for collection before 6:00 a.m. on the designated collection day and not before 5:00 p.m. on the day preceding the day of collection, per Schedule 'E' Waste Management Collection Schedule.

4.2 Recyclable Materials shall be containerized in the manner described in Schedule 'A' Waste Materials and Sorting Guide, placed in a manner as described in Schedule 'D' Waste Collection and Disposal on the day designated as per Schedule 'E' Waste Management Collection Schedule.

4.3 Residual Waste

4.3.1 No person shall place any Residual Waste at any location within the Township except in a location and in a manner as prescribed by Schedule 'B' Waste Container Requirements and Schedule 'D' Waste Collection and Disposal.

4.3.2 The Township shall provide collection service for Residual Waste Materials for every occupied premise within the designated collection area of the Township of Madawaska Valley on the days prescribed by Schedule 'E' Waste Management Collection Schedule provided that the Residual Waste Materials are set out in accordance with Schedule 'B' Waste Container Requirements and Schedule 'D' Waste Collection and Disposal.

4.3.3 Notwithstanding any other provisions in this By-law, Schedule 'D' Waste Collection and Disposal shall define the rules for the collection and disposal of waste material and recyclable materials within the designated area of the Township of Madawaska Valley.

5.0 DEPOT SITE

5.1 No person shall deliver any material to a Depot Site except those materials listed in Schedule 'A' Waste Materials and Sorting Guide, and all Recyclable Materials are to be sorted and deposited in the appropriate bin or location at the facility.

5.2 No person shall deposit Prohibited Waste Material at Depot Site(s).

5.3 All persons shall follow the directions on posted signs and from operations staff of the Depot Site(s).

5.4 No person shall deposit Recyclable Material, Residual Waste, Leaf and Yard Waste, C&D and Bulky Waste unless the person is a resident or registered Township property owner.

5.5 No person shall deposit or cause to be deposited any material at the Leaf and Yard Waste Compost Area at the Bark Lake Waste Disposal Site other than those materials specified in Schedule 'G' Leaf and Yard Waste Management.

5.6 No person shall deposit any material at the Leaf and Yard Waste Compost Area at the Bark Lake Waste Disposal Site unless the material originates within the Township of Madawaska Valley or is specifically authorized to do so.

6.0 MUNICIPAL HAZARDOUS OR SPECIAL WASTE

- 6.1 No person shall place any MHSW at any location within the Township except in a location and in a manner as prescribed by Schedule 'H' Municipal Hazardous or Special Waste Management.
- 6.2 No person shall deposit or cause to be deposited any material at the MHSW Depot other than those materials listed in Schedule 'H' Municipal Hazardous or Special Waste Management in the manner and on the dates prescribed by Schedule 'E' Waste Management Collection Schedule.

7.0 GOODS EXCHANGE DAY

- 7.1 No person shall place material at the curb for Goods Exchange Day or collect material placed out for Goods Exchange Day except in accordance with the regulations prescribed in Schedule 'J' Goods Exchange Day.

8.0 BACKYARD COMPOSTERS

- 8.1 No person shall purchase or maintain a Backyard Composter except in accordance with Schedule 'K' Backyard Composters.

9.0 EMERGENCY WASTE

- 9.1 The Township reserves the right to accept or reject, in whole or in part, waste generated as a result of emergency situations, disaster events, or similar conditions by which significant waste quantities and/or types are generated within a short-time frame.
- 9.2 The Township reserves the right to accept or reject emergency waste due to its potential to significantly impact waste operations within the Township, at significant cost and/or detriment to the municipality.

10.0 ENFORCEMENT AND PENALTY

- 10.1 This By-law shall be enforced by the Enforcing Officers as defined herein. For the purposes of enforcing the provisions of this By-law, Enforcing Officers may inspect any waste material placed on public property.
- 10.2 Any person who contravenes the provisions of this By-law is guilty of an offence and upon conviction therefore is subject to the penalty set out in the Provincial Offences Act.
- 10.3 Any person who contravenes any provision of this By-law is guilty of an offence under the Provincial Offences Act.
- 10.4 In addition to prosecution under this By-law, the Township of Madawaska Valley may prosecute violators of this By-law for trespassing or exercise any other statutory or common law rights.

11.0 FEES

- 11.1 All fees referenced in this By-Law are utilized to establish fees relating to Waste Collection and Disposal for the Township, and are described in Schedule 'F' Fees Relating to Waste Management.

12.0 NUMERICAL VALUES

- 12.1 All numerical values in this By-law are provided in metric form. In addition, imperial measure has been included as a reference, but only the metric value will constitute the legal value when interpreting the provisions of the By-law.

13.0 TERMS SEVERABLE

- 13.1 The terms and provisions of this By-Law shall be severable and should any term or provision be found by a court of competent jurisdiction to be legally unenforceable,

inoperative or invalid, the remainder of this By-Law shall continue to be in full force and effect.

14.0 BY-LAWS REPEALED

14.1 That By-law Number 2009-38 is hereby repealed.

15.0 EFFECTIVE DATE

15.1 This By-law shall be deemed to have come into full force and effect as of September 1, 2009 and receipt of approval of short form wording under the Provincial Offences Act.

16.0 SCHEDULES

16.1 The following Schedules attached hereto shall form part of this By-law:

Schedule 'A'	Waste Materials and Sorting Guide
Schedule 'B'	Waste Container Requirements
Schedule 'C'	Industrial, Commercial, and Institutional Requirements
Schedule 'D'	Waste Collection and Disposal
Schedule 'E'	Waste Management Collection Schedule
Schedule 'F'	Fees Relating to Waste Management
Schedule 'G'	Leaf and Yard Waste Management
Schedule 'H'	Municipal Hazardous or Special Waste Management
Schedule 'I'	Waste Electrical and Electronic Equipment Management
Schedule 'J'	Goods Exchange Day
Schedule 'K'	Backyard Composters

READ A FIRST AND SECOND TIME THIS 19th day of October, 2009.

READ A THIRD TIME AND FINALLY PASSED this 19th day of October, 2009.

Mayor – John Hildebrandt

CAO/Clerk – Pat Pilgrim

SCHEDULE 'A'
TO
BY-LAW NUMBER 2009-88
WASTE MATERIALS AND SORTING GUIDE

1.0 RECYCLABLE MATERIALS

1.1 For the purposes of this By-law, Recyclable Materials shall include:

1.1.1 Co-Mingled Containers/Mixed Containers:

- a) Empty, dry paint cans (lids removed).
- b) Empty aerosol cans.
- c) Non-refundable glass bottles and jars (lids removed).
- d) Cartons (milk, juice, cream, etc.).
- e) Aseptic beverage containers (drink boxes).
- f) Film plastic bags (bread, milk, frozen food and grocery, etc.).
- g) Aluminum plates and cans.
- h) All plastic bottles and jugs with marked recycling numbers 1, 2, 3, 4, 5, 6, 7.
- i) Polystyrene products (plates, cups, meat trays, egg cartons, packaging).
- j) Steel cans.
- k) Cardboard cans (frozen juice, peanuts, hot chocolate, etc.)

1.1.2 Co-Mingled Fibres/Mixed Fibres:

- a) Boxboard (cereal, tissue, cracker, cookie, etc.).
- b) Catalogues and magazines.
- c) Newspaper and flyers.
- d) Junk mail.
- e) Telephone books.
- f) Corrugated cardboard.
- g) Brown paper bags.
- h) Hard cover books (covers and bindings removed).
- i) Soft cover books.
- j) Wrapping and tissue paper.
- k) Greeting cards.
- l) Shredded paper (in a clear plastic bag).
- m) Writing paper and envelopes.
- n) File folders.

- o) Computer paper.

1.1.3 Source Separated Organics:

- a) All table food remains.
- b) Cooking oil, grease, fat (solidified).
- c) Soiled pizza boxes.
- d) Meat, chicken, fish, bones.
- e) Fruit and vegetable peelings, eggs and nut shells.
- f) Bread, rice, pasta, dairy products, cheese.
- g) Microwave popcorn bags.
- h) Waxed corrugated cardboard.
- i) Paper coffee cups.
- j) Coffee grounds and filters, tea leaves and bags.
- k) Soiled paper (including cardboard, napkins, towels, plates, cups, tissues and waxed paper).
- l) Small leaf and yard waste (leaves, plant trimmings)
- m) Paper egg cartons and drink trays.

1.1.4 Bulk Recyclables:

- a) Scrap metal.
- b) Waste and/or used tires.
- c) White goods (not characterized as WEEE).
- d) Waste electrical and electronic equipment (WEEE).
- e) Refrigerant appliances (once drained and tagged by a licensed technician, then added to scrap metal).

1.2 For the purposes of this By-law, Leaf and Yard Waste shall include:

- 1.2.1 Leaves, brush, branches (providing size is less than 10 cm in diameter).
- 1.2.2 House and garden plants.
- 1.2.3 Garden/hedge/tree trimmings.

1.3 For the purposes of this By-law, Construction and Demolition (C&D) Waste shall include, but not be limited to:

- 1.3.1 Asphalt shingles.
- 1.3.2 Concrete (with or without reinforcing materials).
- 1.3.3 Waste drywall, wallboard, or equivalent.
- 1.3.4 Waste insulation, windows, doors, and equivalent.
- 1.3.5 Waste carpet, flooring materials, and equivalent.
- 1.3.6 Waste wood that is painted, stained, laminated, etc.

- 1.4 For the purposes of this By-law, Bulky Waste shall include, but not limited to:
 - 1.4.1 Waste furniture such as couches (including sofa beds), chairs, bed mattresses, dressers, and like materials.
 - 1.4.2 Uncontaminated tree stumps.
 - 1.4.3 Other bulky waste materials that cannot feasibly be managed via existing site operations, including some construction and demolition waste.
- 1.5 For the purposes of this By-law, Residual Waste Material shall include:
 - 1.5.1 Broken glass, mirrors, ceramics, dishes and similar materials.
 - 1.5.2 Polystyrene packing materials.
 - 1.5.3 Feminine hygiene products and diapers.
 - 1.5.4 Cereal box liners and cookie bags.
 - 1.5.5 Kitty litter.
 - 1.5.6 Chip bags and candy wrappers.
 - 1.5.7 Furnace filters.
 - 1.5.8 Toothpaste tubes.
 - 1.5.9 Shrink-wrap and bubble wrap.
 - 1.5.10 Vacuum cleaner bags.
 - 1.5.11 All residual waste remaining after recycling all above-noted waste material types.

2.0 SORTING GUIDE

- 2.1 All specified Recyclable Materials shall be diverted from a person's Residual Waste.
- 2.2 Co-mingled Containers/Mixed Containers and Co-Mingled Fibres/Mixed Fibres are to be sorted using the Township's Blue Box program.
- 2.3 Source Separated Organics shall be collected in the Green Bin for residents within the designated area of the Township of Madawaska Valley, and in the Green Box (with lid) for residents within the remainder of the Township, for transport to a Depot Site within the Township.
- 2.4 Corrugated Cardboard should be bundled together and placed within the Blue Box.
- 2.5 Any Residual Waste not able to be diverted through the Township's Blue Box, Source Separated Organics, or Leaf & Yard Waste programs shall be contained within a transparent, colourless (clear), plastic garbage bag as defined in Schedule 'B' to this By-law.

SCHEDULE 'B'
TO
BY-LAW NUMBER 2009-88
WASTE CONTAINER REQUIREMENTS

1.0 PURPOSE

- 1.1 As a Schedule to the By-law, defining acceptable Recycling and Waste Containers for use within the Township.

2.0 BLUE BOXES

- 2.1 Blue Boxes sold by the Township or other plastic containers of a similar size (not to exceed a maximum wait capacity of 45 pounds), are the only acceptable containers for Co-Mingled Containers/Mixed Containers and Co-Mingled Fibres/Mixed Fibres as detailed in Schedule 'A' Waste Materials and Sorting Guide, at curbside for collection, except in the case of some IC&I premises which may utilize Recycling Totes.
- 2.2 The Township shall not collect Co-Mingled Containers/Mixed Containers and Co-Mingled Fibres/Mixed Fibres from any other containers.
- 2.3 Every person shall place blue boxes for collection at the curb prior to 6:00 a.m. on the day of collection. Notwithstanding, no person shall place items for collection prior to 5:00 p.m. on the day preceding the day of collection. Every person shall remove all empty containers and waste not acceptable for collection under the terms of this by-law from the curb no later than 9:00 p.m. on the scheduled collection day.
- 2.4 Recyclable materials shall be placed at the curb in accordance with Schedule 'E' Waste Management Collection Schedule, as amended from time to time. Any material left behind in the Blue Box by the Township shall be removed by the Owner and sorted accordingly or disposed as waste if it is not a Recyclable Material.
- 2.5 Blue Boxes are sold by the Township for the fee described in Schedule 'F' Fees Relating to Waste Management. Blue Boxes shall only be sold for use as containers for collecting recyclable materials within the Township.

3.0 RECYCLING TOTES

- 3.1 Recycling Totes may be utilized by IC&I premises for collection of recyclable materials, as detailed in Schedule 'A' Waste Materials and Sorting Guide, and Schedule 'C' Industrial, Commercial and Institutional Requirements.
- 3.2 Recyclable materials in Recycling Totes shall be placed at the curb in accordance with Schedule 'E' Waste Management Collection Schedule, as amended from time to time. Any material left behind in the Blue Box by the Township shall be removed by the Owner and sorted accordingly or disposed as waste if it is not a Recyclable Material.

4.0 CORRUGATED CARDBOARD

- 4.1 All recyclable fiber material, particularly acceptable cardboard placed at the curb for pick must be cut down and/or flattened, and placed in blue boxes or bundled in parcels no larger than 61 x 61 x 20 centimeters (24 x 24 x 8 inches).
- 4.2 Corrugated cardboard will be picked up with Co-Mingled Fibres/Mixed Fibres, in accordance with Schedule 'E' Waste Management Collection Schedule.
- 4.3 All Corrugated Cardboard shall not be contaminated by other materials such as polystyrene packing materials.
- 4.4 Corrugated Cardboard delivered to a Depot Site shall be flattened and placed in the appropriate container.

5.0 GREEN BINS

- 5.1 Green Bins are to be used by designated residents within the Township of Madawaska Valley as a curbside collection container for source separated organics, as detailed in Schedule 'A' Waste Materials and Sorting Guide.
- 5.2 Source Separated Organics in Green Bins shall be placed at the curb in accordance with Schedule 'E' Waste Management Collection Schedule, as amended from time to time.
- 5.3 Green Bins are sold by the Township for the fee described in Schedule 'F' Fees Relating to Waste Management. Blue Boxes shall only be sold for use as containers for storing recyclable materials within the Township.

6.0 GREEN BOXES (WITH LIDS)

- 6.1 Green Boxes (with lids) are for the storage and transfer of source separated organics as detailed in Schedule 'A' Waste Materials and Sorting Guide for disposal at the Township Depot Sites.
- 6.2 Green Boxes (with lids) are to be used for Source Separated Organics only.

7.0 ORGANIC WASTE STORAGE CONTAINERS

- 7.1 The Township has provided Molok Containers for the deposition and storage of source-separated organic waste generated by ratepayers of the Township.
- 7.2 The Organic Containers are located at each of the Township's operating Depot Sites for residential and IC&I users that do not receive organic waste collection services from the Township.
- 7.3 For special IC&I generators, the Township has provided these IC&I locations with designated Organic Containers near their IC&I establishments.
- 7.4 Unless otherwise approved by the Township, only the designated IC&I generator with written access to the Organic Container shall be permitted to use the Organic Container.
- 7.5 The Township is responsible to service the Molok Organic Containers located within the municipality.

8.0 GARBAGE BAGS AND GARBAGE BAG TAGS

- 8.1 All garbage bags shall be transparent and colourless (i.e. clear). Within each garbage bag, are permitted smaller, opaque, garbage bags, no larger than 21 liters (5.4 gallon) in volume. Other non-recyclable residual waste materials are permitted per Schedule 'A' Waste Materials and Sorting Guide shall be permitted.
- 8.2 For the purposes of this By-law, a standard Garbage Bag shall mean a garbage bag manufactured for the use of garbage disposal having a maximum size of 66 cm x 91 cm (26 x 36 inches) and a maximum weight of 23 kilograms (50 pounds).
- 8.3 For the purposes of this By-law, an oversize Garbage Bag shall mean a garbage bag manufactured for the use of garbage disposal having size greater than a standard size, measuring 66 cm x 91 cm (26 x 36 inches) and having a maximum weight of 23 kilograms (50 pounds).
- 8.4 With the exception if Township-approved IC&I collection bins, all garbage bags set-out for pick-up by residents must be affixed with a Township Garbage Bag Tag, as detailed in Schedule 'D' Waste Collection and Disposal, and Schedule 'F' Fees Relating to Waste Management.
- 8.5 No garbage bag shall be set out for collection if it weighs over 23 kilograms (50 pounds).
- 8.6 No person shall remove any Township Garbage Bag Tag, which has been affixed to any garbage bag.

8.7 Every person shall place tagged garbage bags for collection at the curb prior to 6:00 a.m. on the day of collection. Notwithstanding, no person shall place items for collection prior to 5:00 p.m. on the day preceding the day of collection.

8.8 Every person shall remove all empty containers and waste not acceptable for collection under the terms of this by-law from the curb no later than 9:00 p.m. on the scheduled collection day.

9.0 GARBAGE CONTAINER

9.1 For the purpose of this By-Law a Garbage Container shall mean a Garbage Bag or a rigid plastic or metal pail with a waterproof lid and a maximum capacity of 136 liters (30 gallons) and a minimum capacity of 32 liters (7 gallons).

9.2 A Garbage Container shall not be larger in diameter at the bottom than at the top of the container.

9.3 The lid of a Garbage Container shall not be permanently attached to the Garbage Container in any way.

9.4 No filled Garbage Container shall be set out for collection if it weighs over 23 kilograms (50 pounds).

9.5 No Garbage Bag shall be set out for collection by Township staff unless it has a Township Garbage Bag Tag attached in the manner described in Schedule 'D' Waste Collection and Disposal.

9.6 Township Garbage Bag Tags are available at designated, accessible locations within the municipality.

9.7 The fees for Township Garbage Bag Tags are detailed in Schedule 'F' Fees Relating to Waste Management.

10.0 IC&I GARBAGE BIN

10.1 Any IC&I generator within the designated collection limits of the Township of Madawaska Valley, subject to mandatory diversion of materials specified in Schedule 'A' Waste Materials and Sorting Guide, that generates sufficient Residual Waste may utilize a Township-approved garbage bin, built to the specifications of the municipality, in lieu of using Township Garbage Bag Tags.

10.2 The Township reserves the right to accept or reject IC&I generators with respect to use of garbage bins, at their sole discretion.

10.3 Based on Township-determined volume of the designated bin, the IC&I generator will be charged a set unit rate per cubic metre for each collection, based on a full bin volume.

SCHEDULE 'C'
TO
BY-LAW NUMBER 2009-88
INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL (IC&I) REQUIREMENTS

1.0 PURPOSE

- 1.1 As a Schedule to the By-law, defining acceptable Industrial, Commercial, and Institutional (IC&I) waste management requirements for these entities of the Township.
- 1.2 To provide IC&I establishments with a standardized requirement for the institution of blue-box, and organic waste recycling service for their employees and customers as appropriate to the intention of the By-law.

2.0 IC&I WASTE MANAGEMENT

- 2.1 For the purposes of the By-law, IC&I enterprises shall comply with the mandatory recycling aspects of the By-law, in accordance with the definitions and Schedules detailed herewith.
- 2.2 IC&I enterprises shall provide for their employees and customers, the required facilities, containers, and services in accordance with the By-law to ensure that employees and customers have the most feasible means for waste to be managed in accordance with the requirements set out in the By-law.

3.0 ENFORCEMENT AND PENALTY

- 3.1 For the purposes of the By-law, in case of any dispute as to whether or not a premise falls within any of the designations industrial, commercial, institutional, or restaurant as used herein, the designation which applies shall be determined by the Municipal By-law Enforcement Officer.
- 3.2 The Municipal By-law Enforcement Officer, may:
 - 3.2.1 Discontinue the collection and/or acceptance of waste from any commercial, industrial, institutional and restaurant premises within the Village of Barry's Bay and from within the Township, where the person having control or management of said premises does not comply with the requirements of this By-law, provided that the person in control of the waste at the premises is so advised in writing prior to the discontinuance of services;
 - 3.2.2 Determine whether Customer Recycling Receptacles and Employee Recycling Receptacles meet the Township's requirements as set out in this By-law;
 - 3.2.3 Provide public notice of changes to the services provided pursuant to this By-law;
- 3.3 No person shall store or set out for collection any waste unless all Recyclable Materials have been separated from the same and placed in a container as described in Schedule 'B' Waste Container Requirements, and placed in a manner as described in Schedule 'D' Waste Collection and Disposal.
- 3.4 No person shall store or set out for collection any waste unless all Residual Waste Materials have been placed in a container as described in Schedule 'B' Waste Container Requirements, and placed in a manner as described in 'D' Waste Management.
- 3.5 No person shall dispose of any Recyclable Materials except through curbside collection or at the Township's Depot Site(s) recycling facilities.
- 3.6 No person in any industrial, commercial, and/or institutional premises shall deposit Recyclable Materials in any container except a Customer Recycling Receptacle,

Employee Recycling Container or Curbside Recycling Container as described in Schedule 'B' Waste Container Requirements.

- 3.7 No person shall transfer Recyclable Materials from any Customer Recycling Receptacle or Employee Recycling Container except to deposit the same in a Curbside Recycling Container as described in Schedule 'B' Waste Container Requirements or vehicle for conveyance of the same for recycling to a Township Depot Site.
- 3.8 Every owner, occupier, manager, employer, or person in control of any commercial, industrial, and institutional premises shall, within sixty (60) days of the passage of this By-law, adopt and implement a Recycling Policy as herein set out.
- 3.9 The Recycling Policy shall:
 - 3.9.1 Ensure compliance with this By-law, and other applicable By-laws relating to recycling in the Township;
 - 3.9.2 Inform all managers, tenants and employees at the premises of the provisions of this By-law;
 - 3.9.3 At all times, provide, maintain, and keep located on the premises sufficient Customer Recycling Receptacles and Employee Recycling Receptacles as defined in Schedule 'B' Waste Container Requirements in order to allow the employees, customers, and other persons using the premises to comply with this By-law;
 - 3.9.4 Post and keep continuously displayed a copy of the Recycling Policy in a prominent place accessible to all employees, customers, and other persons on the premises;
 - 3.9.5 Place posters or signs in prominent places on the premises listing Recyclables that must be deposited in Customer Recycling Receptacles and Employee Recycling Receptacles as detailed in Schedule 'A' Waste Materials and Sorting Guide;
 - 3.9.6 Prohibit employees, customers, and other persons on the premises from disposing of Recyclables in any but the required Customer Recycling Receptacles and Employee Recycling Receptacles;
 - 3.9.7 Require managers and employees to ensure that Recyclables, after deposit therein, are maintained in the separate Customer Recycling Receptacles, and Employee Recycling Receptacles and that the said Recyclables are maintained separate from other Waste and are located for pick-up by the Township in accordance with Schedule 'B' Waste Container Requirements, and Schedule 'D' Waste Collection and Disposal;
 - 3.9.8 Ensure that any commercial hauler picking up Recyclables from the Customer Recycling Receptacles under contract with the owner or occupant is informed of the provisions of this By-law, and the requirement to maintain the recyclables separate from all other waste;
 - 3.9.9 Ensure at all times that sufficient Customer Recycling Receptacles as detailed in Schedule 'B' Waste Container Requirements are provided in any walkways or common areas of the said premises sufficient for use by persons using or attending at those premises;
- 3.10 No person shall own, or occupy, or manage any IC&I premises within the Township without providing for staff, clients, customers, and members of the public using those premises a sufficient number of Customer Recycling Receptacles and Employee Recycling Receptacles as required to receive all Recyclable Materials on the premises as described in Schedule 'B' Waste Container Requirements.
- 3.11 Every owner, occupant, manager, lessee or employee of IC&I premises shall at all times ensure that Recyclable Materials are separated, stored, and set out for pick-up by authorized contractors in accordance with Schedule 'B' Waste Container Requirements, and Schedule 'D' Waste Collection and Disposal.

- 3.12 No person shall collect waste for disposal from any IC&I premises if the owner, occupant, or manager of which does not comply with this By-law.
- 3.13 No person shall dispose of any waste from any IC&I premises through Township curbside collection or Waste Depots, except waste from which the Recyclable Materials have been separated in accordance with this By-law.
- 3.14 No operator or manager of a Depot Site shall accept waste at any Depot Site within the Township unless the Recyclables are separated from the waste and disposed of in accordance with this By-law.
- 3.15 No person in any IC&I premises shall place Recyclables into a Garbage receptacle other than a Waste and Recycling Container Requirements, as defined in this By-law.
- 3.16 No person shall use any part of the Waste Management System of the Township unless the user fully complies with the provisions of this By-law.

SCHEDULE 'D'
TO
BY-LAW NUMBER 2009-88
WASTE COLLECTION AND DISPOSAL

1.0 PURPOSE

- 1.1 As a Schedule to the By-law, defining acceptable Waste Collection and Disposal requirements within the Township.

2.0 WASTE COLLECTION

- 2.1 Collection of acceptable Residual Waste Materials, Blue Box Recyclables including Corrugated Cardboard, and Source Separated Organics shall be made from designated domestic and IC&I premises within the designated area of the Township of Madawaska Valley in accordance with Schedule 'A' Waste Materials and Sorting Guide, Schedule 'B' Waste Container Requirements, Schedule 'C' Industrial, Commercial, and Institutional Requirements, where applicable, and Schedule 'E' Waste Management Collection Schedule.
- 2.2 No ashes shall be placed out for pick up, unless otherwise specified by the Township.
- 2.3 Residual Waste Materials, Garbage Containers, Blue Boxes including Corrugated Cardboard, and Recycling Totes shall be kept on the premises, and;
- 2.4 No person shall place Residual Waste, Garbage Containers, and Blue Boxes including Corrugated Cardboard or Roll-out Recycling Carts at any location other than at the curb directly adjacent to their premises.
- 2.5 No person shall place Residual Waste Materials, Blue Box Recyclables including Corrugated Cardboard or Source Separated Organics at the curb directly adjacent to their premises except during the times specified in Schedule 'E' Waste Management Collection Schedule.
- 2.6 With the exception of Township-approved garbage bins, no person shall set out garbage except recyclable material, for collection without first affixing the appropriate Township Garbage Bag Tag to each bag. In the case where garbage bags measure more than the standard Garbage Bag size as specified in Schedule 'B' – Item 8.2 of the Waste Container Requirements, two (2) Township Garbage Bag Tags must be affixed to it.
- 2.7 No person shall place a garbage bag at the curb which, when full, weighs in excess of 23 kilograms (50 pounds).
- 2.8 No person shall remove any Township Garbage Bag Tag, which has been affixed to any garbage bag.
- 2.9 Every person shall place tagged garbage or blue boxes for collection at the curb prior to 6:00 a.m. on the day of collection. Notwithstanding, no person shall place items for collection prior to 5:00 p.m. on the day preceding the day of collection. Every person shall remove all empty containers and waste not acceptable for collection under the terms of this By-law from the curb no later than 9:00 p.m. on the scheduled collection day.
- 2.10 Every person shall place items for collection at or adjacent to the roadway curb or where there is not curb, adjacent to the edge of the sidewalk furthest from the roadway and where there is neither a curb or sidewalk, at a reasonable distance from the traveled roadway edge without obstructing any roadway, sidewalk or footpath. In the case of certain IC&I locations, garbage may be placed in the approved bins at the location determined by the Operations Manager. Where it is not possible to comply with this requirement, garbage for collection shall be placed in a location satisfactory to the Operations Manager. No person shall place garbage for collection at a location, either on public or private lands, other than at a location designated or approved as one's own dwelling or location.

- 2.11 Where it is deemed more convenient in the opinion of the Township to make collections from the rear of the premises, collection may be made, by entering lanes and/or alleys, provided that safe access and turning space are available. During winter months, pathways must be maintained clear of snow and ice by the owner or occupant. The Township shall have the sole right to determine whether safe access or sufficient turning space is available.
- 2.12 All recyclable fibre material, particularly acceptable cardboard must be cut down, flattened and placed in blue boxes or bundled in parcels no larger than 61 x 61 x 20 cm (24 x 24 x 8 inches).
- 2.13 No person shall throw, place or dispose in or on any street, highway, land, alley or other public place within the Township any material, waste or recyclable material, except as provided for in this by-law.
- 2.14 Every person shall ensure that sharp objects such as glass is tightly wrapped and placed in a rigid container or cardboard box as to prevent injury to collection personnel.
- 2.15 In all IC&I premises including restaurants, grocery stores, fruit and vegetable stores, butcher shops, refreshment stands, flour and feed stores or in any premises where it is necessary to accumulate residual waste materials in large amounts, the same shall be placed in containers and the contents shall be stored in a garbage room or bin so constructed that the same prevents the entrance of flies, rats and other vermin, and the said room or bin shall be maintained in a sanitary condition at all times.
- 2.16 Occupants and/or owners of premises shall place Residual Waste Materials, Garbage Containers, Blue Boxes and Recycling Totes out at the curb in such a way that they are not obscured by snow banks, vegetation or other obstruction.
- 2.17 Occupants and/or owners of premises shall not place Residual Waste Materials, Garbage Containers, Blue Boxes and Recycling Totes on top of snow banks or any other location that cannot be easily accessed from the street.
- 2.18 Employees and agents of the Township engaged in waste and recyclables collection shall be provided with suitable tools and shall gather up and remove any of the contents of the garbage container which may be spilled in handling. The said employees and agents shall replace the container as nearly as possible in the same location in which they were placed by occupants and/or owners of premises for pick up purposes.
- 2.19 Employees or agents of the Township engaged in the collection of Residual Waste Material or Recyclable Materials shall not enter private property to collect acceptable Residual Waste Material or Recyclable Materials.
- 2.20 Notwithstanding anything to the contrary herein, no material which is highly combustible waste shall be collected by the Township.
- 2.21 Highly combustible waste shall include but not be limited to; gasoline, oil, or other combustible liquid, or materials soaked with any of the same.
- 2.22 No Person shall pick over, interfere with, disturb, remove or scatter any Residual Waste Materials, Garbage Container, Blue Box or Recycling Roll-out Cart placed for removal in accordance with this By-law, whether the same is contained in a Garbage Container or otherwise, unless the person is a representative of the Township authorized for Residual Waste Materials or Recyclable Materials collection, or a person authorized by the owner or occupant to remove the residual waste materials of the said owner or occupant.
- 2.23 All Leaf and Yard Waste shall be disposed of using the Township's source separated organics program or at the Depot Site at the Township's Bark Lake Waste Disposal Site as size appropriate.
- 2.24 All Lumber that is not otherwise recycled shall be disposed of in the designated area at the C&D waste staging area at the Depot Site at the Township's Bark Lake Waste Disposal Site.

2.25 All Recyclable Material (as defined by Schedule 'A' Waste Materials and Sorting Guide) shall be disposed of using the curbside recycling programs available to designated residents and businesses within the Township of Madawaska Valley or at an appropriate depot site in the Township.

2.26 Only Blue Boxes, Recycling Totes and additional acceptable containers prescribed in Schedule 'B' Waste Container Requirements shall be used for placing Recyclable Materials at the curb for collection by the Township or its agents.

3.0 WASTE DISPOSAL AT DEPOT SITES

3.1 Depot Sites are available within the Township at Bark Lake and Radcliffe (Combermere) Waste Disposal Sites, and at the Wilno Waste Transfer Site.

3.2 No person shall dump Waste Materials in any area of the Depot Sites unless expressly authorized to do so by Township staff with the exception of the following at the Township's Bark Lake and Radcliffe (Combermere) Waste Disposal Sites, and at the Wilno Waste Transfer Site:

3.2.1 Residual Waste Material in the Household / Domestic Waste Bins

3.2.2 Recyclable Materials in the Recycling Bins.

3.2.3 Corrugated Cardboard in the Cardboard Bin.

3.3 No person shall dump Waste Materials in any area of the Depot Site at the Bark Lake Waste Disposal Site unless expressly authorized to do so by the operating authority with the exception of the following:

3.3.1 Source Separated Organics in the Molok Containers.

3.3.2 C&D waste in the C&D waste staging area.

3.3.3 Leaf and Yard waste in the Leaf and Yard Waste Staging Area.

3.3.4 Bulky Waste Recyclables in the respective staging areas (scrap metal, waste tires, etc.).

3.4 No person shall enter the Depot Sites hauling residual waste materials in a truck or trailer unless the load is completely enclosed or equipped with a suitable covering or otherwise secured to prevent any of the loads from leaving the vehicle prior to dumping in the permitted area.

3.5 Young children and pets must remain in vehicles while attending any Depot Site.

3.6 No person shall scavenge any waste material from any Depot Site, unless designated as a Re-Use Item.

3.7 Any person delivering waste materials, at the discretion of Township, with more than five percent (5%) but less than ten percent (10%) of Prohibited Waste Material to a Depot Site shall be issued a notice on the first occasion and shall be subject to a \$50.00 surcharge levied by the Operations Manager for each subsequent occurrence of similar magnitude.

3.8 Any person delivering waste materials, at the discretion of Township, with more than ten percent (10%) of Prohibited Waste Material to the a Depot Site shall be issued a notice on the first occasion and shall be subject to a \$50.00 surcharge levied by the Operations Manager for each subsequent occurrence of similar magnitude.

3.9 The percentage of Prohibited Waste Material present in any given load of waste materials shall be visually determined by the Operations Manager and their decision shall be deemed final.

3.10 No person shall bring to a Depot Site for disposal, any residual waste materials which are not deemed acceptable at the site in accordance with the Certificate of Approvals issued by the Ministry of Environment for each respective Depot Site.

- 3.11 In cases where the type of residual waste materials to be deposited at the site is questioned, the Site Manager shall be the final authority and their decision shall be deemed final.
- 3.12 Any appliance that contains or did contain a refrigerant (including but not limited to: refrigerators, freezers, dehumidifiers, and/or air conditioners) must be certified empty by a technician holding a valid "Ontario Ozone Depletion Prevention" card prior to entering the site, or the person delivering the appliance must pay applicable fee for draining the refrigerant from the appliance as set by the Township, as detailed in Schedule 'F' Fees Relating to Waste Management.

SCHEDULE 'E'
TO
BY-LAW NUMBER 2009-88
WASTE COLLECTION SCHEDULE

1.0 PURPOSE

- 1.1 As a Schedule to the By-law, defining waste collection schedule requirements for the specified area of the Township with this service.

2.0 WASTE COLLECTION

- 2.1 Collection shall be made from dwellings and IC&I premises in accordance with an annual predetermined Township collection schedule.
- 2.2 A schedule of waste collection shall be published by the Township annually and will be available to the public.
- 2.3 The collection schedule may be amended from time to time by the Township with due public notice in local newspapers.

SCHEDULE 'F'

TO

BY-LAW NUMBER 2009-88**FEES RELATING TO WASTE MANAGEMENT****1.0 PURPOSE**

- 1.1 As a Schedule to the By-law, defining fee requirements for waste management-related items and services within the Township.

2.0 FEE SCHEDULES

- 2.1 The following fees are associated with accepted waste management-related containers and services within the Township.

Waste Container / Type	Fee (\$)
Madawaska Valley Garbage Bag Tag - Standard Size - Section 8.0 Garbage Bags and Garbage Bag Tags - Item 8.2	1.00
Large Garbage bags - Item 8.3 (require two (2) tags)	\$2.00
Blue Box (Replacement)	Cost recovery
Backyard Composter	Cost recovery
Green Bin (rolling curbside organics cart)	Cost recovery
Green Box and Lid	Cost recovery
IC&I Collection within Village of Barry's Bay	
Small (<10 bags/week)	172.50/year
Medium (11-30 bags/week)	805.00/year
Large (31-65 bags/week)	1,610.00/year
Extra Large (>65 bags/week)	3,450.00/year
IC&I Bin Charges for IC&I Collection	6.96 / cubic metre

- 2.2 The following fees are associated with waste disposal-related services within the Township for specific waste types.

Landfill Tipping Fees	Fee (\$)
• C&D, woody debris (>10 cm diameter), shingles, stumps, non-hazardous contaminated soil, bulky waste materials, per volume measurement	
less than ½ ton truck load	10.00
½ ton truck load	20.00
½ ton truck load with racks	30.00
Single axle dump truck	200.00
Tandem dump truck	350.00
Tri-axle dump truck	560.00
• Disaster Waste (fire, tornado, flood, or equivalent event), at the discretion of the Township, per volume measurement	
NOTE: A 50% discount shall apply for the removal of debris with tandem and single axle dump trucks resulting from a fire	
• Tires	No Charge
▪ Untagged Refrigerant appliance, per unit	40.00
Landfill Site Access (outside of regular operating hours)	100.00

- 2.3 Fees for replacement and/or additional waste containers shall be paid at the Township municipal office at time of purchase.
- 2.4 Any/all landfill tipping fees shall be paid to the Operations Manager or Site Attendant at the Bark Lake Waste Disposal Site, unless otherwise permitted by the Operations Manager.
- 2.5 All residential and IC&I user and/or tipping fees paid to the Township will be appropriately recorded by the Township, and a signed receipt issued to the generator.

SCHEDULE 'G'
TO
BY-LAW NUMBER 2009-88
LEAF AND YARD WASTE MANAGEMENT

1.0 PURPOSE

- 1.1 As a Schedule to the By-law, defining requirements for leaf and yard waste management within the Township.

2.0 LEAF AND YARD WASTE

- 2.1 Leaf and Yard Waste shall include, but not necessarily be limited to:
- 2.1.1 Brush.
 - 2.1.2 Grass trimmings.
 - 2.1.3 House plants.
 - 2.1.4 Twigs and branches (less than 10 centimeters in diameter).
 - 2.1.5 Leaves.
 - 2.1.6 Chipped brush, branches, logs
- 2.2 No person shall deposit Leaf and Yard Waste at the Bark Lake Waste Disposal Site except in the designated Leaf and Yard Waste Compost Area.
- 2.3 No person shall deposit Leaf and Yard Waste in the Leaf and Yard Waste Compost Area at the Bark Lake Waste Disposal Site unless a resident of the Township.
- 2.4 No person other than Township staff shall remove any materials from the Leaf and Yard Waste Compost Area.
- 2.5 No person shall leave behind any container other than a Paper bag intended for the collection of Leaf and Yard Waste.
- 2.6 No person shall deposit Leaf and Yard Waste that contains foreign material or litter.
- 2.7 All persons shall obey all signs posted at the Bark Lake Waste Disposal Site regarding the Leaf and Yard Waste Compost Area.
- 2.8 No person shall deposit or cause to be deposited residual waste materials or any materials other than Leaf and Yard Waste at the Leaf and Yard Waste Compost Area.
- 2.9 No person shall remove compost or wood chips from the Leaf and Yard Waste Compost Area for any purpose.
- 2.10 Cubic metres (yardage) shall be based on the volume of the truck or trailer used to deliver the material to the site, by measurement of the site attendant.
- 2.11 Payment shall be made at the Bark Lake Waste Disposal Site prior to dumping any material at the Leaf and Yard Waste Compost Area.
- 2.12 All Leaf and Yard waste must be free of soil and rocks.
- 2.13 Any Person delivering chipped Brush, Branches, Logs or Stumps derived from a Commercial operation without paying the fees described under Schedule 'F' Fees Relating to Waste Management, will be issued a single written warning and shall subsequently be barred from using the Leaf and Yard Waste Compost Area.

SCHEDULE 'H'
TO
BY-LAW NUMBER 2009-88
MUNICIPAL HAZARDOUS OR SPECIAL WASTE (MHSW) PROGRAM

1.0 PURPOSE

- 1.1 As a Schedule to the By-law, defining requirements for the management of Municipal Hazardous or Special Waste (MHSW) within the Township.

2.0 MUNICIPAL HAZARDOUS OF SPECIAL WASTE

- 2.1 Accepted MHSW materials accepted at MHSW Depot(s) within the Township would include, but not limited to:
- 2.1.1 Paints and coatings and their containers.
 - 2.1.2 Solvents such as thinners for paint, lacquer and contact cement, paint strippers and degreasers, and their containers.
 - 2.1.3 Oil filters.
 - 2.1.4 Oil containers of 30 L or less for a wide range of oil products such as engine and marine oils, and hydraulic, power steering and transmission fluids.
 - 2.1.5 Single use, dry cell batteries, e.g., non-rechargeable batteries that can be easily be removed and replaced by the consumer.
 - 2.1.6 Automotive antifreeze (engine coolant) and related containers.
 - 2.1.7 Pressurized containers such as propane tanks and cylinders.
 - 2.1.8 Fertilizers and their containers.
 - 2.1.9 Pesticides, fungicides, herbicides, insecticides and their containers.
 - 2.1.10 All batteries, including lead acid batteries from vehicles.
 - 2.1.11 aerosol containers, portable fire extinguishers, unbroken fluorescent light bulbs and tubes (limited to generators of no more than 5 kg/month), switches that contain mercury, and; thermostats, thermometers, barometers or other measuring devices, if the thermostats, thermometers, barometers, or other measuring devices contain mercury, from residential generators and IC&I small quantity generators.
 - 2.1.12 Pharmaceuticals and sharps, including syringes, from residential generators only.
 - 2.1.13 Any other MHSW-designated material as defined by the Ontario Minister of the Environment.
- 2.2 No hazardous waste originating from Agricultural premises shall be received at the MHSW Depot(s).
- 2.3 Only waste from residents of the Township and municipalities participating under contract with the Township shall be received at the MHSW Depot(s).
- 2.4 No person shall deliver MHSW to the MHSW Depot(s) unless they produce a valid Ontario Driver's License as proof of residence in the Township or a participating municipality.
- 2.5 Any waste that is not acceptable at the MHSW Depot(s) because it is not an acceptable waste, not a hazardous or special waste, does not originate from a household, or does not

originate within the Township or a participating municipality shall be removed by the person delivering the waste.

- 2.6 All persons shall obey all signs and directions from staff at the MHSW Depot(s).
- 2.7 No person shall deliver any material to the MHSW Depot(s) except during the designated hours of operation of the Depot, under the direct supervision of the Township or its agent.
- 2.8 All sharps must be packaged in a puncture proof container and must be placed into the Township container by the person delivering them to the MHSW Depot(s).

SCHEDULE 'I'
TO
BY-LAW NUMBER 2009-88
WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) MANAGEMENT

1.0 PURPOSE

- 1.1 As a Schedule to the By-law, defining requirements for the management of Waste Electrical and Electronic Equipment (WEEE) within the Township.

2.0 WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT

- 2.1 WEEE materials are designated by the Ontario Minister of the Environment.
- 2.2 WEEE materials accepted at the Township's Bark Lake waste disposal site include, but not are limited to:
- 2.2.1 Desktop computers
 - 2.2.2 Portable computers
 - 2.2.3 Computer peripherals
 - 2.2.4 Monitors
 - 2.2.5 Televisions
 - 2.2.6 Printing devices
 - 2.2.7 Computer peripherals including modems.
 - 2.2.8 Printing devices including copiers, scanners, typewriters.
 - 2.2.9 Telephones (physical and accessories).
 - 2.2.10 Cellular phones.
 - 2.2.11 Personal Digital Assistant computers (PDAs) and pagers.
 - 2.2.12 Audio and video players.
 - 2.2.13 Cameras.
 - 2.2.14 Equalizers, (pre)amplifiers.
 - 2.2.15 Radios.
 - 2.2.16 Receivers.
 - 2.2.17 Speakers.
 - 2.2.18 Tuner.
 - 2.2.19 Turntable.
 - 2.2.20 Video players/projectors.
 - 2.2.21 Video recorder.
 - 2.2.22 Personal hand held computers.

- 2.3 No person shall deposit or cause to be deposited residual waste materials or any materials other than WEEE at the designated WEEE area at the Bark Lake Waste Disposal Site.
- 2.4 No person from outside the Township shall deposit any material at the WEEE Depot unless their originating municipality has entered into a cost-sharing agreement with the Township.
- 2.5 No person shall remove or scavenge any item or material from the WEEE Depot.

SCHEDULE 'J'
TO
BY-LAW NUMBER 2009-88
GOODS EXCHANGE DAY

1.0 PURPOSE

- 1.1 As a Schedule to the By-law, defining requirements for the management of used goods available for collection by others during a specified period of time within the Township.

2.0 GOODS EXCHANGE DAY

- 2.1 Subject to Township Council approval, Goods Exchange Day occurs on the Civic Holiday (August long weekend) on the Saturday, Sunday, and Monday, of any given year.
- 2.2 No person shall place Goods Exchange items out for collection at any location except at the curb directly in front of their premises.
- 2.3 No person shall place items at the curb for collection unless those items are marked as being Goods Exchange Day items by affixing a clear garbage bag to the separated items intended for participation in the event.
- 2.4 No person shall collect items from the curb unless they are clearly marked as being Goods Exchange Day items.
- 2.5 No person shall leave Goods Exchange Day items at the curb past 6:00 pm on Monday of Goods Exchange Day.

SCHEDULE 'K'
TO
BY-LAW NUMBER 2009-88
BACKYARD COMPOSTERS

1.0 PURPOSE

- 1.1 As a Schedule to the By-law, defining requirements for Backyard Composters within the Township.

2.0 BACKYARD COMPOSTERS

- 2.1 Backyard Composters shall be located and maintained on the owner's property so as to not create a nuisance to neighbours.
- 2.2 Backyard Composters shall not be used for the recycling or disposal of organic waste defined as:
- 2.2.1 Meat or meat bones.
 - 2.2.2 Fish or fish bones.
 - 2.2.3 Dairy products.
 - 2.2.4 Feminine hygiene products or diapers.
 - 2.2.5 Pet waste.
- 2.3 Backyard Composters are available to Township residents at the cost described in Schedule 'F' Fees Relating to Waste Management.
- 2.4 Backyard Composters shall not be sold to non-residents of the Township.

APPENDIX D

Statement of Service Conditions and Limitations



GREENVIEW ENVIRONMENTAL MANAGEMENT LIMITED - STATEMENT OF SERVICE CONDITIONS AND LIMITATIONS

Provision of Services and Payment

Upon documented acceptance of Greenview's proposed services, costs and associated terms by the client, Greenview may commence work on the proposed services directly. Upon retention of Greenview's services related to this project, the client agrees to remit payment for the services rendered for the specified period within (30) days of receipt as invoiced by Greenview on a typical monthly basis, unless otherwise arranged between the client and Greenview. In the event of non-payment by the client, Greenview reserves the right, without external influence or expense, to discontinue services and retain any documentation, data, reports, or other project information until such time as payment is received by Greenview.

Warranty, Limitations, and Reliance

Greenview relies on background and historical information from the client to determine the appropriate scope of services to meet the client's objectives, in accordance with applicable legislation, guidelines, industry practices, and accepted methodologies.

Greenview provides its services under the specific terms and conditions of a specific proposal (and where necessary formal contract), in accordance with the above requirements and the *Limitations Act 2002*, only.

The hypotheses, results, conclusions, and recommendations presented in documentation authored by Greenview are founded on the information provided by the client to Greenview in preparation for the work. Facts, conditions, and circumstances discovered by Greenview during the performance of the work requested by the client are assumed by Greenview to be part of preparatory information provided by the client as part of the proposal stage of the project. Greenview assumes that, until notified or discovered otherwise, that the information provided by, or obtained by Greenview from, the client is factual, accurate, and represents a true depiction of the circumstances that exist related to the time of the work.

Greenview relies on its clients to inform Greenview if there are changes to any related information to the work. Greenview does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Greenview will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from Greenview during the period that services, work, or documentation preparation was performed by Greenview.

Facts, conditions, information and circumstances may vary with time and locations and Greenview's work is based on a review of such matters as they existed at the particular time and location indicated in its documentation. No assurance is made by Greenview that the facts, conditions, information, circumstances or any underlying assumptions made by Greenview in connection with the work performed will not change after the work is completed and documentation is submitted. If any such changes occur or additional information is obtained, Greenview should be advised and requested to consider if the changes or additional information affect its findings or results.

When preparing documentation, Greenview considers applicable legislation, regulations, governmental guidelines and policies to the extent they are within its knowledge, but Greenview is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations,

governmental guidelines, and policies is for information only and is not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Greenview's services, work and reports are provided solely for the exclusive use of the client which has retained the services of Greenview and to which its reports are addressed. Greenview is not responsible for the use of its services, work or reports by any other party, or for the reliance on, or for any decision which is made by any party using the services or work performed by or a report prepared by Greenview without Greenview's express written consent. Any party that uses, relies on, or makes a decision based on services or work performed by Greenview or a report prepared by Greenview without Greenview's express written consent, does so at its own risk. Except as set out herein, Greenview specifically disclaims any liability or responsibility to any third party for any loss, damage, expense, fine, penalty or other such thing which may arise or result from the use of, reliance on or decision based on any information, recommendation or other matter arising from the services, work or reports provided by Greenview.

Site Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Greenview's work or report considers any locations or times other than those from which information, sample results and data were specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those based on extrapolations.

Only conditions, and substances, at the site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the client. Any physical or other aspects of the site that were not chosen for study by the client, or any other matter not specifically addressed in a report prepared by Greenview, are beyond the scope of the work performed by Greenview and such matters have not been investigated or addressed.

Confidentiality

Greenview provides proposals, reports, assessments, designs, and any other work for the sole party identified as the client or potential client in the case of proposals.

For proposals specifically, the information contained therein is confidential, proprietary information, and shall not be reproduced or disclosed to any other party than to that of the addressee of the original proposal submission, without prior written permission of Greenview.

