A Waste Recycling Plan for

Township of Elizabethtown-Kitley

2010

Final Report

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Prepared with assistance from
Waste Diversion Ontario

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1. Introduction

This Waste Recycling Strategy was initiated by Township of Elizabethtown-Kitley to develop a plan to increase the efficiency and effectiveness of their recycling programs and maximize the amount of blue box material diverted from disposal. Specifically, the purpose of this recycling plan is to provide for future improvements and management of our waste stream.

Elizabethtown-Kitley is responsible for managing its residential solid waste. Under Ontario Regulation 101/94, and Ontario Reg. 347 (General waste Management)

The Township of Elizabethtown-Kitley faces a number of waste management challenges, which this Waste Recycling Strategy will help address. In particular Multiple Waste System's including private pick up.

This Waste Recycling Strategy was developed with support from The Recycling Strategy Plan Steering Committee, Elizabethtown-Kitley Public works and the Council of Elizabethtown -Kitley using the Continuous Investment Fund's *Guidebook for Creating a Municipal Waste Recycling Strategy*.

2. Overview of the Planning Process

This Waste Recycling Strategy was prepared through the efforts of The Recycling Strategy Steering Committee, Public Works Staff and the Council of Elizabethtown-Kitley. Note: The Recycling Steering Committee was developed by combining the Waste Site Management Committee and the Environmental Conservation and Advisory Committee.

The municipality has four different types of waste systems in place, Municipality contracted waste and recycling pick up, depot, private contracted (pay as you throw recycling included) and Contracted pick up with bag limits.

- All four streams were reviewed by audit/survey.

To ensure the public and local stakeholders were able to participate in the preparation of this Waste Recycling Strategy, The Municipality Conducted surveys, a waste audit and worked with contractors and public meetings.

Study Area

The study area for this Waste Recycling Plan includes The Township of Elizabethtown-Kitley.

This Waste Recycling Plan will address the following sectors:

- Curbside pick up former geographic Township of Kitley
- Depot at Landfill (available for use by all residences)
- Private pick up full user pay
- Private pick up Bag limits

3. Public Consultation Process

The processes to be followed in the development of this Waste Recycling Strategy consist of the following activities:

- Public information meetings North and South Ends of the Municipality.
- Posting on the Township Web Site.
- Surveys/Audits of the different waste Streams.

Stakeholder groups included in this consultation included:

- The Steering committee members, Council of Elizabethtown-Kitley, Contractors and the Public.

The response from the Public and stakeholders included the following.

1) 50% of the residents surveyed, that pay for private pick up either take their recycling to Waste Management in Brockville or to the landfill Depot, but do to less travel most go to Waste Management.
2) The majority of residences surveyed that have hired a contractor to pick up their waste feel that by doing this, they have greater control over costs.
3) Some residence in the survey felt that if the depot was open longer hours or more days this would make it work easier into their schedule.
4) A large number of residence feel that more information for stewardship programs, and recycling should be available to them.

4. Stated Problem

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

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

- Cost containment.
- Development of long term waste planning.
- Maximizing Landfill Life.

6. Goals and Objectives

This Waste Recycling Strategy has identified a number of goals and objectives for Elizabethtown-Kitley. These are presented below.

Waste Recycling Goals and Objectives	
Goals	**Objectives**
To Maximize diversion of residential/municipal solid waste through the blue box/recycling plan.	Divert 50% of municipal solid waste through the blue box program
To improve cost effectiveness of the recycling program.	Reduce recycling cost by 10% per tonne. By year 3 of the plan.
To maximize Capture rates of Blue box materials though existing and future programs.	Capture of blue box increase by 10% in the first year, and 25% by year 3
To increase participation in the blue box program.	Raise participation rate to 85%.
To increase the life of our landfill.	Add 5 years to the life of the landfill by increasing blue box diversion.

This Waste Recycling Strategy has also identified as series of broader community goals to which it can contribute. These broader community goals are presented below.

Community Goals and Objectives	
Goals	**Objectives**
To make our community a cleaner, greener place to live.	Reduce our carbon footprint by 10%
To enhance service/value for or taxpayers.	Increase program effectiveness and efficiency.

7. Current Solid Waste Trends, Practices and System and Future Needs

Community Characteristics

In 2010 Elizabethtown-Kitley had a population of 9326, the municipality is home to 4040 total households or dwellings. Of these, 3971 are single-family households and 4 are multi-family households. There are also an additional 65 seasonal dwellings, which are generally occupied during the months of May to September.

Current Waste Generation and Diversion

Currently, Elizabethtown-Kitley generates approximately 4247.6 tonnes of residential solid waste per year. Of this, 635 tonnes, is diverted through the blue box program. Currently, the most common material recycled is Fibers, while the least is Metals.

The table below summarizes the current waste generation and blue box diversion rates.

Residential Solid Waste Generated and Diverted through Blue Box		
Residential Waste Stream/Blue Box Material	**Tonnes**	**Percent of Total Waste**
Total waste generated	3612.6	85.05
Papers (ONP, OMG, OCC, OBB and fine papers)	, 417.5	9.82
Metals (aluminum, steel, mixed metal)	44.2	1.24
Plastics (containers, film, tubs and lids)	77.8	1.84
Glass	95.5	2.05
Total Blue Box material currently diverted	, 635 t	14.95

As the table below indicates, Elizabethtown-Kitley's current diversion rate is below average for its WDO municipal grouping.

Average Blue Box Diversion Rate (year)	
Elizabethtown-Kitley	14.95%
Rural South (WDO Municipal Grouping)	21.33%

Potential Waste Diversion

To estimate Elizabethtown-Kitley's current waste composition, A waste audit/survey was undertaken, this audit/survey covered all four waste systems currently in use, and will be used to help with future promotion and education

A total of approximately 986 tonnes of blue box recyclable materials are available for diversion, of which approximately 351 tonnes are still currently in the waste stream. Estimates of blue box material available for diversion are listed in the table below.

Current and Potential Diversion			
Material	***Total Available in Waste Stream (tonnes/year)***	***Currently Recycled (tonnes/year)***	**Potential Increase *(tonnes/year)***
Papers (ONP, OMG, OCC, OBB and fine papers)	638	417.5	220.5
Metals (aluminum, steel, mixed metal)	58	44.2	13.75
Plastics (containers, film, tubs and lids)	174	77.8	96.28
Glass	116	95.5	20.49
Total	986	635	*351*

Diverting the blue box material remaining in Elizabethtown-Kitleys waste stream could raise its waste diversion rate to 23.2%

Existing Programs and Services

Currently, Elizabethtown-Kitley has the following policies and programs in place to manage residential solid waste:

- Waste by-law 02-17

Collection services of regular waste and recycling are provided to the resident's of the former geographic township of Kitley by a municipally contracted company, and are paid for though a tax line item, and user fees, Once recyclable materials have been collected, they are taken to Waste Management Material Recycling Facility, located in Brockville Ontario. For residence of the south end the municipality operates a waste site depot, the recycling from the depot is then shipped to Brockville's Waste Services Inc. Some residences have contracted private companies for home pick up, and then take there recycling to either the township depot or Waste Management in Brockville. Our survey showed that 50% of the south end residences do this.

Upcoming important collection-related milestones that may affect how collection services are administered include:
All Collection contracts have been moved to the same dates for renewal.

In 2010, the total net annual recycling costs for Elizabethtown-Kitley was $140,279.65. This amounts to $350.67 per tonne, or $34.73 per capita. As the table below shows, net

annual recycling costs for Elizabethtown-Kitley are below average for its WDO municipal grouping.

Net Recycling Cost (per tonne per year)	
Elizabethtown-Kitley	$350.67
Rural South (WDO Municipal Grouping)	$508.60

Anticipated Future Waste Management Needs

Solid waste generated rates in Elizabethtown-Kitley are expected to grow over the next 10 year planning period. The Table below depicts the expected growth rates for solid waste generation and blue box material recovery based on projected population growth rates.

Anticipated Future Solid Waste Generation Rates and Available Blue Box Material			
	Current Year	**{Current Year + 5}**	**{Current Year + 10}**
Population	9326	9801	10302
Total Waste (tonnes)	4247	4460	4683
Blue Box Material Available (tonnes)	986	1036	1088

8. Planned Recycling System

Overview of Planned Initiatives

Elizabethtown-Kitley reviewed a number of options for consideration in its Waste Recycling Strategy. The options were then scored based on a series of criteria, which included:

- Cost.
- Ease of implementation.
- Effectiveness of implementation.

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

Once scored, the top ranking Waste Recycling Strategy options were organized into Priority Initiatives and Future Initiatives. The estimated cost for implementing the priority initiatives is estimated to be approximately $2000.00 The Table below presents the Priority Initiatives and Future Initiatives and their estimated costs. A review of these initiatives and their steps for implementation are reviewed on the following pages.

Priority and Future Initiatives		
Initiatives	**Implementation Costs**	**Operation Costs**
Promotion and Education	$2000.00	$4000.00yr
Estimated Total Cost (Priority Initiatives)		
Future Initiatives		
Larger Blue boxes for curbside pick-up with net covers.	$10.000.00	
Estimated Total Cost (Future Initiatives)		

Priority Initiatives

Initiative: Promotion and Education.
Overview: Apply for CIF funding to purchase computer, printer, and electronic sign for landfill Site.
Implementation: With the purchase of the equipment the Municipality could produce our own Promotional and Educational material in house, this would allow for better Cost control.

Future Initiatives

Initiative: Supply larger blue boxes for road side collection in the north end
Overview: This would allow residence to divert more recycling from waste stream.
Implementation: Apply for CIF funding for larger blue boxes. Funding should be in the 50% to 75% range.

Contingencies

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

Waste Recycling strategy Contingencies	
Risk	**Contingency**
Computer equipment not covered by CIF fund.	Budget for in Capital
Blue box funding not available.	Budget for in two parts, east side and west side.

9. Monitoring and Reporting

The monitoring and reporting of Elizabethtown-Kitley's recycling program is considered a Blue Box program fundamental best practice and will be a key component of this Waste Recycling Strategy. Once implementation of the strategy begins, the performance of the Waste Recycling System 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 Elizabethtown-Kitley's waste recycling program is outlined in the table below.

Recycling System Monitoring		
Monitoring Topic	**Monitoring Tool**	**Frequency**
Depot Program	Invoicing from processor	Monthly
Curbside Collection North end	Tonnage reports from hauler	Monthly
Private pick up	Tonnage reported by contractors	Yearly
Promotion and Education	Audit waste stream in target area	When needed

10. Conclusion

After completing the audit and survey for waste generation in Elizabethtown-Kitley, it became clear how different systems in use affect recovery. It showed that Curbside with bags limits collects the highest amount of recycling, but it also showed that the Greenbush depot also had a high level of recovery. It is believed that the high level of recovery at the waste site is due in part to the recent changes and upgrades that have taken place. The audit and survey also allowed us to see that promotion and education, needs to be geared to the different areas and types of collection, and that each area had its own needs. The other outcome of this study was that the majority of residence like the way the system is working, and that the municipality is involved in looking at how they manage the waste stream effectively for the residence. The only concern that was brought to our attention during the survey was a lack of information that the public require in order to understand and use programs that are available.

Appendix A: Waste Recycling Option Scores

Suitable? Y/N	Description of Options/Best Practices **(For more information:** *More information: Blue Box Program Enhancement and Best Practices Assessment Project Final Report, Volume 1)*	Criteria (Score out of 5)						Total Criteria Score
		% Waste Diverted	Proven Results	Reliable Market/ End Use	Economically Feasible	Accessible to Public	Ease of implementation	
Promotion and Outreach								
	Public Education and Promotion Program		x		x	x	x	4
	Training of Key Program Staff		x		x		x	3
Collection								
	Optimization of Collection Operations		x		x	x	x	4
	Bag Limits		x		x	x	x	4
	Enhancement of Recycling Depots		x		x	x	x	4
	Provision of Free Blue Boxes		x					1
Transfer and Processing								

Suitable? Y/N	Description of Options/Best Practices **(For more information:** *More information: Blue Box Program Enhancement and Best Practices Assessment Project Final Report, Volume 1)*	Criteria (Score out of 5)						Total Criteria Score
		% Waste Diverted	Proven Results	Reliable Market/ End Use	Economically Feasible	Accessible to Public	Ease of implementation	
	Standardized Service Levels and Collaborative Haulage Contracting							
	Municipal Committee		x		x	x	x	4
Additional Research								
	Assess Tools and Methods to Maximize Diversion		x					1
Administration								
	Following Generally Accepted Principles for Effective Procurement and Contract Management		x				x	2
Other Options								