

A Waste Recycling Plan for Espanola

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Prepared with assistance from
Waste Diversion Ontario

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1. Introduction

This Waste Recycling Strategy was initiated by Espanola to develop a plan to increase the efficiency and effectiveness of its/their recycling programs and maximize the amount of blue box material diverted from disposal. Specifically, the purpose of this recycling plan is to increase our diversion rate above the average rate for our municipality grouping.

The Town of Espanola is responsible for managing its residential solid waste. A contract has been established with Riverside Enterprises to collect and divert appropriate residential waste.

Espanola will face a number of waste management challenges, which this Waste Recycling Strategy will help address. WDO's recycling strategy requirements, as well as ever-decreasing landfill space has prompted the need for a recycling strategy to be implemented.

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 the 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

2. Overview of the Planning Process

This Waste Recycling Strategy was prepared through the efforts of Joel Yusko, PWD Manager and summer student Jonathan Fallat.

Joel Yusko, Public Works Manager, attended a conference aimed at recycling strategy and procured a copy of the *guidebook for creating a municipal waste recycling strategy*. After several weeks of researching and compiling pertinent data, work on the strategy itself commenced.

The next steps in this process include:

- implementing the waste recycling strategy
- observing and recording any improvements in diversion and overall efficiency.

To ensure the public and local stakeholders were able to participate in the preparation of this Waste Recycling Strategy, an Oraclepoll was conducted. It found that 75% of residents were pleased with our waste management capabilities. It also found that 48% of residents thought the Town does a good job in promoting waste reduction.

3. Study Area

The study area for this Waste Recycling Plan includes Espanola and the surrounding area.

This Waste Recycling Plan will address the following sectors:

- Multi-family
 - Business
 - Residential
-

4. Public Consultation Process

The public consultation process followed in the development of this Waste Recycling Strategy consisted of the following activities:

- Oraclepoll

Stakeholder groups included in this consultation included:

- Local Business's
- General Public
- Corporation of the Town of Espanola

The response from the public and stakeholders was generally positive with 79% of residents being satisfied with how Public Works has been running programs. This level of public satisfaction has given PWD confidence that the Waste Recycling Strategy will be well received.

5. 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:

- WDO recommendations
- Affected municipal funding

6. Goals and Objectives

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

Waste Recycling Goals and Objectives	
Goals	Objectives
To maximize diversion of solid waste through the blue box program.	To reach a diversion rate of 20% or higher through the blue box program.

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
Encourage a green economy	Create news letters stating interesting facts that may encourage people to recycle.

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

Community Characteristics

In 2006, Espanola had a population of 5314. The municipality is home to 1979 total households or dwellings. Of these, 1900 are single-family households and 79 are multi-family households.

Current Waste Generation and Diversion

Currently, Espanola generates approximately 2716.54 tonnes of residential solid waste per year. Of this, 419.66 tonnes, or 15.44 percent, is diverted through the blue box program. Currently, the most common material recycled is paper, while the least is glass.

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	2716.54	-
Papers (ONP, OMG, OCC, OBB and fine papers)	338.59	12.46%
Metals (aluminum, steel, mixed metal)	Mixed with plastics.	
Plastics (containers, film, tubs and lids)	73.48	2.70%
Glass	7.59	0.28%
Total Blue Box material currently diverted	419.66	15.44%

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

Average Blue Box Diversion Rate (year)	
Espanola	15.44%
Rural Collection - North	20.29%

Potential Waste Diversion

To estimate Espanola's current waste composition, data was taken from a waste audit completed in West Nipissing, a town in the same category defined by WDO.

A total of approximately 722.60 tonnes of blue box recyclable materials are available for diversion, of which approximately 302.94 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)	437.36	338.59	98.77
Metals (aluminum, steel, mixed metal)	57.05	Mixed with plastics	-
Plastics (containers, film, tubs and lids)	152.12	73.48	135.69
Glass	76.06	7.59	68.47
<i>Total</i>	722.60	419.66	302.94

Diverting the blue box material remaining in Espanola's waste stream could raise its waste diversion rate to 26.59%.

Existing Programs and Services

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

- Bag limit of 4 per week
- First blue-box is free
- Weekly blue-box collection

Collection services of regular waste and recycling are provided to the residents using a contracted service. Disposal and recycling services are paid for primarily through municipal taxes. Once recyclable materials have been collected, they are taken to Riverside Recycling, located in Blind River.

This strategy does not focus on any upcoming collection related milestones due to the fact that:

- We use a privately owned landfill
- We contract our collection service

In 2008, the total net annual recycling costs for Espanola was \$50,748.34. This amounts to \$120.93 per tonne, or \$9.55 per capita. As the table below shows, net annual recycling costs for Espanola is below average for its WDO municipal grouping.

Net Recycling Cost (per tonne per year)	
Espanola	\$120.93
Rural Collection - North	\$508.83

Anticipated Future Waste Management Needs

Solid waste generated rates in Espanola are expected to shrink slightly 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			
	2010	2015	2020
Population	5314	5181	5051
Total Waste (tonnes)	2716.54	2648.53	2582.07
Blue Box Material Available (tonnes)	722.6	704.51	686.83

8. Planned Recycling System

Overview of Planned Initiatives

Espanola 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:

- A public education program
- A review on bag limits

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 \$2500 while implementation of the future initiatives is currently unknown. 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
<i>Priority Initiatives</i>		
Public Education/Program Promotion	\$2331	\$2331
Bag Limits	\$0	\$0
<i>Estimated Total Cost (Priority Initiatives)</i>	\$2331	\$2331
<i>Future Initiatives</i>		
Waste Audit		
Leaf/Yard Composting		
Review Organic Recycling		
<i>Estimated Total Cost (Future Initiatives)</i>	See appendix	See appendix

Priority Initiatives

Initiative: Public Education/Program Promotion

Overview: Well-designed and implemented education and promotion programs can have impacts throughout the municipal recycling program, including participation, collection, processing and marketing of materials.

Implementation:

Step 1: Prepare communications strategy, including target audience, key messages, message mediums(brochures, website, etc), distribution plan.

Step 2: Prepare budget

Step 3: Draft copy and prepare graphic design

Step 4: Distribute medium

Initiative: Bag Limits

Overview: Bag limits play a key role in reducing solid waste by forcing residents to divert more waste into the blue-box recycling program.

Implementation:

Step 1: Determine appropriate bag limit

Step 2: Prepare news letter (above) and include new bag limits in it.

Step 3: Distribute Medium.

Future Initiatives

Initiative: Waste Audit

Overview: Performing a waste audit will allow for greater insight into waste composition in our municipality. This will let us tailor our recycling strategy further.

Implementation: See Appendix

Initiative: Organic Recycling

Overview: Recycling organics will divert those wastes from the garbage stream and improve our overall diversion rate.

Implementation: See Appendix

Initiative: Yard/Leaf Composting

Overview: Recycling yard clippings will prevent them from ending up in our landfills or being illegally down a back road.

Implementation: see Organic Recycling

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
Insufficient funding	Explore/Apply for other funding sources
	Delay lower-priority initiatives
Public opposition	Improve Public Communications
Lack of available staff	Hire summer student to help with planning

9. Monitoring and Reporting

The monitoring and reporting of Espanola’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 Espanola’s waste recycling program is outlined in the table below.

Recycling System Monitoring		
Monitoring Topic	Monitoring Tool	Frequency
Program Participation	Customer survey; monitoring set-out rates	Every 1-3 years
Customer satisfaction	Customer survey; tracking calls/complaints	Every 1-3 years
Opportunities for Improvement	Customer survey; tracking calls/complaints	On-going
Review of recycling plan	Review to monitor and report on progress.	Every 3-5 years

10. Conclusion

A waste recycling strategy will yield many positive results without any drawbacks. It allows us to keep WDO funding, produces more marketable tonnage, saves landfill space, and makes Espanola a “greener” town to live in.

This strategy should address all waste management challenges presented to us. Through it, our diversion rate should increase above the recommended 20% mark. This will also increase the life of our landfill, postponing the need to find another one.

After implementation, the program will be monitored closely to determine the effectiveness of the strategy, and changes will be made accordingly.

Appendix A: Waste Recycling Option Scores

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

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							
	Intra-Municipal Committee							
Additional Research								
	Assess Tools and Methods to Maximize Diversion							
Administration								
	Following Generally Accepted Principles for Effective Procurement and Contract Management							
Other Options								