

**Municipalities of
Kenora and Dryden
Waste Recycling Strategy**

CIF Project 529.20

Final Report

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Disclaimer This report is provided as opinion for discussion only and is **not** designed to replace qualified engineering, architectural or legal advice in any way. Municipalities are cautioned to obtain qualified advice and certified/approved drawings and plans prior to undertaking or adopting any recommendations that may affect their programs or facilities.

Background

Preamble As part of the objectives of the CIF, which include a proactive approach to assisting municipalities to implement best practices in blue box recycling, the CIF has provided financial assistance for the development of a waste recycling strategy plan.

In accordance with WDO/CIF guidelines, the municipalities of Kenora and Dryden have produced a waste recycling strategy plan for the blue box recycling program that is a public document and will meet best practices as outlined by Waste Diversion Ontario.

Project Description The CIF funding support for this project was provided under the following conditions:

1. The Municipality shall devote a sufficient amount of staff time and other resources to carry out the Project in accordance with parameters set out in Guidelines for CIF Support.
2. The Municipality assumes the full responsibility for the production and completion of a public waste recycling plan. A final copy of the plan is to be submitted to the CIF, (copies attached). The CIF will have the right to post or use, in whole or in part, the document produced.
3. The Municipality shall recognize and state in an appropriate manner, the support offered by WDO and Stewardship Ontario, through the CIF, concerning the Project.
4. The Municipality shall provide a final report summarizing the highlights of the plan as adopted by council.

WRS Plan Highlights Summary

Following public input and final revisions, the WRS plan was delivered to staff/committee for final review and presentation to council for adoption.

Adoption Dates

The final plan was adopted by Kenora council in December 2010 and Dryden council in April, 2011 and a copy of the adopted WRS plans are attached to this report.

Kenora plan highlights follow:

Kenora Goals and Objectives

Kenora Waste Recycling Goals and Objectives		
Goals	Objectives	Potential Results
To maximize diversion of residential/municipal solid waste through the blue box/recycling program.	Divert 40% of municipal solid waste through the blue box program.	Capture up to 2072 tonnes per year, increased from 1710 tonnes (33%).
To maximize capture rates of blue box materials through existing and future programs.	Increase capture of blue box municipal solid waste by 20% within 5 years.	Divert an additional 342 tonnes per year.
To improve the cost-effectiveness of recycling in our community.	Reduce recycling costs per tonne by 10% over the next ten years.	Produce program savings of \$47,500.00.
To increase participation in the recycling program.	Make recycling services available to 90% of residents. Raise participation in the blue box program to 75%.	Increase communication and education.
To expand the lifetime of our landfill.	Add 10 years to the lifespan of the landfill by increasing blue box diversion.	Save landfill costs and delay landfill closure.

Planned Initiatives

The following priority initiatives have been identified:

1. Public education and promotion program
2. Training of key program staff
3. Bag limits
4. Enhancement of recycling depots
5. Following GAP for effective procurement and contract management

The following future initiatives have been identified:

1. Standardized service levels and collaborative haulage contacting
2. Review collection frequency
3. Optimization of collection operations
4. Multi-Municipal collection and processing of recyclables

Dryden plan highlights follow:

Dryden Goals and Objectives

Dryden Waste Recycling Goals and Objectives		
Goals	Objectives	Potential Results
To maximize diversion of residential/municipal solid waste through the blue box/recycling program.	Divert 38% of municipal solid waste through the blue box program.	Capture up to 785 tonnes per year, increased from 573 tonnes (28%).
To maximize capture rates of blue box materials through existing and future programs.	Increase capture of blue box municipal solid waste by 20% within 5 years.	Divert an additional 114 tonnes per year.
To improve the cost-effectiveness of recycling in our community.	Reduce recycling costs per tonne by 10% over the next ten years.	Produce program savings of \$31,000.00.
To increase participation in the recycling program.	Make recycling services available to 90% of residents. Raise participation in the blue box program to 75%.	Increase communication and education.
To expand the lifetime of our landfill.	Add 10 years to the lifespan of the landfill by increasing blue box diversion.	Save landfill costs and delay landfill closure.

Planned Initiatives The following priority initiatives have been identified:

1. Public education and promotion program
2. Training of key program staff
3. Bag limits
4. Enhancement of recycling depots
5. Following GAP for effective procurement and contract management

The following future initiatives have been identified:

6. Standardized service levels and collaborative haulage contacting
7. Review collection frequency
8. Optimization of collection operations
9. Multi-Municipal collection and processing of recyclables

Best Practices

This project fits within the following fundamental best practices as identified by the Blue Box Program Enhancement and Best Practices Assessment Project (2007).

- Development of an up-to-date plan for recycling, as part of an integrated Waste Management system
- Establishing defined performance measures, including diversion targets and monitoring and a continuous improvement program.
- Established and enforced policies that induce waste diversion
- Multi-municipal planning approach to collection and processing recyclables.

City of Kenora Waste Recycling Strategy

Prepared by
The Emerald Group

with assistance from
Waste Diversion Ontario

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Introduction

This Waste Recycling Strategy was initiated by the City of Kenora in co-operation with the City of Dryden 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 guidance and direction for recycling programs and operations for the next ten years.

Our long term goals are to increase the sustainability of our community, make our community a cleaner, greener place to live and to enhance service/value for our taxpayers.

Kenora faces a number of waste management challenges, that this Waste Recycling Strategy will help address. In particular;

- Waste Diversion Ontario, requires municipalities to have a Recycling Plan in place.
- Existing landfills have a limited lifespan.
- Population growth can lead to increases in waste generated.
- Local seasonal residents increase the population of our service area significantly which creates a strain on recycling resources.
- Local geographic conditions strain resources due to long driving distances, many seasonal access roads and lakes within the service area.

Opportunities for cost savings and service improvements can be identified when updating this Waste Recycling Strategy which will be done on a routine basis going forward.

This Waste Recycling Strategy was developed with support from the council of the City of Kenora the City of Dryden and using the Continuous Investment Fund's *Guidebook for Creating a Municipal Waste Recycling Strategy*.

Overview of the Planning Process

This Waste Recycling Strategy was prepared through the efforts of the City of Kenora, the City of Dryden, the public, the WDO Continuous Improvement Fund, The Emerald Group, consultants, and the Kenora Environmental Advisory Committee (EAC)

The approach to this project was for the consultant to prepare a draft Waste Recycling Strategy (WRS) using program information supplied by staff and WDO datacall reports. The draft WRS was delivered to staff and stakeholders for review and input.

Following revisions of the draft WRS, staff and/or the local sustainability committee supplied detailed input and feedback for incorporation into the public draft.

A committee decision was made to fix the level and timing of public input deemed necessary to complete the WRS. The committee resolved that the following level of public consultation was appropriate for this initial WRS:

1. Direct stakeholder contact
2. Written feedback/submissions from staff, council and committee
3. Comments received from the public

Following public input, additional revisions to the draft WRS were completed and a joint decision was made to not seek additional public input to complete the WRS.

Following final public input, all relevant concerns, ideas and comments were incorporated into the WRS and a draft final document was submitted to staff, committee and council for final revisions.

Following final revisions, the WRS was delivered to staff/committee to be presented to council for adoption as an inclusion to the overall waste management master plan.

Study Area

The study area for this Waste Recycling Plan includes the geographic boundaries of the City of Kenora, the City of Dryden and all areas serviced by their recycling programs.

This Waste Recycling Strategy will target those sectors from which the municipality collects or accepts solid waste including:

- Residential single-family;
- Residential multi-family, such as apartment buildings or condominiums;

- Small businesses, such as in downtown areas; or
- Small institutions, for example schools or small community centres.
- Industrial, Commercial and Institutional (ICI)

Public Consultation Process

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

1. Direct stakeholder contact.
2. Written feedback/submissions from staff, council and committee.
3. Comments received from the public.

Stakeholder groups specifically targeted in this consultation included:

- 1 local environmental associations
- 2 recycling collection contractors
- 3 local business associations

The response from the public and stakeholders included the following comments typical of the feedback and input received and considered while preparing this waste recycling strategy plan:

Promotion & Outreach: Both education & training are suitable, should have a good pay-off in amount of waste diverted and be easily implemented, as considerable related material seems to be available.

Collection: Optimization of collection operations is presently being worked on by staff.

Bag limits: very important as a means of increasing recycling: Kenora has had a \$2.00 per bag fee for garbage since 2001.

Recycling depots: a minor issue in the rather limited scope of this paper: the City is developing/fine tuning depots for rural residential garbage and recycle collections to minimize rural collection route distances. We need more public education/encouragement re composting, & some way of composting the items such as diapers, bones, animal waste, etc that cannot go into household compost

Collection frequency: not in need of change at present.

Transfer & processing: The City handles the transfer, with contractors handling the processing

Partnerships: Kenora has entered into agreements with Dryden for the haulage of their recycle materials

Additional Research: Very important, but this seems, to me, to be closely connected to public education.

Administration: Very important: main challenge at present is to obtain stronger program support from the new Council.

Issues and Drivers

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

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

1. WDO requires municipalities to have a Waste Recycling Strategy in place to maintain optimal program funding levels.
2. A successful WRS can help to expand the lifetime of existing landfills.
3. Population growth can lead to increases in waste generated.
4. Opportunities for cost savings and service level improvements can be identified when updating this WRS.
5. The Provincial target diversion rate is 60% and the city currently diverts less than this target rate.
6. A Waste Management Master Plan has been adopted by Council in 2000 and requires updating.
7. The City currently has no mandatory recycling by-laws in force. A waste management by-law has been enacted which establishes penalties for various infractions.
8. The City currently has no recycling promotion and education (P&E) plan, however, a new plan is in progress.
9. Seasonal residents strain recycling resources.
10. Geographic size, seasonal access restrictions, rural collection issues and multiple lake boundaries affect recycling collection costs and efficiencies.
11. The size of the recycling program is a challenge to obtaining economies of scale.

Goals and Objectives

This Waste Recycling Strategy has identified a number of goals and objectives for the City of Kenora. These are presented below. Goals are defined as broad spectrum, high level statements that outline what the municipality or the Waste Recycling Plan is trying to achieve. Objectives are measurable, defined statements that describe specific, tangible outcomes.

Establishment of broad goals and objectives sets the perspective for the strategy. They also provide direction for municipal actions and targets against which progress can be measured.

Waste Recycling Goals and Objectives	
Goals	Objectives
1. To maximize diversion of residential/municipal solid waste through the blue box/recycling program.	1. Divert 40% of municipal solid waste through the blue box program.
2. To maximize capture rates of blue box materials through existing and future programs.	2. Increase capture of blue box municipal solid waste by 20% within 5 years.
3. To improve the cost-effectiveness of recycling in our community.	3. Reduce recycling costs per tonne by 10% over the next ten years.
4. To increase participation in the recycling program.	4. Make recycling services available to 90% of residents. Raise participation in the blue box program to 75%
5. To expand the lifetime of our landfill.	5. Add 10 years to the lifespan of the landfill by increasing blue box diversion.

Current Solid Waste Trends, Practices, System and Future Needs

Community Characteristics

The City of Kenora has a total population of about 14,500 residents with about 7,324 single family households, 734 multi-residential households and 23 multi-residential buildings. Seasonal population increases place serious demands on the recycling system as the population nearly triples to about 45,000.

About 6,700 single family households are served by the curbside recycling program and about 2,300 households are served by a depot program in the townships surrounding Kenora. About 200 island residents are served by boat collection.

Approximately 1,710 tonnes of recyclable material are diverted annually for a diversion rate of about 33% at a net cost of \$294.00 per tonne.

The City of Kenora has recycling program issues unique to north-western Ontario. Population density is low compared to southern Ontario urban centres; seasonal population increases contribute to the complexity of managing a viable blue box program; Kenora is dependent on a limited pool of service providers, primarily located in Manitoba.

The City does not collect glass as part of the curbside recycling program, but provides for glass collection through the recycling depot. There is no legal requirement in Ont. Reg. 101/94 to include glass in the recycling program for a northern municipality under 15,000 population. Collection of glass through the depot is an effective way to manage this material and by keeping glass out of the curbside collection, the “value” of the single stream recycling material processed is likely to be relatively higher. Glass is a relatively low value recyclable material that can cause operational and cross contamination problems in a single stream processing facility. There is no local market for recycled glass and shipping costs to southern markets are prohibitive.

Given current market conditions, low volumes of recyclables available and the surrounding geographic issues, full diversion of these materials from landfill is a difficult task. Political and citizen input suggests a low tolerance for engaging in costly enterprises during times of financial constraint.

The City has an incentive to examine best practices to most effectively offer standardized services to residents, reduce costs and preserve landfill capacity. This is also a rural municipality with a seasonal population increase providing service over a large undeveloped geographic area that doesn't have the economies of scale of an urban centre and therefore needs to find efficiencies in other areas.

Current Waste Generation and Diversion

Currently, the City of Kenora generates approximately 5181 tonnes of residential solid waste per year. Of this, approximately 1,710 tonnes, or thirty three percent (33%), is diverted through the blue box program. Currently, the most common material recycled is paper, 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 WDO sample municipality estimates	Tonnes	Percent of Total Waste
Total waste generated	5181	-
Non blue box waste	2694	52%
Total Recyclables Available in Waste Stream	2487	48%
WDO Estimated Material Composition		
Papers (ONP, OMG, OCC, OBB and fine papers)	1554	30%
Metals (aluminum, steel, mixed metal)	155	3%
Plastics (containers, film, tubs and lids)	363	7%
Glass	414	8%
Total Blue Box material available	2487	48%
Blue Box material currently diverted	1710	33%
Material Available for Diversion	777	15%

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

Average Blue Box Diversion Rate (year)	
City of Kenora	33%
Municipal Grouping Average: Rural North	24%

Potential Waste Diversion

The City of Kenora's current waste composition was estimated using comparable municipalities data provided by WDO in the CIF Waste Recycling Strategy Guidebook.

A total of approximately 2,487 tonnes of blue box recyclable materials are estimated to be available for diversion, of which approximately 777 tonnes are still currently in the waste stream.

Diverting all the blue box material remaining in City of Kenora's waste stream could raise its waste diversion rate to 48%.

Existing Programs and Services

“Municipalities need to utilize a combination of policy mechanisms and incentives to stimulate recycling and discourage excessive generation of garbage. Most of these policies are aimed toward causing a permanent shift in residents' behaviour through the use of economic and non-monetary levers.” Pg. 64, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

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

Recycling bylaw:

The City currently has no mandatory recycling by-laws in force. A waste management by-law has been enacted which establishes penalties for various infractions.

User Fees for Bagged Waste:

The City currently has a user fee for refuse of \$2.00 per residential bag. No tags are provided free of charge and there are no bag limits currently in force.

Bag Limits:

It should be noted that, the *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007. Pg. 21*, references a strong relationship between reduced bag limits and increased diversion. Statistics indicate that a 2 bag limit, supported by diversion alternatives, was found to result in higher recyclable material recovery rates. However, in this municipality, large areas are undeveloped and unsupervised which offers an increased risk of roadside and lake dumping and therefore, council is reluctant to adopt any bag limits at this time.

Promotion and Education:

“Planning and implementing targeted P&E programs that support recycling and waste diversion are vital to municipal Blue Box programs. Each community’s ability to design and deploy P&E is affected by community size, geography, resources (financial, skills-based and time) and many other factors.” Pg. 57, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

The City currently produces recycling calendars, compliance notices, public service announcements and “recycle it right” publications. There is some co-operation with local high schools, community service groups and youth organizations. Some opportunity exists to increase use of these groups to enhance the local P&E distribution channels.

“A study of eight programs that are considered to be among the Ontario P&E leaders, as well as of other well-performing communities, revealed that their P&E costs, range from approximately \$0.83 to \$1.18 per household, with recovery rate at or exceeding 60%.” Pg. 59, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Kenora reports a local budget for P&E programs of approximately \$0.72 per household.

The recycling program co-operates with other departments, schools, service organizations etc. to maximize P&E message and minimize costs. An increased level of co-operation with Dryden may result in greater effectiveness for the current P&E program due to economies of scale and consistent content.

Curb side collection has transitioned to single stream recycling collection and therefore, it is recommended that a comprehensive communications effort be undertaken to inform residents of the changes and garner their support for the program. Materials brought to the transfer site are handled in three recycle groups, Co-mingled Plastics and cans, Paper and OCC. Effective levels of P&E will be challenging given the limited resources that are available to staff. It is recommended that staff apply to the CIF for funding necessary to support the P&E effort required to promote significant program changes.

Communications (P&E) Plan:

As a long term goal, development of a P&E plan is be advisable. A P&E plan would assist staff with addressing what materials are needed, how to deal with the issues to get the best result and provide a framework for budgeting for P&E. A P&E Plan is currently under development as a separate part of this Waste Reduction Strategy.

The municipality has an internet presence providing residents with recycling, reuse and diversion information. This information is relatively static and is also available in printed form.

Waste Exchange:

The City has an online waste exchange, free to use by local residents, designed to encourage diversion and provide educational material. This dedicated internet presence for recycling and diversion is deemed a tier 2 best practice by the *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007*.

The site includes an online recycling “how to” recyclopedia and recycling news/events listings and is linked to the Ontario wide recycling portal at www.Ontario.Reuses.com

It is anticipated that this dedicated waste reduction P&E website will form the hub of Kenora’s P&E efforts going forward.

Enforcement:

The City enforces garbage and recycling rules through public information, non-compliance notices, “reason for leaving” stickers, transfer station spotters and local by-law officers.

Recycling Costs:

In 2009, the total net annual recycling costs for Kenora were \$474,138. This amounts to \$509.30 per tonne, or \$32.70 per capita. As the table below shows, net annual recycling costs for City of Kenora are below average for its WDO municipal grouping.

Net Recycling Cost (per tonne per year)	
City of Kenora	\$509.30
Municipal Grouping: Rural Collection North	\$552.51

Acquisition of new hauling equipment and a new multi-municipal hauling agreement entered into with City of Dryden is expected to reduce material transportation and overall program costs going forward.

Anticipated Future Waste Management Needs

Solid waste generated rates in Kenora are expected to grow modestly over the next 5 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). Kenora's official plan projects only .01 percent annual increase by 2031.

Anticipated Future Solid Waste Generation Rates and Available Blue Box Material			
	Current Year	{Current Year + 5}	{Current Year + 10}
Population	14,500	15,240	16,017
Total Waste (tonnes)	5,181	5,445	5,723
Blue Box Material Available (tonnes)	2,487	2,614	2,747

Planned Recycling System

Overview of Planned Initiatives

The City of Kenora 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:

- Percentage of Waste Diverted
- Proven Results
- Reliable Markets / End Use
- Economically Feasible
- Accessible to Public
- Ease 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 cost for implementing the priority initiatives is estimated to be approximately \$24,500, while implementation of the future initiatives is estimated at \$15,000. 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 listed on the following pages. More study may be required before final costs for new recycling initiatives can be budgeted.

Priority and Future Initiatives		
Initiatives up	Implementation Costs	Operation Costs
<i>Priority Initiatives</i>		
Public Education and Promotion Program	new collection P&E 10,000	ongoing 10,000
Training of Key Program Staff	0.00	3000
Bag Limits	extra roadside cleanup yr. 1 2,000	0
Enhancement of Recycling Depots	new signage 10,000	maintenance 1,000
Provision of Free Blue Boxes	new collection households added 2,500	annual replacements 2,500
Following Generally Accepted Principles for Effective Procurement and Contract Management	0	0
<i>Estimated Total Cost</i>	<i>\$24,500</i>	<i>\$16,500</i>
<i>Future Initiatives</i>		
Standardized Service Levels and Collaborative Haulage Contracting	5000 staff/ consulting time	implement at next collection contract
Collection Frequency	0.00	review at next collection contract
Optimization of Collection Operations	5000 staff/ consulting time	implement at next collection contract
Multi-Municipal Collection and Processing of Recyclables	5000 staff/ consulting time	collection costs/tonne at market rates
<i>Estimated Total Cost</i>	<i>\$15,000</i>	<i>TBD</i>

Details of Planned Initiatives

Details of the Priority and Future Initiatives considered follow below;

Priority Initiatives

Initiative:

Public Education and Promotion Program

Overview:

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:

- 1 Greater participation levels and community involvement
- 2 Higher diversion rates
- 3 Less contamination in recovered materials, potentially leading to higher revenues
- 4 Lower residue rates at recycling facilities

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>).

Implementation:

"Planning and implementing targeted P&E programs that support recycling and waste diversion are vital to municipal Blue Box programs. Each community's ability to design and deploy P&E is affected by community size, geography, resources (financial, skills-based and time) and many other factors." *Pg. 57, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

The City currently produces recycling calendars, compliance notices, public service announcements and "recycle it right" publications. There is some co-operation with local high schools, community service groups and youth organizations. Some opportunity exists to increase use of these groups to enhance the local P&E distribution channels.

"A study of eight programs that are considered to be among the Ontario P&E leaders, as well as of other well-performing communities, revealed that their P&E costs, range from approximately \$0.83 to \$1.18 per household, with recovery rate at or exceeding 60%." *Pg. 59, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Kenora reports a local budget for P&E programs of approximately \$4,800 or \$.72 per household. This level of funding is considered adequate for routine P&E activities. However, the recent changes to collection and long haul transport will require a greater P&E effort for the first year of operation. Once a communication plan has been adopted, an application may be made to the Continuous Improvement Fund (CIF) to help fund P&E efforts for this major program change.

The City co-operates with other municipalities other departments, schools, service organizations etc. to maximize P&E message and minimize costs. An increased level of co-operation with Dryden and Red Lake would result in greater effectiveness for the current P&E program due to economies of scale and consistent content. Some modification to the collection system may be required to align the P&E message with the existing Dryden collection/processing program message. This will require further co-ordination with Dryden prior to the next local collection tender to insure local collection procedures are acceptable at the receiving MRF.

The City has an internet presence providing residents with recycling, reuse and diversion information. This information is relatively static and is also available in printed form as a recycling calendar.

A Communications (P&E) Plan will be supplied as a separate part of this WRS. This plan will assist staff with targeting local promotion and education efforts to achieve the most value for limited P&E budgets available.

A dedicated P&E website (www.Kenora.Reuses.Com) is already in operation. This dedicated P&E tool will facilitate waste management communication efforts and will be updated regularly by staff. It is anticipated that this website will form the hub of recycling P&E for Kenora in future and budget provisions should be made for its continued operation.

This site will also provide an online recycling “how to” encyclopedia and recycling news/events listings along with an item exchange trading post free for residents use to help place reusable items instead of landfilling them.

This site already has over 200 active members and has recorded 60 completed transactions that have diverted many items otherwise destined for landfill.

Initiative:

Training of Key Program Staff

Overview:

Training of recycling staff in core competencies is considered a best practice. “Municipalities need to ensure that management program personnel are adequately trained on position-related competencies and responsibilities. Training provides the skills needed to develop, manage, monitor, document and promote the numerous and complex components of a successful recycling program. Regardless of the size or type of municipal program, training acts as an enabler of performance, facilitating the achievement of objectives in a cost-effective manner.” Pg. 45, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

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.

Similar to many smaller municipalities, the City currently has no dedicated budget or resources to provide ongoing training for recycling staff. The City has an opportunity to improve their performance in this area that is now required to be reported annually under the revised WDO datacall.

Implementation:

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 Municipal Waste Association (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 and/or solid waste management.

The municipality is encouraged to contact the Municipal Waste Association, <http://www.municipalwaste.ca/contact.cfm> for information on the Ontario Blue Box Recyclers Training program currently available to municipalities at nominal to no cost. This training was developed and offered through E&E Fund project #341 and was developed with input by municipal recycling experts specifically for Ontario municipal recycling staff.

Further information is available at http://www.stewardshipontario.ca/bluebox/pdf/efund/KPMG_final_report_voll.pdf page 44.

Initiative:
Bag Limits

Overview:

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 comply with the fixed limit.

It should be noted that, the Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007. Pg. 21, references a strong relationship between reduced bag limits and increased diversion. Statistics indicate that a 2 bag limit, supported by diversion alternatives, was found to result in higher recyclable material recovery rates.

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 at no charge, with additional bags requiring a purchased bag tag. The City currently has a user fee for refuse of \$2.00 per residential bag, no tags are provided free of charge and there are no bag limits in force.

Implementation:

There may be an opportunity to propose a 5 bag/week limit (recommended... or greater if necessary to initially get a limit installed e.g. 10/wk reducing to 2 /wk over a period of years) be made an official policy which will create the opportunity to adjust the limit downwards at some future date and increase overall waste diversion.

Since the City already has a user fee for garbage, fears over increased roadside dumping following the adoption of bag limits should not be a concern, especially if weekly bag limits are reduce slowly over years until a 2 bags/week limit is reached.

Additional P&E will be required for the phase in of this initiative and funding assistance from CIF may be available.

Initiative:

Enhancement of Recycling Depots

Overview:

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):

- 1 Providing satellite depots to improve public access and convenience
- 2 Enhancing the conditions at the landfill/depot (e.g., landscaping, general cleanliness, maintenance)
- 3 Incorporating friendly, easy-to-read signage
- 4 Possible installation of compaction equipment to reduce transportation costs
- 5 Providing additional part-time staff to address seasonal fluctuations and visiting traffic

Implementation:

Additional P&E will be required for the phase in of this initiative.

Funding for P&E, signage and equipment may be available from CIF.

Initiative:

Provision of Free Blue Boxes

Overview:

The Best Practices Assessment Project final report states: “Provision of blue boxes entails the provision to households of free blue boxes in order to ensure ample household recycling capacity. This is usually done when programs are initiated and when materials are added and/or the program is repromoted. Additional blue boxes require an initial capital outlay, however, the added capacity may not only increase capture and potentially lower unit operating costs, but the minimization of home-made curb side containers may yield longer-term ergonomic benefits to collection crews.”

Providing blue boxes at no charge 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.

Implementation:

Blue boxes are currently sold at \$9.00 each plus HST. Municipal experience shows that boxes typically have a four year life span and so budget provisions are recommended to support about a 25% of total households serviced as a replacement rate per annum.

The current collection policy is to pick up recycling in bags, if set out beside a blue box, and this does not currently result in rejections at the MRF, however, it may be an indicator that additional household capacity is required and additional boxes may increase material collected in the program. Residents tend to default recyclable material into garbage if their boxes are out of capacity.

Funding from CIF may be available for additional blue boxes.

Co-operative purchasing of blue boxes may achieve some economies of scale and permit a reduction of the costs charged to residents for each box they purchase.

Initiative:

Following Generally Accepted Principles for Effective Procurement and Contract Management

Overview:

Following generally accepted principles (GAP) for effective procurement and contract management is considered to be a best practice in Ontario. For a full list of generally accepted procurement principles refer to http://www.stewardshipontario.ca/bluebox/pdf/eefund/KPMG_final_report_voll.pdf page 50.

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.

The greatest opportunity for program improvement is available at the end of the municipal contract cycle, therefore, it is critically important to identify any potential improvements in the local municipal recycling contracts which can be implemented immediately or at the next tender.

Implementation:

Key aspects of GAP include planning the procurement well in advance, issuing clear RFPs, obtaining competitive bids, and including performance-based incentives.

The City has access to weigh scales which makes monitoring and measurement of collections effective. The processor provides monthly production reports but without a collection cost per tonne calculation, accurate accounting, residue tracking and generation/diversion rates are difficult to calculate accurately.

Therefore, it is strongly recommended that the next RFP for collection/processing include a cost per tonne quotation in addition to, or preferably instead of, a flat rate cost for service along with provisions for weighing each load of material delivered for processing.

Financial support for consulting services to assist staff with the preparation of a new recycling collection/processing RFP may be available through the Continuous Improvement Fund.

It is also strongly recommended that any new contract term match the contract expiry date with the existing Dryden collection contract to generate the opportunity, on the next tender cycle, for the City to take advantage of multi-municipal co-operation, standardization of service levels and economies of scale in collection throughout the service area. This can be accomplished by working with Dryden to request that they permit a provision in the next Kenora collection tender requesting separate costs to

collect Dryden recyclables under the larger Kenora contract. Should this cost be deemed acceptable to Dryden City council, they may elect to enter a subcontractor agreement with Kenora and both municipalities can take advantage of the resulting cost saving generated by the economies of scale available to the larger community.

Other accepted leading practices for effective procurement and contract management to extract the best value for municipal Blue Box contract needs include:

1. Planning procurements well in advance of service requirements.
2. Recognizing useful life of existing equipment, lead times for replacing this equipment and lead times for the execution of the procurement process itself, all require careful consideration. Failure to plan properly may mean costly maintenance and breakdowns and sub-optimal contracting/service levels.
3. Investigating and understanding suppliers' markets to understand the players, dynamics, cost drivers, and innovators in order to maximize value when setting procurement strategy. This results in municipal staff becoming informed buyers.
4. Involving suppliers (in pre-procurement consultations) to help refine requirements, where in house experience is limited, and to leverage innovation and capabilities of experienced suppliers. This results in municipal staff becoming smart buyers.
5. Developing a clear definition of services and performance requirements.
6. Using the appropriate procurement instrument, such as a Tender, RFQ or an RFP.
7. Using a competitive procurement process and working to encourage multiple proponents/bidders.

Changes to the collection and processing stream may necessitate amendments to existing or new contracts. Assistance for the preparation of recycling collection and processing tenders is available free of charge at the following internet address:

<http://www.vubiz.com/stewardship/Welcome.asp>

Consulting assistance is also available to help municipalities develop and/or negotiate agreements for jointly processing and/or collecting materials. Additional assistance is available from the CIF Program Managers upon request.

Future Initiatives

Initiative:

Standardized Service Levels and Collaborative Haulage Contracting

Overview:

“A widely-recognized principle of business is that significant efficiencies and economies can be obtained from larger scale activities. Many communities have found it advantageous to work co-operatively in providing solid waste management services.

Working jointly, municipalities can increase bargaining power with private service providers for collection and processing of recyclables. Pooling resources can result in increasing equipment, labour, and/or facility utilization, thereby realizing financial and operational efficiencies.

Co-operative planning can lead to improved performance across virtually all recycling program components, enhancing effectiveness and efficiency.” *Pg. 33, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Collaborative haulage contracts for blue box materials can take advantage of increased purchasing power through municipal partnerships and ensures that the partner municipalities provide common levels of services to its residents.

Standardizing collection programs among municipal partners increases the amount of materials being diverted from disposal, allows for common education and promotion materials, increases collection efficiencies and can potentially reduce overall costs.

Implementation:

The City currently processes recyclables at the Cascade MRF in Winnipeg. Collection is done through several local contractors and material is long haul shipped on Transtor trailers using collaborative (Dryden) equipment.

An opportunity exists to take advantage of economies of scale through co-operation with neighbouring municipalities in the following areas:

Collection:

Kenora is the largest neighbouring municipality and opportunities should be explored to obtain pricing for recyclable collection using a collection contractor. Other nearby municipalities should also be approached to determine if their collection could be combined with Kenora to achieve greater economies of scale.

Initiative:

Collection Frequency

Overview:

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.

Collection frequency in Kenora is weekly complimented by several depots located at population centers within the service area. Recyclables are collected at least as frequently as garbage.

A growing residential segment of the City is the development of multi-residential (i.e. condo) units. Limited services are provided to multi-residential units, but are offered as part of the ICI waste collection program.

There is an opportunity for the City to increase the capture of recyclables from the multi-residential segment. Multi-residential recycling services are included in the blue box program plan, which means that costs and collected tonnage are eligible for funding through the blue box program.

Multi-residential recycling is a program area that has been identified for improvement across the Province. There have been a number of projects undertaken through the E&E and CIF funds in regards to multi-residential recycling and staff are encouraged to review these project results for information at;

<http://www.stewardshipontario.ca/bluebox/efund/projects.htm#c2>

The City is encouraged to consider developing, enhancing and expanding the current recycling services offered to multi-residential units. Funding to assist with the development of a comprehensive multi-residential program could be requested from the CIF for activities such as program planning or implementing alternative collection strategies and provision of promotion and education materials.

Implementation:

Collection equipment is supplied by municipalities and contractors and varies across the multi-municipal participants. Non-standard collection equipment may be a contributing factor in seasonal volume challenges and service level differences across the service area.

Additional information about better practices operating depots can be found in the Best Practices Project report located at:
http://www.stewardshipontario.ca/bluebox/pdf/efund/KPMG_final_report_voll.pdf
at page 107.

The City is encouraged to review these operating practices for potential improvements to local operating conditions at their depots.

Initiative:

Optimization of Collection Operations

Overview:

The purpose of optimizing collection operations is to facilitate collecting 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.

Implementation:

The City currently collects a standard list of blue box recyclables including fibers, metals and plastics.

The City operates a modified weekly collection program designed to compliment the processing operations at Cascade without glass. Negotiations with Cascade should be explored to determine if any additional materials could be collected in the City such as mixed plastics. This may increase revenue for materials recycled going forward and reduce overall costs per tonne. An expanded material collection may result in higher levels of participation.

Prior to the next collection tender, routes and collection days should be optimized for efficiency to reduce costs. Use of on truck GPS and routing software can assist staff with this goal.

The City is encouraged to consider developing, enhancing and expanding the current recycling services offered to multi-residential units. Funding to assist with the development of a comprehensive multi-residential program could be requested from the CIF for activities such as program planning or implementing alternative collection strategies and provision of promotion and education materials.

About 200 island residents are served by boat collection seasonally. The cost per tonne of this collection is significant and should be reviewed for possible discontinuance or depot service only going forward.

Initiative:

Multi-Municipal Collection and Processing of Recyclables

Overview:

“A widely-recognized principle of business is that significant efficiencies and economies can be obtained from larger scale activities. Many communities have found it advantageous to work co-operatively in providing solid waste management services.

Working jointly, municipalities can increase bargaining power with private service providers for collection and processing of recyclables. Pooling resources can result in increasing equipment, labour, and/or facility utilization, thereby realizing financial and operational efficiencies.

Co-operative planning can lead to improved performance across virtually all recycling program components, enhancing effectiveness and efficiency.” *Pg. 33, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Small and medium-sized municipalities often face considerable cost and capital challenges when looking to collect and process 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.

The City currently processes recyclables at the Cascade MRF. Collection is done through local staff. Long haul shipping is done collaboratively with Dryden.

Implementation:

An opportunity exists to take advantage of economies of scale through co-operation with neighbouring municipalities in the following areas:

Collection:

Kenora is the largest neighbouring municipality and opportunities should be explored to obtain pricing for recyclable collection using a collection contractor. Other nearby municipalities like Dryden and Red Lake, should also be approached to determine if their collection can be combined with Kenora’s to achieve greater economies of scale.

Processing:

Winnipeg is the largest neighbouring municipality and is currently processing all material. Opportunities should be explored with other municipalities to determine if processing at Cascade is still the most cost effective option. This may be accomplished by obtaining market pricing through the next collection/processing RFP and exploring the possibility of shipping material to other processing facilities via efficient highway compaction trailers currently in operation.

P&E:

Dryden is the largest neighbouring municipality and opportunities should be explored to co-ordinate P&E with their program. An increased level of co-operation would result in greater effectiveness for the current P&E program due to economies of scale and consistent content. Some modification to the local collection system may be required to align the P&E message with the existing Dryden collection/processing program and P&E message.

Containers:

Kenora is the largest neighbouring municipality and opportunities should be explored to co-ordinate volume purchases of recycling containers through their annual purchase. The City may be able to obtain volume discount pricing if they add annual container purchases from other municipalities to the Kenora order. The CIF also has opportunities for volume container purchasing.

It is also strongly recommended that local collection contract terms be adjusted match the contract expiry date with the existing Dryden collection contract to generate the opportunity, on the next tender cycle, for the City to take advantage of multi-municipal co-operation, standardization of service levels and economies of scale in collection throughout the service area.

This can be accomplished by working with Dryden to request that they include a provision in their next collection tender requesting separate costs to collect Kenora recyclables under a larger Kenora contract. Should this cost be deemed acceptable to Dryden council, they may elect to enter a subcontractor agreement with Kenora and both municipalities may be able to take advantage of the resulting cost saving generated by the economies of scale available to the larger service area.

Consulting assistance is available to help municipalities develop and/or negotiate agreements for jointly processing and/or collecting materials. Additional assistance is available from the CIF Program Managers upon request.

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 risks and contingencies for possible planning delays.

Waste Recycling strategy Contingencies	
Risk	Contingency
Insufficient funding	Raise/implement user fees
	Explore and apply for other funding sources
	Delay lower-priority initiatives
	Increase proportion of municipal budget to solid waste management
Public opposition to planned recycling initiatives	Improve public communications
	Engage community/stakeholders to discuss initiatives/recycling plan
Lack of available staff	Prioritize department/municipal goals and initiatives
	Hire summer student to help with planning (funding may be available)
	Use qualified consultants (funding may be available)

Monitoring and Reporting

“Proper management of a recycling program includes the monitoring and measurement of the program goals through the establishment of diversion targets and performance objectives. Targets and objectives must be realistic, measurable and relevant.

Furthermore, targets and objectives are needed for the individual program components to be evaluated (e.g., curbside collection, depots, processing, promotion and education, etc.) Evaluation facilitates continuous improvement within the recycling program.” Pg. 38, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

The monitoring and reporting of any 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 waste recycling strategy begins, the performance of the program 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 City currently has not performed waste audits to better understand the effectiveness of the recycling program and base rate diversion. The City does obtain processing data monthly from Cascade. A lack of audited weight based collection data makes effective monitoring and measurement challenging.

In defining data requirements, the following questions should be answered as the Township continually improves their performance measures:

Will the measure track program outcomes as opposed to just outputs and inputs?

Is the measure for absolute impacts or relative impacts?

Can information pertaining to the measure be gathered systematically, consistently, and objectively?

Is there sufficient time and resources to gather, organize and interpret that information in order to tell a meaningful story to the evaluation audience?

Will the intended audiences perceive the measure as credible?

Will the knowledge gained through use of the measure be useful (e.g., for program improvement, adjustment in funding)?

The approach for monitoring the waste recycling program is outlined in the table below.

Recycling System Monitoring		
Topic	Tools	Frequency
Total waste generated (by type and by weight)	Measuring of wastes and recyclables at transfer station/disposal site i.(e.g., weigh scale records)	Each load
Diversion rates achieved (by type and by weight)	Formula: (Blue box materials + other diversion) ÷ Total waste generated * 100%	Monthly
Waste disposed (by type and by weight)	Reconciliation of weigh scale tickets	Monthly
Program participation	Customer survey (e.g., telephone); monitoring set-out rates	Every 1 to 3 years
Customer satisfaction	Customer survey (e.g., telephone); tracking calls/complaints received to the municipal office	Every 1 to 3 years
Opportunities for improvement	Customer survey (e.g., telephone); tracking calls/complaints received to the municipal office	On-going
Planning activities	Describe what initiatives have been fully or partially implemented, what will be done in the future	Annually
Review of Recycling Plan	A periodic review of the Recycling Plan to monitor and report on progress, to ensure that the selected initiatives are being implemented, and to move forward with continuous improvement	Every 3 to 5 years

Conclusion

The City is making steady progress toward increased diversion and recycling efficiency. Our long term goals are to increase the sustainability of our community, make our community a cleaner, greener place to live and to enhance service/value for our taxpayers.

As with many smaller municipalities, budgetary and staff resources dedicated to recycling and diversion activities are limited. Other limiting factors include a seasonal population increase, geographic and market restrictions and reduced economies of scale.

Accordingly, staff must take advantage of any assistance available to them to improve the local program and several opportunities are noted below for consideration:

1. Adopt an official waste management master plan that includes an updated plan for recycling and diversion with clear goals, implementation timelines and a regular review procedure.
2. Explore opportunities for multi-municipal co-operation, especially with the City of Dryden, Fort Frances and Red Lake, in collection, processing, container procurement and P&E.
3. Establish defined performance measures and methods to monitor them. Regular waste audits to establish base line performance and ongoing weight based data should be considered as a minimum.
4. Standardize and optimize collection within the service area.
5. Enhance training for staff in recycling core competencies.
6. Develop a promotion and education plan.
7. Enhance policies that increase recycling and diversion.
8. Align collection/processing contracts with other municipalities to optimize collection/processing, address program needs and deficiencies and obtain economies of scale.

The following recommendations may assist staff in realizing some of the opportunities noted above:

1. Contact neighbouring municipalities to explore opportunities for co-operation.

2. Contact the Municipal Waste Association, for information on the Ontario, Best Practice, three year training program currently under development.
3. Adopt a weekly bag limit for garbage and consider reducing this limit over time to 2 bags/week to increase diversion.
4. Re-evaluate/fix current target diversion rates and establish a timeline to achieve the target rate in an integrated waste management master plan.
5. Review the Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007. for suggested depot operating practices located at http://www.stewardshipontario.ca/bluebox/pdf/efund/KPMG_final_report_vol1.pdf page 107.
9. Review the P&E module on the Recyclers' Knowledge Network. <http://www.vubiz.com/V5/Stewardship/Home.asp> A specialized P&E course currently in development will be available in 2010 and staff is encouraged to participate when available.

Appendix A: Waste Recycling Option Scores

While there are many combinations of options for managing recyclables, many of the individual options are common across Ontario or among smaller municipalities. The worksheets on the following pages list several of the most common and most applicable best practices for managing recyclables, including a description of the option and (where available) potential cost. More detailed information about the options are provided in appendix 'B' below.

Use the worksheets to indicate which options you feel are most suitable for your municipality and rate them according to priority.

Often, this exercise is conducted in collaboration with a working group or a community advisory committee. These groups can provide input into the options to be considered or the criteria used in the evaluation. Once the options have been evaluated (Worksheet 8) and prioritized (Worksheet 9), the public can be consulted for their feedback. Once their feedback has been received, the evaluation and prioritization can be updated as necessary before moving on to the implementation plan.

Worksheet 9: Summary of Priority and Future Initiatives

	A	B	C		D
			Approximate Total Cost		
			Implementation	Operation	
1.	Public Education and Promotion Program	25	new collection P&E 10,000	ongoing 10,000	
2.	Training of Key Program Staff	21	0.00	3000	
3.	Bag Limits	23	extra roadside cleanup yr. 1 2,000	0	
4.	Enhancement of Recycling Depots	23	new signage 10,000	maintenance 1,000	
5.	Provision of Free Blue Boxes	26	new collection points 2,500	annual replacements 2,500	
6.	Following Generally Accepted Principles for Effective Procurement and Contract Management	27	0	0	

7.				
8.				
9.				
10				
11	<i>Estimated Total Cost (Priority Initiatives)</i>		\$24,500	\$16,500
	Future Initiatives			
12	Standardized Service Levels and Collaborative Haulage Contracting	28	5000 staff/consulting time	implement at next collection contract
13	Collection Frequency	25		
14	Optimization of Collection Operations	24	5000 staff/consulting time	implement at next collection contract
15	Multi-Municipal Collection and Processing of Recyclables	28	Request KARC provide option in next collection contract 5000 staff/consulting time	collection costs/tonne at market rates
16	<i>Estimated Total Cost (Future Initiatives)</i>		\$15,000	TBD

		Criteria (Score out of 5)			
		% Waste Diverted	Proven Results	Reliable Market/End Use	Economically Feasible
Promotion and Outreach					
	Public Education and Promotion Program	4	5	3	4
	Training of Key Program Staff	4	4	n/a	4

Collection					
	Optimization of Collection Operations	5	5	4	3
	Bag Limits	5	5	n/a	5
	Enhancement of Recycling Depots	4	4	3	4
	Provision of Free Blue Boxes	4	5	3	4
	Collection Frequency	5	5	3	3
Transfer and Processing					
	Optimization of Processing Operations	4	5	5	0
Partnerships					
	Multi-Municipal Collection and Processing of Recyclables	5	5	5	5
	Standardized Service Levels and Collaborative Haulage Contracting	5	5	4	5
	Intra-Municipal Committee	3	4	3	2
Additional Research					
	Assess Tools and Methods to Maximize Diversion	4	5	3	3
Administration					
	Following Generally Accepted Principles for Effective Procurement and Contract Management	3	5	4	5
Other Options					

Appendix B: Recycling Options Detailed Descriptions Worksheets

<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	
		Approximate Cost per Household		Criteria

		Implementation (including Infrastructure)	Operation	% W a s t e D i v e r t e d	P r o v e n R e s u l t s	R i a I M a e E U
Promotion and Outreach						
1	<p>Public Education and Promotion Program 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"> •5 Greater participation levels and community involvement •6 Higher diversion rates •7 Less contamination in recovered materials, potentially leading to higher revenues •8 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>	\$1	\$1			
2	<p>Training of Key Program Staff 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</p>	n/a				

	waste management.					
Collection						
3	<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>					
4	<p>Bag Limits</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>	n/a	Covered in cost of education program			
5	<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"> •6 Providing satellite depots to improve public access and convenience; •7 Enhancing the conditions at the landfill depot (e.g., landscaping, general cleanliness, maintenance); •8 Incorporating friendly, easy-to-read signage; •9 Providing additional part-time staff to address seasonal fluctuations and visiting traffic. 	\$1-\$3	\$1-\$2			
6	<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>					
7	<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</p>	variable	variable			

	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.					
Transfer and Processing						
8	<p>Optimization of Processing Operations</p> <p>Similar to the optimization of collection operations, the purpose of optimizing processing operations is to process more blue box materials for less cost. Processing operations may be optimized either through upgrading or maximizing the use of existing processing equipment, or by partnering or contracting with processing facilities in other communities. Because processing and collection are directly linked, examination of one must be reviewed with the other.</p>	variable	variable			
Partnerships						
9	<p>Multi-Municipal Collection and Processing of Recyclables</p> <p>Small and medium-sized municipalities often face considerable cost and capital challenges when looking to collect and process 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>	variable	variable			
1	<p>Standardized Service Levels and Collaborative Haulage Contracting</p> <p>Collaborative haulage contracts for blue box materials can take advantage of increased purchasing power through municipal partnerships and ensures that the partner municipalities provide common levels of services to its residents. Standardizing collection programs among municipal partners increases the amount of materials being diverted from disposal, allows for common education and promotion materials, increases collector efficiencies, and can potentially reduce overall costs.</p>					
1	<p>Intra-Municipal Committee</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 others waste diversion programs.</p>					
Additional Research						
1	<p>Assess Tools and Methods to Maximize Diversion</p> <p>Waste recycling programs fail or succeed based on their ability to overcome public barriers to participation. Additional research on the appropriate tools and methods can help how best to maximize opportunities to divert Blue Box materials from the</p>					

	<p>waste stream and reduce waste going to disposal. Possible topics may include:</p> <ul style="list-style-type: none"> •1 The types of waste diversion behaviours currently undertaken in each household; •2 Perceived barriers to participation in waste diversion programs; •3 Willingness to participate in waste recycling programs; •4 How residents receive information or learn about local waste recycling programs; •5 The tools residents need to increase their participation in recycling programs. <p>This information can be collected through telephone surveys and focus groups. Methods and tools identified through the survey can be tested for performance using focus groups or through a pilot project.</p>					
	Administration					
1	<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>					
	Other Options					
1						
1						
1						

Examples of possible risks and contingencies are provided in Worksheet 11 below. Delete the risks and contingencies that do not apply or are not feasible for your community, and add others that you have identified. Use the results of Worksheet 11 to complete the Contingencies section of your Waste Recycling Strategy.

Worksheet 11

Risk	Contingency
Insufficient funding	Raise/implement user fees
	Explore and apply for other funding sources
	Delay lower-priority initiatives
	Increase proportion of municipal budget to solid waste management
	Improve public communications
Lack of available staff	Engage community/stakeholders to discuss initiatives/recycling plan
	Prioritize department/municipal goals and initiatives
Permit requirements	Hire summer student to help with planning (may be available funding)
	Identify permit requirements early on in process
<i>Others...</i>	Establish a “permit requirements” checklist

Appendix C: Waste Recycling Options Sample Comments/Public Input

The following comments are typical of the feedback and input received and considered while preparing this waste recycling strategy plan:

Promotion & Outreach: Both education & training are suitable, should have a good pay-off in amount of waste diverted, & be easily implemented, as considerable related material seems to be available.

Collection: Optimization of collection operations is presently being worked on by staff.

Bag limits: very important as a means of increasing recycling: hope we will eventually move to fee for all bag tags.

Recycling depots: a minor issue in the rather limited scope of this paper: the Township is developing/fine tuning depots for hazardous waste, electrical waste, bale wrap, yard waste, etc. We need more public education/encouragement re composting, & some way of composting the items such as diapers, bones, animal waste, etc that cannot go into household compost

Collection frequency: not in need of change at present.

Transfer & processing: much of this is outside our control.

Partnerships: Not suitable at present time, Kenora already works with Dryden and Fort Frances

Additional Research: Very important, but this seems, to me, to be closely connected to public education.

Administration: Very important: main challenge at present is to obtain stronger program support from the new Township Council.

City of Dryden Waste Recycling Strategy

Prepared by
The Emerald Group

with assistance from
Waste Diversion Ontario

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Introduction

This Waste Recycling Strategy was initiated by the City of Dryden in co-operation with the City of Kenora 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 guidance and direction for recycling programs and operations for the next ten years.

Our long term goals are to increase the sustainability of our community, make our community a cleaner, greener place to live and to enhance service/value for our taxpayers.

Dryden faces a number of waste management challenges, that this Waste Recycling Strategy will help address. In particular;

- Waste Diversion Ontario, requires municipalities to have a Recycling Plan in place.
- Existing landfills have a limited lifespan.
- Population growth can lead to increases in waste generated.
- Local geographic conditions strain resources due to long driving distances.
- Opportunities for cost savings and service improvements can be identified when updating this Waste Recycling Strategy which will be done on a routine basis going forward.

This Waste Recycling Strategy was developed with support from the council of the City of Dryden the City of Kenora and using the Continuous Investment Fund's *Guidebook for Creating a Municipal Waste Recycling Strategy*.

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.

Overview of the Planning Process

This Waste Recycling Strategy was prepared through the efforts of the City of Dryden, the City of Kenora, the WDO Continuous Improvement Fund, The Emerald Group, local stakeholders and the public.

The approach to this project was for the consultant to prepare a draft Waste Recycling Strategy (WRS) using program information supplied by staff and WDO datacall reports. The draft WRS was delivered to staff and stakeholders for review and input.

Following revisions of the draft WRS, staff supplied detailed input and feedback for incorporation into the public draft.

A committee decision was made to fix the level and timing of public input deemed necessary to complete the WRS. The committee resolved that the following level of public consultation was appropriate for this initial WRS:

1. Direct stakeholder contact
2. Written feedback/submissions from staff, council and committee
3. Internet publication and comments received from the public

Following public input, additional revisions to the draft WRS were completed and a joint decision was made to finalize the WRS.

Following final public input, all relevant concerns, ideas and comments were incorporated into the WRS and a draft final document was submitted to staff for final revisions.

Following final revisions, the WRS was delivered to staff/committee to be presented to council for adoption as an inclusion to the overall waste management master plan.

Study Area

The study area for this Waste Recycling Plan includes the geographic boundaries of the City of Dryden and all areas serviced by their recycling programs.

This Waste Recycling Strategy will target those sectors from which the municipality collects or accepts solid waste including:

- Residential single-family;
- Residential multi-family, such as apartment buildings or condominiums;
- Small businesses, such as in downtown areas; or
- Small institutions, for example schools or small community centres.
- Industrial, Commercial and Institutional (ICI)

Public Consultation Process

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

1. Direct stakeholder contact.
2. Written feedback/submissions from staff, council and committee.
3. Internet publication and comments received from the public.

Stakeholder groups specifically targeted in this consultation included:

- recycling collection contractors
- local business associations

The response from the public and stakeholders included the following comments typical of the feedback and input received and considered while preparing this waste recycling strategy plan:

Promotion & Outreach: Both education & training are suitable, should have a good pay-off in amount of waste diverted, & be easily implemented, as considerable related material seems to be available.

Collection: Optimization of collection operations is presently being worked on by staff.

Bag limits: very important as a means of increasing recycling: hope we will eventually move to bag limits.

Recycling depots: a minor issue. We need more public education/encouragement.

Collection frequency: not in need of change at present.

Transfer & processing: much of this is outside our control.

Partnerships: Currently working with Kenora and Red Lake.

Additional Research: Very important, but this seems to be closely connected to public education.

Administration: Very important: main challenge at present is to obtain stronger program support from the new City Council.

Issues and Drivers

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

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

1. WDO requires municipalities to have a Waste Recycling Strategy in place to maintain optimal program funding levels.
2. A successful WRS can help to expand the lifetime of existing landfills.
3. Population growth can lead to increases in waste generated.
4. Opportunities for cost savings and service level improvements can be identified when updating this WRS
5. The Provincial target diversion rate is 60% and the city currently diverts less than this target rate.
6. A Waste Management Plan Study has been received by Council in 2004 and requires updating.
7. The City currently has in force bylaws Chapter 118 (Business & Trade Licensing), and Chapter 250 – Fees relating to waste management and by-law 3150-2004 relating to recycling.
8. The City currently has no recycling promotion and education (P&E) plan, however, a new plan is in progress.
9. Geographic size of the service area and rural collection issues affect recycling collection costs and efficiencies.
10. The size of the recycling program is a challenge to obtaining economies of scale.

Goals and Objectives

This Waste Recycling Strategy has identified a number of goals and objectives for the City of Dryden. These are presented below. Goals are defined as broad spectrum, high level statements that outline what the municipality or the Waste Recycling Plan is trying to achieve. Objectives are measurable, defined statements that describe specific, tangible outcomes.

Establishment of broad goals and objectives sets the perspective for the strategy. They also provide direction for municipal actions and targets against which progress can be measured.

Waste Recycling Goals and Objectives	
Goals	Objectives
1. To maximize diversion of residential/municipal solid waste through the blue box/recycling program.	1. Divert 38% of municipal solid waste through the blue box program.
2. To maximize capture rates of blue box materials through existing and future programs.	2. Increase capture of blue box municipal solid waste by 20% within 5 years.
3. To improve the cost-effectiveness of recycling in our community.	3. Reduce recycling costs per tonne by 10% over the next ten years.
4. To increase participation in the recycling program.	4. Make recycling services available to 90% of residents. Raise participation in the blue box program to 75%
5. To expand the lifetime of our landfill.	5. Add 10 years to the lifespan of the landfill by increasing blue box diversion.

Current Solid Waste System, Trends, Practices and Future Needs

Community Characteristics

The City of Dryden has a total population of about 8,195 residents with about 3,554 single family households. No multi family households are currently reported as participating in the recycling program.

All single family households are served by the curbside recycling program and the City also operates a depot program at the Highway 502 Landfill Site with a gate attendant on site.

Approximately 573 tonnes of recyclable material are diverted annually for a diversion rate of about 28% at a net cost of \$539.84 per tonne.

The City of Dryden has recycling program issues unique to north-western Ontario. Population density is low compared to southern Ontario urban centres. Distance to neighbouring communities is large which limits opportunities for multi-municipal co-operation. Dryden is dependent on a limited pool of recycling service providers, primarily located in Manitoba.

The City does not collect glass as part of the curbside recycling program. There is no legal requirement in Ont. Reg. 101/94 to include glass in the recycling program for a northern municipality under 15,000 residents. By keeping glass out of the curbside collection, the “value” of the single stream recycling material processed is likely to be relatively higher. Glass is a low value recyclable material that can cause operational and cross contamination problems in a single stream processing facility. There is no local market for recycled glass and shipping costs to southern markets are prohibitive. Local glass processing options may be available through new CIF sponsored equipment and staff are examining this option in conjunction with Kenora.

Given current market conditions, low volumes of recyclables available and the surrounding geographic issues, full diversion of these materials from landfill is a difficult task. Political and citizen input suggests a low tolerance for engaging in costly enterprises during times of financial constraint.

The City has an incentive to examine best practices to most effectively offer standardized services to residents, reduce costs and preserve landfill capacity. This is also a rural municipality providing service over a large undeveloped geographic area that doesn't have the economies of scale of an urban centre and therefore needs to find efficiencies in other areas.

The City has a pay as you throw program in force and each bag tag is currently \$1.75 without a limit on total bags that may be set out.

Blue boxes may be purchased at the Public Works Office, 159 King Street at a current cost of \$9.04.

The City operates a modified alternate week collection program designed to compliment the processing operations at the processing facility in Winnipeg and to accommodate long distance shipping via newly installed Transtor trailer units. Transtor equipment is used co-operatively with the City of Kenora.

Collection frequency is bi-weekly in most areas complimented by a depot located at the City landfill. Contractors operate daily excluding holidays. Recyclables are collected at least as frequently as garbage.

Current Waste Generation and Diversion

Currently, the City of Dryden generates approximately 2067 tonnes of residential solid waste per year. Of this, approximately 573 tonnes, or 28 percent (28%), is diverted through the blue box program. The most common material recycled is paper, while the least is metals.

The table below summarizes the current waste generation and blue box diversion rates. In the absence of local waste composition audits, the waste composition percentages shown are the averages provided by WDO for similar municipalities.

Residential Solid Waste Generated and Diverted through Blue Box		
Residential Waste Stream/Blue Box Material WDO sample municipality estimates	Tonnes	Percent of Total Waste
Total waste generated	2067	-
Non blue box waste	1075	52%
Total Recyclables Available in Waste Stream	992	48%
WDO Estimated Material Composition		
Papers (ONP, OMG, OCC, OBB and fine papers)	620	30%
Metals (aluminum, steel, mixed metal)	62	3%
Plastics (containers, film, tubs and lids)	145	7%
Glass (currently not collected)	165	8%
Total Blue Box material available	992	48%
Blue Box material currently diverted	573	28%
Estimated Material Available for Diversion	419	20%

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

Average Blue Box Diversion Rate 2009	
City of Dryden	28%
Municipal Grouping Average: Rural North	24%

Potential Waste Diversion

The City of Dryden's current waste composition was estimated using the comparable municipal estimates provided by WDO in the CIF Waste Recycling Strategy Guidebook.

A total of approximately 992 tonnes of blue box recyclable materials are available for diversion, of which approximately 419 tonnes are still currently in the waste stream.

Diverting all the blue box material remaining in City of Dryden's waste stream could potentially raise the waste diversion rate to 48%.

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)	620	512	108
Metals (aluminum, steel, mixed metal)	62	26	36
Plastics (containers, film, tubs and lids)	145	35	110
Glass	165	0	165
Total	992	498	419

Diverting all the blue box material remaining in Dryden's waste stream could raise its waste diversion rate to 48%.

Existing Programs and Services

“Municipalities need to utilize a combination of policy mechanisms and incentives to stimulate recycling and discourage excessive generation of garbage. Most of these policies are aimed toward causing a permanent shift in residents’ behaviour through the use of economic and non-monetary levers.” Pg. 64, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

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

Recycling bylaw:

The City currently has in force bylaws Chapter 118 (Business & Trade Licensing), and Chapter 250 – Fees relating to waste management and by-law 3150-2004 relating to recycling.

User Fees for Bagged Waste:

The City currently has a user fee for refuse of \$1.75 per residential bag. No tags are provided free of charge and there are no bag limits currently in force.

Bag Limits:

It should be noted that, the *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007. Pg. 21*, references a strong relationship between reduced bag limits and increased diversion. Statistics indicate that a two (2) bag limit, supported by diversion alternatives, was found to result in higher recyclable material recovery rates. However, in this municipality, large areas are undeveloped and unsupervised which offers an increased risk of roadside and lake dumping and therefore, council is reluctant to adopt any bag limits at this time.

There may be an opportunity to propose a bag limit be made an official policy which will create the opportunity to adjust the limit downward gradually in future and create an incentive to increase diversion over a period of years.

Since the City already has a user fee for garbage, fears over increased roadside dumping following the adoption of bag limits should not be a concern if limits are initially set higher than Provincial averages and reduced each year. Diversion may be increased by slowly reducing the bag limit annually which will provide an opportunity for residents to very gradually prepare for and accept the slow change.

Promotion and Education:

“Planning and implementing targeted P&E programs that support recycling and waste diversion are vital to municipal Blue Box programs. Each community’s ability to design and deploy P&E is affected by community size, geography, resources (financial, skills-based and time) and many other factors. ” Pg. 57, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

The City currently produces recycling calendars, compliance notices, public service announcements and “recycle it right” publications. There is some co-operation with local high schools, community service groups and youth organizations. Some opportunity exists to increase use of these groups to enhance the local P&E distribution channels.

“A study of eight programs that are considered to be among the Ontario P&E leaders, as well as other well-performing communities, revealed that their P&E costs, range from approximately \$0.83 to \$1.18 per household, with recovery rate at or exceeding 60%.” Pg. 59, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Dryden reports a local budget for P&E programs of approximately \$1.38 per household.

The recycling program co-operates with other municipal departments, schools, service organizations etc. to maximize the P&E message and minimize costs. An increased level of co-operation with Kenora may result in greater effectiveness for the current P&E program due to economies of scale and consistent content. There is some opportunity to co-operate with other nearby municipalities in addition to Kenora to reduce costs and increase effectiveness of future P&E efforts.

The Town of Red Lake has recently started hauling recyclable material to Dryden and has requested P&E information. The City of Dryden has recently developed an information pamphlet. This pamphlet has been forwarded to the Municipality of Red Lake as an educational tool.

The program has transitioned to single stream recycling collection and therefore, it is recommended that a comprehensive communications effort be undertaken to inform residents of the changes and garner their support for the program. This will be challenging given the limited resources that are available to staff. It is recommended that staff apply to the CIF for funding necessary to support the P&E effort required to promote significant program changes.

P&E Plan:

As a long term goal, development of a P&E plan is advisable. A P&E plan would assist staff with addressing what promotional materials are needed, how to deal with the issues to get the best result and provide a framework for budgeting for P&E requirements. A P&E Plan is currently under development as a separate part of this Waste Reduction Strategy.

The municipality has an internet presence providing residents with recycling, reuse and diversion information. This information is relatively static and is also available in printed form.

Waste Exchange:

The City has a new online waste exchange, free to use by local residents, designed to encourage diversion and provide educational material. This dedicated internet presence for recycling and diversion is deemed a tier 2 best practice by the *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007*.

The new P&E site (www.Dryden.Reuses.Com) includes an online recycling “how to” recyclopedia and recycling news/events listings that are updated frequently by a local staff administrator.

Enforcement:

The City enforces garbage and recycling rules through public information, non-compliance notices, “reason for leaving” stickers, transfer station spotters and local by-law officers.

Recycling Costs:

In 2009, the total net annual recycling costs for Dryden were \$309,329. This amounts to \$539.84 per tonne or \$37.75 per capita. As the table below shows, net annual recycling costs for City of Dryden are below average for its WDO municipal grouping.

Net Recycling Cost (per tonne per year)	
City of Dryden	\$539.84
Municipal Grouping: Rural Collection North	\$552.51

Acquisition of new hauling equipment and a new multi-municipal hauling agreement entered into with City of Kenora is expected to reduce material transportation and overall program costs going forward.

Anticipated Future Waste Management Needs

Solid waste generation rates in Dryden are expected to stay the same over the next five 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 of 0.08%.

Anticipated Future Solid Waste Generation Rates and Available Blue Box Material			
	Current Year	{Current Year + 5}	{Current Year + 10}
Population	8,195	8760	8832
Total Waste (tonnes)	2067	3037	4462
Blue Box Material Available (tonnes)	992	1548	2142

Planned Recycling System

Overview of Planned Initiatives

The City of Dryden 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:

- Percentage of Waste Diverted
- Proven Results
- Reliable Markets / End Use
- Economically Feasible
- Accessible to Public
- Ease 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 approximately \$24,500, while implementation of the future initiatives is estimated at \$15,000. 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 listed on the following pages. More study may be required before final costs for new recycling initiatives can be budgeted.

Priority and Future Initiatives		
Initiatives	Implementation Costs	Operation Costs
<i>Priority Initiatives</i>		
Public Education and Promotion Program	new collection P&E 10,000	ongoing 10,000
Training of Key Program Staff	0.00	3000
Bag Limits	extra roadside cleanup yr. 1 2,000	0
Enhancement of Recycling Depots	potential glass processing 10,000	maintenance 1,000
Provision of Free Blue Boxes	new collection households added 2,500	annual replacements 2,500
Following Generally Accepted Principles for Effective Procurement and Contract Management	0	0
<i>Estimated Total Cost</i>	<i>\$24,500</i>	<i>\$16,500</i>
<i>Future Initiatives</i>		
Standardized Service Levels and Collaborative Haulage Contracting	5000 staff/ consulting time	implement at next collection contract
Collection Frequency	0.00	review at next collection contract
Optimization of Collection Operations	5000 staff/ consulting time	implement at next collection contract
Multi-Municipal Collection and Processing of Recyclables	5000 staff/ consulting time	collection costs/tonne at market rates
<i>Estimated Total Cost</i>	<i>\$15,000</i>	<i>TBD</i>

Details of Planned Initiatives

Details of the Priority and Future Initiatives considered follow below;

Priority Initiatives

Initiative:

Public Education and Promotion Program

Overview:

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:

- 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

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>).

Implementation:

"Planning and implementing targeted P&E programs that support recycling and waste diversion are vital to municipal Blue Box programs. Each community's ability to design and deploy P&E is affected by community size, geography, resources (financial, skills-based and time) and many other factors." *Pg. 57, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

The City currently produces recycling calendars, compliance notices, public service announcements and "recycle it right" publications. There is some co-operation with local high schools, community service groups and youth organizations. Some opportunity exists to increase use of these groups to enhance the local P&E distribution channels.

"A study of eight programs that are considered to be among the Ontario P&E leaders, as well as of other well-performing communities, revealed that their P&E costs, range from approximately \$0.83 to \$1.18 per household, with recovery rate at or exceeding 60%."

Dryden reports a local budget for P&E programs of approximately \$4,800 or \$1.38 per household. This level of funding is considered adequate for routine P&E activities. However, the recent changes to collection will require a greater P&E effort for the first year of operation. Once a communication plan has been adopted, an application may be made to the Continuous Improvement Fund (CIF) to help fund P&E efforts for this major program change.

The City co-operates with other municipalities other departments, schools, service organizations etc. to maximize P&E message and minimize costs. An increased level of co-operation with Kenora and Red Lake would result in greater effectiveness for the current P&E program due to economies of scale and consistent content. Some modification to the collection system may be required to align the P&E message with the existing Kenora collection/processing program message. This will require further co-ordination with Kenora prior to the next local collection tender to insure local collection procedures are acceptable at the receiving MRF.

The City has an internet presence providing residents with recycling, reuse and diversion information. This information is relatively static and is also available in printed form as a recycling calendar.

A Communications (P&E) Plan will be supplied as a separate part of this WRS. This plan will assist staff with targeting local promotion and education efforts to achieve the most value for limited P&E budgets available.

A dedicated P&E website (www.Dryden.Reuses.Com) will be supplied as a separate part of this WRS project and will be administered by staff going forward. This dedicated P&E tool will facilitate waste management communication efforts and will be updated regularly by staff. It is anticipated that this website will form the hub of recycling P&E for Dryden in future.

This site will also provide an online recycling “how to” encyclopedia and recycling news/events listings along with an item exchange trading post free for local and Red Lake residents to help place reusable items instead of landfilling them.

Initiative:

Training of Key Program Staff

Overview:

Training of recycling staff in core competencies is considered a best practice. “Municipalities need to ensure that management program personnel are adequately trained on position-related competencies and responsibilities. Training provides the skills needed to develop, manage, monitor, document and promote the numerous and complex components of a successful recycling program. Regardless of the size or type of municipal program, training acts as an enabler of performance, facilitating the achievement of objectives in a cost-effective manner.” Pg. 45, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

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.

Similar to many smaller municipalities, the City currently has no dedicated budget or resources to provide ongoing training for recycling staff. The City has an opportunity to improve their performance in this area that is now required to be reported annually under the revised WDO datacall.

Implementation:

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 Municipal Waste Association (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 and/or solid waste management.

The municipality is encouraged to contact the Municipal Waste Association, <http://www.municipalwaste.ca/contact.cfm> for information on the Ontario Blue Box Recyclers Training program currently available to municipalities at nominal to no cost. This training was developed and offered through E&E Fund project #341 and was developed with input by municipal recycling experts specifically for Ontario municipal recycling staff.

Further information is available at http://www.stewardshipontario.ca/bluebox/pdf/efund/KPMG_final_report_voll.pdf page 44.

Initiative:
Bag Limits

Overview:

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 comply with the fixed limit.

It should be noted that, the Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007. Pg. 21, references a strong relationship between reduced bag limits and increased diversion. Statistics indicate that a 2 bag limit, supported by diversion alternatives, was found to result in higher recyclable material recovery rates.

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 at no charge, with additional bags requiring a purchased bag tag. The City currently has a user fee for refuse of \$1.75 per residential bag and there are no bag limits in force.

Implementation:

There may be an opportunity to propose a 5 bag/week limit (recommended... or greater if necessary to initially establish a limit e.g. 10/wk reducing to 2/wk. over a period of years) be made an official policy. Establishing a bag limit will create the opportunity to adjust the limit downwards at some future date and thereby increase overall waste diversion at a steady rate over a period of years.

Since the City already has a user fee for garbage, fears over increased roadside dumping following the adoption of bag limits should not be a concern, especially if weekly bag limits are reduced slowly over time until a 2 bags/week limit is reached.

Additional P&E will be required for the phase in of this initiative and funding assistance from CIF may be available.

Initiative:

Enhancement of Recycling Depots

Overview:

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):

- 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 signage;
- Providing additional part-time staff to address seasonal fluctuations and visiting traffic.
- Using a mobile glass processing unit to generate locally usable aggregate

Implementation:

Additional P&E will be required for the phase in of this initiative.

Funding for P&E, signage and equipment may be available from CIF.

Initiative:

Provision of Free Blue Boxes

Overview:

The Best Practices Assessment Project final report states: “Provision of blue boxes entails the provision to households of free blue boxes in order to ensure ample household recycling capacity. This is usually done when programs are initiated and when materials are added and/or the program is repromoted. Additional blue boxes require an initial capital outlay, however, the added capacity may not only increase capture and potentially lower unit operating costs, but the minimization of home-made curb side containers may yield longer-term ergonomic benefits to collection crews.”

Providing blue boxes at no charge 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.

Implementation:

Blue boxes are sold at \$8.00 each plus HST at Public Works. Provincial experience shows that boxes typically have a four year life span and so budget provisions are recommended to support 25% of total households serviced as a replacement rate per annum.

Funding from CIF may be available for additional blue boxes.

Initiative:

Following Generally Accepted Principles for Effective Procurement and Contract Management

Overview:

Following generally accepted principles (GAP) for effective procurement and contract management is considered to be a best practice in Ontario. For a full list of generally accepted procurement principles refer to http://www.stewardshipontario.ca/bluebox/pdf/eefund/KPMG_final_report_voll.pdf page 50.

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.

The greatest opportunity for program improvement is available at the end of the municipal contract cycle; therefore, it is critically important to identify any potential improvements in the local municipal recycling contracts which can be implemented immediately or at the next tender.

Implementation:

Key aspects of GAP include planning the procurement well in advance, issuing clear RFPs, obtaining competitive bids, and including performance-based incentives.

The City has access to weigh scales which makes monitoring and measurement of collections effective. The processor provides monthly production reports but without a collection cost per tonne calculation, accurate accounting, residue tracking and generation/diversion rates are difficult to calculate accurately.

Therefore, it is strongly recommended that the next RFP for collection/processing include a cost per tonne quotation in addition to, or preferably instead of, a flat rate cost for service along with provisions for weighing each load of material delivered for processing.

Financial support for consulting services to assist staff with the preparation of a new recycling collection/processing RFP may be available through the Continuous Improvement Fund.

It is also strongly recommended that the new contract term end date match the contract expiry date with the existing Kenora collection contract to generate the opportunity, on the next tender cycle, for the City to take advantage of multi-municipal co-operation, standardization of service levels and economies of scale in collection throughout the service area. This can be accomplished by working with Kenora to request that they include a provision in their next collection tender requesting separate costs to collect

recyclables under the larger Kenora contract. Should this cost be deemed acceptable to City council, they may elect to enter a subcontractor agreement with Kenora and take advantage of the resulting cost saving generated by the economies of scale available to the larger community.

Other accepted leading practices for effective procurement and contract management to extract the best value for municipal Blue Box contract needs include:

1. Planning procurements well in advance of service requirements.
2. Recognizing useful life of existing equipment, lead times for replacing this equipment and lead times for the execution of the procurement process itself, all require careful consideration. Failure to plan properly may mean costly maintenance and breakdowns and sub-optimal contracting/service levels.
3. Investigating and understanding suppliers' markets to understand the players, dynamics, cost drivers and innovators in order to maximize value when setting procurement strategy. This results in municipal staff becoming informed buyers.
4. Involving suppliers (in pre-procurement consultations), to help refine requirements where in house experience is limited, and to leverage innovation and capabilities of experienced suppliers. This results in municipal staff becoming smart buyers.
5. Developing a clear definition of services and performance requirements.
6. Using the appropriate procurement instrument, such as a Tender or an RFP.
7. Using a competitive procurement process and working to encourage multiple proponents/bidders.

Changes to the collection and processing stream may necessitate amendments to existing or new contracts. Assistance for the preparation of recycling collection and processing tenders is available free of charge at the following internet address:

http://www.wdo.ca/cif/contracts_database.html

Consulting assistance is also available to help municipalities develop and/or negotiate agreements for jointly processing and/or collecting materials. Additional assistance is available from the CIF Program Managers upon request.

Future Initiatives

Initiative:

Standardized Service Levels and Collaborative Haulage Contracting

Overview:

“A widely-recognized principle of business is that significant efficiencies and economies can be obtained from larger scale activities. Many communities have found it advantageous to work co-operatively in providing solid waste management services.

Working jointly, municipalities can increase bargaining power with private service providers for collection and processing of recyclables. Pooling resources can result in increasing equipment, labour, and/or facility utilization, thereby realizing financial and operational efficiencies.

Co-operative planning can lead to improved performance across virtually all recycling program components, enhancing effectiveness and efficiency.” *Pg. 33, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Collaborative haulage contracts for blue box materials can take advantage of increased purchasing power through municipal partnerships and ensures that the partner municipalities provide common levels of services to its residents.

Standardizing collection programs among municipal partners increases the amount of materials being diverted from disposal, allows for common education and promotion materials, increases collector efficiencies, and can potentially reduce overall costs.

Implementation:

The City currently processes recyclables at the Cascades Recovery Inc. MRF in Winnipeg. Collection is done through a local contractor and material is long haul shipped on Transtor trailers using collaborative (Kenora) equipment.

An opportunity exists to take advantage of economies of scale through co-operation with neighbouring municipalities in the following areas:

Collection:

Kenora is the largest neighbouring municipality and opportunities should be explored to obtain pricing for recyclable collection using their collection contractor. Other nearby municipalities should also be approached to determine if their collection could be combined with Dryden to achieve greater economies of scale.

Initiative:

Collection Frequency

Overview:

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.

The City operates a bi-weekly collection program designed to complement the processing operations at Cascades Recovery Inc. However, the system is not a typical 2 box alternate week program in that all material is collected bi-weekly in a single stream. Collection frequency is complimented by depots. Recyclables are collected at least as frequently as garbage.

Implementation:

Collection equipment is supplied by subcontractors and varies across the multi-municipal participants. Non-standard collection equipment may be contributing to service level differences across the service area.

Additional information about better practices operating depots can be found in the Best Practices Project report located at:

http://www.stewardshipontario.ca/bluebox/pdf/efund/KPMG_final_report_voll.pdf
at page 107.

The City is encouraged to review these operating practices for potential improvements to local operating conditions at their depots.

Initiative:

Optimization of Collection Operations

Overview:

The purpose of optimizing collection operations is to facilitate collecting 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 increasing 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.

Implementation:

The City currently collects a standard list of blue box recyclables including fibers, metals and plastics.

The City operates a modified bi-weekly collection program designed to compliment the processing operations at Cascades Recovery Inc. Negotiations with Cascades should be explored to determine if a more standard alternate week collection system should be started in the City. This may increase revenue for materials recycled going forward and reduce overall costs as well as permit adoption of a grey box for fibers, blue box for containers collection system that may result in higher levels of participation and cleaner materials at the sorting facility.

Prior to the next collection tender, routes and collection days should be optimized for efficiency to reduce costs. Use of on truck GPS and routing software can assist staff with this goal.

Initiative:

Multi-Municipal Collection and Processing of Recyclables

Overview:

“A widely-recognized principle of business is that significant efficiencies and economies can be obtained from larger scale activities. Many communities have found it advantageous to work co-operatively in providing solid waste management services.

Working jointly, municipalities can increase bargaining power with private service providers for collection and processing of recyclables. Pooling resources can result in increasing equipment, labour, and/or facility utilization, thereby realizing financial and operational efficiencies.

Co-operative planning can lead to improved performance across virtually all recycling program components, enhancing effectiveness and efficiency.” *Pg. 33, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Small and medium-sized municipalities often face considerable cost and capital challenges when working to collect and process recyclables from residents. However, working collaboratively with other municipalities to provide these services can increase economies of scale and allow for the sharing of resources.

The City currently processes recyclables at the Cascades Recovery Inc. MRF. Collection is done through a local contractor.

Implementation:

An opportunity exists to take advantage of economies of scale through co-operation with neighbouring municipalities in the following areas:

Collection:

Kenora is the largest neighbouring municipality and opportunities should be explored to obtain pricing for recyclable collection using their collection contractor. Other nearby municipalities like Red Lake, should also be approached to determine if their collection can be combined with Dryden’s to achieve greater economies of scale.

Processing:

Winnipeg is the largest neighbouring municipality and is currently processing all material. Opportunities should be explored with other municipalities to determine if processing at Cascades Recovery Inc. is still the most cost effective option. This may be accomplished by obtaining market pricing through the next collection/processing RFP and exploring the possibility of shipping material to other processing facilities via efficient highway compaction trailers.

P&E:

Kenora is the largest neighbouring municipality and opportunities should be explored to co-ordinate P&E with their program. An increased level of co-operation would result in greater effectiveness for the current P&E program due to economies of scale and consistent content. Some modification to the local collection system may be required to align the P&E message with the existing Kenora collection/processing program and P&E message.

Containers:

Kenora is the largest neighbouring municipality and opportunities should be explored to co-ordinate volume purchases of recycling containers through their annual purchase. The City may be able to obtain volume discount pricing if they add annual container purchases to the Kenora order. The CIF also has opportunities for volume container purchasing and funding may be available.

It is also strongly recommended that local contract term end dates match the contract expiry date with the existing Kenora collection contract to generate the opportunity, on the next tender cycle, for the City to take advantage of multi-municipal co-operation, standardization of service levels and economies of scale in collection throughout the service area. This can be accomplished by working with Kenora to request that they include a provision in their next collection tender requesting separate costs to collect Dryden recyclables under the larger Kenora contract. Should this cost be deemed acceptable to Dryden council, they may elect to enter a subcontractor agreement with Kenora and take advantage of the resulting cost saving generated by the economies of scale available to the larger community.

Assistance is available to help municipalities develop and/or negotiate agreements for jointly processing and/or collecting materials. Additional assistance is available from the CIF Program Managers upon request.

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 risks and contingencies for possible planning delays.

Waste Recycling strategy Contingencies	
Risk	Contingency
Insufficient funding	Raise/implement user fees
	Explore and apply for other funding sources
	Delay lower-priority initiatives
	Increase proportion of municipal budget to solid waste management
Public opposition to planned recycling initiatives	Improve public communications
	Engage community/stakeholders to discuss initiatives/recycling plan
Lack of available staff	Prioritize department/municipal goals and initiatives
	Hire summer student to help with planning (funding may be available)
	Use qualified consultants (funding may be available)

Monitoring and Reporting

“Proper management of a recycling program includes the monitoring and measurement of the program goals through the establishment of diversion targets and performance objectives. Targets and objectives must be realistic, measurable and relevant. Furthermore, targets and objectives are needed for the individual program components to be evaluated (e.g., curbside collection, depots, processing, promotion and education, etc.) Evaluation facilitates continuous improvement within the recycling program.” Pg. 38, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

The monitoring and reporting of any 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 waste recycling strategy begins, the performance of the program 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 City currently has not performed waste audits to better understand the effectiveness of the recycling program and base rate diversion. The City does obtain processing data monthly from Cascades Recovery Inc. A lack of audited weight based collection data makes effective monitoring and measurement challenging.

In defining data requirements going forward, the following questions should be answered as the City continually improves their performance measures:

Will the measure track program outcomes as opposed to just outputs and inputs?

Is the measure for absolute impacts or relative impacts?

Can information pertaining to the measure be gathered systematically, consistently, and objectively?

Is there sufficient time and resources to gather, organize and interpret that information in order to tell a meaningful story to the evaluation audience?

Will the intended audiences perceive the measure as credible?

Will the knowledge gained through use of the measure be useful? (e.g., for program improvement, adjustment in funding)

The approach for monitoring the waste recycling program is outlined in the table below.

Recycling System Monitoring		
Topic	Tools	Frequency
Total waste generated (by type and by weight)	Measuring of wastes and recyclables at transfer station/disposal site (e.g. weigh scale records)	Each load
Diversion rates achieved (by type and by weight)	Formula: (Blue box materials + other diversion) ÷ Total waste generated * 100%	Monthly
Waste disposed (by type and by weight)	Reconciliation of weigh scale tickets	Monthly
Program participation	Customer survey (e.g. telephone); monitoring set-out rates, web site statistics	Every 1 to 3 years
Customer satisfaction	Customer survey (e.g. telephone, internet); tracking calls/complaints received to the municipal office	Every 1 to 3 years
Opportunities for improvement	Customer survey (e.g. telephone, internet); tracking calls/complaints received to the municipal office	On-going
Planning activities	Describe what initiatives have been fully or partially implemented, what will be done in the future	Annually
Review of Recycling Plan	A periodic review of the Recycling Plan to monitor and report on progress, to ensure that the selected initiatives are being implemented, and to move forward with continuous improvement	Every 3 to 5 years

Conclusion

The City is making steady progress toward increased diversion and recycling efficiency.

Our long term goals are to increase the sustainability of our community, make our community a cleaner, greener place to live and to enhance service/value for our taxpayers.

As with many smaller municipalities, budgetary and staff resources dedicated to recycling and diversion activities are limited. Other limiting factors include geographic and market restrictions and reduced economies of scale.

Accordingly, staff must take advantage of any assistance available to them to improve the local program and several opportunities are noted below for consideration:

1. Adopt an official waste management master plan that includes this updated plan for recycling and diversion with clear goals, implementation timelines and regular review procedures.
2. Explore opportunities for multi-municipal co-operation, especially with the City of Kenora and Red Lake, in collection, processing, container procurement and P&E.
3. Establish defined performance measures and methods to monitor them. Regular waste audits to establish base line performance and ongoing weight based data should be considered as a minimum.
4. Standardize and optimize collection within the service area.
5. Enhance training for staff in recycling core competencies.
6. Develop a promotion and education plan.
7. Enhance policies that increase recycling and diversion.
8. Align collection/processing contract expiry dates with other municipalities to optimize collection/processing, address program needs and deficiencies and obtain opportunities to take advantage of economies of scale.

The following recommendations may assist staff in realizing some of the opportunities noted above:

1. Contact neighbouring municipalities to explore opportunities for co-operation.
2. Contact the Municipal Waste Association, for information on the Ontario Best Practice, three year training program currently under development.
3. Adopt a weekly bag limit for garbage and consider reducing this limit over time to two bags/week to increase diversion.
4. Re-evaluate/fix current target diversion rates and establish a timeline to achieve the target rate in an integrated waste management master plan.
5. Review the Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007. for suggested depot operating practices located at http://www.stewardshipontario.ca/bluebox/pdf/eefund/KPMG_final_report_voll.pdf page 107.
9. Review the P&E module on CIF municipal outreach website http://www.wdo.ca/cif/promotion_education.html
A specialized P&E course currently in development will be available in 2011 and staff are encouraged to participate when available.