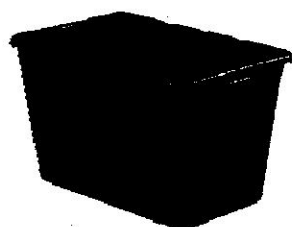


A Residential Blue Box Waste Recycling Strategy for the Town of Fort Frances

December 10, 2010

**Prepared with
assistance from
Waste Diversion Ontario**



Prepared by



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1. Introduction

This Waste Recycling Strategy was initiated by Fort Frances to develop a plan to increase the efficiency and effectiveness of its recycling program and maximize the amount of blue box material diverted from disposal. In particular, the objective of this strategy is to increase the Town's Blue Box diversion rate from 14.4% up to 20% (2008 average for municipal grouping) in the short term (3 to 5 years) and 25% (achieving 70% capture rate of Blue Box materials in waste stream) in the long term (5 to 10 years).

The study area for this Waste Recycling Strategy is the residential sector of the Town of Fort Frances.

This Waste Recycling Strategy was developed with support from the Continuous Investment Fund (CIF), and is based on the CIF's *Guidebook for Creating a Municipal Waste Recycling Strategy*.

This strategy recommends the following initiatives:

Public Education and Promotion

- Continue with the Town's current and planned educational initiatives, and explore other opportunities for public education.

Collection of Blue Box Recyclables from the ICI Sector

- Assess the feasibility of providing a collection service for blue box recyclables to the Town's Industrial, Commercial and Institutional (ICI) sector. Include the feasibility of funding the service as a utility in the assessment.

Transfer Station/Blue Box Depot Upgrade

- The Town continues the transfer station/blue box depot facility upgrades until completion.

Bag Tags

- Assess the feasibility of requiring bag tags on all bags of garbage.

Landfill Disposal Bans

- Implement a landfill disposal ban on materials included in the Town's recycling program.

Training of Key Staff

- Waste management and front line customer service staff should participate in third-party training sessions where possible. Webinars and webcasts can provide opportunities for training while avoiding the need for travel.

Glass

- Continue with current approach of collecting and recycling glass.

Cost/Benefit Assessment of Source Separated Collection on Material Revenues

- Assess the cost-effectiveness of implementing dual stream collection of recyclables and its impact on revenues for marketed recyclable materials.
- Include the option of weekly or bi-weekly collection in the next waste collection tender document.

Charge or Ban on Plastic Bags

- Assess the feasibility of implementing either a small fee on retail plastic bags or a ban on plastic bags.

2. Overview of the Planning Process

In preparation of this Waste Recycling Strategy, a conference call was held with municipal staff to discuss key issues with the current recycling program, the recycling system process, and upcoming milestones. The 2009 Waste Diversion Ontario datacall for Fort Frances was used to assess the recycling system, including current costs and diversion and future needs. This information was also compared against published WDO datacall information for other municipalities within Fort Frances' municipal grouping.

3. Public Consultation Process

On November 30, 2010, an open house was held to present the Waste Recycling Strategy and its proposed options to the public. The open house was held at the Civic Centre and ran from 6:30 to 8:30 pm. Twenty-six members of the public attended.

The open house format included a series of display boards that presented an overview of the waste recycling strategy, including the proposed diversion target, the state of Fort Frances' current waste blue box program, and recommendations for improvements. Municipal staff and the waste management consultant were also available to answer questions from the public. Eleven comment sheets or letters were received.

Key points raised through the comments included:

- The option of continued public education on recycling was commonly supported, including the use of radio, newspaper and web media, as well as teaching students in schools about recycling. It was also suggested that the Town engage local volunteer groups.
- It was suggested that the Town promote waste diversion opportunities that are not run by the Town, such as scrap metal or tire recycling or plastic bag bins at local grocery stores.
- Several of the comments supported providing services to businesses so that they can participate in the recycling program.
- There was general opposition to requiring tags on all bags or containers of waste set out for collection.
- There was general support for banning recyclables from the landfill.
- There was mixed support for banning plastic bags from being used in at retail in Fort Frances. One resident commented that they would want to see options such as paper bags in place before there was a ban, as they did not always remember to bring their reusable cloth bag.
- Some support was offered for sorting recyclables for collection, especially if it resulted in improved revenues on marketed material.

Other comments and suggestions included:

- Support provided for upgrading the transfer station recycling depot;
- Reuse glass in road surfacing or as fill in road or walkway projects;
- Provide recycling containers along side existing garbage cans in public spaces;
- Promote opportunities for waste reduction, including choosing to purchase products that have less packaging and using reusable cloth bags instead of plastic bags;

- Provide another drop off location for those who wish to recycle but do not have a curbside collection service;
- Expand the type of materials that can go into the blue box; and
- Fine those households that do not participate in the blue box program.

The open house attendees also provided their input on other aspects of the Town's waste management system, including:

- The Town should have a household organics composting program, possibly at the transfer station;
- The household hazardous waste day and the electronic waste day are both excellent programs and should continue; and
- The Town should have an oil recycling program.

4. Stated Problem

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

The issues facing Fort Frances are common among many northern Ontario municipalities, such as:

- Considerable distance from recyclable processors and markets;
- A low economy of scale for handling recyclables, due to small population and therefore small tonnages of material collected;
- A smaller staff compared to larger municipalities, whereby those in charge of solid waste are also responsible for other public works activities.

In addition, levels of funding received for blue box recycling in Ontario is based in part on the adoption of a waste recycling plan, the incorporation of other WDO-approved recycling best practices, and the amount of recyclable material marketed. This Waste Recycling Strategy will help to improve efficiencies and maximize the amount of eligible funding available.

5. Goals and Objectives

This Waste Recycling Strategy has identified a number of goals and objectives for the Town of Fort Frances. These are presented below.

Table 1: Waste Recycling Goals and Objectives	
Goals	Objectives
Increase the amount of recyclables diverted from disposal.	Short term (3 to 5 years): Raise blue box diversion rate to 20% (2008 average for "Rural Collection – North" WDO municipal grouping) Long Term (5 to 10 years): 25% (realizing a 70% capture rate of Blue Box materials)
Reduce operation costs through system efficiencies.	Reduce the net cost per tonne for blue box recyclables by 10%.

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

Community Characteristics

In 2009, Fort Frances had an estimated population of 8,103. The municipality has a total of 3,816 total households/dwellings. Of these, 3,393 are single-family households and 423 are multi-family households.

Current Waste Generation and Diversion

Fort Frances generated approximately 2,589 tonnes of residential solid waste in 2009. Of this, 372 tonnes, or 14.4 percent, was diverted through the municipal blue box program. Currently, the most common material recycled is paper, while the least is metals. Glass is collected through a depot rather than a curbside Blue Box program, which is then stockpiled and sent for recycling every two years. The table below summarizes the current waste generation and blue box diversion rates.

Table 2: Residential Solid Waste Generated and Diverted through Blue Box (2009)		
Blue Box Material	Tonnes Recycled	Percent of Total Waste
Papers (ONP, OMG, OCC, OBB and fine papers)	312	12.0%
Metals (aluminum, steel, mixed metal)	18	0.7%
Plastics (containers, film, tubs and lids)	25	0.9%
Glass	18*	0.7%
Total Blue Box material currently diverted	372	14.4%

** Note: glass is stockpiled and sent to Nexcycle in Guelph every two years. The last shipment was in 2008 and consisted of 35 tonnes. The quantity of glass stored for recycling for 2009 was estimated by extrapolating the 2008 tonnage and dividing by two years. Figures in the table are rounded.*

As Table 3 indicates, Fort Frances' 2009 blue box diversion rate is below average for its WDO municipal grouping (based on the 2008 average rate).

Table 3: Average Blue Box Diversion Rate	
Fort Frances (2009)	14.4%
Municipal Grouping: Rural Collection-North (2008)	20.3%

Potential Waste Diversion

Currently, Fort Frances has no waste audit data available for its residential waste. To estimate Fort Frances' waste composition, West Nipissing was used as a proxy, as its community characteristics were felt to be similar to that of Fort Frances.

A total of approximately 652 tonnes of blue box recyclable materials are available for diversion, of which approximately 298 tonnes are still currently in the waste stream, based on a Blue Box material capture rate of 70%. Diverting the blue box material remaining in Fort Frances' waste stream could raise its blue box diversion rate from 14.4% up to 25%. Estimates of blue box material available for diversion are listed in the Table 4 below.

Table 4: 2009 and Potential Diversion (based on 70% Capture Rate of Blue Box Materials in Waste Stream)				
Material	Total Available in Waste Stream for Diversion (tonnes/year)	Currently Recycled (tonnes/year)	Potential Increase in Diversion (tonnes/year)	Potential Increase in Diversion (% of total waste stream)
Papers	417	312	105	4.1%
Metals	54	18	36	1.4%
Plastics	145	25	120	4.7%
Glass	36	18 *	18	1.4%
Total	652	372	280	10.8%

* Currently, glass is collected through a depot drop-off, stockpiled and shipped for recycling every two years.

Existing Programs and Services

Currently, Fort Frances uses a partial user-pay system. Residents are allowed one untagged bag of garbage, while additional bags must be affixed with a \$2.00 bag tag. Blue box recyclables (fibres, metals and plastics) are collected commingled every two weeks. This service is available to both single-family households as well as multi-family buildings, which are able to place their recyclables at the curb.

Collection curbside pick-up services of blue box recyclables from the Industrial, Commercial and Institutional (ICI) sector are generally not provided in the Town, either privately or municipally.

Because Fort Frances has a population of less than 15,000, it does not have a requirement under Ont. Reg 101/94 to include glass in its recycling program. However, the Town does collect food and beverage glass at a centrally located depot, which is stockpiled and sent to Nexcycle in Guelph every two years.

Collection services for both garbage and blue box materials are provided by a contractor (contract is in place until October 2014). Blue box materials are collected and taken to a transfer station, which is currently being upgraded¹. Once sufficient quantities are stored, they are then loaded into a trailer and backhauled to a Metro facility in Winnipeg for processing. Because the materials are shipped commingled, no revenue is received for them. The Town is charged \$30 per tonne by Metro to accept the commingled material.

¹ In January 2009, a report was prepared describing improvements to the Town's transfer station. The report was funded with support from the Continuous Improvement Fund.

The Town undertakes a number of educational initiatives to promote the Town's recycling program. These include:

- Placing newspaper ads four times per year (through the newspaper stewardship program);
- Articles in the local newspaper; and
- Notices for when materials are refused collection.

With respect to future educational initiatives, the Town has also received a grant to develop and produce a brochure and fridge magnet. The Town is also looking to go into schools and farmers markets to discuss recycling and waste management.

Program Costs

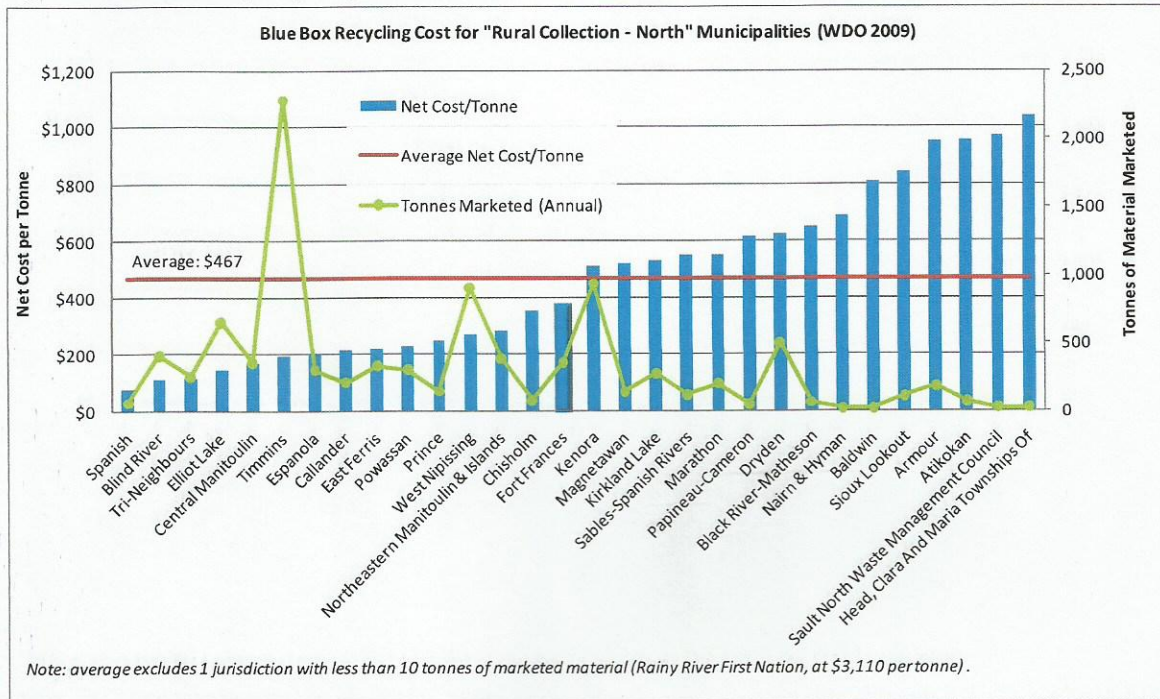
In 2009, the total net annual recycling costs for Fort Frances was \$139,763². This amounts to \$375 per tonne, or \$17 per capita. As Table 5 and Figure 1 below show, net annual recycling costs for Fort Frances are below average for its WDO municipal grouping.

Table 5: Net Recycling Cost (per tonne per year)	
Fort Frances	\$375
Municipal Grouping: Rural Collection – North	\$467 ³

² As reported by WDO for the 2009 datacall.

³ The average net cost for this grouping excludes the jurisdiction of Rainy River First Nation, whose net cost per tonne of \$3,110 is an outlier to the remaining dataset.

Figure 1: Blue Box Recycling Program Net Costs



Anticipated Future Waste Management Needs

As the population of Fort Frances has experienced a gradual decline in recent years, solid waste generation rates in Fort Frances are not expected to increase or significantly change over the next 5 year planning period.

Based on the current recycling system's net cost per tonne, the Blue Box recycling program would cost approximately \$197,000 per year to achieve a blue box diversion rate of 20% and \$245,000 to achieve a Blue Box diversion rate of 25%. It is important to note that these costs do not factor in savings from implementing program efficiencies or increased Blue Box funding from the implementation of Blue Box best practices or increased recycling of materials.

Table 6: Project Net Annual Recycling Cost
(based on current net costs per tonne)

	Current System (2009)	Short Term Blue Box Diversion Objective	Long Term Blue Box Diversion Objective
Blue Box Diversion Rate	14.4%	20%	25%
Tonnage of Recyclables	372	526	652
Net Annual Cost of Program	\$139,763	\$197,000	\$245,000

7. Recommendations

Recommendations for improvements to the recycling program are described under the categories below. A summary of how the categories were scored is provided in Appendix A.

Public Education and Promotion

The Town's current education program is comprised of a variety of tools, including the Town's website, articles and advertisements in the local newspaper, and notices when materials are refused collection. In addition to these, the Town has been approved a grant to produce a recycling brochure and fridge magnet.

Other educational opportunities the Town may consider include:

- Providing information on the Town's Recycling program to new residents;
- A door to door Community-Based Social Marketing Campaign (one example of a CBSM program is the door to door distributing the new brochure and fridge magnet);
- A recycling kiosk in public areas (Memorial Sports Centre, a Beer Store location, at events); or
- Other elements as described in Stewardship Ontario's report *Identifying Best Practices in Municipal Blue Box Promotion and Education* or on their Recyclers' Knowledge Network⁴.

Recommendation

1. Continue with the Town's current and planned educational initiatives, and explore other opportunities for public education.

Collection of Blue Box Recyclables from the ICI Sector

As the local ICI community has no collection service for blue box materials, the Town should investigate the feasibility of offering this service to them. This assessment should include determining the feasibility of funding the service as a utility. For example, the Town could charge a fee to ICI participants for providing a collection service for recyclable material. In 2009, the Town issued a Tender Call for the weekly collection of recyclables from businesses, which

⁴ In addition to those resources, there is an abundance of recycling promotion and education ideas on the Internet. These can be found by searching the terms "recycling public education" in an Internet search engine.

showed the cost to participating business would be \$212 plus taxes over a five year term (approximately \$42 to \$43 per year plus taxes)⁵.

Recommendation

2. Assess the feasibility of providing a collection service for blue box recyclables to the Town's ICI sector. Include the feasibility of funding the service as a utility in the assessment.

Transfer Station/Blue Box Depot Upgrade

In 2009, a report was prepared for the Town of Fort Frances recommending upgrades to their Transfer Station to increase the efficiency of transporting its recyclable material. Also included in the report was the addition of an all-hour drop-off depot for blue box materials. The Town is currently in the process of implementing the upgrades to the Transfer Station site.

Recommendation

3. The Town continues the transfer station/blue box depot facility upgrades until completion.

Bag Tags

The Town should re-assess its current "1 free bag" policy and consider requiring a bag tag for all bags of garbage set out for collection. Possible scenarios that could be considered include maintaining the current bag tag price, reducing the bag tag price to \$1.00 or \$1.50, or including a bag limit of 3 or 4 garbage bags with the updated bag tag requirement.

At the November 29, 2010 open house, there was little support for this option. However, given the potential for this option to improve diversion, it is recommended that the Town's approach to using bag tags be re-assessed once the other options have been implemented and in consideration of the Town's diversion performance at that time.

Recommendation

4. Assess the feasibility of requiring bag tags on all bags of garbage.

⁵ Report to Mayor and Council from Doug Brown, Manager of Operations & Facilities. *Subject: Tender 09-OF-15 – Curbside Garbage & Recycling Material Collection Services*. October 19, 2009.

Landfill Disposal Bans

A disposal ban at the landfill site can be a useful tool to help keep recyclable material from being disposed in landfill. Disposal bans in other municipalities has proven to increase the diversion of recyclable material. Depending on the level of enforcement, additional staff resources could be required to enforce the ban. For the ban to be effective, promotion of the ban would need to be included in a promotion and education program in advance of the ban taking effect.

Many other areas have implemented disposal bans, particularly hazardous household waste, tires, yard waste, white goods, etc. Bans of recyclable materials have also been implemented in provinces in addition to Ontario, such as Nova Scotia and British Columbia, among other locations.

Recommendation

5. Implement a landfill disposal ban on materials included in the Town's recycling program.

Training of Key Staff

Training of key waste management staff (including front line staff) is important to ensure that the municipal recycling program is run effectively and knowledgeably and that adequate customer service is provided. While training opportunities in Northern Ontario may occur less frequently, other options may include:

- Continuous Improvement Fund Ontario Recycler Workshops, which include webinars (www.wdo.ca/cif/orw.html);
- Solid Waste Association of Ontario training sessions (Ontario chapter: www.swanaon.org);
- Development of in-house training session for front line staff (including customer service representatives); and
- Other recycling webcasts (e.g., Institute for Local Government www.ca-ilg.org).

Staff training is viewed as a WDO blue box program best practice.

Recommendations

6. Waste management staff should participate in third-party training sessions where possible. Webinars and webcasts can provide opportunities for training while avoiding the need for travel.

Glass

The Town should continue to collect glass in a separate stream via depot collection. The glass can continue to be stockpiled until it can be shipped to market (e.g., Nexcycle) or otherwise reused. Currently, it is cost prohibitive to send the glass to Canadian markets on a frequent basis.

Recommendation

7. Continue with current approach of collecting and recycling glass.

Cost/Benefit Assessment of Source Separated Collection on Material Revenues

In 2004, the Town assessed the feasibility of commingled or source-separated collection of recyclables. The Town had released a tender package for waste collection that requested pricing for both collection options. While the annual cost of collecting source-separated recyclables was approximately \$30,000 greater than for commingled, the cost to ship the separated recyclables for processing were less expensive. This assumed that fibres would be sent to the International Bildrite fibreboard plant in International Falls, Minnesota. Containers would still be sent to the Metro Recycling facility in Winnipeg, but the number of shipments would be reduced from 32 to 7. Ultimately, the overall cost for each option was found to be \$380 per tonne. For a number of reasons, the Town's assessment concluded recyclables should be collected commingled and shipped to the Metro Recycling facility in Winnipeg for processing⁶.

It is recommended that the Town re-assess the feasibility of collecting recyclable material source-separated (i.e., dual-stream) and the potential for revenues from its sale. Cost for dual-stream collection can be \$10 to \$20 more per tonne than single-stream collection, although costs vary depending on the approach to collection (e.g., alternating weeks, bi-weekly, co-collection, etc). However, revenue for the sale of blue box material can range from approximately \$80 to \$120 per tonne for a basket of goods. Collection options could be included in the next collection contract tender.

Recommendations

8. Assess the cost-effectiveness of implementing dual stream collection of recyclables and its impact on revenues for marketed recyclable materials.

⁶ Report to Mayor and Council from Doug Brown, Manager of Operations & Facilities. *Subject: Tender 04-OF-6 – Garbage & Recyclables Collection Contract*. October 7, 2004.

9. Include the option of weekly or bi-weekly collection in the next waste collection tender document.

Charge or Ban on Plastic Bags

Many communities in southern Ontario have implemented fees on plastic bags at retail outlets. For example, in Toronto, which implemented a by-law on June 1, 2009, retailers are required to charge customers 5 cents per bag⁷. According to a CBC news article, two large grocery chains (Metro and Sobeys) each report that their plastic bag distribution rate in Ontario dropped more than 70% after the City imposed the ban⁸.

Other municipalities have decided to ban plastic bags outright, with retailers using either compostable plastic or paper bags, or consumers being required to bring their own reusable bag. Examples of jurisdictions that have done this include:

- Fort McMurray, AB;
- Leaf Rapids, MB;
- Huntingdon, PQ; and
- San Francisco, CA.

Recommendation

10. Assess the feasibility of implementing either a small fee on retail plastic bags or a ban on plastic bags.

⁷ More information on Toronto's 5 cent bag by-law available at www.toronto.ca/garbage/packaging_reduction/5centbag_bylaw.htm.

⁸ CBC News. *And they said it wouldn't catch on.* June 3, 2010. www.cbc.ca/canada/story/2010/06/03/f-plastic-bag-tax.html

8. Contingencies

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

Table 7: 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 (may be available funding)

9. Monitoring and Reporting

The monitoring and reporting of Fort Frances' recycling program is considered a Blue Box program fundamental best practice and will be a key component of this Waste Recycling Strategy. Once implementation of the strategy begins, the performance of the Waste Recycling System will be monitored and measured against the baseline established for the current system. Once the results are measured, they will be reported to Council and the public.

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

Table 8: Recycling System Monitoring		
Topic	Tool	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 x 100%	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 Strategy	A periodic review of the Recycling Strategy 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

Appendix A: Waste Recycling Option Scores

Description of Options/Best Practices	Criteria (Score out of 5)					Total Criteria Score
	% Waste Diverted	Proven Results	Economically Feasible	Public Acceptance	Ease of Implementation	
<p>Public Education and Promotion Program</p> <p>Other educational opportunities the Town may consider in addition to those currently on-going or planned include:</p> <ul style="list-style-type: none">• Providing information on the Town's Recycling program to new residents;• A door to door Community-Based Social Marketing Campaign (one example of a CBSM program is the door to door distributing the new brochure and fridge magnet);• A recycling kiosk in public areas (Memorial Sports Centre, a Beer Store location, at events); or• Other elements as described in Stewardship Ontario's report <i>Identifying Best Practices in Municipal Blue Box Promotion and Education</i> or on their Recyclers' Knowledge Network	5	5	4	5	4	23
<p>Collection of Blue Box Recyclables from the ICI Sector</p> <p>Assess the feasibility of providing a collection service for blue box recyclables to the Town's ICI sector. Include the feasibility of funding the service as a utility in the assessment.</p>	5	5	3	5	3	21

Description of Options/Best Practices	Criteria (Score out of 5)					Total Criteria Score
	% Waste Diverted	Proven Results	Economically Feasible	Public Acceptance	Ease of Implementation	
Transfer Station Upgrade In 2009, a report was prepared for the Town of Fort Frances recommending upgrades to their Transfer Station to increase the efficiency of transporting its recyclable material. Also included in the report was the addition of an all-hour drop-off depot for blue box materials. The Town is currently in the process of implementing the upgrades to the Transfer Station site. It is recommended that the upgrades continue until completion.	3	5	3	5	3	19
Landfill Disposal Bans A landfill disposal ban can be a useful tool to help keep recyclable material from being disposed in landfill. The Town of Fort Frances currently has the infrastructure in place to collect and process banned recyclables. Depending on the level of enforcement, additional staff resources could be required to enforce the ban. For the ban to be effective, promotion of the ban would need to be included in a promotion and education program.	4	5	3	4	3	19
Bag Tags Assess the feasibility of requiring bag tags on all bags of garbage.	4	5	5	2	3	19

Description of Options/Best Practices	Criteria (Score out of 5)					Total Criteria Score
	% Waste Diverted	Proven Results	Economically Feasible	Public Acceptance	Ease of Implementation	
Training of Key Staff Training of key waste management staff (including front line staff) is important to ensure that the municipal recycling program is run effectively and knowledgeably and that adequate customer service is provided. While training opportunities in Northern Ontario may occur less frequently, other options may include: <ul style="list-style-type: none"> • Continuous Improvement Fund Ontario Recycler Workshops (includes webcast option) • SWANA training sessions • Development of in-house training session for front line staff (including customer service representatives) • Other recycling webcasts 	2	5	3	4	3	17
Glass The Town should continue to collect glass in a separate stream via depot collection. The glass can continue to be stockpiled until it can be shipped to market (e.g., Nexcycle) or crushed and otherwise reused. Currently, it is cost prohibitive to send the glass to Canadian markets on a frequent basis.	0	3	5	2	5	15

Description of Options/Best Practices	Criteria (Score out of 5)					Total Criteria Score
	% Waste Diverted	Proven Results	Economically Feasible	Public Acceptance	Ease of Implementation	
Cost/Benefit Assessment of Source Separated Collection on Material Revenues The Town could assess if collecting recyclable material source-separated (i.e., dual-stream) may allow it to receive revenue from its processed materials. Cost for dual-stream collection can be \$10 to \$20 more per tonne than single-stream collection, although costs vary depending on the approach to collection (e.g., alternating weeks, bi-weekly, co-collection, etc). However, revenue for the sale of blue box material can range from approximately \$80 to \$120 per tonne for a basket of goods. Include bi-weekly and weekly collection options in the next collection contract tender.	2	3	4	3	3	15
Charge or Ban on Plastic Bags It is recommended that the Town assess the feasibility of implementing either a small fee on retail plastic bags or a ban on plastic bags.	2	1	4	3	3	13