

# **Town of Prescott Waste Recycling Strategy**



**Final Report  
March 2012**

Prepared for:  
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Project No. 111-16018-00



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March 26, 2012

Craig Cullen  
Director of Public Works  
Town of Prescott  
360 Dibble Street West  
Prescott, ON K0E 1T0

**Re: Waste Recycling Strategy  
Final Report**

Dear Mr. Cullen:

Please find attached the Final Waste Recycling Strategy (WRS). The final version of this report includes comments received from Town staff and the residents of the Town of Prescott during the public comment period.

The WRS incorporates realistic objectives and targets; assigns implementation steps and addresses various contingencies. All of these will allow the Town to realize its goals of maximizing Blue Box material capture rates, improving diversion performance and increasing participation.

At this point in the project, we have reviewed the list of priority Options for both Blue Box recycling and Green Cart organics with the Town. These Options were ranked according to criteria that the GENIVAR team and representatives of the Town considered appropriate and important. A number of Options are identified that could be implemented in the near-term, some will be implemented over a longer term and others were deemed to be inappropriate at this time.

The following Priority Initiatives would be considered for "immediate implementation":

- Adopting a Percent Diversion target
- Develop and promote sustainable policies
- Review current Blue Box capacity, including considering the possibility of offering free Blue Boxes
- Implement Full User Pay with a target over five years
- Implement a Clear Bag Policy for garbage
- Develop an enhanced Promotion and Education campaign
- Develop an outreach program with a set budget

The WRS is subject to a 5 year review, but can be reviewed at an earlier date or when circumstances permit other Options to be brought forward for consideration.

The following options would be suitable for "future consideration":

- Biweekly garbage collection and weekly recycling/organics collection
- Single-stream collection for recyclables
- Further expansion to acceptable Blue Box materials
- Public space recycling
- Multi-residential recycling

There were also several options deemed to be inappropriate for the Town of Prescott to consider at this time, either due to the timing of current contacts, cost or compatibility with the existing recycling system:

- Development of a Community Recycling Centre
- Develop contract incentives/penalties

- Implement bag limits for garbage
- Investigate support and incentive programs such as a customer rewards program, providing rebated to residents from revenues from recyclable materials, and pledges for community participation in a selected project
- Consider neighbourhood waste diversion challenges
- Servicing small commercial establishments

Overall, the Town of Prescott has, within its "municipal grouping", better than average performance with respect to waste diversion and provides waste management services with reasonably low net costs.

Waste Diversion Ontario, however, continues to place greater emphasis on best practices and program performance. For 2012, 25% of municipal funding will depend on whether or not the municipality is operating to Best Practices, and 45% will be based on relative performance, which is a function of net cost and material recovery. By completing this WRS, the Town will be in the position to take steps to maximize its funding potential.

Yours truly,  
**GENIVAR Inc.**



Phil Jensen  
Manager, Waste Diversion and Planning

/PJ

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Appendix A     Waste Recycling Option Scores

# 1. Introduction

In the spring of 2011 the Town of Prescott engaged GENIVAR Inc to develop a Waste Recycling Strategy (WRS) to increase the efficiency and effectiveness of the Town of Prescott's recycling programs and maximize the amount of Blue Box material diverted from disposal.

The WRS will enable the Town to meet the Waste Diversion Ontario's (WDO) Best Practices requirement for establishing recycling targets and to specifically target recycling performance and performance measurement. The WRS, which is funded in part by the Continuous Improvement Fund (CIF), deals only with the Blue Box recycling component of the Town's waste operation. The CIF is financed by industry stewards whose paper and consumer packaging are collected through the Blue Box Program. In 2011 Industry funding through the CIF represented 20% of the total financial obligation by industry to municipalities.

Currently, the Town is responsible for the collection, contract management and for the development and distribution of promotional & educational materials related to curbside collected materials. Prescott does not have an organics program at this time. Similarly, the processing of the collected materials is the responsibility of a local contractor. The Town has a partial User Pay program with their successful regulated bag sale program, as well as a depot where residents may drop off certain materials.

Every April, the Town of Prescott, along with all other funded municipal recycling programs in Ontario, file a detailed report (Datacall) with WDO that includes cost and recovery information related to waste management programs. From this, WDO calculates recycling program performance and generates a factor, called the E&E (Effectiveness and Efficiency) Factor, which is used to compare performance between municipalities. For comparative purposes, municipalities are "grouped" so that they are measured against others with relatively similar characteristics in terms of size, population density and program delivery. The Town of Prescott is in the Small Urban municipal group.

The WRS was developed using the CIF's *Guidebook for Creating a Municipal Waste Recycling Strategy*. The standard *Guidebook* approach was used in order to promote a cost efficient and thorough process.

## 2. Overview of the Planning Process

This report has been prepared through the efforts of the Town of Prescott staff and GENIVAR via in-depth meetings from June and September 2011.

An initial half day meeting consisting of Town and GENIVAR staff was held in June 2011. At that time, input was obtained and preliminary data inserted into worksheets 1, 2, 3, 5 and 6. As well, potential strategies on how to engage and consult with the public were examined (worksheet 4). Following this meeting, GENIVAR analyzed the Town's recycling information and defined the current waste management system, projected future needs and reviewed the Options available (worksheets 7 and 8).

In August 2011, Town and GENIVAR staff met to discuss specific program Options. The aim was to produce a finalized list of goals and objectives (worksheet 6) and evaluate the Options (worksheet 8). Following this meeting, GENIVAR developed a prioritized list (worksheet 9), prepared a draft implementation plan (worksheet 10), developed contingency plans (worksheet 11) and a monitoring and reporting program (worksheet 12).

As a final step an electronic survey was prepared and made available for the public. This survey was used to determine baseline attitudes and perceptions regarding the current and potential waste management service. Comments and input received from the electronic survey have been incorporated into this DRAFT Final WRS. For further details on the public consultation process, refer to Section 4.

After approval by Town Council, the DRAFT WRS was posted for public comment. All comments received have been reviewed for incorporation into, or appending to, the document.

**Table 1 - Worksheet 2 Overview of the Planning Process**

➤ Plan Development Participants	➤ Town of Prescott, public, GENIVAR
➤ Completed Steps	<ul style="list-style-type: none"> <li>➤ Project Initiation meeting</li> <li>➤ Information gathering and research</li> <li>➤ Worksheets 1 – 8</li> <li>➤ Review with local municipal staff</li> <li>➤ Remaining worksheets 9 - 12</li> <li>➤ WRS draft</li> <li>➤ Revise draft per staff comments</li> <li>➤ Issue draft for E-Survey and public consultation</li> <li>➤ Revise draft per public consultation comments</li> </ul>
➤ Next Steps	➤ Presentation of final WRS to Town Council
➤ Public Engagement	The public has been engaged through an electronic survey process, as well as a comment period where a draft of the WRS was posted on the Town website.

### 3. Study Area

The study area for this WRS is confined to the residents within the geographic borders of the Town of Prescott.

In addition, this WRS is applicable to every resident of the Town of Prescott residing in single family and multi-family homes. However, there are some specific sectors within the Town that this Plan will address. These include:

**Table 2 - Worksheet 3 Study Area**

➤ Geographic Areas	➤ Town of Prescott
➤ Sectors	➤ Single and Multi-Family Residential ➤ Industrial, Commercial and Institutional establishments ➤ Small Business ➤ Public Space

### 4. Public Consultation Process

The public consultation process in the development of this WRS consisted of the following:

**Table 3 - Worksheet 4 Public Consultation Options**

➤ Web sites	➤ A notice and a link to the electronic survey was posted on the Town's websites ➤ The DRAFT WRS was posted on the Town's website (when available) for public comment
➤ Survey	➤ An electronic survey will be prepared and made available to all Town residents to solicit feedback and input regarding their attitudes and perceptions for the current and future waste management system

### 5. Stated Problem

Management of municipal solid waste, including the diversion of Blue Box materials, is a key responsibility for all municipal governments in Ontario. The factors that encourage, or hinder, municipal 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 included:

**Table 4 - Worksheet 5 Waste Diversion Factors and Drivers**

➤ WDO Requirement	➤ WDO requires that municipalities have a Recycling Plan in place and that that plan have specific recycling targets and be reviewed every five (5) years
➤ Improving Cost and Service Efficiencies	➤ Many of the options considered as part of the WRS could produce improvements in cost/service efficiencies, including changes in collection frequencies, co-collection of materials, and municipal cooperation.
➤ Restricting Factors	➤ Historically, recyclables have been hauled to a transfer station in Brockville and then consolidated and hauled to a private MRF. The Brockville site is approximately a 30 kilometre haul from Prescott.
➤ Long term contract	➤ Prescott has a ten year contract for landfill garbage disposal with



	approximately 8.5 years remaining. The Town has a seven year contract for garbage and recycling collection and recycling processing, with approximately 5.5 years remaining. The long term contract provided the Town with a cost savings, but the RFP also gives options to implement program changes, such as adding a curbside organics program. These changes would be subject to negotiations with the contractor and would require further investigation of infrastructure and cost impacts
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## 6. Goals and Objectives

This WRS identified a number of broad community goals, all of which are related to the Town of Prescott's Official Community Plan. These goals are:

- Preserve Prescott's quality of life
- Pursue economic development and employment opportunities
- Adopt sustainable practices

When considering how these goals could relate to waste management, Prescott's options include targets for "diversion" - all materials (paper and packing, organics, waste electronics and hazardous waste) not landfilled, "capture" - how much material is collected from Town residents, and "recycling" - how much of this collected material is marketed as a commodity to be used again.

In addition to the broad goals noted above, this WRS identified a number of recycling goals and objectives for the Town of Prescott, including:

**Table 5 - Worksheet 6a Waste Recycling Goals and Objectives**

Goals	Objectives
➤ Continue to increase diversion realized by the implementation of weekly alternating two-stream recyclables collection.	➤ Achieve estimated 12% diversion increase from weekly alternating two-stream collection.
➤ Increase diversion rate by collecting source-separated organic waste.	➤ Make a green bin program available to all single family households in Prescott. ➤ Divert an additional 10% of the Prescott's residential waste through organics diversion.
➤ Decrease program costs with local disposal, processing or transfer options.	➤ Locate a transfer station within the Town of Prescott.
➤ Complete Blue Box specific staff training.	➤ Ontario Blue Box Recycler Training.
➤ Increase Blue Box capture rate.	➤ Estimated Prescott current Capture Rate = 36% (2009) or 47% (2010, unverified) ➤ WDO Municipal Group Target Capture Rate = 80% ➤ Municipal Group Average Recycling Rate (2009) = 62.5%

## 7. Current Trends, Practices, System & Future Needs

### 7.1 Community Characteristics

As reported in the 2010 WDO Datacall, Prescott had a population of 4,122 and 2,240 total households (1,890 single family, 350 multi-family).

As with all municipalities in the Province, municipalities are grouped based on two primary (population and population density) and two secondary (location, either north or south and by the type of service offered, either curbside collection or depot) criteria. For the 2010 WDO Municipal Groupings, Prescott is found within the Small Urban category.

Table 6 - Worksheet 7a Prescott Community Characteristics

	Population	Total Households	Single-Family Households	Multi-Family Households	Total Seasonal Dwellings	Municipal Grouping
Town of Prescott	4,122	2,240	1,890	350	0	Small Urban

Source: 2010 WDO Datacall submission

### 7.2 Current Waste Generation and Diversion

Based on the 2010 WDO Datacall information, the Town generated 1,562 tonnes of residential solid waste. Of this, 233 tonnes, or 14.9%, was diverted through the Blue Box program. The table below summarizes the 2010 waste generation and Blue Box diversion rates from the Town of Prescott.

Table 7 - Worksheet 7b Waste and Blue Box Recyclables Generated and Diverted

Residential Waste Stream/Blue Box Material	Tonnes Currently Diverted	Percent of Total Waste
Total waste generated	1,562	-
Papers (ONP, OMG, OCC, OBB, fine papers and polycoat)	154	9.9
Metals (aluminum, steel, mixed metal) and Plastics (containers, film, tubs and lids, and polystyrene)	79	5.0
Glass	0	0
Total Blue Box material diverted	233	14.9

Source: 2010 WDO Datacall submission

### 7.3 Potential Waste Diversion

Since there is no current waste (i.e. garbage) audit data available from the Town of Prescott to estimate how much Blue Box material is available to be captured, waste composition data from similar municipalities was used to estimate the potential Blue Box diversion from the Town's waste stream.

From Table 8 (above), 233 tonnes of Blue Box material was diverted in 2010. Using the representative waste composition data, in 2010, approximately 531 tonnes of Blue Box recyclable materials was calculated to be available for diversion in the Town of Prescott. Using the reasonable target capture rate of 80% for a Small Urban municipality, approximately 425 tonnes of material was available for collection. Of this, Prescott diverted 233 tonnes, leaving approximately 192 tonnes that was available for recovery but not recovered. The estimates of available Blue Box material for diversion are listed in the tables below.

Table 8 - Worksheet 7c1 Calculating the Material Available for Diversion

Material	Composition	Total Residential Waste Generated	Total Blue Box Material in Waste Stream	Target Blue Box Capture Rate	Blue Box Material Available for Diversion	Blue Box Material Currently Recovered	Blue Box Material Remaining in Waste Stream	Material Remaining in Waste Stream for Diversion
	(%)	(tonnes)	(tonnes)	(%)	(tonnes)	(tonnes)	(tonnes)	(% of total)
<b>Papers</b> ONP, OMG, OCC, OBB ,fine papers and polycoat	22	1,562	344	80	275	154	121	7.7
<b>Metals</b> aluminum, steel, mixed metal	8		125		100	79	21	1.4
<b>Plastics</b> containers, film, tubs & lids, polystyrene			62		50	0	50	3.2
<b>Glass</b>	4		531		425	233	192	12.3
<b>Total Recyclables</b>	34							
<i>Current Blue Box Diversion Rate</i>						14.9		
<i>Additional Diversion</i>								12.3

## 7.4 Existing Programs and Services

- Currently, the Town of Prescott uses partial user pay (regulated bag sales at variable pricing depending on size) to manage curbside residential waste
- Weekly alternating collection of Blue Box recyclables (fibres one week, containers the following week)

Collection services are provided to the residents using a combination of curbside collection and drop-off at the Town's leaf and yard waste depot. Disposal and recycling services are paid for primarily through a combination of the tax base and user fees.

## 7.5 Existing Program Costs

Based on the published 2010 WDO Datacall information, the net<sup>1</sup> recycling cost for the Town of Prescott was \$55,917. This amounts to \$240 per tonne, \$14 per capita and \$25 per household. The target cost for the Small Urban group is \$213 per tonne, so Prescott is slightly higher than the "municipal group" average.

Table 9 - Worksheet 7e1 Existing Program Costs

	\$/Year
Total Net Residential Recycling Costs	55,917
Net Residential Recycling Costs per tonne	240
Net Residential Recycling Costs per capita	14
Net Residential Recycling Costs per household	25

Source: 2010 WDO Datacall ([www.wdo.ca](http://www.wdo.ca))

## 7.6 Anticipated Future Waste Management Needs

Even though the population growth in the Town is not expected to be significant over the next ten years, the table below depicts the expected growth rates for solid waste generation and Blue Box material recovery. As noted in the Background Report to the Official Plan, the population of Prescott is in decline. A number of factors are associated with this decline, including an aging population, out-migration of young people, lack of significant immigration, and a general reduction in the size of families. Since 1991, Prescott has experienced a net population decrease of 283 people, or about 6.3 percent. It is estimated that the decline in population will level off in the next decade before increasing very slightly. The future population of the Town is an important consideration in this Official Plan as key principles of the Plan focus on enhancing the quality of life, creating a healthy and vibrant economy, and preserving the historic sense of place in the community. In order to achieve the goals and objectives associated with these Plan principles, the Town of Prescott has a goal of 1% projected growth per year starting in 2011.

Table 10 - Worksheet 7f Anticipated Future Needs

	Current Year (2009)	2014	2019
Population	4,122	4,332	4,553
Total Waste (tonnes)	1,562	1,641	1,725
Blue Box Material Available (tonnes)	425	446	469

<sup>1</sup> Net recycling costs is calculated by subtracting the gross recycling costs from any revenue or rebates or subsidies received

## 8. Overview of Recycling Options

Recycling and organics options identified for the Town of Prescott were considered on the basis of feasibility with respect to implementation. While the Town is not bound to consider only the options listed below, it is felt that there are ample opportunities for the Town to increase diversion and recycling program performance without having to incur major expense.

### 8.1 Goals, Targets and Advocacy

#### Adopt an Annual Diversion Target

Goal setting would allow the Town to promote a target and measure progress. The main principle is that the establishment of an achievable but challenging target will give the Town a goal against which waste diversion progress can be measured. This goal could be an annual per household disposal target, a percent diversion or a year-over-year improvement.

#### Promotion of sustainable policies

The Town would advocate and promote sustainable policies and programs to other government agencies at the federal and provincial levels, such as full extended producer responsibility for recycling.

#### Supporting waste minimization policies

This strategy assumes that the Town would officially support policies that promote waste reduction. This strategy could take the form of a "PreCycling" campaign or "shop smart" programs. The focus is to provide information and support that encourages personal decision-making to make waste reduction a priority at a critical point in the process: the purchase of goods.

### 8.2 Programs and Operations

#### Collection Frequency

By increasing the relative collection frequency for programs related to diversion (recycling, possibly organics) versus those related strictly to disposal, the Town will make it easier for their residents to recycle. An example of this would be to reduce garbage collection to once every two weeks while providing weekly recycling collection. In the future, especially if an organics program is considered, the Town may wish to co-collect materials to provide collection efficiencies and cost savings.

#### Single Stream Recycling

This is collection of Blue Box recyclables in a manner that requires no separation in the home. The current two-stream (fibres and containers) system seems to be working well for Prescott residents. If curbside organics is implemented in the future, the Town would be in a position to consider a switch to single-stream recycling. When recycling is co-collected with organics, it may provide cost savings.

#### Expand Eligible Blue Box Materials

Given the recent addition of new materials to the Prescott program, not much is left to be added, but new technologies and processing approaches continue to be developed to differentiate and sort an expanded list of materials. The remaining materials commonly considered (but not necessarily accepted) are film plastic and polystyrene foam.

#### Capacity Review and Free Blue Boxes

The concept is simply to assure that Prescott residents have enough recycling capacity, more specifically adequate space in their Blue Boxes to store recyclables between collection days. This would prevent the need to place recyclables into the next option, namely the garbage receptacle, because the household Blue Boxes were overflowing with material.

#### Community Recycling Centres (CRCs)

This is a strategy that is becoming increasingly popular in the GTA (Peel, York, Hamilton), and would see the development of existing Town properties to serve as multi-purpose drop-off centres. The purpose is to enhance opportunities for residents to divert materials.

#### Contract Incentives and Penalties

Develop contract language and approaches that will reward desired performance or incentivize increased waste reduction, recycling and organics performance.

#### Public Space Recycling

This is a broad strategy, generally requiring the cooperation of Parks and Recreation staff to install and collect recycling containers in high traffic areas, especially where evidence of container use is pronounced. Areas include outdoor parks, trails, arenas and public facilities.

### 8.3 Policy Approaches

#### Bag Limits

By-laws stipulate that residents may only set out a prescribed number/size of waste containers. Research indicates that significant waste reduction occurs when a three bag limit, or less, is imposed.

#### User Fees, Pay-As-You-Throw

There are a number of financing strategies that could be used to promote waste diversion. In the case of Prescott a portion of the waste management system cost is offset by bag revenues. The next step for the Town is to increase bag/bag tag values to recover all costs.

#### Mandatory Recycling/Source Separation By-law

The establishment of by-laws stipulating source separation, again in support of existing waste diversion opportunities. This strategy would require meaningful enforcement support.

#### Use of RFID Technology

RFID (Radio Frequency Identification) Technology is a supporting technology for accountability systems, such as user pay, where RFID tags are inserted into containers and scanned so that collection data and billing functions are automated.

### 8.4 Support and Incentives

The following options are more commonly associated with multi-family residences, but in some cases can be adapted to curbside operations for single family homes.

#### Customer Rewards Programs

Selected residents are rewarded by the municipality for participating in the recycling program using different approaches such as financial rewards, media recognition, or at an award ceremony. Curbside recognition is also possible: a Gold Box is awarded for good "on the spot" curbside performance or for passing a quiz. Both methods are used to reward and educate. Other options include "cash for trash".

#### Payback Savings/Rewards

Residents who are shown to participate in the recycling program receive a rebate on their garbage bill or revenues from recyclables and/or surpluses incurred from the operations of the waste management program are rebated back to the residents. Residents in Prescott do not receive a "garbage bill" per se, so other mechanisms for rewards might include vouchers, coupons and gift cards.

#### Pledges and Feedback

This option is closely related to the previous item. Residents who pledge to participate in the recycling program become eligible to receive a rebate on their garbage bill or revenues from recyclables and/or surpluses incurred from the operations of the waste management program are rebated back to the residents. The rewards serve as feedback on program performance.

### 8.5 Public Engagement and Education

#### Enhanced Promotion and Education

Promotional and educational efforts can be enhanced by either by increasing the volume of materials and media used to promote the program or by targeting the message at problematic materials, poor performing sectors or operational deficiencies (such as contamination of recyclables by non-recyclables).

in the Blue Box). It is generally advisable to map out an enhanced P&E campaign by developing a Communications Plan.

#### Targeted Promotion and Education

Promotions that target a particular material, perhaps a material for which recovery is low when compared to other programs, or a newly added material, or a particular collection issue such as contamination by non-recyclables.

#### Neighbourhood Waste Diversion Challenges

Friendly neighbourhood challenges are encouraged to determine and recognize the best recycling community in the Town.

#### Outreach and Green Team Concepts

The principal difference between outreach and promotion and education is that the former would involve personal contact and stakeholder engagement, such as workshops, the management of an education centre, the hosting of events or display opportunities at community centres and other public venues, and many other proactive approaches that foster support for programs. In some cases municipalities will use student green teams to survey residents and reach out to local audiences. This could also include outreach to schools, through colouring contests or other events.

## 8.6 Multi-family Recycling

There are numerous strategies and actions that can be used to encourage recycling and waste diversion in multi-residential settings. As these differ from property to property, strategies can vary according to the situation. A partial list would include:

- Volunteer animators/ambassadors/champions
- Feedback to buildings such as the use of "barometers" and other graphic representations to tell residents how their building is doing
- Garbage chute closure
- Promotion and support for Multi-Residential Recycling Program strategies for tenants and property managers and superintendents
- Recyclebank-style rewards program, where residents receive financial or other rewards for participating in the recycling program
- Recycling pledge for landlords and/or tenants, in the latter case a tenant lease might contain a paragraph committing the tenant to participate in waste diversion programs in the building
- Recycling required to be as convenient as garbage collection: the Town establishes requirements that recycling must be as easy as garbage collection in local multi-family residences
- Multi-family specific recycling info and instructions provided to new and existing tenants, building owners are required to provide waste diversion educational packages to new tenants and existing tenants on an annual basis
- Multi-Residential Working Group, where the Town supports a group that meets on a regular basis to discuss waste diversion challenges and strategies
- Waste diversion plans or recycling plans, where building owners must complete recycling plans and submit for Town approval
- Green Cart Implementation in multi-family settings

## 8.7 Small Community Establishments

#### Small Businesses

Adding small businesses to the program which could reasonably participate in a the Blue Box program because all or part of their waste volumes are similar to household quantities and they are able to place these items at the curb such that the existing program method does not have to be altered.

## 8.8 Household Organics

### Backyard Composting

The distribution, subsidized or otherwise, of backyard composting units potentially supported by user clinics and educational material.

### Depot Organics Collection

The provision of a collection bin for household and kitchen organics at a centralized location.

### Curbside Organics Collection (Green Cart)

The provision of a curbside collection service, such as the popular "Green Cart" program, for household and kitchen organics.



## 9. Priority Initiatives

This section contains a brief description of each of the Priority Options that were reviewed and scored. These Options were selected for implementation by Prescott following a review and ranking process. In general residents are satisfied with current service levels, so a strong communication message would be needed if any changes were to be made to either Blue Box or garbage collection schedules or frequency. No such changes are proposed at this time, but the Town should keep this in mind when undertaking program planning.

### 9.1 Adopt an Annual per Household Disposal Target

Based on the 2009 WDO Datacall, Prescott residents disposed of 191.93 kg/capita. Based on a review of similar municipalities (Small Urban municipal grouping in the WDO Datacall, 2009) it would be possible to establish a reasonable target. For instance, the average for the group in 2009 was 255.18 kg/capita, and the range from high to low is 390.72 to 179.43. This suggests that the Town is doing very well when compared to others. A reasonable target might be to match the best in the group, at an annual per capita rate of disposal of 180 kg, and review annually to see if the Town's performance is changing or whether the comparative target has changed.

Disposal rates are considered to be a good baseline for comparison since it is common to all municipalities, while diversion programs differ in how they are operated and the materials they divert. Disposal, on the other hand, allows a municipality to measure the impact of all diversion and waste reduction programs without having to compare specifics in order to account for program variations.

### 9.2 Support and Promote Sustainability and Waste Minimization Policies

Two approaches have been combined since they are closely aligned. Whether the Town of Prescott is by resolution or other means supporting or advocating specific policies at a senior government level, or at a personal level, the intended result is to influence behaviour and encourage all responsible parties to do what is required to reduce waste and assume responsibility for waste-related issues.

To appeal to people on a personal level the Town can resolve to lead the way, promote waste-minimization behaviours, and perhaps declare support for Waste Reduction Week or a home-grown appeal of some sort.

Senior governments can be approached to support policy initiatives that influence manufacturers, producers and all generators of waste. These policy initiatives could be related to packaging, program cost-sharing, or product standards. In some cases other organizations, like the Municipal Waste Association (MWA), the Ontario Waste Management Association (OWMA), the Association of Municipalities of Ontario (AMO) or the Recycling Council of Ontario (RCO), advocate policies that benefit municipalities and ask for support in the way of resolutions.

This is felt to be a low to no cost way for municipalities to make have their voice heard in discussions that impact their operations and their taxpayers.

### 9.3 Review Blue Box Capacity and provide Free Blue Boxes

Based on 2010 WDO Datacall reporting, there are a few materials currently not collected in the Prescott recycling program that are collected in numerous other places. The exceptions appear to be empty paint cans, polystyrene and film plastic. None of these would add significant tonnage to the program and the latter two have the potential to add cost within little benefit. Some thought may be given to adding these materials, as long as their inclusion is given careful deliberation before proceeding. This is where a review of existing household Blue Box capacity can help. In conjunction with material expansion, a capacity audit would be conducted to determine if additional household Blue Box capacity were warranted. Costs would include additional collection, transfer and/or processing costs, a budget for a Blue Box capacity audit and

the purchase and delivery of additional Blue Boxes to residents to accommodate the increased volume of material.

Based on information from the public comment period, the majority of respondents have either full or over-flowing containers. Most of them also augment their existing Blue Boxes with other containers. This need for more recycling capacity was also supported as a Town policy – most residents felt that the Town should encourage recycling by providing new or replacement Blue Boxes free of charge.

#### 9.4 Increase Garbage Bag Rates to Cover Entire Cost of Waste Management

The Town currently recovers a portion of its cost through the sale of bags. It is generally felt that when garbage presents a tangible cost to a resident they are encouraged to maximize their use of diversion programs, such as the Blue Box program. An increase in the bag price will accomplish two things: provide more incentive to recycle and provide a means of full cost recovery for the Town. Responses to this policy indicate that while most residents feel the Town should continue to sell plastic or paper bags for garbage, there was not a large amount of support for increasing the cost of these bags.

Some care should be taken when implementing full cost recovery. First, this presents a matter of good faith with taxpayers that, if promoted, must be demonstrated. More specifically, if the remaining cost of waste management is being taken off the tax base it is recommended that the Town be prepared to show how this will be passed on to taxpayers. Secondly, it is generally felt that if an increase in the bag price gets the desired result (more recycling, more waste reduction), then the bag cost calculation should take into account that the cost will be spread over fewer bags than currently collected.

#### 9.5 Mandatory Recycling/Source Separation By-law

The enactment of mandatory recycling by-laws has been shown to increase participation rates, and implies a level of enforcement by the municipality. The preferred approach is to support implementation with a public education program that reinforces the availability of the recycling program as a means to meet the requirement of the by-law. In other words, the campaign is put in place to remind people that they have the means at hand to cope with the by-law.

It is best to assure, as suggested in Option 9.3 Capacity Review and Free Blue Boxes, that households have the required recycling capacity to cope with the by-law, and to make this capacity (one or more Blue Boxes) readily available to them. A recycling best practice is to make Blue Boxes for new capacity or for replacement available for free.

Even without enforcement this type of by-law is known to have an impact, and in conversation with various municipalities in Ontario, there can be as high as a 10% increase in recycling. It is generally thought that there are people who, when they are made aware that such a by-law exists, tend to abide with what they believe is the law.

Curbside enforcement can be accomplished in a number of ways, selectively by either the collection contractor or Town staff. The contractor will almost certainly detect, by sound, the presence of recyclables in the garbage stream. The contractor could, for instance, leave a notice at the property that after a certain date garbage with recyclables will no longer be collected. Some municipalities will conduct campaigns to tear open garbage bags to audit the contents, properly planned such that staff or contracted forces are properly dressed and prepared to open, view, and then re-bag or dispose of the contents.

#### 9.6 Enhance the Promotion and Education Program

The WDO Best Practices Report (2007) indicates that, in general, municipal recycling programs that achieve 60% recovery of available Blue Box material spend about \$1 per household annually. The range for these programs was 83¢ to \$1.16, compared to P&E spending for Prescott of 31¢ per hhd/yr. To achieve the mean of \$1, an additional 69¢ per household or \$1545 would be added to the P&E budget. This is considered to be a good investment in program promotion, as public comment indicates that most

residents work within the Town, so there is little influence of outside promotion and education materials to cause confusion.

At the same time the Town has recently enhanced the scope of materials covered by the recycling program, and based on the published list there is great potential for diversion. The program is comprehensive and this may mean that there is an opportunity to emphasize the new and improved Blue Box program.

The additional funds could be used to enhance current promotion and education efforts: communications could be targeted at specific issues such as recovery of certain materials. Based on the public comments, a number of residents are not aware that the Town now collects aseptic and gable top containers, and empty aerosol containers. As well, our sample suggests that many residents did not know about leaf and yard waste collection or the Town's Christmas tree collection program.

Potential promotion and education initiatives are limitless: they could include the revitalization and direct distribution of existing promotional materials, the use of social media tools such as Twitter and Facebook, developing a renewed recycling campaign, and revamping the Town's website to include a more "graphics oriented" recyclable items list. Regarding the latter, the CIF hosts a site where custom made graphics depicting a broad assortment of recyclable items are available.

## 9.7 Outreach "Green Team"

Outreach, as compared to promotion and education, is a proactive activity that seeks out audiences for personal contact, events and speaking opportunities. Further community engagement through workshops, event hosting and display opportunities is part of this strategy. To keep these activities cost-effective, one approach is to engage co-op students and make this part or all of their job, supported with a reasonable budget for supplies, materials and transportation.

Potential targets for a comprehensive outreach program include schools, community groups, apartment buildings, festivals, public events, and fall fairs.

## 9.8 Backyard Composting

Backyard composting offers residents an opportunity to manage green wastes at home, and in the past 15 to 20 years a large number of municipalities have and continue to offer backyard composters to residents, as does the Town of Prescott at \$30.00 before taxes. Like recycling, the provision of home composters to residents at cost or less is actually prescribed in Regulation 101/94.

In many cases programs reached the saturation point after hosting a number of high-profile distribution events and there is little or no active support for backyard composting. WDO lists this type of diversion as "Residential On Property", which in 2009 ranged from 0 to 10% in terms of diversion, but is in effect almost impossible to verify since material stays on site and is never weighed or quantified.

Regardless, continued promotion of the program has potential to divert a portion of the waste stream in a very cost effective way since the cost of the unit is recovered. Reminders to people who have composters may help to maximize their potential use.

Public comments indicated an interest in backyard composting and organics. This is definitely something the Town should continue to consider, but most like only from an education approach to make use of existing facilities.

## 10. Planned Recycling System

Table 11 - Worksheet 9 Planned Recycling System

Worksheet 9: Summary of Priority and Future Initiatives

A	Priority Initiatives	B Score	C Approximate Total Cost		D
			Implementation [Worksheet 8, Column C x number of households]	Operation [Worksheet 8, Column D x number of households]	
1	Mandatory Recycling/Source Separation By-law	28	-	-	
2	Enhance the Promotion and Education Program	26	-	\$1,600	
3	Increase Bag Tag Rates to Cover Entire Cost of Waste Management	26	-	-	
4	Adopt an Annual per Household Disposal Target	25	-	-	
5	Support and Promote Sustainability and Waste Minimization Policies	23	-	-	
6	Backyard Composting	23	-	-	
7	Review Blue Box Capacity (implementation – capacity review cost) and provide Free Blue Boxes (operation – new box per hhd every three years)	22	\$2,500	\$3,800	
8	Outreach "Green Team" (operation – assume coop student)	21	-	\$5,000	
<b>Estimated Total Cost (Priority Initiatives)</b>			<b>\$2,500</b>	<b>\$10,400</b>	
<b>Future Initiatives</b>			Future Initiatives for Prescott have not been subject to more detailed costing. Most are highly dependent on the results of competitive bidding and require that level-of-service decisions, which are not known at this point, be made. For other (such as Public Space Recycling) decisions about the operational scope and reach of the program would be required before costing could be considered.		
9	Single Stream recycling	19			
10	Curbside Organics Collection	18			
11	Public Space Recycling	17			
12	Depot Organics collection	16			
13	Increase recycling collection frequency	15			
14	Multi-family recycling	15			
15	Expand Blue Box Materials	14			

Future Initiatives, which are options that are not proposed for immediate implementation, are recommended for review for possible implementation prior to the five-year review period for this Strategy.. More specifically, there are a number of options that are best brought forward in conjunction with the tendering of a new waste collection and recycling contract. The procurement process is the best time to solicit pricing and assess additional program costs and/or new synergies, such as cost-effective collection configurations for waste, recycling and organics collections. It is recommended that some approaches be deferred for review at the next contract cycle.

A number of options were considered to be inappropriate for immediate implementation, in particular because they will require additional study and discussions with the Town's contractor. The current contract allows for expansion of services, but any additional service will be subject to negotiation.

It is difficult to negotiate program and service changes mid-contract as the contractor has generally committed capital to a given level of service. For instance, where organics collection is not part of the existing contract, one cannot expect the contractor to switch over collection capital to accommodate another stream using new co-collection trucks. The existing fleet may not be fully amortized and the capital outlay not yet recovered. Regardless, since the Town of Prescott has a good working relationship with their contractor, the Town may wish to share a vision of the future and consult with their existing contractor on what opportunities might be available prior to the end of the existing contract term.

## 11. Implementation Steps

**Table 12 - Worksheet 10 Implementation Steps**

Initiatives	Steps	Timeline
Mandatory Recycling and Source Separation By-law	Staff report submitted for Council review	As per Council meeting schedule
Enhance the Promotion and Education Program	Add to budget as budget deliberation item	Next budget cycle
Increase Bag Tag Rates to Cover Entire Cost of Waste Management	Staff report submitted for Council review Add to budget as budget deliberation item	Next budget cycle
Adopt an Annual per Household Disposal Target	Council resolution	As per Council meeting schedule (immediate)
Support and Promote Sustainability and Waste Minimization Policies	Council resolution	As per Council meeting schedule (immediate)
Backyard Composting	Staff report submitted for Council review Add to budget as budget deliberation item	Next budget cycle
Review Blue Box Capacity and provide Free Blue Boxes	Staff report submitted for Council review Add to budget as budget deliberation item Capacity review	Next budget cycle
Outreach "Green Team"	Staff report submitted for Council review Develop strategy	Next budget cycle

## 12. Contingencies

Planning, development and implementation 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. Risks and contingencies associated with this plan include:

Table 13 - Worksheet 11 Contingency

Risk	Contingency
Insufficient funding	Raise bag fees – of concern will be the effectiveness of increased bag rates, which may cause a reduction in set out of bags. If this is the case, which would signal a measure of success, it may be necessary to revisit or adjust the bag rates. The initial calculation for new bag rates should assume a drop in set out, we suggest 10% but this is an estimate, so that if there is a drop the revenue shortfall is minimized. Where the policy is "too successful" and bag rates become unpalatable, it may be necessary to reconsider covering a portion of the cost from the tax base. If the estimate is too much and revenues exceed budget, bag fees can be reduced or new programs supported.
	Options recommended are relatively feasible and do not require a large outlay
	Increase to full cost recovery over a period of time
	Explore and apply for other funding sources
	Delay lower-priority initiatives
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) and outreach
Contracts	The existing waste collection contract is a key factor. A number of actions are not viable since they cannot be accommodated within the existing contract. If the Town wishes to consider these options, discussions between the Town and the Contractor to identify ways to facilitate change would be necessary.
Full Extended Producer Responsibility (Blue Box)	Timeline of full EPR is unknown, but could favourably impact the Town by covering the full cost of the Blue Box program (as opposed to 30 to 50% funding as is usually the case in Ontario). If EPR becomes a reality, implementation may take several years. This may create an opportunity for municipal recyclers to recover all their expenses, or make municipal recyclers "contractors" to Stewardship Ontario. In terms of the initiatives in the Prescott WRS, the additional support could favourably impact any Blue Box related expense: public education, multi-family implementation, possibly public space recycling, contract costs and program changes (single stream, collection frequency, etc)

## 13. Monitoring and Reporting

Once implementation of the strategy begins, it is important to monitor the performance of its initiatives against the baseline established for the current system. Establishing defined performance measures is considered a Blue Box program fundamental best practice. In the case of Prescott, adoption of the recommended actions would require measurement of recycling program performance and disposal rates to review the effectiveness of the policies and public education programs, as well as monitoring of the bag revenues in case an adjustment is required.

**Table 14 - Worksheet 12 Monitoring and Reporting Program Outline**

Parameter	Tools	Frequency
Total waste generated recycled and disposed (by type and weight)	Measuring of wastes and recyclables at transfer station/disposal site i.(e.g., weigh scale records)	Each load, review monthly
Diversion rates achieved (by type and weight)	Formula: (Blue Box materials + other diversion) ÷ Total waste generated * 100%	Monthly
Program participation	Customer survey (e.g., telephone); monitoring set-out rates. Include all programs including backyard composting	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 to improve	All sources: year to year comparisons; WDO Datacall based comparisons to other programs; customer surveys; contractor feedback re residues, contamination, poor performing materials, poor performing collection areas; WDO funding variations; year-to-year and season-to-season comparisons	On-going
Review of Recycling Plan	A periodic review of the Recycling Plan to monitor and report on progress, ensure that the selected initiatives are being implemented, and move forward with continuous improvement	Every 3 to 5 years
Composters Sold	Almost impossible to calculate exact amount diverted on site, but new units sold may indicate that there is interest in the program	
Bag Revenues vs budget	Actual revenue versus budget, compare against volume sales if possible	

## 14. Conclusions

This Waste Recycling Strategy and Organics Plan outlines a number of actions that could feasibly implemented at low cost to improve the performance of the programs and generate revenues to cover waste program costs in the Town of Prescott. The largest single determining factor in any decision to make more substantial changes to the recycling and organics programs is the content and length of the current and relatively new waste and recycling collection contract, which has approximately 6years left with options to adjust (based on the May 31, 2010 end date of the previous agreement).

The existing contract does offer a full scope of collected recyclables, resulting in an opportunity to maximize recycling recovery. Also, the existing contract is based on a per/household basis, meaning that recycling and garbage tonnes are interchangeable, and while cost is not reduced with more recycling neither will it increase. The financial advantage lies with WDO funding: the more recycling recovered the better the program performs, and this has the potential to increase the Town's funding from the WDO.

Unfortunately, in order to cost-effectively accommodate a more aggressive program by collecting kitchen organics, often referred to as Green Cart organics, it is usually best to have potential contractors consider waste, recycling and green carts as an integrated system and bid on service levels that could result in either no net added cost and possibly even reduced cost (garbage frequency goes down as weekly Recycling and Green Cart take on the majority of materials available in the waste stream). Green Cart as an added service that is available with the Town's current contract, and would be subject to negotiation with the contractor.

This WRS and Organics Plan has identified some opportunities to maximize recycling recovery through policy and promotional approaches, and to support waste management through the bag fees. WDO funding is difficult to predict since part of the funding is based on relative factors, specifically the performance of other municipalities in Prescott's WDO municipal grouping, but recommended actions in this report do have the potential to result in increased funding that may help offset related expenditures.