



**WE'RE ALL IN THIS**  
**TOGETHER**



**EXECUTIVE SUMMARY**

December 2015

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Our Waste Management Plan was developed with the Assistance and Guidance of Cambium Inc. and CM Consulting Inc.



## 1.0 INTRODUCTION

Waste management represents a significant cost to our property owners (\$1.3 million in 2014) and is a growing matter of interest in our community as our population increases. As such, the Municipality of Trent Lakes (MTL) initiated this Waste Management Plan (WMP) in order to improve our waste management programs.

Through the development of our WMP, three specific objectives were confirmed as follows:

1. Increase waste diversion and reduce residual (landfill) waste
2. Improve the efficiency of our waste management program
3. Enhance waste education for our residents

The preparation of our WMP was completed over a 7-month period, and included the following steps:

1. Project kickoff meeting between our consultants and MTL representatives to discuss our WMP approach
2. Assessment of our current waste management system
3. Assessment of waste industry trends, best practices, and future legislation changes
4. Development of objectives for future waste management
5. Development and assessment of the options
6. Development of the Draft & Final WMP

Stakeholders were invited to participate at two key points in the development of our WMP: during Steps 2 and 6 noted above. Comments and feedback gathered during these engagement events were taken into consideration in the development of the WMP.

Throughout the various sections of the WMP, “Action Opportunities” were identified and noted, then further analyzed in the review of options section.

## 2.0 CURRENT WASTE MANAGEMENT SYSTEM

### 2.1 OVERVIEW

Our waste management system is made up of four components: recycling/reuse programs, collection systems, promotion and education, and waste disposal facilities. These components are summarized below.

**Table 1 - Overview of Current Waste Management System**

Recycle & Reuse Programs	Collection Systems	Promotion & Education	Waste Disposal Facilities
Containers Fibres Waste Electrical and Electronic Equipment (WEEE) Municipal Hazardous Waste and Special Waste (MHSW) Yard Waste / Brush Household Source Separated Organics (SSO) Re-Use Centre Tires Appliances / Scrap Metal Bulky Items Construction & Demolition (C&D) Waste	Waste Pass Access Residential Punch Card - 52 bag annual limit Pay-As-You-Throw also available without Punch Card Tipping Fees	Transfer Station Signage Municipal Website Communication between Staff and Users Tax Mail-out Insert Quarterly Newsletters "MyWaste" App Newsletter Local Media Advertising Program Literature County Website	4 Operating Transfer Stations* 6 Closed Landfills Special Collection Events Annual Environmental Monitoring Program  * All Waste Hauled to Peterborough County/City Waste Management Facility

Our current system of waste management requires property owners to transport their waste to one of four waste transfer station sites. As opposed to a landfill system, where some or

all of the waste remains on site, a waste transfer station system means that the waste is temporarily stored at these sites, and then transferred to an alternative location such as a landfill or a materials recovery (recycling) facility.

Our waste transfer stations are spread across the Municipality: Buckhorn, Bobcaygeon, Cavendish and Crystal Lake. At each transfer station, waste is divided into two streams; landfilled waste (garbage) and diverted waste (recyclables, organics, re-use items, etc.).

### **2.1.1 *ROLE OF THE COUNTY WASTE MANAGEMENT SERVICES***

As a member Municipality of The County of Peterborough (the County), much of our waste management program is managed and controlled by the County's Waste Management Division. Specifically, the County is responsible for the Blue Box recycling and the Municipal Hazardous or Special Waste (MHSW) programs. In addition, the County works cooperatively with its member municipalities on other waste diversion programs including organics (depot, backyard composting), waste electronics and electrical equipment (WEEE), and construction and demolition (C&D) material recycling. The County also jointly owns the Peterborough County / City Waste Management Facility (PCCWMF) on Bensfort Road in Peterborough, Ontario. Residual waste from our transfer stations is currently hauled to the PCCWMF by 3<sup>rd</sup> party contractors.

It is important to note that the PCCWMF has an estimated 9-12 years left before it reaches capacity, which will affect our waste management program. In addition, pending changes to the existing County Waste By-Law will also affect our waste management system. Both of these factors are taken were taken into account in the development of our waste strategy.

## 2.2 ADMINISTRATION

### 2.2.1 STAFF & TRAINING

Staffing for all transfer stations is currently our responsibility. We operate with a total of eight permanent part-time and four casual part-time staff. The only staffing that is not our responsibility is the operation of the seasonal MHSW program offered at the Buckhorn site. This program is staffed by the County of Peterborough, due to the special training required for staff hazardous wastes.

Training of our staff is delivered both internally, and by the County, with each entity focused on different areas. Our internal training focuses on:

- Workplace Hazardous Materials Information System (WHMIS)
- Violence and Harassment
- Health & Safety
- Municipal policies and procedures.

In addition, new transfer station staff receive on-the-job training by our senior staff at each site. A new and more formalized staff training program has recently been put in place.

Training of our staff by the County focuses more on the diversion programs and has included:

- an “all staff” training day which reviewed some of the current programs and highlighted new diversion programs.
- an annual “Depot Attendants Day” which includes a tour of a facility diversion program facility

Generally, these training programs are not mandatory and, as a result, not all of our staff attends. Enhanced training of our team was identified as an opportunity to improve operations and increase waste diversion.

### 2.2.2 **USER WASTE PASS SYSTEM**

Our Municipality operates our transfer stations using a waste disposal pass and bag limit system. The system differs slightly depending on the property type, and whether it is vacant or occupied. Each system is described below.

#### **Waste Disposal Pass – All Properties**

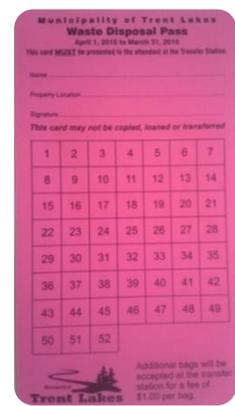
All property owners, regardless of property type, require a Waste Disposal Pass in order to use our transfer stations. These passes are issued annually with each property owner's interim tax bill. They are valid from April 1<sup>st</sup> to March 31<sup>st</sup> of the subsequent year. The colour of this pass is changed from year to year, to assist with easy recognition by our Transfer station staff. A Waste Disposal Pass must be presented at the transfer station, or the property owner will be refused entry.



Two significant administrative challenges related to our current waste pass system were identified through the development of our WMP. The first has to do with property owners who rent their properties on a short-term basis, with their tenants often showing up at transfer stations without their waste pass, and unaware of the various diversion programs in place. The second pertains to lost waste passes, with numerous calls being fielded by our municipal administration staff by property owners wanting to replace their lost passes. Our WMP should address these issues.

#### **Waste Punch Card – Residential Properties**

A Waste Punch Card is also issued with the interim tax bill for all registered owners of occupied residential properties. This card allows residents to dispose of 52 bags of household garbage per year (equivalent to one bag per week) at no charge. The punch card is valid for residential 'household' waste only – all other waste streams are subject to other rules and tipping fees where applicable. If this card is not presented at the transfer station, or if all 52 holes have been punched, there is a fee of \$1.00 per bag (\$2.00 for larger bags).



### 2.2.3 **WASTE MANAGEMENT CONTRACTS AND AGREEMENTS**

Our Municipality maintains agreements and contracts with both the County and third party service providers which facilitate the delivery of our current waste and diversion programs.

We maintain an agreement with the County to control and manage a number of our waste diversion programs, in exchange for payment through the annual County levy. These programs include landfilled waste tipping fees, the Blue Box recycling program, the MHSW program, and the Source Separated Organics (SSO) pilot program. In addition to the above, the County works to coordinate our WEEE diversion program, which is not funded through the levy, but instead is a net revenue generator through the sale of the waste.

We also maintain contracts with two (2) third party waste management service providers: North Kawartha Disposal and Artic West.

North Kawartha Disposal handles the haulage of our waste to the landfill (PCCWMF), and also supplies the waste collection bins used at our transfer stations. The recent switch, in 2014, to North Kawartha Disposal has resulted in significant savings on haulage pricing versus our previous supplier. North Kawartha Disposal is also working to develop a “bear-proof” lid to sit atop garbage containers in order to help address the safety issue associated with black bears coming on to the transfer station sites.

Arctic West handles the haulage of our scrap metal, C&D waste, furniture, appliances, and wood waste. The company also handles the shredding of all brush and yard waste gathered at the applicable transfer stations (Bobcaygeon and Buckhorn). The contract provides partial remuneration to Arctic West in the form of all scrap metals and white appliances at the transfer stations.

### 2.2.4 **WASTE MANAGEMENT BY-LAWS**

Our waste programs are subject to both our own municipal by-laws and County by-laws. Our municipal waste management is governed by By-Law B2012-038, which outlines the locations of our waste transfer stations, defines the waste disposal pass and card, and sets

out items that may or may not be accepted at each transfer station, as well as any associated tipping fees.

The County has several By-Laws in regards to waste management, which cover various areas including: the Blue Box Recycling program, mandatory recycling, banned items, and the authorization to assume authority over member municipalities regarding waste disposal. These By-Laws will soon be repealed by a new, overriding County Waste Management By-Law which is currently in the draft stage.

### **2.3 STAKEHOLDER ENGAGEMENT**

The development of our WMP included the engagement of stakeholders several times during the process. Stakeholders included transfer station staff, administrative/management staff, property owners, and County waste management representatives.

#### ***TRANSFER STATION STAFF MEETING***

An on-site meeting with transfer station staff was held to gather information and better understand day-to-day waste management operations. In addition staff were also asked for their opinions and ideas related to challenges in their work.



#### ***TRANSFER STATION USER SURVEY***

A transfer station user survey was conducted in order to gather property owners' feedback and ideas related to our waste management program. Users were surveyed at each transfer station over two days. Paper copies of the survey were also available for pick-up and return at all transfer stations. In addition, an online version of the survey



was made available for residents to complete at home. A total for four hundred and sixty-five surveys were completed, 55% of which were by permanent residents and 45% by seasonal residents.

A summary of key findings from our survey responses is provided below.

- the top two WMP objectives were: “increasing recycling/diversion rate” (68%) followed closely by “community education related to waste/recycling” (65%).
- users were generally satisfied with the level of services offered at our transfer stations, but were interested in additional diversion programs including Source Separated Organics (kitchen waste), household hazardous waste, Styrofoam™, mattresses, and brush.
- 18% of our seasonal residents indicated that they were likely to become year-round residents in the next five years, while an additional 24% indicated “possibly”.
- 69% of respondents indicated that they did not want curbside garbage and Blue Box pickup.
- 85% prefer to maintain our current 4 transfer stations rather than moving to a single or two centralized stations offering more services.
- 47% felt that we should meet the County diversion rate target of 60%, while 32% felt that we should exceed it.

### ***DRAFT PLAN REVIEW***

Following the completion of our draft WMP, an Open House was also held to give our residents an opportunity to provide feedback. After the Open House, comments on the draft WMP were invited via an online survey. This gave users an important opportunity to have their voices heard and learn more about waste management in our Municipality.

All comments were considered prior to finalization of the WMP.

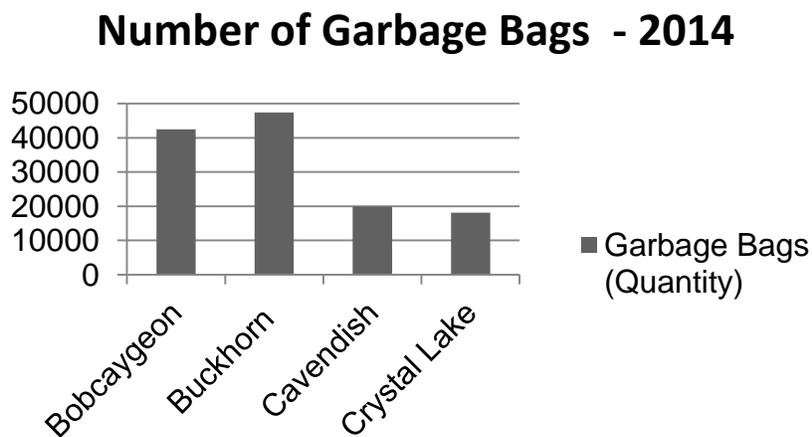
## 2.4 OPERATIONS ASSESSMENT

The Operations Assessment portion of our WMP included a review of all operational aspects of our waste transfer stations.

### 2.4.1 ACTIVITY BY TRANSFER STATION

Our Buckhorn Transfer station is the busiest of the four in terms of the amount of waste collected (Figure 1) and vehicle counts. Our Bobcaygeon site is the second busiest, while Cavendish and Crystal Lake are well behind, being located in less densely populated areas.

**Figure 1 - Annual Number of Garbage Bags & Vehicles Per Transfer Station 2014**



### 2.4.2 TRANSFER STATION SERVICES

Each transfer station provides various, but not the same services. Table 2 provides a summary of the waste services offered at each transfer station.

**Table 2 - Summary of Services Provided at Each Transfer station**

Waste Stream	Bobcaygeon	Buckhorn	Cavendish	Crystal Lake
<b>Blue Box Recycling</b>	Yes	Yes	Yes	Yes
<b>Hard Plastics (pilot project)</b>	Jul. – Sept. 2015	Jul - Sept 2015	No	No
<b>Electronics (WEEE)</b>	Yes	Yes	No	No
<b>SSO (kitchen waste)</b>	No	Yes	No	No

Waste Stream	Bobcaygeon	Buckhorn	Cavendish	Crystal Lake
<b>MHSW (hazardous)</b>	No	Yes (June to Oct)	No	No
<b>Tires</b>	Yes	Yes	Yes	Yes
<b>Scrap Metal</b>	Yes	Yes	Yes	Yes
<b>Furniture/Bulky Goods</b>	Yes	Yes	Yes	Yes
<b>Leaf &amp; Yard</b>	Yes	Yes	No	No
<b>Re-Use Centre</b>	Yes	Yes	Yes	Yes
<b>C&amp;D (construction)</b>	Yes	Yes	Yes	Yes
<b>Liquor Bottle Depot</b>	Yes	2016	Yes	Yes

### 2.4.3 **STAFF INTERACTION WITH USERS**

Our transfer station staff members are crucial to the success of our waste management program. Since we do not offer curbside service, our staff interacts with almost every property owner on a regular or seasonal basis.

The typical activities of our transfer station staff include greeting users at the gate or in the yard, checking waste disposal passes and punch cards, answering questions and directing users to appropriate disposal locations, assessing the assortment and volume of waste to be disposed of, tracking various metrics including number of bags of waste and number of vehicles, calculating and collecting any applicable tipping fees. They are also responsible for sorting bins and general site maintenance.

Currently, the process of interaction with users varies from site to site, as each site offers different services, has a different configuration, and sees a different volume of users.

The role of our transfer station attendants is integral to successful diversion. A good rapport with users, attentiveness to proper screening of waste, vigilant direction of users to appropriate bins, and willingness to sort bins and keep the site in order can go a long way in increasing the diversion rate.

## 2.5 FINANCIAL ASSESSMENT

### 2.5.1 SUMMARY OF ANNUAL REVENUES & EXPENSES

Below is a summary of the expenses and revenues related to our waste management program for the years 2012 to 2014.

**Table 3 - Annual Waste Management Expenses & Revenue (2012-2014)**

<b>Expenses</b>				
<b>Expense</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Avg. % of Expenses</b>
<b>Labour/Wages</b>	\$250,731	\$252,410	\$289,616	20%
<b>EI/ CPP/OMERS</b>	\$44,734	\$38,203	\$44,031	3%
<b>Recycling Bins (County Shipping Costs)</b>	\$28,460	\$30,678	\$38,355	2%
<b>Other</b>	\$19,777	\$20,995	\$76,857	3%
<b>Campground Blue Box Program (50%)</b>	\$5,092	\$5,197	\$4,864	<1%
<b>Recycling/ Compost Items</b>	\$428	\$523	\$734	<1%
<b>Telephone/Fax</b>	\$4,584	\$5,059	\$4,043	<1%
<b>Bldg. Maintenance</b>	\$7,957	\$5,279	\$6,051	<1%
<b>Monitoring</b>	\$105,117	\$185,674	\$171,835	12%
<b>Waste Haulage</b>	\$277,297	\$241,096	\$265,127	20%
<b>PIL Taxes</b>	\$ 6,396	\$8,631	\$8,593	1%
<b>Other Capital</b>	\$614	\$1,978	-	<1%
<b>General Levy to County</b>	\$465,000	\$465,000	\$465,000	35%
<b>Depot Levy to County</b>	\$35,000	\$35,000	\$35,000	3%
<b>Total</b>	<b>\$1,251,187</b>	<b>\$1,295,723</b>	<b>\$1,410,106</b>	<b>100%</b>

Revenue				
Revenue	2012	2013	2014	Avg. % of Revenues
<b>Tipping Fees</b>	\$ 86,540	\$ 106,092	\$ 120,586	100%

Net Expenses			
Net Expenses	2012	2013	2014
	\$ 1,164,647	\$ 1,189,631	\$ 1,289,520
<b>% Change</b>	-	<b>2.1%</b>	<b>8.4%</b>

As can be seen in Table 3, over 90% of our expenses are associated with four particular items: County levy, staff wages, waste haulage to landfill, and environmental monitoring.

The County levy is by far our largest expense item, and includes such items as landfill tipping fees, net Blue Box expenses, net MHSW expenses, the SSO program (Buckhorn), and Environment Days events.

Staffing related costs represent over 23% of our annual expenses. These costs are directly attributable to operating hours and the number of staff on hand. As such, opportunities to reduce these costs lie in reducing the transfer station operating hours or the number of staff working, while maintaining sufficient service for our residents.

Waste haulage to landfill represents almost 20% of our annual waste management costs. Over the past three years our average haulage cost has been \$119/tonne. In general, it is less expensive to haul our Blue Box materials. One way to lower our costs is to create less waste, or divert more of the waste generated to this program. Additionally, hauling the compacted fibre at our Buckhorn site is approximately one-third of the cost of hauling fibre in the 8-yard bins.

Environmental monitoring is required by the Ministry of Environment & Climate Change on annual or more frequent basis.

## 2.6 PERFORMANCE ASSESSMENT

Our waste management performance provides us with insight as to how we are doing over time, and to which areas we can look to improve. Several performance metrics were examined as part of the development of our WMP.

### 2.6.1 LANDFILLED WASTE VS DIVERTED WASTE

Our waste can be broken down into two categories: diverted tonnage and landfilled tonnage. A key objective of our WMP is to increase diversion and reduce the amount of waste going to landfill. Table 4 shows the two categories over the past 5 years.

**Table 4 - Summary of Landfilled and Diverted Tonnage 2010 - 2014**

Material Type	2010 (Tonnes)	2011 (Tonnes)	2012 (Tonnes)	2013 (Tonnes)	2014 (Tonnes)
Total Diverted Tonnage	1400	1767	1385	1077	1975
Total Landfilled Tonnage	2624	3061	2563	2042	2025
<b>Total Tonnes</b>	<b>4024</b>	<b>4828</b>	<b>3948</b>	<b>3119</b>	<b>4000</b>

In 2012 and 2013, we experienced a significant drop (approximately 500 tonnes per year) in landfilled waste. This was partially attributed to the new Waste Management By-Law adopted on September 1, 2012, which limited free landfilled waste to 52 bags per year for residential property owners (all additional waste is charged a tipping fee of \$1.00 per bag). Our landfilled waste levelled off in 2014 at 2,025 tonnes.

At the same time, our diverted tonnage dropped in both 2012 and 2013, before jumping almost 83% in 2014. This dramatic increase was driven mainly by new practices for C&D waste and for Leaf & Yard waste, which allowed them to be classified as “diverted” waste.

### 2.6.2 DIVERSION RATE

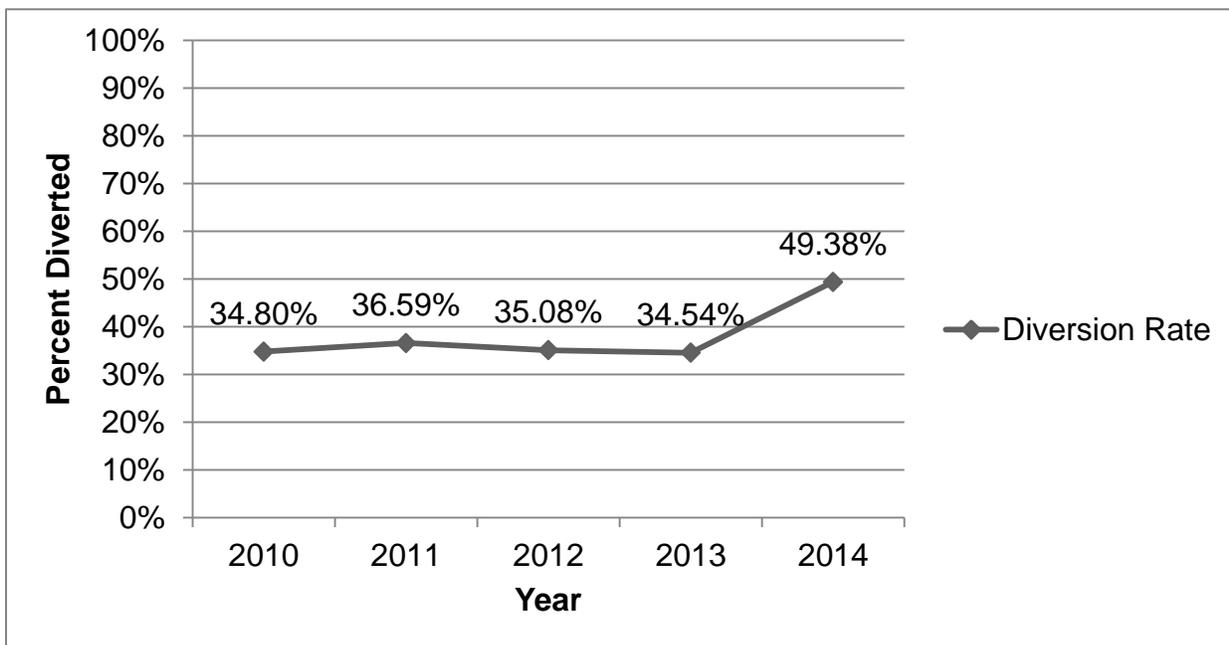
The residential waste tonnages collected from all of the programs outlined above are used to calculate our diversion rate, which is the percentage of total waste that is being diverted from the landfill. A simple diversion rate can be calculated by the following equation:

*Diversion Rate*

$$= \frac{\text{Tonnes of Waste Diverted from Landfill}}{(\text{Tonnes of Waste Diverted} + \text{Tonnes of Waste Sent to Landfill})} \times 100\%$$

Figure 2 illustrates our diversion rate over the past five years. The jump in 2014 (almost 15%) is reflective of the re-inclusion of our C&D and Leaf & Yard tonnages in the diversion calculation.

**Figure 2 - of Trent Lakes Waste Diversion Rate - 2010 - 2014**



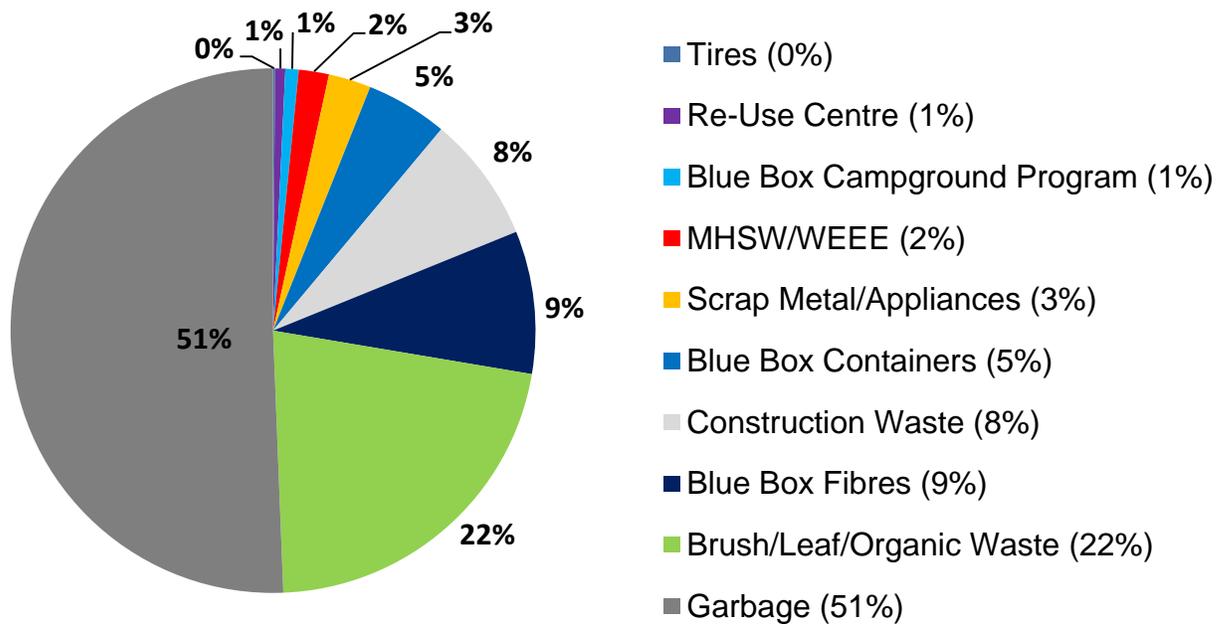
We are currently diverting from landfill at a rate of 49%, which means that roughly half of our generated waste goes to landfill, and half is diverted. Comparatively, the County's total diversion rate is 53%. The highest diversion rate for all of the townships in the County is 59%, while the highest diversion rate in the province is 69% (City of Guelph). Interestingly, the City of Kawartha Lakes recently announced their long-term target of 70% diversion.

The County has set a target diversion rate of 60% by 2030, and our transfer station user survey indicated that 47% of respondents feel we should meet that target, while 32% feel that we should exceed it.

### 2.6.3 WASTE STREAM COMPOSITION

Waste stream composition can give us important information regarding the relative amount of waste being produced, where the wastes are going, and what programs can be expanded to divert them from landfill. Figure 33 illustrates the composition of our waste for 2014.

**Figure 3 - Trent Lakes Waste Stream Composition - 2014**



As shown in the figure, 51% of all household waste generated in our Municipality is being sent to landfill, while 49% of our waste is being diverted through the various programs. The biggest opportunities for increasing waste diversion lie in understanding the make-up of the 51% of waste going to landfill. This is determined through waste audits, which are completed on our behalf by the County. Our most recent audits were in 2011 (Buckhorn) and 2012 (Cavendish) indicated additional diversion potential of 62% and 29% respectively. New waste audits of all 4 transfer stations were completed in November, 2015. However, the results were not available at the time of completion of our WMP.

### 3.0 TRENDS, BEST PRACTICES, & FUTURE LEGISLATION

#### 3.1 LOCAL POPULATION TRENDS

Our waste management services are directly impacted by our population: generally, the more people living in our Municipality, the more waste generated and the higher our waste management costs. The number of households in our Municipality increased from 5,407 in 2010 to 6,087 in 2014, indicating growth of 12.8%. Given the fact that many of our households are seasonal waterfront properties, the above noted increase does not necessarily translate into the same growth in year-round population, but even the addition of seasonal households impacts the volume of waste being produced by our municipality.

In addition, a noted trend over the past decade is seasonal residents converting to permanent residents. This trend is likely to continue as our resident survey indicated that 18% of respondents are likely to become permanent residents in the next five years, while an additional 24% are considering becoming permanent. The continuing shift from seasonal to permanent residency will result in a corresponding increase in the amount of waste generated.

#### 3.2 WASTE INDUSTRY TRENDS

As part our analysis, three key waste industry trends were identified. These are as follows:

**Increasing extended producer responsibility (EPR)** - a growing number of jurisdictions have enacted, or are considering, EPR legislation for a variety of products. This trend is projected to continue as governments face increasing waste generation rates, increased difficulties in siting disposal facilities, and growing waste management costs.

**The 'evolving tonne'** – given the evolution to more lightweight packaging both in terms of amount of packaging material (i.e. using less plastic in plastic water bottles), and type of packing material (i.e. stand-up pouches instead of glass bottles) the tonne is evolving. The materials likely to make up a 'tonne' in the future are trending to the more expensive ones to process. Hence the evolving tonne is becoming a more expensive tonne.

**Declining e-waste tonnages** - Due to advances in technology and a growing desire among consumers for more multi-functional electronic devices, electronic products are becoming lighter, smaller, and more versatile. The result is an overall reduction in the weight of consumer electronics (as much as 59% between 2009 and 2014) entering the waste stream annually, even though the number of units captured is increasing.

### 3.3 BEST PRACTICES

The development of our WMP also entailed a review of best practices in similar rural-based municipalities. The following practices were found to be components of efficient and effective waste management programs:

- a strong and ongoing public education and promotion program
- enhancement of transfer stations/drop-off depots – including depot accessibility, site conditions, easy-to-read signage, properly trained depot attendants, seasonally adjusted staffing levels
- a clear bag policy for landfill waste
- a user pay system for garbage - bag tags and bag limits
- use of mandatory recycling / landfill disposal bans
- establishment and promotion of retail take-back initiatives
- enhanced promotion of backyard composting

### 3.4 FUTURE LEGISLATION

Legislative changes have the potential to significantly affect our WMP and its objectives. Two major legislative changes that will impact how we plan and deliver our waste services in the near future are outlined below.

#### ***PROPOSED COUNTY WASTE MANAGEMENT BY-LAW***

The County of Peterborough has proposed a new County-wide waste management by-law, which would effectively standardize waste management services for all residents. A draft of

the by-law was presented to the County Waste Management Committee (WMC) in June 2015, and will be presented to County Council for approval in 2016. The major changes in the proposed by-law include:

- Move to a waste levy calculation based on actual landfill tonnage (set for Jan. 1, 2018)
- County-wide two bag per week limit
- Requirement for recycling bins at all public facilities
- Enhanced screening at transfer stations

For our community, the waste levy calculation change and the enhanced screening will have the most significant impact. Preliminary calculations by the County estimate that our Municipality would incur additional landfill fees due to the fact that we are generating more than expected per household. Enhanced screening at our transfer stations would improve our diversion by capturing more recyclable material before it is incorrectly disposed of as garbage.

### ***PROPOSED WASTE REDUCTION AND RESOURCE RECOVERY POLICY FRAMEWORK***

The other pending legislative change that will impact our waste management services is the new provincial waste reduction and resource recovery policy framework. Released for comment in late 2015, the Waste Reduction and Resource Recovery Act could replace the existing *Waste Diversion Act (2002)* and would entail significant changes for Ontario's existing waste management and recycling systems. If approved, the proposed policy framework would include the following key components:

- Establish provincial interests on waste reduction and resource recovery matters and allow government to issue policy statements to provide further direction
- Establish a producer responsibility regime by making producers more accountable for the proper end-of-life management of their products and packaging

- Waste Reduction and Resource Recovery Strategy to outline the path forward to support the circular economy

Of all the changes from the new legislation, the one with the most direct impact on our waste management services will be the establishment of an enhanced producer responsibility regime. If adopted, this legislation will result in more opportunities for us—on our own, or via the County—to dispose of certain waste materials (e.g., Blue Box, WEEE, MHSW, etc.) at no—or significantly reduced—cost. Under this new Act, the list of products targeted by EPR programs could expand to items like furniture, beds, carpeting, etc.

This, along with the proposed County Waste Management By-Law, would help us to achieve the County's waste diversion goal of 60% all the while maintaining or reducing our costs.

#### 4.0 STRATEGIC DIRECTION - A DIFFERENT POINT OF VIEW

Our current waste management system provides us with a fantastic opportunity that is often overlooked. Because we operate with transfer stations only, we interact with nearly all of our residents on a weekly or seasonal basis. This provides us with the chance not only to educate our residents on waste related matters, but to provide them with an outstanding service experience. Imagine our residents telling friends about the fantastic experience they had “going to the dump”, the way in which many still refer to the task.

Rather than view our transfer station team as staff, we should view them as Trent Lakes Ambassadors, there to provide the best service possible to our customers (our residents), while keeping our waste management objectives in mind. Beyond that, we seek a new culture around waste:

#### **WE'RE ALL IN THIS TOGETHER!**

We seek to create a waste culture in which we realize that “we’re all in this together” – meaning this is a collective effort between our transfer station staff, our administration staff, our elected officials, the County, and our community members to achieve our waste related goals. All will benefit in the end.

#### 4.1 THE PLAN

Given the thorough review of our current waste management system, stakeholder feedback, industry trends, and anticipated legislative changes, the following key factors have influenced our WMP:

- Community desire to increase diversion rate to 60% or higher
- Anticipated increasing cost for landfilled waste due to the new County waste bylaw
- Moderate population growth driven by conversion of seasonal to permanent residents
- Increased diversion program funding due to pending provincial legislation changes
- Increasing annual net cost of our waste management program
- Trend towards user fees for each bag of waste sent to landfill (Pay-As-You-Throw)

- Challenges associated with administration of waste pass program

Given the above, our strategy will see us evolve to a full Pay-As-You-Throw (PAYT) system whereby the current 52 free bag limit will be removed, and all users of our transfer stations will pay for each bag landfilled. This will be implemented in the medium term (Years 4 – 6).

As a lead up to this change (Years 1 - 3) we will increase the waste diversion opportunities available to our residents, in order to provide them with more options to reduce the number of bags landfilled, and therefore incur less fees once our PAYT system is implemented. In addition, we will enhance our promotion and education (P&E) program and transfer station screening program to ensure that residents are fully aware of the diversion options available to them, which again can allow them to reduce the number of bags being landfilled.

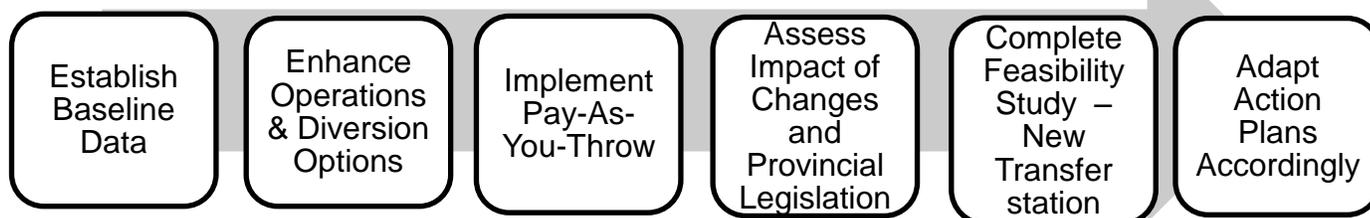
Our strategy will also see us, in the medium term, assess the impact of the pending changes to the provincial waste legislation and the County by-law, which may result in significant changes to the current waste management system and stewardship programs.

In the long term (Years 7 – 10), we will undertake a feasibility study on the construction of a new, centralized, full-service waste transfer station.

All along the way, we will improve and increase our communication related to waste management, providing regular updates to our residents on upcoming changes as well as our annual performance. And we will adapt our Annual Waste Management Action Plan (see Section 5.0) to meet changing conditions. The figure below outlines our strategy, showing keys step over time.

**Year 1**

**Year 10**



## 5.0 IMPLEMENTATION STRATEGY

Ensuring that our WMP is implementable is a crucial part of its development. The waste management industry is continually evolving so our WMP must be adaptive to allow flexibility and deviation as necessary. The successful implementation of our WMP will include the use of our *Options Inventory* and our *Annual Action Plan*.

### 5.1 THE OPTIONS INVENTORY

Our *Options Inventory* contains a listing of potential options that could be pursued to achieve our WMP's Goals. Our initial *Options Inventory* has been created as part of this WMP. It is a "living" document, meant to be amended as needed over time as new ideas, feedback, and opportunities come forward from community members and other stakeholders.

### 5.2 THE ANNUAL ACTION PLAN

Each year a number of actions to pursue will be chosen from the *Options Inventory*. The actions are developed such that they can be completed in a one-year time frame. More complex actions that take longer than one year to implement will be broken down into smaller actions. At the end of each year the implemented actions will be reported upon, and a new set of actions will be chosen for the following year. Thus, the *Action Plan* is to be reviewed and updated on an annual basis. Our Year 1 Action Plan has been created as part of the WMP, and can be found at the end of this document (Section 8).

### 5.3 THE IMPLEMENTATION PROCESS

The successful implementation of our WMP will require a continual focus using the following steps:

1. **Establish a Waste Management Committee** – potential members to include: a Councillor, a transfer station staff member, a public works management representative, the CAO, a County representative, and a community member of the community at large.

2. **Develop an Options Inventory** - look for overlap opportunities with other community initiatives (i.e. Community Improvement Plan).
3. **Create the Annual Waste Management Action Plan** – all actions need to be completed in 12 months' time.
4. **Track Progress Quarterly** – colour code actions as 'completed', 'in-progress', and 'not yet started'.
5. **Create Year End Report** – include information on actions completed, in progress, and not yet started as well as the net benefits of each.
6. **Report to Council** – present Year End Report to Council highlighting progress toward goals.
7. **Create the Next Annual Waste Management Action Plan** – return to step 4.

## 6.0 REVIEW OF OPTIONS

As noted previously, the objectives of our WMP are as follows:

1. Increase waste diversion and reduce residual waste.
2. Improve the efficiency of our waste management program.
3. Enhance waste education for our residents.

Each of these objectives required us to look at a number of options, which were developed through feedback provided by our residents, our staff and administration, and our consultants. Collectively, these form our *Options Inventory*. In order to assess their feasibility and priority, the options were then reviewed from a sustainability perspective (that being financial, environmental, and social), as well as their ease of implementation, and their potential impact on diversion, where applicable.

### 6.1 DIVERSION POTENTIAL

The table below shows the potential additional diversion possible for each waste stream, assuming a 75% capture rate of divertible materials. We can see that increasing diversion is indeed possible, particularly in the areas of organic materials, MHSW, and WEEE.

**Table 5 - Summary of Diversion Potential by Waste Stream**

Waste Material	Current Diversion	Potential Additional Diversion	Future Diversion
	% of Current Total Waste Stream	Assuming 75% Capture Rate	Current Diversion + Potential Diversion
Blue Box Fibres	8.8%	4.1%	12.9%
Blue Box Containers	5.0%	4.9%	9.9%
Blue Box - Campgrounds	0.8%	-	0.8%
Tires	0.1%	-	0.1%
Scrap Metal/Appliances	2.6%	-	2.6%

Waste Material	Current Diversion	Potential Additional Diversion	Future Diversion
	% of Current Total Waste Stream	Assuming 75% Capture Rate	Current Diversion + Potential Diversion
Construction Waste	7.8%	-	7.8%
Organic Waste	21.7%	13.6%	35.3%
<i>Depot Organic</i>	-	23.1%	23.1%
<i>Backyard Organic</i>	-	11.6%	11.6%
<i>Brush / Leaf &amp; Yard</i>	-	6.1%	6.1%
MHSW / WEEE	1.9%	6.0%	7.9%
Re-Use Centre	0.6%	-	0.6%
<b>Diversion Rate</b>	<b>49.4%</b>	<b>28.6%</b>	<b>78.0%</b>

We are currently diverting approximately 22% of our entire waste stream as organic material (kitchen waste plus leaf & yard). However, there is potential for us to divert an additional 14% of waste away from landfill in the form of organic material. Table 5 illustrates the diversion potential of each of the individual components of organic waste: depot SSO, backyard composting, and transfer station Brush, Leaf and Yard waste. Enhancing each program could yield a sizeable impact.

There is also significant potential to increase diversion in our MHSW and WEEE programs by making them more widely available and convenient. It is expected that in doing so, we could achieve up to a 6% increase in our overall diversion rate.

If we are able to implement and maintain programs to capture 75% of all recyclables, organics, MHSW, and WEEE, we could conceivably achieve a diversion rate of 78% in the future.

## 7.0 SUMMARY OF OPTIONS

The options established in our Options Inventory were evaluated using the following criteria:

- **Diversion Potential** (how much additional waste diversion could result from the option);
- **Economic Feasibility** (the costs or savings of the option);
- **Environmental Impact** (the option has a positive effect on the environment);
- **Social Acceptance** (whether the option would be accepted or used by the public); and
- **Ease of Implementation** (how easy or difficult it would be to implement the option).

The options were scored on a scale of 1 to 4 as outlined in Table 6 below.

**Table 6 - Evaluation Scoring Criteria**

Criteria	Score Range (1-4)			
	1 Poor	2 Fair	3 Good	4 Very Good
Diversion Potential	<1%	1% - 3%	4% - 10%	>10%
Economic Feasibility	High cost or low cost-effectiveness	Moderate cost additional to current program	Little to no additional cost to current program	Option will result in cost savings
Environmental Impact	No positive impact	Minor positive impact	Moderate positive impact	High positive impact
Social Acceptance	Would be disliked by public	Public would have no opinion	Public would have little opinion	Public would favour option
Ease of Implementation	Difficult	Moderate effort required	Minimal effort required	Easy

A summary of the evaluation results are provided in the following pages, which are categorized by diversion programs, operations enhancements, and education programs.

**Table 7 – Summary of Evaluation Results - Enhanced Diversion Programs**

Option Name & Description	Projected Diversion Potential	Priority	Timeline
SSO - Increase Use of Back Yard Composting/Digesting	2%	High	Short
Brush / Leaf & Yard - Add at Crystal Lake & Cavendish	1%	Moderate	Short
MSHW - Add Limited Collection at All Transfer stations (batteries, propane cylinders, fluorescent bulbs)	1%	Moderate	Short
WEEE - Add at Crystal Lake & Cavendish	<1%	High	Short
Hard Plastic - Add to Buckhorn & Bobcaygeon (Seasonally)	<1%	Moderate	Short
SSO - Work with County To Grow Depot Program	5% - 6%	Moderate	Medium
MSHW - Partner with Adjacent	1%	Moderate	Medium
MSHW – Determine the Feasibility of a Mobile Hazardous Waste Station	1%	Moderate	Long
Mattresses - Launch Own Special Collection	<1%	Moderate	Medium
SSO - Feasibility Study - Municipal Compost Facility	4%	Moderate	Long
SSO – Investigate Adding Our Own Program to Crystal Lake & Cavendish	2%	Moderate	Long

**Table 8 – Summary of Evaluation Results – Operations Enhancements**

Option Name & Description	Projected Diversion Potential	Priority	Timeline
Amend ECAs for all Transfer Stations	Indirect	High	Short
Improve Transfer Station Site Conditions	Indirect	Moderate	Short
Reduce Hours of Operation	Indirect	Moderate	Short
Investigate Breakdown of County Waste Levy	Indirect	Moderate	Short
Waste Pass Alternatives – PAYT	10-20%	High	Medium
Develop Formalized Staff Training Program	Indirect	Moderate	Medium
Enhance Screening Protocol	8%	High	Medium
Review 3 <sup>rd</sup> Party Scrap Metal Contract	Indirect	Moderate	Medium
Develop Standard Operating Procedures	<1%	Moderate	Medium
Reinstate Clear Bag Policy	5%	Moderate	Medium
Complete Feasibility Study for New Centralized, Full Service Transfer station	Indirect	Low	Long

**Table 9 – Summary of Evaluation Results – Education & Promotion Programs**

Option Name & Description	Projected Diversion Potential	Priority	Timeline
Develop & Sell Cottage Rental Kit	<1%	Moderate	Short
Performance Data - Increase Frequency of Waste Audits	Indirect	Moderate	Medium
Performance Data - Increase Sharing of Results with Residents	Indirect	Moderate	Medium
Improve Awareness of Retail Take-Back Programs	Indirect	Moderate	Medium
Improve Awareness of Environment Days	<1%	Moderate	Medium
Enhance Municipal Communications re Waste Management	Indirect	High	Short
Develop and Distribute a List of Local Companies that Participate in Retailer Take-Back Programs	Indirect	Moderate	Short
Develop and Implement an Education Program Targeting Proper Recycling of Blue Box Items	2%	High	Short

## 8.0 YEAR 1 WASTE MANAGEMENT ACTION PLAN

Based upon our review of the options, we have developed our Year 1 Waste Management Action Plan, which runs from January to December, 2016 and includes the following actions:

<b>Municipality of Trent Lakes Year 1 Waste Management Action Plan January - December 2016</b>			
<b>Goal</b>	<b>Action</b>	<b>Timing</b>	<b>Responsibility</b>
<b>Increase waste diversion and reduce residual (landfill) waste</b>	Add WEEE to Crystal Lake and Cavendish transfer stations	June 2016	Public Works Manager
	Launch our own mattress collection day program	May/June 2016	Public Works Manager
	Add Brush, Leaf & Yard waste program to Crystal Lake and Cavendish transfer stations	June 2016	Public Works Manager
<b>Improve the efficiency of our waste management program</b>	Reduce summer operating hours at Bobcaygeon by one day per week	May 2016	Public Works Manager
	Amend the ECA for each of our transfer stations	June 2016	CAO
	Develop standard operating procedures for transfer stations	January 2016	CAO
<b>Enhance waste education for our residents</b>	Increase frequency of waste audits	January 2016	County / MTL
	Develop & sell Cottage Rental Kit	April 2016	CAO
	Increase the sharing of performance data with residents	December 2016	CAO
	Implement education program targeting proper Blue Box	February 2016	County / MTL