

May 12, 2025



# MANAGEMENT MASTER PLAN UPDATE



***PREPARED BY CAMBIUM INC.***

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## Executive Summary

A Waste Management Master Plan (WMMP) was developed for the County of Peterborough in 2012 to achieve its goal of 60% diversion from landfill. The WMMP included objectives to optimize service delivery, implement best practices, and expand outreach, related to waste management programs. The 5-year WMMP Update aims to refine these objectives by incorporating the latest industry advancements, addressing emerging challenges, and enhancing community engagement. This update ensures that the WMMP remains a dynamic and effective tool, driving continuous improvement in waste management practices and fostering a sustainable future for the County of Peterborough.

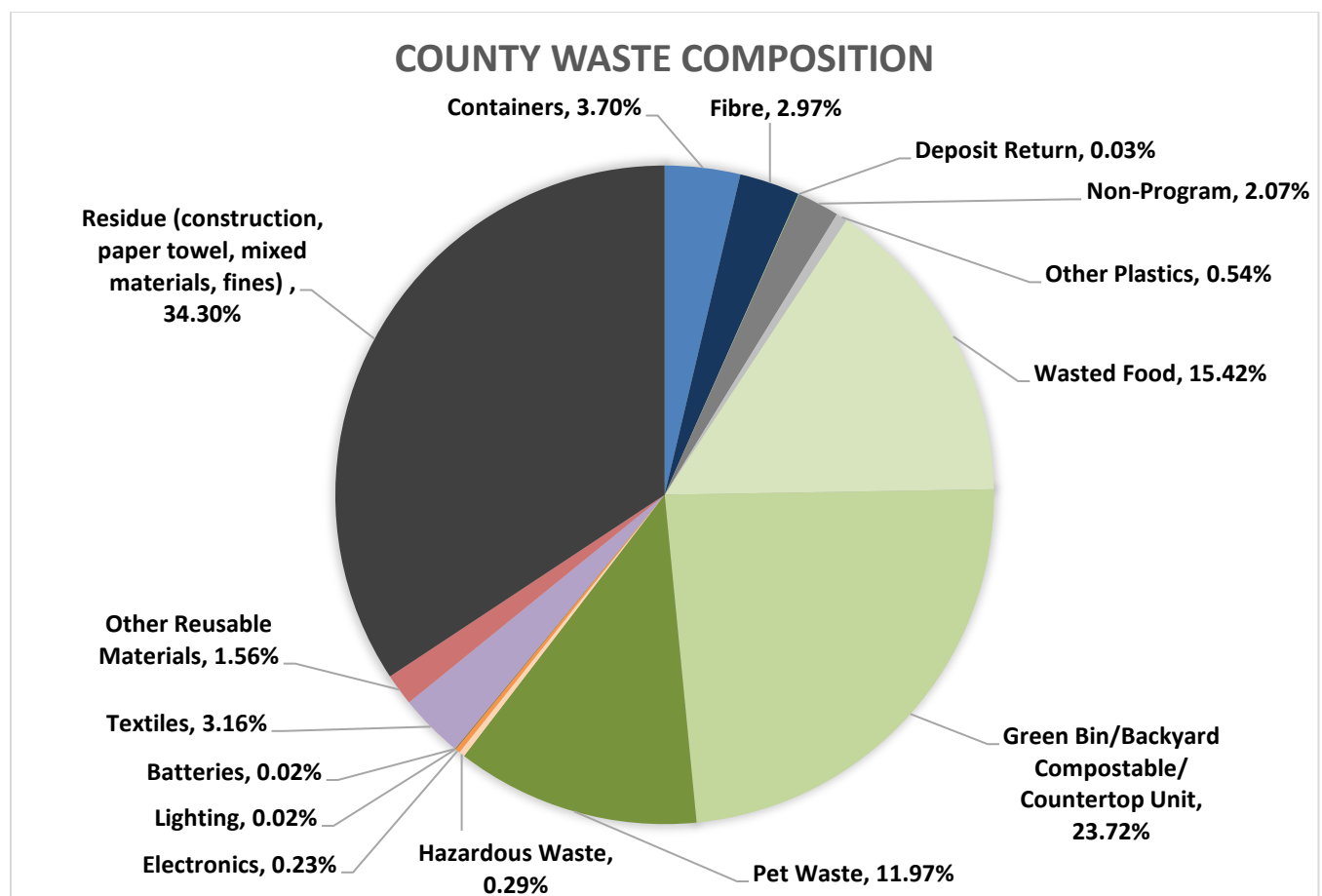
Although the County has been successful in implementing a number of these objectives outlined by the WMMP, there have been changes and challenges presented in recent years that require an update to the existing WMMP. The population is steadily increasing and despite overall waste generation going down, the County must continue providing sufficient options for diversion to not only reach their goal of a 60% diversion rate, but to limit waste going to the Peterborough County City Waste Management Facility (PCCWMF). With the transition of the Blue Box program, diversion rates will be more difficult to measure, increasing the need for alternative methods to determine diversion. Additionally, the inclusion of circular economy principles is becoming increasingly more important at a municipal level to promote overall waste reduction by optimizing the life cycle of products.

Cambium Inc. (Cambium) was retained by the County to complete a detailed analysis of their current waste management practices and collect waste composition data to update the current WMMP and create a five-year implementation plan to reduce overall waste generation and diversion from the landfill.

Through consultation with all eight County Townships, Curve Lake First Nation, the Waste Management Committee, and the public, information was gathered to guide the option development process. Some of the main outcomes from the consultation with the Townships included the standardization of training, tipping fees, contracts with common contractors, public education programs, introduction of programs to support the diversion of other materials like

boat and bale wrap, increasing level of service related to leaf and yard waste collection, and a general increase of promotion and education of existing programs. The public offered valuable input related to current waste management practices, most notably the high rate of organics disposal into the garbage. Additionally, the support for a curbside organics program was high. There was also interest from the public in expanding options for reuse and sharing services, development of programs for polystyrene and bulky plastics diversion, as well as an increase in promotion and education surrounding existing programs.

Waste audits were completed in all eight Townships which allowed Cambium to analyze the current waste composition. The overall results from the audit are graphically shown in the pie chart below.



Initiatives were developed for the County considering existing programs as well as additional options for further diversion opportunities. There were eight key programs Cambium assessed

including non-eligible source Blue Box material management, leaf and yard program, mattress program, reuse and sharing programs, waste reduction programs, food organics waste management, textile diversion opportunities, and other diversion opportunities. Within these categories, options were developed to address the needs of the community, ranging from potential new programs to maintaining existing programs and considered various factors including cost, potential diversion from landfill, feasibility, and perceived stakeholder acceptance. The options were then evaluated based on these factors to determine which programs to carry forward.

Through the implementation of these options, the County can achieve their objectives of streamlining diversion programs, developing new initiatives and ideas, increasing education and training programs, achieve outstanding 2012 WMMP objectives, implementing circular economy initiatives and continue providing NES collection options.

The recommended implementation plan identifies 11 options to support the five-year WMMP update. Key Performance Indicators (KPIs) are identified for each recommended option and continued programs. The KPIs identify measurable variables associated with each option.

Public and stakeholder communication and engagement strategy recommendations are identified to promote the 11 program options and continued programs in Appendix A. Various recommendations were developed to guide promotion and education decisions including communication tactics, distribution timelines, and estimated budget. Evaluation tools identified will help assess communication and engagement. The WMMP Update is a living document used to implement and support waste diversion initiatives for the County to be reviewed annually and updated as required.

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## 1.0 Introduction

The County of Peterborough (County) is an upper tier Municipality working with various Townships, in consultation with Indigenous Communities, to provide high quality services to the community.

In 2012, the County developed its Waste Management Master Plan (WMMP) designed to support the County in achieving its goal of 60% diversion from landfill. The WMMP included objectives to optimize service delivery, implement best practices, and expand outreach, related to waste management programs.

Since the development of the original WMMP, many objectives have been implemented, legislation has changed, and new approaches to waste management (including circular economy) are being considered. To address these changes, in 2024, the County retained Cambium Inc. (Cambium) to update the WMMP. This WMMP Update considered the County of Peterborough's Strategic Plan for 2023-2026, to prioritize a commitment to respect the environment, with a focus on implementing projects related to organics and garbage collection.

The County is part owner of the Peterborough County City Waste Management Facility (PCCWMF) located at 1260 Bensfort Road. The landfill capacity at the PCCWMF is currently projected to last 10 years (County of Peterborough, 2024), depending on annual fill rates. This WMMP Update included research and option analysis to develop an implementation plan for a series of initiatives to implement over the next five years, aimed at reducing waste generation and diverting waste from landfill. The implementation plan includes key performance indicators to measure success and recommended strategies for communication and engagement of the programs proposed.

The County and City of Peterborough (City) will undertake a separate Environmental Assessment process to outline future long term waste disposal plans for the County, related to the PCCWMF and garbage disposal options; therefore, consideration of long-term disposal capacity is not included in the WMMP Update.

## **1.1 Study Limitations**

### **Data Availability and Quality**

Analysis was governed by available data from various sources, which may contain gaps, inconsistencies, or outdated information. These limitations may affect the precision of forecasts and recommendations.

### **Evolving Regulations**

Waste management policies and regulations are subject to change. The strategies proposed in this plan update may require future revisions to remain aligned with future legislative developments.

### **Stakeholder Participation**

Efforts were made to engage a diverse range of stakeholders, it is possible that input may not fully reflect the perspectives of all relevant groups, including those unable to participate in consultation.

### **Technological Advancement**

The plan update is based on current technologies available and does not fully account for future innovations which may alter waste management practices.

### **External Influences**

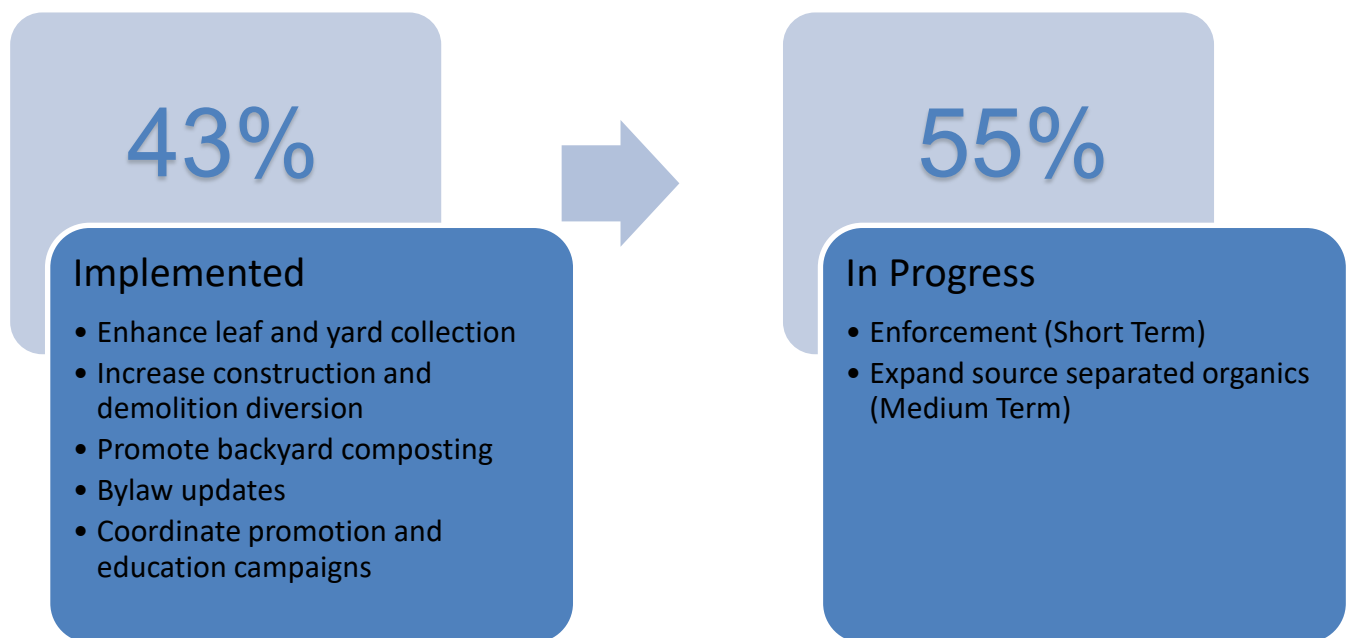
Factors such as economic conditions, population growth, and environmental events outside the study scope that may impact feasibility and effectiveness of proposed strategies.

### **Site-Specific Considerations**

Certain aspects of waste management, such as infrastructure development and operational feasibility, are depended on geographic location and conditions, and may require further site-specific assessment.

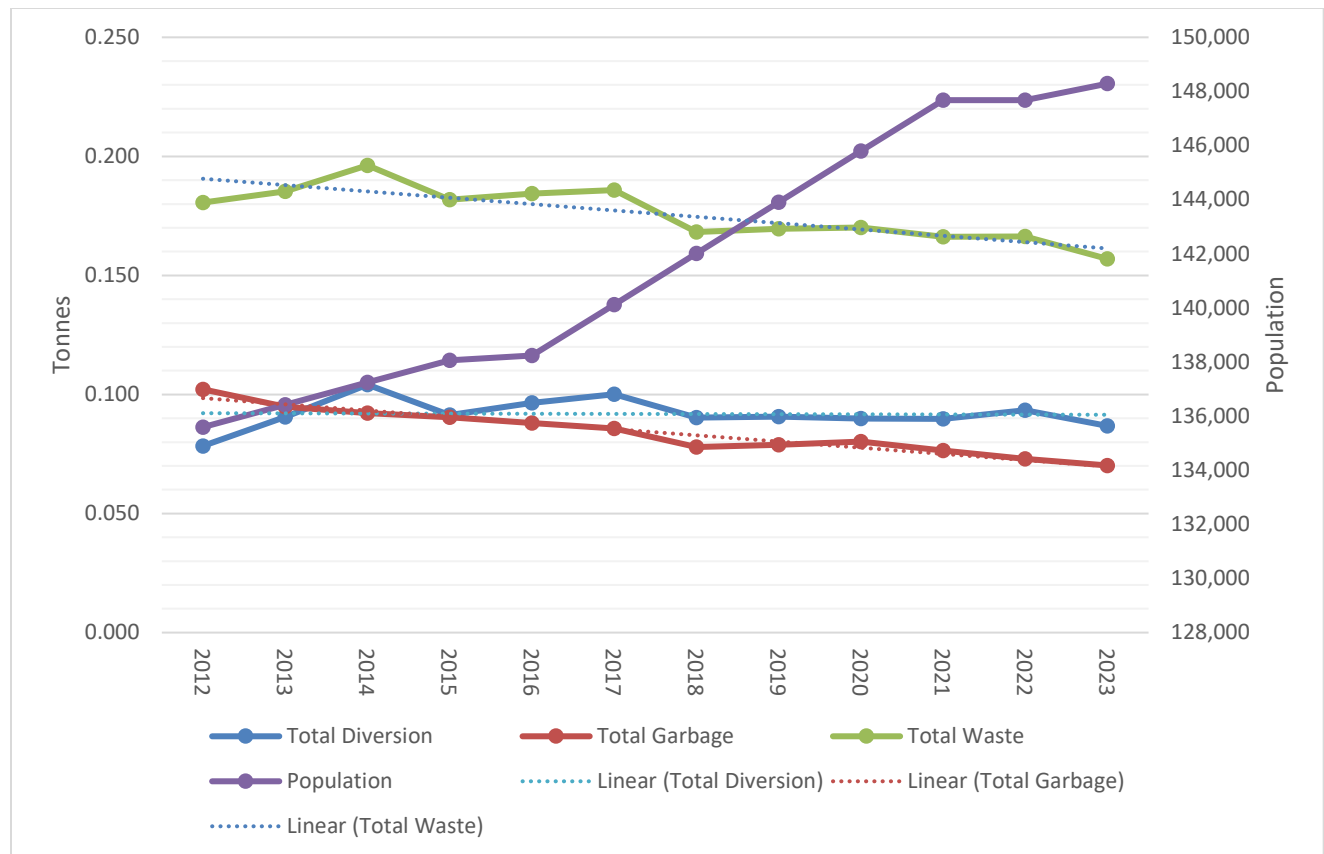
## 1.2 Waste Management Plan Success

Since the implementation of the WMMP in 2012, the diversion rate in the County has increased from 0.078 tonnes/person/year (43%) to 0.091 tonnes/person/year (55%). The County implemented five of the existing short-term objectives and has partially implemented one short and one medium term objective outlined in Figure 1.



**Figure 1 Implemented Objectives from 2012 WMMP**

In addition to waste diversion rate, Cambium reviewed the waste generation rates in the County. Figure 2 compares the waste generation rates from 2012 to 2023 to population growth, demonstrating the general decline of waste generation while the population continued to grow. Notably, diversion has remained nearly constant since 2012, indicating the decreased waste generation rate is attributable to waste reduction opposed to diversion efforts.



**Figure 2 Waste Generation vs Population Growth (2012-2023)**

## 1.3 Regulations and Best Management Practices Summary

### 1.3.1 Blue Box Regulation (O.Reg. 392/21)

The management of Ontario's Blue Box Program is currently in the process of being transitioned to the producers of plastics and other packaging products. The transition began in July 2023 and will continue through to December 31, 2025. Following the transition period, producers will be fully responsible for the operation and financing of the blue box recycling programs. This will eliminate the regulated responsibility of Municipalities for the collection, processing, and education related to the Blue Box program.

### **1.3.2 Food and Organic Waste Framework**

In 2018, the Food and Organic Waste Framework (Framework) was established to help prevent, reduce, and recover food waste in Ontario, as well as support and promote infrastructure and resources. The Framework includes two parts, Part A - Food and Organic Waste Action Plan and Part B – Food and Organic Waste Policy Statement. The objectives are to prevent food from becoming waste by rescuing surplus food, increasing resource recovery from places like multi-unit residential buildings and the Institutional Commercial & Industrial (IC&I) sector, resource recovery infrastructure to ensure a valuable end-product, and promotion and education of end-product uses.

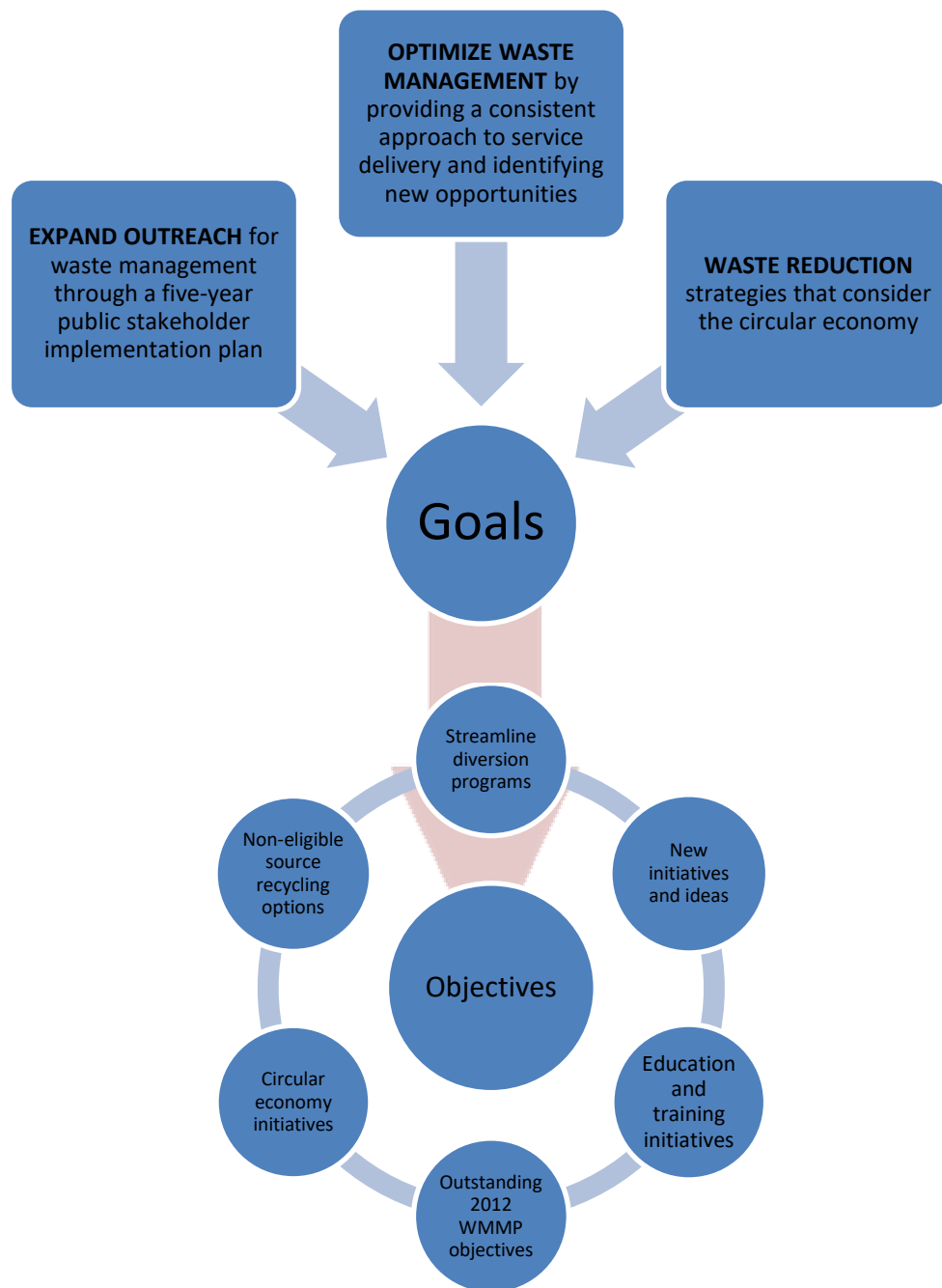
### **1.3.3 Developing a Direction for the Future**

The concept of Circular Economy is being considered by many Municipalities to reduce waste generation as the approach shifts behaviours to consider the full life cycle of materials (resources) that are being used in the community. The Circular Economy is a “model of production and consumption that keeps materials at their highest utility and value throughout their lifecycle and recirculated into production cycles to avoid waste” (Circular Innovation Council, 2024). Figure 3 below outlines the framework for circular economies.



**Figure 3 Circular Economy Explained (Circular Innovation Council, 2024)**

The goals of this WMMP update are outlined in Figure 4. These goals include objectives to streamline diversion programs, determine non-eligible source recycling options, implement circular economy initiatives, consider the objectives outlined in the 2012 WMMP that have not been implemented, education and training initiatives, and consider new initiatives and ideas.



**Figure 4 WMMP Update Goals**



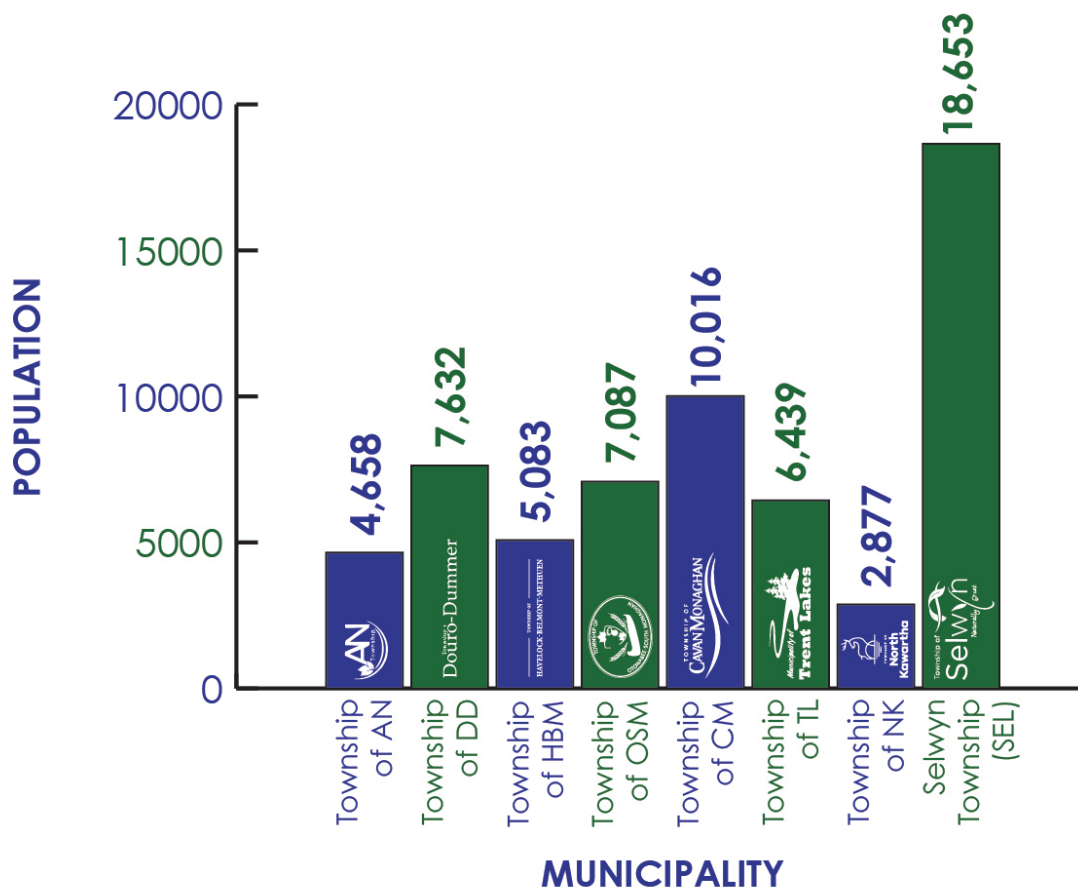
During the process of developing future objectives, waste diversion options were established around existing and potential programs. These options were evaluated based on:

- cost,
- diversion potential,
- feasibility, and
- perceived stakeholder acceptance.

Input was collected from community stakeholders (i.e., municipal staff, County Waste Management Committee members, the public) and reviewed to inform the evaluation of perceived acceptance.

## **1.4 Existing Programs and Organization**

The County is made up of eight Townships which cover a total area of 3,805 km<sup>2</sup> with a total population of 147,681, including the City of Peterborough (Statistics Canada, 2021). The Townships included in the County, excluding the City of Peterborough, with respective population are provided below in Figure 5. The eight Townships managed under the county has a population of approximately 62,445.

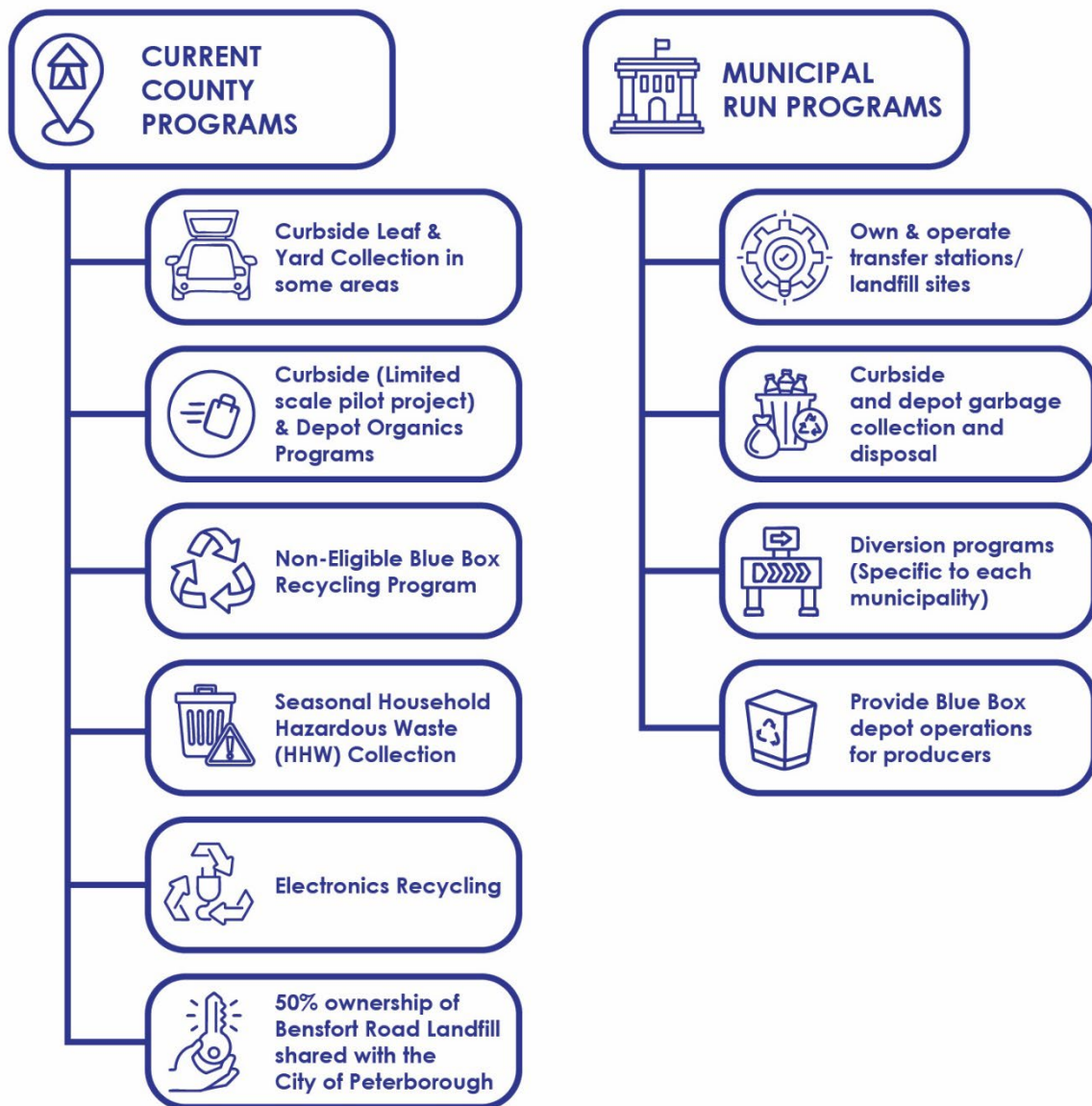


**Figure 5 Township Populations**

*All population data based on 2021 census (Statistics Canada, 2021).*

Curve Lake and Hiawatha First Nation Communities are also part of the County; however, they provide their own waste management services to their communities.

Each Township has varying levels of waste management services that it provides to its residents with some County involvement in specific areas. Figure 6 below details current programs falling under County and Municipal program operations.



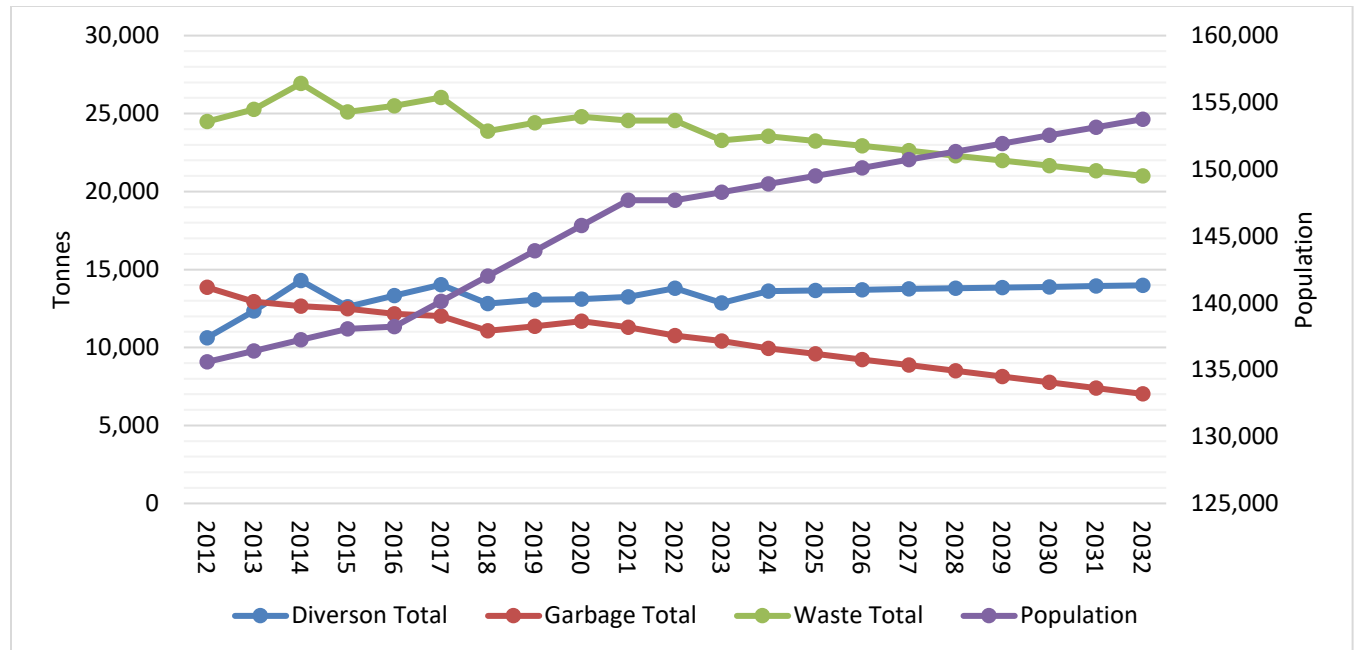
**Figure 6 County and Municipal Run Programs**

## 1.5 Waste Projections

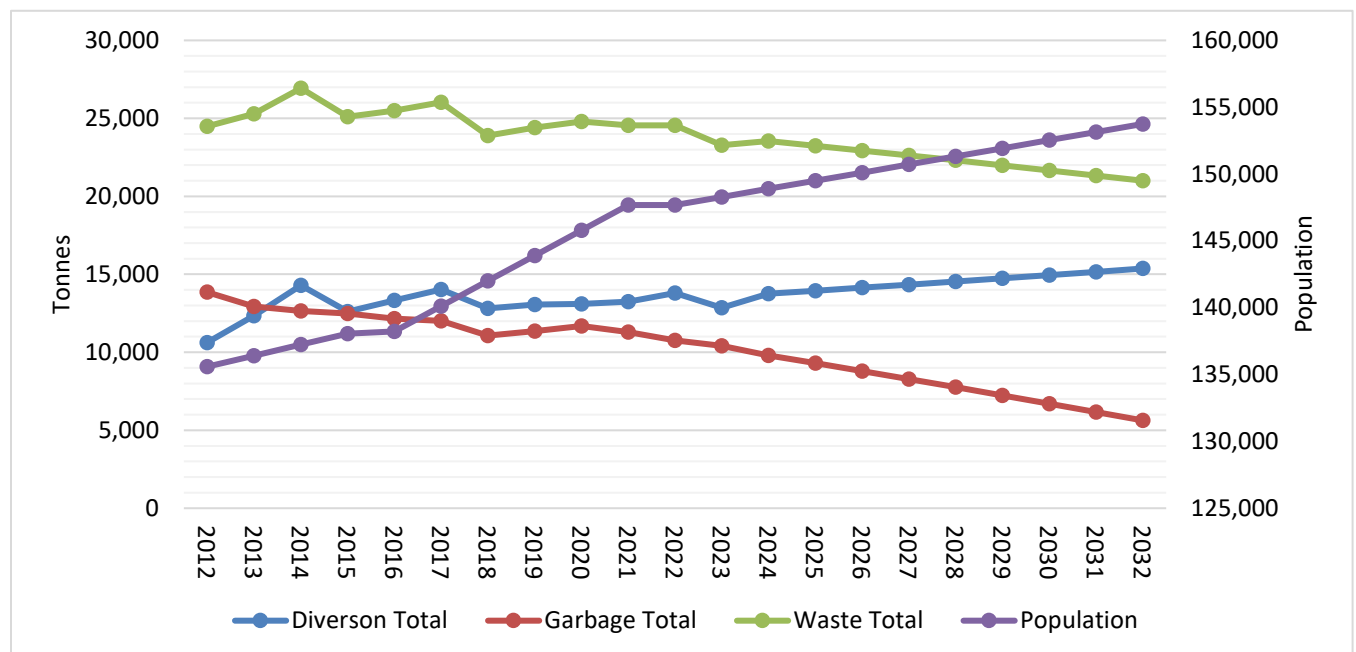
Based on a study completed for the County in 2021 (Hemson, 2022), population growth is expected to occur at a higher rate in the next 30 years than the previous 30 years in the County, with the most growth occurring in Cavan Monaghan, Selwyn, and Asphodel Norwood. Much of this growth is expected to come from in-migration from the Greater Toronto Area. Given that the population is expected to grow by 18,200 in the next 30 years, it can be assumed that over the next five years the population will grow by about 3,000 people. Various factors have an impact on future waste projections, including population growth, household type and size, as well as other economic indicators.

A projection was completed based on the population growth information and waste generation rates. Figure 7 outlines population growth and waste generation rates, assuming waste generation rates continue to decline and diversion rates from 2023 remain constant for the next 10 years (i.e., 0.091 tonnes/person/year). Notably, despite population growth projections, with no changes from current diversion rates, the potential diversion rate in 2032 will be 67% (increase from 55% in 2023). Figure 8 outlines the potential decrease in garbage for disposal with a 10% increased diversion rate, annually, from 2024 to 2032. Taking into consideration population growth, waste reduction trends, and the increased diversion rate, this would result in a diversion rate of 0.100 tonnes/person/year, and an overall diversion rate of 73% by 2032.

Waste generation has been reduced from 2012-2025 from initiatives implemented in the WMMP and continuous work by townships implementing clear bag programs, utilizing reuse centres and other waste reduction initiatives. Continuation of this path is imperative to ensure the waste generation rate continues to decline.



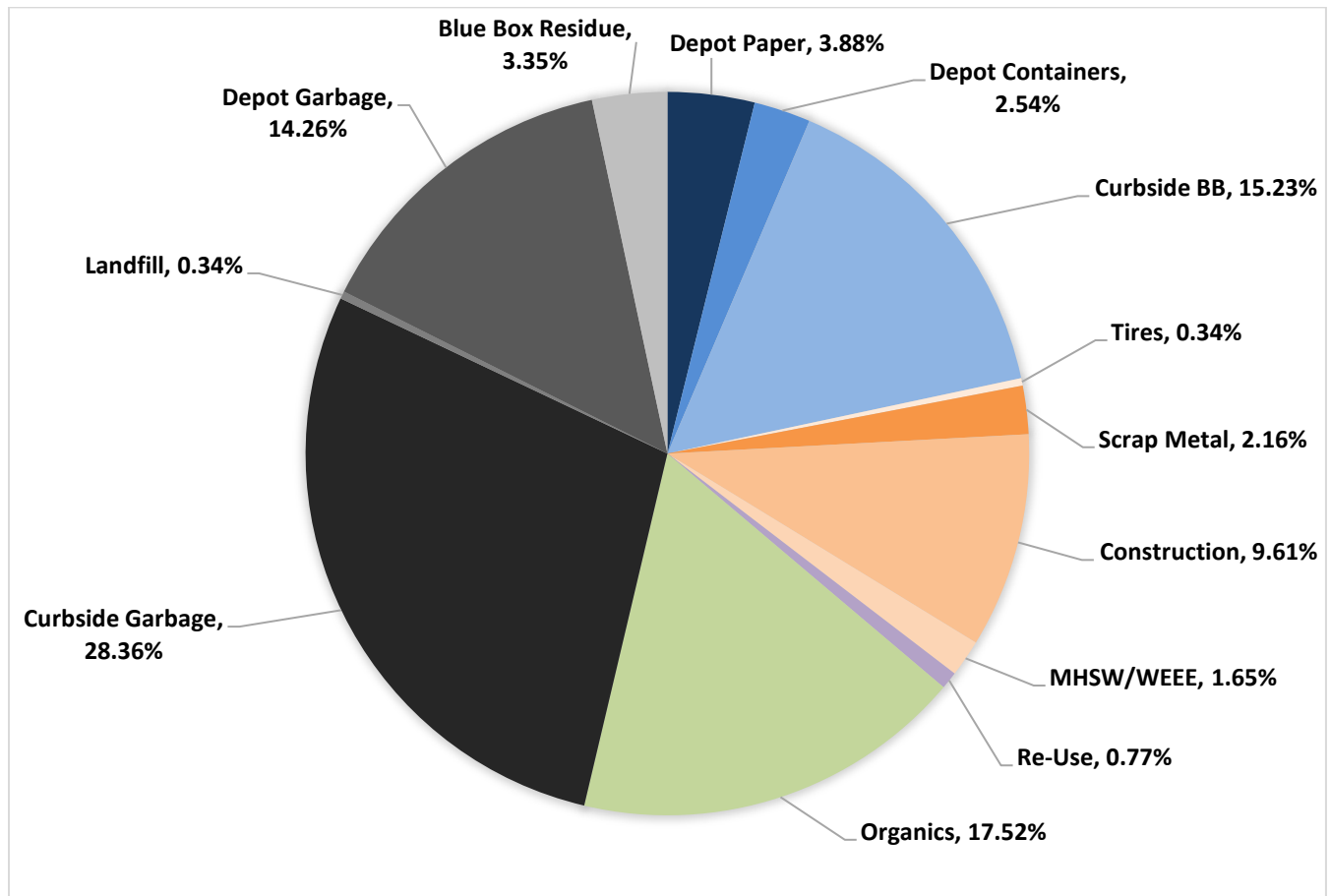
**Figure 7 Population and Waste Generation Rate Projections (2023-2032), assuming 2023 diversion rates remain constant**



**Figure 8 Population and Waste Generation Rate Projections (2024-2032), assuming a 10% increase in diversion**

## 1.6 Waste Composition

Data was provided to Cambium from the County showing overall composition of waste generated in 2023. Figure 9 outlines the overall composition of the waste stream including waste diversion.



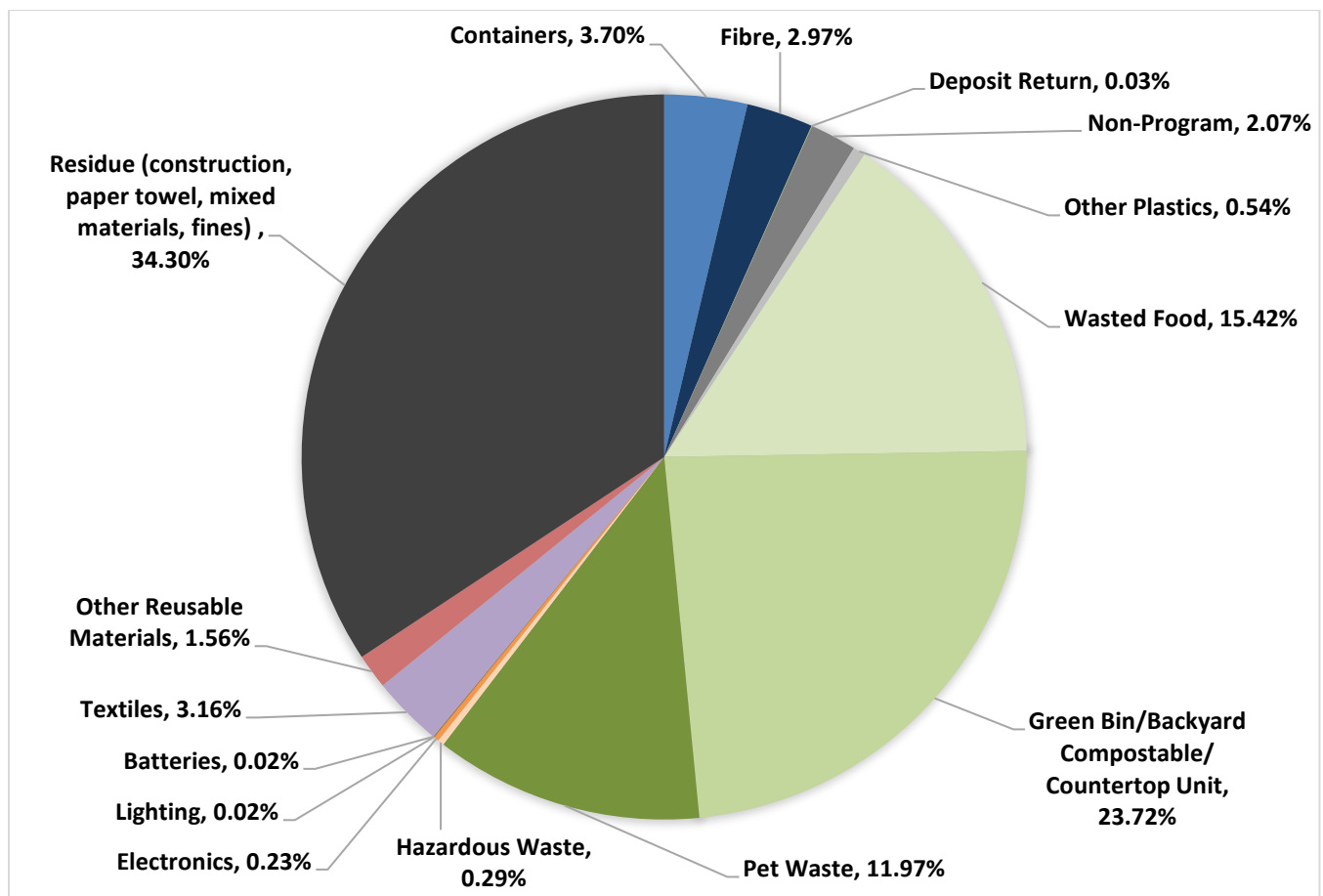
**Figure 9 County Waste Composition 2023**

### 1.6.1 Waste Audits

Waste audits were completed in all eight Townships over a two-week period for garbage and source separated organics (where programs exist). The audits did not include any collection of Blue Box materials. The goal of the audits was to estimate waste generation rates, identify the composition of waste, and outline any opportunities for waste reduction and diversion.

programs. The audit report can be found in Appendix B. Overall, the results of the audit showed that a significant amount (over 50% of total waste) of organic material, including wasted food, green bin/backyard compostable, and pet waste is being disposed of in the garbage stream. There were also notable amounts of blue box recyclables, textiles, and reusable materials in the garbage stream.

The waste composition from the two-week audit is shown in Figure 10.

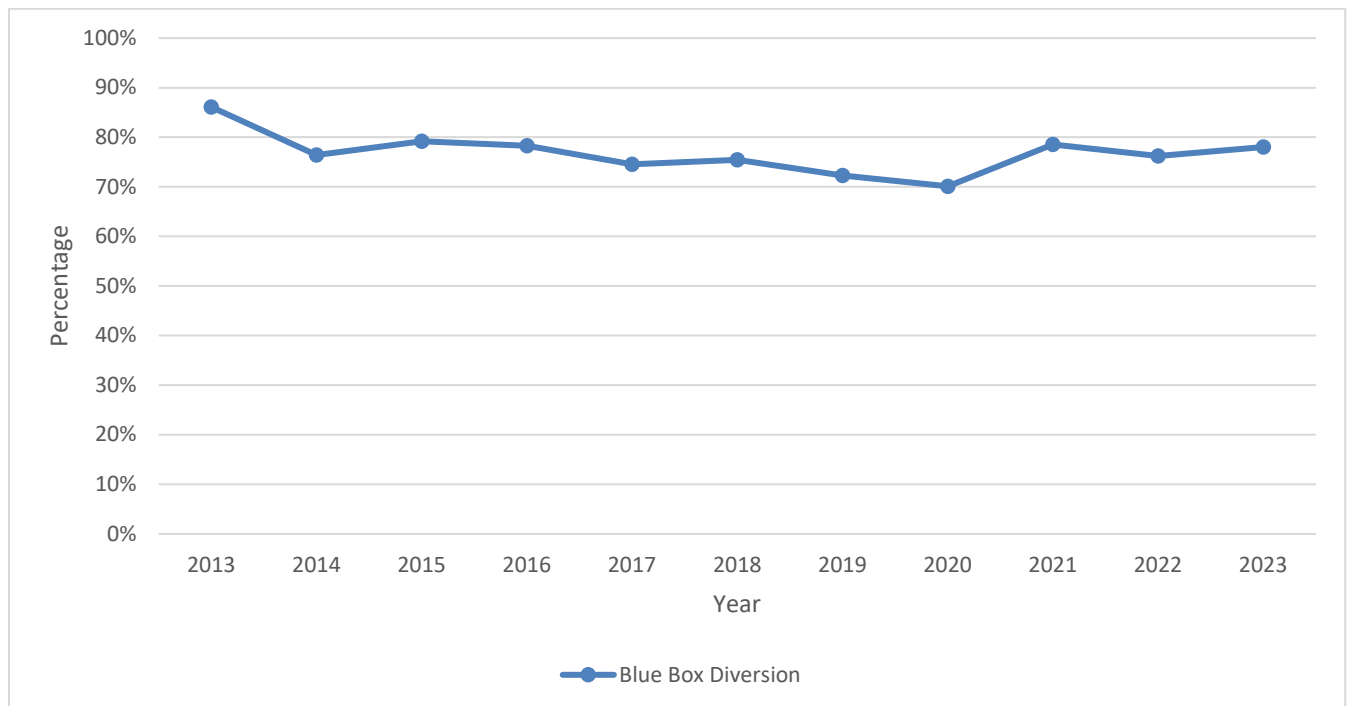


**Figure 10 County Waste Composition**

## 1.6.2 Blue Box Trends

Over the last 10 years, Blue Box diversion totals (calculated based on curbside and depot Township diversion 2013 to 2023 Township tonnages provided by the County) have been

relatively consistent, making up an average of 77% of the total waste diverted. Given the consistency of Blue Box diversion, an assumption can be made that trends would remain similar for the next five years. The Blue Box trends as part of the overall waste composition is shown in Figure 11.



**Figure 11 Blue Box Trends**

## 1.7 Stakeholder Consultation

Cambium consulted the Townships, Waste Management Committee, and the public through various methods including meetings, interviews, surveys, and workshops to allow opportunity for input during various stages of the WMMP Update.

### 1.7.1 Township Consultation

Cambium completed interviews with each Township and Curve Lake First Nation to understand: current waste services, County involvement in their waste management programs,



and their initial thoughts on the proposed goals of the WMMP update. The most notable items from the interviews included:

- Each Township provides their own version of waste services
- Townships are limited on resources to support implementation of programs, so they need to be mindful of requirements
- Townships are motivated for the County to support:
  - Circular Economy Programs
  - Standardized training
  - Standardized tipping fees across Townships
  - Standardized contracts with common contractors
  - Increased funding and scope of leaf and yard collection/drop off
  - Introduction of boat and bale plastic wrap program, bulky plastic program, pressure treated wood program
  - Expansion of textile program and depot organics program availability
  - Support and standardization of public education and outreach programs

Following the option development process, a virtual workshop was held for the Townships to provide further input related to their interest in these programs. The information collected from the workshop and interview process can be found in Appendix C. Most Townships agree that they are interested in sharing knowledge of current programs, research, current contractors, etc. between Townships to save time and resources. Information related to specific options is summarized below:

### **Non-Eligible Sources**

- Continue service for NES with County covering costs to manage program

### **Leaf and Yard**

- Keep service status-quo

- Some interest in increasing curbside collection, implementing depot collection, and promoting alternatives for leaf and yard waste management

### **Mattresses**

- Expand collection sites but no interest in collection events
- Limited support for call-in collection

### **Re-use and sharing opportunities**

- Current re-use centres have issues with quality and organization of materials that affects the success of their operation.
- Challenges with digital sharing platform due to different demographics, other platforms exist for external use
- Interested in County support through promotion and education, funding and standardization of accepted materials

### **Waste Reduction Programs**

- Success with food cycler program
- Low interest in building permits including source separated materials – difficult process and no enforcement
- Some support for community/business incentive programs but difficult to implement

### **Textiles**

- Existing textile receiving centres and donation bins widely used
- Township owned bins have issues with garbage and managing collection
- Increase number of collection bins
- Increase promotion and education

### **Other Diversion Opportunities**

- Interest in polystyrene, bulky plastics and boat/agricultural wrap collection

### 1.7.2 Public Consultation

A survey with initial questions for the public was posted July 8, 2024, and received over 350 responses in the three weeks it was available. During this time a virtual open house was also held which had very low attendance and no significant feedback was received. There were several important points that came from the survey as indicated below Figure 12.



**Figure 12 Key Findings of Public Survey**

A second survey was conducted to gauge interest in the options that were developed during the WMMP update process. This survey was completed by less community members than the initial survey, in total reaching 155 respondents. The option descriptions and assessment, including input from the public survey, can be found in Appendix D. The overall survey results are summarized below.

### **Non – Eligible Sources**

- Most respondents want the County to continue to provide service status quo
- Concerns that if no curbside collection was offered the material would end up in the landfill

### **Existing Leaf and Yard Waste Management**

- Many residents are satisfied with the existing services offered
- There was some interest in additional collection dates and more options for free drop off at depots
- Increased promotion and education related to composting and mulching individually

### **Existing Mattress Management**

- Some interest in expanding collection at depots
- Concerns that if collection is difficult for residents to access, mattresses will be disposed of incorrectly (deposited on the side of a road, burned, etc.)

### **Re-use and sharing opportunities**

- High usage of existing community-based re-use/sharing services
- Residents more interested in using reuse centres if they were upgraded or accepted more materials
- Low interest in County spending more taxpayer money to implement new programs
- More promotion and education of existing opportunities

### **Waste Reduction Initiatives**

- Food waste reduction promotion and education showed varying opinions on the importance of this initiative
- Demolition and building waste reduction permits indicated as low priority
- By-laws and policies to decrease single-use plastics indicated as low priority

- Update tenders and proposals to include circular procurement had some interest in implementing these initiatives
- Community/business waste reduction incentive program had some interest in implementing these initiatives

### **Organics**

- Curbside organics collection and an increase in composting options in rural areas were both highly supported
- Increased promotion and education of compost/organics management individually

### **Textiles**

- Curbside collection is a low priority
- Support for expanding receiving locations and end users
- More promotion and education about programs that are currently available

### **Other Diversion Options**

- Polystyrene and bulky plastics programs are the highest priority for respondents
- Increase promotion and education for the options provided as to what currently exists and what residents can do with these materials

### **Existing Programs (Household Hazardous Waste, Electronics, and Backyard Composting)**

- Most residents are satisfied with current programs
- Some interest in additional Household Hazardous Waste (HHW) events throughout the year
- Promotion and education of accepted materials and programs offered

## 1.8 Review of Municipal Comparators

Cambium completed a review of other Municipalities in Ontario and the services provided to better understand program options for the County. The Municipalities used as comparators were Dufferin County, Oxford County, Northumberland County, Ottawa Valley Waste Recovery Centre, Quinte Waste Solutions, Muskoka District, and Bluewater Recycling Association.

The County of Peterborough offers a unique situation, differing from other upper-tier Municipalities that were examined as comparators, where in place of managing waste services, the County and lower tiers share management of waste services with the County also supporting the lower tier programs of Townships.

Details from the municipal review can be found in Appendix G however a few of the main points taken from these comparators were:

- Most upper tier Municipalities manage the weekly waste collection and waste management facilities
- Generally, the lower tier Municipalities take care of selling bins and bag tags with the exception of Bluewater Recycling Association where green waste disposal sites and curbside leaf collection is managed by the lower tier.
- Oxford County has an agricultural plastics pilot program offering collection bags to local farmers for free, accepting a wide range of agricultural plastics and offer a disposal fee of \$50 per tonne.
- Ottawa Valley Waste Recovery Centre runs an extensive reuse centre collecting items such as construction/renovation materials, furniture, sporting goods, and outdoor items.
- Many Municipalities provide educational resources for schools and community groups

## 2.0 Options Development

Future objectives are designed to meet the WMMP Update Goals of optimizing waste services and reducing waste going to landfill. They are also intended to align with a circular economy approach to waste management. Specific considerations were also identified through stakeholder consultation and input provided by the County regarding the objectives of the plan. The options that were considered are summarized below in Table 1, with detailed descriptions in Appendix E.

**Table 1 Potential Options**

Program Description	Options
<b>Non-Eligible Source (NES) Blue Box (BB) Material Management</b>	Continue providing curbside BB collection services to NES.
	Continue providing curbside BB collection services to NES and work with Townships to coordinate depot NES BB services.
	Coordinate collection of BB for NES at Depots only.
	Stop providing NES BB collection services.
<b>Leaf and Yard Program</b>	Expand curbside collection program.
	Increase level of service by offering a call-in collection program.
	Increased collection at waste disposal sites (WDS).
	Promote alternatives to managing leaf and yard waste such as mulching or composting at home.
	Maintain existing programs.
<b>Mattress Program</b>	Continue providing compensation for transporting mattresses to the PCCWMF or events.
	County coordinates and pays for mattress collection events and includes larger collection areas.
	Expand collection sites that accept mattresses.
	Call-in collection service for mattresses.
<b>Reuse and Sharing Programs</b>	Create an internal digital sharing platform to allow Townships and departments within the County to access available materials.
	Promote the use of existing municipal reuse centres at transfer stations through upgrades and education of residents.

Program Description	Options
	Increase promotion of existing community services.
	Support existing external reuse centres and programs.
<b>Waste Reduction Programs</b>	Food waste reduction public education and workshops.
	Demolition and building waste reduction permit requirements are an objective that was included in the original plan.
	Single-use plastic reduction (by-laws and policies implementation).
	Increase circular procurement (policies and/or principles).
	Community/business waste reduction incentive programs.
<b>Food Organics Waste Management</b>	Weekly curbside collection for food organics.
	Expand depot collection program.
	Hybrid curbside organics/countertop composters.
	Public education and outreach about composting programs.
<b>Textile Diversion Opportunities</b>	Curbside collection for textiles (call-in service).
	Expand receiving locations and end users.
	Expand education/promotion.
<b>Other Diversion Opportunities</b>	Implement bulky plastic program (depot programs, public education).
	Book reuse and recycling options.
	Agricultural and boat wrap program.
	Polystyrene recycling program through depot collection.

## 2.1 Options Evaluation

Each option outlined in Table 1 was ranked based on the scoring criteria in Table 2, which considered cost, diversion potential, feasibility, and perceived stakeholder acceptance. The full detailed results of the evaluation are in Appendix H. A summary of the options recommended to be carried forward is in Table 3. Additional options the County could consider for implementation, provided time and resources are available, and are included in Table 3.



**Table 2 Option Scoring Criteria**

Category	Low Score	Medium Score	High Score
Cost	>250K	50K-250K	<50K
Increase Diversion From Landfill*	<100 tonnes per year/ <1% landfilled waste	100 – 1,000 tonnes per year/ 1% - 10% landfilled waste	> 1,000 tonnes per year/ >10% landfilled waste
Feasibility	Requires significant coordination between County and Townships, larger contracts, and/or potentially capital infrastructure or approvals.	Requires external consultant to help develop/implement the initiative or requires significant involvement from Stakeholders such as the Townships.	Can be implemented with existing County internal resources; small contracts may be required for operations.
Perceived Stakeholder Acceptance	<30% support from public, not the preferred option of municipal staff	30%-60% percent of participants support; mixed reviews from municipal staff	>60% of survey participants support, and municipal staff are generally supportive of initiative

*\* Some programs would not necessarily increase diversion from landfill but may result in the management of greater quantities of material with an increased level of service. For example, additional leaf and yard services are not expected to increase diversion from landfill but make it more convenient for residents to manage. This would also apply to mattresses, as these are not currently permitted to be landfilled at the PCCWMF (however they may be landfilled by third party service providers at other sites).*

**Table 3 Options to Carry-Forward**

Recommendations	Program Description	Options
<b>Implementation - 5 Year Plan</b>	<b>Non-Eligible Source Blue Box Material Management</b>	Continue providing curbside BB collection services to NES and work with Townships to coordinate depot NES BB services.
	<b>Leaf and Yard Program</b>	Promote alternatives to managing leaf and yard waste such as mulching or composting at home.
		Maintain Existing Programs.
	<b>Mattress Program</b>	Continue providing compensation for transporting mattresses to PCCWMF or events.
	<b>Reuse and Sharing Programs</b>	Increase promotion of existing community services.
		Support existing external reuse centres and programs.
	<b>Waste Reduction Programs</b>	Food waste reduction public education and workshops.
		Increase circular procurement (policies and/or principles).
		Community/business waste reduction incentive programs.
	<b>Food Organics Waste Management</b>	Public education and outreach about composting programs.
		Weekly curbside collection for food organics.
<b>Secondary Recommendations - If time and resources permit</b>	<b>Textile Diversion Opportunities</b>	Expand receiving locations and end users.
		Expand education/promotion.
	<b>Leaf and Yard Program</b>	Expand curbside collection program.
	<b>Mattress Program</b>	County coordinates and pays for mattress collection events and includes larger collection areas.
	<b>Waste Reduction Programs</b>	Single-use plastic reduction (by-laws and policies implementation).
	<b>Other Diversion Opportunities</b>	Implement bulky plastic program (depot programs, public education).
		Book reuse and recycling options.
		Agricultural and boat wrap program.
		Polystyrene recycling program through depot collection.

Recommendations	Program Description	Options
Not recommended	Non-Eligible Source Blue Box Material	Continue providing curbside BB collection services to NES.
		Stop providing NES BB collection services.
		Coordinate collection of BB for NES at Depots only.
	Leaf and Yard Program	Increase level of service by offering a call-in collection program.
		Increased collection at waste disposal sites (WDS).
	Mattress Program	Expand collection sites that accept mattresses.
		Call-in collection service for mattresses.
	Reuse and Sharing Programs	Create an internal digital sharing platform to allow Townships and departments within the County to access available materials.
		Promote the use of existing municipal reuse centres at transfer stations through upgrades and education of residents.
	Waste Reduction Programs	Demolition and building waste reduction permit requirements are an objective that was included in the original plan.
	Food Organics Waste Management	Expand depot collection program.
		Hybrid curbside organics/countertop composters.
	Textile Diversion Opportunities	Curbside collection for textiles (call-in service).

**Table 4 Recommended Options for Consideration**

Program Description	Option	Diversion Potential (tonnes)	Program Cost Estimate
<b>Non-Eligible Source Blue Box Material Management</b>	1. Continue providing curbside BB collection services to NES and work with Townships to coordinate depot NES BB services.	165	\$800,000
<b>Leaf and Yard Program</b>	2. Promote alternatives to managing leaf and yard waste such as mulching or composting at home.	100	<\$10,000
<b>Reuse and Sharing Programs</b>	3. Increase promotion of existing community services.	200	\$15,000
	4. Support existing external reuse centres and programs.	100	\$20,000
<b>Waste Reduction Programs</b>	5. Food waste reduction in public education and workshops.	700	\$15,000
	6. Increase circular procurement (policies and/or principles).	N/A*	Minimal
	7. Community/business waste reduction incentive programs.	N/A*	<\$15,000
<b>Food Organics Waste Management</b>	8. Public education and outreach about composting programs.	80	\$15,000
	9. Weekly curbside collection for food organics.	4,500	\$1,425,000 (Co-collection) \$700,000 (Organics)
<b>Textile Diversion Opportunities</b>	10. Expand receiving locations and end users.	40	\$5,500 - \$15,000
	11. Expand education/promotion.	40	\$5,500 - \$15,000

## 2.2 Existing Program Management

The existing leaf and yard waste and mattress programs were examined through the process of updating the WMMP. The current leaf and yard waste program involves a combination of Township operated curbside and depot related programs and County compensation. The current mattress program involves County compensation to Townships that are managing mattresses at their site/events. Following a detailed analysis, it was determined that the leaf and yard waste and mattress programs were recommended to be maintained as status quo.

The remaining County-run waste management programs were also considered; however, were not included in the option development process. The hazardous waste services are available in most Townships through seasonal depot collection or year-round collection at the Pido Road depot. The electronics program has similar options for residents and are collected at municipal depots and Pido Road. The Garbage to Garden program offers residents who purchase composters or digesters from the County to sign up to have County staff come to their homes and install them during the summer months. They also provide information about backyard composting. The County will continue to manage these programs, and no changes will be implemented as part of the WMMP update.

### 3.0 Implementation Plan

Following the option development and ranking process, a plan was developed to guide the County forward in the implementation of the highest-ranking objectives or objectives that are recommended to maintain level of service, have been moved forward by Council, and programs that will remain status quo previously addressed in section 2.2. The implementation plan outlines key considerations such as requirements, potential timelines, estimated costs, rational, and evaluation results.

#### 3.1 Measuring Success

The success of implemented options can be evaluated through Key Performance Indicators (KPIs). KPIs use measurable values to evaluate how effective organizations are at achieving specific objectives. KPIs also serve as a benchmark for progress and success of implemented options pertaining to their objective. KPIs are identified in each implementation option table (Table 5-Table 15).

A Summary of County WMMP KPIs with definitions are provided below.

- Diversion Rate: track the tonnage or count of materials collected and/or received on an annual basis and analyze trends.
- Participation Rate: track the participation of programs through studies, surveys, number of visits, interactions, or involvement in program and monitor trends.
- Operational Efficiency: measures metrics related to the efficiency of collection routes and overall program management.
- Service Reliability: track the frequency of missed collections and/or service disruptions and work toward a decreasing trend as the program matures.
- Circular Procurement Adoption Rate: track if circular procurement policy or circular procurement considerations are implemented into tenders and proposals.
- Number of Receiving Locations: track the increase in the number of locations accepting textiles for reuse or recycling.

- Funding Utilization Rate: track the annual number of units sold by the County or incentives utilized by residents and analyze trends.
- Stakeholder Satisfaction Rate: gather feedback from stakeholders regarding the program to determine where potential improvements in program design and/or communications could be explored and track unsolicited resident feedback received.
- Program Reach: track the number of interactions, shares, or tags through social media promotion of online platform and/or apps and monitor trends.
- Food Waste Reduction: measure the amount of food waste identified through waste audits after program implementation to determine changes from baseline results.

## 3.2 Implementation Considerations

### 3.2.1 Non-Eligible Source Blue Box Material Management

The Blue Box (BB) Regulation (O.Reg. 391/21) does not capture industrial, commercial, and some institutional (IC&I) properties, including mixed-use properties or not for profits. Examples of non-eligible sources (NES) include, but not limited to:

- |                |                         |                            |
|----------------|-------------------------|----------------------------|
| • Hotels       | • Offices               | • Entertainment Venues     |
| • Campgrounds  | • Shopping Malls        | • Universities or colleges |
| • Resorts      | • Hospitals             | • Golf Courses             |
| • Restaurants  | • Community Centres     | • Cemeteries               |
| • Stores       | • Place of Worship      | • Amusement Parks          |
| • Businesses   | • Recreation Facilities | • Town Halls               |
| • Institutions | • Sports Venues         | • Municipal Offices        |

During interviews with Municipal staff, Townships expect that the preferred solution will be to continue providing BB services to NES in some way. Continuing to provide curbside collection and working with Townships to coordinate depot NES BB Services is a recommended

implementation option. This option provides the continual service of curbside with additional coordination with Townships to provide depots to accommodate NES quantities.

### **Curbside NES**

The County has an estimated 545 curbside BB stops which account for approximately 12% of non-residential properties within the County. The other 88% of non-residential properties in the County may be using depots or private hauling contracts to recycle BB materials. Noted some non-residential properties are vacant. The current budget for curbside BB collection for NES is approximately \$620,000 and includes regular routes, additional routes, and advertising.

Curbside NES BB material is currently collected with the eligible residential program so there is no data (weights or composition) for only NES. The County has completed a study to help understand the number of set outs in each Township and the approximate quantity of material set out. The County has a commercial curbside limit of 10 blue boxes or 2 carts (360 liters per cart) with additional BB materials required to be managed using depots or private collection.

### **Depot NES**

Currently, NES can access depots to manage their BB recycling. There is no data collection on only NES quantities; however, they are estimated to make up a low percentage of overall users at Municipal sites. All of the Townships within the County currently manage BB at depots through Circular Materials Ontario (CMO) and use Municipal Property Assessment Corporation (MPAC) percentages for the contract. There will be separate requirements when the transition is complete, January 1, 2026, and NES BB material will have to be collected separately. At this point no Townships have finalized plans to provide these services as they are anticipating the County's WMMP to provide some insight into how NES BB material may be managed at the County level. It is our understanding that all (or most) Townships would welcome some coordinated effort on managing this issue.

Option 1: Continue providing curbside BB collection services to NES and work with Townships to coordinate depot NES BB services is presented in Table 5. Implementation of KPIs recommended for NES waste programs will aid performance evaluation and identify areas of improvement.



**Table 5 Option 1: Continue providing curbside BB collection services to NES and work with Townships to coordinate depot NES BB services**

<b>Summary</b>	The County can effectively manage BB recycling for NES by continuing curbside services and enhancing depot coordination. Option 1 ensures service continuity while meeting regulatory requirements and addressing the needs of various stakeholders.
<b>Requirements/Considerations</b>	<p><b>Curbside Collection:</b></p> <ul style="list-style-type: none"> <li>Continue the current curbside BB collection for NES.</li> <li>Monitor and adjust routes based on the participating locations.</li> <li>Maintain the commercial curbside limit and manage excess materials through depots or private collection.</li> </ul> <p><b>Depot Services:</b></p> <ul style="list-style-type: none"> <li>Coordinate with Townships to establish or enhance depot services for NES.</li> <li>Collect data on NES usage at depots to better understand and manage the volume of materials.</li> <li>Develop a communication plan to inform NES about depot locations and usage guidelines.</li> </ul> <p><b>Budget and Funding:</b></p> <ul style="list-style-type: none"> <li>Allocate funds to support both curbside and depot services for NES.</li> <li>Explore potential funding sources or partnerships to offset costs.</li> </ul> <p><b>Stakeholder Engagement:</b></p> <ul style="list-style-type: none"> <li>Engage with NES stakeholders to gather feedback and ensure their needs are met.</li> <li>Collaborate with Townships to align services and share best practices.</li> </ul> <p><b>Risk of NESs not receiving service</b></p> <ul style="list-style-type: none"> <li>NES BB material may not be recycled if County does not provide service.</li> <li>Increase in recyclables ending up in waste stream or other streams.</li> <li>Increased confusion from public and NES staff regarding distinction.</li> </ul>

	<p><b>Risk of servicing NESs</b></p> <ul style="list-style-type: none"><li>• Collection and processing cost of servicing NES.</li><li>• Cost of communicating with NES as collection logistics change.</li></ul> <p><b>Additional Considerations</b></p> <ul style="list-style-type: none"><li>• Days of collection: 260 days, 5 days per week.</li><li>• Amount of material: approximately 167.5 tonnes annually (curbside and depot), 113.1 tonnes annually (curbside).</li><li>• Estimated increase in diversion from landfill: 165 tonnes.</li><li>• Overall rank is low but providing service is necessary.</li><li>• The County would need to conduct further consultation and engagement with NESs.</li><li>• Capital cost may be incurred depending on container requirements for depot drop off.</li></ul>										
Timing	<ul style="list-style-type: none"><li>• January 2026 to January 2031</li></ul>										
Estimated Cost	<ul style="list-style-type: none"><li>• \$800,000</li></ul>										
Rational	Although low, direction was given to put out a negotiable RFP by Council to maintain level of service. Producers are not responsible for collecting and managing recycling from NES under O. Reg 391/21 leaving municipal facilities no service (e.g., community centres, civic centres, libraries, places of worship, etc.).										
Evaluation Results	<table><tr><th>Cost</th><th>Increase Diversion from Landfill* (tonnes)</th><th>Feasibility</th><th>Perceived Stakeholder Acceptance</th><th>Overall Rank</th></tr><tr><td>Low</td><td>Medium</td><td>Low</td><td>Medium</td><td>Low</td></tr></table>	Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank	Low	Medium	Low	Medium	Low
Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank							
Low	Medium	Low	Medium	Low							
Key Performance Indicators	<p><b>Diversion:</b> Track the tonnage collected on an annual basis and analyze trends. Data will be available if NES have a dedicated route.</p> <p><b>Participation Rate:</b> Complete participation studies in selected areas each year through set out counts to monitor the participation rate in the program.</p>										

	<b>Stakeholder Satisfaction:</b> Gathers feedback from NES properties through a survey on the recycling services provided as well as tracking unsolicited feedback received.
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### 3.2.2 Promotion of Alternatives to Leaf and Yard Program

Promoting alternatives to managing leaf and yard waste such as mulching or composting at home will support existing programs and alleviate generation influx of leaf and yard waste to be managed by the County and municipal operations.

**Table 6 Option 2: Promote alternatives to managing leaf and yard waste such as mulching or composting at home**

<b>Summary</b>	Promote alternatives to managing leaf and yard waste such as mulching or composting at home. Options may include a pilot program with local farmers, mulching incentives, backyard composting incentives.
<b>Requirements/Considerations</b>	<ul style="list-style-type: none"> <li>• Applied public education and outreach where individuals learn hands on.</li> <li>• Staff required for composter and digester installation.</li> <li>• Subsidies: backyard composter \$30 per, backyard digester \$60 per.</li> <li>• Additional resources may be required for public education and outreach.</li> <li>• Estimated increased diversion from landfill: 100 tonnes annually.</li> </ul>
<b>Timing</b>	<ul style="list-style-type: none"> <li>• 2026 to 2031</li> </ul>
<b>Estimated Cost</b>	<ul style="list-style-type: none"> <li>• &lt;\$10,000</li> </ul>
<b>Rational</b>	<ul style="list-style-type: none"> <li>• Promoting alternatives will reduce curbside set out and generation.</li> <li>• Promoting alternatives will aid public education through applied implementation.</li> <li>• Overall rank is high.</li> </ul>

Evaluation Results	Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank
	High	Medium	High	High	High
Key Performance Indicators	<p><b>Funding Utilization Rate:</b> Track the annual number of units sold by the County or incentives utilized by residents and analyze trends.</p> <p><b>Stakeholder Satisfaction:</b> Include a satisfaction survey for residents to complete when utilizing programs provided and track unsolicited feedback on leaf and yard programs.</p>				

### 3.2.3 Reuse and Sharing Programs

This initiative would incorporate a circular economy approach by keeping materials that are reusable and of value for residents and the County in circulation. Waste streams that could be included in an expanded reuse and sharing program include bikes, wood, drywall, tools, clean excess soils, furniture.

**Table 7 Option 3: Increase promotion of existing community services**

Summary	Increase promotion of existing community services; encourage residents to increase participation in existing programs and expand on the programs offered at existing locations within the community. This can be done by creating a reuse, repair, sharing hub where people can go to find other end uses for materials. This could be implemented through an app with information on waste management including schedules, sorting tools, and locations for drop-off and donations. There may be some overlap between this and existing sharing/resale platforms. These options could also consider expanding/promoting locations of community sharing virtual platforms.														
Requirements/ Considerations	<ul style="list-style-type: none"><li>County should investigate partnership with <a href="#">Share Reuse Repair Hub</a> powered by Circular Innovation Council or similar platform to develop a platform for public access to hub locations.</li><li>County should investigate adding existing reuse and sharing program centres (public) to the County Waste App (ex. transfer station reuse centres and donation centres)</li><li>Estimated diversion from landfill 200 tonnes annually.</li></ul>														
Timing	<ul style="list-style-type: none"><li>2026 to 2031</li></ul>														
Estimated Cost	<ul style="list-style-type: none"><li>Estimated around \$15,000</li></ul>														
Rational	<p>This option could be implemented in conjunction with Option 6: support existing external reuse centres and programs. This option focuses on increasing overall publicity and engagement and will ultimately support external infrastructure in process.</p> <ul style="list-style-type: none"><li>Overall rank is high</li></ul>														
Evaluation Results	<table><tr><th>Cost</th><th>Increase Diversion from Landfill* (tonnes)</th><th>Feasibility</th><th>Perceived Stakeholder Acceptance</th><th>Overall Rank</th></tr><tr><td>High</td><td>Medium</td><td>High</td><td>High</td><td>High</td></tr></table>					Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank	High	Medium	High	High	High
Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank											
High	Medium	High	High	High											
Key Performance Indicators	<p><b>Participation Rate:</b> Track the monthly number of visits and interactions with the online hub/app and monitor trends.</p> <p><b>Program Reach:</b> Track the number of shares or tags through social media promotion of the online platform/app and monitor trends.</p>														

**Table 8 Option 4: Support existing external reuse centres and programs**

Summary	Support existing external reuse centres and programs so they can provide better services and extend the items being offered for reuse. Support can be through grants or funding or by assistance with navigating legislative or material stream specific requirements.														
Requirements/ Considerations	<ul style="list-style-type: none"><li>• Shop thrift promotions</li><li>• The amount of waste reduction will depend highly on proposals from the community.</li><li>• Further engagement is recommended to assess community proposals.</li><li>• Further engagement is recommended to assess business proposals.</li><li>• Estimated increase diversion from landfill: 100 tonnes annually.</li></ul>														
Timing	<ul style="list-style-type: none"><li>• 2029 to 2031</li></ul>														
Estimated Cost	<ul style="list-style-type: none"><li>• Estimated \$20,000 (financial incentives)</li></ul>														
Rational	<ul style="list-style-type: none"><li>• External reuse centres are a viable option for promoting waste diversion.</li><li>• Overall rank is high</li></ul>														
Evaluation Results	<table><tr><td>Cost</td><td>Increase Diversion from Landfill* (tonnes)</td><td>Feasibility</td><td>Perceived Stakeholder Acceptance</td><td>Overall Rank</td></tr><tr><td>High</td><td>Medium</td><td>High</td><td>High</td><td>High</td></tr></table>					Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank	High	Medium	High	High	High
Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank											
High	Medium	High	High	High											
Key Performance Indicators	<b>Participation Rate:</b> Track the number of reuse centres that are able to expand or improve operations with assistance from the County. Determine further metrics for success as specific programs are developed.														

### 3.2.4 Waste Reduction Programs

Programs to support circular economy by reducing waste reduction include the following.

**Table 9 Option 5: Food waste reduction public education and workshops**

Summary	Food waste reduction public education and workshops. The County would provide public education outreach about food waste to encourage food waste reduction.														
Requirements/ Considerations	<ul style="list-style-type: none"><li>Education/Outreach may require additional resources.</li><li>Additional communications can utilize existing communication platforms for public education.</li><li>Workshops can be carried out at community events and facility tours.</li><li>Estimated increase diversion from landfill: 700 tonnes annually.</li></ul>														
Timing	<ul style="list-style-type: none"><li>2028-2031</li></ul>														
Estimated Cost	<ul style="list-style-type: none"><li>Estimated \$15,000 (based on value of garbage to garden program)</li></ul>														
Rational	<ul style="list-style-type: none"><li>Food waste is a major contributor to garbage generation composition and reduction is the most cost-effective option for operations.</li><li>Overall rank is high</li></ul>														
Evaluation Results	<table><tr><td>Cost</td><td>Increase Diversion from Landfill* (tonnes)</td><td>Feasibility</td><td>Perceived Stakeholder Acceptance</td><td>Overall Rank</td></tr><tr><td>High</td><td>Medium</td><td>High</td><td>Medium</td><td>High</td></tr></table>					Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank	High	Medium	High	Medium	High
Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank											
High	Medium	High	Medium	High											
Key Performance Indicators	<p><b>Participation Rate:</b> Number of participants attending food waste reduction workshops, online courses, or community events</p> <p><b>Food Waste Reduction:</b> Measure the amount of food waste identified through waste audits after program is implemented to determine changes from the 2024 audit baseline results.</p>														

**Table 10 Option 6: Increase circular procurement (policies and/or principles)**

<b>Summary</b>	Increase circular procurement. Implementing a circular procurement policy or simply including circular procurement principles as a requirement into tenders and proposal for materials and services. The circular procurement considerations would promote circular business models (circular supplies, product as service, product life extension, sharing platform, and finally, resource recovery) and ultimately be intended to result in waste reduction.
<b>Requirements/Considerations</b>	<ul style="list-style-type: none"> <li>• The County to lead by example for increasing circular procurement.</li> <li>• Establish clear policy and strategies that prioritize circular procurement including setting goals, defining criteria, and creating guidelines for procurement process.</li> <li>• Provide training and education for procurement staff and other stakeholders to ensure they understand the principles of circular procurement and how to implement effectively.</li> <li>• Involve relevant stakeholders, including suppliers, contractors, and internal departments in the development and implementation of circular procurement practices.</li> <li>• Conduct market research to identify suppliers and products that align with circular economy principles. Engage with suppliers to encourage development and availability of circular products and services.</li> <li>• Foster collaboration and partnership with Townships and industry to share best practices, resources, and applied knowledge.</li> <li>• Increased diversion unknown but initiates the shift in economy with potential to significantly impact community.</li> <li>• Overall rank is medium</li> </ul>
<b>Timing</b>	<ul style="list-style-type: none"> <li>• 2027-2031</li> </ul>
<b>Estimated Cost</b>	<ul style="list-style-type: none"> <li>• Minimal cost, carried throughout bid document specifications.</li> </ul>
<b>Rational</b>	Considerations help build a framework for circular procurement that supports sustainability and resource efficiency.



<b>Evaluation Results</b>	<b>Cost</b>	<b>Increase Diversion from Landfill* (tonnes)</b>	<b>Feasibility</b>	<b>Perceived Stakeholder Acceptance</b>	<b>Overall Rank</b>
	High	Low	Medium	Medium	Medium
<b>Key Performance Indicators</b>	<b>Circular Procurement Adoption Rate:</b> A circular procurement policy or circular procurement considerations are implemented into tenders and proposals.				

**Table 11 Option 7: Community/business waste reduction incentive programs**

<b>Summary</b>	Community/business waste reduction incentive programs including community awards for businesses that promote circularity, discounts, coupons, and gift cards for participation in waste reduction programs, public acknowledgement/search engine for circular approved businesses. This could be implemented by the County or by supporting and promoting other local non-for-profit organizations aiming to achieve this objective.
<b>Requirements/ Considerations</b>	<ul style="list-style-type: none"> <li>County can offer incentives for businesses to adopt circular practices including tax credits, grants, and recognition programs.</li> <li>Sustainable practices could include reducing waste of product/service.</li> <li>Estimated diversion from landfill unknown but initiates a shift in economy with potential to significantly impact community.</li> </ul>
<b>Timing</b>	<ul style="list-style-type: none"> <li>2028 to 2031</li> </ul>
<b>Estimated Cost</b>	<ul style="list-style-type: none"> <li>Estimated &lt;\$15,000, depending on incentives utilized.</li> </ul>
<b>Rational</b>	<ul style="list-style-type: none"> <li>Reduce landfill waste</li> <li>Promote recycling and composting</li> <li>Cost savings for collection and processing operations</li> </ul>

Evaluation Results	Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank
	High	Low	Medium	High	Medium
Key Performance Indicators	<b>Participation Rate:</b> Track the number of businesses participating in programs implemented and monitor trends.				

### 3.2.5 Food Organics Waste Management

The results of the survey included in the Curbside Organics Plan Draft Report completed in 2021 noted that most organics were being disposed of in the garbage (County, 2024). Residents were asked what would prevent them from participating in a curbside organics program and the biggest concern was attracting animals/pests onto their property. There were also a high number of participants who were already composting on their own property. Another notable concern was short-term and seasonal residents who would be concerned if curbside was not collected, and bins/bags being left at the road. Residents seemed to respond positively to maintaining organics collection at transfer stations.

Currently, Selwyn (Bridgenorth) is the only Township utilizing the County curbside organics collection program throughout the County. Curbside organics collection is occurring in Millbrook and is managed by Cavan Monaghan. Streamlining organics curbside collection throughout the County would be beneficial to provide consistency across Townships. Curbside collection would have the most potential for successfully diverting organics from the landfill. Direction was given by Council to put out a negotiable RFP to move forward with the garbage upload and weekly curbside organics collection for participating Townships.

**Table 12 Option 8: Public Education and Outreach about composting programs**

<b>Summary</b>	Increase public education and outreach to increase resident participation in organics programs. The campaign may include promotional material to support Option 11: weekly curbside collection for food organics. The campaign may include promotional material and incentives for composting.
<b>Requirements/ Considerations</b>	<ul style="list-style-type: none"> <li>• The public will have access to information through multiple routes of technology (i.e., computers, smart phones).</li> <li>• The public will have access to information through multiple media routes.</li> <li>• Increased communication and resources may be required.</li> <li>• A variety of tools and strategies need to be utilized to reach a diverse demographic.</li> <li>• Campaigns will need to target specific composting programs pertaining to selected demographics to achieve viable utilization of programs offered.</li> <li>• Campaigns can target added additional Moloks at transfer stations if implemented, key locations to benefit are Asphodel Norwood, Otonabee-South Monaghan, Selwyn, and Bobcaygeon (cost of installation estimated at \$7,600 per location); potential to divert an estimated 106.9 tonnes/year.</li> <li>• Campaigns can target Food Cyclers program.</li> <li>• Estimated increase diversion from landfill: 80 tonnes annually.</li> </ul>
<b>Timing</b>	<ul style="list-style-type: none"> <li>• 2026 to 2031</li> </ul>
<b>Estimated Cost</b>	<ul style="list-style-type: none"> <li>• Estimated \$15,000</li> </ul>
<b>Rational</b>	<ul style="list-style-type: none"> <li>• Analysis of garbage generation composition indicates organics as a major contributor.</li> <li>• Managing organics through multiple programs alleviates operational load of curbside organics collection program.</li> <li>• Potential to reduce garbage by 25%-50% in each household.</li> </ul>

Evaluation Results	Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank
	High	Low	High	High	High
Key Performance Indicators	<b>Participation Rate:</b> Track the number of backyard composters sold, and tonnages diverted through the Molok program or other future initiatives to determine success of outreach campaigns.				

**Table 13 Option 9: Weekly curbside collection for food organics**

Summary	Curbside collection for food organics. The County provides weekly collection with biweekly garbage. To be determined through other studies/processes being completed by the County.
Requirements/Considerations	<ul style="list-style-type: none"> <li>Residents can put their organics cart out every week (i.e., there is enough organic material being generated to justify weekly collection).</li> <li>The weekly collection schedule for organics aligns with garbage bi-weekly collection allowing for observation curbside.</li> <li>Weekly collection will help aid public concerns with organic material build up, smell, and animal concerns.</li> <li>The operational cost of an organics program will help alleviate portions of garbage program operational cost by no longer managing organics in garbage stream.</li> <li>Estimated increase in diversion from landfills: 4,500 tonnes annually for the County; and 3,500 tonnes annually for the 5 Townships partaking in the garbage upload.</li> <li>Potential to reduce CO<sub>2</sub> emissions from organic waste decomposition by 75-80%</li> <li>Overall rank is medium</li> </ul>
Timing	<ul style="list-style-type: none"> <li>2027 to 2031</li> </ul>
Estimated Cost	<ul style="list-style-type: none"> <li>Estimated \$1,425,000 for co-collection with organics collection portion costing \$700,000 for the 5 Townships that are part of the program.</li> </ul>

<b>Rational</b>	<ul style="list-style-type: none"><li>• Analysis of garbage generation composition indicates organics as a major contributor.</li><li>• Weekly collection will help aid public concerns with organic material build up, smell, and animal concerns.</li><li>• Studies/process being completed by the County will determine the viability of the organics curbside collection program.</li><li>• Although the overall rank is medium, direction was given by Council to put out a negotiable RFP for the garbage and organics upload program.</li></ul>										
<b>Evaluation Results</b>	<table><tr><th>Cost</th><th>Increase Diversion from Landfill* (tonnes)</th><th>Feasibility</th><th>Perceived Stakeholder Acceptance</th><th>Overall Rank</th></tr><tr><td>Low</td><td>High</td><td>Low</td><td>High</td><td>Medium</td></tr></table>	Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank	Low	High	Low	High	Medium
Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank							
Low	High	Low	High	Medium							
<b>Key Performance Indicators</b>	<p><b>Diversion:</b> Track the tonnage of organics diverted on an annual basis and analyze trends.</p> <p><b>Participation Rate:</b> Conduct participation studies throughout the program to determine the number of households participating and analyze trends.</p> <p><b>Service Reliability:</b> Track the frequency of missed collections of service disruptions and work toward a decreasing trend as the program matures.</p> <p><b>Stakeholder Satisfaction:</b> Track resident feedback received on program to determine where potential improvements in program design and/or communication could be explored.</p>										

### 3.2.6 Textile Diversion Opportunities

Textile waste is a growing concern with “fast fashion” resulting in frequent wardrobe changes and low-quality products. Textiles also include materials like towels, sheets, pillows, etc.

Clothes are being made in surplus and diversion programs are needed to ensure a circular economy approach to textiles are in place to reduce these materials ending in the landfill.

There are several third-party options (not for profit and private) that accept textiles to reuse or recycle the materials. To expand on existing textile recycling services the following options are considered.

**Table 14 Option 10: Expand receiving locations and end users**

<b>Summary</b>	Expand receiving locations and end users. Identify more places that will accept textile materials for recycling (i.e., local charities and local shelters). Identify new markets for textile materials.
<b>Requirements/ Considerations</b>	<p><b>Expanding Receiving Locations</b></p> <ul style="list-style-type: none"> <li>Resources and collection bins for local charities, nonprofits, and other receiving locations.</li> <li>Retail Stores: collaborate with retail stores that offer in-store recycling bins to collect textiles or accessories of any brand (ex. H&amp;M and American Eagle Outfitters) (Krosofsky, 2021).</li> <li>Thrift stores: forge connections with thrift stores like Talize, Value Village, and Vinnies, they often send unsellable textiles to recyclers.</li> <li>Non-profits: forge connections with entities like Habitat for Humanity/ReStore and local shelters like YES Shelter for Youth and Families, Elizabeth Fry Society, John Howard Society, and YMCA Crossroads Shelter.</li> <li>Institutions: set up collections bins at institutions like public schools, colleges, universities, and long-term care homes to encourage textile recycling.</li> <li>Grocery Stores: set up collection bins at supermarkets to encourage the public to drop-off of textiles and no longer usable grocery bags.</li> <li>Community Centres: utilize local community centres as drop-off points for textile recycling.</li> </ul> <p><b>New Markets for Textile Materials</b></p> <ul style="list-style-type: none"> <li>Fashion Industry: promote and engage with brands focused on circular economy practices. Companies like Patagonia and Zara are utilizing recycled textiles (Microban, 2024).</li> <li>Home Furnishing: Partner with manufacturers of home textiles which can incorporate recycled fibres.</li> <li>Construction Industry: Investigate the use of recycled textiles in construction materials like insulation and soundproofing (Microban, 2024).</li> <li>Public-Private Partnerships: collaborate with public and private entities to create a framework for managing textile waste and promote recycling (Fashion for Good, 2022).</li> </ul>

	<ul style="list-style-type: none"><li>• Overall rank is high</li><li>• Estimated diversion from landfill: 40 tonnes annually.</li></ul>										
Timing	<ul style="list-style-type: none"><li>• 2029 to 2031</li></ul>										
Estimated Cost	<ul style="list-style-type: none"><li>• Estimated \$15,000</li></ul>										
Rational	By implementing or expanding a textile recycling program, Townships can make a substantial positive impact on the environment, economy, and community.										
Evaluation Results	<table><tr><th>Cost</th><th>Increase Diversion from Landfill* (tonnes)</th><th>Feasibility</th><th>Perceived Stakeholder Acceptance</th><th>Overall Rank</th></tr><tr><td>High</td><td>Low</td><td>High</td><td>High</td><td>High</td></tr></table>	Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank	High	Low	High	High	High
Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank							
High	Low	High	High	High							
Key Performance Indicators	<b>Number of Receiving Locations:</b> Increase in the number of locations accepting textiles for reuse or recycling.										

**Table 15 Option 11: Expand Education/Promotion**

<b>Summary</b>	Expand Education/Promotion. This option would encourage more textile reduction, reuse, and recycling through education programs at local schools, online resources, workshops, and community events.
<b>Requirements/Considerations</b>	<p>Although ranked medium for evaluation results, promotion and education of these programs would be recommended and would benefit Option 10: expand receiving locations and end users.</p> <ul style="list-style-type: none"> <li>Estimated diversion from landfill is 40 tonnes annually (based on waste audit results and the assumption that more textiles will be discarded from awareness and service availability).</li> </ul> <p><b>Education Programs at Schools</b></p> <ul style="list-style-type: none"> <li>Classroom Curriculum;</li> <li>Upcycling Workshops; and,</li> <li>School competitions.</li> </ul> <p><b>Online Resources</b></p> <ul style="list-style-type: none"> <li>Educational Websites;</li> <li>Social Media Campaigns; and,</li> <li>Virtual Workshops.</li> </ul> <p><b>Workshops</b></p> <ul style="list-style-type: none"> <li>Community Upcycling Workshops;</li> <li>Repair Cafes; and,</li> <li>Creative Reuse Workshops.</li> </ul> <p><b>Community Events</b></p> <ul style="list-style-type: none"> <li>Clothing Swaps;</li> <li>Textile Recycling Drives; and,</li> <li>Public Exhibitions.</li> </ul>
<b>Timing</b>	<ul style="list-style-type: none"> <li>2028-2031</li> </ul>
<b>Estimated Cost</b>	<ul style="list-style-type: none"> <li>Estimated between \$5,500-\$15,000</li> </ul>



<b>Rational</b>	By implementing educational and promotional strategies the County can encourage more textile reduction, reuse, and recycling within the community.														
<b>Evaluation Results</b>	<table><tr><td>Cost</td><td>Increase Diversion from Landfill* (tonnes)</td><td>Feasibility</td><td>Perceived Stakeholder Acceptance</td><td>Overall Rank</td></tr><tr><td>High</td><td>Low</td><td>Medium</td><td>High</td><td>Medium</td></tr></table>					Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank	High	Low	Medium	High	Medium
Cost	Increase Diversion from Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank											
High	Low	Medium	High	Medium											
<b>Key Performance Indicators</b>	<p><b>Participation Rate:</b> Level of engagement in educational activities, such as participation in workshops, online courses, or community events.</p> <p><b>Stakeholder Satisfaction:</b> Conduct satisfaction surveys to receive feedback from participants regarding the effectiveness and usefulness of the workshops and educational materials.</p>														

### **3.3 Program Options Implementation Timeline**

Table 16 presents estimated timelines for each recommended option. Continued/improved programs carry forward through 2025, new programs start in 2026-2029, and all programs should carry forward after 2030 into 2031.

**Table 16 Program Implementation Options Timeline**

Recommendations	Program Description	Options	2026	2027	2028	2029	2030	2031
Implementation - 5 Year Plan	<b>Non-Eligible Source Blue Box Material Management</b>	1. Continue providing curbside BB collection services to NES and work with Townships to coordinate depot NES BB services						
	<b>Leaf and Yard Program</b>	2. Promote alternatives to managing leaf and yard waste such as mulching or composting at home						
	<b>Reuse and Sharing Programs</b>	3. Increase promotion of existing community services						
		4. Support existing external reuse centres and programs						
	<b>Waste Reduction Programs</b>	5. Food waste reduction public education and workshops						
		6. Increase circular procurement. Implementing a circular procurement (policy and/or principals)						
		7. Community/business waste reduction incentive programs						
	<b>Food Organics Waste Management</b>	8. Public Education and Outreach about composting programs						
		9. Weekly curbside collection for food organics						
	<b>Textile Diversion Opportunities</b>	10. Expand receiving locations and end users						
		11. Expand Education/Promotion						
Current Programs to be Maintained	<b>Leaf and Yard Program</b>	Continuation of existing program						
	<b>Mattress Program</b>	Continuation of existing program						
	<b>Garbage to Garden Program</b>	Continuation of existing program						
	<b>Household Hazardous Waste</b>	Continuation of existing program						
	<b>Waste Electrical and Electronic Equipment</b>	Continuation of existing program						

## **4.0 Public and Stakeholder Engagement Strategies**

Public and stakeholder engagement strategies are available in Appendix A. The detailed landscape analysis conducted by Cambium highlights the current communications and outreach strategies employed by the eight Townships within Peterborough County. The analysis reveals a consistent reliance on digital media, social media, and software applications to disseminate waste management information. Townships utilize tools like the Recycle Coach App and email updates to enhance resident engagement. Additionally, emerging strategies from benchmark regions like Toronto and York Region emphasize the importance of multi-platform campaigns, community engagement events, and tailored messaging for different audience segments. These insights provide a comprehensive framework for developing effective waste management communication and programming across the County.

## 5.0 Promotion and Education Implementation Plan

Promotion and education implementation plan considerations are available in Appendix A. The Promotion and Education Implementation Plan outlines the strategic approaches for planning, implementing, and evaluating waste diversion initiatives across the County and its eight Townships from 2026 to 2031. The plan identifies primary, secondary, and tertiary target audiences, including residents, educational institutions, and local councils. It emphasizes the importance of a unified campaign theme, "Peterborough County Protects our Environment," and key messages promoting reduction, reuse, recycling, and composting. The implementation section details various communication tactics, leveraging both traditional and digital media platforms to maximize outreach and engagement. This comprehensive plan aims to foster a culture of sustainability and enhance waste diversion efforts throughout the County.

Effective public and stakeholder engagement is crucial for the success of waste diversion initiatives. By actively involving residents, businesses, and community organizations, the County can significantly increase waste diversion rates and achieve improvements in program performance. Engaging the community through targeted promotion and education strategies not only fosters a culture of sustainability but also ensures widespread participation in waste management programs. The costs associated with these engagement efforts can vary, from minimal expenses utilizing existing staff resources and media channels (such as the County website and social media) to more substantial investments in comprehensive campaigns. By leveraging these strategies, the County can maximize its impact on waste diversion and environmental protection.

## 6.0 Conclusion

The County offers high quality waste services to the community and strives to maintain this level of service, while navigating the changes in legislation and considering new approaches to waste management.

The options presented provide a recommended direction based on the information collected through the WMMP Update process. This will assist the County in achieving their goals of expanding outreach for waste management, optimizing waste management through a consistent approach to service delivery and utilizing waste reduction strategies.

Implementation options assessed eight key programs, including non-eligible source Blue Box material management, leaf and yard waste programs, mattress recycling, reuse and sharing initiatives, waste reduction strategies, food organics waste management, textile diversion opportunities, and other potential diversion methods. In respect to the key programs, individual implementation options were then identified. Communication and engagement strategy recommendations for implementing each option were also identified. Through implementation, the County can achieve objectives of streamlining diversion programs, developing new initiatives and ideas, increasing education and training programs, achieve outstanding 2012 WMMP objectives, implementing circular economy initiatives and continue providing NES collection options.

The updated WMMP for the County reflects a comprehensive approach to addressing current waste management challenges and opportunities. By leveraging waste composition data and extensive stakeholder consultations, Cambium Inc. has developed a robust five-year implementation plan that includes 11 prioritized options and continuation of existing program management. These options are designed to enhance waste diversion efforts, optimize service delivery, and incorporate best practices. The identified KPIs and evaluation tools will provide a clear framework for monitoring progress and ensuring the success of the recommended programs and the communication and engagement strategies utilized. With this updated WMMP, the County is well-positioned to achieve its waste diversion goals and continue to improve sustainable waste management practices. The County should consider all the options presented and implement those considered to be most in line with their priorities and needs.

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## **Appendix A**

# **Promotion and Education Implementation Plan**

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# Promotion and Education Implementation Plan

May 9, 2025

Prepared for:  
County of Peterborough

Cambium Reference: 20115-001

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## 1.0 Introduction

The Promotion and Education Plan (Plan) identifies the planning, implementation, and evaluation approaches to support the County of Peterborough (County) and the eight Townships in increasing waste diversion from 2026 to 2031. The comprehensive Plan has the potential to increase waste diversion significantly based on analysis completed during the Waste Management Master Plan (WMMP) update process. The cost for effective engagement can vary, however, most of the recommended promotion and education programs require little to no additional costs as they can be completed internally and with existing resources (i.e. websites and social media). This Plan is intended to remain a living document, to be reviewed annually by the County and updated as required.

## **2.0 Public and Stakeholder Engagement Strategies**

### **2.1 Current Communications and Outreach**

Cambium conducted a landscape analysis to determine how each of the Townships executes current waste management communication and programming. An investigation into two larger regions to provide benchmarks as best-in-class engagement strategies was also conducted.

All eight Townships rely on digital media (websites) and social media as the primary channels for communicating waste management news to its businesses/residents. This is likely due to the high reach, relatively low cost and minimal environmental footprint. Some Townships use tools like website popups to strengthen digital communications. In addition to digital and social communications, some Townships leverage software program applications and subscriptions. Key findings are below.

- Townships leverage the Recycle Coach App to help residents with questions regarding sorting and scheduling.
- Norwood, Trent Lakes and North Kawartha offer some form of email updates (newsletters or notifications) if residents/businesses subscribe as well as digital and social communication.
- The Township of North Kawartha leveraged a Popup for their FoodCycler program which would make it easier for residents to access information instead of having to navigate the website to find it.

Print tools are sometimes used in the Townships. Print tools are useful because they put the onus on the Township instead of the resident/business to look up information (though more expensive and can increase waste in some cases). Norwood currently prints off its quarterly newsletter and makes it available at municipal buildings (library and community centre).

The landscape analysis suggests communication strategies and programming are somewhat consistent in each of the eight Townships. Peterborough County could help deploy the same (or similar) communication/programming strategy in each of its Townships, leveraging the same tactics in each location.



## 2.2 Emerging Strategies

The City of Toronto and York Region both have sophisticated communication and programming for waste management to drive education and awareness. These regions could be leveraged as benchmarks for developing programming and communication strategies across the County. We also looked at winning campaigns from the Municipal Waste Association. Key findings follow below.

- Programming at elementary schools and age-appropriate activity guides for educators.
- Events for both businesses and residents such as webinars, Repair Hubs and Cafes and Community Environment Days.
- Awareness/Visibility initiatives such as the “Artist in Residence” exhibit where local artists express the significance of waste diversion through art displays.
- Waste Diversion Statistics: these are readily available to residents and businesses.
- A well-defined Waste Strategy: This guides the municipality's efforts and serves as a benchmark for measuring progress and holding stakeholders accountable.

Emerging strategies suggest that having a well-defined strategy is key to measuring and increasing awareness and education around the County’s waste management initiatives.

## 2.3 Multi-Platform Campaigns

### **Social Media Campaigns**

Leverage platforms like Facebook, Instagram, X/Twitter, Tik Tok, Threads, Bluesky, and YouTube to share engaging content about recycling. This could include educational posts, infographics, and videos that highlight the benefits of recycling and proper sorting techniques.

### **Multi-Channel Communications**

#### *Paid Media Advertising*

Use a mix of paid advertising for print, radio, television (local news), and digital media to highlight waste diversion opportunities and behaviours.

### *Media Relations*

Issue media releases, public service announcements, article contributions, interviews, etc. to encourage participation.

Use a mix of digital, social, and traditional media to reach a wider audience. Utilize newsletters, local newspaper articles, and radio time to reinforce the importance of recycling and organics collection.

### **Interactive Content**

Use quizzes, pools, and videos to engage the community. Develop a quiz on what items can be recycled or a video demonstrating the recycling process to make learning fun and informative.

### **Influencer Partnerships**

Collaborate with local environment focused influencers to promote recycling initiatives. Influencers can share their own recycling tips and experiences while encouraging their followers to participate.

### **Community Engagement Events**

Organize local cleanup drives, recycling workshops, and seminars. These events will educate residents about recycling practices and foster a sense of community involvement.

### **Reward Programs**

Implement reward programs that incentivise recycling. Residents could earn points for recycling correctly, which can be redeemed for discounts or prizes. By-law enforcement could leverage rewarding residents and offer redeemable prizes for resident participation (ex. new bins or additional bins and drop off discounts)

By leveraging these multi-platform campaigns the County can effectively promote diversion programs, encourage behavioural change and foster sustainability culture.

## 2.4 Stakeholder Audience Segmentation

Identifying and understanding specific audience segments across the County allows for tailored messaging that resonates more effectively. Waste management programs in the County can tailor strategies to different audience groups listed below.

### Public Stakeholder Audience

**Residential Households:** single family homes and multi-residential buildings. Each group has different waste management needs and behaviours.

- Educational campaigns can tailor messaging to different demographics of households, emphasizing proper sorting techniques and the benefits.
- Incentive programs can offer rewards for households and multi-residential buildings that consistently use diversion programs effectively.

**Youth and Families:** engaging younger residents and families can create long-term behaviour change and promote sustainability.

- Interactive programs can engage a younger audience through recycling workshops, composting demonstrations, and sustainability educational activities.
- Social media engagement can target platforms popular to younger audiences like Instagram and TikTok to share fun and educational content about waste management services.

**Senior citizens:** older residents have different preferences and needs for services, including accessibility.

- Accessibility services can ensure service use for older residents like convenient drop-off points and assistance with sorting waste at drop-off.
- Community outreach can target senior demographic by conducting outreach in senior centres or senior events to educate and involve them in waste management initiatives for a sustainable future.

Seasonal Population: seasonal resident influx in summer months impacting waste generation and collection needs.

- Seasonal campaigns can launch during peak seasons to inform seasonal residents about waste services and encourage participation.
- Temporary infrastructure can provide additional waste collection sites, reuse sites, and services during the summer months to accommodate population influx.

### **Private Stakeholder Audience**

IC&I: businesses, schools, community centres, offices, institutions, etc. have unique requirements for waste management.

- Customized solutions can be offered like specialized recycling programs and waste audits offered by the County to identify areas of improvement.
- Partnerships with local IC&I entities to promote waste reduction incentives and share best practices.

### **Environmental Organizations**

Joint campaigns can raise awareness about waste diversion programs and educate the public about sustainable waste management practices effectively. Collaboration with local environmental organizations like GreenUP have been instrumental in promoting initiatives in Peterborough. Forging more links to leveraging environmental organizations for outreach is a feasible option to promote the success of waste management programs.

### **Artistic/Cultural Organizations**

Collaborative projects can partner with local cultural organizations to create community projects focused on waste reduction. The County could collaborate with local artists to create sustainability focused sculptures or installations using recycled material. Integrating art into waste management programs by using local artists to create public art installations that raise awareness about recycling and waste reduction can be beneficial to the community.

Community workshops can combine waste management education with cultural activities. Workshops can be hosted alongside local art exhibitions or performance like the Peterborough Arts and Waterfront festival or the host an exhibit at the Peterborough Canoe Museum.

### **Culturally Diverse Communities**

Inclusive campaigns can develop waste management campaigns that reflects the diverse culture backgrounds of Peterborough County Residents. Use multilingual materials and culturally relevant messages to ensure inclusivity.

By segmenting the County audience and leveraging targeted strategies the County can improve the effectiveness of its waste management program leading to higher participation rates.

### **3.0 Planning of Promotion and Education Plan**

#### **Target Audience**

The target audiences of this promotion and education plan are:

##### *Primary*

The primary target audience is:

- All residents (permanent and seasonal)
- Resident associations (community, lake, road, etc.)

##### *Secondary*

The secondary target audience is:

- Daycares (Early Childhood Educators, etc.)
- Schools (Teachers, Early Childhood Educators, Principals, etc.)
- Environmental non-governmental organizations
- Non-governmental organizations (Lions Club, Rotary Club, etc.)

##### *Tertiary*

The tertiary target audience is:

- County of Peterborough Council
- Township Councils
- County of Peterborough Staff
- Township Staff

#### **Campaign Theme/Slogan**

The suggested campaign theme/slogan is:

- “Peterborough County Protects our Environment”

## Key Messages

The County of Peterborough and the eight Townships will need to agree to include this campaign theme/slogan on all waste-related, collaborative and singular, promotion and education tactics.

The key messages to be used are:

- Reduce, reuse, recycle, compost—every day! Your actions help protect our environment!
- By reducing the amount of waste you generate in your home or business, you decrease the number of items that need to be disposed of.
- By reusing materials again and again in your home or business, you minimize the amount of waste that needs to be managed.
- By recycling acceptable Blue Box materials in your home or business, you help turn old packaging and products into new ones.
- By composting food scraps and yard waste in your home or business, you help contribute to the rejuvenation of our soil.
- The County of Peterborough—in partnership with the Townships of Asphodel-Norwood, Cavan-Monaghan, Douro-Dummer, Havelock-Belmont-Methuen, North Kawartha, Otonabee-South Monaghan, Selwyn, and Trent Lakes—is committed to protecting our environment by minimizing the amount of waste being generated and being disposed of.

### 3.1 Implementation of Promotion and Education Plan

The following tables presents a suite of communication tactics that can be utilized to promote waste diversion options; and educate residents about participation in waste diversion programs and options.

The County has several options for newspaper and radio station distribution (media releases, public service announcements, and paid advertising), including the Peterborough Examiner, Oldies 96.7, Move 99.7, and The Wolf 101.5.

The evolving nature of platforms will need to be considered when determining which social media channels to utilize, including Facebook, Instagram, X/Twitter, YouTube, LinkedIn, Threads, Bluesky, Snapchat, Tiktok, etc.

### 3.1.1 Non-Eligible Source Blue Box Material Management

Recommendations to promote continued curbside BB collection services to NES and work with Townships to coordinate depot NES BB services are presented below in Table 1.

**Table 1 Option 1 Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Flyer	Flyer detailing rationale for new program to collect Blue Box materials from non-eligible sources, options for curbside collection, and depot drop-off, acceptable materials, contractor contact information, etc.	November 2025 <i>(because program starts January 1, 2026)</i>
Social Media	Facebook, Instagram, X/Twitter, LinkedIn - weekly posts in November, December and January about changes	November 2025
Website	Webpage dedicated to BB NES	Summer 2025
Signage: Collection Vehicle	Install a vehicle wrap on the contractor collection vehicle that is doing NES collection	January 1, 2026
Signage: Depot	Install signage at NES designated depots, including drop-off bins and acceptable materials	January 1, 2026
Outreach: Presentations	Presentations (in-person or virtual) to Chamber of Commerce, and/or applicable BIAs	November 2025



### 3.1.2 Leaf and Yard Program

Recommendations for promotion of alternatives to managing leaf and yard waste such as mulching or composting at home are presented below in Table 2.

**Table 2 Option 2 Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Flyer	Flyer detailing steps for mulching and/or composting at home  Distribute when ratepayers purchase a composter or digester, or distribute at community events, and municipal facilities	April 2026
Media Relations	Media release to local newspapers about mulching and composting at home  Public service announcement to local radio about composting options	April 2026
Paid Advertising	Paid advertising in local newspaper about composting and mulching	April 2026 (composting)  September 2026 (mulching)
Social Media	Facebook, Instagram, X/Twitter - weekly posts in April, May, June, July, August, September, October	April to October annually
Website	Webpages dedicated to mulching, composting	April 2025
Outreach: Booth	Booths at farmers' markets, master gardener events, home shows, about mulching and composting options	November 2025

### 3.1.3 Reuse and Sharing Programs

Recommendations to increase promotion of existing community services and support existing external reuse centres and programs is presented below in Table 3.

**Table 3 Option 3 and 4 Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Flyer	Flyer detailing reuse centre options	At County Discretion
Paid Advertising	Paid advertising in local newspaper about reuse centre options	At County Discretion
Social Media	Facebook, Instagram, X/Twitter – monthly posts about reuse  YouTube video about reuse centres – perhaps a tour/interview of each location (can also be used on Website)	At County Discretion
Website	Webpage dedicated to reuse centres	At County Discretion
Share Reuse Repair Hub	Powered by Circular Innovation Council (CIC), this digital tool lists sharing, reuse, and repair options, vetted and managed by CIC (or similar platform)	At County Discretion
Event: National Thrift Shop Day (August 17, 2025)	Partner with Townships and reuse centres to promote National Thrift Shop Day, including in-store sales <ul style="list-style-type: none"> <li>Media Relations (Media Release, Public Service Announcement)</li> <li>Signage (in-store, depot)</li> <li>Webpage</li> </ul>	July – August 2028 Plus annual thereafter

### 3.1.4 Waste Reduction Programs

Recommendations to promote food waste reduction in public education and workshops is presented below in Table 4.

**Table 4 Option 5 Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Flyer	Flyer detailing food waste reduction tips for the home.	At County Discretion
Social Media	Facebook, Instagram, X/Twitter – bi-weekly posts about food waste reduction  YouTube video about food waste reduction (can also be used on Website)  Facebook, Instagram, X/Twitter – monthly posts about community/business waste reduction	At County Discretion
Website	Webpage dedicated to food waste reduction (work in partnership with Health Unit)  Webpage dedicated to community/business waste reduction (perhaps tie-into BB NES webpage)	At County Discretion
Outreach: Presentations	Presentations to schools, community groups, multi-residential about food waste reduction  Presentations (in-person or virtual) to Chamber of Commerce, and/or applicable BIAs about community/business waste reduction incentives	At County Discretion

Recommendations to promote an increase in circular procurement (policies and/or principles) is presented below in Table 5.

**Table 5 Option 6 Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Media Relations	Media release to local newspapers about circular procurement  Public service announcement to local radio about circular procurement	At County Discretion
Social Media	Facebook, Instagram, X/Twitter, LinkedIn – bi-monthly posts about circular procurement	At County Discretion
Website	Update County and/or Municipal website' pages about procurement and procurement policies to include circular initiatives	At County Discretion
Outreach: Presentations	Presentations (in-person or virtual) to Chamber of Commerce, and/or applicable BIAs about circular procurement	At County Discretion

Recommendations to promote community/business waste reduction incentive programs is presented below in Table 6.

**Table 6 Option 7 Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Media Relations	Media release to local newspapers about community/business waste reduction incentive programs  Public service announcement to local radio about changes	At County Discretion
Social Media	Facebook, Instagram, X/Twitter, LinkedIn – bi-monthly posts about community/business waste reduction incentive programs	At County Discretion
Website	Webpage dedicated to community/business waste reduction incentive programs	At County Discretion
Outreach: Presentations	Presentations (in-person or virtual) to Chamber of Commerce, and/or applicable BIAs about community/business waste reduction incentive programs	At County Discretion
Recognition: Plaques	Recognition plaques distributed to community organizations or businesses that have implemented documentable waste reduction initiatives	At County Discretion

### 3.1.5 Food Organics Waste Management

Recommendations to promote public education and outreach about food waste composting programs is presented below in Table 7.

**Table 7 Option 8 Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Flyer	Flyer detailing food waste composting options (could be linked to yard waste flyer)	At County Discretion
Media Relations	Media release to local newspapers about food waste composting Public service announcement to local radio about food waste composting	At County Discretion
Paid Advertising	Paid advertising in local newspaper and radio about food waste composting	At County Discretion
Social Media	Facebook, Instagram, X/Twitter - weekly posts about food waste composting YouTube video about food waste composting (can also be used on Website)	At County Discretion
Website	Webpage dedicated to food waste composting, and curbside food waste composting collection	At County Discretion
Signage: Collection Vehicle	Install a vehicle wrap on the contractor collection vehicle that is doing food waste composting collection	At County Discretion
Signage: Depot	Install consistent signage at depots, including drop-off bins and acceptable materials	At County Discretion
Signage: Grocery Stores, Hardware Stores	Signage at local retailers (T-stands, shelf-talkers) about acceptable liners for curbside food waste composting collection	At County Discretion
Outreach: Presentations	Presentations to schools, community groups, multi-residential about food waste composting	At County Discretion
Outreach: Booth	Booths at grocery stores, hardware stores, farmers' markets, home shows, about food waste composting	At County Discretion

The implementation of a curbside food waste composting program for Option 11 requires a comprehensive promotion and education plan utilizing a wide range of communication tactics to drive engagement. In addition, Townships included in the program should be prepared for increased customer service phone calls, emails and social media engagements as bins are delivered, and during the first few weeks of collection as residents and collectors adjust to the new program. Communication and engagement recommendations for weekly curbside collection of organics are provided below in Table 8.

**Table 8 Option 9 Recommendations**

<b>Communication Tactic</b>	<b>Description of Tactic</b>	<b>Distribution Date</b>
Waste Collection Information	Create standardized content for Townships in program to distribute virtually on website, ensure content is included about the curbside food waste composting program <ul style="list-style-type: none"> <li>• Acceptable materials</li> <li>• Acceptable liners</li> <li>• Hints and tips</li> </ul>	At County Discretion
“Look Inside” sticker	Placed on the lid of the green bins being delivered.  Encourages residents to “look inside” the bin for the kitchen catcher and promotion and education materials.	At County Discretion
Information Package	Placed inside the green bin being delivered, the information package includes: <ul style="list-style-type: none"> <li>• Booklet explaining rationale for program start, acceptable materials, acceptable liners, hints and tips, how materials are collected (split truck, etc.), how materials are processed and end product</li> <li>• “Green bin belongs to...” sticker if the green bin doesn’t have a space to write home addresses on them</li> <li>• Acceptable materials sticker to place on kitchen catcher</li> <li>• Acceptable materials magnet (optional, as they can’t be used on stainless steel fridges)</li> </ul>	At County Discretion

Communication Tactic	Description of Tactic	Distribution Date
	<ul style="list-style-type: none"> <li>Sample of acceptable liners (often vendors will provide samples at no, or low, cost)</li> </ul>	
Media Relations	<p>Media release to local newspapers about new curbside food waste composting program</p> <p>Public service announcement to local radio about curbside food waste composting program</p> <p>Create a newspaper photo op for the “first family” to receive their green bin (make sure they are eager participants and representative of the community’s demographics)</p>	At County Discretion
Paid Advertising	Paid advertising in local newspaper and radio about curbside food waste composting program	At County Discretion
Social Media	<p>Facebook, Instagram, X/Twitter - daily posts when green bins are being delivered, and when collection starts</p> <p>Weekly YouTube videos about program:</p> <ul style="list-style-type: none"> <li>Acceptable materials</li> <li>“More than the kitchen”</li> <li>Acceptable liners</li> <li>Hints and tips</li> <li>How to clean kitchen catcher and green bin</li> <li>How materials are collected</li> <li>How materials are processed</li> </ul> <p>Videos should be posted across all social media channels, and posted to website</p>	At County Discretion
Website	Webpage dedicated to curbside food waste composting program	At County Discretion
Signage: Collection Vehicle	Install a vehicle wrap on the contractor collection vehicle that is doing curbside food waste composting collection	At County Discretion



Communication Tactic	Description of Tactic	Distribution Date
Signage: Mobile Signs	Mobile signs on high traffic roads indicating when green bins are being delivered, and when collection starts  Mobile signs be updated to target specific acceptable materials, hints and tips, etc.	At County Discretion
Signage: Grocery Stores, Hardware Stores	Signage at local retailers (T-stands, shelf-talkers) about acceptable liners for curbside food waste composting collection	At County Discretion
Outreach: Presentations	Booths at grocery stores, hardware stores, farmers' markets, home shows, about curbside food waste composting program	At County Discretion

### 3.1.6 Textile Diversion Opportunities

Recommendations to expand textile diversion receiving locations and end users and expand education/promotion are presented below in Table 9.

**Table 9 Option 10 and 11 Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Flyer	Flyer detailing textile recycling options.  Flyers for additional diversion programs, sorting guides, etc.	At County Discretion
Media Relations	Media release to local newspapers about textile diversion.  Public service announcement to local radio about textile diversion.	At County Discretion
Paid Advertising	Paid advertising in local newspaper and radio about textile diversion.	At County Discretion
Social Media	Facebook, Instagram, X/Twitter - monthly posts about textile diversion	At County Discretion
Website	Webpage dedicated to textile diversion (could link to reuse centres Website)	At County Discretion
Outreach: Presentations	Presentations to schools, community groups, multi-residential, about waste diversion (including food waste reduction, food waste composting, etc.)	At County Discretion

Communication Tactic	Description of Tactic	Distribution Date
	Develop activity sheets that link to presentations and Ontario curriculum connections	
Event Repair Café	Partner with community groups to host a Repair Café (keep in mind you need volunteer fixers, admin, etc.) <ul style="list-style-type: none"> <li>Media Relations (Media Release, Public Service Announcement)</li> <li>Signage</li> <li>Webpage</li> </ul>	At County Discretion
Event: Clothing Swap	Partner with community groups to host a Clothing Swap (keep in mind you need space to collect clothes, volunteer sorters, display tables, racks, clothes hangers, etc.) <ul style="list-style-type: none"> <li>Media Relations (Media Release, Public Service Announcement)</li> <li>Signage</li> <li>Webpage</li> </ul>	At County Discretion
Event: Creative Reuse Workshops	Partner with artistic/cultural practitioners/groups that demonstrate creative upcycling, visible mending, etc. <ul style="list-style-type: none"> <li>Media Relations (Media Release, Public Service Announcement)</li> <li>Signage</li> <li>Webpage</li> </ul>	At County Discretion

### 3.2 Existing Program Management

Through the WMMP update and option ranking process, it was determined that both the current mattress program as well as the leaf and yard waste program should stay as status quo. Increased promotion and education would encourage community use of these services and provide further diversion of these materials from the landfill.

### 3.2.1 Leaf and Yard Program

Recommendations to promote alternatives to managing leaf and yard waste such as mulching or composting at home are presented below in Table 10.

**Table 10 Current Leaf and Yard Program Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Flyer	Flyer detailing steps for mulching and/or composting at home  Distribute when ratepayers purchase a composter or digester, or distribute at community events, and municipal facilities	April 2026
Media Relations	Media release to local newspapers about mulching and composting at home  Public service announcement to local radio about composting options	April 2026
Paid Advertising	Paid advertising in local newspaper about composting and mulching	April 2026 (composting)  September 2026 (mulching)
Social Media	Facebook, Instagram, X/Twitter - weekly posts in April, May, June, July, August, September, October	April to October annually
Website	Webpages dedicated to mulching, composting	April 2025
Outreach: Booth	Booths at farmers' markets, master gardener events, home shows, about mulching and composting options	November 2025

### 3.2.2 Mattress Program

Recommendations to promote continued compensation for transporting mattresses to Peterborough County City Waste Management Facility or events is presented below in Table 11.

**Table 11 Current Mattress Program Recommendations**

Communication Tactic	Description of Tactic	Distribution Date
Survey	Implement a digital survey to gauge ongoing satisfaction with mattress recycling programs	January 2029

## Overall Public Timelines

The overall public timeline of this promotion and education plan is November 2025 to December 2031.

## Evaluation of Promotion and Education Plan

This promotion and education plan will utilize several evaluation tools to measure outputs and outcomes (quantitative and qualitative).

Evaluation tools include:

- Surveys
- Tracking (insertions in newspapers, impressions on radio, digital, website views, etc.)
- Tonnage reports
- Vehicle counts
- Participation studies (curbside, depot)
- Waste composition studies (also know as waste audits)

## **4.0 Conclusion**

Cambium Inc. has crafted a comprehensive five-year implementation plan featuring 11 prioritized options. Additionally, it includes recommendations for promoting and educating the public about existing leaf and yard, and mattress waste programs, which are advised to remain unchanged. By executing this plan, the County can meet the objectives outlined in the WMMP update process. Many of the suggested promotion and education initiatives can be carried out using existing resources, incurring no extra costs, while significantly enhancing waste diversion efforts. It is recommended that the County review this document annually to ensure it remains aligned with program and community needs.

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## **Appendix B**

### **Waste Audit Report**

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# Peterborough County – Waste Audit Report



October 4, 2024

Prepared for:  
The County of Peterborough

Cambium Reference: 20115-001

CAMBIUM INC.

866.217.7900

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## Executive Summary

Cambium Inc. was retained by The County of Peterborough (County) to conduct curbside and depot audits in the local municipalities that comprise the County.

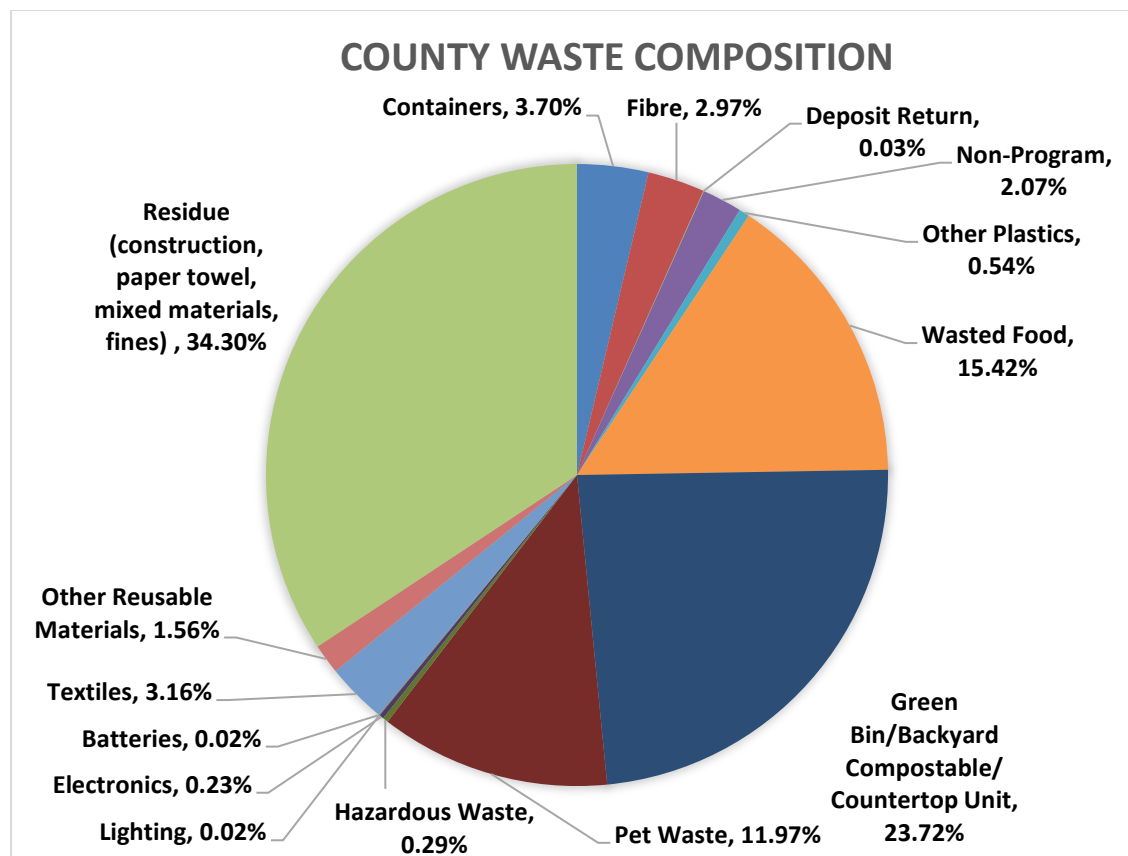
The intent of the project was to estimate waste generation, the composition of waste, and to identify opportunities for waste reduction and diversion programs.

The audit was conducted between August 19<sup>th</sup> and August 30<sup>th</sup>, 2024. Samples represented residential waste generated in 8 local municipalities in the Peterborough County area. Waste samples included in the audit consisted of residential garbage and source separated organics (where collection programs exist).

In total, 24 samples consisting of ten households each were collected. There were eight samples collected at two depots in separate municipalities, and the remaining 16 samples were collected at the curb, from the seven local municipalities offering curbside collection programs. Cambium collected approximately 2,400 kilograms of garbage during the audit. As there were 240 households included in the audit this represents an average garbage generation rate of 10 kg/household/week. The typical generation period was assumed to be seven days for both curbside and depot samples, although there would be some variation to this due to type and use of the property. This generation rate excluded households who did not have waste set out at the curb for the audit.

Cambium staff sorted and weighed 100% of the samples into 15 predetermined waste categories. The Figure below summarizes the composition of waste audited. Over 50% of overall waste composition were organics waste streams, which were sub-categorized into wasted food, green bin/backyard compostable and pet waste. Other notable material categories included over 6% blue box materials (containers and fibres), 3% textile materials, and 1.5% reusable materials.





Further, the garbage composition determined through the audit was applied to the annual tonnes of garbage generated to determine the annual quantities of the waste categories generated in the County.

In the audit samples, participation rate in source separated organics collection programs at both the curb and depots was 10% or less.

The information obtained through the waste audit was compared to previous audits completed by the County to identify any significant changes over time. Although the audit identified 5% of blue box materials in the waste stream, this was a notable decrease from the 2017 audit results.

The audit information will be used to inform the 2024 Waste Management Master Plan Update.



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## **1.0 Introduction**

Cambium Inc. was retained by Peterborough County (County) to conduct curbside and depot waste (garbage and organic) audits in the local municipalities that comprise the County, as part of the Waste Management Master Plan (WMMP) Update. Cambium audited the garbage and source separated organics (if collection program exists) streams from August 19 to 30, 2024.

### **1.1 Purpose**

The purpose of the waste audit was to:

- Gather information on residential garbage and organic waste stream composition
- Estimate waste generation rates based on information collected during the audit
- Identify additional opportunities for waste diversion



## **2.0 Methodology**

The waste audit was completed following the Audit Protocol (Appendix A) and was conducted in three phases:

- Phase I: Pre-Audit Activities,
- Phase II: Quantification and Characterization of Waste, and
- Phase III: Data Interpretation and Report Generation.

### **2.1 Phase I**

Phase I of the solid waste audit was conducted starting around May 13, 2024, following the initial kick-off meeting with the County. Pre-audit phase communication via email and subsequent meetings also took place to gather background information, determine collection areas and schedule, and collection/sorting logistics required to conduct Phase II of the solid waste audit.

### **2.2 Phase II**

Phase II of the waste audit included the physical collection of samples of solid waste from each local municipality determined in Phase I.

In total, 24 samples consisting of ten households each were collected. There were eight samples collected at two depots in separate municipalities, and the remaining 16 samples were collected at the curb, from the seven local municipalities offering curbside collection programs, as shown in Table 1.

Each sample in the curbside collection audit included ten households on a predetermined audit route. On the designated audit day, all garbage and organics were collected once from each household and audited as per the audit protocol. If no waste was set out by the time of collection, this was noted, and additional residences were included to complete the requirement of a ten-household sample. As garbage collection is conducted weekly, the amount of garbage from each residence included in the audit is assumed to represent the



amount of waste generated over one week. Information on the number of bags of garbage set out was also recorded during the audit.

For the depot, each sample consisted of waste from ten households, collected in sequence. Residents were asked about the frequency that waste is brought to the depot to help assess the waste generation period represented by the waste. Information on other materials brought to the depot by residences was also documented as described in the Audit Protocol (Appendix A).

**Table 1 Sample Distribution**

<b>Township</b>	<b>Number of Depot Samples</b>	<b>Number of Curbside Samples</b>
Asphodel Norwood	0	2
Cavan Monaghan	0	2
Douro-Dummer	0	2
Havelock-Belmont-Methuen	4	2
North Kawartha	0	2
Otonabee South Monaghan	0	2
Selwyn	0	4
Trent Lakes	4	0

The samples collected were then brought to the sorting location and sorted into predetermined categories, weighed and recorded as described in the Audit Protocol (Appendix A). Appendix A of the Audit Protocol includes details about what materials were included in each category. Any source separated organics samples were weighed separately but included in the overall waste composition.

## 2.3 Phase III

Cambium staff sorted and weighed 100% of the waste collected during the audit period. Once data collection was completed the following was determined:

- Waste composition and generation in the County based on the 24 audit samples
- Waste composition and generation broken down by local municipality



- Annual waste composition and generation rates
- Source Separated Organics program participation
- Comparison to previous summer audit results

Waste composition for the analysis was determined by dividing the weight of a certain category of a material within the sample, by the total sample weight.

Waste generation was determined per household by dividing the weight of the sample by the number of households included in the sample.

The annual garbage composition and generation rates were determined by applying garbage composition results, to the total annual garbage quantities provided by the County. Where source separated organics were collected, this total was subtracted from the green bin waste category, so that the annual waste composition and generation represents waste going to landfill.

Organics participation rates were determined in areas that included in source separated organics program by dividing the number of people participating in the program in that sample, by the number of people included in the sample.



### **3.0 Audit Results**

Over the period from August 19 to 31, 2024, Cambium staff collected, sorted, and weighed all waste generated by residents included in each sample. The summary of waste composition is provided in Appendix B.

### **3.1 County Overall Waste Audit Summary**

#### **3.1.1 Garbage Generation**

Cambium collected, sorted, and weighed approximately 2,400 kilograms (kg) of garbage during the audit. As there were 240 households included in the survey this represents an average garbage generation rate of 10 kg/household/week. The typical generation period was assumed to be seven days for both curbside and depot samples, although there would be some variation to this due to type and use of the property.

As described in the Audit Protocol, garbage was collected curbside from designated locations in each local municipality, except for Trent Lakes where there is no curbside program. Information on the number of garbage bags set out and any residences that did not have a set out was collected. Information collected on curbside set outs is included in Table 2.





**Table 2 Curbside Collection Summary**

<b>Curbside Collection Information</b>				
Sample	Total Items Set Out	Total Full Bag/Box/ Cart Equivalent	Average Number of Full Bags per House	Number of Houses with No Setout
McFadden Road	17	7	0.7	4
Birchview Road	13	8.75	0.9	8
Tindle Bay Road	21	10	1	2
9th Line	16	8.5	0.9	2
Stewart Drive	17	9.75	1	3
Northey's Bay Road	15	9.5	1	3
King Street	14	9	0.9	4
Edwards Drive	14	8.5	0.9	1
North Lang Road	19	11	1.1	2
Campbell Avenue	12	9.5	1	1
Rothsay Avenue	16	11	1.1	2
McLean Avenue	13	9.5	1	4
Alexander Street	16	9.25	0.9	5
Helen Street	14	9.5	1	3
Burnside Road	18	12	1.2	1
Coral Drive	12	10	1	3

\* Number of houses with no set-out is the number of households in the selected audit area that did not have garbage out at the time of collection. As a result, an alternate household in the area was chosen to make up a ten-household sample for the purpose of improving waste characterization.

Waste was collected from residents in the Municipality of Trent Lakes and the Township of Havelock-Belmont-Methuen at the respective depots. Residents were surveyed to gain an understanding of their typical generation period, how often they use the depot, whether they separated organics and how many people live on their property.



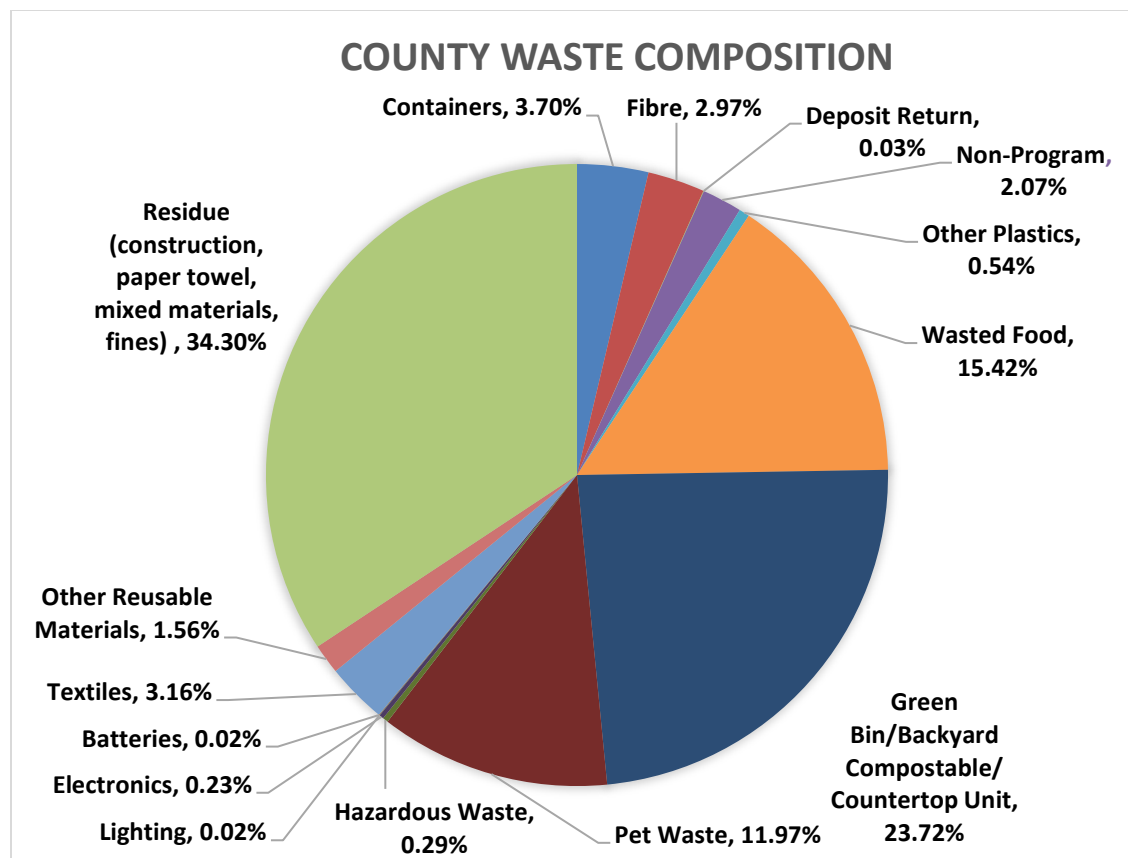
Table 3 summarizes the resident surveys completed at each depot. Some residents were not willing to answer questions but still participated in the waste audit. Most residents surveyed were permanent and visit the depot on a weekly basis to dispose of residential waste.

**Table 3 Depot Survey Summary**

<b>Depot Survey Summary</b>			
		<b>Buckhorn Depot</b>	<b>6th Line Depot</b>
<b>Total Number of bags</b>		<b>45</b>	<b>53</b>
Type of Property	Permanent	35	30
	Seasonal	5	8
	Rental		2
Visit Frequency	Twice per week	2	1
	Weekly	23	25
	Biweekly	6	11
	3 weeks	2	3
	4 times per year		1
Generation Period	<1 week	4	1
	1 week	22	24
	2 weeks	8	11
	3 weeks	2	2
	1 month	2	
	4 months		1

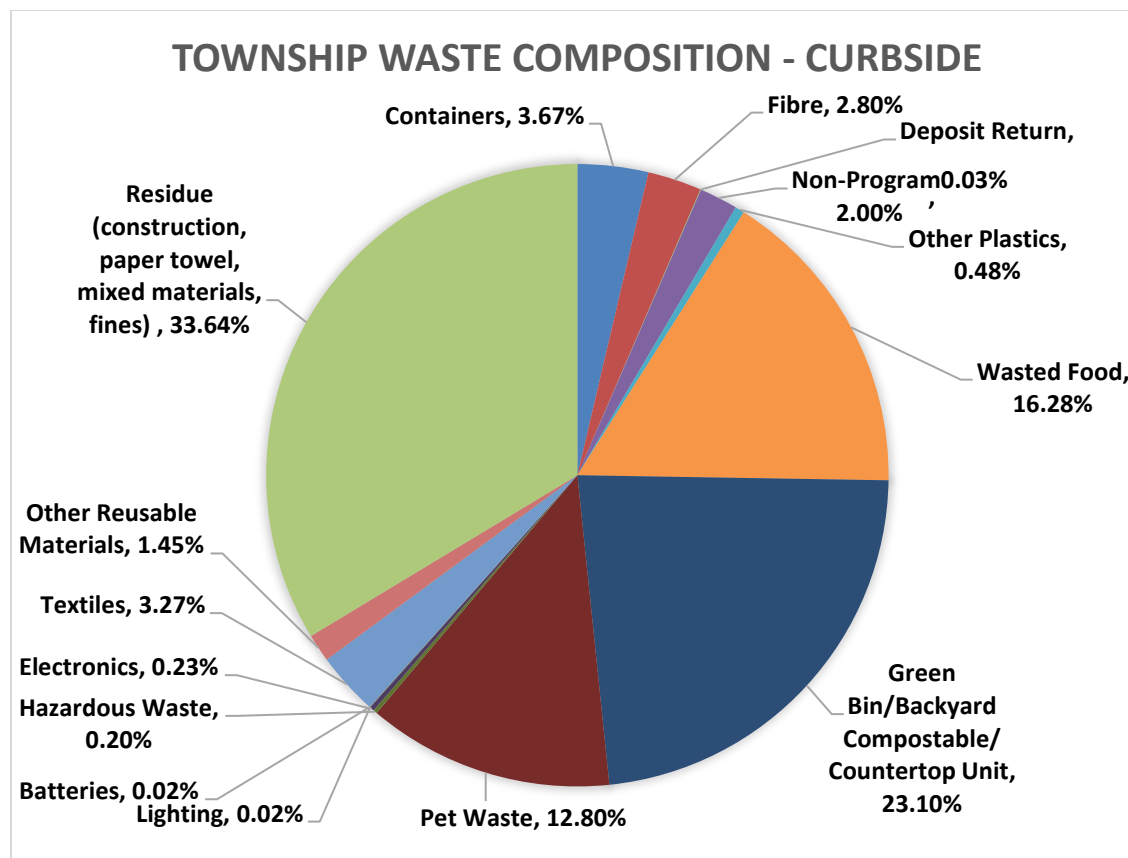
### 3.1.2 Waste Composition

The composition of the garbage stream is represented on Figure 1. Over 50% of overall waste composition were organics waste streams, which were sub-categorized into wasted food, green bin/backyard compostable and pet waste. Other notable material categories included over 6% blue box materials (containers and fibres), 3% textile materials, and 1.5% reusable materials.



**Figure 1 County Waste Composition**

The composition of waste collected curbside, and depot were also evaluated separately to identify any differences between the two collection methods. Overall, no major differences were noted, as shown in Figure 2 and Figure 3.



**Figure 2 Township Waste Composition – Curbside**

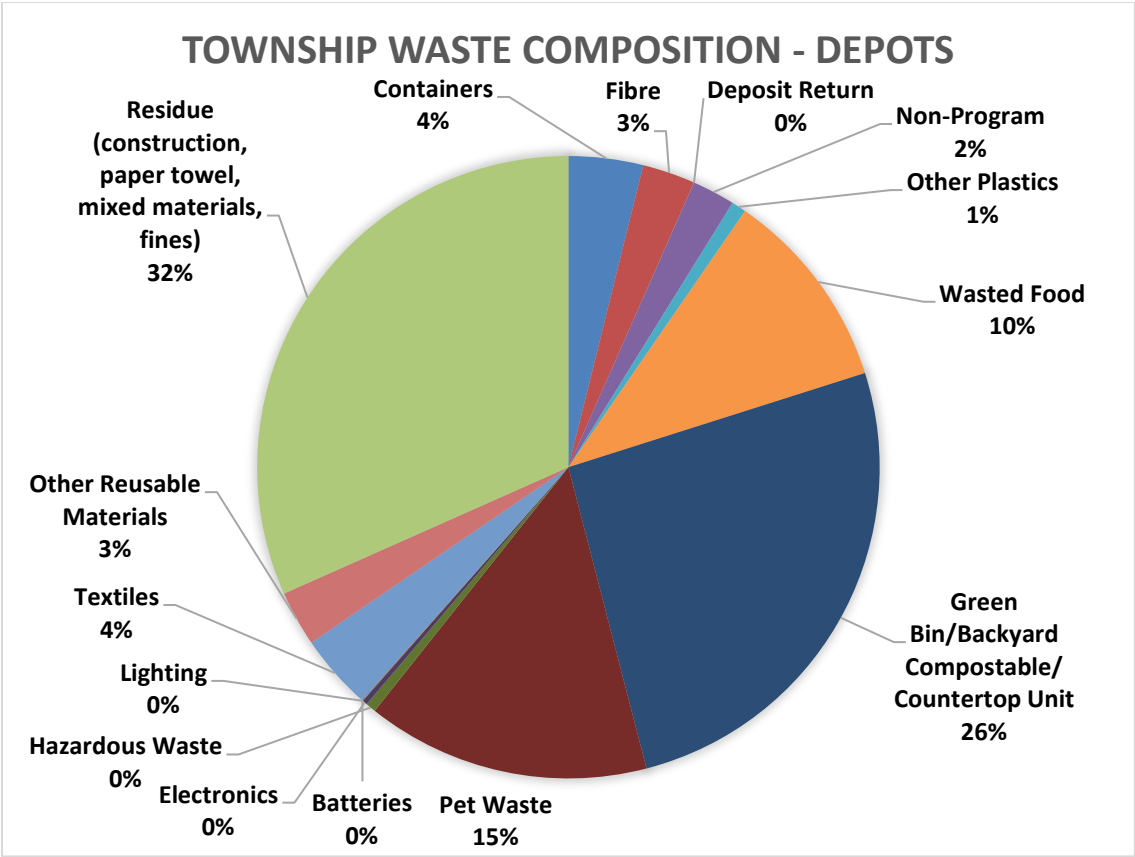


Figure 3 Township Waste Composition – Depots

3.2 Waste Audit Summary by Local Municipality

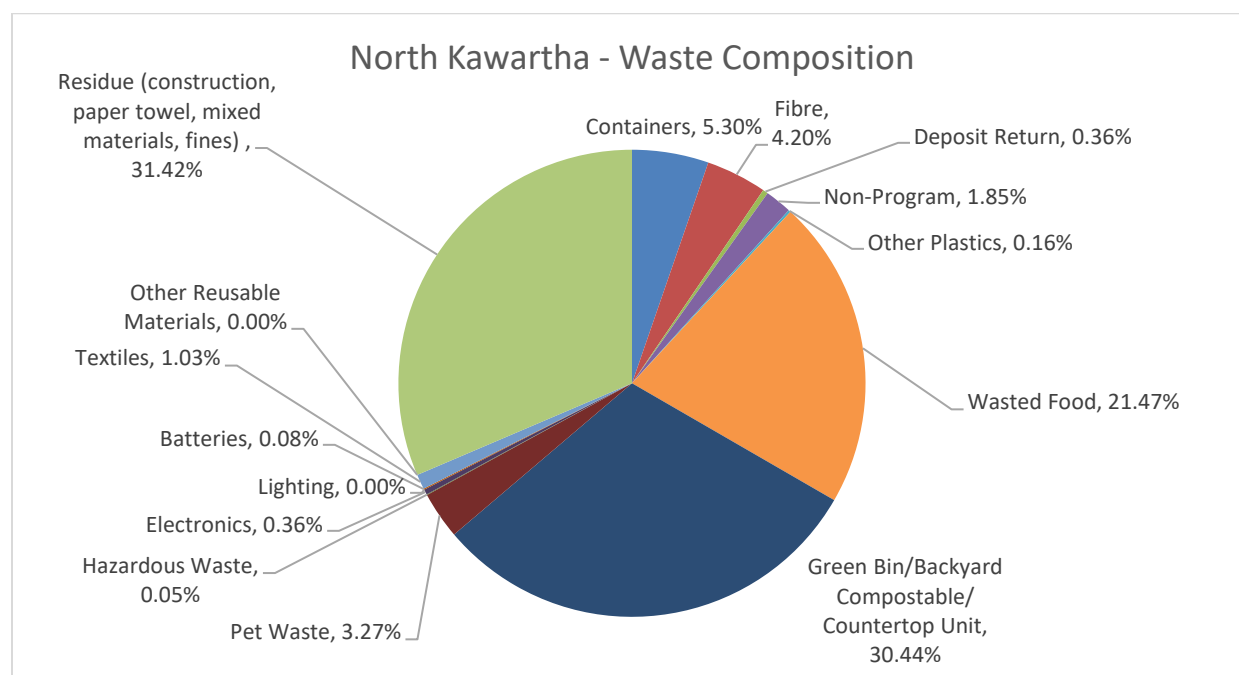
Waste was audited and recorded separately for each sample set, in each local municipality.



### 3.2.1 North Kawartha

Cambium collected 140 kg of curbside garbage from 20 households in North Kawartha, resulting in an average garbage generation rate of 7 kg/week/household.

Of the garbage audited, green bin/backyard compostable material (30%) and residue (31%) composed over half the total weight. Figure 4 shows the overall garbage composition.



**Figure 4 North Kawartha Waste Composition**



3.2.2 Douro-Dummer

Cambium collected 158 kg of curbside garbage from 20 households in Douro-Dummer resulting in an average garbage generation rate of 7.9 kg/week/household.

Residue (39%) and green bin/backyard compostable materials (19%) were the heaviest sub-categories in the garbage, there were also notable quantities of the organic categories of wasted food (18%) and pet waste (10%) noted in the garbage. Overall waste composition for Douro-Dummer, is in Figure 5.

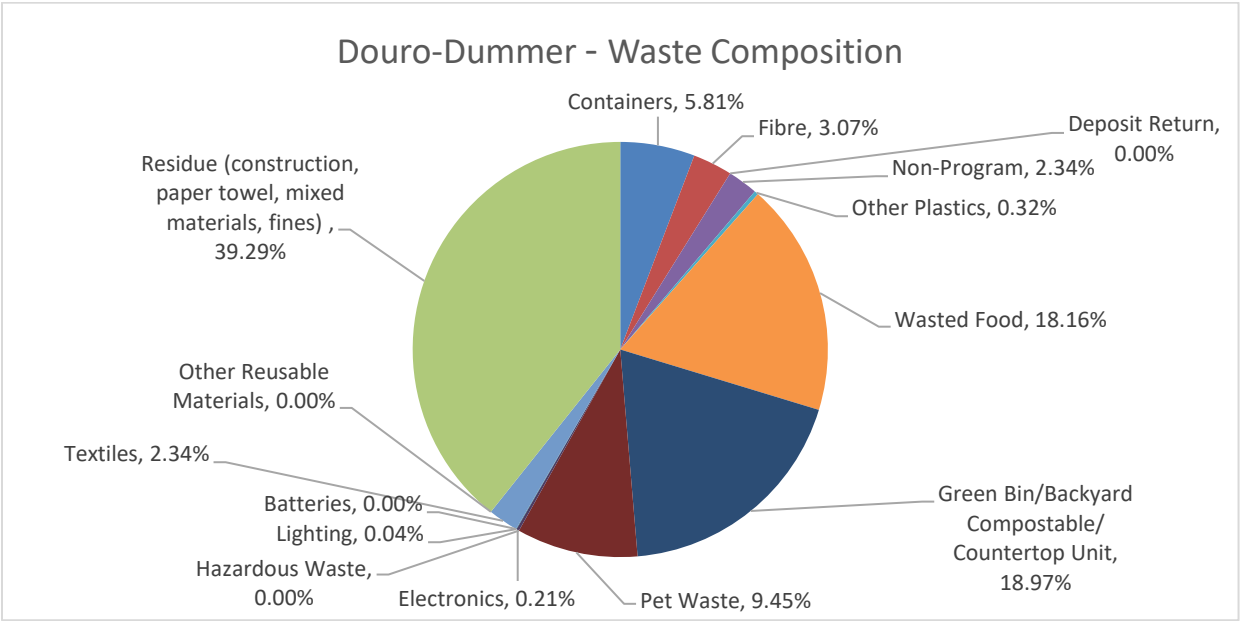


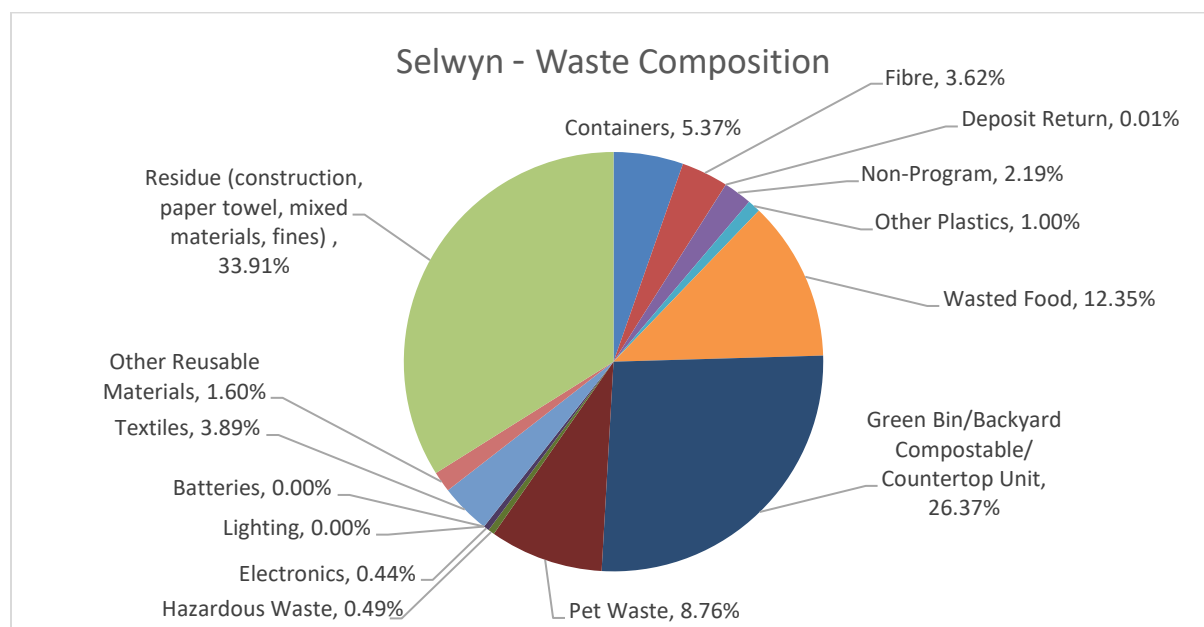
Figure 5 Douro-Dummer Waste Composition



### 3.2.3 Selwyn

A total of 400 kgs of curbside garbage was collected from 40 households in Selwyn Township resulting in a garbage generation rate of 10 kg/week/household. This includes 1.57 kg of source separated organics collected from one household. There was a curbside source separation of organics program offered in one of the four curbside sample areas. Source separated organics represents less than 1% of the waste collected and audited. Source separated organics were weighed separately but included in the overall waste composition analysis.

The composition of the garbage stream was primarily residue (34%) and green bin/backyard compostable (26%). There was also a significant quantity of textiles (4%) found in the garbage audited. A summary of the results is in Figure 6.



**Figure 6 Selwyn Waste Composition**

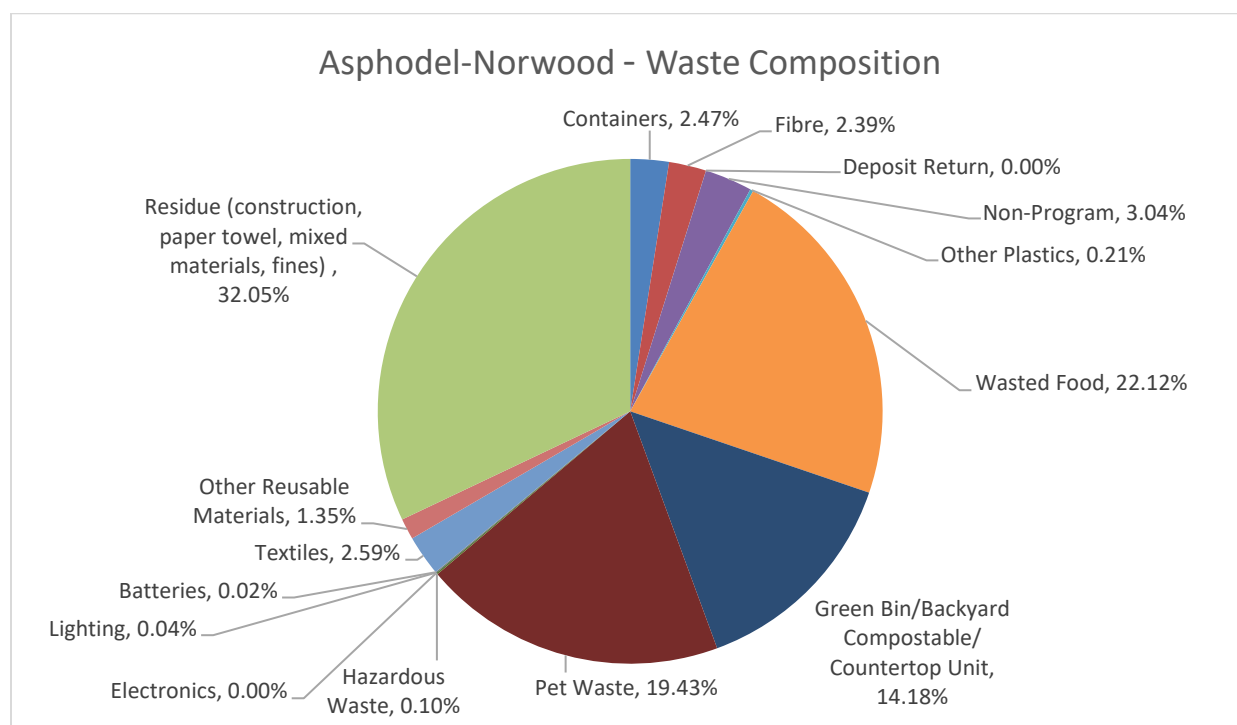




### 3.2.4 Asphodel-Norwood

A total of 229 kg of curbside garbage was collected from 20 residences in Asphodel-Norwood resulting in a garbage generation rate of 11 kg/week/household.

The composition of the garbage stream was mainly organics (55%) and included a significant amount of pet waste (19%). A summary of the results is in Figure 7.



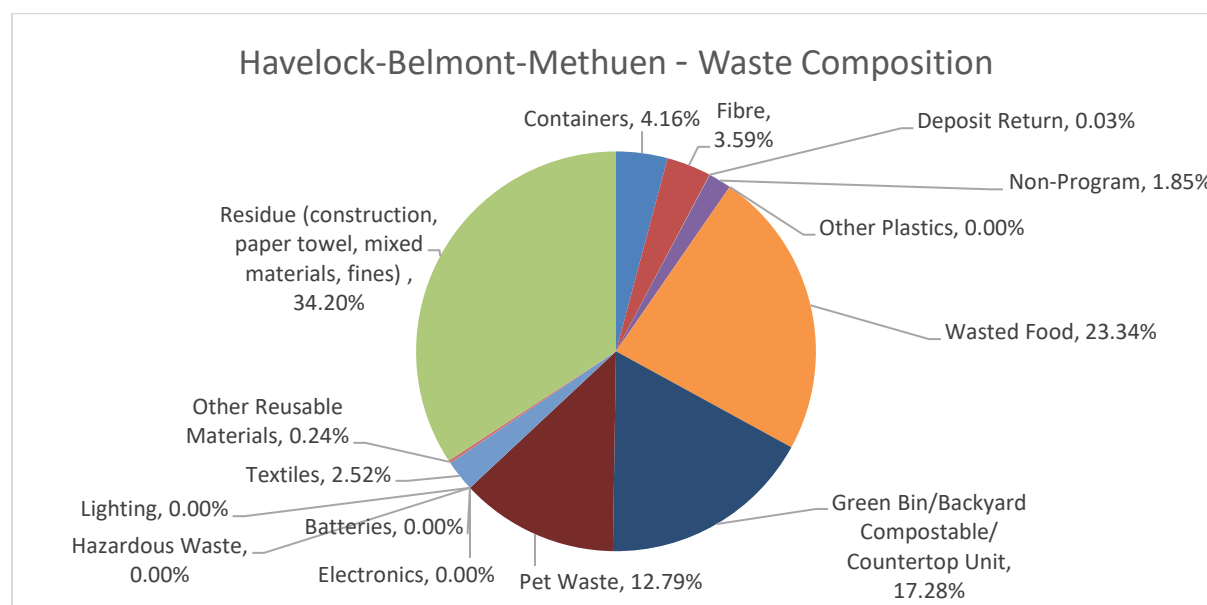
**Figure 7 Asphodel-Norwood Waste Composition**



### 3.2.5 Havelock-Belmont-Methuen

A total of 210 kg of curbside garbage was collected from 20 households in Havelock-Belmont-Methuen. The garbage generation rate was 10.5 kg/week/household.

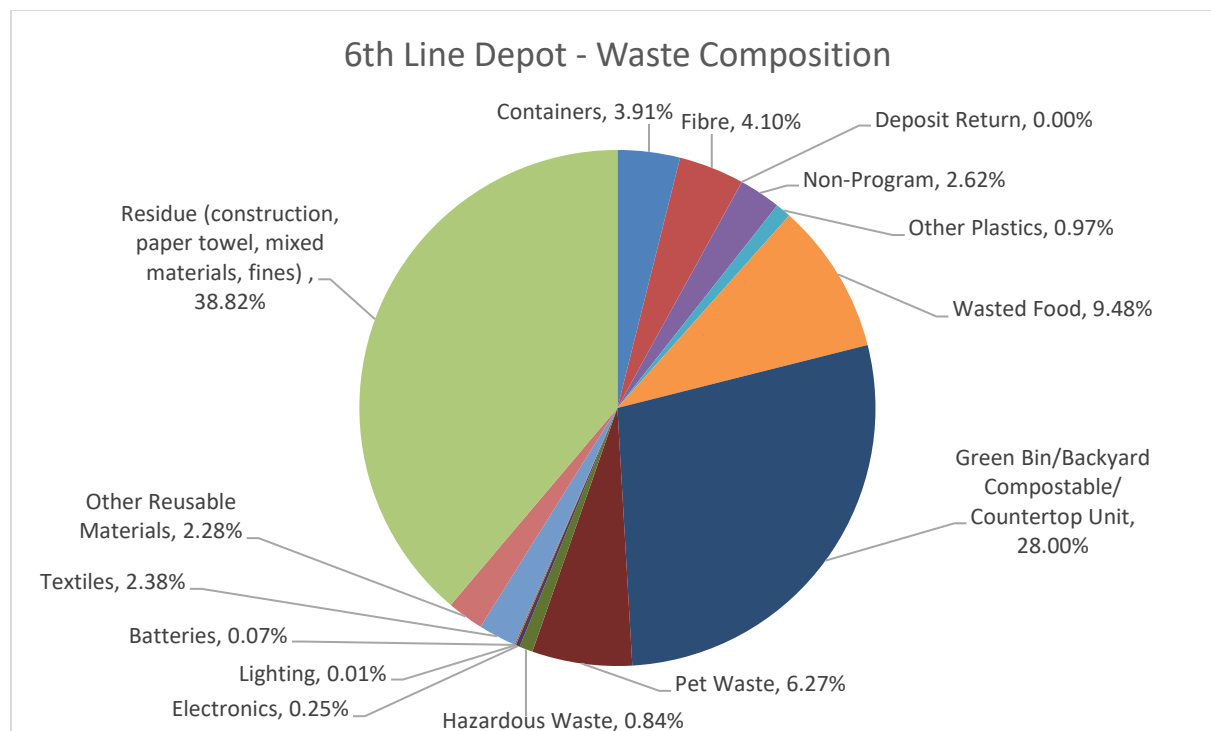
The composition of the garbage stream was primarily residue (34%) and wasted food (23%). The results are summarized in Figure 8.



**Figure 8 Havelock-Belmont-Methuen Waste Composition**

In Havelock-Belmont-Methuen, Cambium also conducted a depot audit at the 6<sup>th</sup> Line Transfer Station. The audit was conducted on a Friday where 297 kg of waste was collected from 40 residents, resulting in a waste generation rate of 7.4 kg/household/week.

The results are shown below in Figure 9. Most of the waste was comprised of residue (39%), followed by green bin/backyard compostable (28%). There is a depot organics program operating at the 6<sup>th</sup> Line Transfer Station. No residents during the audit period and included in the samples, brought in source separated organics.



**Figure 9 6<sup>th</sup> Line Depot Waste Composition**



3.2.6 Otonabee – South Monaghan

In Otonabee-South Monaghan, Cambium collected a total of 263 kg of curbside garbage, from 20 households, resulting in a waste generation rate of 13 kg/household/week.

The garbage stream was mainly comprised of residue (41%), followed by green bin/backyard compost (21%) and wasted food (20%). A summary of results is shown in Figure 10.

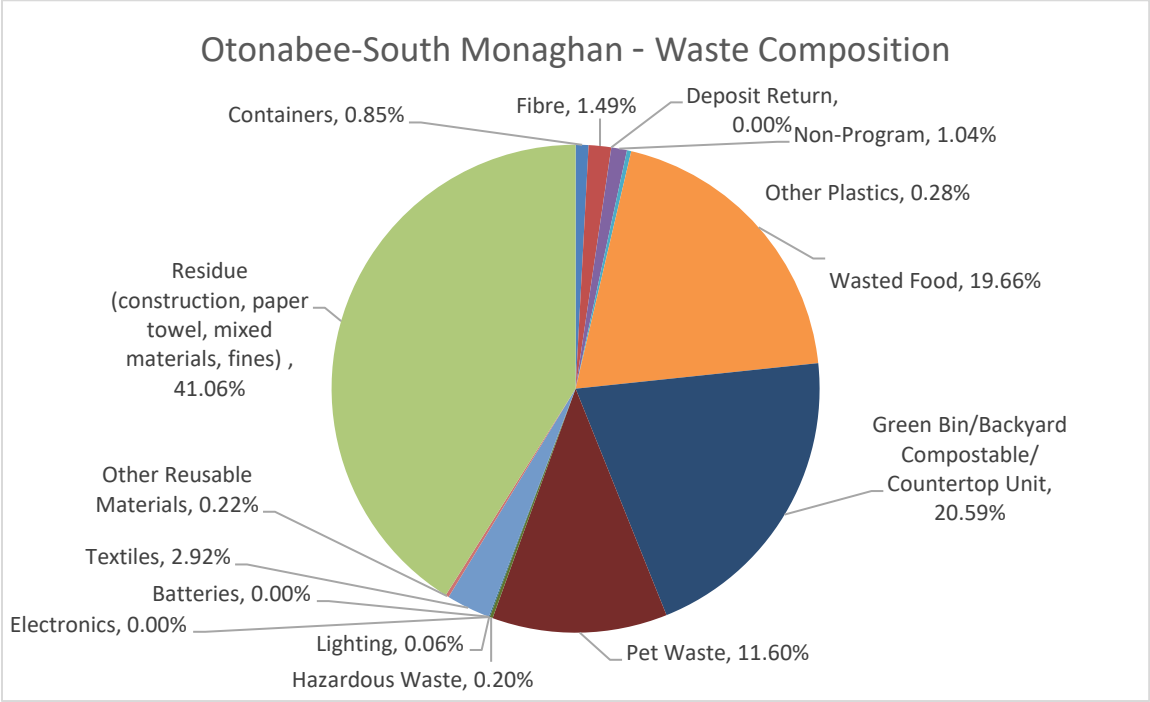
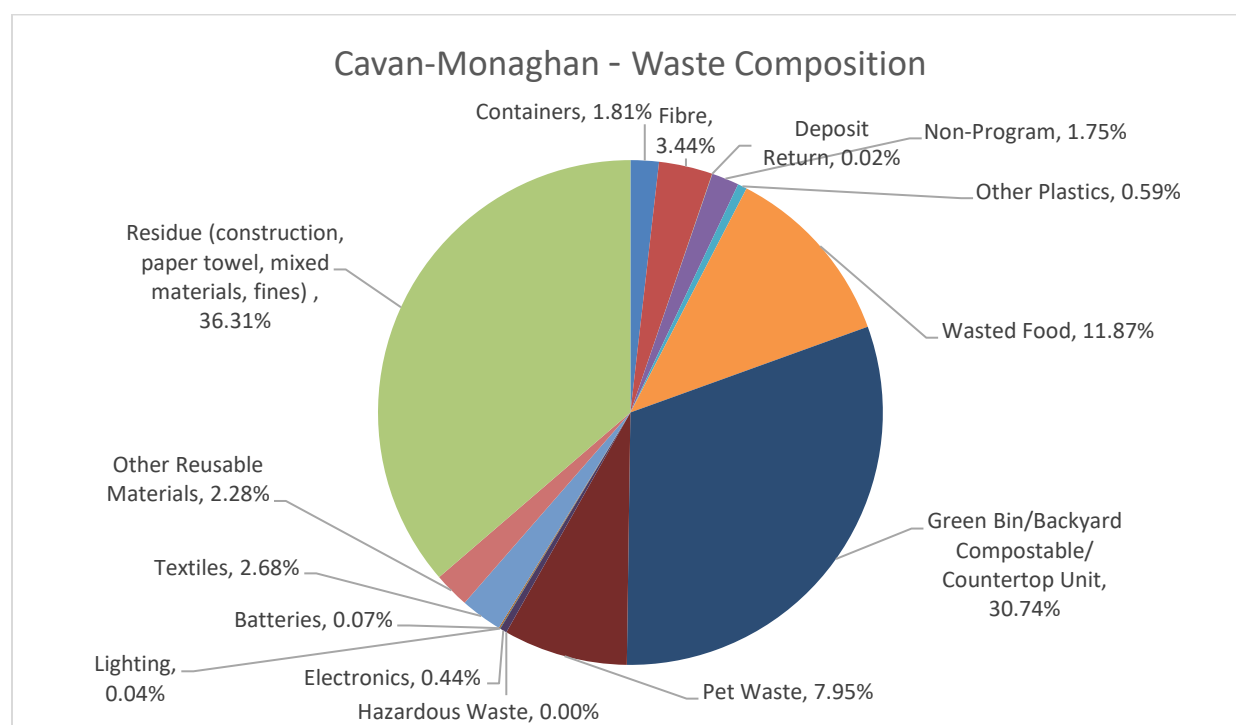


Figure 10 Otonabee-South Monaghan Waste Composition



### 3.2.7 Cavan-Monaghan

Cambium collected 222 kg of waste from 20 households in Cavan-Monaghan, resulting in a waste generation rate of 11 kg/household/week. Residue (36%) and green bin/backyard compostable (31%) were the highest amounts of waste generated. The curbside audit areas were not located in areas that have source separated organics collection programs in place. A summary of results is shown in Figure 11.



**Figure 11 Cavan-Monaghan Waste Composition**



3.2.8 Trent Lakes

The 40 households audited from the Buckhorn depot generated a total of 466 kg of waste, resulting in a waste generation rate of 7.4 kg/household/week. This total includes 35 kg of source separated organics collected from nine households, weighed separately from the garbage, but included in the waste composition. For the Municipality of Trent Lakes, 7.5% of the waste stream audited was source separated organics.

Residue (26%) was the heaviest sub-category, as shown in Figure 12. There was also a significant amount in the green bin/backyard compostable sub-category (24%) and the highest quantity of textiles (5%) were found in this audit.

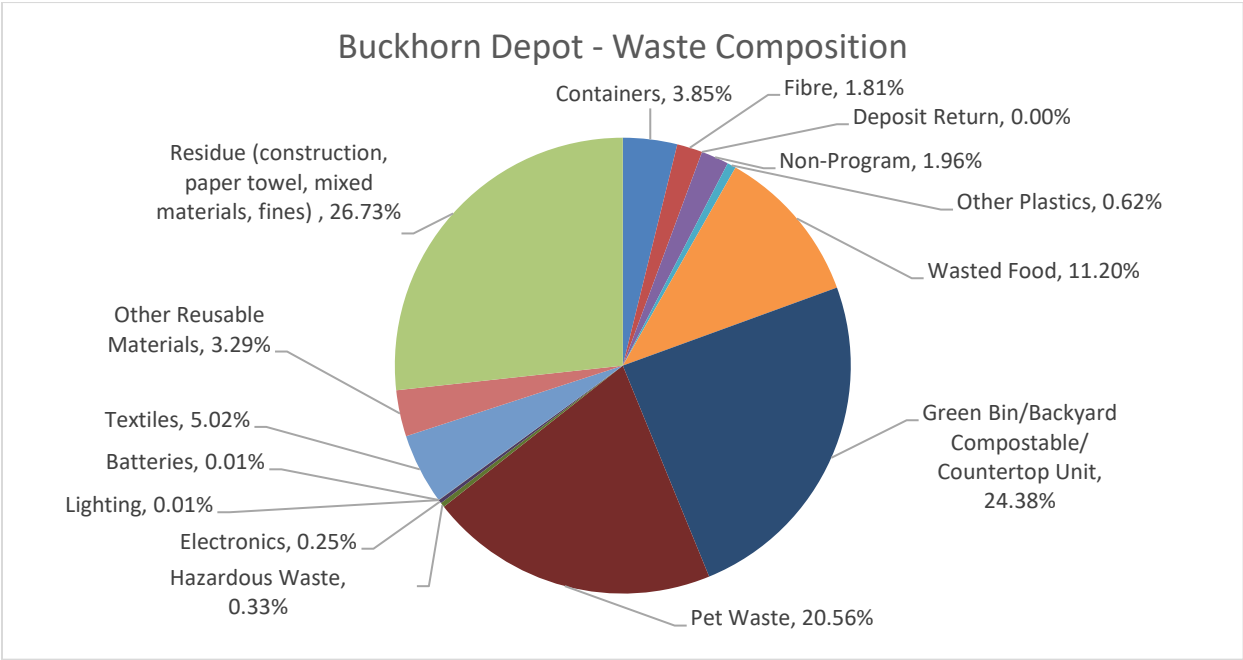


Figure 12 Buckhorn Depot Waste Composition



### 3.3 Annualized Data

The estimated annual generation of waste by category is shown in Table 4. The estimated annual quantities of material determined through the audit can be used to determine the scope and scale of diversion programs intended to target waste reduction of specific materials.

**Table 4 Annualized Data**

<b>Annualized Data - Depot and Curbside</b>				
<b>Categories of Waste</b>	<b>Sub-Categories of Waste</b>	<b>Depot</b>	<b>Curbside</b>	
		<b>Garbage (tonnes/year)</b>	<b>Garbage (tonnes/year)</b>	<b>Total Garbage (tonnes/year)</b>
Packaging Materials	Containers	133.8	254.1	387.9
	Fibre	94.7	203.9	298.6
	Deposit Return	0.1	2.0	2.1
	Non-Program	77.0	142.6	219.6
Hard Plastics	Other Plastics	26.3	37.3	63.6
Organics	Wasted Food	362.8	1,059.7	1,422.5
	Green Bin/Backyard Compostable/ Countertop Unit	893.2	1,630.1	2,523.3
	Pet Waste	509.0	822.9	1,331.9
Municipal Hazardous and Special Waste	Hazardous Waste	18.5	19.6	38.1
	Electronics	8.7	15.8	24.5
	Lighting	0.4	1.5	1.9
	Batteries	1.3	1.7	3.0
Additional Categories	Textiles	136.1	217.0	353.2
	Other Reusable Materials	99.3	106.9	206.3
	Residue (construction, paper towel, mixed materials, fines)	1,093.6	2,357.0	3,450.7
Totals		3,454.8	6,872.2	10,327.0



### 3.4 Organics Participation Analysis

Organics were collected during curbside and depot audits where applicable. At the depots, residents were surveyed to understand if they were bringing organics to site.

Curbside organics are collected in two of the townships, Selwyn and Cavan-Monaghan, but only in the town of Bridgenorth and Millbrook respectively. One street with curbside collection was included in the audit schedule on Burnside Road in Bridgenorth. There was only one household with organics set out while Cambium was collecting curbside material, resulting in a 10% participation rate and less than 2% of the total waste quantity set out in that sample. This material was collected and included in the audit sample.

There are depot organics programs at both the Trent Lakes and Havelock-Belmont-Methuen depots included in the audit. At the Buckhorn Depot, a total of 9 out of 40 residents brought in source separated organics, resulting in a participation rate of 22.5% and a diversion rate of 7.5%. There were no separated organics brought to the 6<sup>th</sup> Line Depot during the sample period, resulting in a participation rate and diversion rate of 0%. We do know based on records, that there is source separated organics collected at the site, so this sample did not capture residents participating in the program.

### 3.5 Audit Comparison

The County of Peterborough conducted internal waste audits over four seasons, from 2017-2018. To understand any changes or trends in waste composition, the curbside audit conducted during the summer of 2017 was compared to the curbside data collected from the 2024 audit to ensure the closest seasonal comparison. Overall, the composition of curbside waste determined through the two audits were similar as show in Figure 13.



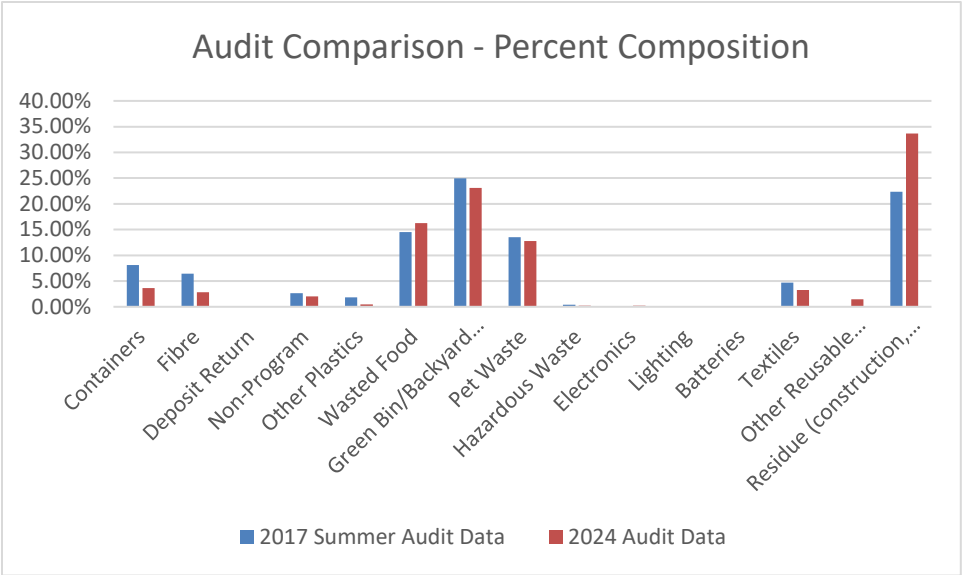


Figure 13 Audit Comparison – Percent Composition



### 3.6 Conclusions

The audit conducted over two weeks in August 2024, provides insight into waste generation and composition in the County of Peterborough. Notable results from the audit include:

- Overall, the results of the audit show that the average waste generation rate in the County is about 10 kg/week/household of waste.
- Organic categories including food waste, green bins/backyard compostable waste, and pet waste make up more than 50% of the waste stream currently being generated and mostly being sent to landfill.
- The participation rate of organics collection at both the curb and depots was 10% or less.
- There remains over 5% blue box material in the waste stream, however there was a notable decrease in recyclable materials in the garbage stream in 2024 compared to 2017.
- Approximately 3% of material in the waste stream were textiles, and 1.5% were other reusable items.

Respectfully submitted,

#### Cambium Inc.

Signed by:

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Becky Yarnell, B.A. Hons., Dipl.  
Technologist

DocuSigned by:

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Heather Dzurko, M.Sc.  
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A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

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### Personal Liability

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**Appendix A**  
**Audit Protocol**

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# Peterborough County Curbside/Depot Residential Waste Audit Protocol

August 8, 2024

Prepared for:  
The County of Peterborough

Cambium Reference: 20115-001

CAMBIUM INC.

866.217.7900

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## **1.0 Introduction**

The following document outlines the County of Peterborough Residential Curbside and Depot Audit Protocol. This provides details on the general audit parameters, sample collection, sorting procedures, and deliverables.

The goal of the waste audits is to gather information on residential garbage and organic waste stream composition.

## **2.0 Contractor Responsibilities and Obligations**

The Contractor shall supply all equipment required to conduct the sorting of materials collected from the curbside and depot programs. This includes but is not limited to: PPE, bins, scale, broom, shovel, tarps, etc. The Contractor is responsible for wearing the required PPE. The Contractor is also responsible for maintaining a clean audit area and ensuring that all audit equipment is removed following the completion of the audits. The audit area should be left in the same condition as it was when the Contractor arrived.

Cambium will prepare a notice to Townships to advise them of the upcoming audits in case they receive calls from residents.

## **3.0 County Responsibilities**

The County will be responsible for providing any necessary background information. They will also provide the Contractor with locations to sort audit material.

The County will coordinate with the waste hauler regarding the dates and areas of collection during the audit to ensure that materials are available for collection as described in the outline of the sample collection areas.

The County will be responsible for coordinating the sort locations for the audit period.





4.0 Study Period

The audits will be conducted during the weeks of Monday, August 19 to Friday, August 23, 2024 and Monday, August 26 to Friday, August 30, 2024. During this period, audits will be conducted in each of the Townships either by curbside collection or directly from residents at the Transfer Stations.

5.0 Sample Collection Areas and Sample Size

Sample collection will occur daily during the study period and will include approximately 10 households from each area/road selected 40 households from depots. The sample distribution is outlined below in Embedded Table 1.

Embedded Table 1                  Sample Distribution

Township	Number of Depot Samples	Number of Curbside Samples
Asphodel Norwood	0	2
Cavan Monaghan	0	2
Douro-Dummer	0	2
Havelock-Belmont-Methuen	4	2
North Kawartha	0	2
Otonabee South Monaghan	0	2
Selwyn	0	4
Trent Lakes	4	0

For curbside samples, the waste generation period is assumed to be one week as all locations have weekly garbage collection. For each household the Contractor will note how many bags of garbage are set out and whether source separated organics are set out (will be township dependant). Each 10-household sample will be audited separately and then data will be combined to provide an overall waste composition.



For depot samples, for each household the Contractor will collect any bags of garbage and source separated organics brought to the Transfer Stie. Information on waste generation from each household will be noted as follows:

- Number of bags of garbage
- Whether or not organics are source separated
- Notes on other materials brought in at the same time (bulky items, hhw, scrap metal, etc.)
- The waste generation period (how often does the resident drop off garbage).
- Number of people in the household

## 6.0 Sorting Areas

The County will make the following locations available for sorting materials:

1. Douro Depot (Available for August 19-30), 713 County Road 4, Peterborough, Ontario
2. Buckhorn Depot (August 21 and 22 (contingency)), 2467 County Road 36, Buckhorn Ontario
3. Havelock Public Works Yard (August 23 to 26 – weekend to the 26<sup>th</sup> is a contingency), 649 County Road 46, Havelock, Ontario

## 7.0 Sorting Requirements

Prior to sample sorting, all material for an area will be weighed and recorded. All material collected will be included in the sample and will be sorted into the material categories, detailed in Appendix A. The audit categories are as follows:

1. Wasted food
2. Green bin/backyard compostable/countertop unit
3. Pet waste
4. Containers



5. Fibres
6. Deposit return
7. Non-program materials
8. Non-Blue Box hard plastics
9. Hazardous waste (paint, chemicals, automotive)
10. Electronics
11. Lighting (bulbs only – no fixtures)
12. Batteries
13. Textiles
14. Other reusable materials
15. Residue/ Other Materials

## **8.0 Sample Weighing and Data Recording**

The Contractor will ensure that the scale used has been calibrated in the last 6 months and that the tare weights of the bins are checked and recorded prior to beginning the audit. All weight measurements will be recorded in kilograms and will be recorded on hard copy log sheets and then input into excel tables. Scale used will be capable of measuring 0.01kg accuracy.

## **9.0 Study Deliverables**

The data will be entered into electronic spreadsheets for analysis. The spreadsheet will include audit description (area, addresses, date collected, etc), material categories and sort results. The data and photographs taken will be summarized in an audit summary report. Photos will be taken to provide representative examples of each category. This will be provided in a photo appendix.



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**Appendix A**  
**Audit Categories**

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<b>1. Organics</b>	
Food waste	Avoidable food waste including untouched/leftover food. Examples include full eggs, full fruits and vegetables, pieces of meat, full pieces of bread, leftovers etc.
Green bin/backyard compostable/countertop unit	Peelings from fruit and vegetables, eggshells, nut shells, coffee grounds, tea bags
Pet waste	Cat litter, dog waste, pet bedding
<b>Packaging Materials (Blue Box)</b>	
Containers	Number 1- 7 plastics, plastic film, aseptic and gable top packaging, single/double sided polycoated packaging, aluminium and steel packaging, glass, etc.
Fibres	Newspaper, inserts, magazines, catalogues, phonebooks, mixed fine paper, boxboard, cores, molded pulp, corrugated cardboard, paper laminate packaging
Deposit return	Alcoholic beverage bottles and cans
Non-program materials	Expanded polystyrene, plastic laminates (food wrappers, food pouches, chip bags, etc.), coffee cup lids, non-packaging glass, non-coded plastics



<b>Hard Plastics</b>	
Non-Blue Box hard plastics	Kids toys, lawn furniture, laundry basket, plastic tote containers, reusable food containers
<b>Hazardous Materials</b>	
Hazardous waste	Paint, chemicals, automotive waste, aerosols, smoke detectors
Electronics	Small electronic and electrical equipment, cellphones, tv remotes, cables, etc.
Lighting	Bulbs/tubes only (including broken bulbs) – no fixtures
Batteries	Rechargeable and single use batteries
<b>Textiles</b>	
Textiles	Clothing, rags, towels, sheets, boots, shoes, curtains, fabric etc. Fabric materials that could be made into rags will be included even if torn or dirty. Belts, shoes, boots, and other durable textiles will only be included if they could be repaired/reused.
<b>Other</b>	
Other reusable materials (in reusable/repairable condition)	Pots and pans, cutlery, ceramics, dishware, books



Residue/Other Materials	Construction and renovation waste, personal hygiene products, recyclables with residue, wax, tissue/paper towels, scrap metal, single use straws/cutlery, fines, scrap metal and other mixed materials that do not meet other category requirements.
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**Appendix B**  
**Waste Audit Summary**

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<b>Municipality:</b>	Peterborough County									
<b>Waste Stream:</b>	Garbage									
<b>Waste Generation Period:</b>	7 days (average)									
<b>Sample Size (Number of Households):</b>	10									
<b>Department/Area:</b>	McFadden Road		Birchview Road		9th Line		Stewart Drive		Tindle Bay Road	
<b>Auditor(s):</b>	B. Yarnell, A. Foley, T. Boisclair, M. Ervine		B. Yarnell, A. Foley, T. Boisclair, M. Ervine		B. Yarnell, A. Foley, M. Ervine, H. Warren		B. Yarnell, A. Foley, M. Ervine, H. Warren		B. Yarnell, A. Foley, M. Ervine, H. Warren	
<b>Date Collected:</b>	19-Aug-24		19-Aug-24		20-Aug-24		20-Aug-24		20-Aug-24	
<b>Sample Weight:</b>	86.53		75.77		83.59		118.2		97.97	
<b>Components of Waste</b>	<b>Waste Stream (kg)</b>	<b>Waste %</b>	<b>Waste Stream (kg)</b>	<b>Waste %</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>
<b>Containers</b>	4.79	5.61%	5.98	9.13%	6.29	7.53%	5.79	4.92%	2.85	2.92%
<b>Fibre</b>	3.17	3.72%	3.84	5.86%	4.45	5.33%	4.14	3.52%	1.69	1.73%
<b>Deposit Return</b>	0.51	0.60%	0.00	0.00%		0.00%	0.01	0.01%		0.00%
<b>Non-Program</b>	1.12	1.31%	1.94	2.96%	1.41	1.69%	1.58	1.34%	1.36	1.39%
<b>Other Plastics</b>	0.09	0.11%	0.43	0.66%	0.62	0.74%	1.41	1.20%	0.71	0.73%
<b>Wasted Food</b>	26.58	31.15%	7.32	11.18%	14.03	16.80%	10.85	9.22%	11.64	11.91%
<b>Green Bin/Backyard Compostable/ Countertop Unit</b>	18.21	21.34%	9.98	15.24%	24.13	28.89%	39.68	33.73%	22.31	22.82%
<b>Pet Waste</b>	4.44	5.20%	2.46	3.76%	5.00	5.99%	15.03	12.78%	13.75	14.06%
<b>Hazardous Waste</b>	0.07	0.08%		0.00%	0.11	0.13%		0.00%	0.77	0.79%
<b>Electronics</b>	0.51	0.60%		0.00%		0.00%	0.75	0.64%	0.63	0.64%
<b>Lighting</b>		0.00%	0.06	0.09%		0.00%		0.00%	0.01	0.01%
<b>Batteries</b>	0.11	0.13%		0.00%		0.00%		0.00%		0.00%
<b>Textiles</b>	0.98	1.15%	2.98	4.55%	1.89	2.26%	8.65	7.35%	2.30	2.35%
<b>Other Reusable Materials</b>		0.00%		0.00%		0.00%		0.00%	0.29	0.30%
<b>Residue</b>	24.74	29.00%	30.51	46.58%	25.59	30.64%	29.74	25.28%	39.46	40.36%
<b>Total Weight</b>	<b>85.32</b>	<b>100.00%</b>	<b>65.50</b>	<b>100.00%</b>	<b>83.52</b>	<b>100.00%</b>	<b>117.63</b>	<b>100.00%</b>	<b>97.77</b>	<b>100.00%</b>
<b>Percentage of audit sample</b>		4%		3%		4%		5%		4%
SSO amounts * these were included in the composition study										



<b>Municipality:</b>	Peterborough County									
<b>Waste Stream:</b>	Garbage									
<b>Waste Generation Period:</b>	7 days (average)									
<b>Sample Size (Number of Households):</b>	10									
<b>Department/Area:</b>	Buckhorn TS #1		Buckhorn TS #2		Buckhorn TS #3		Buckhorn TS #4		King Street	
<b>Auditor(s):</b>	B. Yarnell, A. Foley, H. Warren, M. Ervine		B. Yarnell, A. Foley, H. Warren, M. Ervine		B. Yarnell, A. Foley, H. Warren, M. Ervine		B. Yarnell, A. Foley, H. Warren, M. Ervine		B. Yarnell, A. Foley, H. Warren	
<b>Date Collected:</b>	21-Aug-24		21-Aug-24		21-Aug-24		21-Aug-24		22-Aug-24	
<b>Sample Weight:</b>	158.19		117.55		105.38		69.45		93.15	
<b>Components of Waste</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>
Containers	5.60	3.64%	4.18	3.56%	4.43	4.87%	2.40	3.46%	2.75	2.94%
Fibre	1.99	1.29%	2.48	2.11%	2.01	2.21%	1.32	1.90%	2.99	3.20%
Deposit Return		0.00%	0.01	0.01%		0.00%		0.00%	0.01	0.01%
Non-Program	1.92	1.25%	2.34	1.99%	3.03	3.33%	1.18	1.70%	2.49	2.67%
Other Plastics	0.35	0.23%	1.44	1.23%	0.87	0.96%	0.01	0.01%		0.00%
Wasted Food	18.18	11.80%	18.55	15.79%	8.51	9.35%	3.15	4.54%	13.38	14.32%
Green Bin/Backyard Compostable/ Countertop Unit	27.78	18.04%	44.58	37.95%	25.92	28.48%	7.01	10.10%	4.42	4.73%
Pet Waste	53.55	34.77%	14.30	12.17%	20.45	22.47%	0.48	0.69%	21.30	22.80%
Hazardous Waste		0.00%	0.68	0.58%	0.14	0.15%	0.59	0.85%	0.14	0.15%
Electronics	0.21	0.14%	0.64	0.54%		0.00%	0.23	0.33%	0.01	0.01%
Lighting		0.00%		0.00%		0.00%	0.06	0.09%	0.06	0.06%
Batteries		0.00%	0.05	0.04%		0.00%		0.00%	0.01	0.01%
Textiles	4.08	2.65%	4.48	3.81%	1.95	2.14%	11.15	16.07%	4.26	4.56%
Other Reusable Materials	8.71	5.66%	0.41	0.35%		0.00%	5.07	7.31%	2.63	2.82%
Residue	31.65	20.55%	23.34	19.87%	23.70	26.04%	36.74	52.95%	38.96	41.71%
<b>Total Weight</b>	<b>154.02</b>	<b>100.00%</b>	<b>117.48</b>	<b>100.00%</b>	<b>91.01</b>	<b>100.00%</b>	<b>69.39</b>	<b>100.00%</b>	<b>93.41</b>	<b>100.00%</b>
<b>Percentage of audit sample</b>		<b>7%</b>		<b>5%</b>		<b>4%</b>		<b>3%</b>		<b>4%</b>
SSO amounts * these were included in the composite	4.39				30.19					



Municipality:	Peterborough County									
Waste Stream:	Garbage									
Waste Generation Period:	7 days (average)									
Sample Size (Number of Households):	10									
Department/Area:	Northey's Bay Road		6th Line TS #1		6th Line TS #2		6th Line TS #3		6th Line TS #4	
Auditor(s):	B. Yarnell, A. Foley, H. Warren		B. Yarnell, A. Foley, M. Ervine		B. Yarnell, A. Foley, M. Ervine		B. Yarnell, A. Foley, M. Ervine		B. Yarnell, A. Foley, M. Ervine	
Date Collected:	22-Aug-24		23-Aug-24		23-Aug-24		23-Aug-24		23-Aug-24	
Sample Weight:	76.99		63.37		83.79		67.65		70.76	
Components of Waste	Waste Stream (kg)	% Sample	Waste Stream (kg)	% Sample	Waste Stream (kg)	% Sample	Waste Stream (kg)	% Sample	Waste Stream (kg)	% Sample
Containers	2.65	4.81%	2.72	3.58%	2.45	2.91%	3.60	5.29%	2.84	4.12%
Fibre	2.73	4.95%	4.03	5.30%	1.90	2.26%	1.09	1.60%	5.16	7.49%
Deposit Return		0.00%		0.00%		0.00%		0.00%	0.01	0.01%
Non-Program	1.48	2.69%	2.97	3.91%	1.27	1.51%	1.15	1.69%	2.39	3.47%
Other Plastics	0.13	0.24%	1.81	2.38%	0.28	0.33%	0.18	0.26%	0.60	0.87%
Wasted Food	3.57	6.48%	6.35	8.36%	17.00	20.22%	3.55	5.22%	1.25	1.81%
Green Bin/Backyard Compostable/ Countertop Unit	24.54	44.54%	29.82	39.24%	17.97	21.38%	18.56	27.28%	16.82	24.41%
Pet Waste	0.15	0.27%	3.35	4.41%	6.11	7.27%	6.70	9.85%	2.45	3.55%
Hazardous Waste		0.00%	0.17	0.22%	0.13	0.15%		0.00%	2.20	3.19%
Electronics		0.00%		0.00%	0.48	0.57%	0.18	0.26%	0.09	0.13%
Lighting		0.00%	0.01	0.01%		0.00%		0.00%	0.01	0.01%
Batteries		0.00%	0.17	0.22%	0.01	0.01%		0.00%	0.04	0.06%
Textiles	0.47	0.85%	1.10	1.45%	1.57	1.87%	3.62	5.32%	0.77	1.12%
Other Reusable Materials		0.00%	3.15	4.14%	1.60	1.90%	0.39	0.57%	1.63	2.37%
Residue	19.38	35.17%	20.35	26.78%	33.29	39.60%	29.01	42.64%	32.66	47.39%
Total Weight	55.10	100.00%	76.00	100.00%	84.06	100.00%	68.03	100.00%	68.92	100.00%
Percentage of audit sample		2%		3%		4%		3%		3%
SSO amounts * these were included in the composite										



Municipality:	Peterborough County									
Waste Stream:	Garbage									
Waste Generation Period:	7 days (average)									
Sample Size (Number of Households):	10									
Department/Area:	Edwards Drive		North Lang Road		Campbell Avenue		Rothesay Avenue		Alexander Street	
Auditor(s):	B. Yarnell, H. Warren, V. Montes		B. Yarnell, H. Warren, V. Montes		B. Yarnell, M. Ervine, V. Montes		B. Yarnell, M. Ervine, V. Montes		B. Yarnell, H. Warren, M. Ervine	
Date Collected:	27-Aug-24		27-Aug-24		28-Aug-24		28-Aug-24		29-Aug-24	
Sample Weight:	131.73		133.06		101.45		117.56		113.03	
Components of Waste	Waste Stream (kg)	% Sample	Waste Stream (kg)	% Sample	Waste Stream (kg)	% Sample	Waste Stream (kg)	% Sample	Waste Stream (kg)	% Sample
Containers	2.07	1.57%	0.17	0.13%	2.25	2.17%	1.77	1.50%	3.19	2.82%
Fibre	2.12	1.61%	1.80	1.37%	2.26	2.18%	5.36	4.54%	5.76	5.09%
Deposit Return	0.01	0.01%		0.00%	0.04	0.04%		0.00%		0.00%
Non-Program	1.27	0.96%	1.46	1.11%	2.49	2.40%	1.39	1.18%	2.26	2.00%
Other Plastics	0.61	0.46%	0.14	0.11%	0.54	0.52%	0.77	0.65%		0.00%
Wasted Food	16.20	12.27%	35.57	27.09%	17.93	17.31%	8.38	7.10%	18.51	16.35%
Green Bin/Backyard Compostable/ Countertop Unit	23.89	18.10%	30.33	23.10%	41.72	40.27%	26.42	22.38%	20.34	17.97%
Pet Waste	26.59	20.15%	3.96	3.02%	3.27	3.16%	14.36	12.16%	25.68	22.68%
Hazardous Waste		0.00%	0.52	0.40%		0.00%		0.00%		0.00%
Electronics	0.01	0.01%		0.00%		0.00%	0.98	0.83%		0.00%
Lighting	0.05	0.04%	0.12	0.09%		0.00%	0.09	0.08%		0.00%
Batteries		0.00%		0.00%		0.00%	0.15	0.13%		0.00%
Textiles	2.34	1.77%	5.36	4.08%	1.78	1.72%	4.15	3.52%	2.32	2.05%
Other Reusable Materials	0.58	0.44%		0.00%	3.32	3.20%	1.74	1.47%	0.28	0.25%
Residue	56.24	42.61%	51.87	39.50%	27.99	27.02%	52.49	44.46%	34.88	30.81%
Total Weight	131.98	100.00%	131.30	100.00%	103.59	100.00%	118.05	100.00%	113.22	100.00%
Percentage of audit sample		6%		6%		4.41%		5%		5%
SSO amounts * these were included in the composition										



<b>Municipality:</b>	Peterborough County									
<b>Waste Stream:</b>	Garbage									
<b>Waste Generation Period:</b>	7 days (average)									
<b>Sample Size (Number of Households):</b>	10									
<b>Department/Area:</b>	McLean Avenue		Helen Street		Burnside Road		Coral Drive		<b>Total (kg)</b>	
<b>Auditor(s):</b>	B. Yarnell, H. Warren, M. Ervine		B. Yarnell, H. Warren, M. Ervine		B. Yarnell, M. Ervine, V. Montes		B. Yarnell, M. Ervine, V. Montes			
<b>Date Collected:</b>	29-Aug-24		29-Aug-24		30-Aug-24		30-Aug-24			
<b>Sample Weight:</b>	96		134.86		96.78		91.67		2384.48	
<b>Components of Waste</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>	<b>Waste Stream (kg)</b>	<b>% Sample</b>
Containers	5.54	5.74%	2.89	2.14%	6.42	6.52%	3.22	3.47%	86.84	3.70%
Fibre	1.77	1.83%	2.47	1.83%	4.12	4.18%	1.03	1.11%	69.68	2.97%
Deposit Return	0.06	0.06%		0.00%	0.01	0.01%		0.00%	0.67	0.03%
Non-Program	1.62	1.68%	4.46	3.30%	4.37	4.44%	1.77	1.90%	48.72	2.07%
Other Plastics		0.00%	0.47	0.35%	1.22	1.24%	0.07	0.08%	12.75	0.54%
Wasted Food	30.46	31.54%	37.20	27.50%	12.54	12.73%	21.45	23.08%	362.15	15.42%
Green Bin/Backyard Compostable/ Countertop Unit	15.91	16.47%	28.00	20.70%	18.67	18.96%	20.07	21.60%	557.08	23.72%
Pet Waste	1.15	1.19%	23.13	17.10%	1.05	1.07%	12.51	13.46%	281.22	11.97%
Hazardous Waste		0.00%	0.10	0.07%	1.08	1.10%		0.00%	6.70	0.29%
Electronics		0.00%		0.00%	0.35	0.36%	0.34	0.37%	5.41	0.23%
Lighting		0.00%	0.04	0.03%		0.00%	0.01	0.01%	0.52	0.02%
Batteries		0.00%	0.04	0.03%		0.00%		0.00%	0.58	0.02%
Textiles	2.96	3.06%	1.67	1.23%	2.62	2.66%	0.72	0.77%	74.17	3.16%
Other Reusable Materials	0.23	0.24%	0.46	0.34%	6.05	6.14%		0.00%	36.54	1.56%
Residue	36.88	38.19%	34.32	25.38%	39.98	40.60%	31.73	34.15%	805.50	34.30%
<b>Total Weight</b>	<b>96.58</b>	<b>100.00%</b>	<b>135.25</b>	<b>100.00%</b>	<b>98.48</b>	<b>100.00%</b>	<b>92.92</b>	<b>100.00%</b>	<b>2,348.53</b>	<b>100.00%</b>
<b>Percentage of audit sample</b>		<b>4%</b>		<b>6%</b>		<b>4%</b>		<b>4%</b>		
SSO amounts * these were included in the composite					1.57					



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**Appendix C**  
**Photographs**

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***Photograph 1: Containers***



***Photograph 2: Textiles***



***Photograph 3: Non-Program***



***Photograph 4: Other Plastics***





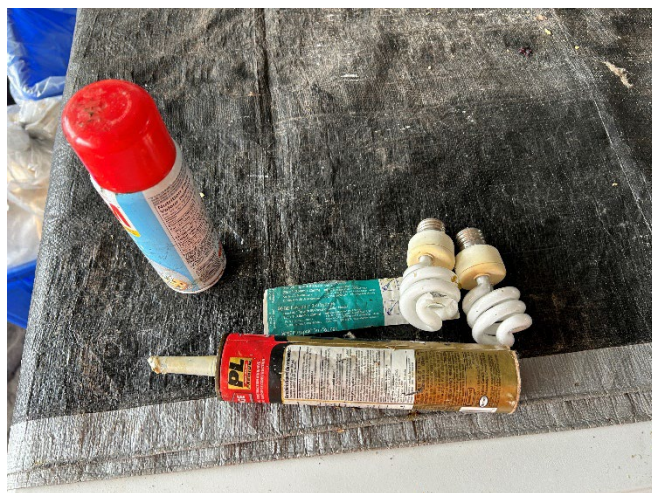
**Photograph 5: Wasted Food (left) and Green Bin/Backyard Compostable (right)**



**Photograph 6: Residue**



**Photograph 7: Pet Waste**



**Photograph 8: Hazardous Waste and Lightbulbs**





***Photograph 9: Electronics and Lightbulb***



***Photograph 10: Other Reusable Materials***

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## **Appendix C**

### **Township Consultation**

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The County held an online workshop with all the Townships on October 10, 2024. Staff from all Townships with the County participated to provide input and discuss options for the waste management master plan update. The engagement workshop with the Townships was well attended and good discussions occurred.

Townships are interested in knowledge sharing though posts and discuss programs they are providing, research, and current contractors to save time and resources.

Overall support from the County through funding and promotion and education would be needed for the implementation of these options. The summary of key discussion points for each option are listed in Table 1.

Table 1 Summary of Discussion from Township Workshop

Category	Options	Workshop Forms Results	Workshop Discussion Notes	Key Themes
Non-Eligible Sources (NES)	<ul style="list-style-type: none"><li>Continue to provide blue box curbside collection for NES</li><li>Continue to provide blue box curbside collection and coordinate with townships for depot collection</li><li>Coordinate blue box materials for NES at depots only</li><li>Stop providing blue box services to NES</li></ul>	<ul style="list-style-type: none"><li>There was strong support (80%) to continue service for NES with curbside and depot locations with County to cover the coordination and costs for managing this service.</li><li>There was support that that the province should include NES for material collection but in the interim, taxpayers should not cover the costs for business/commercial overhead costs.</li><li>Clear bag program can be used to ensure this material does not end up in the landfill.</li></ul>	<ul style="list-style-type: none"><li>Most Townships support continuing service for NES with curbside and depot locations.</li><li>Townships want the County to cover the costs for managing NES programs.</li><li>Townships want regular updates/support from the County on diversion programs and specifically blue box transition.</li><li>Taxes are high especially for small businesses and worry about NES impact on overhead costs.</li></ul>	<ul style="list-style-type: none"><li>Continue curbside and depot collection for NES blue box materials. Costs and management be provided by the County.</li><li>Updates on NES to be included in producer responsibility will be communicated with all townships.</li></ul>
Leaf and Yard	<ul style="list-style-type: none"><li>Increase curbside leaf and yard waste.</li><li>Call-in collection.</li><li>Collection at waste disposal sites during set periods of time.</li><li>Promote alternatives for leaf and yard waste.</li></ul>	<ul style="list-style-type: none"><li>There was 30% support to keep the leaf and yard waste program as status quo.</li><li>20% support for increase in curbside collection service.</li><li>20% support promoting alternatives to managing leaf and yard waste.</li><li>Township staff reported that council is interested in increased areas of service and receive significant public feedback regarding L&amp;Y waste collection services.</li></ul>	<ul style="list-style-type: none"><li>Some Townships were interested to increased curbside collection, implementation of depot collection (similar to hazardous waste), and promote alternatives to managing leaf and yard waste.</li><li>The County should support through funding to increase curbside and depot collection.</li><li>Cost savings if L&amp;Y waste is collected with curbside organics collection.</li><li>Township staff recognize that the current leaf and yard waste service differs between each township for different challenges.</li></ul>	<ul style="list-style-type: none"><li>The main support was to keep the leaf and yard waste program as status quo.</li><li>The County should support through funding for depot collection.</li><li>In the future, the County could investigate collecting L&amp;Y with curbside organics.</li></ul>
Mattress Diversion Program	<ul style="list-style-type: none"><li>The County to continue to cover the costs for transportation of mattresses.</li><li>County to coordinate mattress collection events and increase service area.</li></ul>	<ul style="list-style-type: none"><li>There was 22% support to expand on collection sites.</li><li>60% support that there is a need to increase the level of service for mattress recycling.</li><li>There was limited support for the County to continue support for existing programs and for the coordinated call-in option for pick-up service.</li><li>Townships that currently provide drop-off collection dates state that service is limited and lack of alternatives for residents due to</li></ul>	<ul style="list-style-type: none"><li>Time restricted discussion for this option during the workshop.</li></ul>	<ul style="list-style-type: none"><li>The option to expand on collection sites in the County was the most supported from the townships.</li></ul>



Category	Options	Workshop Forms Results	Workshop Discussion Notes	Key Themes
	<ul style="list-style-type: none"><li>Expand on collection sites to accept mattresses.</li><li>County to coordinate a call-in pick collection for mattresses.</li></ul>	<ul style="list-style-type: none"><li>distance.</li><li>There was no support for the County to coordinate and manage mattress collection events.</li></ul>		
Reuse and Sharing Program Opportunities	<ul style="list-style-type: none"><li>Create an internal digital platform for townships within the County to access materials.</li><li>Increase existing reuse centres.</li><li>Increase promotion and education of existing community services.</li><li>Support existing external reuse centres and programs.</li></ul>	<ul style="list-style-type: none"><li>No form response from Douro-Dummer, Havelock-Belmont-Methuen, or Selwyn.</li><li>44% of Townships estimate that the sharing platform option within townships would result a medium (10-100 tonnes per year) for waste reduction with medium costs to implement (\$10,000-\$100,000).</li><li>44% of Township estimate that the sharing platform option would result a low (&lt;10 tonnes per year) impact on waste reduction.</li><li>50% stated that increasing existing reuse centres would result in a medium (10-100 tonnes per year) waste reduction and another 50% stated it would result in low waste reduction (&lt;10 tonnes per year).</li><li>Increasing existing reuse centres would be a medium impact on resources/operations to townships.</li><li>Support from the County through funding and standardization of items for increase of existing reuse centres.</li><li>75% stated that increase promotion of existing community services would have a low (&lt;10 tonnes per year) impact on waste reduction.</li><li>Digital sharing may be a challenge for different demographics (if open to public).</li><li>Publicly accepted for all options for reuse and sharing opportunities.</li><li>Township staff would like the County support through funding and promotion and education.</li></ul>	<ul style="list-style-type: none"><li>Current reuse centres have issues with operations and tracking of materials is not feasible. Hard to quantify how much reuse centres are used. Challenges with current ECA and limited space to expand reuse centres at sites.</li><li>Sharing equipment (e.g., snowplows) can be effective with agreements/terms of responsibility of repairing and maintenance. However, limited time to complete a detailed inventory of resources.</li><li>Digital sharing may be a challenge for different demographics; existing external platforms already in use (Facebook Marketplace, Kijiji, etc.).</li><li>There was a strong interest to have the County support through promotion and education, funding, and standardization of accepted materials.</li><li>Distance between townships may deter internal sharing.</li></ul>	<ul style="list-style-type: none"><li>The County to support promotion and education of existing services and reuse centres.</li></ul>
Waste Reduction Programs	<ul style="list-style-type: none"><li>Food waste reduction public education and workshops.</li><li>Demolition and building waste reduction permit requirements.</li><li>Single-use plastic reduction.</li><li>Increase circular procurement.</li><li>Community/business waste reduction incentive programs.</li></ul>	<ul style="list-style-type: none"><li>Only 2 responses from Cavan Monaghan and Douro-Dummer</li><li>Staff stated that implementing workshops would be low cost (&lt;\$10,000).</li><li>Workshops would result in medium waste reduction (10-100 tonnes per year).</li><li>Waste reduction workshops are highly supported and should be implemented by the County.</li><li>Demolition and building waste reduction permit requirements would cost approximately \$10,000-\$100, 000 with low waste reduction (&lt;10 tonnes per year).</li><li>County would need to support through resources and bylaw enforcement.</li><li>Building department would need to consulted.</li><li>May not be publicly accepted to reduce single-use plastics.</li><li>Many single-use items are part of the recycling stream.</li></ul>	<ul style="list-style-type: none"><li>Food cyler has been successful in Townships that have implemented the program.</li><li>Building permits to ensure waste is separated would make the process more difficult for residents and businesses. Larger builders currently do source separate materials. Any large development (sub-division) should have source separation in the site plan agreement.</li><li>Single-use plastic reduction should come from the Federal government to support.</li><li>Community/business waste reduction incentive programs would support and recognized local businesses; however, may be difficult to implement consistently.</li><li>County support through leading by-law</li></ul>	<ul style="list-style-type: none"><li>The County to implement public workshops.</li><li>The County to support waste reduction through promotion and education, and incentives or recognition.</li><li>Lack of understand between food waste reduction and diversion/composting</li></ul>





Category	Options	Workshop Forms Results	Workshop Discussion Notes	Key Themes
		<ul style="list-style-type: none"><li>• Circular procurement would have a low impact on waste reduction (&lt;10, 000 tonnes per year) and would require medium amount of resources.</li><li>• County to lead by example through legal guidance on how to include circular procurement in tenders.</li><li>• Community/business waste reduction incentive programs would have a medium impact on waste reduction (10,000 – 100,000 tonnes per year).</li><li>• Support from the County through promotion and education, and incentives/recognition.</li></ul>	enforcement, promotion and education, and recognition to top reduction businesses.	
Food Organics	<ul style="list-style-type: none"><li>• Curbside collection for food organics.</li><li>• Expand depot collection for organics.</li><li>• Hybrid curbside/counter-top composters.</li></ul>	<ul style="list-style-type: none"><li>• No form created for this option as this is being investigated through a separate program by the County.</li></ul>	<ul style="list-style-type: none"><li>• Not specifically discussed during the workshop because investigated through a separate program.</li></ul>	<ul style="list-style-type: none"><li>•</li></ul>
Textile Reduction	<ul style="list-style-type: none"><li>• Curbside collection for textile waste.</li><li>• Expand receiving locations and end users.</li><li>• Expand education/promotion.</li></ul>	<ul style="list-style-type: none"><li>• 1 response from Cavan Monaghan Township.</li><li>• Curbside textile collection would have a medium impact on waste reduction.</li><li>• County to lead on services and receiving facilities.</li><li>• Strong support to expand on receiving facilities to increase waste diversion and would be low cost to implement.</li><li>• The County to lead on promotion and education to increase waste diversion.</li><li>• The County to provide guidance on textile reduction programs to all townships.</li></ul>	<ul style="list-style-type: none"><li>• Existing receiving centres and donation bins are widely used and publicly known.</li><li>• Township managed bins have issues with garbage being left and managing pick-ups.</li><li>• Issues with bins being full and collection from Diabetes/Talize are not frequent enough.</li><li>• Concerns if Townships/County provide additional support through bins, that it will take away from local businesses.</li><li>• The County should provide support education on what can be donated/recycled for textiles.</li></ul>	<ul style="list-style-type: none"><li>• Public education and what textiles can be donated/recycled and where residents can drop-off.</li><li>•</li></ul>
Other Diversion Opportunities	<ul style="list-style-type: none"><li>• Bulky plastic collection.</li><li>• Book reuse and recycling.</li><li>• Agricultural and boat wrap plastic collection.</li><li>• Polystyrene recycling.</li></ul>	<ul style="list-style-type: none"><li>• 1 response from Cavan Monaghan Township.</li><li>• Bulky plastics would be publicly accepted with medium costs and reduction on waste.</li><li>• Book reuse and recycling would have low costs and low reductions on waste.</li><li>• The County would lead on promotion and education and receiving facilities.</li><li>• Boat/agricultural plastic recycling would have low costs and high waste reduction with the County to coordinate with service providers.</li><li>• Polystyrene recycling would have medium costs and waste reduction impact. The County would coordinate with receiving facilities and contracts for accepting materials.</li></ul>	<ul style="list-style-type: none"><li>• Interest in polystyrene, bulky plastic, and boat/agricultural wrap collection.</li></ul>	<ul style="list-style-type: none"><li>• The County to implement bulky plastics and polystyrene recycling.</li><li>• The County should investigate agricultural and boat wrap recycling.</li></ul>



Category	Options	Workshop Forms Results	Workshop Discussion Notes	Key Themes
Final Comments	<ul style="list-style-type: none"><li></li></ul>	<ul style="list-style-type: none"><li>Townships are concerned about NES process and the costs specifically on small businesses.</li><li>Townships are excited about promotion and education on programs and incentives, curbside organics collection, polystyrene, and bulky plastic recycling at depots</li><li>What is the current lifespan of the Peterborough landfill and what happens to waste when it reaches capacity.</li></ul>	<ul style="list-style-type: none"><li></li></ul>	<ul style="list-style-type: none"><li>The County should clearly communicate information and programs across the townships.</li></ul>

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## **Appendix D**

### **Public Consultation**

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Table 1 Summary of Public Survey #2

Item	Feedback	Themes
Non-Eligible Sources	<ul style="list-style-type: none"><li>• &gt;90% want County to continue providing service</li><li>• Status quo for collection services with some interest in only depots or curbside</li></ul>	<ul style="list-style-type: none"><li>• Businesses are large producers of waste so if collection services are not provided, more Blue Box materials will end up in the landfill</li><li>• Community members want more effort from businesses to recycle more/properly</li></ul>
Leaf and Yard	<ul style="list-style-type: none"><li>• &gt;70% are satisfied with existing services</li><li>• Curbside respondents are closely split on wanting additional collection dates vs status quo</li><li>• Most respondents (65%) do not receive curbside collection or bring their L&amp;Y waste to a depot (70%), 30% of respondents use depot</li><li>• Closely split between wanting curbside collection or not</li><li>• &gt;60% want increased free drop off availability for L&amp;Y</li><li>• Some interest in call-in service (40%) but many voted against this option (60%)</li><li>• Most leaf and yard options for increased service are a low priority, would like to see an increase in free drop off options and promotion and education</li></ul>	<ul style="list-style-type: none"><li>• Increase in promotion and education for residents to compost or mulch on their properties</li><li>• Would like pick up days to be more predictable, residents often miss curbside pick up as they are unsure of when it will occur</li><li>• Would like consistency of curbside pickup based on taxes paid to provide the service in Townships</li><li>• Many people manage their own leaf and yard waste</li><li>• Increase number of pickup days for curbside per year and/or reassess timeline for pickup to better accommodate higher generation periods</li></ul>
Mattress	<ul style="list-style-type: none"><li>• Split relatively evenly (almost 50/50) whether to increase level of service or not</li><li>• Slightly higher interest in expanding collection at WDSs than not</li><li>• 30% vs 40% interest in annual collection events or biannual events respectively, interest in no events approx. 30% as well</li><li>• Most options are low priority, some additional interest in a call in service and coordinating additional mattress collection events in more locations/adding collection sites</li></ul>	<ul style="list-style-type: none"><li>• More collection opportunities at WDSs farther away from Bensfort</li><li>• Residents are of the opinion that most people who do not have access to a WDS that accepts mattresses within a reasonable distance are disposing incorrectly (leaving on the side of the road, burning, etc)</li><li>• Additional collection events for WDSs that currently accept mattresses</li></ul>
Re-use and Sharing Opportunities	<ul style="list-style-type: none"><li>• Many people currently use community-based re-use/sharing services</li><li>• &gt;70% of residents felt they would benefit from additional information about these services</li><li>• Residents are 50/50 about using or not using reuse centres at WDSs</li><li>• &gt;80% of participants said they would use a municipally operated reuse centre if it was upgraded or accepted more materials</li><li>• Almost 90% of participants support additional efforts to create sharing/reuse opportunities for materials generated internally within Townships in the County</li><li>• Lots of interest in all options related to re-use and sharing</li></ul>	<ul style="list-style-type: none"><li>• Not interested in County spending any more money (increasing taxes) to increase re-use sharing opportunities</li><li>• More reuse centres at WDSs could be beneficial</li><li>• More promotion and education of re-use/sharing opportunities</li></ul>
Waste Reduction Initiatives	<ul style="list-style-type: none"><li>• Food Waste Reduction Promotion and Education</li></ul>	<ul style="list-style-type: none"><li>• Some very strong opinions against single use plastic bylaws/policies</li><li>• If higher costs to residents are associated with any of these initiatives, most are not interested in implementing anything new</li></ul>





Item	Feedback	Themes
	<ul style="list-style-type: none"><li>Some residents feel this is a high priority (28%) and others think this is a very low priority (26%) with varying opinions in the middle</li><li>Demolition and building waste reduction permits<ul style="list-style-type: none"><li>Mainly a low priority for residents</li></ul></li><li>By-laws and policies to decrease use of single use plastics<ul style="list-style-type: none"><li>Mainly a low priority for residents</li></ul></li><li>Update tenders and proposals to include circular procurement<ul style="list-style-type: none"><li>Some interest in implementing these initiatives</li></ul></li><li>Community/business waste reduction incentive programs<ul style="list-style-type: none"><li>Some interest in implementing these initiatives</li></ul></li></ul>	<ul style="list-style-type: none"><li>Education on where people can go for support and inquiries regarding by-laws and policies</li></ul>
Organics	<ul style="list-style-type: none"><li>Most support for increasing composting options in rural locations</li><li>Curbside collection and expanding depot collection are also seen as being a high priority</li></ul>	<ul style="list-style-type: none"><li>Many residents who live rurally/have larger properties compost themselves</li><li>Support for curbside organics programs</li><li>Some comments about seasonal residents being used to weekly curbside programs in their hometown/city, so having a collection program in the county would be beneficial</li><li>Interest in discount or tax deduction for compost machines for residential or commercial use</li><li>Promotion and education on composting/organics management would be helpful</li></ul>
Textiles	<ul style="list-style-type: none"><li>Support for increasing level of service for textile recycling</li><li>Majority of respondents currently use community re-use and sharing services</li><li>Curbside collection for textiles is a low priority</li><li>More support for expanding receiving locations and end users and expanding promotion and education</li></ul>	<ul style="list-style-type: none"><li>Promotion and education for textile donation/reuse options in the community (materials that can be recycled, where they can be donated, etc)</li></ul>
Other Diversion Options	<ul style="list-style-type: none"><li>Highest priority items are bulky plastics and polystyrene recycling options</li><li>Some interest in book reuse/recycling and agricultural plastic recycling (medium to high priority)</li></ul>	<ul style="list-style-type: none"><li>Polystyrene recycling is a very high priority for residents</li><li>Suggestion to include information for agricultural/boat plastic recycling with tax bill for farms/other users</li><li>More education on these types of recycling/waste, why certain materials aren't accepted and how these types of materials can be managed</li><li>Education on where residents can inquire and get support about policy and legislation related to polystyrene and other materials</li><li>Interest in education about book donation and option to include at re-use centres at WDSs</li></ul>
Household Hazardous Waste, Electronics, Backyard Composting Program	<ul style="list-style-type: none"><li>Most residents satisfied with current programs offered</li></ul>	<ul style="list-style-type: none"><li>Interest in extending HHW events throughout the year with more inclusive hours</li><li>Promotion and Education about materials that are accepted at local depots, programs that are offered by the county</li></ul>



Total Survey Responses: 155  
Response distribution:

Asphodel-Norwood	8%
Cavan Monaghan	12%
Douro-Dummer	20%
Havelock-Belmont-Methuen	8%
North Kawartha	4%
Otonabee South Monaghan	12%
Selwyn	20%
Trent Lakes	16%
Curve Lake First Nation	0%
Hiawatha First Nation	1%

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## **Appendix E**

### **Options Assessment**

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# Options Considered for the WMMP Update

October 4, 2024

Prepared for:  
County of Peterborough

Cambium Reference: 20115-001

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## 1.0 Introduction of Potential Future Objectives

Future Objectives are designed to meet the WMMP Update Goals of optimizing waste services, reducing waste going to landfill, and expanding outreach for waste management. The options/initiatives in this report are being considered to help achieve these goals. These are developed for discussion and consultation before further in-depth evaluation and review.

Cambium is suggesting the following criteria for evaluating/considering validity of options:

- Cost (High, Medium, Low)
- Diversion Potential (High, Medium, Low)
- Feasibility (Simple, Moderate Complexity, Complex)
- Perceived Social Acceptance (Public Support)

## **2.0 Non-Eligible Source (NES) Blue Box (BB) Material Management**

The Blue Box (BB) Regulation (O.Reg. 391/21) does not capture industrial, commercial, and some institutional (IC&I) properties, including mixed-use properties or not for profits. The non-eligible sources (NES)s includes hotels, campgrounds, resorts, restaurants, stores, businesses, institutions, office, shopping malls, hospital, community centre, place of worship, recreation facility, sports venue, entertainment venue, university or college, golf course, cemetery, amusement park, etc. The County needs to determine how this material will be managed starting in January 2026. During interviews with Township (TWP) staff, lower tier TWP's expect that the preferred solution will be to continue providing BB services to NES in some way.

### **Curbside NES**

The County has an estimated 545 curbside BB stops which account for approximately 12% of all non-residential properties within the County. The other 88% of non-residential properties in the County may be using depots or private hauling contracts to recycle BB materials. Noted some non-residential properties are vacant. The current budget for curbside BB collection for NES is approximately \$620,000 and includes regular routes, additional routes, and advertising. Curbside NES BB material is currently collected with the eligible residential program so there is no data (weights or composition) for only NES. The County has completed a study to help understand the number of set outs in each TWP and the approximate quantity of material set out. The County has a commercial curbside limit of 10 blue boxes or 2 carts (95 gallons per cart) with additional BB materials required to be managed using depots or private collection.

### **Depot NES**

Currently, NES can access depots to manage their BB recycling. There is no data collection on only NES quantities; however, they are estimated to make up a low percentage of overall users at municipal sites. All of the Municipalities within the County currently manage BB at depots through CMO and use MPAC percentages for the contract. There will be separate requirements when transition is complete, January 1, 2026, and NES BB material will have to be collected separately. At this point no TWP's have finalized plans to provide these services



as they are anticipating the County's WMMP to provide some insight into how NES BB material may be managed at the County level. It is our understanding that all (or most) TWP's would appreciate some coordinated effort on managing this issue.

There are several approaches that could be taken to managing NES source materials as follows:

1. Continue providing curbside BB services to NES. Currently, the County provides curbside blue box collection to NES. This option continues to provide the BB service without any changes or disruptions to NES.
2. Continue providing curbside and work with TWP's to coordinate depot NES BB Services. This option provides the continual service of curbside with the additional coordination with TWP's to provide depots to accommodate NES quantities.
3. Coordinate collection of BB for NES at Depots only. This option discontinues the curbside service of BB collection for NES and only supports depot collection. This may affect current depots operations to accommodate the additional quantity of BB from NES and will potentially need additional BB bins.
4. Stop providing NES BB collection services. This option would require NES to manage their own BB materials. This would result in NES to find private haulers to collect BB materials for recycling or including BB material in the garbage stream. It is unknown if BB service would be available for these NES. This may result in a reduction in recycling and increase in materials going to landfill.

### 3.0 Leaf and Yard Program

A need to optimize the way leaf and yard services are provided and potentially increase service has been identified through the WMMP update process. The current program involves a combination of curbside and depot related programs and compensation. The programs are inconsistently distributed between TWP's and equitable compensation for programs could be improved. Additionally, there are some TWP's and residents that expressed an interest in increased level of services.

Options for Leaf and Yard Program include:

1. Increase curbside collection service – Expand curbside program to include more collection areas/dates throughout the year. A predetermined schedule for rural areas would minimize the need for one-off pickups and provide a reasonable timeframe for both the County and residents. For areas already receiving curbside pickup, an option to include additional pickup dates during the year would further divert this material from the landfill.
2. Call in collection program: Increase level of service by offering a County wide call in collection program.
3. Collection at Waste Disposal Sites (WDS) (like hazardous waste) – have sites staffed for collection during designated dates, and materials would be placed into bins and sent directly to the PCCWMF for inclusion in the Source Separated Organics (SSO) composting process.
4. Promote alternatives to managing leaf and yard waste such as mulching or composting at home. Options may include pilot program with local farmers, mulching incentives, backyard composting incentives.

Regardless of the programs being delivered, the County should consider a compensation method that equally distributes the funds available for managing leaf and yard materials. So, a TWP would have compensation based on the budget available to allocate toward programs and number of residents being serviced. If the County determines that a curbside program being coordinated and offered by the County costs more in one TWP, they may choose to





offset the costs/services provided in another area. For example, if a TWP does not spend the entire allocation because perhaps their TWP doesn't generate as much leaf and yard waste or have a need to manage it, they can allocate that amount to another program instead.

## 4.0 Mattress Diversion Program

Like the leaf and yard programs, there are various levels of services and programs available for mattress recycling. Presented below are options for managing mattresses.

1. Continue compensation for transporting mattresses to the PCCWMF or events.
2. County to coordinate and pay for mattress collection events and include larger collection areas.
3. Expand on collection sites that accept mattresses. This option would expand services to more WDSs and transfer station locations for collection to improve access to residents instead of limited locations. Currently, the TWP of Asphodel-Norwood (residents only) and PCCWMF are the only locations for regular collection. Trent Lakes and North Kawartha have events to collect mattresses.
4. The County could coordinate a call-in for pick-up service for mattresses. This could potentially increase diversion service for residents to schedule a pick-up. One perceived challenge would be whether this program would be used, and operational considerations associated with picking up mattresses.

Similar to the leaf and yard program compensation suggestion, regardless of the programs being delivered, the County should consider a compensation method that equally distributes the funds available for managing mattress materials.

## 5.0 Reuse and Sharing Program Opportunities

This initiative would incorporate a circular economy approach by keeping materials that are reusable and of value for residents and the County in circulation. Waste streams that could be included in an expanded reuse and sharing program include bikes, wood, drywall, tools, and furniture. Options for expanding reuse initiatives include:

1. Creating an internal digital sharing platform to allow Townships, and departments within the County to access available materials. This approach reduces the need to buy new products/materials and supports circular strategies. Storage requirements may be needed for materials depending on the proposed approach. TWPs would establish an inventory of small and large assets and equipment that could be shared. There could also be an opportunity to share excess materials generated through projects. This could potentially be reviewed and discussed as part of quarterly meetings between public works and/or waste management staff.
2. Increase use of existing municipal reuse centres at transfer stations and WDSs to encourage residents to place materials that are in good condition for other residents to access. The costs associated would include staff time, upgrades to reuse centres to encourage use, and promotion.
3. Increase promotion of existing community services – encourage residents to increase participation in existing programs and expand on the programs offered at existing locations within the community. This can be done by creating a reuse, repair, sharing hub where people can go to find other end uses for materials. This could be implemented through an app with information on waste management including schedules, sorting tool, and locations for drop-off and donations. There may be some overlap between this and existing sharing/resale platforms. These options could also consider expanding/promoting locations of community sharing virtual platforms.
4. Support existing external reuse centres and programs so they can provide better services and extend the items being offered for reuse. Support can be through grants or funding or by assistance with navigating legislative or material stream specific requirements.

## 6.0 Waste Reduction Programs

Programs to support circular economy by reducing waste reduction include the following:

1. Food waste reduction public education and workshops. The County would provide public education outreach about food waste to encourage food waste reduction.
2. Demolition and building waste reduction permit requirements are an objective that was included in the original plan. Through a permit process, the County or TWPs can evaluate and provide input on source separation and diversion programs implemented at construction sites. This program would be expected to reduce construction related waste generation.
3. Single-use plastic reduction. The County could implement by-laws and policies to decrease the use of single-use plastic items such as cutlery, food and beverage materials, ring carriers, stir sticks, and straws. These items could be swapped with alternatives. Education and support could be provided to businesses to help them understand the options and alternatives.
4. Increase circular procurement. Implementing a circular procurement policy or simply including circular procurement principles as a requirement into tenders and proposal for materials and services. The circular procurement considerations would promote circular business models (circular supplies, product as service, product life extension, sharing platform, and finally, resource recovery) and ultimately be intended to result in waste reduction.
5. Community/business waste reduction incentive programs including community awards for businesses that promote circularity, discounts, coupons, and gift cards for participation in waste reduction programs, public acknowledgement/search engine for circular approved businesses. This could be implemented by the County or by supporting and promoting other local non-for-profit organizations aiming to achieve this objective.

## 7.0 Food Organics Management

The results of the survey included in the Curbside Organics Plan Draft Report completed in 2021 noted that most organics were being disposed of in the garbage. Residents were asked what would prevent them from participating in a curbside organics program and the biggest concern was attracting animals/pests onto their property. There were also a high number of participants who were already composting on their own property. Another notable concern was short-term and seasonal residents who would be concerned if curbside was not collected, and bins/bags being left at the road. Residents seemed to respond positively to maintaining organics collection at transfer stations.

Currently, Selwyn (Bridgenorth) is the only TWP utilizing the County curbside organics collection program throughout the County. Curbside organics collection is occurring in Cavan Monaghan and managed by the TWP. Streamlining organics curbside collection throughout the County would be beneficial to provide consistency across TWPs. Curbside collection would have the most potential for successfully diverting organics from the landfill. The County Council approved a negotiable RFP to move forward with the garbage upload and weekly curbside organics collection for participating TWPs.

Option for organics management:

1. Curbside collection for food organics. The County to provide weekly collection with biweekly garbage. Negotiable RFP has been approved by County Council.

## Textile Diversion Opportunities

Textile waste is a growing concern with “fast fashion” resulting in frequent wardrobe changes and low-quality products. Textiles also include materials like towels, sheets, pillows, etc. Clothes are being made in surplus and diversion programs are needed to ensure a circular lens to textiles are in place to reduce these materials ending in the landfill. There are several third-party options (not for profit and private) that accept textiles to reuse or recycle the materials. To expand on existing textile recycling services the following initiatives could be considered:

1. Curbside collection for textiles. The County could provide curbside collection for residents to easily dispose of textiles instead of ending up in the garbage. This may be implemented as a call in service.
2. Expand receiving locations and end users. Identify more places that will accept textile materials for recycling (Humane Societies, local shelters). Identify new markets for textile materials.
3. Expand Education/Promotion. This option would encourage more textile reduction, reuse, and recycling through education programs at local schools, online resources, workshops, and community events.

## 8.0 Other Diversion Opportunities

The County has several successful waste reduction programs implemented to divert materials from landfill. These programs include organic waste, household hazardous waste, blue box recycling, electronic recycling, and leaf and yard.

Several diversion programs have shifted to producer responsibility (meaning that TWPs are no longer required to manage the disposal and associated costs of the waste materials).

However, the TWPs have chosen to enter into agreements with producers or Producer Responsibility Organizations (PROs) to maintain some programs and serve as collection sites. Waste programs currently managed by the County are:

- Lighting
- Hazardous waste
- Electronics

Waste programs that are managed by Producers or Producer Responsibility Organizations (PROs) on behalf of producers are:

- Tires
- Blue Box materials

There are other materials in addition to those noted specifically (leaf and yard, mattress, and textiles) that have fluctuating markets and program costs. The County could continue to pursue these options and programs and update/consider service when options are available and financially prudent.

1. **Bulky Plastics.** When markets permit, the County to implement bulky plastics program to reduce these materials ending in the landfill. Bulky plastics can be recycled through third-party plastic companies. Depot drop offs for bulky plastics would be feasible with additional bins for this service. Public education would need to support this program.
2. **Book Reuse and Recycling.** Books are not an eligible material in the new BB program and therefore will no longer be accepted in the BB. Further promotion and education for

donating books to local public libraries which accept in good condition. Public education on recycling books for proper disposal. This option could collect and deliver books from WDS and TS to the libraries if in good condition. If the County pursues a NES program it could also include non-designated materials such as books.

3. Agricultural and Boat Plastics. The County currently refers residents to a service provider for boat and bale wrap services. The County could increase service for agricultural and boat plastic wrap recycling by offering collection locations or collaborating with service providers in some way to increase participation. This option would require promotion and education to encourage participation.
4. Polystyrene Recycling. The County could provide polystyrene through depot collection. This material can be exported and recycled at third-party plastic companies. Currently, polystyrene is accepted at the Pido Rd recycling centre, but the recycling market is volatile.





## 9.0 Existing Program Management

There are several programs that are currently operating successfully or have had recent decisions regarding management options and direction for the County. In the WMMP Update it will be recommended that the County continue to provide these services as status quo.

1. Household Hazardous Waste (HHW). The County could increase promotion and education of this program to encourage the proper disposal of these items.
2. Electronics. Increase promotion of this program and education on what is accepted and what parts of electronics are not (glass in microwave etc.)
3. Backyard Composting Program (garbage to garden)

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## **Appendix F**

### **Case Studies for Recommended Options**

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## **Appendix F - Case Studies for Recommended Options**

### **Option 2: Promote alternatives to managing leaf and yard waste such as mulching or composting at home**

#### Nova Scotia, Canada: Alternative Management of Leaf and Yard Waste

Nova Scotia's approach to promoting alternatives to managing leaf and yard waste through pilot programs, mulching incentives, and backyard composting incentives has proven effective in increasing waste diversion and engaging the community (Pearson, 2013). By focusing on education and financial support, the province has successfully encouraged residents to adopt sustainable waste management practices.

#### **Pilot Program with Local Farmers:**

- Collaboration with local farmers to identify suitable sites for mulching and composting leaf and yard waste.
- Provided financial incentives and technical support to farmers participating in the program.
- Monitored and evaluated the program's impact on waste diversion and soil health.

#### **Mulching Incentives:**

- Mulching equipment discounts offered to residents.
- Benefits of mulching and how to effectively mulch leaf and yard waste workshops conducted
- Promoted the program through community events and local media.

#### **Backyard Composting Incentives:**

- Provided compost bins to residents at a reduced cost.
- Organized training sessions on effective composting techniques.
- Developed a communication plan to raise awareness about the environmental benefits of composting.



#### **Option 4: Mattress Program**

##### City of Greater Sudbury's Mattress and Box Spring Diversion Program

In 2023 The City of Greater Sudbury identified the need to divert mattresses and box springs from landfills because of operation challenges. Challenges included difficulty handling and compacting, damage to equipment, and poor use of landfill space (City of Greater Sudbury, 2022). The program was successful with good KPI results focused on waste diversion, environmental impact, and community engagement. The key challenges were handling, transportation, and cost management. The City addressed handling and transportation by optimizing collection routes and ensuring proper handling procedures. Cost management required funding for collection, transportation, and recycling fees. The City included these costs in it's budget planning and utilized additional funding through grants.

#### **Option 5: Increase promotion of existing community services**

##### Expansion of Share Reuse Repair Hub

In April 29, 2024 York Region, in addition to Peel Region, partnered with Circular Innovations Council to expand the virtual [Share Reuse Repair Hub](#) for the community. This has proven successful with upper tier municipalities like Durham Region onboarding in 2025. This resource provides a directory of businesses, organizations, and events. A map developed by Region allows users to find resources based on location and category while also providing information about how different business models support the circular economy.



## **Option 6: Support existing external reuse centres and programs**

### British Columbia, Canada: External Reuse Centre Support

Supporting external reuse centres through grants, funding, and legislative assistance has proven effective in enhancing services and expanding the range of items offered for reuse. This approach not only promotes waste reduction but also strengthens community engagement and contributes to a circular economy. With the support of grants and funding, reuse centres in BC have been able to improve their facilities and expand the range of items they accept. This has led to increased community engagement and higher diversion rates from landfills. Legislative assistance has helped reuse centres navigate regulatory requirements, ensuring that their operations meet safety and environmental standards.

#### Grants and Funding:

- **EcoAction Community Funding Program:** Provides funding to non-profit organizations for local projects that produce measurable, positive environmental effects (Bradbury, 2021). Reuse centres can apply for grants to enhance their facilities and services.
- **TD Friends of the Environment Foundation Grant:** Offers financial support for environmental projects, including those focused on waste reduction and reuse (Bradbury, 2021). Eligible applicants include registered Canadian charities, educational institutions, municipalities, and Indigenous communities.

#### Legislative Assistance:

- **National Zero Waste Council (NZWC):** Provides resources and guidance to help reuse centres navigate legislative requirements and implement best practices (National Zero Waste Council, 2023). The NZWC's "Reuse in Canada Landscape Scan" report offers insights into policies, regulations, and programs that support reuse systems across Canada.



## **Option 7: Food waste reduction public education and workshops**

### Dufferin County

Dufferin County implemented The Plan to Save: Reduce Food Waste Campaign in 2019 that provided tips, weekly challenges, and resources to learn about personal food waste habits, waste less food, save more money and promote healthier eating (Dufferin County, 2019). This information, including the weekly challenges, is available on their website with many resources to support residents in their effort to reduce food waste.

## **Option 8: Increase circular procurement (policies and/or principles)**

### City of Toronto

Implemented a Circular Economy Procurement Implementation Plan and Framework. The plan leverages the city's purchasing power to improve waste reduction through a circular economy approach. The framework includes minimizing use of raw materials, maximizing the life cycle of materials, and minimizing waste generation at the end-of-product life cycle (City of Toronto, 2018).

### Recycling Council of Ontario (RCO) and City of Toronto Partnership

The City of Toronto and RCO partnered to delivered workshops and build capacity on developing circular procurement framework for municipalities (Recycling Council of Ontario, 2018). The partnership focused on promoting waste reduction and advancing the circular economy through education, awareness, and collaboration.



## **Option 9: Community/business waste reduction incentive programs**

### City of Vancouver's Green Business Program

The City of Vancouver's Green Business Program provides support and recognition to businesses that implement sustainable practices regarding waste reduction as part of its broader Greenest City Action Plan (City of Vancouver, 2020). The program offers resources, workshops and one-on-one support to help businesses achieve their goals. Businesses that participate are eligible to receive financial incentives, such as grants and rebates, for implementing waste reduction measures. Businesses that achieve sustainability milestones are recognized through the Green Business Certification, enhancing reputation and attracting environmentally conscious customers. The program has helped businesses reduce their waste, lower operating costs, and improve environmental performance.

### City of Copenhagen's Green Business Program

The City of Copenhagen's Green Business Program was launched to support local businesses adopting sustainable practices including waste reduction. The program provides resources, training, and financial incentives to help businesses implement circular economy principles (City of Copenhagen , 2014). Businesses are eligible to receive grants and rebates for implementing waste reduction measures like installing recycling and composting systems, conducting waste audits, and using ecofriendly packaging. They also offer technical assistance and workshops to help businesses develop and implement waste reduction strategies.

## **Option 10: Public Education and Outreach about composting programs**

### Greater Sudbury Educational Resources

Greater Sudbury offers educational resources both on their website and by offering free visits to schools to promote composting, along with other waste management programs offered by the municipality. They also offer composting programs to all schools in the Greater Sudbury area through an application process and will provide appropriate resources and equipment to implement these programs throughout the school (City of Greater Sudbury, 2025).



## **Option 12: Expand receiving locations and end users**

### City of Markham, Ontario

Markham's textile recycling program is a prime example of a successful municipal initiative. The program began a pilot project and quickly expanded from high participation and community interest. The City of Markham placed over 150 donation bins at various locations, collected 1,360 tonnes of textiles, and achieved significant environmental and economic benefits (Green Municipal Fund, 2015).

### California's Responsible Textile Recovery Act

California's Responsible Textile Recovery Act of 2024 used a similar timeline for implementing a textile recycling program (The Textile Think Tank, 2024).

2026: Formation of Producer Responsibility Organizations (PROS) and submission of plans

2028: Enforcement of regulations begins

2030: Full compliance required for producers

## **Option 13: Expand Education/Promotion**

### Ontario Textile Diversion Collaborative (OTDC)

The OTDC was formed by Fashion Takes Action and funded by the Ontario Trillium Foundation. The collaboration aimed to increase textile diversion rates and develop the textile recycling industry in Ontario (Fashion Takes Action, 2020).

#### Key Action Items

Stakeholder Engagement: Municipalities, academics, brand owners, retailers, and NGOs participated in the collaborative

Workshops and Labs: OTDC held workshops and labs to understand the textile industry landscape, identify challenges, and develop strategies for textile diversion and recycling

Research and Report: OTDC conducted studies and published reports to inform and guide the development of textile recycling initiatives





The collaborative raised awareness about textile waste and the importance of recycling among stakeholders and the public. The OTDC developed a shared understanding of key challenges and aligned outcomes to improve textile diversion and recycling efforts through strategic planning. The case study demonstrated the potential for successful textile recycling programs in Ontario while highlighting the importance of community engagement, partnerships, and strategic planning.

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## **Appendix G**

### **Review of Municipal Comparators**

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Table 1 Review of Municipal Comparators

Municipality	Upper Tier Services	Lower Tier Services	Waste Management Programs	Tipping Fees	Other Programs
Bluewater Recycling Association	<ul style="list-style-type: none"><li>Weekly Waste Collection</li><li>Waste Management Facility</li></ul>	<ul style="list-style-type: none"><li>Green waste disposal sites</li><li>Curbside leaf collection twice per year</li></ul>	<ul style="list-style-type: none"><li>Curbside garbage and recycling</li><li>HHW events</li><li>Electronic waste drop-off</li></ul>	<ul style="list-style-type: none"><li>Not Available</li></ul>	<ul style="list-style-type: none"><li>Compressed natural gas to fuel collection truck fleet</li><li>Roll-off bin waste removal services – commercial and residential</li></ul>
Dufferin County	<ul style="list-style-type: none"><li>Weekly Waste Collection</li></ul>	<ul style="list-style-type: none"><li>Bag tags</li><li>New/replacement bins</li></ul>	<ul style="list-style-type: none"><li>Curbside collection of garbage, recyclables, organics, yard waste, bulky items and white goods</li><li>HHW and electronic events</li></ul>	<ul style="list-style-type: none"><li>Not Available</li></ul>	<ul style="list-style-type: none"><li>The Plan to Save – Reduce Food Waste including tips and resources to learn about personal food waste habits, waste less food, save money and promote healthier eating. The main campaign was in 2019 and included weekly challenges with a number of resources still available on the County website.</li><li>Clothes'ing the Loop on Textiles – tips available on Dufferin County website to keep textiles out of the landfill and donation bins across the County</li></ul>
Muskoka District	<ul style="list-style-type: none"><li>Weekly Waste Collection</li><li>Waste Management Facilities</li></ul>	<ul style="list-style-type: none"><li>Bag tags</li><li>New/replacement bins</li></ul>	<ul style="list-style-type: none"><li>Curbside garbage, recycling and organics</li><li>Leaf and yard waste collection four times annually</li><li>HHW and electronic waste drop-off</li></ul>	<ul style="list-style-type: none"><li>Minimum load fee: \$12</li><li>Bagged household garbage (weekly limit), blue box recyclables, Christmas trees, electronics, green bin organics, , invasive species, leaves/garden waste, scrap metal and tires: No charge</li><li>Appliances with freon: \$26</li><li>Bagged garbage over weekly limit: \$8</li><li>Bag tag bundle (5 tags): \$35</li><li>Failure to pay: \$100</li><li>Furniture (facility w/o scale) \$32</li><li>Mattress/boxspring: \$28</li><li>Refillable propane tank: \$10</li><li>Asbestos waste: \$334/tonne</li><li>Blue box recyclables (over 200kg): \$150</li><li>Chippable wood/brush, clean shingles and clean wood: \$101/tonne</li><li>Unclean wood: \$239/tonne</li><li>Compostable waste: \$60/tonne</li></ul>	<ul style="list-style-type: none"><li>Clean Muskoka Together – litter cleanup program</li><li>Bag Limits – one bag per week or two bags bi-weekly if in green bin collection area. If there is no green bin collection two bags per week or four bags bi-weekly</li></ul>



Municipality	Upper Tier Services	Lower Tier Services	Waste Management Programs	Tipping Fees	Other Programs
Muskoka District				<ul style="list-style-type: none"><li>Furniture (facility with scale): \$239/tonne</li><li>Invasive species (non-residential): \$201/tonne</li><li>Mixed load: \$453/tonne</li><li>Waste/garbage: \$239/tonne</li><li>Customers exceeding 10 cubic yards must visit landfill directly</li></ul>	
Northumberland County	<ul style="list-style-type: none"><li>Weekly Waste Collection</li><li>Community Recycling Centres</li></ul>	<ul style="list-style-type: none"><li>Bag tags</li></ul>	<ul style="list-style-type: none"><li>Curbside collection of garbage, recycling, organics, and leaf and yard waste</li><li>HHW and electronics waste drop-off</li></ul>	<ul style="list-style-type: none"><li>Unseparated material loads: &lt;100kg \$13/tonne, &gt;100kg \$260/tonne</li><li>Garbage, drywall, scrap metal, white goods, bulky plastic and commercial recycling: &lt;100kg \$13/tonne, &gt;100kg \$130/tonne</li><li>Leaf and yard waste: first 500kg free, \$130/tonne</li><li>Bulky styrofoam packaging: \$13 (clean and clear bagged), \$130/tonne (clean and clear bagged)</li><li>Household recycling, HHW, electronics, tires and clothing: Free</li></ul>	<ul style="list-style-type: none"><li>Provides educational resources for recycling and waste to teachers and community groups (presentations, signage, etc.)</li></ul>
Ottawa Valley Waste Recovery Centre	<ul style="list-style-type: none"><li>Weekly Waste Collection</li><li>Waste Management Facility</li></ul>	<ul style="list-style-type: none"><li>New/replacement bins</li></ul>	<ul style="list-style-type: none"><li>Curbside collection of garbage, recycling (dual stream), organics</li><li>Large item collection</li><li>Environmental Days - residential hazardous or special waste and electronic waste: No charge</li></ul>	<ul style="list-style-type: none"><li>Landfill waste, sorted C&amp;D waste, mixed leaf &amp; yard waste, brush, stumps, organic material, and agricultural plastic: \$105/tonne, \$20 for less than 190kgs (minimum fee)</li><li>Unsorted loads: \$265/tonne, \$50 for less than 190kgs (minimum fee)</li><li>Asbestos &amp; lead paint coated material: \$210/tonne, \$40 for less than 200kg (minimum fee)</li><li>Contaminated Soils: \$105/tonne</li><li>Paper and container recyclables: \$53/tonne, \$20 for less than 400kgs (minimum fee)</li><li>Tires, scrap metal, electronic waste, corrugated cardboard and leaves &amp; grass clippings: No charge</li></ul>	<ul style="list-style-type: none"><li>Light recycling program</li><li>Reuse Centre - construction renovation materials, furniture, sporting goods, outdoor items in usable/working condition</li><li>Canadian Diabetes Association Clothesline Bins - gently used textiles and footwear</li><li>Educational programs for schools and community groups (tours, presentations, worksheets, etc.)</li></ul>
Oxford County	<ul style="list-style-type: none"><li>Weekly Waste Collection</li><li>Waste Management Facility</li></ul>	<ul style="list-style-type: none"><li>Bag tags</li><li>New/replacement bins</li></ul>	<ul style="list-style-type: none"><li>Curbside collection of garbage, recyclables, organics, yard waste,</li></ul>	<ul style="list-style-type: none"><li>Mixed Solid Waste: \$92/1000kg</li><li>Construction and Demolition Waste: \$88/1000kg</li><li>Asbestos Waste: \$350/1000kg</li></ul>	<ul style="list-style-type: none"><li>Zero Waste Committee</li><li>Net-zero energy Waste Management &amp; Education Facility for school and community visits</li></ul>



Municipality	Upper Tier Services	Lower Tier Services	Waste Management Programs	Tipping Fees	Other Programs
Oxford County			<ul style="list-style-type: none"><li>bulky items, and white goods</li><li>• HHW Depot</li><li>• Specialty recycling programs (electronics, scrap metal, white goods, tires, etc.</li></ul>	<ul style="list-style-type: none"><li>• Minimum load charge: \$10</li><li>• Segregated loads of Scrap Metal: No Charge</li><li>• Items containing (or may have contained) Freon: \$20/unit surcharge</li></ul>	<ul style="list-style-type: none"><li>• Agricultural Plastics Diversion Pilot Program – collection for farmers to encourage diversion of plastics generated by agricultural practices. Collection bags are free to local farmers and the program allows many types of agricultural plastics with a disposal fee of \$50/ tonne</li><li>• Film Plastic Program – free collection of film plastic at four depot locations in Oxford County to encourage diversion of film plastic that is not accepted in the Blue Box program</li></ul>
Quinte Waste Solutions	<ul style="list-style-type: none"><li>• Blue Box Recycling Service</li><li>• Hazardous and electronic waste</li></ul>	N/A	<ul style="list-style-type: none"><li>• Curbside recycling</li><li>• Commercial recycling</li><li>• HHW and electronic waste collection</li></ul>	<ul style="list-style-type: none"><li>• Not Available</li></ul>	<ul style="list-style-type: none"><li>• Educational resources for schools</li></ul>

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## Appendix H

### Options Evaluation Results

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Table 1 Evaluation Results

Program Description	Options	Cost	Increase Diversion From Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank
Non-Eligible Source Blue Box Material Management	Continue providing curbside BB services to NES. Currently, the County provides curbside blue box collection to NES. This option continues to provide the BB service without any changes or disruptions to NES.	Low	Medium	Medium	High	Medium
	Continue providing curbside and work with Townships to coordinate depot NES BB Services. This option provides the continual service of curbside with the additional coordination with Townships to provide depots to accommodate NES quantities.	Low	Medium	Low	Medium	Low
	Coordinate collection of BB for NES at Depots only. This option discontinues the curbside service of BB collection for NES and only supports depot collection. This may affect current depots operations to accommodate the additional quantity of BB from NES and will potentially need additional BB bins	Medium	Low	Low	Low	Low
	Stop providing NES BB collection services. This option would require NES to manage their own BB materials. This would result in NES to find private haulers to collect BB materials for recycling or including BB material in the garbage stream. It is unknown if BB service would be available for these NES. This may result in a reduction in recycling and increase in materials going to landfill.	High	Low	High	Low	Medium
Leaf and Yard Program	Increase curbside collection service – Expand curbside program to include more collection areas/dates throughout the year. A predetermined schedule for rural areas would minimize the need for one-off pickups and provide a reasonable timeframe for both the County and residents. For areas already receiving curbside pickup, an option to include additional pickup dates during the year would further divert this material from the landfill.	Low	Medium	Medium	Medium	Medium
	Call in collection program: Increase level of service by offering a County wide call in collection program.	Medium	Medium	Medium	Low	Medium
	Collection at Waste Disposal Sites (WDS) (like hazardous waste) – have sites staffed for collection during designated dates, and materials would be placed into bins and sent directly to the Bensfort WDS for inclusion in the Source Separated Organics (SSO) composting process.	Medium	Medium	Low	Medium	Low
	Promote alternatives to managing leaf and yard waste such as mulching or composting at home. Options may include pilot program with local farmers, mulching incentives, backyard composting incentives.	High	Medium	High	High	High
	Maintain Existing Programs	Medium	High	Medium	Medium	Medium
Mattress Program	Continue compensation for transporting mattresses to the Bensfort WDS or events	High	Low	Medium	High	Medium
	County to coordinate and pay for mattress collection events and include larger collection areas.	Medium	Low	High	Medium	Medium
	Expand on collection sites that accept mattresses. This option would expand services to more WDSs and transfer station locations for collection to improve access to residents instead of limited locations. Currently, the Township of Asphodel-Norwood (residents only) and Bensfort WDS are the only locations for regular collection. Trent Lakes and North Kawartha have events to collect mattresses	Medium	Low	Low	Medium	Low
	The County could coordinate a call-in for pick-up service for mattresses. This could potentially increase diversion service for residents to schedule a pick-up. One perceived challenge would be whether this program would be used, and operational considerations associated with picking up mattresses.	Medium	Low	Medium	Low	Low
Reuse and Sharing Programs	Creating an internal digital sharing platform to allow Townships, and departments within the County to access available materials. This approach reduces the need to buy new products/materials and supports circular strategies. Storage requirements may be needed for materials depending on the proposed approach. Municipalities would establish an inventory of small and large assets and equipment that could be shared. There could also be an opportunity to share excess materials generated through projects. This could potentially be reviewed and discussed as part of quarterly meetings between public works and/or waste management staff.	High	Low	Low	Low	Low



Table 1 Evaluation Results

Program Description	Options	Cost	Increase Diversion From Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank
Reuse and Sharing Options	Increase use of existing municipal reuse centres at transfer stations and WDSs to encourage residents to place materials that are in good condition for other residents to access. The costs associated would include staff time, upgrades to reuse centres to encourage use, and promotion	Medium	Medium	Low	Medium	Low
	Increase promotion of existing community services – encourage residents to increase participation in existing programs and expand on the programs offered at existing locations within the community. This can be done by creating a reuse, repair, sharing hub where people can go to find other end uses for materials. This could be implemented through an app with information on waste management including schedules, sorting tool, and locations for drop-off and donations. There may be some overlap between this and existing sharing/resale platforms. These options could also consider expanding/promoting locations of community sharing virtual platforms	High	Medium	High	High	High
	Support existing external reuse centres and programs so they can provide better services and extend the items being offered for reuse. Support can be through grants or funding or by assistance with navigating legislative or material stream specific requirements	High	Medium	High	Medium	High
Waste Reduction Programs	Food waste reduction public education and workshops. The County would provide public education outreach about food waste to encourage food waste reduction	High	Medium	High	Medium	High
	Demolition and building waste reduction permit requirements are an objective that was included in the original plan. Through a permit process, the County or Townships can evaluate and provide input on source separation and diversion programs implemented at construction sites. This program would be expected to reduce construction related waste generation	Medium	High	Low	Low	Low
	Single-use plastic reduction. The County could implement by-laws and policies to decrease the use of single-use plastic items such as cutlery, food and beverage materials, ring carriers, stir sticks, and straws. These items could be swapped with alternatives. Education and support could be provided to businesses to help them understand the options and alternatives	High	Low	Medium	Low	Medium
	Increase circular procurement. Implementing a circular procurement policy or simply including circular procurement principles as a requirement into tenders and proposal for materials and services. The circular procurement considerations would promote circular business models (circular supplies, product as service, product life extension, sharing platform, and finally, resource recovery) and ultimately be intended to result in waste reduction	High	Low	Medium	Medium	Medium
	Community/business waste reduction incentive programs including community awards for businesses that promote circularity, discounts, coupons, and gift cards for participation in waste reduction programs, public acknowledgement/search engine for circular approved businesses. This could be implemented by the County or by supporting and promoting other local non-for-profit organizations aiming to achieve this objective	High	Low	Medium	High	Medium
Food Organics Waste Management	Curbside collection for food organics. The County to provide weekly collection with biweekly garbage. To be determined through other studies/processes being completed by the County	Low	High	Low	High	Medium
	Expand depot collection program. The County could install more food organic collections at WDS and TSs with inground container system (SEL, AN, OSM, etc.)	Medium	Medium	Medium	Medium	Medium
	Hybrid curbside organics/countertop composters. Weekly collection for residents who already receive weekly garbage collection and countertop options for residents who do not	Low	High	Low	Medium	Low
	Public Education and Outreach about composting programs. Promoting alternatives if Curbside and depot option is not available. (Maintaining existing programs)	High	Low	High	High	High



Table 1 Evaluation Results

Program Description	Options	Cost	Increase Diversion From Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank
Textile Diversion Opportunities	Curbside collection for textiles. The County could provide curbside collection for residents to easily dispose of textiles instead of ending up in the garbage. This may be implemented as a call in service	High	Low	Medium	Low	Medium
	Expand receiving locations and end users. Identify more places that will accept textile materials for recycling (Humane Societies, local shelters). Identify new markets for textile materials	High	Low	High	High	High
	Expand Education/Promotion. This option would encourage more textile reduction, reuse, and recycling through education programs at local schools, online resources, workshops, and community events	High	Low	Medium	High	Medium



Table 1 Evaluation Results

Program Description	Options	Cost	Increase Diversion From Landfill* (tonnes)	Feasibility	Perceived Stakeholder Acceptance	Overall Rank
Other Diversion Opportunities	Bulky Plastics. When markets permit, the County to implement bulky plastics program to reduce these materials ending in the landfill. Bulky plastics can be recycled through third-party plastic companies. Depot drop offs for bulky plastics would be feasible with additional bins for this service. Public education would need to support this program	Medium	Low	Medium	High	Medium
	Book Reuse and Recycling. Books are not an eligible material in the new BB program and therefore will no longer be accepted in the BB. Further promotion and education for donating books to local public libraries which accept in good condition. Public education on recycling books for proper disposal. This option could collect and deliver books from WDS and TS to the libraries if in good condition. If the County pursues a NES program it could also include non-designated materials such as books	High	Low	Medium	Medium	Medium
	Agricultural and Boat Plastics. The County currently refers residents to a service provider for boat and bale wrap services. The County could increase service for agricultural and boat plastic wrap recycling by offering collection locations or collaborating with service providers in some way to increase participation. This option would require promotion and education to encourage participation	Medium	Low	Medium	High	Medium
	Polystyrene Recycling. The County could provide polystyrene through depot collection. This material can be exported and recycled at third-party plastic companies. Currently, polystyrene is accepted at the Pido Rd recycling centre, but the recycling market is volatile	Medium	Low	Medium	High	Medium