

Appendix # A

to

Report # WM2019-012

# Making Waste Matter: Integrated Waste Management Strategy

**November 2019 update for: 2020-2024**

Final Draft



## **A Message from Kawartha Lakes Council**

TBD

## Introduction

The ***Making Waste Matter: Integrated Waste Management Strategy*** implemented in 2015 outlined where Waste Management in Kawartha Lakes was at that time and provided clear short-term and long-term initiatives for waste management services into the future (until 2048). The Strategy stated that it would be critical to regularly review, update, and expand the document due to frequent and significant changes in waste management practices, legislation, and waste quantities in the municipality. Based on the frequency of these changes it has been determined that an update of the Strategy will occur every five years. This first update will include initiatives to be implemented for the next five years (2020-2024) until the next Strategy update will be undertaken in 2024. Many of the initiatives and goals outlined in the original Strategy have been reviewed and accomplished and there are many new opportunities that have been explored in this update that will push Kawartha Lakes further towards accomplishing the goals of this Strategy. Waste management is entering a challenging and exciting time as the province is changing how it will operate for the future. The future will involve producers of goods taking responsibility for their disposal. These changes are already happening and will continue to happen over the next five years. Therefore our municipality needs to be prepared in our contracts and programs for collection services and processing of waste and recycling.



**The goal of the *Making Waste Matter: Integrated Waste Management Strategy* is to guide Kawartha Lakes towards an overall residential diversion rate of 70% by the year 2048 through the phased implementation of strategically-chosen initiatives, operational updates, and education activities.**

### **Residential Diversion:**

A **waste diversion rate** is one of the common measures for evaluating the performance of a municipality's waste management program and represents the amount of recycling and special waste that has been diverted away from the landfill over a given year. The industry standard for municipalities across Ontario is to look at this from a residential diversion rate perspective. The official diversion rate that municipalities receive from the Resource Productivity and Recovery Authority after submitting all of the annual tonnages for each waste diversion program is a residential diversion rate. Since the Strategy was adopted in 2015 the residential diversion rate has increased from 39% to 43%, which is a great success for the municipality.

### **Industrial, Commercial & Institutional (IC&I) Diversion:**

Kawartha Lakes also recognizes the importance of ensuring a high rate of diversion through the IC&I sectors. We plan on continuously improving waste reduction and recycling practices among commercial businesses through public education, communication, and incentives. This process has already begun through research and outreach to local businesses that staff has completed in 2019 on single use plastics reduction. It is also important to focus on IC&I diversion as a main component of this waste consists of construction and demolition materials (C&D) which can make up almost 50% of waste at our landfill sites. Kawartha Lakes will continue to develop and improve our C&D recycling program pilot by focusing communication efforts to local contractors to increase participation in the program.

## **Achieving our Goals**

While the ultimate goal of the Strategy is to achieve an overall residential diversion rate of 70%, this update includes several other key performance indicators (KPIs) to measure the successful implementation of each initiative. Waste diversion rates can be impacted by many factors (for example population increases, regulatory changes, political and international economics, public education and awareness, etc.). It is therefore difficult to measure what impact a single initiative has had on the diversion rate when these other factors are impacting the diversion rate simultaneously, hence the use of additional KPIs.

When choosing which initiatives to pursue through this Strategy Update, the focus will be on a 'waste less living' philosophy, which structures the initiatives based on the 3 R's (Reduce, Reuse, Recycle) as well as the addition of 'Innovation' into waste management decision-making, program delivery, education and customer service.

In support of the provincial 'Delivering on the Made-in-Ontario' Environment plan, Kawartha Lake's goal is to strive to **reduce waste and increase diversion**. This will be achieved with a commitment to prioritizing the Waste Hierarchy through emphasis on the first two R's, Reduce and Reuse.

With recent uncertainties in recycling due to saturated and poor markets as well as new legislation surrounding a shift to producer responsibility beginning in 2023 of the blue box program in Ontario, it is now more important than ever to focus on reducing the amount of waste and blue box materials for processing and reuse of products and materials.

## Strategy Success:

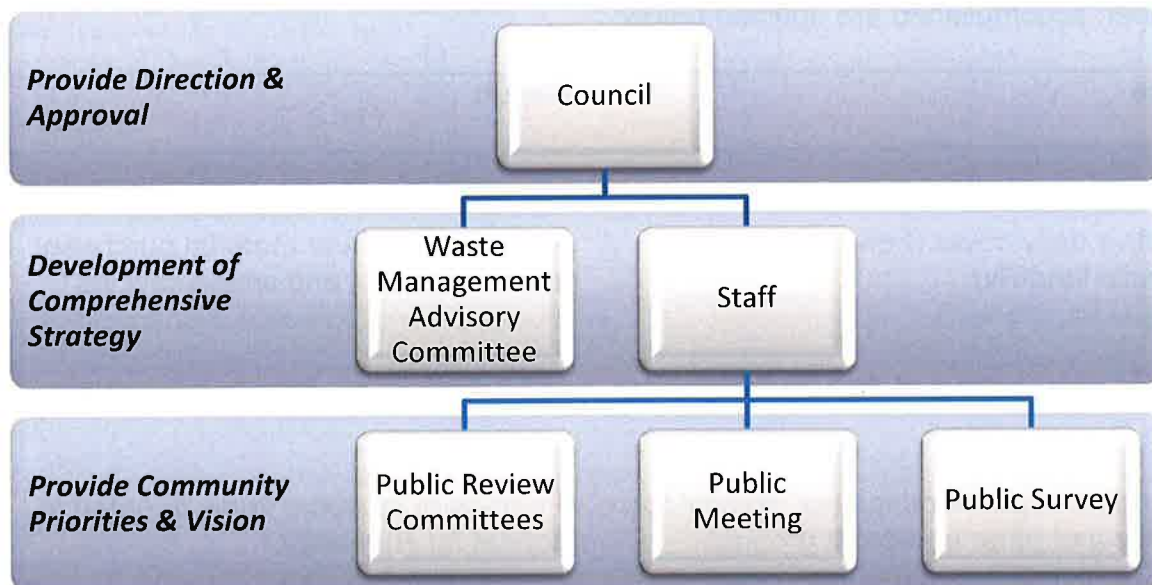
Since the Strategy was implemented in 2015 many of the waste management initiatives that were outlined have been accomplished with a huge thanks to public participation in the programs. Through the Strategy update survey completed in 2019, 100% of respondents said that they recycle, and 83% said they would like to see more municipal money spent on waste management to extend the life of our landfill sites and protect the environment. This public engagement has resulted in the increased diversion rate as well as landfill space and cost savings for our municipality. Kawartha Lakes is viewed as a leader in progressive waste management and recycling. Some of the initiatives that have been accomplished are outlined below:

| Reduce   | Result   |
|--|--|
| Clear bag waste collection   | 20% less garbage is being picked up at the curb                            |
| Alternative daily cover (Fenelon and Somerville landfills)                         | Reduction in cover material purchased resulting in cost and space savings  |
| Increased tipping fees   | More sustainable waste management programs                                 |
| Backyard composter and digester program  | 300 composters and digesters sold  |
| <b>Reuse</b>   |  |
| Local business partnerships (ex. Habitat for Humanity and other non-profit groups) | 6 tonnes of reusable items donated to Habitat for Humanity                 |
| Waste reduction/reuse database (through the Recycle Coach and Pingstreet apps)     | over 8500 subscribers  |
| <b>Recycle</b>   |  |
| Construction and Demolition waste recycling  | 40 tonnes of construction material diverted from the landfill and recycled |
| Mattress recycling   | 3500 mattresses diverted from the landfill and recycled                    |
| <b>Innovate</b>  |  |
| Continuing to collaborate with other communities and municipalities                | staff meet four times per year with other municipalities                   |
| Continued public involvement with municipal and non-municipal research groups      | productive waste management related municipal committees                   |

Any outstanding initiatives have been re-evaluated through the Strategy update along with the addition of new initiatives which will be presented further in this document. Initiatives that were not considered a priority during the update will be revisited in future Strategy updates, for example alternative fuel collection vehicles for waste collection, and the possibility of a landfill construction reuse program.

## Waste Strategy Consultation

The update of the ***Making Waste Matter: Integrated Waste Management Strategy*** was led by the Kawartha Lakes' Waste Management Division with input from municipal advisory committees (landfill public review committees, environmental advisory committee etc.), our Corporate Services staff, residents (both permanent and seasonal), local businesses and other municipal partners. Figure 1 provides an overview of the oversight structure.



To inform participants and generate discussion during the public consultation process, a “Start, Stop & Continue” exercise was used. The activity was conducted with the various committees, waste management staff, as well as members of the public to allow each person to brainstorm waste management initiatives and to consider if they should be implemented, continued or stopped; while simultaneously categorized under the 3 R’s (reduce, reuse, recycle) as well as the innovate category. This activity provided structure and streamlined the flow of ideas and discussion at the various meetings. It also allowed staff to recognize common themes which were important across the different groups participating.

In addition, a 2019 Waste Strategy Update survey was developed, accessible both online and paper format. Paper copies were accessible at Event Days or municipal facilities while the online survey remained available from June 1<sup>st</sup> to July 15<sup>th</sup>. Roughly 200 responses to the survey were received.

The common themes expressed during public consultation included the need to:

- **Increase public participation in waste management programs through the use of engaging, recognizable, and targeted education and promotion strategies**
- **Find innovative ways to reduce plastic waste in Kawartha Lakes and ensure environmental protection**
- **Provide options for source separated organics and food waste diversion**

These concepts will be explored throughout the Strategy.

## **Waste Management Policy**

Waste management is controlled at all levels of government but it is primarily regulated at the provincial level.

### ***Environmental Protection Act (EPA)***

The role of the EPA is to protect the natural environment including air, land and water.

### ***Environmental Assessment Act (EAA)***

The Environmental Assessment Act sets out a process to evaluate proposed waste management activities such as landfilling and its potential effect on the environment.

### ***Waste Free Ontario Act (WFOA)***

The purpose of this new act (WFOA) enacted in 2016 is the idea that producers should be responsible for the end of life management of their products/packaging. This will create higher waste diversion in Ontario and a circular economy.

### ***CKL Waste Management By-Law 2016-144***

Waste Management By-Law 2016-144 sets out specific guidelines for waste disposal and diversion programs for Kawartha Lakes.



## Looking at Today

In Kawartha Lakes, waste management services are coordinated by one central division for the entire municipality with assistance and support from other municipal departments. Our services include: overseeing curbside collection, managing public depots and drop-offs, providing landfill maintenance & monitoring services, and delivering education to the public to encourage the diversion of waste away from landfills. (These are summarized in the figure below)

| Depot and Drop-off Programs   | Collection Programs  | Promotion & Education   | Disposal Facilities  |
|---|--|---|--|
| <ul style="list-style-type: none"><li>• Electronics</li><li>• Tires</li><li>• Scrap Metal</li><li>• Mattresses</li><li>• Boat Wrap</li><li>• Reuse Centre (Fenelon)</li><li>• Habitat for Humanity Reuse Bin (Lindsay)</li><li>• Household Hazardous Waste</li><li>• Leaf &amp; Yard</li><li>• Blue &amp; Green Box Recycling</li><li>• Paint Reuse (Fenelon &amp; Lindsay)</li></ul> | <ul style="list-style-type: none"><li>• 2-Bag Weekly Waste Limit Clear Bags</li><li>• Unlimited Residential Weekly Recycling</li><li>• Public Space Recycling</li><li>• Large Item, Mattress &amp; Freon</li><li>• Curbside Batteries</li><li>• Event Days</li></ul> | <ul style="list-style-type: none"><li>• Social Media</li><li>• Recycle Coach App</li><li>• Various Methods of Advertising</li><li>• Earth and Waste Reduction Week activities</li></ul> | <ul style="list-style-type: none"><li>• 5 Open Landfill Sites</li><li>• 11 Closed Landfill Sites</li><li>• 4 Leachate Collection Systems</li><li>• 1 Landfill Gas Collection System</li><li>• 1 Electrical Generation System</li></ul> |

### *Waste Management Facilities (Open Landfill Sites)*

Five open landfill sites receive the waste that is generated within Kawartha Lakes. These landfill sites are: Lindsay Ops, Fenelon, Eldon, Somerville and Laxton. Each landfill site operates under approval by the Ministry of the Environment, Conservation and Parks (MECP).

## ***Diversion Programs***

Diversion programs are a fundamental component of waste management services. Diversion redirects recyclable and special waste materials away from the landfill. This is critical as landfill space is limited and requires extensive resources to manage.

To identify the trends and participation rates of these programs, the quantities of waste and recycling managed is tracked and regular audits are conducted.

### **History of Waste Management Diversion Initiatives:**

- Municipal-wide Curbside Collection (2001)
- Scrap metal (2001)
- Tires (2001)
- Reuse Centre (2001)
- HHW (2001)
- Textile Collection (2002)
- Curbside Leaf and Yard (2005)
- Boat and Bale Wrap (2007)
- Electronics Recycling (2009)
- Public Space Recycling (2010)
- Round-Up Days (2011)
- Landfill Gas Flare (2012)
- New Blue Box Materials (2014)
- Paint Reuse (2015)

### **Initiatives Implemented through the Integrated Waste Management Strategy:**

- Curbside Battery Collection (2016)
- Habitat for Humanity Reuse Bin (2017)
- Clear Bag Program (2017)
- Mattress Recycling (2018)
- Construction and Demolition Recycling Pilot -Clean Wood (2018)
- Construction and Demolition Recycling Pilot -Drywall (2019)

## Preparing for Tomorrow

Changing demographics and population growth of Kawartha Lakes will have an impact on the amount and type of waste generated. It is important to note that the municipal growth plan includes forecasting to 2032; however, ***Making Waste Matter*** goes beyond to 2048, corresponding to the full build out of Lindsay. The forecasted shifts with the greatest potential impact on Kawartha Lakes waste management services are:

- A population increasing to 100,000 by 2032 (and beyond to 2048)
- The number of households/ dwellings increasing to 42,516 by 2032 (and beyond to 2048)
- Additional focused growth in Lindsay, Bobcaygeon, Fenelon Falls and Omemee
- The conversion of seasonal residences to permanent residences, and
- An increase in the number of multi-residential households

When preparing for the future, it is important to consider where the community will continue to dispose of waste. Each of the five (5) open landfill sites operates under current approved capacity with forecasted closure dates. In anticipation of future disposal needs, a review of landfill expansion opportunities and required timelines for approval was conducted. This is summarized in the table below.

| Landfill Site | Forecasted Closure Date | Expansion Possible  | Time Required to Secure Approval |
|---------------|-------------------------|---------------------|----------------------------------|
| Lindsay Ops   | 2037                    | Yes                 | 5-10years                        |
| Fenelon       | 2024                    | No                  | N/A                              |
| Somerville    | 2084                    | Sufficient Capacity | N/A                              |
| Eldon         | 2046                    | No                  | N/A                              |
| Laxton        | 2024                    | No                  | N/A                              |

*\* Note: these closure dates are based on present rates of fill and as landfills are progressively closed waste will end up being diverted to the sites with longer life such as Lindsay Ops, Eldon, and Somerville and will influence overall site life at those facilities.*

To meet future waste management needs that address both our growing Kawartha Lakes demographics and our limited landfill capacity, the goal of increasing waste diversion rate to 70% from 39% by 2048 was set in the 2015 Strategy. This goal will be maintained in the Strategy Update.

To address future waste management needs the Strategy Update also places importance on launching the Environmental Assessment process as estimates indicate capacity may be reached around 2034 at the Lindsay Ops landfill. Creating plans for when the Fenelon and Laxton landfills are scheduled to reach capacity in 2024 also needs to be addressed.

## Meeting Our Future Needs

When reviewing and deciding on implementing waste diversion initiatives, close attention needs to be paid to operational capabilities, and future long term planning for assets at each of the landfill sites. In order to achieve the diversion initiatives there needs to be a plan which takes into account cost, staffing, and impacts on landfill facilities and assets. The following outlines the general operations and capital asset plans over the next five years at the landfill sites.

### *Operations Planning 2020-2024:*

- Review and improve the waste department's data collection and management
- Review staffing needs in order to achieve diversion initiatives and goals
- Continue annual tipping fee increases as approved by Council until 2021 to sustain and improve waste management services and be on par with neighbouring municipalities
- Continue to review tipping fees as needed to ensure that fees offset cost of service
- Continue to work with landfill staff and other municipalities to determine efficiencies and cost savings measures in services
- Remain involved with webinars and training opportunities regarding diversion programs and transition to producer responsibility

### *Capital Assets Planning 2020-2024:*

- Complete a landfill capital needs assessment
- Begin an Environmental Assessment Study process for future waste management options for Kawartha Lakes
- Apply final cover for the first phases at the Eldon and Somerville landfills
- Prepare Phase 2 of the Fenelon landfill site
- Design and build the final phase of the Lindsay Ops landfill
- Complete closure plans for the Fenelon and Laxton landfills or begin the transfer station approval process
- Progressively apply final cover to landfill sites as they reach final contours

## Promotion & Education

Providing public education to support waste management programming is essential to achieving the goals set out in the ***Making Waste Matter: Integrated Waste Management Strategy***.

Providing waste and recycling communication using a wide variety of educational tools and activities ensures that the requirements, expectations, and philosophy ('waste less living') behind waste management initiatives reach our diverse community; they must be accessible, consistent and effectively reach all demographic groups and locations across Kawartha Lakes.

As part of the Strategy Update, increased public awareness and education has been identified as a key initiative in need of improvement. Reviewing resources and capabilities of delivering this commitment will be crucial. One of the priority initiatives in this Strategy Update is to create a Waste Management Public Education and Communication Strategy in order to define a set of priorities and resources that will be needed to deliver ***Making Waste Matter*** initiatives and improve Public Education in the Kawartha Lakes community.

## Strategy Update Initiatives

The following summarizes a series of initiatives as vetted through the Strategy Update consultation and evaluation process for 2020-2024. These initiatives provide the greatest positive impact to the current waste management program. The Kawartha Lakes Healthy Environment Plan was also consulted in determining these initiatives to ensure that the documents align.

Of special note: Any specific regulatory approvals required and detailed financial justification for specific programs will be scrutinized internally and detailed in a staff report to council prior to implementation.

### Reduce

#### **Initiatives (2020-2024):**

##### ***Increased Focus on Public Education***

Launch 2020

Through the Strategy update consultation increased public awareness and education was identified as a key initiative in need of improvement. 65% of respondents of the Strategy survey said that they would like to see more information on waste management programs and recycling opportunities in Kawartha Lakes. In 2020 a Waste Management Public Education and Communication Strategy will be completed in order to define a set of priorities and outline the resources that will be needed to deliver the Strategy initiatives and improve public education on waste and recycling in the Kawartha Lakes community overall.

##### **Key Performance Indicators:**

- 1) Complete a Waste Management Public Education and Communication Strategy and bring to council for approval by Q3 in 2020.
- 2) Work with resources if received to ensure success of the initiatives in the Integrated Waste Management Strategy through increased public education and communication.
- 3) Throughout 2020 develop multimedia and hands on visual aids for residents to use for successful recycling practices.

##### ***Improved Backyard Composting Program***

Launch 2021

Studies show that a single household can divert up to 30% of its generated waste through backyard composting.

We plan to improve on the current program, by providing more education on how to backyard compost, increase the amount of promotion and communication on the program, and in turn, increase participation.

**Key Performance Indicators:**

- 1) Provide increased communication and/or public education opportunities on backyard composting at least five times per year.
- 2) Increase participation in backyard composting by 5% per year over the next five years.
- 3) Complete a financial analysis by Q2 2020 on our current pricing of composters and digesters and include recommendation for 2021 budget.

**Potential Impact on Diversion:** It is estimated that if improvements are made to the backyard composting program that participation could increase to up to 5% of the public. This could increase the diversion rate by approximately 1% (Source: Reclay Steward Edge, 2017). Landfill space is valued at \$150 per tonne and this equates to roughly \$62,000 in savings of landfill space per year.

***Decrease Amount of Recycling allowed in Waste***

Launch 2020-2021

As part of the clear bag program which was initiated in 2017, residents are currently permitted up to 20% of recyclable material within each clear bag of waste. In order to increase diversion further and promote recycling the permissible limit of recycling within each clear bag will be reduced to 10%.

**Key Performance Indicators:**

- 1) Recommend an amendment to bylaw 2016-144 to council by the end of 2020 to reduce the permissible limits of recycling in each clear bag of waste.
- 2) Education and enforcement of this change to be implemented in 2021 if approved by Council.
- 3) Reduce the amount of recyclable material in curbside waste in Kawartha Lakes to no more than 10% by weight.

**Potential Impact on Diversion:** The estimated increase in diversion rate due to the bylaw change and public education is approximately 1% (Source: Making Waste Matter: Integrated Waste Management Strategy Supplementary Document, 2015). This equates to roughly \$62,000 in savings of landfill space per year.

***Review Feasibility of a Source Separated Organics (SSO) Program***

Launch 2021

The desire for a SSO program was a common theme in the Strategy Update public consultation process. It is also important for Kawartha Lakes to continuously review



the feasibility of an SSO program as the province has considered banning organics from being landfilled in the future. A large percentage of household waste can consist of SSO so there is a large diversion opportunity however also a high cost. In 2021 the feasibility of a program for SSO recycling will be reviewed to include options like curbside pick-up or centralized depot collection.

**Key Performance Indicators:**

- 1) Review the feasibility of a program to provide a municipal service for SSO recycling by Q4 2021.

**Potential Impact on Diversion:** A curbside SSO program could increase the diversion rate by up to **40%** (Source: Reclay Steward Edge, 2017). This equates to roughly \$2,000,000 in savings of landfill space per year.

***Continually Improve Curbside Collection***

Launch 2024

There are several different initiatives that Kawartha Lakes could implement through its curbside collection services that have the potential to increase overall diversion rate. Examples include: one bag per week garbage collection, biweekly garbage collection, pay as you throw options etc. The timing of this goal is to ensure current uncertainties surrounding producer responsibility of the blue box will be known as the program is set to begin transition in 2023. This will also give Kawartha Lakes time to prepare these new items before the next curbside collection contract in 2027.

**Key Performance Indicators:**

- 1) Prepare a list of 5 action items and recommendations for improved recycling and waste reduction curbside.
- 2) Determine which items will provide the most benefit and include these in the next Request for Proposal for curbside collection services.

**Potential Impact on Diversion:** The impact on diversion varies significantly depending on which initiatives would be implemented and would range from **5-10%** (Source: Making Waste Matter: Integrated Waste Management Strategy Supplementary Document, 2015). This equates to roughly \$300,000-\$600,000 per year in savings of landfill space.

***Corporate Waste Reduction Initiatives***

Launch 2021-2023

In order to lead by example and promote waste reduction in Kawartha Lakes, the municipality itself as a corporation needs to be a role model and positive influence. By 2023 the goal is to develop corporate waste reduction initiatives which will look at additional training for staff on waste reduction and recycling, purchasing policies that promote recycled or reusable materials, and improved waste reduction and recycling practices at all municipal buildings and facilities.

**Key Performance Indicators:**

- 1) Develop a vision for corporate waste reduction initiatives by 2021
- 2) Develop corporate waste reduction initiatives by 2023 with multiyear phased in strategies

**Potential Impact on Diversion:** The impact of corporate waste reduction initiatives would likely be initially small, however the change in culture through following the corporate lead could result in huge changes in how we as a community embrace change and get better at waste reduction.

## Reuse

### Initiatives (2020- 2024):

#### **Textile Recycling/Reuse**

Launch 2020

Textiles include items like clothing, curtains, towels and bed sheets. We would like to provide residents with convenient access to opportunities to keep these items out of the landfill. This should include opportunities for reuse of gently used textiles but also recycling opportunities for soiled or damaged textiles which cannot be reused. Through this initiative ways to partner with charitable organizations as well as for-profit organizations that operate textile reuse and recycling programs to make residents more aware of these options and more convenient will be considered.

#### **Key Performance Indicators:**

- 1) Develop a program for textile reuse and recycling in 2020.
- 2) Have discussions with non-profit and for-profit organizations throughout the development of the program.

**Potential Impact on Diversion:** Textiles are estimated to make up approximately 5-10% of the waste stream so there is opportunity for a significant increase in waste diversion through implementing increased textile reuse/recycling (Source: Continuous Improvement Fund). This equates to roughly \$300,000-\$600,000 per year in savings of landfill space.

# Recycle

## **Initiatives (2020- 2024):**

### ***Expand Mattress Recycling Program***

Launch 2020

As an original Strategy initiative a successful mattress recycling program has been implemented. The initiative to expand the program will look at options for increasing the amount of mattresses recycled each year including the ability to collect mattresses for recycling at the other landfills, making it easier for residents to recycle mattresses at the curb through increased public education, the option of being able to purchase mattress tags online, and reviewing the different types of materials the current recycler can accept in the mattress trailer.

#### **Key Performance Indicators:**

- 1) Increase number of mattresses collected in 2020 by 5% or approximately 225 units.
- 2) Work with communications staff as well as the collection contractors to optimize the recycling program in 2020 by implementing a service for residents to purchase mattress tags online.
- 3) Annually review the feasibility of collecting mattresses for recycling at additional landfill sites

**Potential Impact on Diversion:** The mattress recycling program has the potential for a diversion rate increase of 2% (Source: Making Waste Matter: Integrated Waste Management Strategy Supplementary Document, 2015). This equates to roughly \$124,000 in savings of landfill space per year.

### ***Improve Public Space Recycling***

Launch 2020

Public space recycling refers to collection in locations accessible to the public including parks and downtown areas. In order to decrease contamination of recycling, increase waste diversion, and keep our parks and downtowns clean and visually appealing attention to the design and usability of public waste and recycling receptacles is required.

#### **Key Performance Indicators:**

- 1) In 2020 we will focus baseline waste audits on public space areas to determine the extent of main areas of contamination within the public space recycling receptacles.
- 2) Implement best practices such as signage, placement of bins etc. to reduce contamination in public space recycling by 10%

- 3) The Waste Management Division will also make efforts to meet with other departments responsible for public space waste and recycling bins to ensure a collaborative Strategy going forward.

**Potential Impact on Diversion:** The impact on the diversion rate will be better understood through the composition audits completed in 2020.

### ***Bulky Plastics Recycling***

Launch 2020

Currently the municipality offers bulky plastic recycling of items like lawn chairs, toys, laundry hampers and hangers etc. four times per year at our environment round up days. This service is well used by the public and there is benefit in offering this service either year round or seasonally throughout the spring and summer months. Staff will examine the feasibility and complete a cost analysis for either a curb side pick-up of bulky plastics or bin drop off locations.

#### **Key Performance Indicators:**

- 1) Develop a program for bulky plastics recycling in 2020

**Impact on Diversion:** Through waste composition audits on curbside waste and recycling completed in 2017, bulky plastics made up approximately **7%** of this material so there is opportunity for a significant increase in waste diversion through implementing a bulky plastics recycling program (Source: Reclay Steward Edge, 2017). This equates to roughly \$435,000 in savings of landfill space per year.

## Innovate

Waste management is a sector with continual operational changes and opportunities as well as emerging technologies that may create efficiencies within current waste operations. Kawartha Lakes is dedicated to exploring ways of doing business to increase diversion and preserve landfill capacity. During this stage of the Strategy it is necessary to explore options for some of the smaller landfill sites post closure, and future solutions for waste disposal long term once the Lindsay Ops landfill has reached capacity. The following summarizes these initiatives.

### **Initiatives (2020- 2024):**

#### ***Explore Options for the Fenelon and Laxton landfills after the end of site life***

Launch 2020

Through this initiative, options for the Fenelon and Laxton landfills which are scheduled to reach capacity in 2024 will be reviewed. These sites are used by a large number of residents and when the sites close this will put pressure on our other landfill sites in regards to capacity and site life, infrastructure, and staffing. A study will be conducted to look at the feasibility of keeping these sites open as transfer stations available for public drop off of waste and recycling to be transferred to other facilities. The study will also look at the potential impact on other landfill sites in Kawartha Lakes if the Fenelon and Laxton landfill sites formally close, and what capital investments will be needed at the other sites to meet the increased demand.

#### **Key Performance Indicators:**

- 1) Recommendations completed in 2020 by capital assets and engineering group.

#### ***Environmental Assessment***

Launch 2020

The Lindsay Ops landfill site is scheduled to reach capacity in approximately 2037 however realistically the site may close sooner in approximately 2034. Since this site receives the vast majority of waste from Kawartha Lakes, an Environmental Assessment Study is needed to determine future options for waste disposal for Kawartha Lakes post closure of this site. The study will review the feasibility of many different options and technologies for long term waste management in Kawartha Lakes such as landfill expansion, incineration, transportation and shipping of waste, etc. It is important to start this process early as Environmental Assessment Studies can take many years to complete.

#### **Key Performance Indicators:**

- 1) The capital assets and engineering group will begin this process in 2020.

## Strategy Updates & Revisions

The timeline in which to implement the ***Making Waste Matter: Integrated Waste Management Strategy*** extends until 2048. As it is expected there will be significant change in waste management practices and quantities generated it will be critical to regularly review, update and augment this document so that it continues to serve as a relevant guide. We plan to complete a formal update of the Strategy every five years.

With this in mind:

**Any future waste management opportunity that meets the evaluation criteria and can help meet the Kawartha Lakes waste management goal of 70% diversion from landfill will be considered during review as well as regular operations in between review processes.**

By conducting ***Making Waste Matter*** updates, our waste management program will be able to adapt to technological advances, changes in the marketplace, and amended regulatory requirements. It will regularly detail new initiatives and community partnerships, and provide updates on growth & population projections. As indicated, any specific regulatory approvals required and detailed financial justification for specific programs will be scrutinized internally and detailed in a staff report to council prior to implementation.

Another important consideration will be future landfill utilization opportunities. The forecasted closure date for each open landfill site is based on annual waste generation rates. As waste management initiatives are implemented, they will have a positive impact on the available capacity of each landfill, extending site life. Kawartha Lakes will regularly monitor the disposal capacity of each facility and identify Ministry of the Environment and Climate Change approval timelines for future expansion opportunities.

