Waste Management | Sustainability Services

# Waste to Resource Assessment

**Prepared for:**

**Unity Health - St. Joseph's Health Centre**
**30 The Queens Way, Toronto, ON**
**April 26, 2024**

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This assessment is designed to exceed the minimum guidelines for performing waste assessments as set forth by the US EPA and Canadian provincial regulatory authorities. This report has been prepared for the specific purpose(s) contained herein. To the extent that statements and information provided by the client, its representatives, or partners have been used in the preparation of this report, Sustainability Services and Waste Management of Canada Corporation relied upon the same to be accurate, and for which no assurances are intended, and no representations or warranties are made. Sustainability Services and Waste Management of Canada Corporation make no certification and gives no assurances except as explicitly set forth in this report. This report and the information contained herein, is produced for the expressed use of Unity Health - St. Joseph's Health Centre, Toronto, ON. Sustainability Services and Waste Management of Canada Corporation specifically prohibit redistribution of this report and the material contained herein in whole or part without expressed written permission of Sustainability Services and Waste Management of Canada Corporation.

## Executive Summary

On April 26, 2024, Sustainability Services conducted a Waste to Resource™ assessment for Unity Health - St. Joseph's Health Centre located at 30 The Queens Way in Toronto, ON. A few goals of the assessment were as follows:

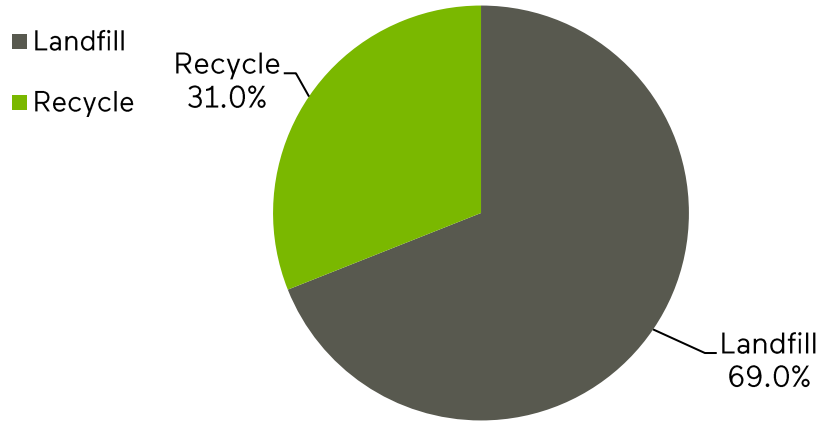
- **Update baseline inventories for waste generation at Unity Health - St. Joseph's Health Centre**
- **To identify and quantify waste composition and commodity**
- **To determine the recovery performance of existing programs**
- **Identify opportunities to further increase diversion and reduce cost**
- **Develop strategies that could be implemented throughout the facility**

Our goal is to provide Unity Health - St. Joseph's Health Centre with strategies that will maximize the efficiency of your waste diversion system. During the waste assessment conducted by Sustainability Services, visual inspections of waste generation points throughout the facility resulted in the discovery of additional diversion opportunities. The assessment identified four primary opportunities that should occur to improve your overall waste diversion rate. The following are our recommendations:

- **Increase Awareness of Current Diversion Programs**
- **Employee, Contractor, and Visitor Education and Engagement**
- **Organization Wide Guidelines and Labelling**
- **Continual Improvement and Additional Recommendations**

The facility generated a combined 1,159.12 tonnes of waste and diverted materials in the last year. The current diversion rate for your facility is 31.0%.

**Figure 1– Current Diversion Rate at Unity Health - St. Joseph's Health Centre**



A team of sustainability consultants performed an assessment that involved a walkthrough of the facility and a targeted sort and weigh analysis of the waste stream. The following is a summary of key findings identified during the assessment:

- **The current diversion rate is 31.0%**
- **Annually, it is estimated that 799.54 tonnes of waste and 359.58 tonnes of diverted materials will be generated from your facility**
- **Of all the material generated on site, up to 49.9% potentially could have been diverted through currently available diversion programs**
- **Papers account for 28.6% of the waste sent to landfill**
- **Plastics account for 23.8% of the waste sent to landfill**
- **Organics account for 8.2% of the waste sent to landfill**

# Assessment Findings and Goals Alignment

## Facility Information

**Table 1 – Facility Information**

| Item | Comments |
|---|---|
| **Facility Name:** | Unity Health - St. Joseph's Health Centre |
| **Description:** | Unity Health - St. Joseph's Health Centre is a teaching Health Centre with over 375 patient beds. |
| **Address:** | 30 The Queens Way, Toronto, ON |
| **Contact Name:** | Flodina Charles |
| **Contact Number:** | 416-530-6000 |

**Table 2 – Assessment Summary**

| Item | Comments |
|---|---|
| **Performed By:** | Kirthan Sathananthan |
| **Performed On:** | April 26, 2024 |
| **Report Written:** | Kirthan Sathananthan |
| **Report Reviewed:** | Christopher Doyle |
| **Assessment Type:** | Waste to Resource Assessment – Waste Audit |
| **Assessment Level:** | ☑ Basic Material Characterization ☐ Detailed Material Characterization<br>☑ Basic Options Analysis ☑ Detailed Option Analysis<br>☐ Carbon Analysis ☐ Material Process Mapping<br>☑ Implementation Feasibility Analysis ☑ Action Plan |
| **Account Manager:** | Keira Toscan |

## Goals, Objectives, and Other Factors

The following is a list of company goals, objectives, or other factors considered during this assessment.

- **Apply findings from the waste audit to reduce waste, maximize collection of recycling materials and optimize waste management efficiencies**
- **Set goals, monitor waste generation, and track recovery levels on a regular basis**
- **Streamline and standardize handling routines of materials throughout the facility**
- **Reduce waste spend and disposal costs**
- **Provide ongoing and improved employee training and education avenues**
- **Identify areas of new or enhanced diversion opportunity**
- **Increase capture rate of divertible materials and reduce overall generation of non-recyclable materials**

### Photograph 1 – Waste Sample Collected for Assessment Period

## Regulatory Requirements

The facility took initiative to conduct a solid nonhazardous waste audit in effort to adhere to Ministry of the Environment, Conservation and Parks Regulations 102/94 and 103/94. Under O.Reg. 102/94, all waste audits must address:

- Identify the amount, nature and composition of the waste generated in designated functional areas of the facility;
- How the waste is produced, including relevant management decisions and policies;
- How the waste is managed; and
- The extent to which materials or products used or sold consist of recycled or reused materials or products.

According to O.Reg. 102/94, the Waste Reduction Work Plans or a summary of the plan must be posted at the facility in a place where it can be viewed. If a summary of the work plan is posted, the full Work Plan must be made available for review upon request by any employee.

- The waste audit report and waste reduction work plan must be retained on file for a minimum of five years;
- A waste audit report and waste reduction work plan must be conducted and updated annually.

Please see Appendix 6 – Ontario's 3Rs Regulations for more details or https://www.ontario.ca/laws/regulation/940103 and https://www.ontario.ca/laws/regulation/940102 for the full regulations.

**PART IX**
**HEALTH CENTRES**

**46.** This Part applies to the operator of a public Health Centre classified as a class A, B or F Health Centre in Regulation 964 of the Revised Regulations of Ontario, 1990. O. Reg. 102/94, s. 46.

**47.** (1) The operator shall conduct a waste audit covering the waste generated by the operation of the Health Centre. The audit shall also address the extent to which materials or products used consist of recycled or reused materials or products.

(2) After conducting the waste audit, the operator shall prepare a written report of the audit.

(3) In every year following the initial waste audit, the operator shall update the audit and prepare an updated written report. O. Reg. 102/94, s. 47.

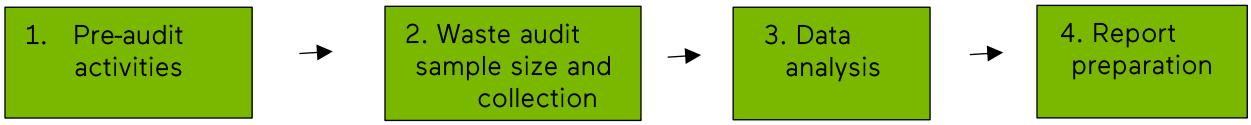
## Options Overview

Four options were identified during the assessment. The table below lists key options that represent the most significant opportunities.

**Table 3 – Options Summary Table**

| Option | Description | Benefit | Rationale |
|---|---|---|---|
| **Increase Awareness of Current Diversion Programs** | Stakeholders need to receive consistent messages about current diversion programs. | ✓ Increases diversion and capture rates<br>✓ Reduced waste spends | Majority of the materials generated throughout the facility can be diverted from landfill though current reuse, recycling, or compost programs. |
| **Employee, Contractor and Visitor Education and Engagement** | All stakeholders need to receive consistent messages about current diversion programs available to them. | ✓ Increases awareness on environmental programs and issues<br>✓ Increased efficiencies<br>✓ Ensures effective education is offered | All stakeholders need to be encouraged and re-educated regarding waste and recycling procedures within the facility.<br><br>Dedicated and knowledgeable staff will create the opportunity for the facility to achieve superior capture rates and manage an effective program. |
| **Organization Wide Guidelines and Labelling** | Create signage to aid all program users. | ✓ Customized to be most effective<br>✓ Provides resources for employees | Implement signage to improve facility-wide capture rate. |
| **Continual Improvement and Additional Recommendations** | Continually improve the waste diversion program on site. Monitor and effectively manage all programs and methods in place at the facility. | ✓ Expands programs available<br>✓ Ensures the tools and infrastructure are in place to support diversion goals | Control decision-making and input regarding materials brought into the facility.<br><br>Determine how best to capture non-traditional materials for recycling or reuse. |

## Sampling Methodology




1. **Pre-audit activities** - Collecting background information (such as identifying occupancy rate, changes in collection services), historical data, diversion reports, receptacle service information, etc. Establishing the plan for the assessment. Conducting a site tour of the facility to review procedures and current infrastructure.

2. **Waste audit and sample size** - To characterize the material stream, visual observations, and waste samples (non-hazardous solid waste) were obtained from various collection areas throughout the facility. These collection areas were identified from labels placed on the waste bags or collection receptacle. For the purposes of this assessment, a sample **generation area** is a combination of a specific collection area or department and/or waste generating process. The sample material was collected in a safe and designated location separate from other waste collection areas for the assessment.

   During this assessment, samples were collected from throughout the facility over a 24-hour period. For the purposes of this project, it is assumed that the sample period chosen is a fair representation of typical activities and waste generation at the site, although daily variances are possible. The materials were sorted and divided into up to 10 waste categories and weights of each material sub-category (up to 90) were recorded.

3. **Data analysis** – Analysis of on and off-site data provided by WM and the client. Calculation of diversion and capture rate for the site. Annual projection calculations were determined using the weights of the samples projected against the facility's operational days.

4. **Report preparation -** Full report prepared including site specific recommendations and Ministry of the Environment, Conservation and Parks - Audit and Workplan forms.

## Limitations

Hazardous, Industrial, and Liquid Industrial Wastes were not included within the scope of this assessment. These materials are not typically included in MOE Reg. 102/94 solid waste audits and specialized processes are required to handle these materials due to the health and safety concerns associated.

Staff may occasionally dispose bulk materials (e.g., broken furniture) in landfill. These materials may not be collected in the audited sample and as a result are not included in the assessment.

A portion of the sample bags included diapers and medical fluids, auditors conducted limited or simple sorting of these sample bags.

# Material Composition Breakdown

## Landfill Waste Material Comparison by Category

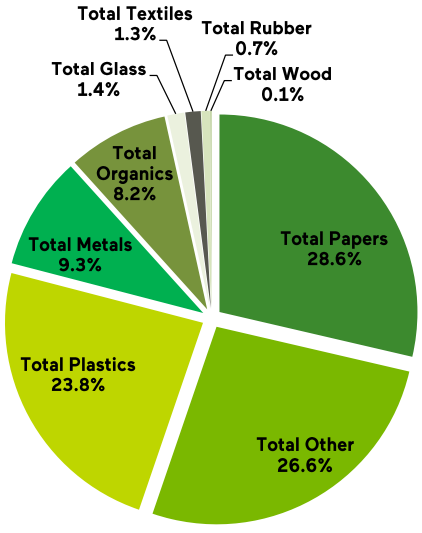
This section displays a breakdown of general material categories by weight and volume. The largest category by weight was Papers materials which represented 28.6% of the landfill waste stream.

### Table 4 – Landfill Waste Material Comparison

| Waste Category | Total Audited Waste Material (kg) | Material Composition (%) | Annual Projected Volume Generated (kg) |
|---|---|---|---|
| **Total Papers** | 75.04 | 28.6% | 228,998 |
| **Total Other** | 69.69 | 26.6% | 212,672 |
| **Total Plastics** | 62.40 | 23.8% | 190,425 |
| **Total Metals** | 24.29 | 9.3% | 74,125 |
| **Total Organics** | 21.51 | 8.2% | 65,642 |
| **Total Glass** | 3.66 | 1.4% | 11,169 |
| **Total Textiles** | 3.28 | 1.3% | 10,010 |
| **Total Rubber** | 1.81 | 0.7% | 5,524 |
| **Total Wood** | 0.32 | 0.1% | 977 |
| **Total** | **262.00** | **100.0%** | **799,540** |

Figure 2 below represents the generation areas at the facility.

### Figure 2 – Landfill Waste Material by Category



## Audited Waste Material Composition by Sample Collection Area

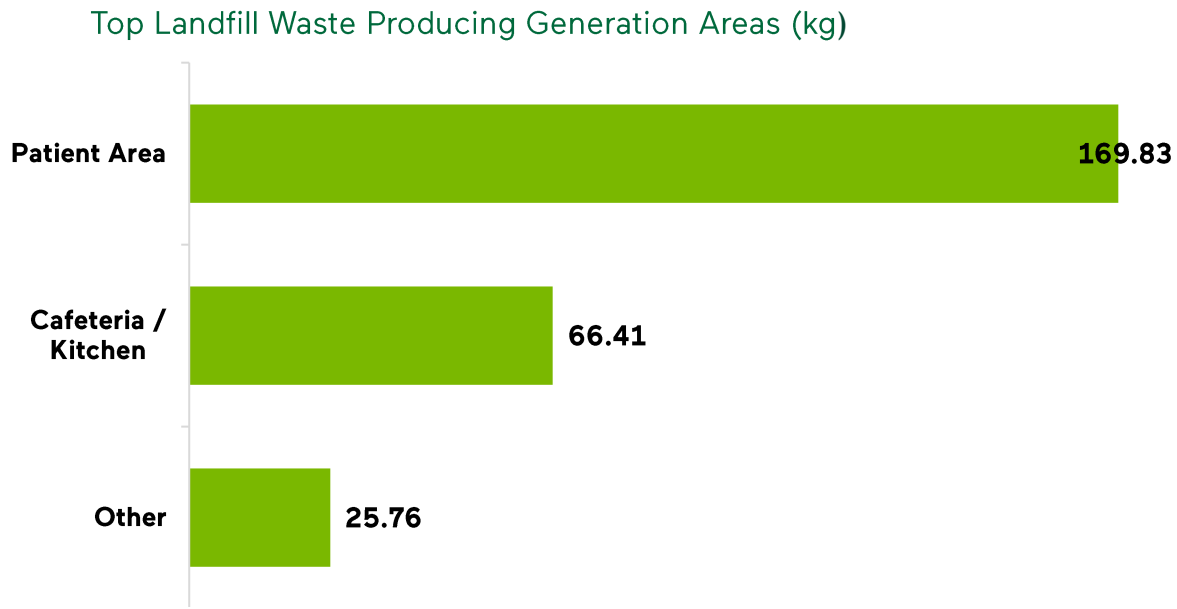
The following table displays a breakdown of the waste sources identified during the assessment. For further in-depth analysis of the generation areas identified, consult Appendices and (if requested) Supplementary Data. The largest generation source identified was the Patient Area generation area representing 64.8% of the audited sample.

**Table 5 – Audited Waste Sources**

| Generation Area | Total Audited Waste (kg) | Generation Composition (%) | Annual Projected Volume (kg) |
|---|---|---|---|
| **Patient Area** | 169.83 | 64.8% | 518,267 |
| **Cafeteria / Kitchen** | 66.41 | 25.3% | 202,662 |
| **Other** | 25.76 | 9.8% | 78,611 |
| **Grand Total** | **262.00** | **100.0%** | **799,540** |

Figure 3 below represents the top three generation areas identified at the facility.

**Figure 3 – Waste Generation by Collection Area**



## Diversion Opportunities

Increased diversion opportunities represent the largest potential cost savings and landfill diversion opportunity for Unity Health - St. Joseph's Health Centre. While diversion programs are currently in operation, the audit shows that they are not working at their optimal efficiency.

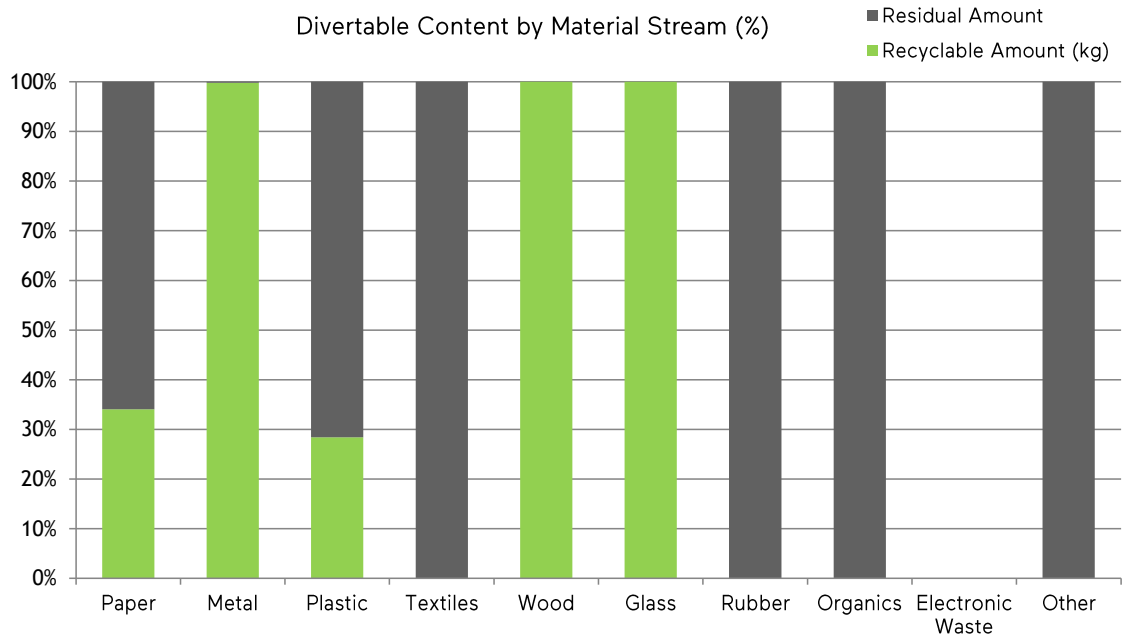
Diversion rate is calculated as follows:

$$\textbf{Diversion Rate} = \frac{\text{Weight of recovered material}}{\text{Total weight of material generated on-site}} \times 100\%$$

The current diversion rate at the facility is 31.0%. Based on the diversion program currently in place, 49.9% of the material generated at the facility is recyclable or divertible. Therefore, there is room for improvement within the diversion program where most employees in the facility handle their waste.

Figure 4 outlines the material in each category which could potentially be diverted.

### Figure 4 - Diversion Opportunity by Material Category



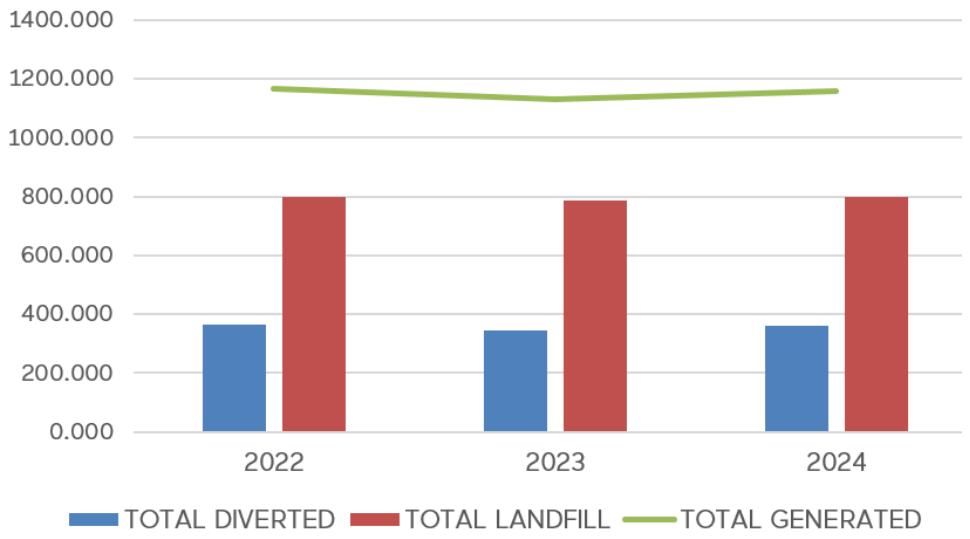
## Year Over Year Audit Comparison

An assessment was completed at the facility in 2022 and 2023. It was determined that the diversion rate has stayed relatively steady at 31.0% in the current assessment, compared to 31.4% in 2022 and 30.5% in 2023.

The facility generated 785.79 MT of landfill waste in 2023, compared to the current 799.54 MT.

The facility captured 359.58 MT of material for diversion (recycling, reuse, or organics) in the current assessment compared to 345.58 MT in 2023.

**Figure 5 – Comparison of 2022 to 2024 results (MT)**



## Diverted Material Comparison by Category

This following table displays a breakdown of assessed diverted, recycled, reused, and composted materials. The facility currently has programs in place to capture the following waste streams:

**Table 6 – Facility Service Information**

| Diversion Program | Service Provider/s | Container Type | Note |
|---|---|---|---|
| Mixed Recycling | WM | 40-yard compactor | |
| Confidential Paper Shredding | Shred-It | Shredding consoles | 2023 report data |
| Organics | WM | 35-gallon totes | |
| E-Waste, Batteries | | Not identified. | Service information not available at time of assessment. |

Landfill at the facility was collected in a 35-yard compactor and 20-yard open top bin.

**Table 7 – Diverted Material Comparison**

| Diverted Material | Annual Projected Volume (kg) | Percentage of all Diverted Materials (%) |
|---|---|---|
| Confidential Paper Shredding | 127,348 | 35.4% |
| Mixed Recycling | 126,580 | 35.2% |
| Organics | 105,655 | 29.4% |
| **Total** | **359,583** | **100.0%** |

## Capture Rate

The **capture rate** indicates the percentage of a material (i.e., office paper, organics) that is being disposed of via one of the sites recovery programs (i.e., single stream, mixed recycling, organics). A 100% capture rate indicates that all recoverable materials being produced on-site has been placed in the correct receptacle and the landfill garbage contains no recoverable materials.

$$\text{Capture Rate} = \frac{\text{Recovered material (e.g. paper in mixed recycling)}}{\text{Recovered material (e.g. paper in mixed recycling)} + \text{Waste material (e.g. paper in garbage)}} \times 100\%$$

Based on the assessment findings, of the 1,159,123 kg of material generated at the facility in the last 12 months, 577,847 kg of that material is potentially divertible in the available diversion programs. As 359,583 kg of material was captured for recycling or compost, the facility wide capture rate was determined to be 62.2%. Table 8 below outlines the capture rate per material.

## Table 8 – Capture Rate Calculations by Material

| Diverted Material | Total Generated (kg) | Captured for Diversion (kg) | Landfilled (kg) | Capture Rate (%) |
|---|---|---|---|---|
| Aluminum food and beverage cans | 20,627 | 5,063 | 15,564 | 24.5% |
| Cardboard | 59,055 | 50,632 | 8,423 | 85.7% |
| Fine paper | 145,438 | 140,006 | 5,432 | 96.3% |
| Glass food and beverage bottles/jars | 11,169 | - | 11,169 | 0.0% |
| Newsprint | - | - | - | |
| Steel food and beverage cans | 60,941 | 2,532 | 58,409 | 4.2% |
| PET (#1) plastic | 13,942 | 7,595 | 6,347 | 54.5% |
| HDPE (#2) | 12,738 | 6,329 | 6,409 | 49.7% |
| LDPE (#4) plastic film | 38,268 | - | 38,268 | 0.0% |
| PP (#5) plastic containers | 15,806 | 2,532 | 13,275 | 16.0% |
| Polystyrene (#6) | 29,341 | 1,266 | 28,075 | 4.3% |
| Organics | 171,297 | 105,655 | 65,642 | 61.7% |
| Boxboard | 49,639 | 22,784 | 26,855 | 45.9% |
| Glossy magazines, catalogues, flyers | 3,752 | 2,532 | 1,221 | 67.5% |
| Wood | 977 | - | 977 | 0.0% |
| Steel | 153 | - | 153 | 0.0% |
| Drywall | - | - | - | |
| Skids | - | - | - | |
| Paper towels | 72,905 | - | 72,905 | 0.0% |
| Printer cartridges | - | - | - | |
| IT equipment/audio-visual equipment | - | - | - | |
| Furniture | 15,258 | - | 15,258 | 0.0% |
| Building/renovation material | - | - | - | |
| Disposable food packaging (incl. polycoat) | 58,006 | 12,658 | 45,348 | 21.8% |
| Diapers | 108,152 | - | 108,152 | 0.0% |
| Clothing/textiles | 10,010 | - | 10,010 | 0.0% |
| Other: Mixed medical materials, miscellaneous | 261,651 | - | 261,651 | 0.0% |

## Recommendations Overview

Four options have been identified that can help Unity Health - St. Joseph's Health Centre make its operations more sustainable. Each option should be carefully reviewed for operational, financial, social, and strategic fit.

- **Increase Awareness of Current Diversion Programs**
- **Employee, Contractor and Visitor Education and Engagement**
- **Organization Wide Guidelines and Labelling**
- **Continual Improvement and Additional Recommendations**

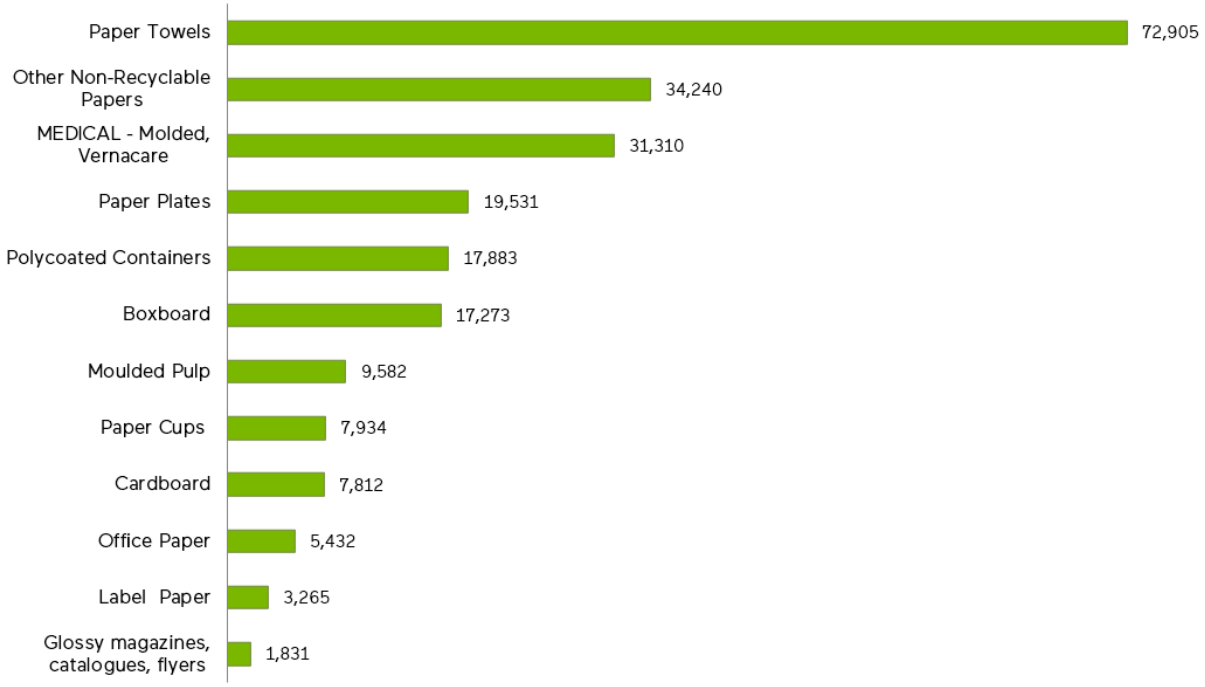
## Landfill Sample Material Category Breakdown

**Increase Awareness of Current Diversion Programs:**
Below is a breakdown of the composition of the audited landfill material generated on site based on the analysis of the audited sample. As well as recommendations for selected sub-category material types.

### Papers

Paper materials sent to landfill accounted for 28.6% of your total waste; nearly 228,998 kg of paper is projected to be sent to landfill annually. The facility currently has programs in place to capture confidential paper shredding, cardboard, and mixed paper for recycling.

**Figure 6 - Annual Papers Disposed in Landfill (in kg)**




**Paper towel** (e.g., hand towels, facial tissue, and similar materials) represented 9.1% of the landfill waste sample. These materials were generated throughout the facility. Paper towel is typically accepted in organic collection programs and could be included in the program already in place at the facility in certain areas.

As well, the facility should consider providing alternatives including hand dryers to reduce these materials in washrooms. The facility should review hand dryer options that best suit their facility as the payback of the capital costs are often seen in reasonable time frames through reduced landfill costs and the reduction in costs of purchasing new paper towel products.

**Other non-recyclable papers** (e.g., wax paper and soiled food packaging) this material subcategory accounted for 4.3% of the disposal weight. These materials are not accepted in mixed recycling programs.

**Medical – Molded, Vernacare** (e.g., bed pans, wet strength paper) accounted for 3.9% of all landfilled materials. Some of these materials may be collected separately and sent for special handling.

**Paper plates** (e.g., fiber-based tableware) accounted for 2.4% of the landfill sample. In most cases, these materials could be captured through an organics collection program.

**Polycoated containers** (e.g., milk carton) included 2.2% of the landfill sample. Education and signage should include these materials to increase awareness that they are recyclable.

**Boxboard** (e.g., tissue or nitrile glove boxes) accounted for 2.2% of the landfill sample. These materials are accepted in the existing mixed recycling program. Examples should be included on educational signage to increase awareness.

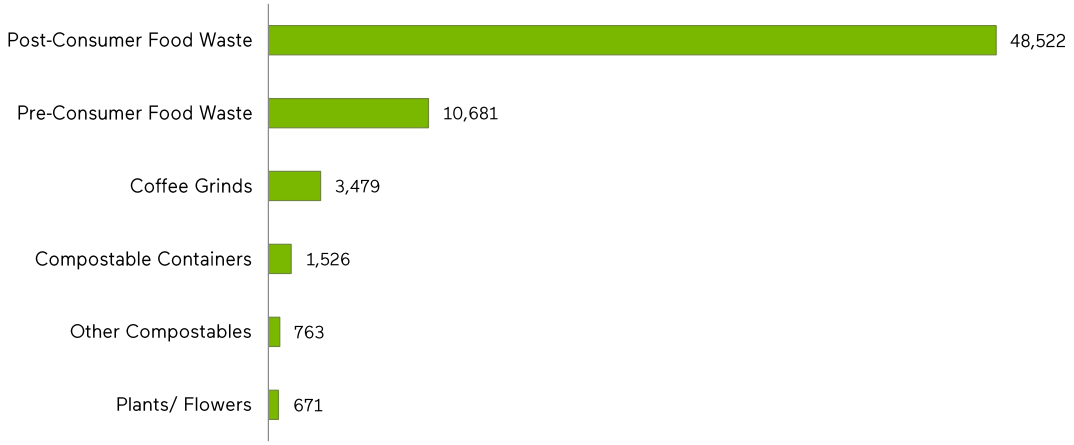
**Moulded pulp** (e.g., coffee cup holders, trays) accounted for 1.2% of the landfill sample. These materials could be captured through existing programs.

### Photographs 2 to 5 – Paper Material Examples in Landfill Sample (Paper Towel, Moulded Pan, Boxboard, Polycoated Container)

## Organics

Organic materials sent to landfill accounted for 8.2% of your total waste; nearly 65,642 kg of organics is projected to be sent to landfill annually. A program currently exists at the facility to capture organic materials for compost, receptacles are found throughout the facility.

### Figure 7 - Annual Organics Disposed in Landfill (in kg)




Organic material was identified primarily as **post-consumer food waste** which represented 6.1% of the entire landfill waste stream.

**Pre-consumer food waste** (included pre-purchased food and prep waste) represented 1.3% of the audited landfill sample.

**Coffee grounds** (e.g., grinds) represented 0.4% of the landfill waste stream.

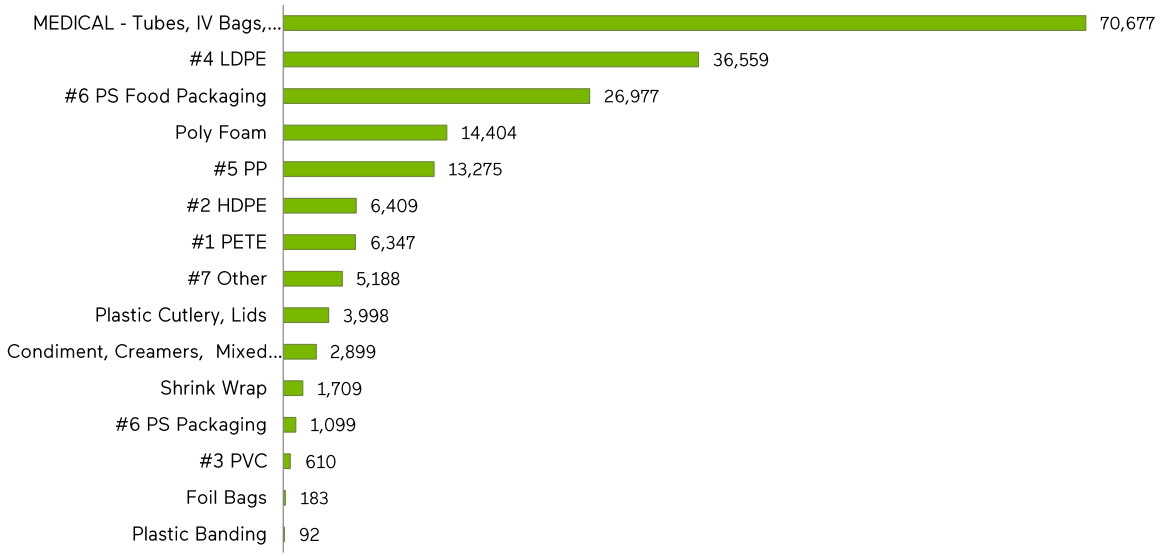
All the material categories above could be diverted from landfill through the organics collection program in place.

### Photograph 6 – Organic Material Examples in Landfill Sample (Food Waste)

## Plastics

Plastic materials account for 23.8% of your waste stream composition; 190,425 kg of plastic materials is projected to be sent to landfill this year from your facility The facility currently has programs in place to capture bottles and containers plastics #1-7. Plastic is generally not a heavy material, therefore the weight generated indicates a significant volume of material. Utilizing current recycling programs will ensure this material is diverted.

### Figure 8 - Annual Plastics Disposed in Landfill (in kg)




**Medical Plastics** (e.g., IV bags, tubing, syringes, unlabelled containers) represented 8.8% of the disposal weight. Due to health and safety issues most, medical plastics are single use plastics that are not accepted in the facility's diversion programs. These materials were identified in patient areas.

**#4 LDPE** (e.g., soft plastic, film bags & packaging) accounted for 4.6% of landfilled materials at this time, these materials are not accepted in mixed recycling programs.

**PS#6** (e.g., beverage, and food containers – excluding polyfoam) represented 3.4% of the overall sample. If clean, these are often accepted as part of mixed recycling programs. Food vendors should be encouraged to provide recyclable or compostable options for the products they bring onto on facility.

**Polyfoam/ Polystyrene** representing 1.8% of all landfill materials identified. Limited recycling options currently exist for Poly Foam plastic materials. Until new recycling developments are created, and viable options exist, this waste stream should be closely monitored for future possibilities and cost savings.

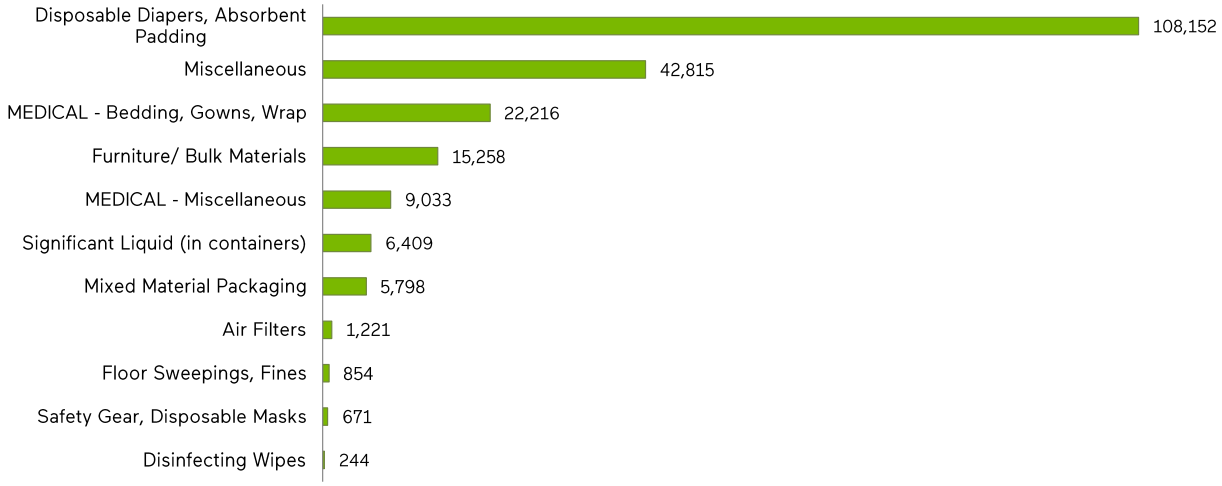
**PP #5** (e.g., take-out beverage, yogurt/ food containers) accounted for 1.7% of the landfill sample. Users should be aware that these products are recyclable, examples of these materials should be included in educational signage.

## Photographs 7 to 9 – Plastic Material Examples in Landfill Sample (LDPE #4, PS #6, HDPE #2)

## Other Materials

Other materials sent to landfill accounted for 26.6% of your total waste; nearly 212,672 kg of this category of material is projected to be sent to landfill annually. Currently, there are no programs in place to capture most of these materials from the landfill.

### Figure 9 - Annual Other Disposed in Landfill (in kg)




**Disposable diapers, absorbent padding** represented 13.5% of the audited sample. These materials are not accepted in mixed recycling programs.

The **miscellaneous category** (incl. tape, stationary materials, decorations, toys, unknown mixed parts) represented 5.4% of the audited sample. These items are not accepted in mixed recycling programs but there may be specialized programs available in some cases.

**Medical bedding** (incl. gowns, wrap) accounted for 2.8% of all landfilled materials. These materials are not accepted facility's diversion programs due to the material involved and contact with patients.

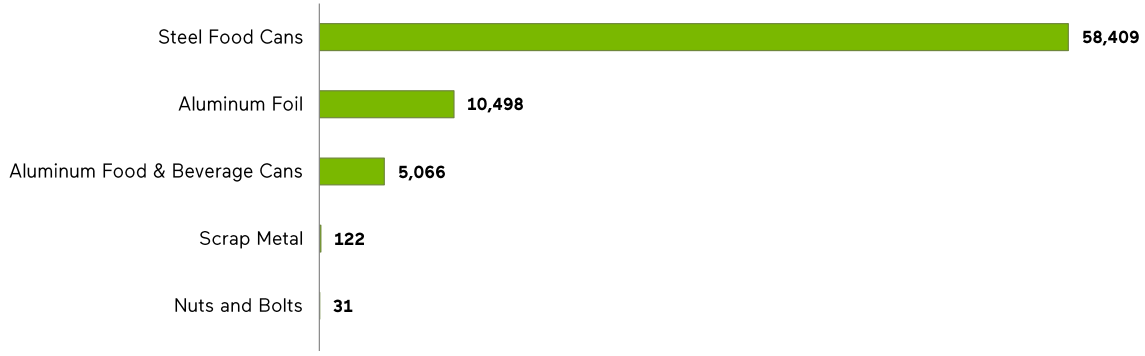
**Medical – miscellaneous** (e.g., bandages, cast, gauze) represent 1.1% of the audited sample. These are not recyclable.

### Photographs 10 – Other Material Examples in Landfill Sample (Diapers)

## Metals

Metal materials sent to landfill accounted for 9.3% of your total waste; nearly 74,125 kg of metals is projected to be sent to landfill annually. The facility has programs in place to capture most metal food and beverage containers in the mixed recycling program. Scrap metal collection may be available on an as needed basis.

### Figure 10 - Annual Metals Disposed in Landfill (in kg)




**Steel food cans** (e.g., food containers) were present at 7.3% of the landfill sample. These are recyclable materials and could be accepted in mixed recycling programs, when clean. Examples should be included on educational signage to increase awareness.

**Aluminum foil** (e.g., wrap and food trays) accounted for 1.3% of the audited sample. If clean, these items could be captured in the facility's mixed recycling program.

**Aluminum cans** (e.g., beverage and food containers) were present at 0.6% of the landfill sample. These are recyclable materials and could be accepted in mixed recycling programs. Clearly labeled and easily accessible recycling receptacles are key to capture materials where generated.

### Photographs 11 to 12 – Metal Material Examples in Landfill Sample (Steel Cans, Aluminum Trays)

## Glass

Glass materials sent to landfill accounted for 1.4% of your total waste; nearly 11,169 kg of glass is projected to be sent to landfill annually. The facility has programs in place to capture most glass food and beverage containers in the mixed recycling program.

**Figure 11 - Annual Glass Disposed in Landfill (in kg)**


**Clear glass** (e.g., beverage bottles) represented 1.4% of the landfill sample. Clear bottles are recyclable materials in mixed recycling programs. Clearly labeled and easily accessible recycling receptacles are key to ensure that employees and visitors can participate.

## Textiles

Textile materials sent to landfill accounted for 1.3% of your total waste; nearly 10,010 kg of textiles is projected to be sent to landfill annually. The facility has a program in place to capture, reuse and repurpose soiled linen and gowns.

**Figure 12 - Annual Textiles Disposed in Landfill (in kg)**


**Rags** (e.g., cleaning materials) accounted for 0.5% of the landfill sample. These materials are not accepted in the facility's diversion program.

**Clothing** (e.g., pants) accounted for 0.4% of the landfill sample. These materials are not accepted in mixed recycling programs. The facility should consider a donation collection program collect clothing in good condition for reuse.

**Miscellaneous** (e.g., reusable bags) accounted for 0.3% of the landfill sample. These materials are not accepted in mixed recycling programs.

## Rubber

Rubber materials sent to landfill accounted for 0.7% of your total waste; nearly 5,524 kg of rubber is projected to be sent to landfill annually. There are currently no programs in place to capture these items.

### Figure 13 - Annual Rubber Disposed in Landfill (in kg)


**Nitrile work gloves** (e.g., nitrile, latex disposable gloves) accounted for 0.7% of the landfill sample. These are not accepted in mixed recycling programs. The facility should consider implementing a targeted program from a recycler such as a Terracycle or Go Zero. These vendors can offer programs for diverting unique materials not typically recycled.

### Photograph 13 – Rubber Material Examples in Landfill Sample (Nitrile Gloves)

## Government of Canada Actions on Plastic Waste

With the consistent growth in plastic pollution and associated carbon emissions, the Government of Canada has made robust commitments to address the developing problem of plastic use. The *'Single-Use Plastics Prohibition Regulation'* (SUPPR) is a part of the Government of Canada's plan to support the concerns of pollution and GHG emissions, meeting a target of zero plastic waste by 2030.

Materials such as, single-use plastic checkout bags, ring carriers, foodservice ware, stir sticks, and straws will be prohibited from manufacture, import, and sale within Canada. The government has set explicit targets and commitments including plastic waste diversion, reducing single use materials, and procuring sustainable plastic products.

### Table 9: Goals to Reduce or Divert Plastics

| Goal and Commitment | Facility Participation | Facility Recommendations |
|---|---|---|
| **Increase Plastic Waste Diversion:** | Container recycling collection is in place. | ▪ Increase capture rates in existing programs through education.<br>▪ Consider local procurement to reduce shipping materials.<br>▪ Implementation of additional diversion program for limited materials. |
| **Reduce Single-Use Plastics in Operations, Meetings and Events:** | Currently, there are minimal in-person events and meetings.<br><br>Most kitchens are equipped with reusable dishes that can be washed and reused, as observed on site tour. | ▪ Ensure all kitchens are equipped with reusable cutlery and assess options for sanitizing dishwashing systems.<br>▪ Discourage single-use beverage pods and offer refillable pods as an alternative.<br>▪ Reduce foil packaging by encouraging employees to participate in 'waste-free lunches.' |
| **Procure Sustainable Plastics:** | When procuring products that contain plastics, promote the procurement of sustainable products and the reduction of associated plastic packaging waste. | ▪ Ensure all operational plastics are accepted into the current recycling program.<br>▪ Seek local procurement to avoid shipping material.<br>▪ Source procurement options with minimal packaging. |

A considerable amount of the single-use plastics identified in the waste assessment were related to takeout food. This included plastic cutlery, hard to recycle food packaging, stir sticks, and straws. Once implemented, the facility should complete a waste assessment to determine progress and opportunities for future waste diversion programs.

## Employee, Contractor, and Visitor Education and Engagement

The success of a Diversion Program is driven by user participation. If those who generated the waste are not utilizing diversion programs, success will never be achieved as it is not enough to simply implement programs and expect those programs to be effective. There are two critical factors necessary to ensure that diversion programs are effective. These factors are education and engagement.

As many different stakeholders are involved and contribute to the waste and diversion program it is important to target education towards each group.

1. Communication Program - The facility could maintain a communication program to communicate to educate all stakeholders. The following are all methods that can ensure stakeholders understand the steps that are being taken to achieve environmental sustainability within the facility and feel included in its successes.

   **Promotion** - The facility could use internal communication such as newsletters, internal emails, and educational boards to relay their message. As well as Earth Day or Environment Days to promote the waste management program through promotional materials or information booths; Waste Reduction Week in October is another opportunity for communication around waste reduction.


   As well, the facility could create a **slogan or branding** to help promote their diversion program and create continuity for all promotional or educational materials.

   Information can be tailored to reflect the findings of this assessment. For example, create a campaign to encourage employees to take a moment to put their mixed paper in the correct receptacle, no matter where they are on site.

   Green information boards, similar to health and safety boards, can be a centralized place for relevant environmental information and reference material, example below.

Below, is an example of colour coded pictorial signage. Each provider should be able to provide similar material to educate stakeholders.


The following is an example of a customized signage in hospital cafeterias.



**2.** Training - Regular training of employees, custodial staff and contractors on diversion procedures help demonstrate the facility's commitment to diversion programs, update staff on policy changes and account for changes in workforce. Regular training has also been shown to aid in the elimination of inconsistency and complacency in diversion programs.

- Training can be provided with power point presentations and examples of educational signage and recyclable materials;
- Training can be just a few minutes during safety talks or weekly check-ins;
- Ongoing training and education are critical due to turnover of employees and contractors as well as occasional program changes;
- Management and supervisors could be trained on all aspects of the diversion program which will allow them to be an ambassador and a resource to support employees and visitors.

3. Maintenance/ Custodial Review – Facility management could regularly meet with the custodial manager and maintenance staff (custodians) as they may be able to provide hands on insight into aspects of the diversion program and areas of improvement.

   Custodial staff should be trained on the diversion program during their orientation and reminded on a regular basis by their managers. Input from custodians and custodial managers may prove beneficial as they have firsthand knowledge of the program.

**Site Observations** - It was identified throughout the assessment that there were inconsistencies in the types of receptacles used, location of receptacles and the availability of labelling; signage etc. The facility could strive to use a similar style of receptacles throughout the facility and ensure that all receptacles and collection bins are appropriately labelled.

- Below are examples of multi-stream receptacle stations identified in the hallways. Photograph 14 is of a receptacle station equipped with proper labelling and signage, while Photograph 15 is missing the proper signage. Facility managers should ensure that all multi-stream stations are equipped with labelling and signage.

- Organics receptacles should be lined with compostable bags to avoid confusion with other material streams. The organics bin on Photograph 14 is lined with a clear plastic bag.

**Photographs 14 to 15 – Multi-stream stations inside facility**


- Pictorial signage could be added to multi-stream stations identified outside within the hospital grounds.

### Photographs 16 to 17 – Multi-stream stations outside facility



- The facility has both paper towel and hand dryers in the washrooms. The facility could reduce the availability of paper towel dispensers and increase the amount of hand dryers available in washrooms. While there are some hygiene concerns relating to hand dryers, research shows that modern hand dryers are not inferior in hygiene.

- Until Hand dryers are accessible, the facility could consider implementing an organics collection program and replace these black garbage bags with compostable bags to collect for composting.

### Photographs 18 – Example of receptacle in washroom

- All garbage bins should be paired with a recycling bin. As described in this report, materials identified in the audit are potentially recyclable; staff and visitors should have options to dispose of them easily. Photographs 19 and 20 are examples of garbage receptacles with no recycling bin in the immediate area.

**Photographs 19 to 20 – Example of receptacle in washroom**

## Organization Wide Guidelines and Labelling

Recycling receptacles identified during the site visit were often not labeled and not equipped with guidelines to help staff or visitors understand which specific materials they can recycle.

It is recommended that the facility develop educational signage and receptacle labelling to help facilitate the diversion program. Ideally the program designed is developed and approved by top managers. This approach will ensure that a consistent standard is applied and could increase buy-in throughout the organization.

Such a program could include:

- Reference posters, indicating a list of acceptable recyclable materials common at stores. For back of house and common spaces such as breakrooms;
- Labels directly for receptacles and collection bins, indicating what they are designated to collect;
- Educational/motivational materials, including companywide slogans, branding, and imagery may be applied;
- Applying a colour coding system (e.g., blue receptacles/ labelling for bottles and cans) will significantly aid users in disposing of their waste easily and understanding what goes where;

Where necessary the program should set out a recommended set up procedure, including photo examples, to advise each department how to best set up infrastructure.

It is recommended that:

- Older receptacles may be updated with labels (e.g., stickers, printing labels, posters, magnets) to remain consistent and effective, saving capital costs purchasing new receptacles;
- Pictorial recycling guidelines should be available at all recycling stations (posted on the wall or receptacles) providing recyclable examples and where appropriate, 'non-acceptable' materials; simple, easily recognizable images should be used to educate user and convey the message to those less familiar with English;
- Reference signage outlining all diversion programs should be placed on employee health and safety boards and in back-of-house areas, with a longer list of all the materials generated on site;
- Simple terms and bright colours are used as they are most effective to draw attention;

✓ **Colour coded pictorial signage and receptacles**
✓ **Labels used to update older receptacles**


## Continual Improvement and Additional Recommendations

The following are suggested actions to help the facility improve their internal processes and strive to reach higher diversion rates while maintaining a strong, efficient diversion program.

It is recommended that the facility regularly check with their waste hauler to confirm what materials are recyclable in their jurisdiction. As some of these materials may be integral to the operations of the facility, it is recommended that you regularly review opportunities to reduce or substitute these materials in your operations.

### i. Capture Additional Materials

Some non-traditional recyclable materials were identified in the landfill waste sample. This included nitrile gloves and safety gear. Programs are available from companies like TerraCycle or Go Zero in to provide the resources to set up a collection station at your facility.

https://www.terracycle.ca/en-CA/brigades/writing-instrument-retail-based-brigade

https://gozerorecycle.com/pages/recyclingboxes

**Example of Go Zero collection box**


In addition, TerraCycle or Go Zero offer other recycling programs for common non-conventional materials which were identified during the audit. These include single use beverage pods, creamer containers and plastic wrappers.

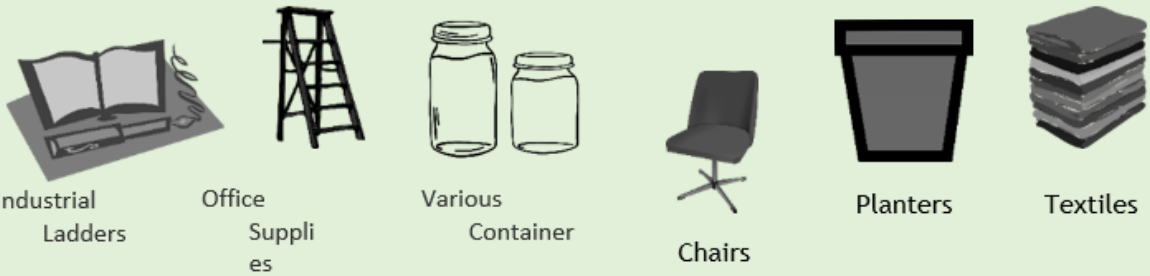
### ii. Alternatives to Recycling: Reuse Programs

According to the waste hierarchy, recycling should be considered after reduction and reuse programs have been considered. Materials that are still usable, do not need to be disposed of, could be donated, or sold for reuse.


Several options for donations exist in your region for materials such as used furniture (ReStore, Habitat for Humanity) or bulk containers in good condition. Materials can also be bought and sold on online platforms such as Kijiji Canada, Facebook Market Place and Craigslist. These platforms can be used to sell items no longer serving the facility and could be repurposed. As well, there are organizations such as the Material Exchange Program that can facilitate that help facilitate reuse or repurposing of materials.

**Material Exchange Program**, operated by Partners in Project Green, is a circular economy focused platform that allows businesses and non-profit organizations access to an inventory of materials that have been donated. Conversely, the facility can also donate their reusable materials toward this inventory.

Common materials accepted in the inventory include:




Material Exchange - Partners in Project Green: Partners in Project Green

### iii. Purchasing Power

Unity Health - St. Joseph's Health Centre should use its purchasing power to influence its staff, vendors, suppliers, and contactors to follow the same recommendations. A commitment to waste management should be a significant aspect within future contracts with service providers.

- The facility should establish a vendor selection protocol to reflect a commitment to the 3R's: reduction, reuse, and recycling;
- The facility should conduct "vendor pre-qualifications" to evaluate the protocol and vendor environmental track records;
- Contract language should reflect the facility's objectives and allow periodic reviews to determine if those objectives are being met throughout the life of the contract;
- Get buy-in and support from contractors and service providers who work on site. All service providers, vendors or contractors should be aware of the environmental goals and be active participants, including education programs and purchasing decisions.

### iv. Bin Assessment

Facility managers should, as part of their duties, periodically and routinely tour the facility to monitor the infrastructure of the waste management program. By ensuring recycling stations are present, and conveniently available throughout the facility, the recycling participation rate will improve. Ensuring that there are recycling receptacles in every area of the facility, where waste is generated, will allow for the proper source separation of materials.

The manager should ensure that all receptacles are clearly labelled, and pictorial guidelines are present to educate staff, as described above.

Black bags should never be used in recycling receptacles as they can often be confused as landfill waste and there is a risk that already sorted recyclables are disposed incorrectly.

### v. Data Management

Each facility should continually review the waste services on site, including the number and the size of waste bins, location, and frequency. Should the receptacles be found to be at less than capacity on their service day, or filled up before service day, services should be adjusted, as required, to match the amount of material generated and to be most cost effective.

It is only possible to measure the performance of the waste and recycling programs if they are measured. Each facility should set up a regular program to map the materials generated on site and regularly track progress over time, including batteries, fluorescent light tubes, etc. All managers, who arrange for these services, should track, and provide the information to a centralized location or person. By reviewing this information on a monthly or quarterly basis, the company will be able to better track the success of the waste management program.

This is vital if successes are to be communicated to staff and stakeholders, and further necessary to understand the opportunities that exist within the waste and recycling systems at the facility.

### vi. Material Substitutions: Paper Towel

When considering environmental and financial costs of paper towel manufacturing and disposal, alternatives such as High-Speed Energy Efficient (HSEE) hand dryers would be a favourable option for the facility.

a) The **environmental factor**: In comparing the carbon footprint of paper towel and hand dryers, material production, manufacturing, transportation, material use, and its end of life are considered. The carbon footprint for an HSEE hand dryers is estimated to be less than one third of paper towel even if produced from recycled materials.
b) The **cost factor**: Paper towel use involves continuous costs: purchasing, handling (custodial operations), and disposal (both composting and landfilling have costs associated). The initial capital cost of hand dryers begins to see a payback within a reasonable timeframe.
c) The **hygiene factor**: Paper towels are typically determined to be more hygienically effective in comparison to hand dryers as the hands dry more quickly. However, this can be mitigated with measures such as ensuring antibacterial soaps and guidelines of drying length on hand dryers. There is no research connecting use of hand dyers to infection. The research suggests that thorough handwashing will not lead to the spread of bacteria with use of hand dryers.

## Waste Management Sustainability Services
## 2024 Recycling Benefits for Unity Health - St. Joseph's

In 2024, we recycled 239 tons of mixed paper, cardboard, plastics, aluminum cans, steel cans and glass

**These recycling efforts conserved the following resources/prevented these emissions:**

### 5,082 Mature Trees
Represents enough saved timber resources to produce 86,387,700 sheets of printing and copy paper!

### 566 Cubic Yards of Landfill Airspace
Enough airspace to fulfill the annual municipal waste disposal needs for 657 people!

### 435,538 Kw-Hrs of Electricity
Enough power to fulfill the annual electricity needs of 39 homes!

### Avoided 805 Metric Tons (MTCO2E) of GHG Emissions
That GHG reduction is equivalent to removing annual emissions from 170 passenger vehicles!

### 698,064 Gallons of Water
Represents enough saved water to meet the daily fresh water needs of 9,307 people!

Sources: U.S. Environmental Protection Agency, U.S. Energy Information Administration, Environmental Paper Network-Paper Calculator V4.0, Domtar Paper, Gaylord Corporation, U.S. Forest Products Laboratory, and Waste Management. 
Notes: GHG = Greenhouse Gas; MTCO2E = Metric Tons of Carbon Dioxide Equivalent

## Appendix 2 - Detailed Waste Breakdown by Generation Area

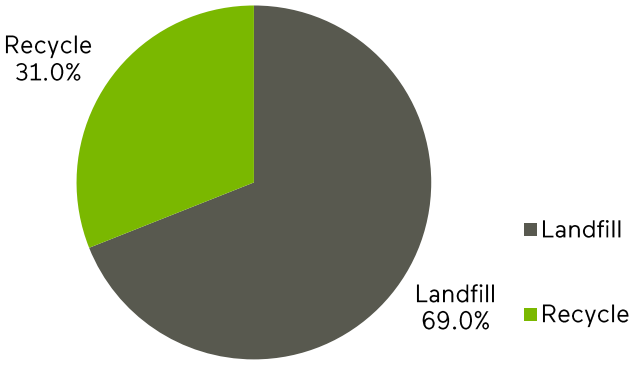
| Area | Paper | Metal | Plastic | Textile | Wood | Glass | Rubber | Organic | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Patient Area | 45.76 | 1.91 | 39.71 | 3.14 | 0.00 | 2.86 | 1.54 | 16.72 | 58.19 | 169.83 |
| Cafeteria / Kitchen | 17.48 | 21.60 | 19.52 | 0.00 | 0.00 | 0.80 | 0.01 | 5.04 | 1.96 | 66.41 |
| Other | 11.80 | 0.54 | 3.16 | 0.14 | 0.32 | 0.00 | 0.26 | 0.00 | 9.54 | 25.76 |
| **Grand Total** | **75.04** | **24.05** | **62.39** | **3.28** | **0.32** | **3.66** | **1.81** | **21.76** | **69.69** | **262.00** |

# Appendix 3 – Diversion Report

## Diversion Overview
## Unity Health - St. Joseph's Health Centre, Toronto ON

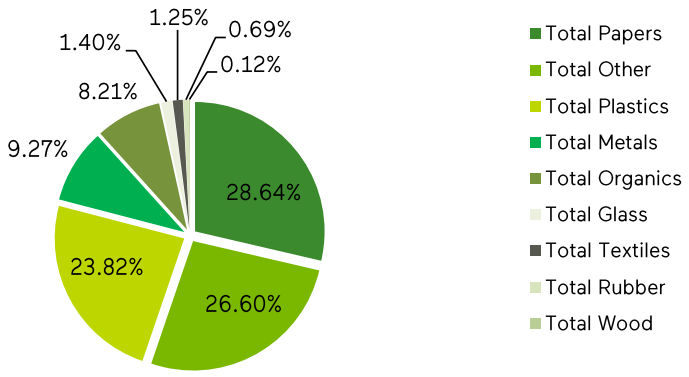
| Diverted Materials | Annual Projected Volume (kg) | % Of Diverted Materials |
|---|---|---|
| Confidential Paper Shredding | 127,348 | 35.4% |
| Mixed Recycling | 126,580 | 35.2% |
| Organics | 105,655 | 29.4% |
| **Total** | **359,583** | **100.0%** |

### Diversion Summary



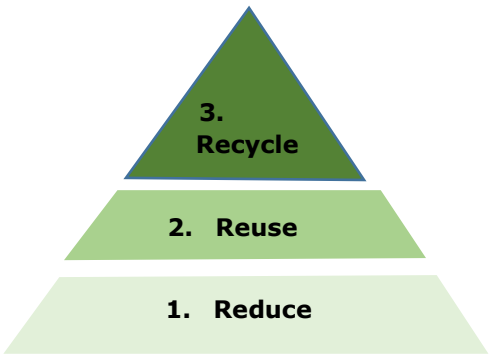

| Waste Category | Material Composition (%) | Annual Projected Volume (kg) |
|---|---|---|
| Total Papers | 28.6% | 228,998 |
| Total Other | 26.6% | 212,672 |
| Total Plastics | 23.8% | 190,425 |
| Total Metals | 9.3% | 74,125 |
| Total Organics | 8.2% | 65,642 |
| Total Glass | 1.4% | 11,169 |
| Total Textiles | 1.3% | 10,010 |
| Total Rubber | 0.7% | 5,524 |
| Total Wood | 0.1% | 977 |
| **Total** | **100.0%** | **799,540** |

### Waste Material By Category



## Appendix 4 – Three R's Waste Hierarchy

The three R's waste hierarchy gives an order of priority of actions to be taken to reduce the overall amount of waste generated at the site.




Studies indicate that between 2 and 5 percent of waste streams are reusable. There are many ways to prevent waste, at the source, and reuse products to reduce waste, including:

| | Material | Reduction Strategies | Reuse Strategies | Recycling Strategies |
|---|---|---|---|---|
| Papers | **Cardboard / boxboard** | Encourage suppliers to use reusable packaging (e.g., plastic totes)<br>Purchase reusable products | Re-use of cardboard for storage and packaging | Provide enough receptacles, information and signposting for OCC and mixed recycling programs |
| | **Office paper** | Encourage use of electronic communications<br>Encourage tenants to print two sided | Encourage one sided printed paper for scrap paper<br>Creation of scrap pads<br>Utilize centralized notice boards | |
| | **Paper towels** | Install hand-dryers in washrooms and dish cloths in kitchens | | |
| | **Newsprint / Magazines** | Provide communal newspapers in break out areas and spaces | Encourage staff to share magazines and newspapers<br>Donate used magazines and newsprint<br>Use newsprint for packaging materials | |
| | **Paper cups** | Place reusable coffee cups in kitchen areas<br>Encourage users to bring reusable coffee cups<br>Incentivize the use of own cups (discounts, loyalty cards) | Provide coffee making facilities in kitchens and encourage users to refill reusable coffee cups | Encourage tenants to use compostable and recycling coffee cups which are accepted in organics/mixed recycling programs |
| Plastics | **PETE** | Encourage building users to bring reusable water bottles<br>Ensure sufficient water fountains for building users | Encourage building users to reuse plastic bottles<br>Use refundable recycling schemes at the site | Provide enough receptacles, information, and signposting for mixed recycling programs |
| | **HDPE** | Encourage bulk buying of goods to reduce volume of packaging<br>Purchase products with minimal packaging | | |

| | | | | |
|---|---|---|---|---|
| | **LDPE** | Train custodial staff to empty individual waste receptacles into single black garbage bag | | |
| | **Polystyrene** | Develop procurement policies which require on-site retailers to use compostable and recyclable packaging and cutlery | | |
| | **Organics** | Set up partnerships and donation programs with local charities | | Implement organics program |
| **Containers** | **Beverage Cans** | Encourage use of drinks dispensers at food courts and in kitchens | Use refundable recycling schemes at the site | Provide enough receptacles, information, and signposting for mixed recycling programs |
| | **Glass Bottles/Jars** | Encourage use of drinks dispensers at food courts and in kitchens | | |
| | **Single Use Beverage Pods** | Encourage use alternative coffee making facilities (i.e., filter coffee, pod free coffee machines) | Use reusable k-cups | Set up k-cup recycling programs with local supply companies |
| | **Office supplies** | Set up communal stationary points in offices for building users | Establish donation programs with local schools | Set up recycling programs with specialist companies such as Teracycle |

## Appendix 5 – Material Descriptions

| Material | General Descriptions | Waste Stream |
|---|---|---|
| #1 PETE | Polyethylene Terephthalate, Water Bottles, Soft Drink Bottles | Recycle |
| #2 HDPE | High Density Polyethylene Containers, Chemical Containers or Jugs; High Density Polyethylene Bags or Film, Strong "crispy" Bags | Recycle |
| #3 PVC | Plastic pipes, Cleaning Supply Jugs, Pool Liners, Sheeting, Twine, Carpet Backing | Recycle |
| #4 LDPE | Low Density Polyethylene Bags and Film, Garbage Bags, Shopping Bags | Landfill |
| #5 PP | Poly Propylene, Yogurt Containers, Straws | Recycle |
| #6 PS | Poly Styrene, Beverage Containers, Packaging Materials, Take-out Food Containers, Packing Popcorn | Recycle |
| #7 Other (Bottles and Containers) | Bottles and Containers Labeled #7 | Recycle |
| #7 Other (excl. Bottles and Containers) | Unlabeled Plastic Items | Landfill |
| Courier and Shipping Bags | Poly Mailer Bags | Landfill |
| Misc. Plastics | Plastic Utensils | Landfill |
| Plastic Cutlery | Plastic Forks, Spoons, Knives, Stirring Sticks | Landfill |
| Plastic Strapping | Plastic Shipping Straps, Plastic Banding | Landfill |
| Polycoat | Milk Cartons, Tetra Packs | Recycle |
| Polyfoam | Foam Protective Packaging Materials, Styrofoam | Landfill |
| Shrink Wrap | Shrink Wrap, Plastic Film | Landfill |
| OCC | Old Corrugated Cardboard | Recycle |
| Boxboard | Cereal, Tissue Box Material | Recycle |
| Cores and Tubes | Paper-Based Cores and Tubes | Recycle |
| Kraft Paper | Paper Bags, Heavy Brown Paper | Recycle |
| Label Paper | Sticker Paper | Landfill |
| Magazines | Glossy Magazines and Newspapers | Recycle |
| Napkins | Paper Napkins and Tissues | Organic |
| Newsprint | Newspapers, Weekly Flyers | Recycle |
| Molded Pulp | Drink Trays, Egg Cartons, Product Packaging | Recycle |
| Paper Cups | Paper or Polycoated Cups | Recycle |
| Paper Plates | Paper Food Plates | Organic |
| Paper Towels | Paper Hand Towels | Organic |
| Photo Paper | Glossy Paper | Recycle |
| Tetra Pak Containers | Juice Boxes, Liquid Beverage Containers | Landfill |
| Tissue Paper | Thin Packing Paper | Landfill |
| Wax Paper | Paper for Wrapping or Packaging | Landfill |
| Wet Strength Paper | Wet Strength Kraft Paper, Medical Paper | Landfill |
| White/ Ledger/ Office Paper | White Paper, Printer Paper | Recycle |
| Aerosol Cans | Spray Cans | Recycle |
| Aluminum | Aluminum Parts and Products | Recycle |
| Aluminum F & B Cans | Aluminum Food and Beverage Cans, Pop Cans | Recycle |
| Aluminum Foil / Wrappers | Food Wrappers and Packaging | Landfill |

| | | |
|---|---|---|
| Metal Banding | Metal Straps | Landfill |
| Misc. Metals | Metal Shavings, Nuts and Bolts, Metal Clothes Hangers, Scrap Metal | Landfill |
| Paint Cans | Empty Paint Cans | Landfill |
| Steel | Steel Food Cans, Steel Parts, and Products | Landfill |
| Coloured Glass | Coloured Beverage Bottles and Jars | Recycle |
| Clear Glass | Clear Beverage Bottles and Jars | Recycle |
| Drinking Glass | Glass Cups, Wine Glass | Landfill |
| Lab, Medical Glass | Flasks, Beaker, Dropper, Measuring Cylinder, Test Tubes, Jars | Landfill |
| Pallets and Skids | Wooden Pallets and Skids | Special Program |
| Scrap Wood | Construction Materials, Misc. Wood Pieces | Landfill |
| Wood Shavings | Scrap Construction Shavings and Debris | Organic |
| Wooden Crates | Shipping Crates | Landfill |
| Stir or Chop Sticks | Wooden Stir or Chop Sticks | Organic |
| Batteries | Dry Cell Batteries, Large Batteries | Special Program |
| Electronics | Cables, Computer Equipment, Toasters, TVs, Phones, Printers | Special Program |
| IT Equipment | IT Visual and Audio Equipment, Wires, Cords | Special Program |
| Printer Cartridges | Used Printer or Ink Cartridges | Special Program |
| Coffee Grounds | Used Coffee Grounds | Organic |
| Plants / Flowers / Yard Waste | Indoor and Outdoor Plants, Flowers, Leaves, Yard Waste | Organic |
| Post-Consumer Waste | Scrap Food Waste | Organic |
| Pre-Consumer Waste | Food Preparation Waste | Organic |
| Compostable Containers | Compostable Take-Out Containers, Paper Plates | Organic |
| Rubber Tubing | Cable Protection, Metal Coverings, Pipe Fittings | Landfill |
| Nitrile and Latex Gloves | Nitrile and Latex Gloves | Landfill |
| Rags | Used Rags and Cloths | Landfill |
| Shoes and Boots | Assorted Footwear | Landfill |
| Personal Clothing | Used Shirts, Uniforms, Hats | Landfill |
| Misc. Textiles | Rags, Mop Heads, Cloth Gloves | Landfill |
| Building Material | Construction Material, Drywall, Insulation | Landfill |
| Bulbs | CFL, LED, Fluorescent Bulbs and Tubes | Landfill |
| Ceramics | Objects Formed with Clay (e.g., Pottery) | Landfill |
| Cooking Grease | Fats, Oils and Grease | Landfill |
| Drywall | Regular or White Board Drywall | Landfill |
| Disposable Diapers | Disposable Diapers | Landfill |
| Face Coverings | Surgical Masks, Dust Masks, N95 Masks | Landfill |
| Floor Sweepings | Debris, Dust | Landfill |
| Furniture | Chairs, Desks, Lamps, Shelves | Landfill |
| Hygiene Materials | Feminine Hygiene Materials, Disposable Diapers, Cloth Diapers | Landfill |
| Liquid in Container | Significant Liquid in Bottle, Container or Cup | Landfill |
| Mixed Material Packaging | Condiment Containers, Envelope with Window, Miscellaneous Product Packaging | Landfill |
| Air Filters | Furnace Filters, Vehicle Filters | Landfill |
| Safety Gear | Safety Vests, Jackets, Harness, Safety Toe Covers, Work Gloves | Landfill |
| Single Use Beverage Pods | K-Cups and Pods | Landfill |

# Appendix 6 – Ontario's 3Rs Regulations

## Ontario's 3Rs Regulations

**Ontario's 3Rs Regulations governing non-hazardous solid waste from residential, industrial, commercial and institution sources became law in March 1994. Designated IC&I organizations are now required to conduct annual waste audits and update annual waste reduction work plans. This documents overviews the regulatory requirements for IC&I sector organizations.**

| Regulation | Intent | Requirements | Who Must Comply |
|---|---|---|---|
| **Ontario Regulation 102/94**<br><br>***Waste Audits***<br>***Waste Reduction Work Plans*** | To understand the amount and composition of all waste produced, how the waste is produced including relevant management policies and practices, and how the waste is managed<br><br>A waste reduction work plan seeks to establish concrete goals to reduce waste | Annual waste audit must be completed in which the types of waste and quantities of waste are assessed.<br><br>A waste reduction work plan must contain a strategy for reducing, reusing and recycling waste, identify who is responsible for implementation and provide a summary of timing and expected results from the waste reduction projects. This plan must be communicated with all employees | • Retail shopping complexes of 10,000+ $m^2$ floor area<br>• Class A, B or F hospitals under Ontario Reg. 964<br>• Schools with 350+ students at a location or campus<br>• Restaurants with gross annual sales of $3,000,000+<br>• Office buildings with 10,000$m^2$ of floor area<br>• Hotels and motels with 75+ units<br>• Building construction projects of 2,000+ $m^2$<br>• Building demolition projects of 2,000+ $m^2$<br>• Manufacturing sites with 16,000 employee hours per month |
| **Ontario Regulation 103/94**<br><br>***Source Separation Programs*** | To promote the source separation of materials throughout the facility | Handling and storage facilities must be provided for recyclable materials. Efforts must be made to ensure the system is used and that source-separated materials are reused or recycled.<br><br>Employees must be instructed on the use of the program | |
| **Ontario Regulation 104/94**<br><br>***Packaging Audits***<br>***Packaging Reduction Work Plans*** | To examine the impact of packaging on the waste management system and identify waste reduction plans.<br><br>Packaging refers to all materials used to protect, contain or transport a product. | Bi-annual audit must address; types and quantities of packaging used, reusability or recyclability of packaging, the environmental impact of the waste and the lifecycle of the packaging materials.<br><br>Reduction work plan must identify ways to reduce packaging used, increase reuse or recyclability content, reduce the environmental impact and reduce the burden of waste for the consumer. | • Manufactures or packagers of packaged food, beverage, paper or chemical products with total employee hours of 16,000+ per month<br>• Importers of packaged food, beverage, paper or chemical products for sale in Ontario with value of goods imported $20,000,000 per year |

**THINK GREEN.**