



Toronto Metropolitan University
350 Victoria St,
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2024 Waste Audit

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Executive Summary

Waste Reduction Group (“WRG”) was retained by Toronto Metropolitan University (“TMU”) to conduct a solid non-hazardous waste audit (in compliance with the Environmental Protection Act, O.Reg. 102/94: Waste Audits and Waste Reduction Work Plans and O.Reg. 103/94: Industrial, Commercial and Institutional Source Separation Program) for the educational institution located at 350 Victoria Street in Toronto, Ontario (the Site).

The objectives of the audit were to: determine the composition of the garbage stream by point of origin; quantify the estimated 2024 annual waste generation for TMU; determine the waste diversion and capture rates; identify additional opportunities for waste reduction and diversion; and address any specific concerns identified during the study.

The scope of the waste audit included collecting nineteen (19) representative samples over two days of the garbage stream from the functional areas of the Site buildings.

Findings and Conclusions

- Approximately 18% of the sample mass originated from the washrooms of the SLC building. The Kerr Hall building generated roughly 22% of the total sample mass.
- Paper towels (32.5%), LDPE #4 plastic film (11.4%), organics (9.3%), and fine paper (6.5%) had a combined mass which contributed to roughly 60% of the total sample mass.
- The garbage sample consisted primarily of paper towels generated from the SLC washroom (18.1% of total sample mass) and Kerr Hall building (4.3% of total sample mass).
- **Mandatory Recyclables** - the sample consisted of 86.1% Mandatory Recyclables, 2.72% Other Recyclables, and 11.18% Other (Non-Recyclable) material. A total of 112.37 MT of mandatory recyclables materials was generated in the garbage stream annually. Fine paper comprised roughly 58% (65.06 MT) of mandatory recyclable material generated annually in the garbage stream.
- **Other Recyclables** - a total of 865.24 MT of other recyclable materials was generated in the garbage stream annually. Paper towels comprised roughly 38% (326.3 MT) of other recyclable material generated in the garbage stream.

Waste Diversion Rate - was calculated to be **37.10%** based on 593.16 MT of diverted waste and 1,598.67 MT of total waste produced annually.

Capture Rate - the overall capture rate was **41%** based on 559.08 MT of diverted waste and 1 364.52 MT of potentially divertible material.

Recommendations

Waste diversion and capture rates could be further improved by improving the following existing diversion programs.

Mandatory Recyclables:

- **Fine Paper** - roughly 65.06 MT of material is estimated to be generated annually through the waste stream. Diverting this material through the existing mixed recycling diversion program could **increase the waste diversion rate up to 4.07%** and **could increase the capture rate up to 16.49%** based on current waste quantities at the Site.
- **Aluminum** - roughly 24.64 MT of material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing mixed recycling diversion program could **increase the waste diversion rate up to 1.5%** based on current waste quantities at the Site.
- **Glass** - roughly 15.02 MT of material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing mixed recycling diversion program could **increase the waste diversion rate up to 0.94%** based on current waste quantities at the Site.
- **Steel Cans** - roughly 3.52 MT of material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing mixed recycling diversion program could **increase the waste diversion rate up to 0.2%** based on current waste quantities at the Site.
- **Cardboard** - roughly 4.13 MT of material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing cardboard diversion program could **increase the waste diversion rate up to 0.26%** based on current waste quantities at the Site.

Other Recyclables

- **Paper Towels** - roughly 326.3 MT of material is estimated to be generated annually through the garbage stream. Diverting this quantity through the existing paper towel diversion program could **increase the waste diversion rate by up to 20.42%** based on current waste quantities at the Site.
- **PP#5, PET #1, Kraft Paper/Other Fibres, Boxboard** - between 54 MT and 65 MT of this material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing mixed recycling diversion program could **increase the waste diversion rate up to 15.1%** based on current waste quantities at the Site.
- **Organics** - roughly 93.17 MT of material is estimated to be generated annually through the garbage stream. Diverting this quantity through the existing organics diversion program could **increase the waste diversion rate by up to 5.83%** based on current waste quantities at the Site.
- Improvement and review of the existing waste programs and processes.
- Promoting culture through positive messages to educate students and staff on the importance of waste diversion and communicate the corporate goals for waste diversion and sustainability.
- Continuous monitoring and improvement by tracking year over year changes.

1. Introduction

Waste Reduction Group (“WRG”) was retained by the Toronto Metropolitan University (“TMU”) to conduct a solid non-hazardous waste audit for the facility located at 350 Victoria Street in Toronto, Ontario (the Site). The waste audit was conducted in compliance with the Environmental Protection Act, O.Reg. 102/94: Waste Audits and Waste Reduction Work Plans and O.Reg. 103/94: Industrial, Commercial and Institutional Source Separation Program.

1.1 Purpose and Objectives

The purpose of the waste audit was to comply with Ontario Regulation 102/94 – Waste Audits and Waste Reduction Work Plans Part XI, which requires educational institutions to conduct a waste audit covering the waste generated by the establishment operating at the site, and prepare and implement a waste reduction work plan on an annual basis to confirm compliance with Ontario Regulation 103/94 – IC&I Source Separation Programs.

The objectives are as follows:

- Determine the composition of the Garbage stream by point of origin,
- Quantify the estimated 2024 annual waste generation for all waste streams using the 2024 annual data provided by TMU,
- Determine the waste diversion and capture rates,
- Identify additional opportunities for waste reduction and diversion; and
- Address any specific concerns identified during the study.

The Site is considered to apply to O.Reg. 103./94 – Educational Institutions.

2. Scope of Work

To meet the objectives outlined above, the following activities were undertaken by WRG:

- Collected nineteen (19) samples from the site on February 6th, 7th, and 11th.
- Sorted samples into predetermined categories as set out by WRG (detailed in Appendix A: List of Categories)
- Determined the total quantity of waste diverted from landfill through current reduction, reuse, and recycling programs implemented at the facility (provided by TMU, Appendix B: Annual Data Request Form);
- Completed a waste audit report summarizing the findings of the audit and provided recommendations for increased waste diversion efficiency.
- Conducted a tour of the Site accompanied by TMU personnel and interviewed staff to obtain information on existing waste diversion practices.

3. Sampling Methodology

Nineteen (19) representative samples of the garbage waste stream from the functional areas of the Site on February 6th, 7th, and 11th to determine the composition of the waste stream. The samples were from the following addresses and functional areas:

Table 1: Sample Collection By Date, Address and Functional Area

Sample Date	Address	Functional Area
February-06-25	288 Church St.	Daphne Caldwell Health - Hallways, Classrooms
		Daphne Caldwell Health - Washrooms
	325 Church St.	Architecture
		Architecture - Washrooms
February-07-25	60 Gould St.	Kerr Hall
	347 Yonge St.	SLC
		SLC - Washrooms
	350 Victoria St.	Library
		Library Washrooms
	380 Victoria St.	Podium
February-11-25		Podium Washrooms
	105 Bond St.	South Bond Building
		Washrooms
	285 Victoria St.	Victoria Building
		Washrooms
	350 Victoria St.	Podium
		Podium Washrooms
	380 Victoria St.	Jorgensen Hall
		Jorgensen Hall Washrooms

The materials were sorted by qualified WRG staff using containers to keep materials separate. Waste was sorted into individual material categories and weighed using a calibrated scale (Appendix C: Scale Calibration Certificate). The waste was then re-bagged and disposed of in an appropriate waste container.

The total amount of materials source separated by the facility for recycling (other than mixed recycling) was not collected and categorized in the audit. However, annual quantities of all reused and recycled materials were reviewed and included in the audit results.

4. Waste Audit Findings

A total of 1,013.88 kg of waste materials were collected for the waste audit. Analysis of the waste stream sample is provided in the following sections.

4.1 Site Tour

During the tour of the Site and the Flow Study audit, the following observations were made by WRG representatives:

- Four-stream containers (landfill, mixed paper, bottles and cans, and organics) were observed to be placed frequently throughout the Site.
- Four-stream bins were equipped with appropriate and clear signage to encourage proper disposal at the source.
- Battery, wood, e-waste, cardboard, disposal receptacles were observed in various locations
- Friendlier Bins (recycling) were observed in high traffic student areas in a few buildings such as the library.
- Garbage, and single recycling bins were observed in various locations including outside buildings
- Paper towel bins were observed within varying washroom locations.
- Extra mixed paper bins were provided in areas of the Site where higher volumes of paper would be generated including offices, study rooms and libraries.

4.2 Waste Sample Composition by Functional Areas

Based on the audit findings, the functional areas of the Site that produced the highest mass (kg) from the waste stream are shown in the visual below.

Table 2: Waste Sample Composition by Functional Area (in kg and % of sample by mass)

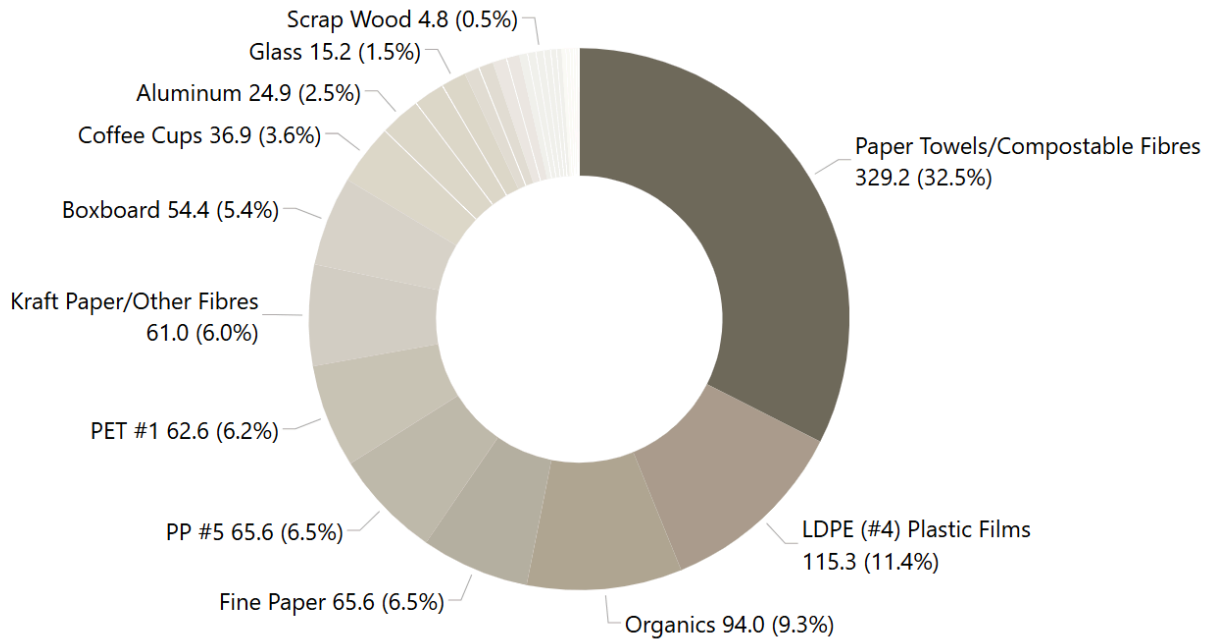
Address -> Functional Area	kg	%
347 Yonge St.	303.02	29.89%
SLC - Washrooms	185.94	18.34%
SLC	117.08	11.55%
60 Gould St.	225.60	22.25%
Kerr Hall	225.60	22.25%
350 Victoria St.	149.02	14.70%
Library	106.27	10.48%
Podium	34.96	3.45%
Library Washrooms	6.07	0.60%
Podium Washrooms	1.72	0.17%
380 Victoria St.	126.41	12.47%
Podium	75.95	7.49%
Jorgensen Hall	25.91	2.56%
Podium Washrooms	15.52	1.53%
Jorgensen Hall Washrooms	9.03	0.89%
288 Church St.	84.76	8.36%
Daphne Caldwell Health - Hallways, Classrooms	73.95	7.29%
Daphne Caldwell Health - Washrooms	10.81	1.07%
285 Victoria St.	49.58	4.89%
Victoria Building	37.20	3.67%
Washrooms	12.38	1.22%
325 Church St.	38.10	3.76%
Architecture	34.58	3.41%
Architecture - Washrooms	3.52	0.35%
105 Bond St.	37.39	3.69%
South Bond Building	32.19	3.17%
Washrooms	5.20	0.51%
Total	1,013.88	100.00%

Approximately 18% of the sample mass originated from the washrooms of the SLC building. The Kerr Hall building generated roughly 22% of the total sample mass.

4.3 Waste Sample Composition by Material

Based on the audit findings, the materials with the highest mass (kg) from the waste stream are shown in the visual below.

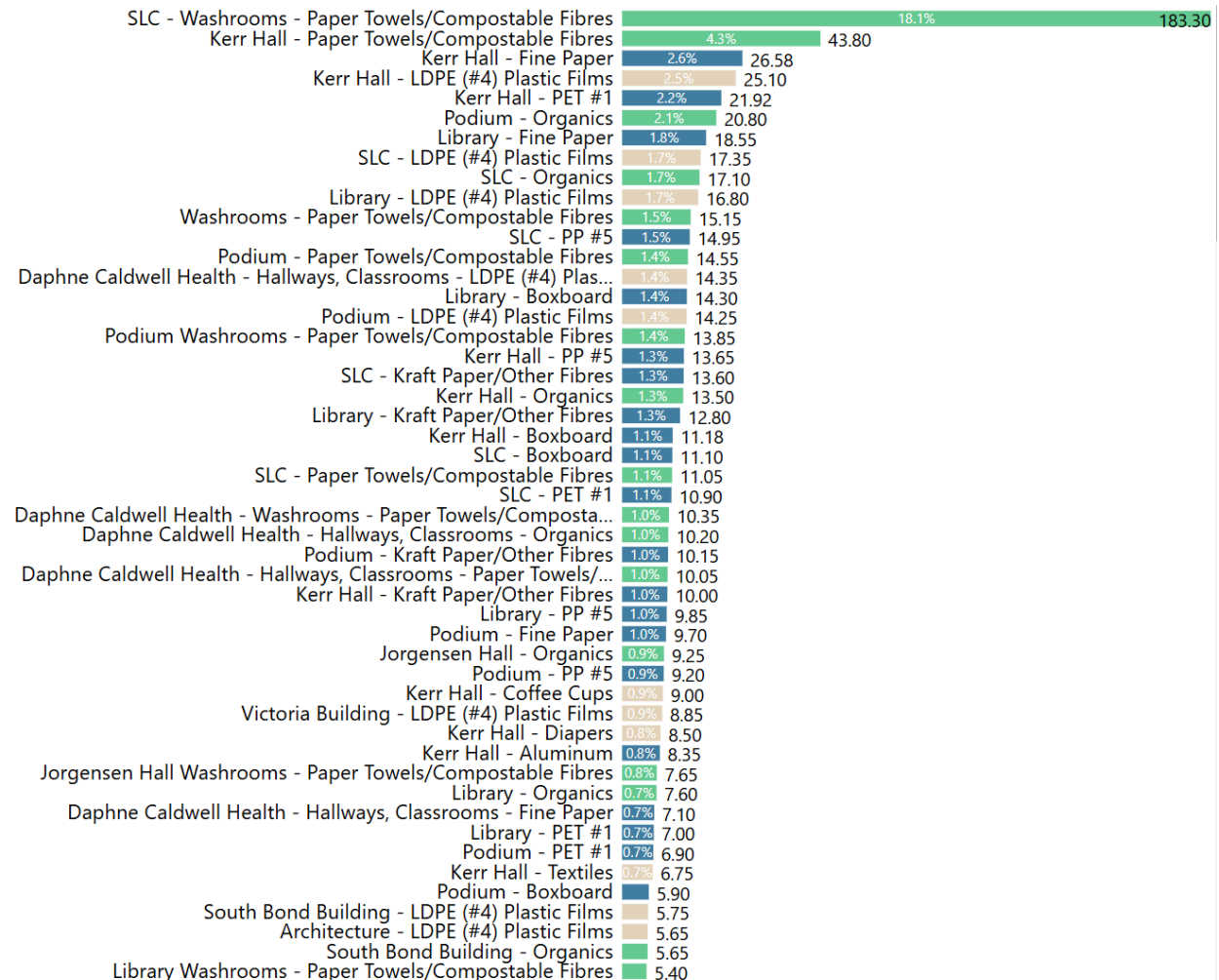
Figure 1: Waste Sample Composition by Material (in kg and % of sample by mass)



Paper towels (32.5%), LDPE #4 plastic film (11.4%), organics (9.3%), and fine paper (6.5%) had a combined mass which contributed to roughly 60% of the total sample mass. The sample mass (%) ranked by functional area and material is provided in the chart below.

Figure 2. Sample Weight (kg) Ranked by Functional Area and Material
(including Material Type)

Green = Mandatory Recyclables **Blue** = Other Recyclables **Brown** = Non-Recyclables



The garbage sample consisted primarily of paper towels generated from the SLC washroom (18.1% of total sample mass) and Kerr Hall building (4.3% of total sample mass). A detailed breakdown of the waste sample composition is provided in Appendix D.

4.4 Types of Recycling Material in the Garbage Stream

Based on analysis of the waste sample composition, Mandatory Recyclables and Other Recyclables were identified in the waste stream. The sample consisted of 86.1% Mandatory Recyclables, 2.72% Other Recyclables, and 11.18% Other (Non-Recyclable) material.

A description of the categories is provided below.

Mandatory Recyclables

O.Reg.193/04 requires that educational institutions source separate the following materials (at a minimum):

- | | |
|--------------|--------------|
| - Cardboard | - Glass |
| - Fine Paper | - Aluminum |
| - Newsprint | - Steel cans |

Other Recyclables

Includes the following materials:

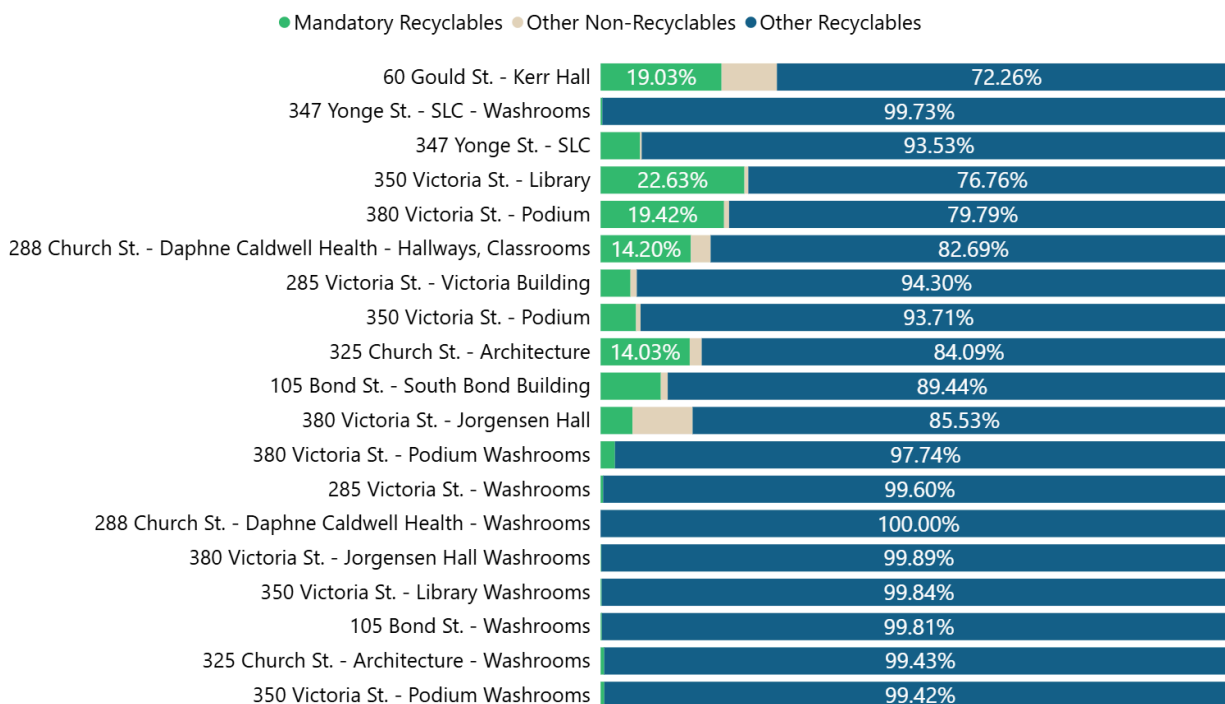
- | | |
|----------------------|------------------------|
| - Aseptic containers | - Gable top containers |
| - Batteries | - Paper towels |
| - Boxboard | - PP #5 |
| - Craft paper | - Scrap metal |
| - Electronic waste | - Scrap wood |
| - Organics | |

Other (Non-Recyclables)

Includes all other non-recyclable materials including organics.

Analysis of the Mandatory Recyclables, Other Recyclables and Non-Recyclables is provided below.

Figure 3: Composition of Waste Stream by Mandatory Source Separated Waste vs Non-Mandatory Source Separated Waste



A total of 112.37 MT of mandatory recyclables materials was generated in the garbage stream annually. Fine paper comprised roughly 58% (65.06 MT) of mandatory recyclable material generated annually in the garbage stream. The estimated annual quantities of mandatory recyclables generated were calculated and are provided in the chart below.

Table 3: Composition of Mandatory Recyclables in the Waste Stream represented as estimated annual tonnage (MT and % of mandatory recyclables in garbage stream)

Material	Sample Mass (kg)	Estimated Annual Quantity Generated Through Garbage Stream (MT)	%
Fine Paper	65.64	65.06	57.90%
Aluminum	24.86	24.64	21.93%
Glass	15.15	15.02	13.36%
Cardboard	4.17	4.13	3.68%
Steel Cans	3.55	3.52	3.13%
Total	113.37	112.37	100.00%

A total of 865.24 MT of other recyclable materials was generated in the garbage stream annually. Paper towels comprised roughly 38% (326.3 MT) of other recyclable material generated in the garbage stream. The estimated annual quantities of other recyclable materials generated were calculated and are provided in the chart below.

Table 4: Composition of Other Recyclables in the Waste Stream represented as estimated annual tonnage (MT and % of mandatory recyclables in garbage stream)

Material	Sample Mass (kg)	Estimated Annual Quantity Generated Through Garbage Stream (MT)	%
Paper Towels/Compostable Fibres	329.20	326.30	37.71%
LDPE (#4) Plastic Films	115.27	114.25	13.20%
Organics	94.00	93.17	10.77%
PP #5	65.58	65.00	7.51%
PET #1	62.60	62.05	7.17%
Kraft Paper/Other Fibres	60.95	60.41	6.98%
Boxboard	54.40	53.92	6.23%
Coffee Cups	36.89	36.56	4.23%
Cold Beverage Wax-Lined Paper Cups	18.84	18.67	2.16%
Polystyrene #6	9.14	9.06	1.05%
Scrap Metal	5.10	5.06	0.58%
Aseptic Containers	5.04	5.00	0.58%
Scrap Wood	4.77	4.73	0.55%
HDPE Plastic Containers #2	2.90	2.87	0.33%
PPE	2.71	2.69	0.31%
Moulded Pulp	1.88	1.86	0.22%
Gable Top Containers	1.65	1.64	0.19%
Other Plastics #7	1.58	1.57	0.18%
Electronic Waste	0.23	0.23	0.03%
Composite Cans	0.20	0.20	0.02%
Batteries	0.01	0.01	0.00%
Total	872.94	865.24	100.00%

5.0 Waste Diversion Programs, Policies and Disposal Systems

As part of the waste audit, WRG staff conducted a tour of the Site (accompanied by TMU personnel) to document existing waste disposal systems. Interviews with TMU personnel were also conducted to gain an understanding of the existing waste diversion programs and practices.

The following diversion programs exist at the Site:

- **Mixed Recycling and Paper** for general recycling materials is collected and consolidated in 96-gallon totes for recycling.
- **Cardboard** is collected in dedicated receptacles and is then consolidated by staff into cardboard totes for recycling.
- **Paper towels** are collected in dedicated receptacles and then consolidated by staff into paper towel totes for diversion from landfill.
- **Organics** are collected in 32-gallon totes for diversion from landfill.
- **Food /Food Services** - Food Donation Program, Discounts on Reusable Mugs, Student "Leftover Food" Program, Food and Nutrition Program are consolidated by staff into dedicated areas or donation bins.
- **Scrap wood** - is consolidated to be picked up for diversion from landfill
- **Scrap metal** - is consolidated to be picked up for diversion from landfill. Including the scrap metal from Construction and Demolition PMO, Filing Cabinet Diversion, Scrap Metal Recycling Program, Waste Nook Wood, and Waste Nook Scrap Metal.
- **Confidential paper/shredding** - is collected in dedicated receptacles for diversion from landfill
- **Used Furniture/Donations** are collected in a dedicated area or donation bins. Including the furniture rehome program, free store (TMU Free Store, Student Group Events / Swaps, TRSM Free Store Program, and Event Borrowing Program), textiles (sustainable fashion initiative, Creative School Textiles, Branded Materials Transition Project, Waste Nook Fabrics, Urban Farm, Moslin Reuse Program Repair workshop, etc.).
- **Office Supplies Reuse Program** - Hanging folders, binders, ink and toner, pen recycling campus book program, textbooks for change program, etc are consolidated by staff into dedicated areas or donation bins and/or collected in dedicated areas for pick up by a contractor
- **Electronic Waste, Batteries, Lightbulbs, Fluorescent Tubing** - is consolidated to be picked up for diversion from landfill
- **Paper Archive/Digitization** - paper documents are converted to digital format

- **Yard Waste** - yard waste is collected separately and diverted from landfill
- **Cooking Oil** - is picked up by a dedicated contractor.
- **Acrylic, Styrene and ABS** - is collected separately by contractors and diverted from landfill.
- **Friendlier Food Program** - Food packaging from within the campus is a part of the 'Friendlier Container Program And varying bins are placed throughout the campus to re-capture the packaged material to be consolidated and sent back to the supplier.
- **Lab Glass** - is consolidated to be picked up for diversion from landfill
- **Construction and Demolition** - is consolidated to be picked up for diversion from landfill

Sustainability Policies and Incentives at TMU

There are numerous campaigns and events promoting zero waste initiatives. Recently, TMU launched a **campus-wide waste sorting campaign**, installing over **250 Waste Wizard** signs at disposal points to help community members correctly sort waste. TMU also maintains a consistent social media presence through **Waste Wizard Wednesdays** to reinforce waste reduction behaviors.

TMU Eats has increased its reusable cup discount from **\$0.10 to \$0.25** and participates in the Friendlier Container Program to encourage the use of reusable takeout containers. **TMU Eats has also switched all of its pre-packaged foods to the Friendlier Container Program.**

Additionally, TMU hosts annual sustainability campaigns such as **Earth Day, Circular Economy Month and Plastic Free July**. TMU recently partnered with the Digital Media Experience Lab to implement a **Repair Workshop**, promoting the repair and reuse of electronics and other items.

TMU also has a Sustainable Purchasing Guideline that encourages staff to prioritize reduction and reuse before making new purchases. To further support this, TMU runs a Furniture Rehome Program for staff and faculty to share surplus items for free. This initiative has made a significant contribution to diverting furniture and other materials from landfills.

Specialty Committees at TMU

There is a **Climate Change and Sustainability Advisory Group** composed of 21 key stakeholders, including senior leadership, faculty, student representatives, and staff members. In addition to this committee, TMU has a dedicated **Zero Waste and Circularity Subcommittee** focused on achieving our goal of zero waste by 2035. This subcommittee includes representatives from across the university to ensure that waste reduction goals are integrated into decision-making and processes while driving on-the-ground efforts across campus.

Hazardous Waste at TMU

Hazardous waste generators within the university submit a waste request to Environmental Health and Safety (EHS) to arrange and coordinate the disposal of their hazardous waste. The disposal of hazardous waste is conducted through approved vendors, certified by the Ontario Ministry of Environment, for both chemical and biohazardous waste. We ensure compliance with hazardous waste regulations across all waste-generating streams.

The Chemical Safety Program is in compliance with the Occupational Health and Safety Act (OHSA) and the Workplace Hazardous Materials Information System (WHMIS).

EHS has developed multiple tools to assist supervisors and users in managing chemical hazards. One of these tools is the Chemical Safety Manual, which is available to all TMU students, faculty, and staff. This manual provides health and safety information covering the entire lifecycle of chemicals stored on site. It includes guidance on delivery, inventory, labeling, use, storage, record-keeping, and disposal. The manual also outlines the university's procedures for working with chemicals and defines the roles and responsibilities of supervisors, employees, and students who handle chemicals as part of their duties.

As part of our safety protocols, the Chemical Safety Manual encourages individuals to, where possible, eliminate or substitute chemicals with less hazardous alternatives, in accordance with the hierarchy of controls outlined in the manual.

The waste diversion programs and associated annual generated quantities (in metric tonnes) are provided below.

Table 5: Waste Diversion Programs and Annual Waste Quantities (MT)

Waste Stream	Annual Quantity (MT)	%
Landfill	1,004.94	62.88%
Cardboard	125.73	7.87%
Organics	73.75	4.61%
Paper Shredding	71.97	4.50%
Used Furniture / Donations	68.00	4.26%
Mixed Recycling	64.86	4.06%
Scrap Metal	49.00	3.07%
Scrap Wood	41.33	2.59%
Yard Waste	32.00	2.00%
Textiles	22.65	1.42%
E-Waste	13.17	0.82%
Free Store	7.88	0.49%
Construction & Demolition	6.81	0.43%
Paper Towels/Compostable Fibres	4.05	0.25%
Food /Food Services	2.88	0.18%
Batteries	2.71	0.17%
Yard Waste (Dirt)	2.66	0.17%
Acrylic, styrene and ABS	1.50	0.09%
Office Supplies	1.14	0.07%
Fluorescent Tubes	1.03	0.06%
Lightbulbs	0.03	0.00%
Electronic Waste	0.01	0.00%
Total	1,598.10	100.00%

A total of 1,598.1 MT of waste material was generated at the Site. Photos of the receptacles and bins are provided in Appendix F.

6.0 Performance Metrics

TMU has a goal of becoming a **zero waste campus by 2035**, and TMU has created several guidelines to support this goal. Our **Sustainable Building Guidelines** require that materials meet specific sustainability criteria, including the use of a certain percentage of **recycled materials** and considerations for the **end-of-life management** of products to ensure responsible waste disposal.

Additionally, TMU is collaborating with the Finance team to incorporate sustainability considerations into **100% of our bid evaluations**, ensuring that the materials and products TMU purchases are sustainable and align with our long-term waste reduction goals.

Furthermore, TMU recently signed on with **Amazon Sustainability**, which encourages the purchase of products made from recycled materials and those certified with **Cradle-to-Cradle**, **FSC**, and other highly recognized sustainability certifications. This initiative aligns with our commitment to sustainability.

TMU also encourages staff and faculty to follow the **Sustainable Purchasing Guidelines** when making purchases, prioritizing products with recycled content and ensuring they adhere to responsible waste management practices. Furthermore, TMU promotes the **Furniture Rehome Program** (which is not limited to furniture) as a resource for staff to share or repurpose items, reducing the need for new purchases and supporting the reuse of existing materials.

There are plans to increase the requirements for recycled or reused materials in our bid evaluations. TMU is currently collaborating with our Finance team to assess how best to integrate these requirements. The extent to which materials or products will be required to consist of recycled or reused content will be determined on a **case-by-case basis**, depending on the type of product in question. This approach will ensure TMU remains flexible while advancing our sustainability goals.

Our desired targets for waste reduction and diversion for the upcoming years are as follows:

- By 2028, **TMU aims to achieve a waste diversion target of 60%.**
- By 2028, **TMU also aims to reduce waste generated on campus by 15%, compared to our baseline year of 2019.**

In order to be on the right track toward our long-term goals, TMU would like to achieve a 50% waste diversion rate by next year.

6.1 Waste Diversion Rate

Waste diversion is the percentage of waste materials that a facility diverts from landfills due to reducing, reuse and recycling (3Rs) programs versus the total amount of waste generated (3Rs plus landfill waste). The Ministry of the Environment, Conservation and Parks defines the Waste Diversion rate calculation as follows:

$$\text{Waste Diversion Rate} = \frac{\text{Total Waste Diverted (3Rs)}}{\text{Total Waste Generated}} \times 100$$

A summary of the annual diverted quantity is provided in the figure below.

Table 6: Annual Diverted Quantity

Landfill (MT)	Diverted (MT)	Total Generated (MT)	Waste Diversion
1,004.94	593.16	1,598.67	37.10%

The 2024 waste diversion rate of 37.1% is below the provincial objective of 60%.

6.2 Capture Rate

The capture rate is the proportion of divertible waste materials which are successfully diverted from disposal compared to the total amount of divertible waste materials generated. The capture rate is a measure of the effectiveness of existing recycling programs.

The Recycling Council of Ontario defines the Capture Rate calculation as follows:

$$\text{Capture Rate} = \frac{\text{Total Divertible Material Captured (3Rs)}}{\text{Total Divertible Material Generated}} \times 100$$

The Capture Rates for all divertible materials that are included in existing waste diversion programs at the Site are provided below.

Table 7: Capture Rates for Divertible Materials

Waste Stream	Estimated Annual Quantity Generated Through Garbage Stream (MT)	Total Diverted (MT)	Total Generated (MT)	Capture Rate
Mixed Recycling	369.95	24.54	394.49	6.2%
Paper Towels	326.30	25.70	352.00	7.3%
Organics	95.03	80.06	175.09	45.7%
Cardboard	4.13	126.00	130.14	96.8%
Paper Shredding	0.00	71.97	71.97	100.0%
Used Furniture / Donations	0.00	68.00	68.00	100.0%
Scrap Metal	5.06	49.34	54.39	90.7%
Scrap Wood	4.73	41.64	46.37	89.8%
Yard Waste	0.00	32.00	32.00	100.0%
E-Waste	0.00	13.17	13.17	100.0%
Free Store	0.00	7.88	7.88	100.0%
Construction & Demolition	0.00	6.81	6.81	100.0%
Food /Food Services	0.00	2.88	2.88	100.0%
Lightbulb/Batteries	0.01	2.74	2.75	99.6%
Yard Waste (Dirt)	0.00	2.66	2.66	100.0%
Acrylic, styrene and ABS	0.00	1.50	1.50	100.0%
Office Supplies	0.00	1.14	1.14	100.0%
Fluorescent Tubes	0.00	1.03	1.03	100.0%
Electronic Waste	0.23	0.03	0.25	9.9%
Total	805.43	559.08	1,364.52	41.0%

The overall **Capture Rate is 41%** based on 559.08 MT of diverted material generated through diversion programs and a total of 1,364.52 MT of potentially divertible material generated at the Site. Large quantities of mixed recyclables (369.95 MT), paper towels (326.3 MT) and organics (95.03 MT) were generated through the garbage stream.

7.0 Waste Audit Summary and Waste Reduction Work Plan

Refer to Appendix G for the Waste Audit Summary and the Waste Reduction Work Plan.

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

8.0 Findings and Conclusions

Based on the findings of the waste audit, the following conclusions can be made:

- Approximately 18% of the sample mass originated from the washrooms of the SLC building. The Kerr Hall building generated roughly 22% of the total sample mass.
- Paper towels (32.5%), LDPE #4 plastic film (11.4%), organics (9.3%), and fine paper (6.5%) had a combined mass which contributed to roughly 60% of the total sample mass.
- The garbage sample consisted primarily of paper towels generated from the SLC washroom (18.1% of total sample mass) and Kerr Hall building (4.3% of total sample mass).
- **Mandatory Recyclables** - the sample consisted of 86.1% Mandatory Recyclables, 2.72% Other Recyclables, and 11.18% Other (Non-Recyclable) material. A total of 112.37 MT of mandatory recyclables materials was generated in the garbage stream annually. Fine paper comprised roughly 58% (65.06 MT) of mandatory recyclable material generated annually in the garbage stream.
- **Other Recyclables** - a total of 865.24 MT of other recyclable materials was generated in the garbage stream annually. Paper towels comprised roughly 38% (326.3 MT) of other recyclable material generated in the garbage stream.
- **Waste Diversion Rate** - was calculated to be **37.10%** based on 593.16 MT of diverted waste and 1,598.67 MT of total waste produced annually.
- **Capture Rate** - the overall capture rate was **41%** based on 559.08 MT of diverted waste and 1,364.52 MT of potentially divertible material.

9.0 Recommendations

Based on the conclusions, the following recommendations are tied to the conclusions discussed in the previous section.

The Site diverts 37.10% of generated waste through existing programs (below the provincial objective of 60%). There are opportunities to further improve the waste diversion rate.

9.1 Improve Existing Waste Diversion Programs

Waste diversion and capture rates could be further improved by improving the following existing diversion programs.

Mandatory Recyclables:

- **Fine Paper** - roughly 65.06 MT of material is estimated to be generated annually through the waste stream. Diverting this material through the existing mixed recycling diversion program could **increase the waste diversion rate up to 4.07%** and **could increase the capture rate up to 16.49%** based on current waste quantities at the Site.
- **Aluminum** - roughly 24.64 MT of material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing mixed recycling diversion program could **increase the waste diversion rate up to 1.5%** based on current waste quantities at the Site.
- **Glass** - roughly 15.02 MT of material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing mixed recycling diversion program could **increase the waste diversion rate up to 0.94%** based on current waste quantities at the Site.
- **Steel Cans** - roughly 3.52 MT of material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing mixed recycling diversion program could **increase the waste diversion rate up to 0.2%** based on current waste quantities at the Site.
- **Cardboard** - roughly 4.13 MT of material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing cardboard diversion program could **increase the waste diversion rate up to 0.26%** based on current waste quantities at the Site.

Other Recyclables

- **Paper Towels** - roughly 326.3 MT of material is estimated to be generated annually through the garbage stream. Diverting this quantity through the existing paper towel diversion program could **increase the waste diversion rate by up to 20.42%** based on current waste quantities at the Site.
- **PP#5, PET #1, Kraft Paper/Other Fibres, Boxboard** - between 54 MT and 65 MT of this material is estimated to be generated annually through the waste stream. Diverting this quantity through the existing mixed recycling diversion program could **increase the waste diversion rate up to 15.1%** based on current waste quantities at the Site.
- **Organics** - roughly 93.17 MT of material is estimated to be generated annually through the garbage stream. Diverting this quantity through the existing organics diversion program could **increase the waste diversion rate by up to 5.83%** based on current waste quantities at the Site.

Review Signage/Bins

Placing clear signage with visuals/pictures directly above receptacles indicating the appropriate waste for each bin will encourage staff to source separately at the time of disposal. Signage with a simple message such as “Paper Towels Only” for paper towels bins or “Organics Only” for organics bins above each set of receptacles to encourage staff to place paper towel or organics in the appropriate dedicated receptacles could improve waste diversion and capture rates.

- At the **341-555 Yonge St.** building;
 - A review of the signage and bin counts dedicated to batteries in this building are recommended. As the flow study and site walk noted that batteries were seen disposed of in the bins but they were inadequate signage for this specialty program within the building. The waste audit found 0.02 kg of batteries improperly disposed.
 - A review of the ‘Friendlier Program’ bin counts within the building and adding additional bins to the high traffic area would limit contamination within the garbage or recycling stream bins in this building.

9.2 Review of Existing Programs and Disposal Processes

Based on the site walk, flow study and the audit results, the following recommendations are suggested;

- Observations at **325 Church Street** revealed a significant amount of wood mixed in with cardboard, garbage, and recycling bins. The waste audit found 9.54 kg of wood waste improperly disposed of.
- Within the **Engineering building** flow study audit, staff placed all bags of recycling, garbage, and organics into the same collection bin. At the time of disposal, some bags containing food waste (meant for organics) were incorrectly placed into the recycling bins.

Implement a system to flag heavily contaminated waste streams and misused bins (e.g., cardboard bins containing wood). This recommendation comes from a review of waste disposal processes and discussions with custodial staff. The flagging system will help custodial teams, and environmental management quickly identify and address contamination issues, improving overall waste management.

9.3 Promoting Culture

It is recommended to establish and maintain a committee that oversees waste reduction and sustainability and to promote a culture of waste diversion. Educate staff and students on the importance of waste diversion and communicate TMU’s goals for waste diversion and sustainability. Create a positive message around the benefits of waste diversion, and the role that the individual plays.

Engage with the custodial staff regularly on sorting behaviour, varying site issues and feedback to create a more open conversation around the movement of waste within the buildings.

Support and encourage the purchase and use of “environmentally friendly”, reusable or recyclable materials and packaging, and/or those that contain recycled content.

9.4 Continuous Monitoring and Process Improvement

Track year-over-year changes in waste diversion and capture rates and communicate progress to staff to encourage further participation/engagement from staff.

Continuous monitoring and reporting for this site annually and comparison with year-over-year changes would provide insight into trends, which can then be used as a basis for policy decisions regarding solid waste management for future projects. Further refinements to programs/processes can be made and adherence to provincial requirements can be achieved.

Appendices

Appendix A: List of Categories

Material Category	Description
1. Paper and Paper Products	
Fine Paper	Includes mixed fine papers, writing paper, office paper, copy paper, bills and statements, ad mail, lottery tickets, receipts, envelopes, promotional cards, promotional calendars, printed information found within packaged products, etc. Also includes softcover books, booklets, magazines, catalogues, calendars, flyers, and inserts.
Newsprint	Major daily and weekly newspapers and community newspapers. Does not include flyers and inserts.
Shredded Confidential Papers	Any paper that has been shredded.
Boxboard	Single layered paperboard and fibre board with no corrugation. Includes cereal boxes, shoe boxes, cores from toilet paper/paper towels/gift wrap, etc.
Kraft Paper	Kraft paper bags and wrap, grocery or retail bags, potato bags, some pet food bags, etc. Includes brown, white, and coloured kraft paper and bags. No bags with bonded plastic or foil lining.
Corrugated Cardboard	Waxed or unwaxed corrugated cardboard containers. Includes moulded pulp materials such as egg cartons, drink trays, other trays, etc.
Gable Top Containers	Polycoat containers with a gable-shaped top are used for milk, juice, some foods, etc.
Aseptic Containers	Tetra-pak type polycoat packaging containers used for juice, milk, some soups & broths, alternative milk beverages, alcoholic beverages, etc.
Composite Cans	Spiral wound cans with paper walls and plastic or metal tops or

	bottoms. Includes frozen juice, Pringles chips, dough, some raisins, etc.
2. Plastic	
#1 Polyethylene Terephthalate (PET)	All PET #1 plastics. Includes clear or coloured thermoform packaging, beverage bottles, non-beverage bottles used for food items and non-food items such as dish soap, shampoo, mouthwash, window cleaner, floor cleaner, etc. Does not include Black Plastics.
#2 High-Density Polyethylene (HDPE)	All HDPE #2 plastics. Includes natural and coloured bottles, jugs, and containers for beverages, food items, and non-food items such as laundry soap, shampoo, bleach, vinegar, pill bottles, etc. Does not include Black Plastics.
#4 Low-Density Polyethylene (LDPE) Films	All #4 LDPE plastic films. Includes soft "stretchy" PE plastic used for items such as produce bags, overwrap for water bottles, garbage bags, kitchen liners, blue or clear recycling bags, sandwich and freezer bags, etc. Does not include Black Plastics.
#5 Polypropylene (PP)	All #5 PP plastics. Includes clear and coloured food containers, jugs, jars, take-out beverage cups, bottles, and jars for food items, etc. Does not include Black Plastics.
#6 Non-Expanded Polystyrene (PS)	All Non-Expanded (rigid) #6 PS plastics. Includes clear or coloured rigid food trays, clamshells, cup lids, yogurt cups, CD and DVD cases only (no disk), etc. Does not include Black Plastics.
Other Recyclable Plastics (#3, 4, 7)	All other recyclable plastics (#3, 4, 7). Includes clear and coloured bottles, jugs, jars, and containers.
3. Glass/Metal	

Glass	All clear and coloured glass. Includes bottles and containers for food, beverages, cosmetics, toiletries, household pharmaceutical products, candle jars etc. Does not include non-recyclable glass such as windowpane glass, plates, drinking glasses, figures, or incandescent light bulbs.
Aluminum	All aluminum containers and foils. Includes food and beverage containers, rigid aluminum trays (pie plates, baking trays, etc.), empty aerosol containers, and containers for hair products, tubes, etc. Does not include full or partially full pressurized cans.
Steel	All steel containers. Includes food and beverage containers, empty spray cans (for cooking oil, whipped cream, etc.), and empty paint cans. Does not include full or partially full pressurized cans.
4. Organics	
Organic Food Waste	All edible and non-edible organic wastes that result from food items. Includes untouched and leftover bakery, meat & fish, dried food, fruits & vegetables, dairy, and other foods.
Other Organics	All other organic materials that do not result from food items. Includes yard waste, grass clippings, small wood waste, pet waste, diapers and sanitary products, certified compostable plastic bin liners, and other compostable papers.
Compostable Fibres	Paper towels, paper napkins, toilet paper, facial tissues, etc.
5. Operational Waste	
Other Metals	Scrap metals, copper pipes, hardware, etc. Includes multi-material items that are mainly metal.
Non-Treated Wood	Non-treated wood materials. Includes skids/pallets, wooden furniture, etc. Does not include branches, brush, or wood chips.

Batteries	All single-use and rechargeable batteries. Includes Alkaline-Manganese, Lithium, Silver Oxide, Zinc Air, Zinc-Carbon, etc.
Printer Toners	All ink cartridges and printer toners.
E-Waste	All Waste from Electrical and Electronic Equipment (WEEE). Anything that is battery-operated and/or can be plugged into an electrical outlet. Includes computer / IT equipment, telecom equipment, TV & audio equipment, small kitchen appliances, wires/chargers/adapters, cocks, gadgets, etc.
Plastic Strapping	All Plastic Strapping material. This material is used to bundle products together for retail sales and can come in various colours and plastic materials.
6. Non-Recyclable Waste	
Non-Recyclable/Garbage	All other non-recyclable waste materials are not classified elsewhere. Includes hazardous waste, coffee cups, black plastics, and expanded polystyrene, all described below. Includes chip bags, furnace filters, laminated papers, rigid or durable plastics, non-recyclable glass, dust, single-use cleaning wipes, single-use coffee pods, plastic straws and cutlery, materials too small to process, etc.
Hazardous Wastes	All hazardous wastes are not classified elsewhere. Includes full or partially full pressurized cans, paints, and oil containers. Also includes fluorescent light bulbs and tubes, medical sharps and syringes, mercury-containing devices, pharmaceuticals, antifreeze, fertilizers, solvents, pesticides, etc. Also includes all other liquid or non-liquid items with signal words such as "Poison", "Danger", "Warning", "Caution", and "Precautionary Statements".
Coffee Cups	All cups and containers used for hot/cold beverages and food with a plastic or wax lining. Multiple layered, primarily fibre, hot/cold food and beverage containers are common in the fast food industry.

	Includes paper-based cups with a plastic lining, water cooler cups, freezer boxes, etc.
Black Plastics	Includes all Black Plastics #1-7 and unmarked. It also includes rigid, durable, and expanded Black Plastics, as well as black plastic bags.
Expanded Polystyrene	Includes white, coloured, and black polystyrene foam packaging. Includes food trays, clamshells, etc. Also includes foam packaging "peanuts" and foam blocks used to protect boxed products.

Appendix B: Annual Request Form

Month	Organics	Mixed Recycling	Paper Towels	Cardboard	Wood	Batteries	Computer Components	Lighting	Fluorescent Tubes	E-Waste	Food /Food Services	Construction & Demolition	Acrylic, styrene and ABS	Office Supplies	Scrap metal	Textiles	Scrap Wood	Used Furniture / Donations	Free Store	Paper Shredding	Yard Waste (Dirt)	Yard Waste	Landfill	Total	Recycled	Diversion Rate
Jan-24	6.66	5.76	0.38	10.72	0.00	1.98	0.01	0.00	0.00	13.17	0.00	6.81	1.50	1.14	49.49	22.65	31.14	68.08	7.88	71.97	0.00	32.00	84.31	415.65	331.34	79.72%
Feb-24	5.76	5.40	0.38	10.16	1.23	0.00	0.00	0.00	0.00	0.00	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	87.75	113.56	25.81	22.73%
Mar-24	5.88	5.44	0.33	9.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.51	107.12	21.61	20.17%
Apr-24	6.96	5.90	0.38	10.84	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	95.10	120.73	25.63	21.23%
May-24	6.30	6.06	0.30	11.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	64.80	88.62	23.82	26.88%
Jun-24	5.40	4.96	0.30	9.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.09	105.03	19.94	18.99%
Jul-24	6.66	5.56	0.35	10.80	1.40	0.73	0.00	0.03	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	86.37	112.93	26.56	23.52%
Aug-24	5.76	5.40	0.30	10.16	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	88.13	111.50	23.37	20.96%
Sep-24	5.89	5.32	0.30	11.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	79.65	102.18	22.53	22.05%
Oct-24	6.10	5.42	0.38	10.75	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82.11	106.02	23.91	22.55%
Nov-24	6.58	4.84	0.35	10.59	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.52	112.98	23.46	20.76%
Dec-24	5.80	4.80	0.30	10.29	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.66	0.00	76.60	102.35	25.75	25.16%
Total	73.75	64.86	4.05	125.73	10.19	2.71	0.01	0.03	1.03	13.17	2.88	6.81	1.50	1.14	49.49	22.65	31.14	68.08	7.88	71.97	2.66	32.00	1004.94	1598.67	593.73	37.14%

*scrap metal, used furniture/donations, yard waste (dirt), paper shredding used the 2023 annual information as a basis.

Appendix C: Scale Calibration Certificate



CALIBRATION CERTIFICATE

DATE: October 18, 2024

SR # 24C107

CUSTOMER:

Waste Reduction Group
214 Merton St. #101
Toronto, ON M4S 1A6

REMARKS

This is to certify that the following scale has been tested and verified in relation to the Standards maintained by **CANADIAN SCALE COMPANY LIMITED**, with test weights traceable to the Legal Metrology Laboratories of, Industry Canada and National Research Council, Canada.

EWB - 150 Bench Scale

Capacity - 150 kg

S/N - 202208153

**CANADIAN SCALE COMPANY LIMITED is an
Authorized Service Provider of Measurement Canada**



Technician's signature



CANADIAN SCALE COMPANY LIMITED

305 Horner Avenue, Toronto, ON M8W 1Z4
1-800-461-0634 www.canscale.com

Detailed Waste Sample Composition by General Waste Category and Material (Note: higher intensity of blue highlighting indicates higher sample weight/percent)

wrg | waste reduction group Inc.
+416 823 4554 | admin@wastereductiongroup.ca

Appendix E: Estimated Annual Quantities Generated from Garbage Stream

Waste Sample Composition and Estimated Annual Quantities Generated in the Garbage Stream (Note: **blue** data bars indicate higher annual quantities)

O.Reg 103/94 Type	Estimated Annual Quantity Generated Through Garbage Stream (MT)	%
Other Recyclables	865.24	86.10%
Paper Towels/Compostable Fibres	326.30	32.47%
LDPE (#4) Plastic Films	114.25	11.37%
Organics	93.17	9.27%
PP #5	65.00	6.47%
PET #1	62.05	6.17%
Kraft Paper/Other Fibres	60.41	6.01%
Boxboard	53.92	5.37%
Coffee Cups	36.56	3.64%
Cold Beverage Wax-Lined Paper Cups	18.67	1.86%
Polystyrene #6	9.06	0.90%
Scrap Metal	5.06	0.50%
Aseptic Containers	5.00	0.50%
Scrap Wood	4.73	0.47%
HDPE Plastic Containers #2	2.87	0.29%
PPE	2.69	0.27%
Moulded Pulp	1.86	0.19%
Gable Top Containers	1.64	0.16%
Other Plastics #7	1.57	0.16%
Electronic Waste	0.23	0.02%
Composite Cans	0.20	0.02%
Batteries	0.01	0.00%
Bubble Wrap/Shrink Wrap	0.00	0.00%
Printer Toners	0.00	0.00%
Mandatory Recyclables	112.37	11.18%
Fine Paper	65.06	6.47%
Aluminum	24.64	2.45%
Glass	15.02	1.49%
Cardboard	4.13	0.41%
Steel Cans	3.52	0.35%
Newspaper	0.00	0.00%
Other Non-Recyclables	27.33	2.72%
Non-Recyclables	8.83	0.88%
Diapers	8.43	0.84%
Textiles	7.68	0.76%
Styrofoam	2.39	0.24%
Lightbulbs	0.00	0.00%
Plastic Strapping	0.00	0.00%
Total	1,004.94	100.00%

Appendix F: Site Photographs



Site Tour - typical 4-stream receptacle with clear signage and specific slot sizes to encourage separation of waste at source



Site Tour - Hallway garbage and recycling receptacles. Implementing 4-stream receptacles is recommended to encourage the separation of waste at the source.



Site Tour - Mixed paper dedicated receptacles



Site Tour - Cardboard Collection receptacles



Site Tour - Mixed paper dedicated receptacles



Site Tour - Hallway garbage and recycling



288 Church St - Coffee Cups



288 Church St Washrooms- Tissue/Towelling



60 Gould St- Avoidable Food Waste



60 Gould St- Small Wood Waste



285 Victoria St - #6 PS



*105 Bond St - Hazardous Waste



285 Victoria St Washrooms - # 5 PP



288 Church St. - Unavoidable Food Waste



288 Church St Washroom- PPE



325 Church St Hallway - Steel Cans



347 Yonge St - #5 PP



347 Yonge St - Avoidable Food Waste



350 Victoria St. LIB - #1 PET



350 Victoria St. POD - #6 PS Styrofoam



380 Victoria St. JOR - Boxboard



380 Victoria St. POD - Aluminum

Some of the photos are from hallways, classrooms, and/or common areas. *Including a hazardous bin in this building (per floor) is recommended if not already installed.

Appendix G: Report of A Waste Audit

Material	Total Generated Base Year (MT)	Total Generated Current Year (MT)	Generated Change	Diverted Base Year (MT)	Diverted Current Year (MT)	Diverted Change	Disposed Base Year (MT)	Disposed Current Year (MT)	Disposed Change
Acrylic, styrene and ABS	0.00	1.50	1.50	0.00	1.50	1.50	0.00	0.00	0.00
Aluminum	32.86	26.28	-6.58	7.06	1.63	-5.42	25.80	24.64	-1.16
Aseptic Containers	16.56	5.33	-11.23	3.56	0.33	-3.22	13.00	5.00	-8.00
Batteries	0.00	2.72	2.72	0.00	2.71	2.71	0.00	0.01	0.01
Boxboard	153.25	57.50	-95.75	32.91	3.58	-29.34	120.34	53.92	-66.42
Bubble Wrap/Shrink Wrap	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cardboard	129.82	130.14	0.32	115.45	126.00	10.55	14.37	4.13	-10.24
Coffee Cups	60.06	38.99	-21.07	0.00	2.43	2.43	60.06	36.56	-23.50
Cold Beverage Wax-Lined Paper Cups	29.12	19.91	-9.21	0.00	1.24	1.24	29.12	18.67	-10.45
Composite Cans	0.00	0.21	0.21	0.00	0.01	0.01	0.00	0.20	0.20
Construction & Demolition	0.00	6.81	6.81	0.00	6.81	6.81	0.00	0.00	0.00
Diapers	0.00	8.43	8.43	0.00	0.00	0.00	0.00	8.43	8.43
Electronic Waste	21.56	0.25	-21.31	12.46	0.03	-12.43	9.10	0.23	-8.88
E-Waste	0.00	13.17	13.17	0.00	13.17	13.17	0.00	0.00	0.00
Fine Paper	47.58	69.38	21.80	2.29	4.32	2.02	45.28	65.06	19.78
Fluorescent Tubes	0.00	1.03	1.03	0.00	1.03	1.03	0.00	0.00	0.00
Food /Food Services	0.00	2.88	2.88	0.00	2.88	2.88	0.00	0.00	0.00
Free Store	0.00	7.88	7.88	0.00	7.88	7.88	0.00	0.00	0.00
Gable Top Containers	3.38	1.74	-1.64	0.73	0.11	-0.62	2.66	1.64	-1.02
Glass	20.53	16.01	-4.52	4.41	1.00	-3.41	16.12	15.02	-1.11
HDPE Plastic Containers #2	5.87	3.07	-2.81	1.26	0.19	-1.07	4.61	2.87	-1.74
Kraft Paper/Other Fibres	55.64	64.42	8.78	2.68	4.01	1.33	52.96	60.41	7.45
LDPE (#4) Plastic Films	45.50	121.83	76.34	0.00	7.58	7.58	45.50	114.25	68.76
Lightbulbs	4.13	0.03	-4.10	4.13	0.03	-4.10	0.00	0.00	0.00
Moulded Pulp	0.00	1.99	1.99	0.00	0.12	0.12	0.00	1.86	1.86
Newspaper	0.58	0.00	-0.58	0.03	0.00	-0.03	0.55	0.00	-0.55
Non-Recyclables	95.71	8.83	-86.87	0.00	0.00	0.00	95.71	8.83	-86.87
Office Supplies	0.00	1.14	1.14	0.00	1.14	1.14	0.00	0.00	0.00
Organics	204.37	173.10	-31.27	83.68	79.93	-3.75	120.69	93.17	-27.52
Other Plastics #7	0.00	1.67	1.67	0.00	0.10	0.10	0.00	1.57	1.57
Paper Shredding	63.97	71.97	8.00	63.97	71.97	8.00	0.00	0.00	0.00
Paper Towels/Compostable Fibres	214.52	352.00	137.47	2.88	25.70	22.82	211.64	326.30	114.65
PET #1	75.94	66.16	-9.78	16.31	4.12	-12.19	59.63	62.05	2.42
Plastic Strapping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polystyrene #6	15.11	9.66	-5.45	3.25	0.60	-2.64	11.87	9.06	-2.81
PP #5	103.93	69.31	-34.61	22.32	4.31	-18.01	81.61	65.00	-16.60
PPE	6.08	2.86	-3.22	0.00	0.18	0.18	6.08	2.69	-3.40
Printer Toners	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Scrap Metal	42.01	54.39	12.38	39.22	49.34	10.12	2.80	5.06	2.26
Scrap Wood	44.37	46.37	2.00	31.14	41.64	10.50	13.23	4.73	-8.51
Steel Cans	0.00	3.75	3.75	0.00	0.23	0.23	0.00	3.52	3.52
Styrofoam	0.23	2.39	2.15	0.00	0.00	0.00	0.23	2.39	2.15
Textiles	4.40	30.33	25.93	0.00	22.65	22.65	4.40	7.68	3.28
Used Furniture / Donations	33.58	68.00	34.42	33.58	68.00	34.42	0.00	0.00	0.00
Yard Waste	0.00	32.00	32.00	0.00	32.00	32.00	0.00	0.00	0.00
Yard Waste (Dirt)	0.88	2.66	1.78	0.88	2.66	1.78	0.00	0.00	0.00
Total	1,531.56	1,598.10	66.54	484.19	593.16	108.97	1,047.37	1,004.94	-42.43

Appendix H: Report of A Waste Reduction Work Plan

Material	Waste Stream	Disposed Current Year (MT)	Diverted Current Year (MT)	Total Generated Current Year (MT)	Diverted Rate
Paper Towels/Compostable Fibres	Paper Towels	326.30	25.70	352.00	7.3%
Organics	Organics	93.17	79.93	173.10	46.2%
Cardboard	Cardboard	4.13	126.00	130.14	96.8%
Paper Shredding	Paper Shredding	0.00	71.97	71.97	100.0%
Fine Paper	Mixed Recycling	65.06	4.32	69.38	6.2%
PP #5	Mixed Recycling	65.00	4.31	69.31	6.2%
Used Furniture / Donations	Used Furniture / Donations	0.00	68.00	68.00	100.0%
PET #1	Mixed Recycling	62.05	4.12	66.16	6.2%
Kraft Paper/Other Fibres	Mixed Recycling	60.41	4.01	64.42	6.2%
Boxboard	Mixed Recycling	53.92	3.58	57.50	6.2%
Scrap Metal	Scrap Metal	5.06	49.34	54.39	90.7%
Scrap Wood	Scrap Wood	4.73	41.64	46.37	89.8%
Yard Waste	Yard Waste	0.00	32.00	32.00	100.0%
Aluminum	Mixed Recycling	24.64	1.63	26.28	6.2%
Glass	Mixed Recycling	15.02	1.00	16.01	6.2%
E-Waste	E-Waste	0.00	13.17	13.17	100.0%
Polystyrene #6	Mixed Recycling	9.06	0.60	9.66	6.2%
Free Store	Free Store	0.00	7.88	7.88	100.0%
Construction & Demolition	Construction & Demolition	0.00	6.81	6.81	100.0%
Aseptic Containers	Mixed Recycling	5.00	0.33	5.33	6.2%
Steel Cans	Mixed Recycling	3.52	0.23	3.75	6.2%
HDPE Plastic Containers #2	Mixed Recycling	2.87	0.19	3.07	6.2%
Food /Food Services	Food /Food Services	0.00	2.88	2.88	100.0%
Batteries	Lightbulb/Batteries	0.01	2.71	2.72	99.6%
Yard Waste (Dirt)	Yard Waste (Dirt)	0.00	2.66	2.66	100.0%
Moulded Pulp	Organics	1.86	0.12	1.99	6.2%
Gable Top Containers	Mixed Recycling	1.64	0.11	1.74	6.2%
Other Plastics #7	Mixed Recycling	1.57	0.10	1.67	6.2%
Acrylic, styrene and ABS	Acrylic, styrene and ABS	0.00	1.50	1.50	100.0%
Office Supplies	Office Supplies	0.00	1.14	1.14	100.0%
Fluorescent Tubes	Fluorescent Tubes	0.00	1.03	1.03	100.0%
Electronic Waste	Electronic Waste	0.23	0.03	0.25	9.9%
Composite Cans	Mixed Recycling	0.20	0.01	0.21	6.2%
Lightbulbs	Lightbulb/Batteries	0.00	0.03	0.03	100.0%
Newspaper	Mixed Recycling	0.00	0.00	0.00	0.0%
Printer Toners	Printer Toners	0.00	0.00	0.00	0.0%