Waste Audit Report

Prepared for:

Mohawk College, Fennell Campus
135 Fennell Avenue West
Hamilton, ON
L9C 0E5

Prepared by:

Evelina Wolejszo
Environmental Specialist
GFL Environmental Inc.
3525 Mavis Road
Mississauga, ON
L5C 1T7

T. 647-273-3022
E. ewolejszo@gflenv.com

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EXECUTIVE SUMMARY

Mohawk College retained GFL Environmental Inc. to conduct a solid, non-hazardous waste audit for the college campus, located at 135 Fennell Avenue West in Hamilton, Ontario. A point of generation waste audit was performed for Mohawk College, Fennell Campus on September 29, 2020.

PURPOSE

The purpose of the waste audit was to identify, quantify and analyze the composition of the waste stream and to ensure compliance with the requirements outlined in the Ministry of the Environment Ontario (MOE) Regulations 102/94 and 103/94.
By conducting a Point of Generation waste audit (POG), Mohawk College will aim to identify waste generation habits and trends based on specific areas (wings) of the college. The results from the waste audit will aid in identifying where the biggest contamination rates are generated, specifically with recyclables being disposed of improperly into the landfill waste disposal containers and not diverted into the recycling collection containers. The audit will also determine the amount of products that are generated and deposited into the landfill waste stream that are unavoidable waste items. Identifying these items will continue to assist with purchasing strategies, and making environmentally conscious choices that will minimize the impact the college has on the environment.

AUDIT METHODOLOGY

To collect an appropriate sample of waste for the audit, the custodial team collected bags of material from predetermined collection points throughout the campus, and labelled each bag indicating where the bag was removed from. All labelled bags were brought to a designated location outdoors by the waste compactor for the on-site waste audit. After a 24-hour collection period, the GFL Environmental Inc. team received the waste sample and conducted the audit and analysis of the landfill waste stream on site. An overall survey was completed by the GFL Environmental Inc. audit team; bags of waste material were opened and separated into commodity type (paper, plastic, metal, glass, organic and 'other') and the resulting sub categories (as listed in *Appendix I*, page 28). Each commodity type and sub category was weighed individually and photographs were taken for inclusion in the waste audit report.

WASTE AUDIT RESULTS

The information contained in this waste audit report was gathered from the on-site point of generation waste audit, discussions with Mohawk College- Fennell Campus personnel, and an analysis of the current waste management handling practices used on site at the facility. The figure below displays the total projected annual waste categories as represented from the materials analyzed in the audit.

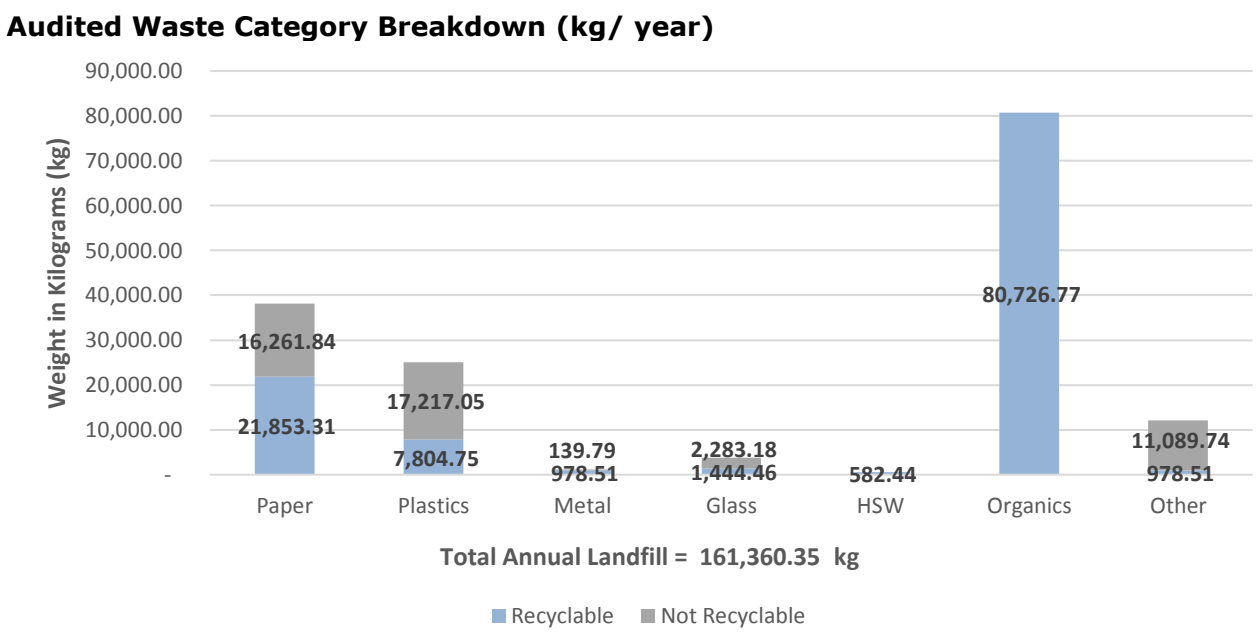


Figure 1 Audited Waste Category Breakdown (kg/ year)

Total Materials Recycled and Sent to Landfill

Material Destination	Annual Total		
	KILOGRAMS (kg)	METRIC TONNES (t)	PERCENTAGE (%)
Landfill Waste	161,360.35	161.36	22.22
Recycled	275,754.24	275.75	63.09
TOTAL GENERATED	**437,114.59**	**437.11**	**100.00**

DIVERSION RATE

The 2020 waste diversion rate for Mohawk College- Fennell Campus is **63.09%,** as shown calculated on page 17 of this report.

RECOMMENDATIONS

Based on the waste audit findings, the top areas of focus should be on initiatives driven towards:

- **Improving signage:** Implementing clear and consistent signage will allow for a better understanding of and participation in the program.
- **Improving existing recycling programs:** The following recyclable materials were found during the waste audit, among the landfill waste sample: paper, plastic, metal, organics, batteries, ink cartridge, electronic waste, and 'other' materials. By diverting these recyclable materials away from landfill, Mohawk College, Fennell Campus could potentially divert 114,368.75 kg from landfill annually.
- **Training and education:** Educating visitors, tenants, employees, and students on a semi-annual basis will help improve and continue the success of the program.

POTENTIAL DIVERSION RATE

If the above recommendations are implemented, the potential diversion rate of Mohawk College, Fennell Campus could be **89.25%**. For full calculation of potential diversion rate, please refer to page 19 of this report.

STATEMENT OF LIMITATIONS

- The waste audit conducted at Mohawk College, Fennell Campus on September 29th, 2020, reflects all materials observed at the time of the audit for the 24-hour sample period;
- Waste audit methodology is based on industry standards as well as the waste auditing team's expertise in waste management. The majority of GFL Environmental Inc.'s waste auditors are 3R Certified through the Recycling Council of Ontario;
- Data is annualized in accordance with the Ministry of the Environment's reporting requirements. GFL Environmental Inc. cannot guarantee day-to-day generation produces the same quantities of materials;
- Analysis and recommendations are based on our observations, knowledge, judgement, industry best practices and consultations with the client; and
- Overall report and methodology have been designed to meet project objectives/ deliverables.

ANOMALIES

Anomalies are physical items or operational challenges (e.g. work events such as barbecues, scheduled special events, etc.) that would alter the typical composition of the waste stream as a one off occurrence. The anomalies found in Fennell Campus, Mohawk College's landfill waste sample include craft/camp materials, concrete planter, and sand and rocks. These items weighed 0.02 kg, 2.28 kg, and 1.52kg, respectively. These items were not included in this waste audit report.

Please note, due to the current COVID-19 pandemic, an increase of PPE material has been found in Fennell Campus' landfill waste audit sample. As precautions are continuously encouraged during this time, PPE is not considered an anomaly. PPE found in the waste stream at the Fennell Campus could amount to an annual total weight of 9,505.49 kg. These materials were included in the waste audit report.

TABLE OF CONTENTS

Table of Figures

1 INTRODUCTION

Mohawk College- Fennell Campus, retained GFL Environmental Inc. to conduct a solid, non-hazardous waste audit for the college campus, located at 135 Fennell Avenue West in Hamilton, Ontario. A point of generation waste audit was performed for the Mohawk College Fennell Campus on September 29, 2020.

Please note that due to the COVID-19 pandemic of 2020, the waste generated at Mohawk College-Fennell Campus has dropped, which is reflected in this report. The occupancy levels at any given time at this campus is approximately 33%, including students and staff. Students who require in-person instruction to graduate (i.e. trades classes, in-person assessments, laboratory use, etc.) are given priority until further notice, and only essential employees and contractors are authorized on campus. Additionally, some engagements aimed to increase diversion at Mohawk College-Fennell Campus have been on hold due to the COVID-19 pandemic. This may contribute to a decreased diversion rate at this location.

The overall purpose of the waste audit is to identify, quantify and analyze the composition of the landfill waste stream to ensure compliance with the requirements outlined in the Ministry of the Environment Ontario (MOE) 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 entity;
- 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.

Waste audits are also used to determine:

- The ability to reduce, reuse and recycle materials from the existing waste stream;
- Identify the overall diversion rates for all recyclable materials;
- Identify further opportunities for greater diversion, and;
- Pinpoint new recycling opportunities, and to enhance and strengthen the existing recycling initiatives currently in place.

This analysis aids the formation of a Waste Reduction Work Plan; a plan to go forward with a successful diversion program, drawing from the audit results and the subsequent diversion recommendations made by GFL Environmental Inc., in partnership with input and insight from Mohawk College.

2 AUDITEE PROFILE AND PROJECT SCOPE

The following section provides contextual information regarding Mohawk College- Fennell Campus and the waste audit that was completed for the college campus on September 29, 2020.

Mohawk College, Fennell Campus is a post-secondary education facility located at 135 Fennell Avenue West in Hamilton, Ontario. Mohawk College has approximately 13,000 full time students, including 3,000 international students, 4,000 apprentices and more than 20,000 continuing education students. Fennell Campus also includes a state of the art fitness center and gymnasium, an on-site pub, and cafeteria.

2.2 CURRENT WASTE MANAGEMENT PROGRAM

The Fennell Campus currently has programs in place for landfill waste, cardboard, mixed (commingled) recycling, organics recycling, scrap metal, electronic waste recycling, battery, and shredding recycling. The table below describes the containers used on site and the service schedule for each material stream.

Material Stream	Container	Service Schedule	Hauler
Landfill Waste	1 x 35 yard compactor	Serviced once (1) per week	GFL Environmental Inc.
Landfill Waste	1 x 3 yard bin	On-call service	GFL Environmental Inc.
Landfill Waste	1 x 40 yard bin	On-call service	GFL Environmental Inc.
Cardboard	1 x 8 yard bin	Serviced once (1) per week	GFL Environmental Inc.
Mixed Paper	1 x 8 yard bin	Serviced once (1) per week	GFL Environmental Inc.
Mixed (Commingled) Recycling	16 x 95 gallon totes	Serviced once (1) per week	GFL Environmental Inc.
Organics	7 x 32 gallon totes	Serviced once (1) per week	Davidson Environmental
Scrap Metal	Third-Party	On-call service	Third Party
Electronic Waste Recycling	Third-Party	On-call service	Quantum Lifecycle Partners LP
Battery Recycling	Third-Party	On-call service	Raw Materials Company
Shredding Recycling	Third-Party	On-call service	-

3 WASTE AUDIT METHODOLOGY

3.1 AUDIT PROCEDURE

To collect an appropriate sample of waste for the audit, the custodial team collected bags of material from predetermined collection points throughout the campus (Wing A-C, E, EA, F, G, H, J, N, R, and South Cafeteria). Bags of materials were affixed with pre-printed labels by designated staff, indicating the location. Custodial staff were instructed to bring all bags to a designated location by the waste compactor.

After a 24-hour collection period, the GFL Environmental Inc. team arrived on site, received the landfill waste sample, and conducted the audit and analysis of the landfill waste stream. An overall survey was completed by the GFL Environmental Inc. audit team; bags of waste material were opened and separated into commodity type (paper, plastic, metal, glass, organic and 'other') and the resulting sub categories (as listed in Appendix I, page 28). Each commodity type and sub category was weighed individually and photographs were taken for inclusion in the waste audit report.

3.2 AUDITOR PROFILE

Faye Wood, Christy Jamieson, and Evelina Wolejszo were the lead auditors who conducted the audit organization, preparation and supervision; Faye, Christy, and Evelina are all 3R Certified auditors through the Recycling Council of Ontario (RCO). The lead auditors were assisted by Katie McMillan during the waste audit for Mohawk College- Fennell Campus.

3.3 COMMODITIES SORTED

The following is a list of commodities categories. The major categories of commodities sorted are paper, plastic, metal, glass, household special waste, organics, and other materials. Within these major categories are subcategories, and these help to further sort the commodities.

Paper	
Newspaper	Non-glossy; colour flyers, daily papers
Magazines	Glossy; magazines and cataglogues
Cardboard	Corrugated cardboard boxes and tubes
Boxboard	Thin paper board boxes (cereal, crackers, tissue, etc.)
Mixed paper	Printer paper, envelopes
Molded pulp	Egg cartons, take-out beverage trays
Other paper	Cold beverage cups, layered paper envelopes, waxed papers, etc.
Coffee cups	Take-out, non-styrofoam paper coffee cups
Spiral Wound Containers	Pringles cans, concentrated juice cans, etc.
Gable Top Containers	Milk and juice cartons
Aseptic (Tetra) Containers	Juice boxes, wine cartons, etc.
Plastic	
#1 PET	Single-use water, juice and pop bottles; clear clamshells, take-out packaging, food packaging and bottles
#2 HDPE	Bottles and jugs, buckets, tubs, bags, etc.
#3 PVC	Clamshell packaging

#4 LDPE	Bags, bottles, tubs and containers
#5 PP	Cups and take-out packaging, jugs and tubs
#6 Styrofoam	Take out styrofoam containers
#6 Styrofoam (Packaging)	Styrofoam peanuts, block packaging
#6 Rigid	Coffee cup lids, cups, clamshells, take-out food packaging, etc.
#7 Other	Durable containers, packaging
Rigid Plastic	Pens, tooth brushes, gift gards, straws, cutlery, etc.
Plastic Strapping	Plastic binding for newspapers, packages, etc.
Metal	
Aluminum cans	Pop and juice cans
Aluminum foil	Foil wrap
Aluminum trays	Catering trays, pie plates, etc.
Aerosal cans	Hair spray, paint, compressed air, etc.
Steel cans	Large soup cans
Scrap metal	Wire hangers, nuts and bolts, metal cookie tins, metal strapping
Glass	
Clear/ Coloured	Clear and coloured glass food and beverage packaging
Liquor Bottles	Refundable containers
Other glass	Ceramics, cups, plates, mirrors, window glass, non-LED or fluorescent lightbulbs
Household Special Waste (HSW)	
Batteries	All types
Toner cartridges	Printer toner cartridges
Chemicals/ Liquids	Paints, solvents, oils, etc.; cosmetics, lotions, healthcare products, etc.
E-Waste	Electronics, small appliances, phones, computer equipment, cables, etc.
Lightbulbs	Fluorescent tubes, LED
Organics	
Food waste	All food scraps, peels, bones, skin, pits, coffee grounds and filters, tea bags
Tissue/ Toweling	Facial tissue, napkins, paper towel
Beverage liquids	Water, coffee, pop, juice, soup, etc.
Compostable Ware	Compostable packaging, coffee cups, cutlery; wooden stir sticks, bamboo serveware, wooden chopsticks, etc.
Plants and Flowers	Flowers, potted plants, dead leaves
Other Materials	
Other	Many different other materials are found in audit samples. Additional notes and subcategories are to be recorded on the waste audit sorting sheet.

Note: Commodities sorted consists of materials found in the audit. However, additional materials known to be generated at the facility may not have been in the audit sample. The additional materials have been included in the audit results as part of the diversion program in place.

3.4 METHOD OF ANNUALIZATION

The Mass Ratio Method was used when calculating the mass of materials generated for the entire year at the Mohawk College Fennell Campus. This is the more useful and preferred method when annual waste and recycling records are deemed accurate and verifiable. The Mass Ratio Method formula is as follows:

$$m = \left(\frac{T_s}{T_c}\right)(T_t) + T_r$$

m = total annual mass of each material. Note that this should be calculated for each category of waste and for each method of disposition (reuse, recycling and disposal.)

Ts = total material generated in a specific category found in the audit sample.

Tc = total mass of all materials found in the audit sample with a specific method of disposition (reuse or recycling or disposal.) For materials analyzed during the audit, there will likely be a different value of Tc for all materials sent for disposal, for all materials sent for reuse, and for all materials sent for recycling during the sampling period.

Tt = total annual mass of material, substantiated by records, per container. For example, a site may have records for each haul of a 40-yard bin of waste. Therefore, Tt for this container would be the sum of the mass of all hauls that year for that container.

Tr = annual mass per category of materials of items not found in the audit sample for which there are records or reasonable estimates. These would be materials that would not have been found in the audit sample but are a regularly generated waste stream, such as furniture or wood pallets offered for external reuse. This is quantified and substantiated by records kept by the auditee. These materials should be accounted for in the final calculation.

4 WASTE AUDIT RESULTS

Based on the waste audit sample, the total amount of materials generated and disposed of in the waste stream at the Fennell Campus is estimated to be 453.26 kilograms (kg) or 0.45 metric tonnes (t) during a 24-hour period or 161,360.35 kg (161.36 t) annually.

From the audited waste sample, organic materials represent 50.03%; paper materials represent 23.62%; plastic materials represent 15.51%; 'other' materials represent 7.48%; glass materials represent 2.31%; metal materials represent 0.69% and HSW materials represent 0.36% of the total annual waste disposed and sent to landfill.

Total Annual Waste Generated 2020*

COMMODITY CATEGORY	KILOGRAMS (kg)	PERCENTAGE (%)
Organics	80,726.77	50.03
Paper	38,115.15	23.62
Plastics	25,021.80	15.51
'Other'	12,068.24	7.48
Glass	3,727.64	2.31
Metal	1,118.29	0.69
HSW	582.44	0.36
TOTAL	**161,360.35**	**100.00**

Total Annual Waste Stream Composition 2020*

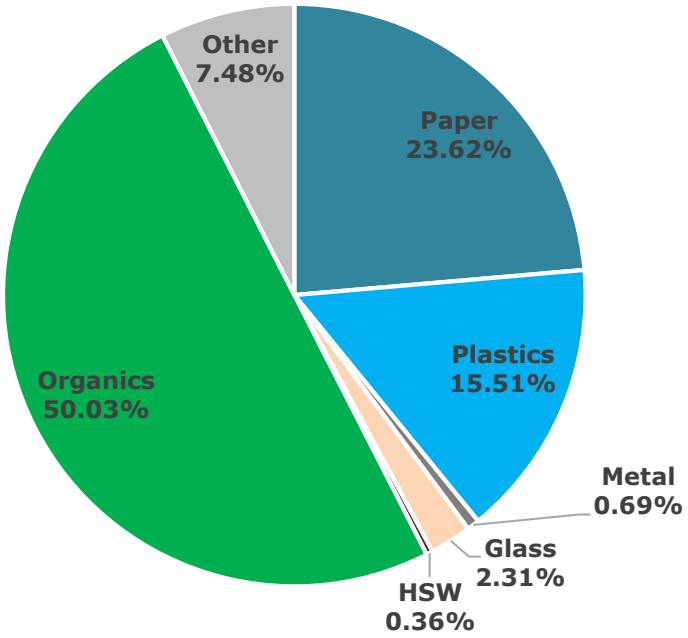


Figure 2 Annual Waste Stream Composition 2020

**Figures are based on 24-hour waste audit sample. Annual projection is based on number of operational days.*

Categorical Waste Composition

The following tables and graphs illustrate the composition breakdown of the audited waste sample from Mohawk College- Fennell Campus at 135 Fennell Avenue West. Seven (7) commodity categories were audited: paper, plastic, metal, glass Household Special Waste (HSW), organics and 'other' materials. Materials were found in all commodity categories.

Total Annual Paper Materials Generated (kg/yr)

GENERATING AREAS	Newspaper	Magazines	Cardboard	Boxboard	Mixed Papers	Molded Pulp	Kraft Paper	Other Paper	Spiral Wound	Coffee Cups	Aseptic Containers	Gable Top Containers	TOTAL PAPER
Wing C	-	-	23.30	1,397.87	2,446.27	326.17	232.98	6,756.35	-	2,376.37	46.60	-	**13,605.90**
Wing F	-	-	4,799.34	419.36	1,537.65	93.19	-	3,401.47	-	232.98	46.60	93.19	**10,623.78**
Wing E	232.98	-	93.19	232.98	675.64	-	69.89	2,166.69	46.60	559.15	93.19	69.89	**4,240.19**
Wing G	-	1,211.48	93.19	232.98	279.57	-	93.19	419.36	-	23.30	46.60	46.60	**2,446.27**
Wing A	-	-	-	279.57	46.60	-	-	1,677.44	-	139.79	23.30	-	**2,166.69**
Wing J	-	-	-	139.79	838.72	-	139.79	652.34	-	232.98	93.19	-	**2,096.80**
Wing B	-	-	-	139.79	46.60	-	698.93	46.60	-	279.57	-	-	**1,211.48**
South Cafeteria	-	-	-	46.60	-	-	23.30	326.17	-	139.79	46.60	-	**582.44**
Wing R	-	-	-	-	23.30	-	93.19	232.98	-	186.38	-	-	**535.85**
Wing EA	-	-	-	-	-	-	-	465.96	-	23.30	-	-	**489.25**
Wing H	-	-	-	-	46.60	-	-	46.60	-	-	-	-	**93.19**
Wing N	-	-	-	-	-	-	-	23.30	-	-	-	-	**23.30**
TOTAL	**232.98**	**-**	**116.49**	**1,957.01**	**3,238.39**	**326.17**	**419.36**	**11,695.48**	**46.60**	**3,424.77**	**209.68**	**69.89**	**38,115.15**
	0.61%	**0.00%**	**0.31%**	**5.13%**	**8.50%**	**0.86%**	**1.10%**	**30.68%**	**0.12%**	**8.99%**	**0.55%**	**0.18%**	**100.00%**

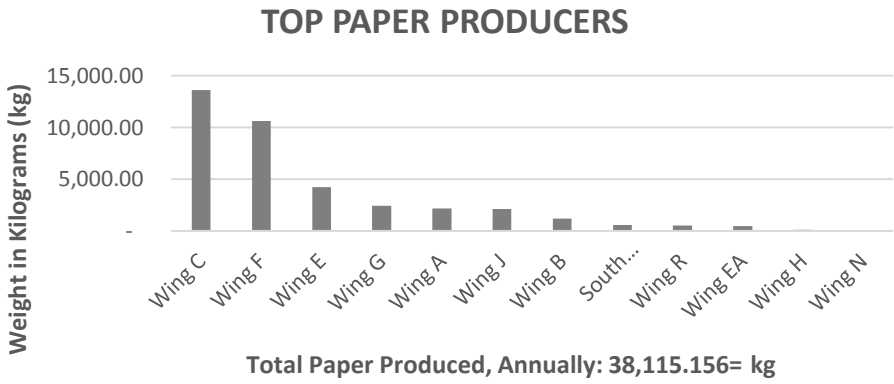


Figure 3 Total Annual Paper Materials Generated (kg/yr)

The figure above shows the amount of paper materials generated, per area. The top two (2) highest producing areas include Wing C generating 13,605.90 kg per year, and Wing F, generating 10,623.78 kg per year.
Mixed paper and cardboard material are the highest generated recyclable materials of all paper generated and disposed as waste. It is important to keep these materials dry and free of contamination. This may include separating coffee cups from other recyclable paper materials, due to potential beverage liquid contaminants in coffee cups.

Total Annual Plastic Materials Generated (kg/yr)

GENERATING AREAS	# 1 PETE Soft Drinks	# 2 HDPE	# 3 PVC	# 4 LDPE Recyclable Film	# 5 PP	# 6 PS (Styrofoam)	# 6 PS (Clear/ Hard)	# 7 Other	Non-Recyclable Film	Rigid Plastics	Plastic Strapping	TOTAL PLASTICS
Wing C	1,188.19	931.91	-	-	279.57	46.60	698.93	23.30	6,802.95	605.74	-	**10,577.19**
Wing F	978.51	-	-	-	279.57	23.30	93.19	-	3,308.28	163.08	23.30	**4,869.23**
Wing E	605.74	326.17	-	-	465.96	69.89	186.38	-	1,281.38	69.89	-	**3,005.41**
Wing G	512.55	-	-	-	23.30	-	-	-	1,351.27	186.38	-	**2,073.50**
Wing B	232.98	-	-	-	23.30	-	46.60	-	1,071.70	46.60	-	**1,421.16**
Wing A	93.19	-	-	-	139.79	-	23.30	-	885.32	46.60	-	**1,188.19**
Wing J	232.98	46.60	-	-	-	-	46.60	-	745.53	23.30	-	**1,095.00**
South Cafeteria	93.19	-	-	-	-	-	46.60	-	186.38	23.30	-	**349.47**
Wing R	-	-	-	-	116.49	-	23.30	-	116.49	-	-	**256.28**
Wing EA	-	-	-	-	-	-	23.30	-	93.19	-	-	**116.49**
Wing H	-	-	-	-	-	-	46.60	-	23.30	-	-	**69.89**
Wing N	-	-	-	-	-	-	-	-	-	-	-	**-**
TOTAL	**3,937.32**	**1,304.68**	**-**	**-**	**1,327.97**	**139.79**	**1,234.78**	**23.30**	**15,865.78**	**1,164.89**	**23.30**	**25,021.80**
	15.74%	**5.21%**	**0.00%**	**0.00%**	**5.31%**	**0.56%**	**4.93%**	**0.09%**	**63.41%**	**4.66%**	**0.09%**	**100.00%**

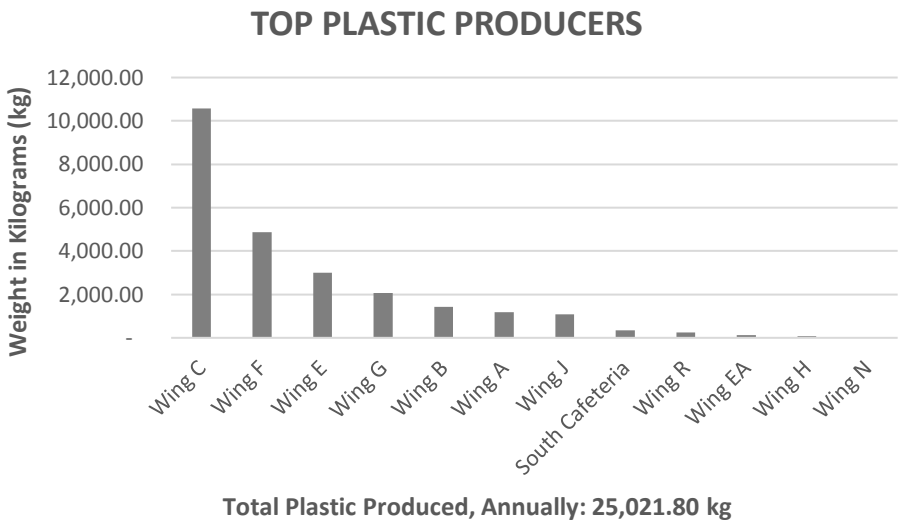


Figure 4 Total Annual Plastic Materials Generated (kg/ yr)

The figure above shows the amount of plastic materials generated, per area. The top two (2) highest plastic producing areas include Wing C, generating 10,577.19 kg per year, and Wing F generating 4,869.23 kg per year.
#1 PETE, #5 PP, and #2 HDPE plastics are the highest generated recyclable materials amongst all audited plastics found in the waste stream. It is important to encourage reusable water bottles and mugs as well as further promoting recycling #2 HDPE plastic as these jugs are commonly quite large and heavy, adding unnecessary weight in the landfill and taking centuries to breakdown. These efforts will aid in reducing overall waste generation and increase in recycling of these materials on site. You may also consider distributing e-newsletters promoting the positive impacts of reusable bottles and mugs.

Total Annual Metal Materials Generated (kg/yr)

GENERATING AREAS	Aluminum Cans	Aluminum Foil	Aluminum Trays	Aerosol Cans	Steel	Scrap Metal	TOTAL METALS
Wing C	279.57	93.19	-	-	-	256.28	**629.04**
Wing F	139.79	-	-	-	-	23.30	**163.08**
Wing E	93.19	23.30	-	-	46.60	-	**163.08**
Wing B	93.19	-	-	-	-	-	**93.19**
Wing J	-	-	-	-	23.30	-	**23.30**
South Cafeteria	-	23.30	-	-	-	-	**23.30**
Wing R	23.30	-	-	-	-	-	**23.30**
Wing G	-	-	-	-	-	-	**-**
Wing EA	-	-	-	-	-	-	**-**
Wing A	-	-	-	-	-	-	**-**
Wing N	-	-	-	-	-	-	**-**
Wing H	-	-	-	-	-	-	**-**
TOTAL	**629.04**	**139.79**	**-**	**-**	**69.89**	**279.57**	**1,118.29**
	56.25%	**12.50%**	**0.00%**	**0.00%**	**6.25%**	**25.00%**	**100.00%**

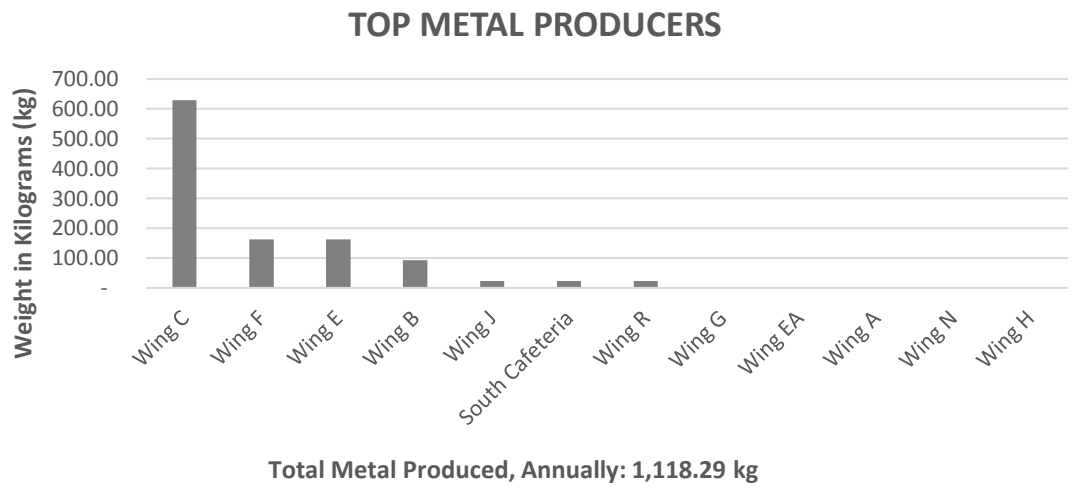


Figure 5 Total Annual Metal Materials Generated (kg/yr)

The figure above shows the amount of metal materials generated, per area. The top two (2) highest metal producing areas include Wing C, generating 629.04 kg per year, and Wing F, generating 163.08 kg per year.
Aluminum cans are the highest generated recyclable material amongst all metals found in the audited waste sample. It is important to keep these materials free of contamination, including liquids and food waste.

Total Annual Glass Materials Generated (kg/yr)

GENERATING AREAS	Glass (Clear/ Coloured)	Other Glass	TOTAL GLASS
Wing F	-	1,957.01	**1,957.01**
Wing C	1,444.46	-	**1,444.46**
Wing B	-	326.17	**326.17**
Wing J	-	-	**-**
Wing G	-	-	**-**
Wing EA	-	-	**-**
Wing A	-	-	**-**
South Cafeteria	-	-	**-**
Wing R	-	-	**-**
Wing E	-	-	**-**
Wing N	-	-	**-**
Wing H	-	-	**-**
TOTAL	**1,444.46**	**2,283.18**	**3,727.64**
	38.75%	**61.25%**	**100.00%**

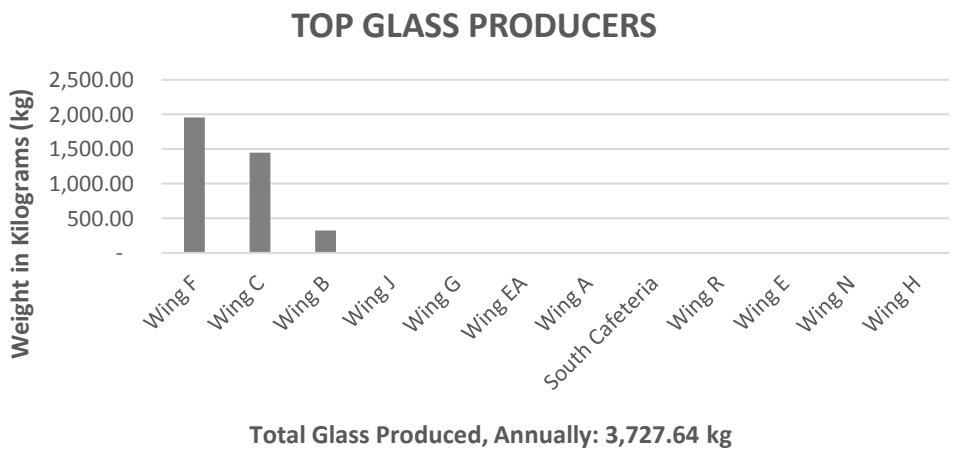


Figure 6 Total Annual Glass Materials Generated (kg/yr)

The figure above shows the amount of glass materials generated, per area. The top two (2) highest glass producing areas include Wing F, generating 1,957.01 kg per year, and Wing C, generating 1,444.46 kg per year.
It is important to keep recyclable glass materials free of contamination, including liquids and food waste.

Total Annual HSW Materials Generated (kg/yr)

GENERATING AREAS	Batteries	Electronic Waste	Ink Cartridge	TOTAL HSW
Wing C	23.30	-	232.98	**256.28**
Wing E	-	186.38	-	**186.38**
Wing B	-	139.79	-	**139.79**
Wing J	-	-	-	**-**
Wing G	-	-	-	**-**
Wing F	-	-	-	**-**
Wing EA	-	-	-	**-**
Wing A	-	-	-	**-**
South Cafeteria	-	-	-	**-**
Wing R	-	-	-	**-**
Wing N	-	-	-	**-**
Wing H	-	-	-	**-**
TOTAL	**23.30**	**326.17**	**232.98**	**582.44**
	4.00%	**56.00%**	**40.00%**	**100.00%**

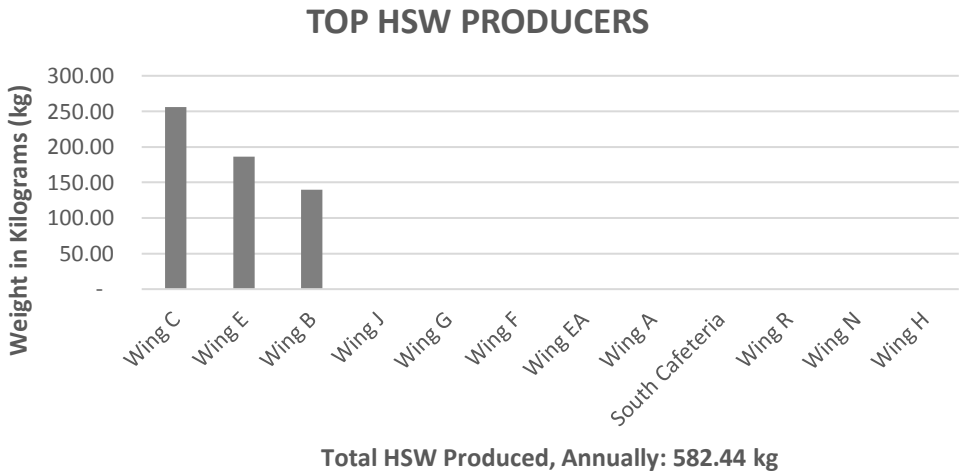


Figure 7 Total Annual HSW Materials Generated (kg/ yr)

The figure above shows the amount of HSW materials generated, per area. The top two (2) highest producing areas include Wing C, generating 256.28 kg per year, and Wing E, generating 186.38 kg per year.
Electronic waste is the highest generated recyclable material amongst all HSW found in the waste sample. It is important to keep these materials separate from all other waste streams on site, and to ensure they are diverted to specialized handling and recycling programs.

Total Annual Organic Materials Generated (kg/yr)

GENERATING AREAS	Food Waste	Tissue/ Toweling	Beverage Liquids	Compostable Containers	Yard/ Plant Waste	TOTAL ORGANICS
Wing C	18,894.49	11,252.82	955.21	209.68	116.49	**31,428.69**
Wing F	4,007.22	5,078.91	2,888.92	23.30	-	**11,998.35**
Wing E	3,424.77	5,591.46	1,071.70	-	302.87	**10,390.81**
Wing R	862.02	5,125.51	372.76	-	-	**6,360.29**
Wing J	1,351.27	2,143.39	93.19	-	2,096.80	**5,684.66**
Wing B	1,304.68	3,448.07	-	-	-	**4,752.74**
Wing A	978.51	3,681.05	-	-	-	**4,659.55**
South Cafeteria	3,121.90	93.19	-	-	-	**3,215.09**
Wing G	931.91	745.53	-	139.79	-	**1,817.23**
Wing N	-	209.68	-	-	-	**209.68**
Wing H	-	209.68	-	-	-	**209.68**
Wing EA	-	-	-	-	-	**-**
TOTAL	**34,876.76**	**37,579.30**	**5,381.78**	**372.76**	**2,516.16**	**80,726.77**
	43.20%	**46.55%**	**6.67%**	**0.46%**	**3.12%**	**100.00%**

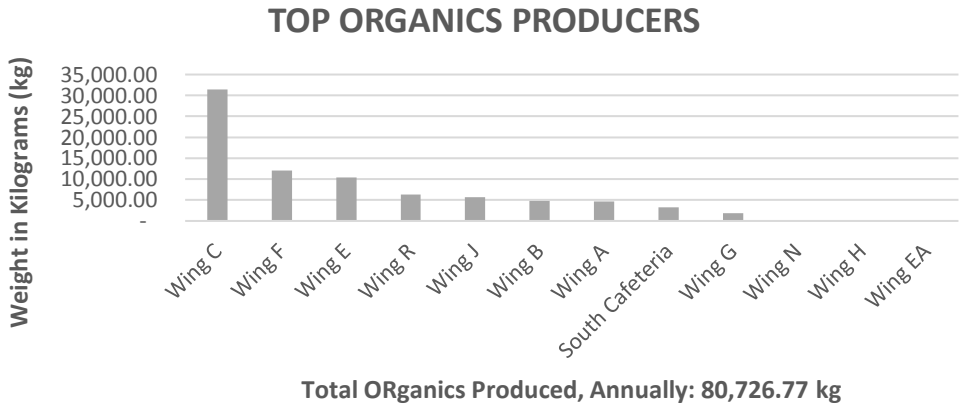


Figure 8 Total Annual Organic Materials Generated (kg/ yr)

The figure above shows the amount of organic materials generated, per area. The top two (2) highest organic producing areas include Wing C, generating 31,428.69 kg per year, and Wing F, generating 11,998.35 kg per year.
Tissue/ toweling is the highest generated material amongst organics found in the waste sample. Reviewing hand drying equipment, as well as providing these top generating areas with separate bins for paper towel collection (to be diverted to organics recycling) can eliminate the use of and increase the diversion of tissue/ toweling.

Total Annual 'Other' Materials Generated (kg/yr)

GENERATING AREAS	Textiles	Disposable Gloves	Coffee Pods	Foam Earplugs	Disposable Masks	Writing Utensils	Shredding	Residue	Wood	PPE	Chalk	Shrink Wrap	Lint	Foam Wrap	TOTAL OTHER
Wing C	186.38	4,729.45	93.19	-	535.85	93.19	-	-	46.60	-	-	232.98	23.30	23.30	**5,964.23**
Wing J	23.30	885.32	-	-	23.30	23.30	698.93	-	-	-	-	-	-	-	**1,654.14**
Wing E	-	372.76	232.98	372.76	256.28	23.30	-	-	-	-	46.60	-	-	-	**1,304.68**
Wing F	46.60	489.25	93.19	-	279.57	-	-	46.60	-	-	-	-	-	-	**955.21**
Wing A	-	885.32	-	-	46.60	-	-	-	-	-	-	-	-	-	**931.91**
Wing B	-	186.38	186.38	23.30	46.60	23.30	-	-	-	-	-	-	-	-	**465.96**
Wing R	-	186.38	-	-	23.30	-	-	-	-	256.28	-	-	-	-	**465.96**
Wing EA	-	139.79	-	-	23.30	-	-	-	-	-	-	-	-	-	**163.08**
Wing H	-	93.19	-	-	-	-	-	-	-	-	-	-	-	-	**93.19**
Wing G	-	23.30	-	-	23.30	-	-	-	-	-	-	-	-	-	**46.60**
South Cafeteria	-	-	-	23.30	-	-	-	-	-	-	-	-	-	-	**23.30**
Wing N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
TOTAL	**256.28**	**7,991.13**	**605.74**	**419.36**	**1,258.08**	**163.08**	**698.93**	**46.60**	**46.60**	**256.28**	**46.60**	**232.98**	**23.30**	**23.30**	**12,068.24**
	2.12%	**66.22%**	**5.02%**	**3.47%**	**10.42%**	**1.35%**	**5.79%**	**0.39%**	**0.39%**	**2.12%**	**0.39%**	**1.93%**	**0.19%**	**0.19%**	**100.00%**

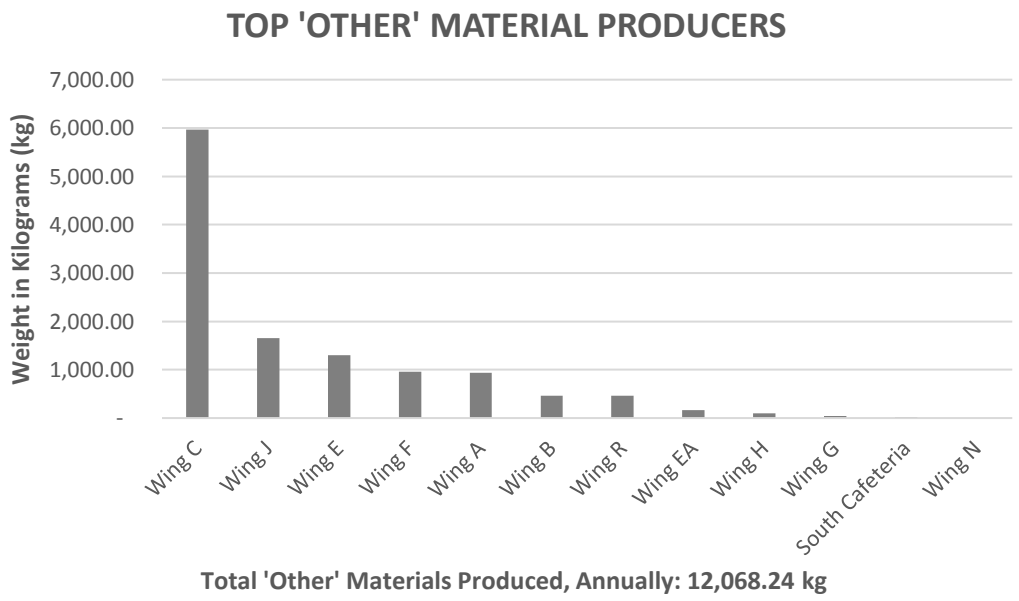


Figure 9 Total Annual 'Other' Materials Generated (kg/ yr)

The figure above shows the amount of 'other' materials generated, per area. As some of these generated materials are recyclable, it is important to keep them separate from all other waste streams on site. This may include implementing alternative third-party recycling program(s) and/ or providing separate bins for categories such as shredding material and coffee pods.

Total Annual Materials Generated (kg/yr)

GENERATING AREAS	Paper	Plastic	Metal	Glass	HSW	Organics	Other Materials	TOTAL MATERIALS
Wing C	13,605.90	-	1,188.19	931.91	-	-	279.57	**16,005.57**
Wing F	10,623.78	-	978.51	-	-	-	279.57	**11,881.86**
Wing E	4,240.19	-	605.74	326.17	-	-	465.96	**5,638.06**
Wing G	2,446.27	-	512.55	-	-	-	23.30	**2,982.11**
Wing A	2,166.69	-	93.19	-	-	-	139.79	**2,399.67**
Wing J	2,096.80	-	232.98	46.60	-	-	-	**2,376.37**
Wing B	1,211.48	-	232.98	-	-	-	23.30	**1,467.76**
South Cafeteria	582.44	-	93.19	-	-	-	-	**675.64**
Wing R	535.85	-	-	-	-	-	116.49	**652.34**
Wing EA	489.25	-	-	-	-	-	-	**489.25**
Wing H	93.19	-	-	-	-	-	-	**93.19**
Wing N	23.30	-	-	-	-	-	-	**23.30**
TOTAL	**38,115.15**	**-**	**3,937.32**	**1,304.68**	**-**	**-**	**1,327.97**	**44,685.12**
	85.30%	**0.00%**	**8.81%**	**2.92%**	**0.00%**	**0.00%**	**2.97%**	**100.00%**

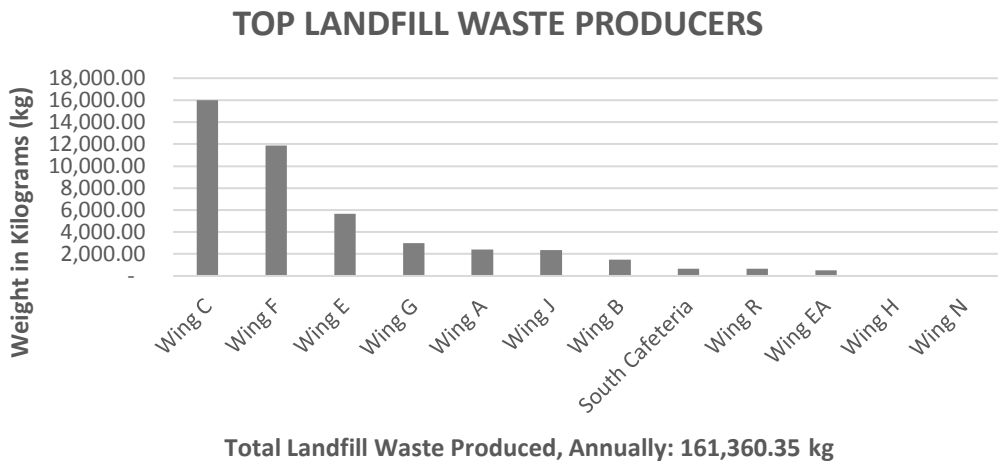


Figure 10 Total Annual Materials Generated (kg/yr)

In summary, the waste audit sample consisted of primarily organic materials (50.03%) and paper materials (23.62%). With these being the highest generated materials on site, it is important to encourage education and awareness surrounding the importance of recycling, on campus. Focusing on signage, bin placement and education surrounding the recyclability of specific, high-generation materials would have the greatest impact on the overall diversion rate for the Fennell Campus.

5 WASTE GENERATION INDEX

The waste generation index is the unit most closely related to the amount of solid waste generated by the facility using a common unit of measurement. This is used to normalize the data so that is can be used to compare to previous years generation data by unit.

Mohawk College- Fennell Campus is 919,467.00 ft^2 in size.

Waste Generation Index is calculated as follows:

$$\text{Waste Generation Index} = \frac{\text{(Total Material Generated by the Facility)}}{\text{(Total Square Footage)}}$$

- Total Facility Square Footage: 919,467.00 ft^2
- Material Generated Annually: 437,114.59 kg

$$WI = \frac{437{,}114.59 \text{ kg}}{919{,}467.00 \text{ ft}^2}$$

$$WI = 0.48 \text{ kg/ ft}^2$$

Therefore, the Fennell Campus is generating 0.48 kg of waste per square foot.

6 CONTAMINATION OF AUDIT SAMPLE

6.1 CONTAMINATION OF WASTE AUDIT SAMPLES

Based on the waste audit results, 114,368.75 kg (70.88%) of the landfill waste sample was contaminated with recyclable materials. Of that total, 21,853.31 kg (21.85 t) was recyclable paper materials; 7,804.75 kg (7.80 t) was recyclable plastic materials; 978.51 kg (0.98 t) was recyclable metal materials; 1,444.46 kg (1.44 t) was recyclable glass materials; 582.44 kg (1.09 t) was recyclable HSW materials; 80,726.77 kg (80.73 t) was recyclable organics materials and 978.51 kg (0.98 t) was recyclable 'other' materials.

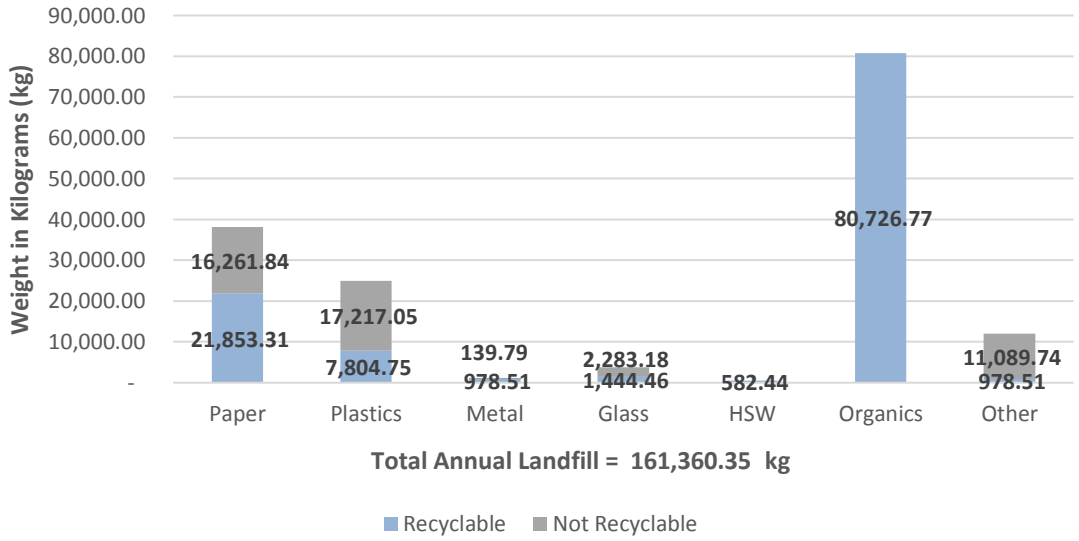


Figure 11 Contamination of Waste Audit Sample Audit Sample

7 DIVERSION RATE

A **waste diversion rate** is the percentage of total materials that are diverted from landfill. The annual diversion rate is calculated as follows:

Total Generated materials is calculated as follows:

Total Generated = Landfill Waste + Recycling

161,360.35 kg + 275,754.24 kg = 437,114.59 kg

Diversion Rate is calculated as follows:

$$\text{Diversion Rate} = \frac{\text{(amount diverted from the facility)}}{\text{(total amount of material generated)}} \times 100\%$$

$$= \frac{275{,}754.24 \text{ kg}}{437{,}114.59 \text{ kg}}$$

= 0.6309 x 100%

= **63.09%**

Based on industry standards, service information and available monthly data reporting, a total of 275,754.24 kg or 275.75 t of materials are removed and recycled at Mohawk College- Fennell Campus on an annual basis.

Material Destination	Annual Total		
	KILOGRAMS (kg)	METRIC TONNES (t)	PERCENTAGE (%)
Landfill Waste	161,360.35	161.36	36.91
Recycled	275,754.24	275.75	63.09
TOTAL GENERATED	**437,114.59**	**437.11**	**100.00**

Therefore the current annual diversion rate percentage is **63.09%.**

Annual Diversion Rate Percentage 2020

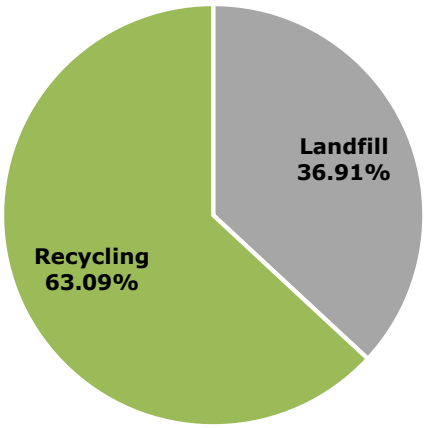


Figure 12 Annual Diversion Rate Percentage 2020

8 CAPTURE RATE

The **capture rate (*c*)** indicates the proportion of divertable waste, expressed as a percentage, which is successfully diverted for disposal. This figure includes all generated divertable waste, from all audited streams.

Total Divertable Materials is calculated as follows:

Total Divertable Materials Generated = Total Recycling Generated + Total Divertable Materials Found in Waste Stream

- Total recycling generated: 275,754.24 kg
- Divertable materials found in waste stream: 114,368.75 kg
- Total divertable material generated: 275,754.24 kg + 114,368.75 kg = 390,122.99 kg

Total Recycling Generated ÷ Total Divertable Materials Generated = Capture Rate

$$c = \frac{275{,}754.24 \text{ kg}}{390{,}122.99 \text{ kg}}$$

c = 0.6254 x 100%

c = 70.68%

Therefore, the capture rate for the Mohawk College Fennell Campus is **70.68%.**

Annual Capture Rate Percentage 2020

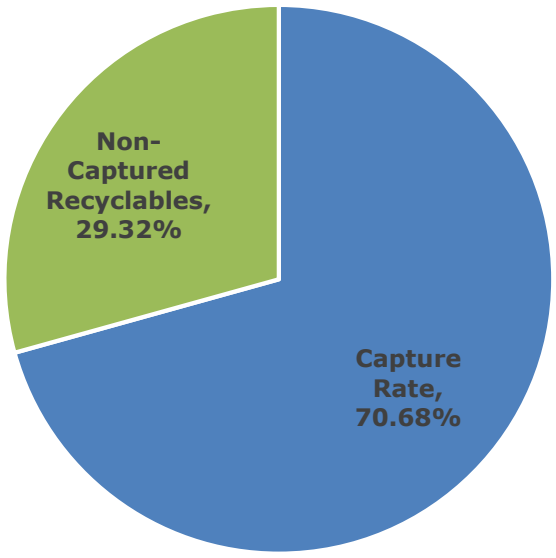


Figure 13 Annual Capture Rate Percentage 2020

9 POTENTIAL DIVERSION

The **potential current diversion rate (*P*)** is the percentage of total materials that could be diverted from landfill if all divertable materials were placed in the proper recycling stream. The potential current diversion rate is calculated as follows:

Total Divertable Materials is calculated as follows:

Total Divertable Materials Generated = Total Recycling Generated + Total Divertable Materials Found in Waste Stream

- Total recycling generated: 275,754.24 kg
- Divertable materials found in landfill waste stream: 114,368.75 kg
- Total divertable material generated: 275,754.24 kg + 114,368.75 kg = 390,122.99 kg

Potential Diversion Rate is calculated as follows:

Potential Current Diversion Rate = $\frac{\text{(total divertable materials generated)}}{\text{(total materials generated)}}$

$p = \frac{390{,}122.99 \text{ kg}}{437{,}114.59 \text{ kg}}$

$p = 0.8925 \times 100\%$

$p = 89.25\%$

Therefore, the potential diversion rate for the Mohawk College Fennell Campus is **89.25%.**

Annual Potential Diversion Rate Percentage 2020

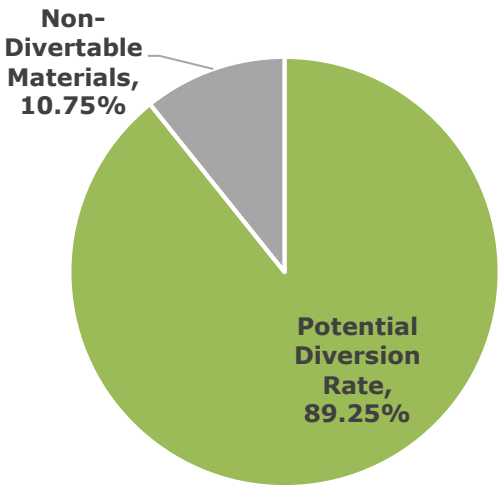


Figure 14 Annual Potential Diversion Rate Percentage 2020

10 CURRENT INITIATIVES AND WASTE MANAGEMENT PROGRAMS

Mohawk College- Fennell Campus has tools in place that help to ensure that the recycling program at the college is easy to use, clear and organized, in all areas of the campus. The following section outlines specific areas of the college campus where programs for the collection and source separation of recyclable materials have been implemented and maintained since the 2017 waste audit.
Please note that due to the COVID-19 pandemic in of 2020, the waste generated at Mohawk College, Fennell Campus has dropped, which is reflected in this report. Not all programs are currently offered. The occupancy levels at any given time at this campus is at an approximate 33%, including students and staff. Students who require in-person instruction to graduate (i.e. trades classes, in-person assessments, laboratory use, etc.) are given priority until further notice. Additionally, only essential employees and contractors are authorized on campus.

Outdoor Bins

Three-stream bins have been placed outdoors throughout the Fennell Campus grounds. These bins provide the opportunity for staff, students and visitors to place material in the proper stream which helps to divert more waste from the landfill. These bins include a cans and bottles stream, paper stream and landfill waste stream.

Dishwashing Station

Mohawk College, Fennell Campus built two (2) dishwashing stations in the cafeteria in order to encourage staff and students to bring their lunch from home in reusable containers. It had been upgraded for easy use and a more pleasant experience for staff and students, further encouraging

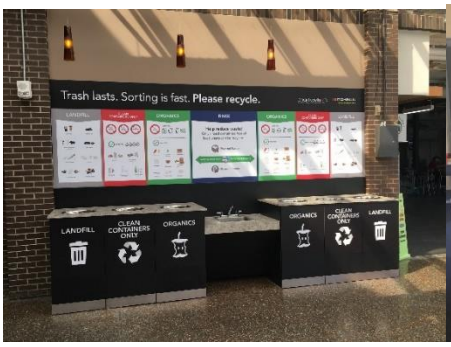
participants to neatly wash their reusable containers. Paper towel and soap dispensers are provided at these stations in the cafeteria.

Coffee Cup Recycling Program

The Coffee Cup Recycling Program offers a solution to recycling disposable coffee cups around campus. These easy-to-use yellow bins are specifically designed for the collection of coffee cups and to collect every part of the cup including the lid, sleeve and leftover liquid. To encourage use of these bins, they are shaped like an actual coffee cup, located around food service areas such as Tim Hortons, and include step-by-step instructions to recycle the cups properly. There are seventeen (17) of these collection bins in total throughout the Fennell Campus.

Organics Recycling Program

In January 2020, the Fennell Campus organics recycling program expanded to more centralized locations including the cafeteria. The organics stream is accompanied by both a mixed recycling (containers) and landfill waste stream for diners to conveniently sort materials at one station. During this launch, outreach booths displayed proper recycling and sorting instructions. For further engagement, students were given reusable items such as straws and mugs, when sorting was done correctly.



Electronic Waste & Battery Recycling Program

The electronic waste (e-waste) and battery recycling program at Mohawk College- Fennell Campus was initiated in 2012. In 2017, Mohawk College improved this recycling program. There is now a collection cabinet on campus that stores e-waste, and drop-off bins for batteries are dispersed throughout the campus. A total of 4.24 metric tonnes (4,242.45 kg) and 0.01 metric tonnes (99.79 kg) of electronic waste and batteries, respectively, have been collected for recycling in the last twelve (12) months.

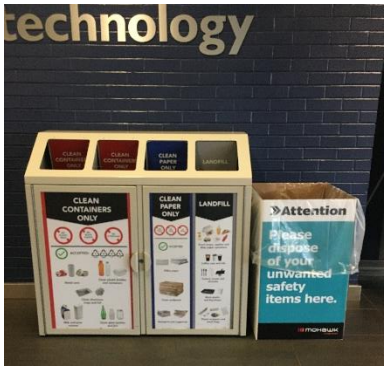
Source Separation Containers in Classrooms

In 2016, Mohawk College began to roll out landfill waste and recycling collection containers for a certain number of classrooms that would allow participants to source separate their materials rather than disposing of all materials into one landfill bin. The program was successfully rolled out to all classrooms on campus in 2017. More bins were added in 2018 to enhance the program, providing more opportunity for participation and thus, increasing the diverting of recyclable material from landfill.

Other initiatives, as part of the Mohawk College Waste Reduction Strategy, which have been in place for over twelve (12) months also include:

PPE Collection

In spring 2020, Mohawk College initiated PPE collection at both campuses. This was done by providing several bins around main traffic/ entrance areas for the collection of masks and gloves.



Single-Use Plastic Ban

In 2013, Mohawk College implemented a single-use plastic ban across campus. All single use (one litre or less) plastic water bottles and single-use bags intended for personal use or distribution of goods, are not allowed on campus. This encourages staff and students to bring their own reusable bottles and bags to campus.

Water Bottle Refill Stations

Mohawk College has 34 water bottle refill stations around Fennell Campus. Since 2018, these refill stations have helped divert over 1,581,766 water bottles, an increase of saving the equivalent of 578,246 water bottles from the previous year. Since their installation in 2013, these stations have helped to divert 7,940,346 water bottles from the landfill waste and recycling streams.

Paperless News Initiative

At Mohawk College, all staff and students have access to the local municipal newspaper through their Mohawk login. This has eliminated the generation of 18.94 tonnes of newspaper, annually from the campus.

11 RECOMMENDATIONS

Based on the waste audit results, it is important to identify the main areas of improvement to focus on and pinpoint where improvements can currently be made. Tackling one initiative at a time will increase the chances of success. Whether changes need to be made to the existing program itself or increasing education and awareness, narrowing down your options and targeting an issue every quarter or semi-annually, these options will help attain meaningful results.

In order to improve the effectiveness of the recycling program at Mohawk College- Fennell Campus, there are several initiatives to take into consideration. In order to divert as much material from landfill as possible, it would be beneficial for the facility to direct all recycling efforts towards further source separating recyclable materials.

It is recommended that during the beginning of each semester, have volunteers stand at the waste stations at the Fennell Campus during peak meal hours (breakfast, lunch and late afternoon) for a period of 1-2 weeks. This will provide face time and direct feedback to those disposing of their landfill waste and recycling. If this is not feasible, perhaps a recycling pamphlet emailed out to all students and staff (and available hardcopies on campus) can be compiled and distributed. This will collectively help to inform participants of proper disposal habits.

11.1 IMPROVE ORGANICS RECYCLING

A total of 50.03% of the landfill waste sample was organic waste material. Of the total disposed organic waste material, the highest subcategory was tissue/toweling, at 46.55%.
As organic materials are the heaviest contributor to overall disposal figures, diverting as much organic waste from the waste stream as possible will significantly increase the diversion rate and reduce the amount of waste sent to landfill annually by 80,726.77 kg.

11.2 IMPROVE PAPER RECYCLING

A total of 23.62% of the total landfill waste sample was paper material. As paper materials are the second heaviest contributor to overall disposal figures, diverting as much recyclable paper from the waste stream as possible will greatly increase the diversion rate and reduce the amount of waste sent to landfill annually by 7,804.75 kg. Paper materials should go into the appropriate recycling containers provided.

11.3 IMPROVE PLASTIC RECYCLING

From the waste audit sample, plastic materials contributed to 15.51% of the overall waste to landfill sample. PETE #1 containers (15.74%) and PS #6 rigid plastics (4.93%) accounted for top generated subcategories of recyclable plastic materials found in the landfill waste sample. These items are currently recyclable through the existing recycling program with GFL Environmental Inc.

11.4 SWITCH TO CLEAR PLASTIC BAGS

During the waste audit, recyclable material such as mixed paper, was found in black plastic bags among the landfill waste sample. Consider switching to the use of clear plastic bags for landfill waste. This will make it easier for cleaning staff/employees to identify the type of waste in the bags, and therefore, dispose or divert accordingly into the appropriate bin(s). Clear plastic bags

also enable cleaning staff/ employees to note which recyclables are going into the landfill stream. This allows constant monitoring of missed recycling opportunities and presents an opportunity to target improperly discarded recyclable materials. Further, custodial staff can identify which areas of the school need focused training, in regards to both contamination of recycling and recyclables going to landfill.

11.5 IMPLEMENT SPECIAL MATERIAL HANDLING PROGRAMS

It is recommended that special material handling programs be implemented on campus. This includes Terracycle, which can be used to recycle textiles, disposable masks and gloves (PPE), writing utensils, foam earplugs, and coffee pods. Additionally, Citron Hygiene offers disposal for PPE items. Diverting these materials away from landfill waste may help to improve the diversion rate of Fennell Campus, show employees and students the college's commitment to the environment, and reduce the amount of waste sent to landfill annually by 10.949.95 kg. Additionally, utilizing programs offered by organizations like Terracycle and Citron Hygiene will allow for the recyclability of PPE items generated on campus, through waste-to-energy conversion.

11.6 IMPROVE HSW RECYCLING

The landfill waste sample from Fennell Campus contained batteries, electronic waste, and an ink cartridge. These HSW materials must be handled and recycled appropriately in order to avoid ending up in the landfill. It is recommended that these HSW recycling programs be presented to participants more frequently, including their accessibility.
Diverting HSW materials away from landfill waste may help to improve the diversion rate of Fennell Campus and reduce the amount of waste sent to landfill annually, by 582.44 kg.

11.7 IMPROVE POINT-OF-GENERATION RECYCLING

It is recommended that internal waste assessments be conducted throughout the facility on a regular, unscheduled basis. Staff should not be aware of when these assessments are being done, to ensure accuracy of results. The goal is to determine which area(s) need improvements. Proper signage, recycling bins and education will help source separate these items and capture more recyclable materials.

11.8 SIGNAGE AND EDUCATION

Employee/Faculty/Student Education

Educational information should be displayed on an 'Environmental Board' and frequently updated to encourage and engage employee/staff/facility participation. Posting information in the area near the recycling receptacles and/or in common areas will show management initiative and engage employees. While education and training on waste reduction should be ongoing, formal education should take place sporadically (for example, 1-2 times per year).

Visitor Education

Clear, visible guidelines and signage are very important to the success of the recycling program. All areas of the facility should be equipped with appropriate signage to clearly indicate to visitors which materials are accepted in the receptacles and to remind them of the importance of their involvement in the recycling program. Recycling guidelines should be posted wherever receptacles and collection containers are stationed (an example is shown below).

11.9 MONITORING AND EVALUATION

One of the keys to a successful recycling program is gathering quantifiable results to follow the progress of the program over the course of time. Ensure that a waste audit is completed once every twelve (12) months and keep track of the data results year to year to compare disposal and recycling rates. Receive monthly diversion reports and display or send out results in a newsletter to reach all employees/staff/students to pinpoint where improvements can be made.

It is suggested that landfill waste and recycling disposal areas be monitored so that the number of receptacles and pick up schedule can be adjusted as necessary. Maintain up-to-date records of waste diversion initiatives (e.g. diversion charts, educational or promotional efforts etc.) to see if changes need to be made to the existing waste and recycling programs.

11.10 CONTINUAL PROGRAM REVIEW

The success of the existing recycling program should be continually reviewed by facility management in order to establish goals and monitor improvement over time. This should include but not be limited to:

- The adequacy and accessibility of available bins;
- The disposal methods used by employees/staff/students of the building, and the location of signage or labels on bins, and;
- The assessment of how materials are being sorted and the potential for new materials to be recycled as the hauler systems and industry changes.

As always, please post and make available the MOE work plan for all employees/staff, and sign documents in all applicable areas (as located on pages 38 and 53 in this report).

12 CONCLUSION

Based on the waste audit figures, Mohawk College- Fennell Campus generates 437,114.59 kg (437.11 t) of material annually, 275,754.24 kg (275.75 t) of which is diverted as recycling and 161,360.35 kg (161.36 t) of which is disposed of as landfill waste. 114,368.75 kg (114.37 t) of the total landfill waste could have been diverted to available or new recycling programs.

In order to address and monitor the effectiveness of the recycling program at the Mohawk College Fennell Campus, consider the following suggestions to improve the existing program and efforts of employees, students, tenants and visitors:

- Provide recycling receptacles wherever garbage bins exist so that there are no excuses for not participating in the recycling program;
- Ensure that adequate signage is placed on or above all recycling receptacles and that the signage remains consistent throughout the building;
- Education throughout the facilities can be promoted through promotional and awareness events (especially during Earth Month in April and Waste Reduction Week in October), and;
- Provide employees/tenants/visitors with information on recycling procedures and services.

The success of these initiatives depends on the involvement of all parties. The more involved all parties are in the waste reduction goals of Mohawk College, the greater the success of the program.

APPENDIX I - TABLE OF WASTE AUDIT DATA

NAME: Mohawk College, Fennell Campus			**WASTE AUDIT DATA**			
ADDRESS: 135 Fennell Avenue, Hamilton, ON						
DATE: September 29, 2020			**(KGS)**	**(KGS)**	**(KGS)**	**(KGS)**
PAPER	**%**	**%**	**Annual**	**Monthly**	**Weekly**	**Daily**
Newspaper		0.61%	232.98	19.41	4.48	0.65
Magazines		3.18%	1,211.48	100.96	23.30	3.40
Cardboard		13.14%	5,009.02	417.42	96.33	14.07
Boxboard		7.58%	2,888.92	240.74	55.56	8.11
Mixed Papers		15.59%	5,940.93	495.08	114.25	16.69
Molded Pulp		1.10%	419.36	34.95	8.06	1.18
Kraft Paper		3.55%	1,351.27	112.61	25.99	3.80
Other Paper		42.54%	16,215.25	1,351.27	311.83	45.55
Spiral Wound		0.12%	46.60	3.88	0.90	0.13
Coffee Cups		11.00%	4,193.60	349.47	80.65	11.78
Aseptic Containers		1.04%	396.06	33.01	7.62	1.11
Gable Top Containers		0.55%	209.68	17.47	4.03	0.59
Total Paper	**23.62%**	**100.00%**	**38,115.15**	**3,176.26**	**732.98**	**107.07**
PLASTICS						
# 1 PETE Soft Drinks		15.74%	3,937.32	328.11	75.72	11.06
# 2 HDPE		5.21%	1,304.68	108.72	25.09	3.66
# 3 PVC		0.00%	-	-	-	-
# 4 LDPE Recyclable Film		0.00%	-	-	-	-
# 5 PP		5.31%	1,327.97	110.66	25.54	3.73
# 6 PS (Styrofoam)		0.56%	139.79	11.65	2.69	0.39
# 6 PS (Clear/ Hard)		4.93%	1,234.78	102.90	23.75	3.47
# 7 Other		0.09%	23.30	1.94	0.45	0.07
Non-Recyclable Film		63.41%	15,865.78	1,322.15	305.11	44.57
Rigid Plastics		4.66%	1,164.89	97.07	22.40	3.27
Plastic Strapping		0.09%	23.30	1.94	0.45	0.07
Total Plastics	**15.51%**	**100.00%**	**25,021.80**	**2,085.15**	**481.19**	**70.29**
METALS						
Aluminum Cans		56.25%	629.04	52.42	12.10	1.77
Aluminum Foil		12.50%	139.79	11.65	2.69	0.39
Aluminum Trays		0.00%	-	-	-	-
Aerosol Cans		0.00%	-	-	-	-
Steel		6.25%	69.89	5.82	1.34	0.20
Scrap Metal		25.00%	279.57	23.30	5.38	0.79
Total Metals	**0.69%**	**100.00%**	**1,118.29**	**93.19**	**21.51**	**3.14**
GLASS						
Glass (Clear/ Coloured)		38.75%	1,444.46	120.37	27.78	4.06
Other Glass		61.25%	2,283.18	190.27	43.91	6.41
Total Glass	**2.31%**	**100.00%**	**3,727.64**	**310.64**	**71.69**	**10.47**
HSW						
Batteries		4.00%	23.30	1.94	0.45	0.07
Electronic Waste		56.00%	326.17	27.18	6.27	0.92
Ink Cartridge		40.00%	232.98	19.41	4.48	0.65
Total HSW	**0.36%**	**100.00%**	**582.44**	**48.54**	**11.20**	**1.64**
ORGANICS						
Food Waste		43.20%	34,876.76	2,906.40	670.71	97.97
Tissue/ Toweling		46.55%	37,579.30	3,131.61	722.68	105.56
Beverage Liquids		6.67%	5,381.78	448.48	103.50	15.12
Compostable Containers		0.46%	372.76	31.06	7.17	1.05
Yard/ Plant Waste		3.12%	2,516.16	209.68	48.39	7.07
Total Organics	**50.03%**	**100.00%**	**80,726.77**	**6,727.23**	**1,552.44**	**226.76**
OTHER MATERIALS						
Textiles		2.12%	256.28	21.36	4.93	0.72
Disposable Gloves		66.22%	7,991.13	665.93	153.68	22.45
Coffee Pods		5.02%	605.74	50.48	11.65	1.70
Foam Earplugs		3.47%	419.36	34.95	8.06	1.18
Disposable Masks		10.42%	1,258.08	104.84	24.19	3.53
Writing Utensils		1.35%	163.08	13.59	3.14	0.46
Shredding		5.79%	698.93	58.24	13.44	1.96
Residue		0.39%	46.60	3.88	0.90	0.13
Wood		0.39%	46.60	3.88	0.90	0.13
PPE		2.12%	256.28	21.36	4.93	0.72
Chalk		0.39%	46.60	3.88	0.90	0.13
Shrink Wrap		1.93%	232.98	19.41	4.48	0.65
Lint		0.19%	23.30	1.94	0.45	0.07
Foam Wrap		0.19%	23.30	1.94	0.45	0.07
Total Other	**7.48%**	**100.00%**	**12,068.24**	**1,005.69**	**232.08**	**33.90**
TOTAL ANNUAL WASTE	**100.00%**		**161,360.35**	**13,446.70**	**3,103.08**	**453.26**
Total Annual Divertable Materials	70.88%		114,368.75			
Total Annual Non-Divertable Materials	29.12%		46,991.60			
***The highlighted items are not acceptable items for recycling in the regular recycling bin.**						

MOE FORMS

APPENDIX II – WASTE AUDIT SUMMARY SHEET

Ministry of the Environment Waste Form

Report of a Waste Audit – Waste Audit Summary Sheet

Industrial, Commercial and Institutional Establishments

As required by O. Reg. 102/94

This report must be prepared 6 months after becoming subject to O. Reg. 102/94 and retained on file for at least five years after it is prepared, and be made available to the ministry upon request.

I. GENERAL INFORMATION

Name of Owner and/or Operator of Entity(ies) and Company Name: Mohawk College- Fennell Campus		
Name of Contact Person: Nicolai Strabac	**Telephone #:** 905-575-1212 ext. 4049	**Email address:** nicolai.strabac@mohawkcollege.ca
Street Address(es) of Entity(ies): 135 Fennell Avenue West		
Municipality: Hamilton, ON		

Type of Entity (check one)			
Retail Shopping Establishments		Hotels and Motels	
Retail Shopping Complexes		Hospitals	
Office Buildings		Educational Institutions	**X**
Restaurants		Large Manufacturing Establishments	

Note: O. Reg. 102/94 does not apply to multi-unit residential buildings.

II. DESCRIPTION OF ENTITY

Provide a brief overview of the entity(ties):
Mohawk College, Fennell Campus is a post-secondary education facility located at 135 Fennell Avenue West in Hamilton, Ontario. Mohawk College has approximately 13,000 full time students, including 3,000 international students, 4,000 apprentices and more than 20,000 continuing education students. Fennell Campus also includes a state of the art fitness center and gymnasium, an on-site pub, and cafeteria

III. HOW WASTE IS PRODUCED AND DECISIONS AFFECTING THE PRODUCTION OF WASTE

Categories of Waste	How Is the Waste Produced and What Management Decisions/Policies Affect Its Production?
Newspaper	Generated by participants. Material is deposited into designated container for recycling.
Magazines	Generated by participants. Material is deposited into designated container for recycling.
Cardboard	Generated by participants. Material is deposited into designated container for recycling.
Boxboard	Generated by participants. Material is deposited into designated container for recycling.
Mixed Papers	Generated by participants. Material is deposited into designated container for recycling.
Molded Pulp	Generated by participants. Material is deposited into designated container for recycling.
Kraft Paper	Generated by participants. Material is deposited into designated container for recycling.
Other Paper	Generated by participants. Material is deposited into designated container for waste.
Spiral Wound	Generated by participants. Material is deposited into designated container for waste.
Coffee Cups	Generated by participants. Material is deposited into designated container for recycling.
Aseptic Containers	Generated by participants. Material is deposited into designated container for recycling.
Gable Top Containers	Generated by participants. Material is deposited into designated container for recycling.
# 1 PETE Soft Drinks	Generated by participants. Material is deposited into designated container for recycling.
# 2 HDPE	Generated by participants. Material is deposited into designated container for recycling.
# 3 PVC	Generated by participants. Material is deposited into designated container for waste.
# 4 LDPE Recyclable Film	Generated by participants. Material is deposited into designated container for recycling.
# 5 PP	Generated by participants. Material is deposited into designated container for recycling.
# 6 PS (Styrofoam)	Generated by participants. Material is deposited into designated container for waste.
# 6 PS (Clear/Hard)	Generated by participants. Material is deposited into designated container for recycling.
# 7 Other	Generated by participants. Material is deposited into designated container for waste.
Non-Recyclable Film	Generated by participants. Material is deposited into designated container for waste.
Rigid Plastic	Generated by participants. Material is deposited into designated container for waste.
Plastic Strapping	Generated by participants. Material is deposited into designated container for waste.
Aluminum Cans	Generated by participants. Material is deposited into designated container for recycling.

Aluminum Foil	Generated by participants. Material is deposited into designated container for waste.
Aluminum Trays	Generated by participants. Material is deposited into designated container for recycling.
Aerosol Cans	Generated by participants. Material is deposited into designated container for waste.
Steel	Generated by participants. Material is deposited into designated container for recycling.
Scrap Metal	Generated by participants. Material is deposited into designated container for recycling.
Glass (Clear/ Coloured)	Generated by participants. Material is deposited into designated container for recycling.
Other Glass	Generated by participants. Material is deposited into designated container for waste.
Batteries	Generated by participants. Material is deposited into designated container for recycling.
Electronic Waste	Generated by participants. Material is deposited into designated container for recycling.
Ink Cartridge	Generated by participants. Material is deposited into designated container for recycling.
Food Waste	Generated by participants. Material is deposited into designated container for recycling.
Tissue/ Toweling	Generated by participants. Material is deposited into designated container for recycling.
Beverage Liquids	Generated by participants. Material is deposited into designated container for recycling.
Compostable Containers	Generated by participants. Material is deposited into designated container for recycling.
Yard/ Plant Waste	Generated by participants. Material is deposited into designated container for recycling.
Textiles	Generated by participants. Material is deposited into designated container for waste.
Disposable Gloves	Generated by participants. Material is deposited into designated container for waste.
Coffee Pods	Generated by participants. Material is deposited into designated container for waste.
Foam Earplugs	Generated by participants. Material is deposited into designated container for waste.
Disposable Masks	Generated by participants. Material is deposited into designated container for waste.
Writing Utensils	Generated by participants. Material is deposited into designated container for waste.
Shredding	Generated by participants. Material is deposited into designated container for recycling.
Residue	Generated by participants. Material is deposited into designated container for waste.
Wood	Generated by participants. Material is deposited into designated container for recycling.
PPE	Generated by participants. Material is deposited into designated container for waste.
Chalk	Generated by participants. Material is deposited into designated container for waste.
Shrink Wrap	Generated by participants. Material is deposited into designated container for recycling.

Lint	Generated by participants. Material is deposited into designated container for waste.
Foam Wrap	Generated by participants. Material is deposited into designated container for waste.
Sweepings Mat	Generated by participants. Material is deposited into designated container for recycling.
Brush	Generated by participants. Material is deposited into designated container for recycling.
Brush & Sod	Generated by participants. Material is deposited into designated container for recycling.
Diapers	Generated by participants. Material is deposited into designated container for waste.
Putty	Generated by participants. Material is deposited into designated container for waste.
Rubber	Generated by participants. Material is deposited into designated container for waste.
Medical Waste	Generated by participants. Material is deposited into designated container for waste.
Drywall	Generated by participants. Material is deposited into designated container for waste.
Pencil Sharpener	Generated by participants. Material is deposited into designated container for waste.

IV. MANAGEMENT OF WASTE

Category	Waste to be Disposed	Reused or Recycled Waste
Newspaper		Participants deposit newsprint into the recycling bins provided.
Magazines		Participants deposit magazines into the recycling bins provided.
Cardboard		Staff flattens all cardboard and deposit into the designated collection bins.
Boxboard		Staff flattens all boxboard and deposit into the designated collection bins.
Mixed Papers		Participants deposit mixed paper into the recycling bins provided.
Molded Pulp		Participants deposit molded pulp materials into the recycling bins provided.
Kraft Paper		Participants deposits kraft paper materials into the recycling bins provided.
Other Paper	Participants place in waste bins.	
Spiral Wound	Participants place in waste bins.	
Coffee Cups		Participants deposit coffee cups with lids into recycling bins provided.
Aseptic Containers		Participants deposit aseptic containers (i.e. juice boxes) into recycling bins provided.

Gable Top Containers		Participants place gable top cartons (i.e. milk cartons) into the recycling bins provided.
# 1 PETE Soft Drinks		Participants deposit PETE #1 plastics into the recycling bins provided.
# 2 HDPE		Participants are asked to rinse HDPE #2 plastics, if needed, before depositing into the recycling bins provided.
# 3 PVC	Participants place in waste bins.	
# 4 LDPE Recyclable Film		Participants deposit recyclable film into the recycling bins provided.
# 5 PP		Participants deposit #5 plastics into the recycling bins provided.
# 6 PS (Styrofoam)	Participants place in waste bins.	
# 6 PS (Clear/Hard)		Participants deposit #6, clear/hard plastics into the recycling bins provided.
# 7 Other	Participants place in waste bins.	
Non-Recyclable Film	Participants place in waste bins.	
Rigid Plastic	Participants place in waste bins.	
Plastic Strapping	Participants place in waste bins.	
Aluminum Cans		Participants deposit aluminum into the recycling bins provided.
Aluminum Foil	Participants place in waste bins.	
Aluminum Trays		Participants deposit aluminum into the recycling bins provided.
Aerosol Cans	Participants place in waste bins.	
Steel		Participants are asked to rinse steel cans, if needed, before depositing into the recycling bins provided.
Scrap Metal		Participants place in designated metal recycling bin.
Glass (Clear/ Coloured)		Participants are asked to rinse glass containers, if needed, before depositing into the recycling bins provided.
Other Glass	Participants place in waste bins.	
Batteries		Participants place in designated recycling bin(s).
Electronic Waste		Participants place in designated recycling bin(s).
Ink Cartridge		Participants place in designated recycling bin(s).

Food Waste		Participants deposit food waste into the organic bins in all applicable areas.
Tissue/ Toweling		Participant deposits tissue and toweling into the organics bins in all applicable areas.
Beverage Liquids		Participants are to deposit remaining liquids down the drain and place container into the appropriate recycling container.
Compostable Containers		Participants deposits compostable materials into the organics bins in all applicable areas.
Yard/ Plant Waste		Staff deposit yard/plant waste into the organic bins.
Textiles	Participants place in waste bins.	
Disposable Gloves	Participants place in waste bins.	
Coffee Pods	Participants place in waste bins.	
Foam Earplugs	Participants place in waste bins.	
Disposable Masks	Participants place in waste bins.	
Writing Utensils	Participants place in waste bins.	
Shredding		Participants place in designated collection bin(s).
Residue	Participants place in waste bins.	
Wood		Staff deposit wood into the designated collection bins.
PPE	Participants place in waste bins.	
Chalk	Participants place in waste bins.	
Shrink Wrap		Participants place in designated recycling bin(s).
Lint	Participants place in waste bins.	
Foam Wrap	Participants place in waste bins.	
Sweepings Mat		Participants place in designated recycling bin(s).
Brush		Participants place in designated recycling bin(s).
Brush & Sod		Participants place in designated recycling bin(s).
Diapers	Participants place in waste bins.	
Putty	Participants place in waste bins.	

Rubber	Participants place in waste bins.	
Medical Waste	Participants place in waste bins.	
Drywall	Participants place in waste bins.	
Pencil Sharpener	Participants place in waste bins.	

V. ESTIMATED QUANTITY OF WASTE PRODUCED ANNUALLY

ESTIMATED QUANTITY OF WASTE PRODUCED ANNUALLY									
NAME: Mohawk College, Fennell Campus **ADDRESS: 135 Fennell Avenue, Hamilton, ON**	**Generated (t)**			**Recycled (t)**			**Disposed (t)**		
Categories of Waste	"A" Base Year (2019)	"B" Current Year (2020)	"C" Change (A-B)	"A" Base Year (2019)	"B" Current Year (2020)	"C" Change (A-B)	"A" Base Year (2019)	"B" Current Year (2020)	"C" Change (A-B)
Newspaper	-	0.23	0.23			-		0.23	0.23
Magazines	-	1.21	1.21			-		1.21	1.21
Cardboard	36.61	21.25	(15.36)	29.63	16.24	(13.39)	6.98	5.01	(1.97)
Boxboard	7.76	2.89	(4.88)			-	7.76	2.89	(4.88)
Mixed Papers	32.34	23.12	(9.22)	27.98	17.18	(10.80)	4.36	5.94	1.58
Molded Pulp	0.40	0.42	0.02			-	0.40	0.42	0.02
Kraft Paper	2.95	1.35	(1.60)			-	2.95	1.35	(1.60)
Other Paper	16.85	16.22	(0.63)			-	16.85	16.22	(0.63)
Spiral Wound	0.03	0.05	0.01			-	0.03	0.05	0.01
Coffee Cups	20.67	4.19	(16.48)			-	20.67	4.19	(16.48)
Aseptic Containers	1.37	0.40	(0.98)			-	1.37	0.40	(0.98)
Gable Top Containers	0.96	0.21	(0.75)			-	0.96	0.21	(0.75)
# 1 PETE Soft Drinks	51.87	25.94	(25.93)	42.14	22.01	(20.13)	9.73	3.94	(5.80)
# 2 HDPE	3.91	2.72	(1.18)	2.72	1.42	(1.30)	1.19	1.30	0.12
# 3 PVC	-	-	-		-	-		-	-
# 4 LDPE Recyclable Film	4.81	2.13	(2.68)	4.08	2.13	(1.95)	0.73	-	(0.73)
# 5 PP	9.70	3.46	(6.24)	4.08	2.13	(1.95)	5.62	1.33	(4.29)
# 6 PS (Styrofoam)	0.28	0.14	(0.14)	0.00	-	-	0.28	0.14	(0.14)
# 6 PS (Clear/Hard)	20.69	9.04	(11.64)	14.95	7.81	(7.14)	5.74	1.23	(4.50)
# 7 Other	0.16	0.02	(0.14)		-	-	0.16	0.02	(0.14)
Non-Recyclable Film	12.02	15.87	3.84		-	-	12.02	15.87	3.84
Rigid Plastic	3.54	1.16	(2.37)		-	-	3.54	1.16	(2.37)
Plastic Strapping	0.05	0.02	(0.03)		-	-	0.05	0.02	(0.03)
Aluminum Cans	13.31	6.95	(6.36)	12.11	6.32	(5.78)	1.21	0.63	(0.58)
Aluminum Foil	0.26	0.21	(0.06)	0.13	0.07	(0.06)	0.14	0.14	0.00
Aluminum Trays	0.13	0.07	(0.06)	0.13	0.07	(0.06)		-	-
Aerosol Cans	0.15	-	(0.15)		-	-	0.15	-	(0.15)
Steel	0.14	0.14	(0.01)	0.13	0.07	(0.06)	0.02	0.07	0.05
Scrap Metal	17.48	5.16	(12.32)	17.30	4.88	(12.42)	0.18	0.28	0.10
Glass (Clear/ Coloured)	4.53	3.66	(0.86)	4.25	2.22	(2.03)	0.28	1.44	1.17
Other Glass	-	2.28	2.28			-		2.28	2.28
Batteries	-	0.12	0.12		0.10	0.10		0.02	0.02
Electronic Waste	0.23	4.57	4.34		4.24	4.24	0.23	0.33	0.09
Ink Cartridge	-	0.23	0.23			-		0.23	0.23
Food Waste	262.04	170.83	(91.21)	162.81	135.95	(26.86)	99.23	34.88	(64.35)
Tissue/ Toweling	52.76	59.13	6.37	25.81	21.55	(4.26)	26.95	37.58	10.63
Beverage Liquids	16.54	10.36	(6.19)	5.96	4.97	(0.98)	10.59	5.38	(5.20)
Compostable Containers	5.92	3.69	(2.23)	3.97	3.32	(0.66)	1.95	0.37	(1.58)
Yard/ Plant Waste	0.31	2.52	2.21			-	0.31	2.52	2.21
Textiles	2.14	0.26	(1.88)			-	2.14	0.26	(1.88)
Disposable Gloves	1.10	7.99	6.89			-	1.10	7.99	6.89
Coffee Pods	0.37	0.61	0.24			-	0.37	0.61	0.24
Foam Earplugs	-	0.42	0.42			-		0.42	0.42
Disposable Masks	-	1.26	1.26			-		1.26	1.26
Writing Utensils	0.07	0.16	0.09			-	0.07	0.16	0.09
Shredding	-	0.70	0.70			-		0.70	0.70
Residue	-	0.05	0.05			-		0.05	0.05
Wood	7.64	1.45	(6.19)	7.57	1.40	(6.17)	0.07	0.05	(0.02)
PPE	-	0.26	0.26			-		0.26	0.26
Chalk	-	0.05	0.05			-		0.05	0.05
Shrink Wrap	-	0.23	0.23			-		0.23	0.23
Lint	0.03	0.02	(0.01)			-	0.03	0.02	(0.01)
Foam Wrap	-	0.02	0.02			-		0.02	0.02
Sweepings Mat	5.02	-	(5.02)	5.02		(5.02)			-
Brush	-	4.96	4.96		4.96	4.96			-
Brush & Sod	-	16.72	16.72		16.72	16.72			-
Diapers	2.32	-	(2.32)			-	2.32		(2.32)
Putty	0.07	-	(0.07)			-	0.07		(0.07)
Rubber	0.04	-	(0.04)			-	0.04		(0.04)
Medical Waste	0.08	-	(0.08)			-	0.08		(0.08)
Drywall	0.02	-	(0.02)			-	0.02		(0.02)
Pencil Sharpener	1.92	-	(1.92)			-	1.92		(1.92)
Total	**621.62**	**437.11**	**(184.51)**	**370.75**	**275.75**	**(95.00)**	**250.87**	**161.36**	**(89.51)**
Percent Change (C÷A x 100)			-29.68%			-25.62%			-35.68%

VI. TO WHICH MATERIALS OR PRODUCTS USED OR SOLD BY ENTITY CONSIST OF RECYCLED OR REUSED MATERIALS OR PRODUCTS

1. Do you have a management policy in place that promotes the purchasing and/or use of materials or products that consist of recycled and/or reused materials or products? If yes, please describe.

   Not at this time.

2. Do you have plans to increase the extent to which materials or products used or sold* consist of recycled or reused materials or products? If yes, please describe.

   Not at this time.

   ***** Information regarding materials or products "sold" that consist of recycled or reused materials or products is only required from owner(s) of retail shopping establishments and the owner(s) or operator(s) of large manufacturing establishments.

Please attach any additional page(s) as required to answer the above questions

I hereby certify that the information provided in this Report of Waste Audit is complete and correct.		
Signature of authorized official:	**Title:**	**Date:**

MOE FORMS

APPENDIX III - REPORT OF WASTE REDUCTION WORK PLAN

Ministry of the Environment Waste Form

Report of a Waste Audit

Industrial, Commercial and Institutional Establishments

As required by O. Reg. 102/94

This report must be prepared 6 months after becoming subject to O. Reg. 102/94 and retained on file for at least five years after it is prepared, and be made available to the ministry upon request.

I. GENERAL INFORMATION

Name of Owner and/or Operator of Entity(ies) and Company Name: Mohawk College- Fennell Campus		
Name of Contact Person: Nicolai, Strabac	**Telephone #:** 905-575-1212 ext. 4049	**Email address:** nicolai.strabac@mohawkcollege.ca
Street Address(es) of Entity(ies): 135 Fennell Avenue West		
Municipality: Hamilton, ON		

Type of Entity (check one)			
Retail Shopping Establishments		Hotels and Motels	
Retail Shopping Complexes		Hospitals	
Office Buildings		Educational Institutions	**X**
Restaurants		Large Manufacturing Establishments	

II. DESCRIPTION OF ENTITY

Provide a brief overview of the entity(ties):
Mohawk College, Fennell Campus is a post-secondary education facility located at 135 Fennell Avenue West in Hamilton, Ontario. Mohawk College has approximately 13,000 full time students, including 3,000 international students, 4,000 apprentices and more than 20,000 continuing education students. Fennell Campus also includes a state of the art fitness center and gymnasium, an on-site pub, and cafeteria

III. PLANS TO REDUCE, REUSE AND RECYCLE

Waste Category	Source Separation and 3Rs Program
Newspaper	**Reduce:** Provide digital copies of newspaper to participants. **Reuse:** Newsprint can be reused for moving and shipping as packaging. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Magazines	**Reduce:** Encourage use of electronic documents only and to think before purchasing. **Reuse:** Magazines are shared in guest common areas. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Cardboard	**Reduce:** Encourage suppliers to provide goods in reusable containers. Purchase supplies in bulk to avoid excess packaging. **Reuse:** Cardboard boxes can be reused for moving and shipping. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Boxboard	**Reduce:** Encourage suppliers to provide goods in reusable containers. Purchase supplies in bulk to avoid excess packaging. **Reuse:** Boxboard can be reused for packaging small goods. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Mixed Papers	**Reduce:** Encourage use of electronic documents only and reconsidering printing. **Reuse:** Reuse one sided documents for other print jobs. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Molded Pulp	**Reduce:** Encourage suppliers to provide goods in reusable containers. Purchase supplies in bulk to avoid excess packaging. **Reuse:** Reuse for packaging and protecting small goods. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Kraft Paper	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. **Reuse:** Reuse for packaging and protecting small goods. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Other Paper	**Reduce:** Refuse products packaged in this material. **Reuse:** N/A **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Spiral Wound	**Reduce:** Refuse products packaged in this material. **Reuse:** N/A **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Coffee Cups	**Reduce:** Encourage tenants and staff to bring reusable coffee mugs to work. **Reuse:** N/A

	Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Aseptic Containers	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Gable Top Containers	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
# 1 PETE Soft Drinks	**Reduce:** Encourage suppliers to provide goods in bulk to cut down on amount of material produced. Promote reusable containers to participants. **Reuse:** Reuse material for water throughout the day. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
# 2 HDPE	**Reduce:** Encourage suppliers to provide goods in bulk to cut down on amount of material produced. **Reuse:** Containers are reused in kitchen areas for collection of organic waste (i.e. large white tubs). **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
# 3 PVC	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. **Reuse:** Reuse as protective packaging for shipments. **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
# 4 LDPE Recyclable Film	**Reduce:** Encourage suppliers to provide goods in bulk to cut down on amount of material produced. **Reuse:** Use plastic bags for other uses such as in back-of house small garbage containers (i.e. in employee offices/washrooms); use as protective packaging for shipments. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
# 5 PP	**Reduce:** Encourage suppliers to provide goods in bulk to cut down on amount of material produced. **Reuse:** Reuse container for food or snacks throughout the day. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
# 6 PS (Styrofoam)	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. **Reuse:** Reuse as protective packaging for shipments. **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
# 6 PS (Clear/Hard)	**Reduce:** Encourage suppliers to provide goods in bulk to cut down on amount of material produced. **Reuse:** N/A

	Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
# 7 Other	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. **Reuse:** Reuse as protective packaging for shipments. **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Non-Recyclable Film	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. **Reuse:** N/A **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Rigid Plastic	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. **Reuse:** N/A **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Plastic Strapping	**Reduce:** Encourage suppliers to provide goods in alterative material, other than plastic. **Reuse:** Reuse current material for shipping/receiving and packaging. **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Aluminum Cans	**Reduce:** Encourage suppliers to provide goods in bulk to cut down on amount of material produced. **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Aluminum Foil	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. **Reuse:** N/A **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Aluminum Trays	**Reduce:** Encourage suppliers to provide goods in bulk to cut down on amount of material produced. **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Aerosol Cans	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Steel	**Reduce:** Implement sustainable purchasing policy to ensure amounts are not ordered in excess. **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.

Scrap Metal	**Reduce:** Implement sustainable purchasing policy to ensure amounts are not ordered in excess. **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Glass (Clear/ Coloured)	**Reduce:** Encourage suppliers to provide goods in bulk to cut down on amount of material produced. Promote reusable containers to participants. **Reuse:** Reuse glass bottles for water throughout the day. **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Other Glass	**Reduce:** Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. **Reuse:** N/A **Recycle:** Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Batteries	**Reduce:** N/A **Reuse:** N/A **Recycle:** Alternative program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Electronic Waste	**Reduce:** N/A **Reuse:** N/A **Recycle:** Alternative program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Ink Cartridge	**Reduce:** N/A **Reuse:** N/A **Recycle:** Alternative program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Food Waste	**Reduce:** Encourage participants to bring home and utilize leftovers. **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Tissue/ Toweling	**Reduce:** Install hand driers in all washroom areas to reduce the necessity of paper towels. **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Beverage Liquids	**Reduce:** N/A **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Compostable Containers	**Reduce:** N/A **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Yard/ Plant Waste	**Reduce:** N/A **Reuse:** N/A

	Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Textiles	**Reduce:** N/A **Reuse:** N/A **Recycle:** Alternative program not yet in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Disposable Gloves	**Reduce:** N/A **Reuse:** N/A **Recycle:** Alternative program not yet in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Coffee Pods	**Reduce:** N/A **Reuse:** N/A **Recycle:** Alternative program not yet in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Foam Earplugs	**Reduce:** N/A **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Disposable Masks	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Writing Utensils	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Shredding	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Residue	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Wood	**Reduce:** N/A **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
PPE	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Chalk	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Shrink Wrap	**Reduce:** N/A **Reuse:** N/A

	Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Lint	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Foam Wrap	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Sweepings Mat	**Reduce:** N/A **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Brush	**Reduce:** N/A **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Brush & Sod	**Reduce:** N/A **Reuse:** N/A **Recycle:** Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Diapers	**Reduce:** N/A **Reuse:** N/A **Recycle:** Alternative program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Putty	**Reduce:** N/A **Reuse:** N/A **Recycle:** Alternative program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Rubber	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Medical Waste	**Reduce:** N/A **Reuse:** N/A **Recycle:** Alternative program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Drywall	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.
Pencil Sharpener	**Reduce:** N/A **Reuse:** N/A **Recycle:** Through education and awareness, ensure all participants understand current recycling programs and initiatives.

IV. RESPONSIBILITY FOR IMPLEMENTING THE WASTE REDUCTION WORK PLAN

Identify who is responsible for implementing the Waste Reduction Work Plan at your entity (ies). If more than one person is responsible for implementation, identify each person who is responsible and indicate the part of the Waste Reduction Work Plan that each person is responsible for implementing.

Name of Person	Responsibility	Telephone #
Nicolai Strabac	Implementing the Waste Reduction Work Plan	905-575-1212 ext. 4049

V. TIMETABLE FOR IMPLEMENTING WASTE REDUCTION WORK PLAN

Source Separation and 3Rs Program	Schedule for Completion
Newspaper	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Magazines	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Cardboard	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Boxboard	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Mixed Papers	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Molded Pulp	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Kraft Paper	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Other Paper	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Spiral Wound	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Coffee Cups	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Aseptic Containers	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Gable Top Containers	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
# 1 PETE Soft Drinks	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
# 2 HDPE	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
# 3 PVC	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
# 4 LDPE Recyclable Film	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
# 5 PP	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
# 6 PS (Styrofoam)	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
# 6 PS (Clear/Hard)	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
# 7 Other	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Non-Recyclable Film	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Rigid Plastic	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Plastic Strapping	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Aluminum Cans	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.

Aluminum Foil	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Aluminum Trays	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Aerosol Cans	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Steel	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Scrap Metal	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Glass (Clear/ Coloured)	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Other Glass	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Batteries	Battery recycling program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Electronic Waste	Electronic waste recycling program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Ink Cartridge	Alternative recycling program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Food Waste	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Tissue/ Toweling	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Beverage Liquids	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Compostable Containers	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Yard/ Plant Waste	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Textiles	Alternative recycling program not yet in place. The facility is continuously working on improving diversion and reduction initiatives.
Disposable Gloves	Alternative recycling program not yet in place. The facility is continuously working on improving diversion and reduction initiatives.
Coffee Pods	Alternative recycling program not yet in place. The facility is continuously working on improving diversion and reduction initiatives.
Foam Earplugs	Ensure participants understand what is accepted in the recycling program by late-2020.
Disposable Masks	Alternative recycling program not yet in place. The facility is continuously working on improving diversion and reduction initiatives.
Writing Utensils	Ensure participants understand what is accepted in the recycling program by late-2020.
Shredding	Shredding recycling program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Residue	Ensure participants understand what is accepted in the recycling program by late-2020.
Wood	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
PPE	Ensure participants understand what is accepted in the recycling program by late-2020.
Chalk	Ensure participants understand what is accepted in the recycling program by late-2020.

Shrink Wrap	3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Lint	Ensure participants understand what is accepted in the recycling program by late-2020.
Foam Wrap	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Sweepings Mat	Alternative recycling program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Brush	Alternative recycling program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Brush & Sod	Alternative recycling program is currently in place. The facility is continuously working on improving diversion and reduction initiatives.
Diapers	Alternative recycling program not yet in place. The facility is continuously working on improving diversion and reduction initiatives.
Putty	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Rubber	Material is not recyclable. Ensure participants understand what is accepted in the recycling program by late-2020.
Medical Waste	Alternative recycling program not yet in place. The facility is continuously working on improving diversion and reduction initiatives.
Drywall	Ensure participants understand what is accepted in the recycling program by late-2020.
Pencil Sharpener	Ensure participants understand what is accepted in the recycling program by late-2020.

VI. COMMUNICATION TO STAFF, CUSTOMERS, GUESTS AND VISITORS

A copy of the Waste Reduction Work Plan will be posted in an area where most employees will see it and will be made available to employees upon request.

To ensure all participants in the recycling program understand where materials go, new receptacles and new signage will be applied to recycling and waste receptacles and to large collection bins in the loading dock.

VII. ESTIMATED WASTE PRODUCED BY MATERIAL TYPE AND THE PROJECTED AMOUNT TO BE DIVERTED BY THE 3 Rs

Material Categories *(as stated in Part III)*	**Estimated Annual Waste Produced** *(tonnes)*	**Name of Proposed 3Rs Program** *(as stated in Part III)*	**Projections to Reduce, Reuse or Recycle Waste** *(tonnes)*			**Estimated Annual Amount to be Diverted** (%)
			Reduce	**Reuse**	**Recycle**	
Example: Fine Paper	***1.8 t***	***Fine Paper 3Rs Program***	***200 t***	***100 t***	***1.2 t***	***60%***
Newspaper	0.23	Commingled Recycling Program			0.15	**65.00**
Magazines	1.21	Commingled Recycling Program			0.79	**65.00**
Cardboard	21.25	Cardboard Recycling Program			13.81	**65.00**
Boxboard	2.89	Commingled Recycling Program			1.88	**65.00**
Mixed Papers	23.12	Commingled Recycling Program			15.03	**65.00**
Molded Pulp	0.42	Commingled Recycling Program			0.27	**65.00**
Kraft Paper	1.35	Commingled Recycling Program			0.88	**65.00**
Other Paper	16.22	Waste	1.62			**10.00**
Spiral Wound	0.05	Waste	0.00			**10.00**
Coffee Cups	4.19	Commingled Recycling Program			2.73	**65.00**
Aseptic Containers	0.40	Commingled Recycling Program			0.26	**65.00**
Gable Top Containers	0.21	Commingled Recycling Program			0.14	**65.00**
# 1 PETE Soft Drinks	25.94	Commingled Recycling Program			16.86	**65.00**
# 2 HDPE	2.72	Commingled Recycling Program			1.77	**65.00**
# 3 PVC	-	Waste	-			**10.00**
# 4 LDPE Recyclable Film	2.13	Commingled Recycling Program			1.38	**65.00**
# 5 PP	3.46	Commingled Recycling Program			2.25	**65.00**
# 6 PS (Styrofoam)	0.14	Waste	0.01			**10.00**
# 6 PS (Clear/Hard)	9.04	Commingled Recycling Program			5.88	**65.00**
# 7 Other	0.02	Waste	0.00			**10.00**
Non-Recyclable Film	15.87	Waste	1.59			**10.00**
Rigid Plastic	1.16	Waste	0.12			**10.00**
Plastic Strapping	0.02	Waste	0.00			**10.00**
Aluminum Cans	6.95	Commingled Recycling Program			4.52	**65.00**

Aluminum Foil	0.21	Waste	0.02			**10.00**
Aluminum Trays	0.07	Commingled Recycling Program			0.04	**65.00**
Aerosol Cans	-	Waste	-			**10.00**
Steel	0.14	Commingled Recycling Program			0.09	**65.00**
Scrap Metal	5.16	Commingled/ Scrap Metal Recycling Program			3.35	**65.00**
Glass (Clear/ Coloured)	3.66	Commingled Recycling Program			2.38	**65.00**
Other Glass	2.28	Waste	0.23			**10.00**
Batteries	0.12	Battery Recycling Program			0.08	**65.00**
Electronic Waste	4.57	Electronic Recycling Program			2.97	**65.00**
Ink Cartridge	0.23	Alternative Recycling Program			0.15	**65.00**
Food Waste	170.83	Organics Recycling Program			111.04	**65.00**
Tissue/ Toweling	59.13	Organics Recycling Program			38.44	**65.00**
Beverage Liquids	10.36	Organics Recycling Program			6.73	**65.00**
Compostable Containers	3.69	Organics Recycling Program			2.40	**65.00**
Yard/ Plant Waste	2.52	Organics Recycling Program			1.64	**65.00**
Textiles	0.26	Alternative Recycling Program	0.03			**10.00**
Disposable Gloves	7.99	Alternative Recycling Program	0.80			**10.00**
Coffee Pods	0.61	Alternative Recycling Program	0.06			**10.00**
Foam Earplugs	0.42	Alternative Recycling Program	0.04			**10.00**
Disposable Masks	1.26	Alternative Recycling Program	0.13			**10.00**
Writing Utensils	0.16	Alternative Recycling Program	0.02			**10.00**
Shredding	0.70	Shredding Recycling Program			0.45	**65.00**
Residue	0.05	Waste	0.00		0.00	**10.00**
Wood	1.45	Wood Recycling Program			0.94	**65.00**
PPE	0.26	Alternative Recycling Program	0.03			**10.00**
Chalk	0.05	Waste	0.00			**10.00**
Shrink Wrap	0.23	Commingled Recycling Program			0.15	**65.00**
Lint	0.02	Waste	0.00			**10.00**
Foam Wrap	0.02	Waste	0.00			**10.00**

Sweepings Mat	0.00	Alternative Recycling Program			-	**65.00**
Brush	4.96	Alternative Recycling Program			3.22	**65.00**
Brush & Sod	16.72	Alternative Recycling Program			10.87	**65.00**
Diapers	0.00	Alternative Recycling Program	-			**10.00**
Putty	0.00	Waste	-			**10.00**
Rubber	0.00	Waste	-			**10.00**
Medical Waste	0.00	Alternative Recycling Program	-			**10.00**
Drywall	0.00	Waste	-			**10.00**
Pencil Sharpener	0.00	Waste	-			**10.00**

* Estimated Waste Produced = Waste Diverted (3Rs) + Waste Disposed
** Estimated Waste Diversion Rate = Amount of Waste Diverted (3Rs) ÷ Estimated Waste Produced x 100%

I hereby certify that the information provided in this Waste Reduction Work Plan is complete and correct.		
Signature of authorized official:	**Title:**	**Date:**

APPENDIX IV - QUESTIONS TO ASSESS COMPLIANCE

Purpose: To obtain information that will support an assessment of a generator's compliance with Ontario Regulation 103/94 sub-section 2(1) (d) that a source separation program must include "reasonable efforts to ensure that full use is made of the program and that the separated waste is reused or recycled."

Please answer the following questions **for each** waste management company that you have retained for the collection of the source separated material from your site?

1. Which waste management services company do you have a contract or agreement with to collect source separated materials from your site? (Please provide a copy of the contract/agreement for each waste management service company and if applicable, their Environmental Compliance Approval –ECA- or Environmental Activity and Sector Registry registration number)

   GFL Environmental Inc. is the contracted waste and recycling service provider. Please contact your sales representative if you need a copy of your invoice. GFL Environmental Inc. provides all solid, non-hazardous waste and recycling removal for the facility.

2. a.)Where are the recyclable materials being sent to? (Please provide a letter including the name, location and ECA –if applicable of each receiving facility)

   Please see letter attached in Appendix VI.

   b.)If the waste is going to a waste transfer station, where are the recyclables being taken further? (Please provide a letter including the name, location and ECA –if applicable- of each final destination)

   Please refer to same letter attached in Appendix VI.

   c.)If the source separated material was sent for disposal (e.g., landfill, incineration, etc.) what explanation was provided to you by your waste management services company on the amount of source separated material that was sent for disposal?

   No source separated materials are sent to landfill.

3. Please describe any additional efforts made to demonstrate compliance with s. 2(1) (d) of Reg. 103/94 (i.e. that reasonable efforts are made to ensure that the separated waste is reused or recycled). Please provide any documents that outline your efforts.

   None at this time.

APPENDIX V - Glossary of Terms

Boxboard	Thick cardstock-like paper used for a variety of consumer product packaging applications.
Capture Rate	The proportion of divertable waste, expressed as a percentage, which is successfully diverted from disposal.
Cardboard	Corrugated containerboard.
Collective Waste Audit	Collective annualized waste audit of waste generated as a whole; no breakdown of separate areas in the building.
Commodity	A raw material product that could be bought or sold, such as metal, cardboard and plastic.
Contamination	Refers to the presence of recyclables in the garbage stream or, conversely, residual waste materials in a recycling stream.
Diversion	The act of diverting waste materials from landfill through reuse off-site or recycling. As well as actions to prevent waste materials from being generated, actions to reduce material generation, reuse (internal or external) source-separation.
Diversion Rate	The proportion by mass of all waste diverted from disposal to the total mass of all waste material generated, expressed as a percentage.
Divertable	Capability of a material being recycled or reused.
Final Destination	The location where materials are sent for disposal by the hauler. This can include a sorting facility
Mass Ration Method of Annualization	A method of annualization of findings by applying the mass ratio of each material to the total mass of material generated that year.
Non-Divertable	Material that is not able to be reused or recycled.
Other Paper	Non-recyclable paper products, glossy paper.
Plastic Resin Codes	The numbers printed on some plastic products, surrounded by a triangle shape of arrows, to indicate

	the plastic resin they are made of. The numbers are 1, 2, 3, 4, 5,6, and 7. They are used by waste haulers to identify what plastic type is recyclable.
Point of generation waste audit	An annualized audit of waste generated by separate areas of the building.
Potential Diversion Rate	The percentage of total materials that could be diverted from landfill if all divertable materials were placed in the proper recycling stream.
Recycling Council of Ontario (RCO)	A not-for-profit membership based organization involved in policy, education and project work around the issues of consumption, waste generation, reduction and diversion, and recycling.
Residual Waste	All material that cannot be diverted in any way with the current program, and thus must be disposed of via the garbage stream. This includes any materials that cannot be reused or recycled.
Source Separation Material	Separating materials by type at the point of discard so they can be recycled.
Source separation program	A program to facilitate the source separation of waste for reuse or recycling.
Waste	Materials that are no longer wanted or needed and are disposed of either through landfill, reuse off-site, or recycling. Waste includes all garbage and recycling materials that is removed from site.
Waste Generation Index	The waste generation index is the unit most closely related to the amount of solid waste generated by the facility such as production units or building population.
Waste per square foot	A measure of total waste used for comparing properties of varying sizes to each other. This measure can also be used to determine the success of waste reduction initiatives.
Waste reduction work plan	From 0.Reg. 102/94, a plan to reduce, reuse and recycle waste.

Waste Stream	A waste, recycling or garbage stream refers to the flow of a group of materials from the generation on-site through to the final destination. For example, Paper stream, landfill stream, commingled stream.

APPENDIX VI – LETTER OF DECLARATION

LETTER OF DECLARATION
Recyclable Material Diversion

GFL Environmental receives materials collected throughout Hamilton and delivers the materials to a variety of center. Waste is disposed of separated and recycling materials are diverted from landfills and recycled in the following manner:

Plastics, Metals and Glass – These materials are collected and sent to Alfa Paper when the material is sorted by type and processed.

Fibre Materials including Corrugated Cardboard, Office Paper, and Newsprint Rolls – These materials are collected and sent to Alfa Paper when the material is sorted by type and processed.

Metal - Scrap metal and other recyclable metals are taken to AIM Recycling for sorting and processing

Waste – These materials are collected and sent to Quantum Murray. From here, the materials go to Walker Industries South Landfill.

Company	Address	Tel. #	ECA Number
Alfa Paper	735 Strathearne Ave. N., Hamilton, ON L8H 5L3	905-549-2535	A-650217
AIM Recycling	75 Steel City Ct, Hamilton, ON L8H 3Y2	905-574-5533	Not Required
Quantum Murray	735 Strathearne Ave. N., Hamilton, ON L8H 5L3	905-312-8855	7577-4XGL5P
Walkers Industries, South Landfill	3081 Taylor Road, Niagara Falls, ON	905-227-4142	A-021601

Should you have any questions or require further information please do not hesitate to contact:

Laura McAlpine
Environmental Manager

GFL Environmental Inc.

T. 647-624-1439
E. lmcalpine@gflenv.com

APPENDIX VII – CALIBRATION CERTIFICATE

Calibration Certificate

Date of Calibration: September 29th, 2020

The Scales used for waste auditing by GFL Environmental Inc. has been checked and calibrated using known mass measures.

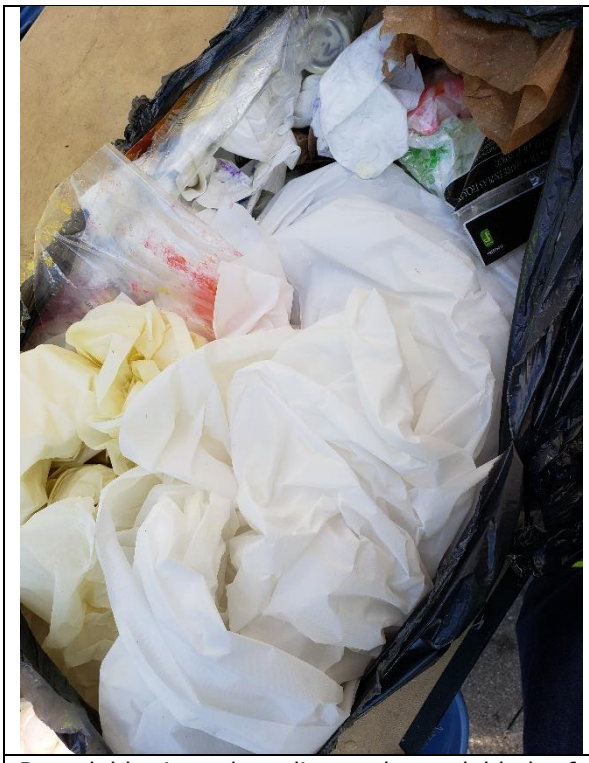
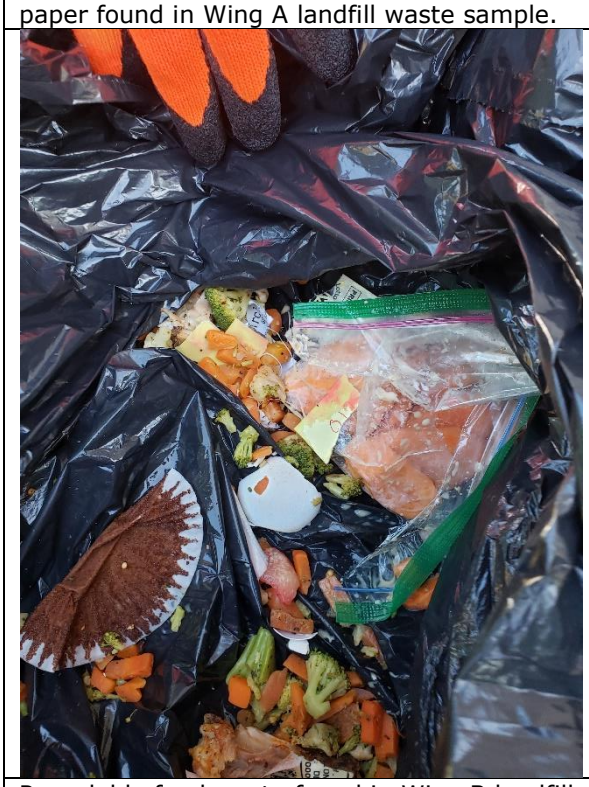
To ensure that the scales are performing accurately a 5 pound weight was used in the calibration procedure. The weight was placed on the scale to ensure an accurate reading of 5 pounds on the scale.

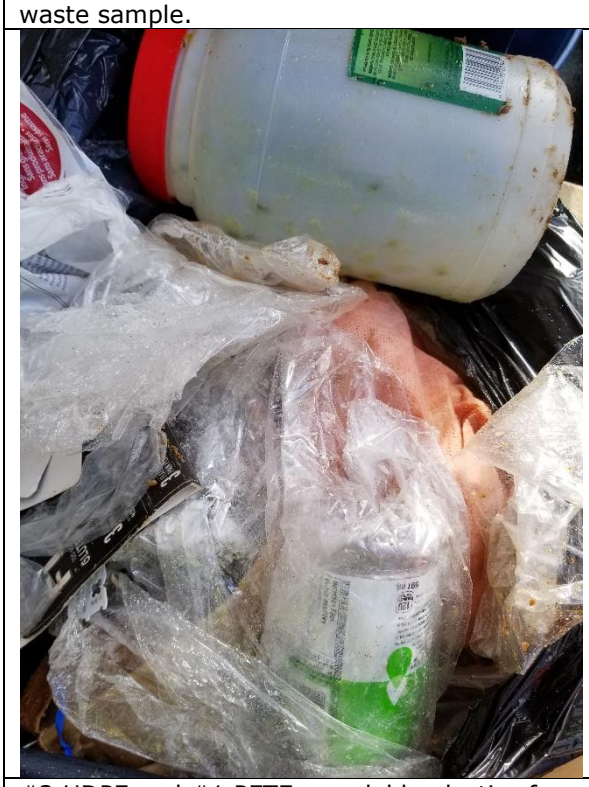
Test Weight	Scale Reading	Model # of Scale	Serial # of Scale	Calibrated By (Print Name)	Date
5 lbs	5 lbs	H-5837	02010016008	Blue Top Scale	09/29/2020
5 lbs	5 lbs	H-5837	01804016006	Stainless Steel Scale	09/29/2020

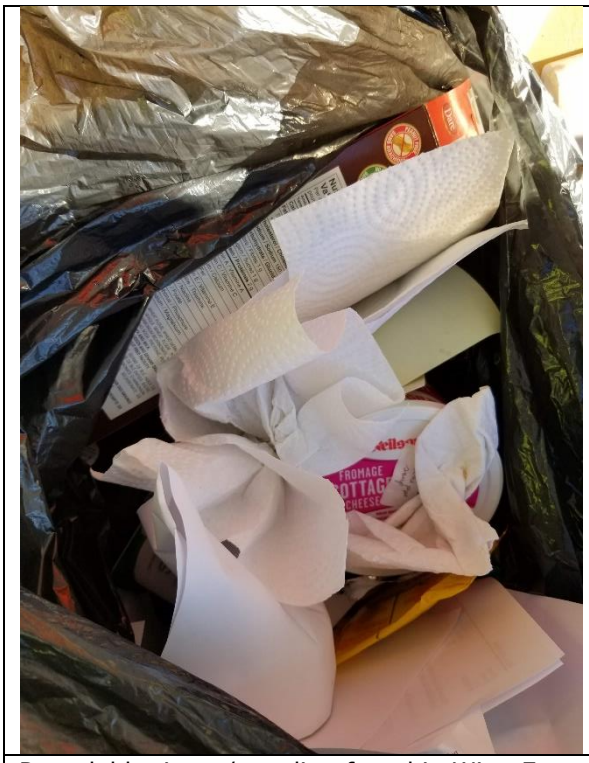
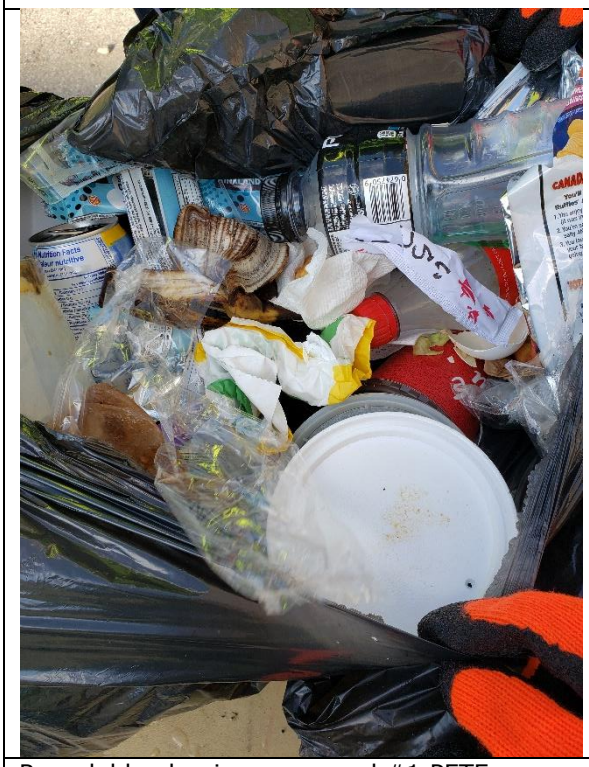
Laura McAlpine
Environmental Manager
GFL Environmental Inc.

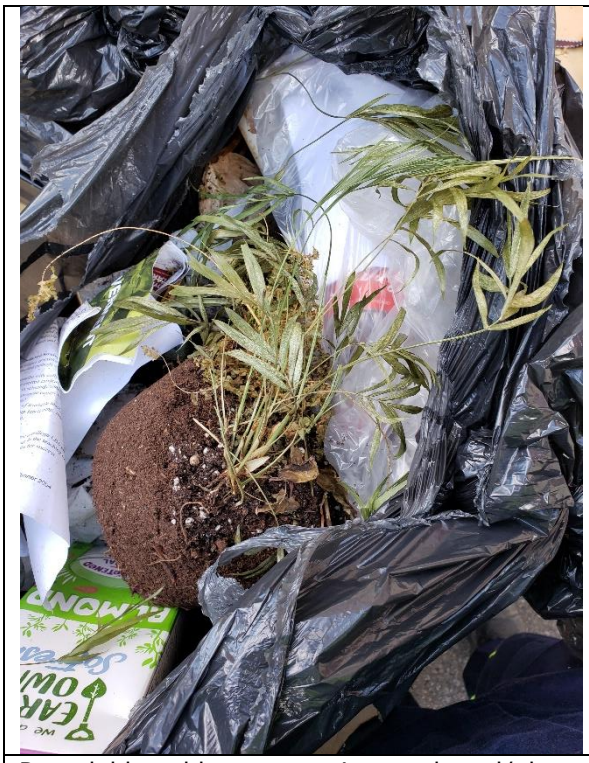
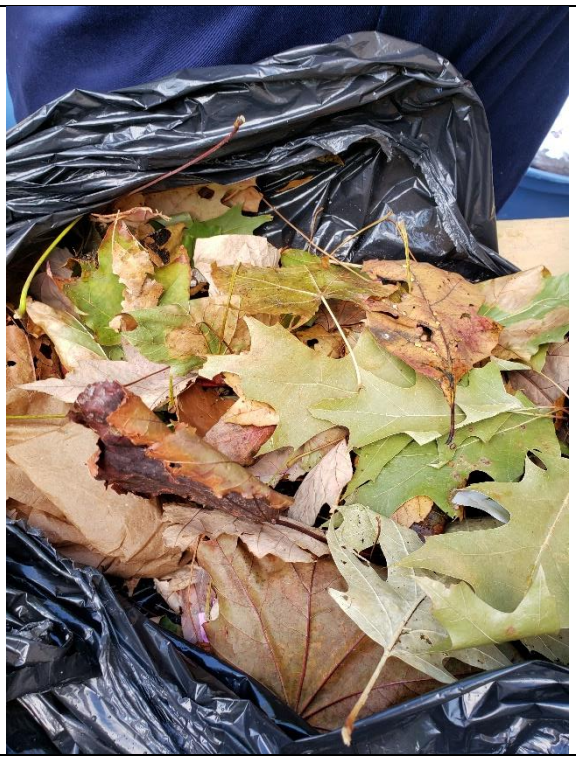
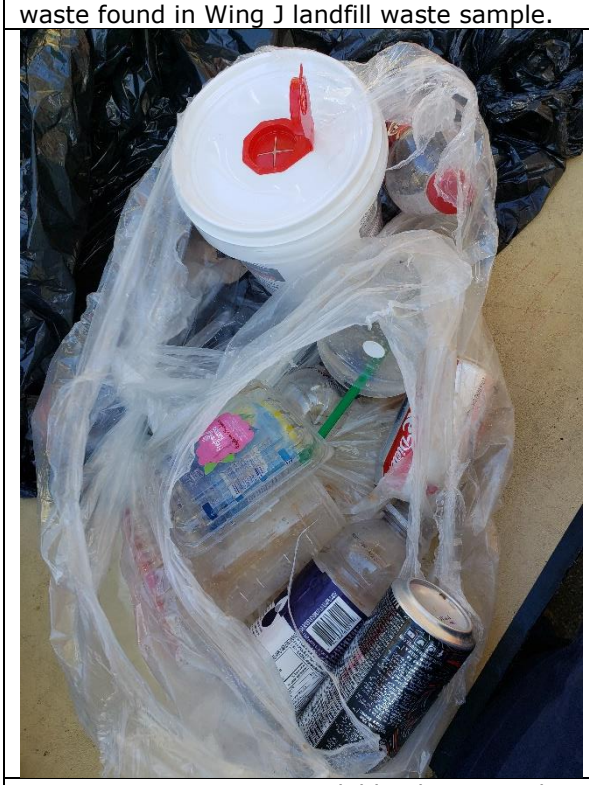
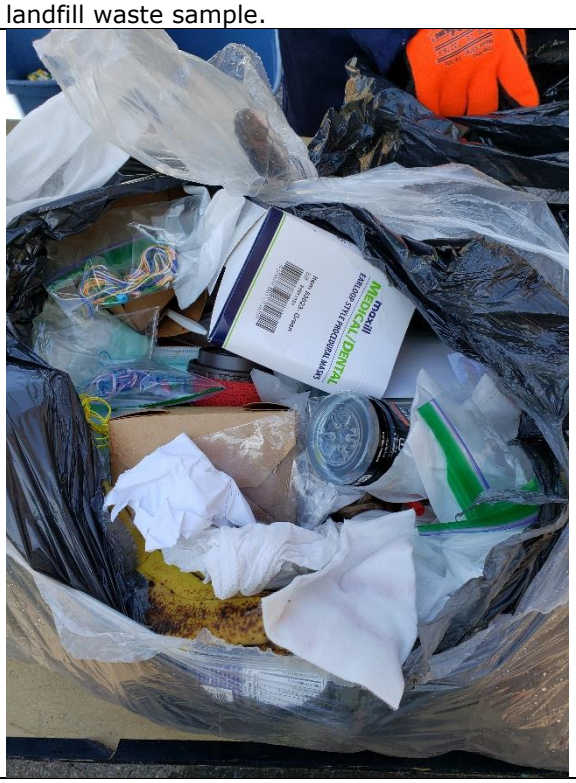
APPENDIX VIII -PHOTOGRAPHS

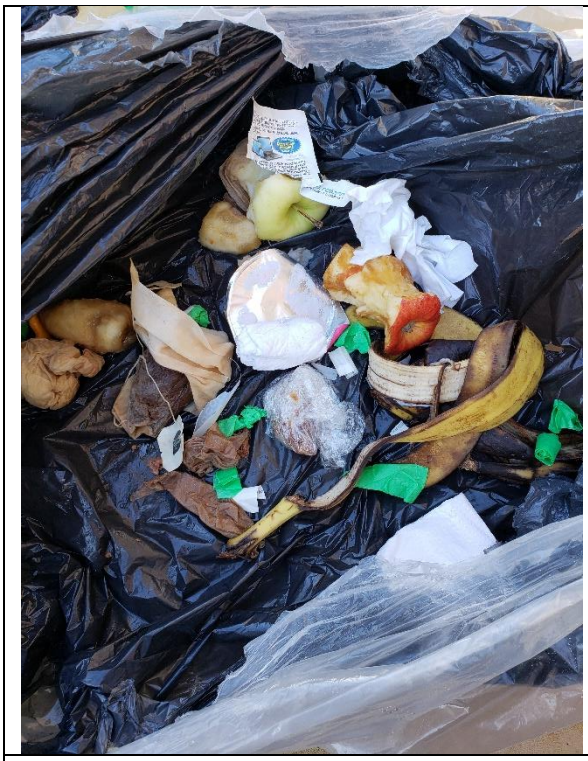
CONTAMINATION PHOTOGRAPHS

	
Recyclable tissue/toweling and recyclable kraft paper found in Wing A landfill waste sample.	Recyclable tissue/toweling found in Wing B landfill waste sample.
	
Recyclable food waste found in Wing B landfill waste sample.	Recyclable shrink wrap found in Wing C landfill waste sample.

	
Recyclable mixed paper found in Wing C landfill waste sample.	Recyclable food waste found in Wing C landfill waste sample.
	
#2 HDPE and #1 PETE recyclable plastics found in Wing C landfill waste sample.	Recyclable tissue/toweling found in Wing E landfill waste sample.

	
Recyclable tissue/toweling found in Wing E landfill waste sample.	Recyclable molded pulp and gable top container, and #1 PETE recyclable plastic found in Wing F landfill waste sample.
	
Recyclable aluminum can and #1 PETE recyclable plastic found in Wing F landfill waste sample.	Recyclable tissue/toweling and aseptic container found in Wing G landfill waste sample.

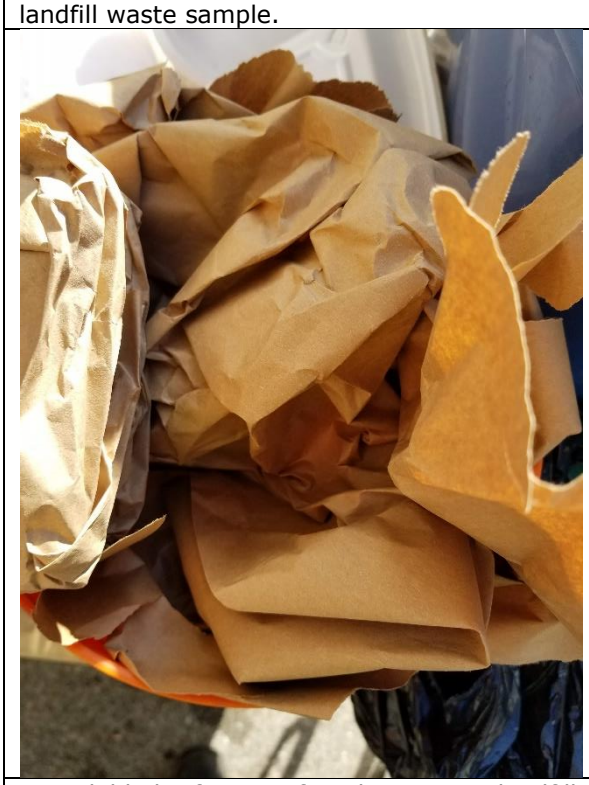
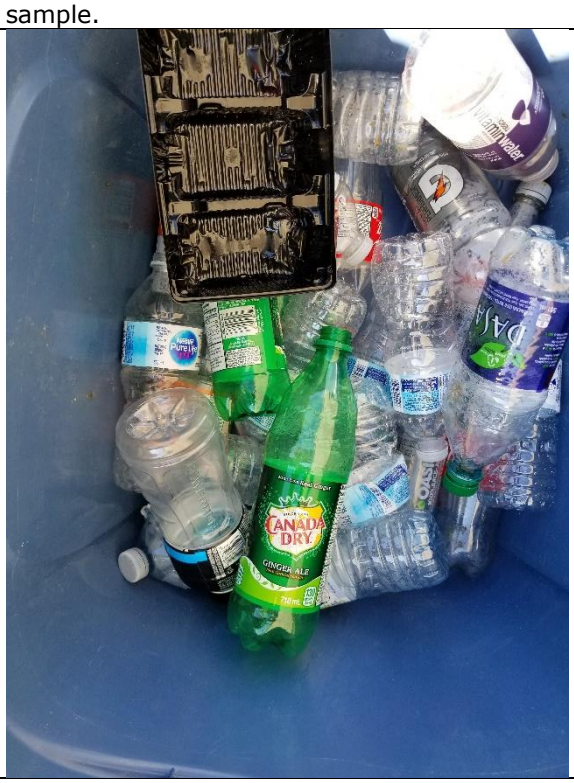
	
Recyclable gable top container and yard/plant waste found in Wing J landfill waste sample.	Recyclable yard/plant waste found in Wing J landfill waste sample.
	
#2 HDPE & #1 PETE recyclable plastics and aluminum cans found in Wing E landfill waste sample.	#1 PETE recyclable plastic, food waste, and recyclable boxboard and tissue/toweling found in Wing E landfill waste sample.



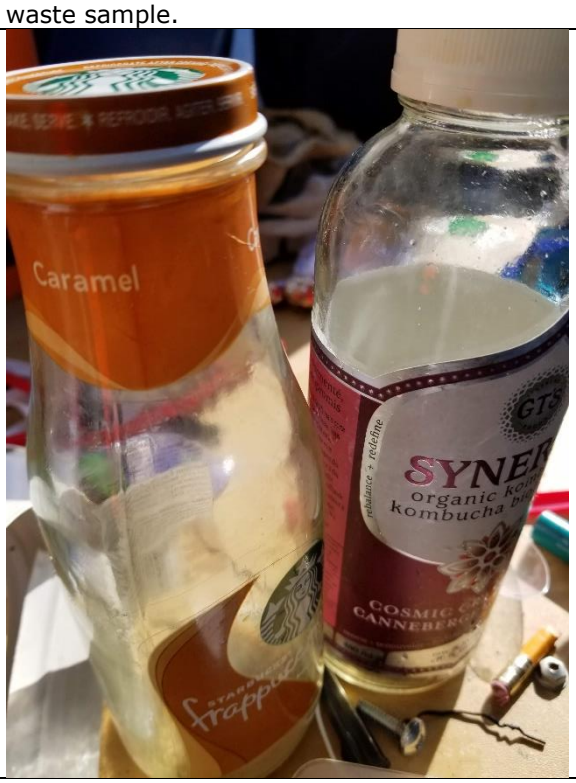
Recyclable food waste found in Wing E landfill waste sample.

Recyclable tissue/toweling found in Wing R landfill waste sample.

SORTED MATERIAL PHOTOGRAPHS

	
#1 PETE recyclable plastic found in Wing B landfill waste sample.	Recyclable metal found in Wing C landfill waste sample.
	
Recyclable kraft paper found in Wing C landfill waste sample.	#1 PETE recyclable plastic found in Wing C landfill waste sample.

	
Recyclable compostable material found in Wing C landfill waste sample.	Recyclable coffee cups found in Wing C landfill waste sample.
	
Recyclable mixed paper found in Wing E landfill waste sample.	#5 PP recyclable plastic found in Wing F landfill waste sample.

	
Recyclable gable top containers found in Wing G landfill waste sample.	Recyclable shredding found in Wing J landfill waste sample.
	
Recyclable boxboard material found in Wing B landfill waste sample.	Recyclable glass found in Wing C landfill waste sample.