

## Waste Audit Report

## Prepared for:

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

## Prepared by:

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## EXECUTIVE SUMMARY

Mohawk College retained GFL Environmental Inc. to conduct a solid, non-hazardous waste audit for the Mohawk College main campus, located at 135 Fennell Avenue West in Hamilton, Ontario. A point of generation waste audit was performed for the Fennell Campus on October 26, 2023.

## 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.

## AUDIT METHODOLOGY

To collect an appropriate sample of waste for the audit, the campus was asked to save waste from an approximate 24 hour period. The GFL Environmental Inc. team received the waste sample and conducted the audit and analysis of the waste stream at an offsite location. 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 subcategories (as listed in Appendix I, page 29). Each commodity type and subcategory were 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 off-site point of generation waste audit, discussions with Mohawk College 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.

## Audited Waste Category Breakdown (kg/ year)



Figure 1 Audited Waste Category Breakdown (kg/ year)

## Total Materials Recycled and/or Sent to Landfill

| Material <br> Destination | Annual Total |  |  |
| :--- | :---: | :---: | :---: |
|  | $230,090.00$ | METRIC TONNES (t) | PERCENTAGE (\%) |
| Recycled | $160,062.50$ | 230.09 | 58.97 |
| TOTAL |  |  |  |
| GENERATED | $\mathbf{3 9 0 , 1 5 2 . 5 0}$ | 160.06 | 41.03 |

## DIVERSION RATE

The 2023 waste diversion rate for the Fennell Campus is $\mathbf{4 1 . 0 3 \%}$, 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 organics recycling program: Organic materials are the heaviest contributor to landfill waste weight. By diverting organic waste from landfill, Mohawk College: Fennell Campus could potentially divert $131,636.73 \mathrm{~kg}$ from landfill annually.
- Training and education: Educating visitors, tenants, employees, and participants 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 the Fennell Campus could be $\mathbf{8 6 . 9 2 \%}$. 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 October 26, 2023 reflect 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 composition of the waste stream as a one off occurrence. No anomalies were found in the waste audit sample.

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## 1 INTRODUCTION

Mohawk College retained GFL Environmental Inc. to conduct a solid, non-hazardous waste audit for the Mohawk College main campus, located at 135 Fennell Avenue West in Hamilton, Ontario. A point of generation waste audit was performed for the Fennell Campus on October 26, 2023.

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 facility on October 26, 2023.

Mohawk College: Fennell Campus at 135 Fennell Avenue West is a post-secondary education facility. 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. The 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 building at 135 Fennell Avenue West currently has programs in place for landfill waste, cardboard, organics and mixed 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 | $1 \times 35 \text { yard }$ compactor | Serviced once (1) per week | GFL Environmental Inc. |
| Landfill Waste | $1 \times 3$ yard bin | On-call service | GFL Environmental Inc. |
| Landfill Waste | $1 \times 40$ yard bin | On-call service | GFL Environmental Inc. |
| Cardboard | $1 \times 8$ yard bin | Serviced once (1) per week | GFL Environmental Inc. |
| Mixed Paper | $1 \times 8$ yard bin | Serviced once (1) per week | GFL Environmental Inc. |
| Shredding | Drop-off bins | On-call service | Shred-it |
| Mixed (Commingled) Recycling | $16 \times 95$ gallon totes | Serviced once (1) per week | GFL Environmental Inc. |
| Organics | $3 \times 32$ gallon totes | Serviced five (5) times per week | Davidson Environmental |
| Scrap Metal | Third-Party | On-call service | Wentworth Metal Recycling |
| Electronic Waste Recycling | Third-Party | On-call service | Quantum Lifecycle Partners LP |
| Battery Recycling | Third-Party | On-call service | Raw Materials Company |
| Lightbulbs | Third-Party | On-call service | - |
| PPE (Disposable <br> Masks) Recycling | Large Box | On-call service | Terracycle |
| Drywall | Third-Party | On-call service | Wentworth Metal Recycling |

## 3 WASTE AUDIT METHODOLOGY

### 3.1 AUDIT PROCEDURE

To collect an appropriate sample of waste for the audit, the campus was asked to save waste from an approximate 24 -hour period. The GFL Environmental Inc. team received the waste sample and conducted the audit and analysis of the waste stream at an offsite location. 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 subcategories (as listed in Appendix I, page 29). Each commodity type and subcategory were weighed individually, and photographs were taken for inclusion in the waste audit report.

### 3.2 AUDITOR PROFILE

Laura McAlpine, Morgan Bragg, and Jaylynn Stone were the lead auditors who conducted the audit organization, preparation and supervision; the lead auditors are 3R Certified auditors through the Recycling Council of Ontario (RCO). The lead auditors were assisted by Naomi Alon, Evan Davis, Pranav Rendalkar, Curtis Draeger, and Yasmeen Al Maleh during the waste audit for the 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 <br> Containers | Pringles cans, concentrated juice cans, etc. |
| Gable Top <br> Containers | Milk and juice cartons |
| Aseptic (Tetra) <br> Containers | Juice boxes, wine cartons, etc. |
| Plastic | Single-use water, juice and pop bottles; clear clamshells, take-out <br> packaging, food packaging and bottles |
| \#1 PET | Bottles and jugs, buckets, tubs, bags, etc. |
| \#2 HDPE | Clamshell packaging |
| \#3 PVC | Bags, bottles, tubs and containers |
| \#4 LDPE | Cups and take-out packaging, jugs and tubs |
| \#5 PP | Take out styrofoam containers |
| \#6 Styrofoam |  |


| \#6 Styrofoam <br> (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 and coloured glass food and beverage packaging |
| Clear/ Coloured | Refundable containers |
| Liquor Bottles | Ceramics, cups, plates, mirrors, window glass, non-LED or <br> fluorescent lightbulbs |
| Other glass | All types |
| Household Special | Waste (HSW) |
| Batteries | Printer toner cartridges |
| Toner cartridges | Paints, solvents, oils, etc.; cosmetics, lotions, healthcare products, <br> etc. |
| Chemicals/ Liquids | Electronics, small appliances, phones, computer equipment, cables, <br> etc. |
| E-Waste | Fluorescent tubes, LED |
| Lightbulbs | All food scraps, peels, bones, skin, pits, coffee grounds and filters, <br> tea bags |
| Organics | Facial tissue, napkins, paper towel |
| Food waste | Water, coffee, pop, juice, soup, etc. |
| Tissue/ Toweling | Compostable packaging, coffee cups, cutlery; wooden stir sticks, <br> bamboo serveware, wooden chopsticks, etc. |
| Beverage liquids | Many different other materials are found in audit samples, Additional <br> notes and subcategories are to be recorded on the waste audit <br> sorting sheet. |
| Pompostable Ware | Otants and Flowers |
| Flowers, potted plants, dead leaves |  |
| Other | Materials |

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:

$$
m=\left(\frac{T_{s}}{T_{c}}\right)\left(T_{t}\right)+T_{r}
$$

$\mathbf{m}=$ 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.
$\mathbf{T t}=$ 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.
$\mathbf{T r}=$ 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 Fennell Campus is estimated to be 911.53 kilograms ( kg ) or 0.91 metric tonnes (t) during a 24 -hour period or $230,090.00 \mathrm{~kg}$ ( 230.09 t ) annually.

From the audited waste sample, organic materials represent 56.18\%; paper materials represent $17.25 \%$; plastic materials represent $16.31 \%$; 'other' materials represent $7.99 \%$; metal materials represent $1.47 \%$; glass materials represent $0.74 \%$, and HSW materials represent $0.06 \%$ of the total annual waste disposed and sent to landfill.

Total Annual Waste Generated 2023*

| COMMODITY CATEGORY | KILOGRAMS (kg) | PERCENTAGE (\%) |
| :---: | :---: | :---: |
| Organics | $131,636.73$ | 57.21 |
| Paper | $39,908.83$ | 17.34 |
| Plastic | $35,194.64$ | 15.30 |
| Other' | $17,454.51$ | 7.59 |
| Metal | $4,426.71$ | 1.92 |
| Glass | $1,037.23$ | 0.45 |
| HSW | 431.35 | 0.19 |
| TOTAL | $\mathbf{2 3 0 , 0 9 0 . 0 0}$ | $\mathbf{1 0 0 . 0 0}$ |

## Total Annual Waste Stream Composition 2023*



Figure 2 Total Annual Waste Stream Composition 2023
*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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C | - | - | - | 2,272.42 | 247.34 | 123.67 | 371.01 | 5,441.45 | 61.83 | 2,287.88 | 1,020.27 | 525.59 | 12,351.47 |
| E | - | - | 786.41 | 284.24 | 824.30 | - | 142.12 | 994.85 | - | 1,241.19 | 180.02 | 66.32 | 4,519.46 |
| R | - | - | 123.17 | 208.44 | 454.79 | 18.95 | 180.02 | 1,601.24 | - | 397.94 | 198.97 | 66.32 | 3,249.85 |
| H | - | - | 47.37 | 132.65 | 47.37 | 85.27 | 1,487.54 |  |  | 1,307.52 | 104.22 | 9.47 | 3,221.42 |
| A | - | - | 9.47 | 521.11 | 464.26 | - | 47.37 | 767.46 | 9.47 | 1,042.22 | 94.75 | 28.42 | 2,984.55 |
| 1 | - | - | 739.03 | 180.02 | 170.55 | 75.80 | - | 672.71 | - | 776.93 | 75.80 | 37.90 | 2,728.73 |
| G | - | - | 132.65 |  | 1,013.80 | - | - | 1,070.65 | - | 378.99 | 47.37 | 18.95 | 2,662.41 |
| J | 85.27 | - | 66.32 | 322.14 | 189.50 | - | - | 615.86 | - | 900.10 | 37.90 | - | 2,217.10 |
| F | 56.85 | - | - | 255.82 | 94.75 | 4.74 | 18.95 | 644.28 | - | 824.30 | 75.80 | 33.16 | 2,008.65 |
| EA | - | - | 94.75 | 85.27 | 56.85 | 14.21 | - | 615.86 | - | 767.46 | 132.65 | 47.37 | 1,814.42 |
| B | - | - | 151.60 | 47.37 | 161.07 | - | 37.90 | 217.92 | - | 378.99 | 4.74 | - | 999.59 |
| M | - | - | - | 66.32 | 293.72 | - | 9.47 | 47.37 | - | 56.85 | - | - | 473.74 |
| N | - | - | - | 123.17 | 56.85 | - | - | 123.17 | - | 104.22 | 47.37 | - | 454.79 |
| Q | - | - | - | - | 56.85 | 28.42 | 4.74 | 37.90 | - | 94.75 | - | - | 222.66 |
| TOTAL | 142.12 | - | 2,150.77 | 4,498.99 | 4,131.99 | 351.06 | 2,299.12 | 12,850.72 | 71.31 | 10,559.35 | 2,019.86 | 833.52 | 39,908.83 |
|  | 0.36\% | 0.00\% | 5.39\% | 11.27\% | 10.35\% | 0.88\% | 5.76\% | 32.20\% | 0.18\% | 26.46\% | 5.06\% | 2.09\% | 100.00\% |

Top Paper Producers in Landfill


Figure 3 Total Annual Paper Materials Generated (kg/ yr)
The figure above shows the amount of paper materials generated and disposed of as waste, per area. The top two (2) producing areas are C Wing, generating $12,351.47 \mathrm{~kg}$ per year, and E Wing, generating $4,519.46 \mathrm{~kg}$ per year. Coffee cups and boxboard are the highest generated recyclable paper materials found in the waste stream. It is important to keep these materials dry and free of contamination prior to recycling. This may include separating coffee cups from cardboard, mixed paper, and boxboard material due to potential beverage liquid remains in coffee cups.

## Total Annual Plastic Materials Generated (kg/yr)

| GENERATING AREAS | \# 1 PETE <br> Soft <br> Drinks | \# 2 HDPE | \# 3 PVC | \# 4 LDPE Recyclabl e Film | \# 5 PP | \# 6 PS (Styrofoa m) | \# 6 PS (Clear/ Hard) | \# 7 Other | NonRecyclable Film | Rigid Plastics | Plastic Strapping | TOTAL PLASTICS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C | 1,762.29 | 772.93 | - | - | 3,493.66 | - | 525.59 | - - | 5,657.87 | 309.17 | - | 12,521.52 |
| E | 312.67 | - | - | - | - | 14.21 | 217.92 | 18.95 | 2,567.66 | 672.71 | - | 3,804.12 |
| F | 246.34 | - | - | - | 274.77 | - | 208.44 | - | 2,226.57 | 56.85 | - | 3,012.98 |
| H | 407.42 | 1,004.33 | - | - | - | - | 255.82 | - | 663.23 | 104.22 | - | 2,435.02 |
| G | - | 66.32 | - | 37.90 | - | - | 94.75 | 85.27 | 1,714.93 | 113.70 | 28.42 | 2,141.30 |
| EA | 189.50 | - | - | - | 426.36 | - | 142.12 | 4.74 | 1,184.35 | 161.07 | - | 2,108.14 |
| A | 255.82 | 47.37 | - | - | 729.56 | - | 208.44 | - | 682.18 | 56.85 | - | 1,980.23 |
| R | 331.62 | 170.55 | - | - | 464.26 | - | 142.12 | - | 767.46 | 85.27 | - | 1,961.28 |
| J | 303.19 | 94.75 | - | - | 198.97 | - | 189.50 | - | 1,080.12 | 66.32 | - | 1,932.85 |
| I | 170.55 | - | - | - | 502.16 | - | 198.97 | - | 805.36 | 18.95 | - | 1,695.98 |
| B | 47.37 | - | - | - | 227.39 | - | 113.70 | - | 246.34 | 47.37 | - | 682.18 |
| N | 18.95 | - | - | - | 28.42 | - | 28.42 | - | 416.89 | 28.42 | - | 521.11 |
| M | 9.47 | - | - | - | 9.47 | - | 18.95 | - | 161.07 | 4.74 | - | 203.71 |
| Q | 18.95 | - | - | - | 18.95 | - | 28.42 | - | 123.17 | 4.74 | - | 194.23 |
| TOTAL | 4,074.13 | 2,156.25 | - | 37.90 | 6,373.99 | 14.21 | 2,373.17 | 108.96 | 18,297.21 | 1,730.39 | 28.42 | 35,194.64 |
|  | 11.58\% | 6.13\% | 0.00\% | 0.11\% | 18.11\% | 0.04\% | 6.74\% | 0.31\% | 51.99\% | 4.92\% | 0.08\% | 100.00\% |

Top Plastic Producers in Landfill


Figure 4 Total Annual Plastic Materials Generated (kg/yr)
The figure above shows the amount of plastic materials generated and disposed of as waste, per area. The top two (2) plastic producing areas are C Wing ( $12,521.52 \mathrm{~kg}$ ) and E Wing ( $3,804.12 \mathrm{~kg}$ ).
\#5 PP and \#1 PETE are the highest generated recyclable plastic materials found in the waste stream. It is important to encourage the use of reusable water bottles and mugs to reduce overall generation of these single-use materials on site. This may include distributing enewsletters 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G | 142.12 | 18.95 | 161.07 | - | 1,695.98 | 663.23 | 2,681.36 |
| C | 216.42 | 278.26 | - | - | - | - | 494.68 |
| E | 132.65 | 37.90 | - | - | - | 94.75 | 265.29 |
| R | 198.97 | 28.42 | 18.95 | - | - | - | 246.34 |
| H | 132.65 | - | - | - | 9.47 | - | 142.12 |
| A | 113.70 | 9.47 | - | - | 9.47 | 4.74 | 137.38 |
| I | 113.70 | 9.47 | - | - | - | - | 123.17 |
| F | 56.85 | 37.90 | - | - | - | - | 94.75 |
| B | 47.37 | 9.47 | - | - | - | 18.95 | 75.80 |
| EA | 56.85 | 4.74 | - | - | - | - | 61.59 |
| Q | 56.85 | 4.74 | - | - | - | - | 61.59 |
| N | - | - | - | 9.47 | - | 9.47 | 18.95 |
| M | 9.47 | - | - | - | - | 4.74 | 14.21 |
| J | - | 9.47 | - | - | - | - | 9.47 |
| TOTAL | 1,277.60 | 448.80 | 180.02 | 9.47 | 1,714.93 | 795.88 | 4,426.71 |
|  | 28.86\% | 10.14\% | 4.07\% | 0.21\% | 38.74\% | 17.98\% | 100.00\% |

Top Metal Producers in Landfill


Figure 5 Total Annual Metal Materials Generated (kg/yr)
The figure above shows the amount of metal materials generated and disposed of as waste, per area. The top two (2) metal producing areas are G Wing ( $2,681.36 \mathrm{~kg}$ ) and C Wing ( 494.68 kg ).
Steel is the most generated recyclable metal material found in the waste stream. It is important to keep these materials free of contamination, including liquids and food waste prior to placing in recycling containers.

## Total Annual Glass Materials Generated (kg/yr)

| GENERATING AREAS | Glass (Clear/ Coloured) | Other Glass | TOTAL |
| :---: | :---: | :---: | :---: |
| C | 525.59 | - | 525.59 |
| R | 265.29 | - | 265.29 |
| EA | 246.34 | - | 246.34 |
| N | - | - | - |
| E | - | - | - |
| G | - | - | - |
| F | - | - | - |
| H | - | - | - |
| B | - | - | - |
| Q | - | - | - |
| J | - | - | - |
| A | - | - | - |
| M | - | - | - |
| I | - | - | - |
| TOTAL | 1,037.23 | - | 1,037.23 |
|  | 100.00\% | 0.00\% | 100.00\% |

Top Glass Producers in Landfill


Figure 6 Total Annual Glass Materials Generated (kg/yr)
The figure above shows the amount of glass materials generated and disposed of as waste, per area. The top two (2) glass producing areas are C Wing ( 525.59 kg ) and R Wing ( 265.29 kg ).
It is important to keep recyclable glass materials free of contamination, including liquids, prior to placing materials into recycling collection containers.

## Total Annual HSW Materials Generated (kg/yr)

| GENERATING AREAS | Batteries | E-Waste | TOTAL <br> HSW |
| :---: | :---: | :---: | :---: |
| B | - | 151.60 | $\mathbf{1 5 1 . 6 0}$ |
| E | - | 123.17 | $\mathbf{1 2 3 . 1 7}$ |
| C | - | 61.83 | $\mathbf{6 1 . 8 3}$ |
| H | 18.95 | 28.42 | $\mathbf{4 7 . 3 7}$ |
| N | 28.42 | - | $\mathbf{2 8 . 4 2}$ |
| I | - | 18.95 | $\mathbf{1 8 . 9 5}$ |
| EA | - | - | - |
| G | - | - | - |
| F | - | - | - |
| Q | - | - | - |
| J | - | - | - |
| A | - | - | - |
| M | - | - | - |
| R | - | - | - |
| TOTAL | $\mathbf{4 7 . 3 7}$ | $\mathbf{3 8 3 . 9 8}$ | $\mathbf{4 3 1 . 3 5}$ |
|  | $\mathbf{1 0 . 9 8 \%}$ | $\mathbf{8 9 . 0 2 \%}$ | $\mathbf{1 0 0 . 0 0 \%}$ |

Top HSW Producers in Landfill


Figure 7 Total Annual HSW Materials Generated (kg/yr)
The figure above shows the amount of HSW materials generated and disposed of as waste, per area. The top two HSW producing areas are B Wing ( 151.60 kg ) and E Wing ( 123.17 kg ).
Electronic waste is the highest generated HSW material 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 through 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C | 29,031.37 | 7,883.92 | 3,122.65 | 1,545.87 | - | 41,583.80 |
| G | 9,195.26 | 3,884.65 | - | 1,298.04 | - | 14,377.96 |
| E | 5,031.10 | 4,836.87 | 786.41 | 568.49 | - | 11,222.86 |
| J | 5,789.08 | 2,847.17 | 549.54 | 198.97 | 1,838.10 | 11,222.86 |
| H | 3,950.98 | 3,022.45 | 2,359.22 | 151.60 | - | 9,484.24 |
| R | 2,823.48 | 5,817.51 | 596.91 | 246.34 | - | 9,484.24 |
| EA | 2,776.11 | 2,937.18 | 1,004.33 | 2,150.77 | - | 8,868.38 |
| A | 1,904.43 | 4,055.20 | 2,349.74 | 170.55 | - | 8,479.92 |
| F | 2,056.02 | 2,378.17 | - | 2,103.40 | - | 6,537.59 |
| I | 2,198.15 | 2,491.86 | 909.58 | 255.82 | - | 5,855.41 |
| B | 1,013.80 | 1,051.70 | 644.28 | 47.37 | - | 2,757.16 |
| N | 663.23 | 426.36 | - | 85.27 | - | 1,174.87 |
| M | 236.87 | 66.32 | - | 9.47 | - | 312.67 |
| Q | 217.92 | 47.37 | - | 9.47 | - | 274.77 |
| TOTAL | 66,887.80 | 41,746.74 | 12,322.65 | 8,841.44 | 1,838.10 | 131,636.73 |
|  | 50.81\% | 31.71\% | 9.36\% | 6.72\% | 1.40\% | 100.00\% |

## Top Organics Products in Landfill



Figure 8 Total Annual Organic Materials Generated (kg/yr)
The figure above shows the amount of organic materials generated and disposed of as waste, per area. The top two (2) organic producing areas are C Wing ( $41,583.80 \mathrm{~kg}$ ) and G Wing ( $14,377.96 \mathrm{~kg}$ ).
Food waste is the highest generated material amongst all organics found in the waste stream. It is important to keep these materials separate from all other waste streams on site. This may include improving the current organics recycling program to include additional collection containers in high-generating area.
Mohawk College: Fennell Campus

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




Figure 9 Total Annual 'other' Materials Generated (kg/ yr)
The figure above shows the amount of 'other' materials generated and disposed of as waste, per area. The top two (2) producing areas are $E$ Wing ( $5,313.80 \mathrm{~kg}$ ) and G Wing ( $5,106.90 \mathrm{~kg}$ ). As these materials are not currently recyclable, ensure that they are placed in the waste bin.

## Total Annual Materials Generated (kg/yr)

| GENERATING AREAS | Paper | Plastic | Metal | Glass | HSW | Organics | Other Materials | TOTAL MATERIALS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C | 12,351.47 | 12,521.52 | 494.68 | 525.59 | 61.83 | 41,583.80 | 494.68 | 68,033.57 |
| G | 2,662.41 | 2,141.30 | 2,681.36 | - | - | 14,377.96 | 5,106.90 | 26,969.93 |
| E | 4,519.46 | 3,804.12 | 265.29 | - | 123.17 | 11,222.86 | 5,613.80 | 25,548.71 |
| R | 3,249.85 | 1,961.28 | 246.34 | 265.29 | - | 9,484.24 | 3,316.17 | 18,523.17 |
| J | 2,217.10 | 1,932.85 | 9.47 | - | - | 11,222.86 | 502.16 | 15,884.45 |
| H | 3,221.42 | 2,435.02 | 142.12 | - | 47.37 | 9,484.24 | 85.27 | 15,415.45 |
| A | 2,984.55 | 1,980.23 | 137.38 | - | - | 8,479.92 | 1,013.80 | 14,595.88 |
| EA | 1,814.42 | 2,108.14 | 61.59 | 246.34 | - | 8,868.38 | 402.68 | 13,501.54 |
| F | 2,008.65 | 3,012.98 | 94.75 | - | - | 6,537.59 | 175.28 | 11,829.25 |
| I | 2,728.73 | 1,695.98 | 123.17 | - | 18.95 | 5,855.41 | 450.05 | 10,872.30 |
| B | 999.59 | 682.18 | 75.80 | - | 151.60 | 2,757.16 | 71.06 | 4,737.38 |
| N | 454.79 | 521.11 | 18.95 | - | 28.42 | 1,174.87 | 75.80 | 2,273.94 |
| M | 473.74 | 203.71 | 14.21 | - | - | 312.67 | 80.54 | 1,084.86 |
| Q | 222.66 | 194.23 | 61.59 | - | - | 274.77 | 66.32 | 819.57 |
| TOTAL | 39,908.83 | 35,194.64 | 4,426.71 | 1,037.23 | 431.35 | 131,636.73 | 17,454.51 | 230,090.00 |
|  | 17.34\% | 15.30\% | 1.92\% | 0.45\% | 0.19\% | 57.21\% | 7.59\% | 100.00\% |

Top Producers in Landfill


Figure 10 Total Annual Materials Generated (kg/yr)

In summary, the waste audit sample consisted of primarily organic materials ( $57.21 \%$ ) and paper materials ( $17.34 \%$ ). With these being the highest generated materials on site, it is important to implement/maintain education and awareness surrounding the importance of recycling. It is also important to ensure that the proper equipment is in place all disposal locations. Focusing on signage, bin placement and education surrounding the recyclability of these materials would have the greatest impact on the overall diversion rate for the Fennell Campus.

## 5 WASTE GENERATION INDEX

The waste generation index (WGI) 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 it can be used to compare to previous years generation data by unit.

For the purpose of this waste audit, the WGI is calculated using the total square footage of the Fennell Campus.

Mohawk College, Fennell Campus is $919,467.00 \mathrm{ft}^{2}$ in size.

## Waste Generation Index is calculated as follows:

Waste Generation Index $=$ (Total Material Generated by the Facility)
(Total Square Footage)

- Total Facility Square Footage: 919,467.00 $\mathrm{ft}^{2}$
- Material Generated Annually: 390,152.50 kg

$$
W I=\frac{390,152.50 \mathrm{~kg}}{919,467.00 \mathrm{ft}^{2}}
$$

$$
W I=0.42 \mathrm{~kg} / \mathrm{ft}^{2}
$$

Therefore, Fennell Campus generates 0.42 kg of waste per square foot.

## 6 CONTAMINATION OF AUDIT SAMPLE

Based on the waste audit results, $179,075.99 \mathrm{~kg}$ ( $77.83 \%$ ) of the landfill waste sample was contaminated with recyclable materials. Of that $131,636.73 \mathrm{~kg}$ ( 131.64 t ) was recyclable organics materials; $26,986.81 \mathrm{~kg}(26.99 \mathrm{t})$ was recyclable paper materials; $15,015.44 \mathrm{~kg}(15.02$ t) was recyclable plastic materials; $3,968.43 \mathrm{~kg}$ ( 3.97 t ) was recyclable metal materials; $1,037.23 \mathrm{~kg}(1.04 \mathrm{t})$ was recyclable glass materials and $431.35 \mathrm{~kg}(0.43 \mathrm{t})$ was recyclable HSW materials.


Figure 11 Contamination of Waste 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
\(230,090.00 \mathrm{~kg}+160,062.50 \mathrm{~kg}=390,152.50 \mathrm{~kg}\)
Diversion Rate is calculated as follows:
Diversion Rate \(=\underset{(\text { (amount diverted from the facility) }}{\text { (tal }} \times 100 \%\)
    (total amount of material generated)
\(=160,062.50 \mathrm{~kg}\)
    \(390,152.50 \mathrm{~kg}\)
\(=0.4103 \times 100 \%\)
= 41.03\%
```

Based on industry standards, service information and available monthly data reporting, a total of $160,062.50 \mathrm{~kg}$ or 160.06 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 | 230,090.00 | 230.09 | 58.97 |
| Recycled | 160,062.50 | 160.06 | 41.03 |
| TOTAL GENERATED | 390,152.50 | 390.15 | 100.00 |

Therefore, the current annual diversion rate is 41.03\%.

## Annual Diversion Rate 2023



Figure 12 Annual Diversion Rate 2023

## 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: $160,062.50 \mathrm{~kg}$
- Divertable materials found in waste stream: $179,075.99 \mathrm{~kg}$
- Total divertable material generated: $160,062.50 \mathrm{~kg}+179,075.99 \mathrm{~kg}=339,138.49 \mathrm{~kg}$

Total Recycling Generated : Total Divertable Materials Generated = Capture Rate

$$
\begin{aligned}
& c=\frac{160,062.50 \mathrm{~kg}}{339,138.49 \mathrm{~kg}} \\
& c=0.4720 \times 100 \% \\
& c=47.20 \%
\end{aligned}
$$

Therefore, the capture rate for Fennell Campus is 47.20\%.

## Annual Capture Rate 2023



Figure 13 Annual Capture Rate 2023

## 9 POTENTIAL DIVERSION

The potential diversion rate $(\boldsymbol{P})$ 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: $160,062.50 \mathrm{~kg}$
- Divertable materials found in landfill waste stream: 179,075.99 kg
- Total divertable material generated: $160,062.50 \mathrm{~kg}+179,075.99 \mathrm{~kg}=339,138.49 \mathrm{~kg}$


## Potential Diversion Rate is calculated as follows:

Potential Diversion Rate $=$ (total divertable materials generated)
(total materials generated)

$$
\begin{aligned}
& p=\frac{339,138.49 \mathrm{~kg}}{390,152.50 \mathrm{~kg}} \\
& p=0.8692 \times 100 \% \\
& p=86.92 \%
\end{aligned}
$$

Therefore, the potential diversion rate for Fennell Campus is $\mathbf{8 6 . 9 2 \%}$.

## Annual Potential Diversion Rate 2023



Figure 14 Annual Potential Diversion Rate Percentage 2023

## 10 CURRENT INITIATIVES AND WASTE MANAGEMENT PROGRAMS

Mohawk College's 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.

## Centralized Waste Station

The centralized waste station is located in the main cafeteria, creating a single collection point for waste. This station places a greater emphasis on sorting, and provides organics bins as well as rinsing stations. This helps reduce contamination in the recycling streams. The signage incorporated in the stations serves as an education opportunity on waste sorting for the college community.


## Green Team

September 2022 saw the launch of the Green Team volunteer program. The Green Team is a group of students who volunteer with the Mohawk College Sustainability Office. To date we've had 53 trained volunteers, currently 22 students are actively volunteering. The Green Team primarily assists members of the College community with sorting their waste using College Waste Stations (shown below) and educating them about the importance of proper waste sorting. Volunteers have also taken part in events enhancing local sustainability, such as cleanups and outreach events focused on sustainable waste practices. To date, a combined total of 230 volunteer hours have been accumulated.


## Outdoor Bins

Three-stream bins are located 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.


## 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 individuals to source separate their materials rather than disposing all materials into one landfill bin. The program was successfully rolled out to all classrooms on campus in 2017. Additional bins were added in 2018 to enhance the program, providing a greater opportunity to increase the diversion of recyclable material from landfill.

## Dishwashing Station

Fennell Campus has a dishwashing station in the cafeteria to encourage staff and students to bring their lunch from home in reusable containers. It was previously upgraded for easy use and a more pleasant experience for staff and students, further encouraging participants to neatly wash their reusable containers.

## Water Bottle Refill Stations

Mohawk College has 32 water bottle refill stations across Fennell Campus. Since 2016, these stations have helped to divert 6,160,213 water bottles from the landfill waste and recycling streams.

## 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.

## Electronic Waste \& Battery Recycling Program

The electronic waste (e-waste) and battery recycling program at 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 4.89 tons ( $9,792 \mathrm{lbs}$.) electronic waste has been collected for recycling in the last twelve (12) months.


## PPE Collection

In spring 2020, Mohawk College initiated PPE collection at both campuses. In Fall 2021, this program was operationalized with our housekeeping team implementing Terracycle Disposable Mask Collection boxes. This was accomplished by providing several collection boxes at designated sites around campus. To date, Fennell Campus has filled 45 large boxes, representing 143,468 masks diverted from landfill!


## PaperCut ${ }^{\text {TM }}$ Software for Paper Reduction

In September 2019, Mohawk College introduced PaperCut ${ }^{\text {TM }}$ software to the Fennell campus. The software program allows the college to better track paper use, in order to coordinate reduction campaigns and initiatives. Paper consumption on campus has reduced significantly over the pandemic and the college has implemented digital file management systems to continue to reduce paper use post-pandemic.

## Paperless News Initiative

At Mohawk College, all staff and students have access to the municipal newspaper through their Mohawk login. This has eliminated the overall generation of printed paper.

## Mohawk Students' Association (MSA) Waste Bin Signage Update

In February of 2023 the Sustainability Office updated the waste bins in the MSA/G-wing on campus to implement consistent messaging across campus. This signage allows students to become familiar with the waste sorting processes on campus. Three organics bins were introduced in the update. The main source of waste in this area of the college is food waste and food packaging waste thus these new organics bins will greatly impact the waste diversion rates in the MSA.


## Friendlier

In Fall of 2023, Mohawk College introduced a reusable container program pilot at Mo's Restaurant in the Mohawk College Residence, in partnership with Chartwells and Friendlier. If successful, this initiative is expected to be expanded to additional foodservice areas at the college. The program is currently servicing the 350 students who reside in the residence building and is expected to significantly reduce waste from foodservices by replacing many types of single-use packaging with a deposit and return system.

How it works

## 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. 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.

### 11.1 IMPROVE ORGANICS RECYCLING

A total of $57.21 \%$ of the landfill waste sample was organic waste material. As organic materials are the heaviest contributor to overall disposal figures, diverting as much organic material from the waste stream as possible will greatly increase the diversion rate and reduce the amount of waste sent to landfill annually.

### 11.2 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.

### 11.3 SIGNAGE AND EDUCATION

## Faculty/Student Education

Educational information should be displayed on an 'Environmental Board' and frequently updated to encourage and engage 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. Inquire with your waste hauler about what is accepted in your recycling program in your region.

### 11.4 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 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.

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 staff 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, and sign documents in all applicable areas (as located on pages 30 and 40 in this report).

## 12 CONCLUSION

Based on the waste audit figures, the Fennell Campus generates $390,152.50 \mathrm{~kg}(390.15 \mathrm{t})$ of material annually, $160,062.50 \mathrm{~kg}$ ( 160.06 t ) of which is diverted as recycling and $230,090.00 \mathrm{~kg}$ $(230.09 \mathrm{t})$ of which is disposed of as landfill waste. $179,075.99 \mathrm{~kg}(179.08 \mathrm{t})$ of the total landfill waste could have been diverted and recycled.

In order to address and monitor the effectiveness of the recycling program at Mohawk College Fennell Campus, consider the following suggestions to improve the existing program and efforts of employees 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, from management to employees. The more involved all parties are in the waste reduction goals of the Mohawk College, the greater the success of the program.

APPENDIX I - TABLE OF WASTE AUDIT DATA

| NAME: Mohawk College Fennell Camopus |  |  | WASTE AUDIT DATA |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ADDRESS: 135 Fennell Ave W, Hamilton ON |  |  |  |  |  |  |
| DATE: October 26, 2023 |  |  | $\begin{gathered} \text { (KGS) } \\ \hline \text { Annual } \end{gathered}$ | $\begin{array}{c\|} \hline \text { (KGS) } \\ \hline \text { Monthly } \end{array}$ | (KGS) | (KGS) |
| PAPER | \% | \% |  |  | Weekly | Daily |
| Newspaper |  | 0.36\% | 142.12 | 11.84 | 2.73 | 0.56 |
| Magazines |  | 0.00\% | - | - | - | - |
| Cardboard |  | 5.39\% | 2,150.77 | 179.23 | 41.36 | 8.53 |
| Boxboard |  | 11.27\% | 4,498.99 | 374.92 | 86.52 | 17.85 |
| Mixed Papers |  | 10.35\% | 4,131.99 | 344.33 | 79.46 | 16.40 |
| Molded Pulp |  | 0.88\% | 351.06 | 29.26 | 6.75 | 1.39 |
| Kraft Paper |  | 5.76\% | 2,299.12 | 191.59 | 44.21 | 9.12 |
| Other Paper |  | 32.20\% | 12,850.72 | 1,070.89 | 247.13 | 50.99 |
| Spiral Wound |  | 0.18\% | 71.31 | 5.94 | 1.37 | 0.28 |
| Coffee Cups |  | 26.46\% | 10,559.35 | 879.95 | 203.06 | 41.90 |
| Aseptic Containers |  | 5.06\% | 2,019.86 | 168.32 | 38.84 | 8.02 |
| Gable Top Containers |  | 2.09\% | 833.52 | 69.46 | 16.03 | 3.31 |
| Total Paper | 17.34\% | 100.00\% | 39,908.83 | 3,325.74 | 767.48 | 158.37 |
| PLASTICS |  |  |  |  |  |  |
| \# 1 PETE Soft Drinks |  | 11.58\% | 4,074.13 | 339.51 | 78.35 | 16.17 |
| \# 2 HDPE |  | 6.13\% | 2,156.25 | 179.69 | 41.47 | 8.56 |
| \# 3 PVC |  | 0.00\% | - | - | - | - |
| \# 4 LDPE Recyclable Film |  | 0.11\% | 37.90 | 3.16 | 0.73 | 0.15 |
| \# 5 PP |  | 18.11\% | 6,373.99 | 531.17 | 122.58 | 25.29 |
| \# 6 PS (Styrofoam) |  | 0.04\% | 14.21 | 1.18 | 0.27 | 0.06 |
| \# 6 PS (Clear/ Hard) |  | 6.74\% | 2,373.17 | 197.76 | 45.64 | 9.42 |
| \# 7 Other |  | 0.31\% | 108.96 | 9.08 | 2.10 | 0.43 |
| Non-Recyclable Film |  | 51.99\% | 18,297.21 | 1,524.77 | 351.87 | 72.61 |
| Rigid Plastics |  | 4.92\% | 1,730.39 | 144.20 | 33.28 | 6.87 |
| Plastic Strapping |  | 0.08\% | 28.42 | 2.37 | 0.55 | 0.11 |
| Total Plastics | 15.30\% | 100.00\% | 35,194.64 | 2,932.89 | 676.82 | 139.66 |
| METALS |  |  |  |  |  |  |
| Aluminum Cans |  | 28.86\% | 1,277.60 | 106.47 | 24.57 | 5.07 |
| Aluminum Foil |  | 10.14\% | 448.80 | 37.40 | 8.63 | 1.78 |
| Aluminum Trays |  | 4.07\% | 180.02 | 15.00 | 3.46 | 0.71 |
| Aerosol Cans |  | 0.21\% | 9.47 | 0.79 | 0.18 | 0.04 |
| Steel |  | 38.74\% | 1,714.93 | 142.91 | 32.98 | 6.81 |
| Scrap Metal |  | 17.98\% | 795.88 | 66.32 | 15.31 | 3.16 |
| Total Metals | 1.92\% | 100.00\% | 4,426.71 | 368.89 | 85.13 | 17.57 |
| GLASS |  |  |  |  |  |  |
| Glass (Clear/ Coloured) |  | 100.00\% | 1,037.23 | 86.44 | 19.95 | 4.12 |
| Other Glass |  | 0.00\% | - | - | - | - |
| Total Glass | 0.45\% | 100.00\% | 1,037.23 | 86.44 | 19.95 | 4.12 |
| H\| |  |  |  |  |  |  |
| Batteries |  | 10.98\% | 47.37 | 3.95 | 0.91 | 0.19 |
| Lightbulbs |  | 0.00\% | - | - | - | - |
| Chemicals/ Liquids |  | 0.00\% | - | - | - | - |
| E-Waste |  | 89.02\% | 383.98 | 32.00 | 7.38 | 1.52 |
| Total HSW | 0.19\% | 100.00\% | 431.35 | 3.95 | 0.91 | 0.19 |
| ORGANICS |  |  |  |  |  |  |
| Food Waste |  | 50.81\% | 66,887.80 | 5,573.98 | 1,286.30 | 265.43 |
| Tissue/ Toweling |  | 31.71\% | 41,746.74 | 3,478.89 | 802.82 | 165.66 |
| Beverage Liquids |  | 9.36\% | 12,322.65 | 1,026.89 | 236.97 | 48.90 |
| Compostable Containers |  | 6.72\% | 8,841.44 | 736.79 | 170.03 | 35.09 |
| Yard/ Plant Waste |  | 1.40\% | 1,838.10 | 153.18 | 35.35 | 7.29 |
| Total Organics | 57.21\% | 100.00\% | 131,636.73 | 10,969.73 | 2,531.48 | 522.37 |
| OTHER MATERIALS |  |  |  |  |  |  |
| Textiles |  | 2.05\% | 357.80 | 29.82 | 6.88 | 1.42 |
| Disposable Gloves |  | 10.58\% | 1,846.83 | 153.90 | 35.52 | 7.33 |
| Masks |  | 0.11\% | 18.95 | 1.58 | 0.36 | 0.08 |
| Diapers |  | 2.82\% | 492.69 | 41.06 | 9.47 | 1.96 |
| Coffee Pods |  | 0.98\% | 170.55 | 14.21 | 3.28 | 0.68 |
| Sanitary Products |  | 2.55\% | 445.31 | 37.11 | 8.56 | 1.77 |
| Scissors |  | 0.36\% | 62.83 | 5.24 | 1.21 | 0.25 |
| Writing Utensil |  | 0.30\% | 52.11 | 4.34 | 1.00 | 0.21 |
| Sponge |  | 0.11\% | 18.95 | 1.58 | 0.36 | 0.08 |
| Wood |  | 13.71\% | 2,392.38 | 199.36 | 46.01 | 9.49 |
| Scoby Gel |  | 6.73\% | 1,174.87 | 97.91 | 22.59 | 4.66 |
| Cotton Swab |  | 0.11\% | 18.95 | 1.58 | 0.36 | 0.08 |
| Lab Equipment |  | 1.09\% | 189.50 | 15.79 | 3.64 | 0.75 |
| Filter |  | 3.20\% | 559.01 | 46.58 | 10.75 | 2.22 |
| Sweepings |  | 10.29\% | 1,795.47 | 149.62 | 34.53 | 7.12 |
| Insulation |  | 0.76\% | 132.65 | 11.05 | 2.55 | 0.53 |
| Loose Insulation |  | 10.37\% | 1,809.68 | 150.81 | 34.80 | 7.18 |
| PVC Pipe Ends |  | 4.99\% | 871.68 | 72.64 | 16.76 | 3.46 |
| Butane Can |  | 4.40\% | 767.46 | 63.95 | 14.76 | 3.05 |
| Eraser |  | 0.81\% | 142.12 | 11.84 | 2.73 | 0.56 |
| Salt |  | 3.15\% | 549.54 | 45.79 | 10.57 | 2.18 |
| CD |  | 0.22\% | 37.90 | 3.16 | 0.73 | 0.15 |
| Cream Bottle |  | 0.22\% | 37.90 | 3.16 | 0.73 | 0.15 |
| Utensil/Cutlery |  | 0.43\% | 75.80 | 6.32 | 1.46 | 0.30 |
| Milk Pouches |  | 0.60\% | 104.22 | 8.69 | 2.00 | 0.41 |
| Playdoh |  | 0.27\% | 47.37 | 3.95 | 0.91 | 0.19 |
| CO2 Canister |  | 0.18\% | 30.92 | 2.58 | 0.59 | 0.12 |
| Hydroperoxide Indicators |  | 0.09\% | 15.46 | 1.29 | 0.30 | 0.06 |
| Plastic Band |  | 0.03\% | 4.74 | 0.39 | 0.09 | 0.02 |
| Ice Pack |  | 17.91\% | 3,126.67 | 260.56 | 60.13 | 12.41 |
| Sports Stick |  | 0.54\% | 94.75 | 7.90 | 1.82 | 0.38 |
| Deodarant |  | 0.05\% | 9.47 | 0.79 | 0.18 | 0.04 |
|  |  | 0.00\% | - | - | - | - |
| Total Other | 7.59\% | 100.00\% | 17,454.51 | 1,454.54 | 335.66 | 69.26 |
|  |  |  |  |  |  |  |
| TOTAL ANNUAL WASTE | 100.00\% |  | 230,090.00 | 19,142.17 | 4,417.42 | 911.53 |
| Total Annual Divertable Materials | 77.83\% |  | 179,075.99 |  |  |  |
| Total Annual Non-Divertable Materials | 22.17\% |  | 51,014.01 |  |  |  |
| *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 <br> Report of a Waste Audit - Waste Audit Summary Sheet <br> 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



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):
The 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 paper | 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. |
| PETE \#1 plastic beverage bottles and clam shells | Generated by participants. Material is deposited into designated container for recycling. |
| HDPE \#2 plastics jugs, crates, totes and drums | Generated by participants. Material is deposited into designated container for recycling. |
| PVC \#3 | Generated by participants. Material is deposited into designated container for waste. |
| LDPE \#4 Recyclable Film | Generated by participants. Material is deposited into designated container for recycling. |
| PP \#5 | Generated by participants. Material is deposited into designated container for recycling. |
| PS \#6 (Styrofoam) | Generated by participants. Material is deposited into designated container for waste. |
| PS \#6 (Clear/Hard) | Generated by participants. Material is deposited into designated container for recycling. |
| Non-Recyclable Film | Generated by participants. Material is deposited into designated container for waste. |
| Rigid Plastics | 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 Food /Beverage 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. |
| :---: | :---: |
| Steel Food /Beverage Cans | 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 Food /Beverage Containers | 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. |
| Masks | Generated by participants. Material is deposited into designated container for waste. |
| Diapers | Generated by participants. Material is deposited into designated container for waste. |
| Coffee Pods | Generated by participants. Material is deposited into designated container for waste. |
| Sanitary Products | Generated by participants. Material is deposited into designated container for waste. |
| Scissors | Generated by participants. Material is deposited into designated container for waste. |
| Writing Utensil | Generated by participants. Material is deposited into designated container for waste. |
| Sponge | Generated by participants. Material is deposited into designated container for waste. |
| Wood | Generated by participants. Material is deposited into designated container for waste. |
| Scoby Gel | Generated by participants. Material is deposited into designated container for waste. |
| Cotton Swab | Generated by participants. Material is deposited into designated container for waste. |
| Lab Equipment | Generated by participants. Material is deposited into designated container for waste. |
| Filter | Generated by participants. Material is deposited into designated container for waste. |
| Sweepings | Generated by participants. Material is deposited into designated container for waste. |
| Insulation | Generated by participants. Material is deposited into designated container for waste. |
| Loose Insulation | Generated by participants. Material is deposited into designated container for waste. |
| PVC Pipe Ends | Generated by participants. Material is deposited into designated container for waste. |


| Butane Can | Generated by participants. Material is deposited into designated <br> container for waste. |
| :--- | :--- |
| Eraser | Generated by participants. Material is deposited into designated <br> container for waste. |
| Salt | Generated by participants. Material is deposited into designated <br> container for waste. |
| 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 <br> the recycling bins provided. |
| Magazines |  | Participants deposit magazines into <br> the recycling bins provided. |
| Cardboard | Staff flattens all cardboard and <br> deposit into the designated <br> collection bins. |  |
| Boxboard |  | Staff flattens all boxboard and <br> deposit into the designated <br> collection bins. |
| Mixed paper |  | Participants deposit mixed paper <br> into the recycling bins provided. |
| Molded Pulp | Participants deposit molded pulp <br> materials into the recycling bins <br> provided. |  |
| Kraft Paper | Participants deposits kraft paper <br> materials into the recycling bins <br> 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. |
| PETE \#1 plastic |  | Participants deposit PETE \#1 plastics into the recycling bins provided. |
| HDPE \#2 plastics jugs, crates, totes and drums |  | Participants are asked to rinse HDPE \#2 plastics, if needed, before depositing into the recycling bins provided. |
| PVC \#3 | Participants place in waste bins. |  |
| LDPE \#4 Recyclable Film |  | Participants deposit recyclable film into the recycling bins provided. |
| PP \#5 |  | Participants deposit \#5 plastics into the recycling bins provided. |
| PS \#6 (Styrofoam) | Participants place in waste bins. |  |
| PS \#6 (Clear/Hard) |  | Participants deposit \#6, clear/hard plastics into the recycling bins provided. |
| Non-Recyclable Film | Participants place in waste bins. |  |
| Rigid Plastics | Participants place in waste bins. |  |
| Plastic Strapping | Participants place in waste bins. |  |
| Aluminum Food /Beverage 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. |
| Steel Food /Beverage Cans |  | Participants are asked to rinse steel cans, if needed, before depositing into the recycling bins provided. |
| Scrap Metal |  | Participants deposit into the recycling bins provided. |
| Glass Food /Beverage Containers |  | Participants are asked to rinse glass containers, if needed, before depositing into the recycling bins provided. |
| 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. |  |
| Masks | Participants place in waste bins. |  |
| Diapers | Participants place in waste bins. |  |
| Coffee Pods | Participants place in waste bins. |  |
| Sanitary Products | Participants place in waste bins. |  |
| Scissors | Participants place in waste bins. |  |
| Writing Utensil | Participants place in waste bins. |  |
| Sponge | Participants place in waste bins. |  |
| Wood | Participants place in waste bins. |  |
| Scoby Gel | Participants place in waste bins. |  |
| Cotton Swab | Participants place in waste bins. |  |
| Lab Equipment | Participants place in waste bins. |  |
| Filter | Participants place in waste bins. |  |
| Sweepings | Participants place in waste bins. |  |
| Insulation | Participants place in waste bins. |  |
| Loose Insulation | Participants place in waste bins. |  |
| PVC Pipe Ends | Participants place in waste bins. |  |
| Butane Can | Participants place in waste bins. |  |
| Eraser | Participants place in waste bins. |  |
| Salt | Participants place in waste bins. |  |


| CD | Participants place in waste <br> bins. |  |
| :--- | :--- | :--- |
| Cream Bottle | Participants place in waste <br> bins. |  |
| Utensil/Cutlery | Participants place in waste <br> bins. | Participants place in waste <br> bins. |
| Milk Pouches | Participants place in waste <br> bins. |  |
| Playdoh | Participants place in waste <br> bins. |  |
| CO2 Canister | Participants place in waste <br> bins. |  |
| Hydroperoxide <br> Indicators | Participants place in waste <br> bins. |  |
| Plastic Band | Participants place in waste <br> bins. |  |
| Ice Pack | Participants place in waste <br> bins. |  |
| Sports Stick | Participants place in waste <br> bins. |  |
| Deodorant |  | Staff deposit wood into the <br> designated collection bins. |
| Wood |  |  |

## V. ESTIMATED QUANTITY OF WASTE PRODUCED ANNUALLY



## 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 <br> official: | Title: | Date: |
| :--- | :--- | :--- |
|  |  |  |

## MOE FORMS

## APPENDIX III - REPORT OF WASTE REDUCTION WORK PLAN

# Ministry of the Environment Waste Form <br> Report of a Waste Audit <br> Industrial, Commercial and Institutional Establishments 

As required by 0. 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: <br> Mohawk College: Fennell Campus |  |  |
| :--- | :--- | :--- | :--- |
| Name of Contact Person: <br> Ashley Packer | Telephone \#: <br> $905-575-1212$ | Email address: <br> Ashley.packer@mohawkcollege. <br> ca |
| Street Address(es) of Entity(ies): |  |  |
| 135 Fennell Avenue West |  |  |

## II. DESCRIPTION OF ENTITY

Provide a brief overview of the entity(ties):
The 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. <br> Reuse: Newsprint can be reused for moving and shipping as packaging. <br> 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. <br> Reuse: Magazines are shared in guest common areas. <br> 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. <br> Reuse: Cardboard boxes can be reused for moving and shipping. <br> 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. <br> Reuse: Boxboard can be reused for packaging small goods. <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Mixed paper | Reduce: Encourage use of electronic documents only and reconsidering printing. <br> Reuse: Reuse one sided documents for other print jobs. <br> 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. <br> Purchase supplies in bulk to avoid excess packaging. <br> Reuse: Reuse for packaging and protecting small goods. <br> 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. <br> Reuse: Reuse for packaging and protecting small goods. <br> 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. <br> Reuse: N/A <br> 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. <br> Reuse: N/A <br> 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. <br> 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. <br> Reuse: N/A <br> 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. <br> Reuse: N/A <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| PETE \#1 plastic beverage bottles and clam shells | Reduce: Encourage suppliers to provide goods in bulk to cut down on amount of material produced. Promote reusable containers to participants. <br> Reuse: Reuse material for water throughout the day. <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| HDPE \#2 plastics jugs, crates, totes and drums | Reduce: Encourage suppliers to provide goods in bulk to cut down on amount of material produced. <br> Reuse: Containers are reused in kitchen areas for collection of organic waste (i.e. large white tubs). <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| PVC \#3 | Reduce: Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. <br> Reuse: Reuse as protective packaging for shipments. <br> Recycle: Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| LDPE \#4 <br> Recyclable Film | Reduce: Encourage suppliers to provide goods in bulk to cut down on amount of material produced. <br> 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. <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| PP \#5 | Reduce: Encourage suppliers to provide goods in bulk to cut down on amount of material produced. <br> 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. |
| PS \#6 (Styrofoam) | Reduce: Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. <br> Reuse: Reuse as protective packaging for shipments. <br> Recycle: Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| PS \#6 <br> (Clear/Hard) | Reduce: Encourage suppliers to provide goods in bulk to cut down on amount of material produced. <br> Reuse: N/A |


|  | Recycle: Program in place. 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. <br> Reuse: Reuse as protective packaging for shipments. <br> Recycle: Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Rigid Plastics | Reduce: Encourage suppliers to provide goods packaged in reusable products. Refuse products packaged in this material. <br> Reuse: N/A <br> 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. <br> 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 Food /Beverage Cans | Reduce: Encourage suppliers to provide goods in bulk to cut down on amount of material produced. <br> Reuse: N/A <br> 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. <br> Reuse: N/A <br> 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. <br> Reuse: N/A <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Steel Food /Beverage Cans | Reduce: Encourage suppliers to provide goods in bulk to cut down on amount of material produced. <br> Reuse: N/A <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Scrap Metal | Reduce: N/A <br> Reuse: N/A <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Glass Food /Beverage Containers | Reduce: Implement sustainable purchasing policy to ensure amounts are not ordered in excess. <br> Reuse: N/A <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Food Waste | Reduce: Implement sustainable purchasing policy to ensure amounts are not ordered in excess. |


|  | Reuse: N/A <br> 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. <br> Reuse: N/A <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Beverage Liquids | Reduce: N/A <br> Reuse: N/A <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Compostable Containers | Reduce: N/A <br> Reuse: N/A <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Yard/Plant Waste | Reduce: N/A <br> Reuse: N/A <br> Recycle: Program in place. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Textiles | Reduce: Encourage suppliers to provide reusable material. Refuse singleuse material. <br> Reuse: Reuse material once appropriately cleaned and sanitized. <br> Recycle: Alternative program not yet in place. Material is not recyclable. <br> Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Disposable Gloves | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Masks | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Diapers | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Coffee Pods | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Sanitary Products | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Scissors | Reduce: N/A |


|  | Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| :---: | :---: |
| Writing Utensil | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Sponge | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Wood | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Scoby Gel | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Cotton Swab | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Lab Equipment | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Filter | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Sweepings | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Insulation | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Loose Insulation | Reduce: N/A <br> Reuse: N/A |


|  | Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| :---: | :---: |
| PVC Pipe Ends | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Butane Can | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Eraser | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Salt | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| $C D$ | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Cream Bottle | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Utensil/Cutlery | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Milk Pouches | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Playdoh | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| CO2 Canister | Reduce: N/A <br> Reuse: N/A |


|  | Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| :---: | :---: |
| Hydroperoxide Indicators | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Plastic Band | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Ice Pack | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Sports Stick | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Deodorant | Reduce: N/A <br> Reuse: N/A <br> Recycle: Alternative program not yet in place. Material is not recyclable. Through education and awareness, ensure all participants understand current recycling programs and initiatives. |
| Wood | Reduce: N/A <br> Reuse: N/A <br> Recycle: Program in place. 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 \# |
| :---: | :---: | :---: |
| Ashley Packer | Implement the Waste <br> Reduction Work Plan | $905-575-1212 \times 4474$ |

## 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 paper | 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 mid-2024. |
| Spiral Wound | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| 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. |
| PETE \#1 plastic beverage bottles | 3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives. |
| HDPE \#2 plastics jugs, crates, totes and drums | 3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives. |
| PVC \#3 | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| LDPE \#4 Recyclable Film | 3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives. |
| PP \#5 | 3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives. |
| PS \#6 (Styrofoam) | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| PS \#6 (clear/hard) | 3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives. |
| Rigid Plastics | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Non- Recyclable film | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Plastic Strapping | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Aluminum Food /Beverage 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 mid-2024. |


| Aluminum Trays | 3Rs Program is currently in place. The facility is continuously working on improving diversion and reduction initiatives. |
| :---: | :---: |
| Steel Food /Beverage Cans | 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 Food /Beverage Containers | 3Rs 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 | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Disposable Gloves | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Masks | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Recyclable Wood | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Coffee Pods | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Writing Utensils | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Condoms | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Sweepings | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Metal Shavings | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Wax | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Book | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Hairnets | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Lube | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Bandages | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Toiletries | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Coins | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |
| Lint | Material is not recyclable. Ensure participants understand what is accepted in the recycling program by mid-2024. |


| Sweepings | Material is not recyclable. Ensure participants understand what is <br> accepted in the recycling program by mid-2024. |
| :--- | :--- |
| Tripod | Material is not recyclable. Ensure participants understand what is <br> accepted in the recycling program by mid-2024. |
| Balloons | Material is not recyclable. Ensure participants understand what is <br> accepted in the recycling program by mid-2024. |
| Craft Supplies | Material is not recyclable. Ensure participants understand what is <br> accepted in the recycling program by mid-2024. |
| Vape Pens | Material is not recyclable. Ensure participants understand what is <br> accepted in the recycling program by mid-2024. |
| Diapers | Material is not recyclable. Ensure participants understand what is <br> accepted in the recycling program by mid-2024. |
| Wood | 3Rs Program is currently in place. The facility is continuously working <br> on improving diversion and reduction initiatives. |

## 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 (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Reduc } \\ \mathrm{e} \end{gathered}$ | $\begin{gathered} \text { Reus } \\ \mathrm{e} \end{gathered}$ | $\begin{gathered} \text { Recycl } \\ \mathbf{e} \end{gathered}$ |  |
| Example: Fine Paper | 1.8 t | Fine Paper 3Rs Program | 200 t | 100 t | 1.2 t | 60\% |
| Newspaper | 0.14 | Paper Recycling |  |  | 0.09 | 60.00 |
| Magazines | - | Paper Recycling |  |  | - | 60.00 |
| Cardboard | 15.95 | Paper Recycling |  |  | 9.57 | 60.00 |
| Boxboard | 4.50 | Paper Recycling |  |  | 2.70 | 60.00 |
| Mixed Papers | 17.09 | Paper Recycling |  |  | 10.26 | 60.00 |
| Molded Pulp | 0.35 | Paper Recycling |  |  | 0.21 | 60.00 |
| Kraft Paper | 2.30 | Paper Recycling |  |  | 1.38 | 60.00 |
| Other Paper | 12.85 | Waste | 1.29 |  |  | 10.00 |
| Spiral Wound | 0.07 | Waste | 0.01 |  |  | 10.00 |
| Coffee Cups | 10.56 | Commingled Recycling |  |  | 6.34 | 60.00 |
| Aseptic Containers | 2.02 | Commingled Recycling |  |  | 1.21 | 60.00 |
| Gable Top Containers | 0.83 | Commingled Recycling |  |  | 0.50 | 60.00 |
| \# 1 PETE Soft Drinks | 25.23 | Commingled Recycling |  |  | 15.14 | 60.00 |
| \# 2 HDPE | 3.52 | Commingled Recycling |  |  | 0.35 | 10.00 |
| \# 4 LDPE Recyclable Film | 2.09 | Waste |  |  | 1.25 | 60.00 |
| \# 5 PP | 8.42 | Commingled Recycling |  |  | 0.84 | 10.00 |
| $\begin{aligned} & \text { \# } 6 \text { PS } \\ & \text { (Styrofoam) } \\ & \hline \end{aligned}$ | 0.01 | Waste |  |  | 0.00 | 10.00 |
| $\begin{aligned} & \text { \# } 6 \text { PS } \\ & \text { (Clear/Hard) } \end{aligned}$ | 9.88 | Commingled Recycling |  |  | 5.93 | 60.00 |
| \# 7 Other | 0.11 | Waste |  |  | 0.01 | 10.00 |
| Non-Recyclable Film | 18.30 | Waste |  |  | 1.83 | 10.00 |
| Rigid Plastic | 1.73 | Waste |  |  | 0.17 | 10.00 |
| Plastic Strapping | 0.03 | Waste |  |  | 0.02 | 60.00 |
| Aluminum Cans | 7.36 | Commingled Recycling |  |  | 4.41 | 60.00 |
| Aluminum Foil | 0.51 | Waste | 0.05 |  |  | 10.00 |
| Aluminum Trays | 0.24 | Commingled Recycling |  |  | 0.15 | 60.00 |
| Aerosol Cans | 0.01 | Waste | 0.00 |  |  | 10.00 |
| Steel | 1.78 | Commingled Recycling |  |  | 1.07 | 60.00 |
| Scrap Metal | 6.72 | Commingled Recycling |  |  | 0.67 | 10.00 |
| Glass (Clear/ Coloured) | 3.17 | Commingled Recycling |  |  | 1.90 | 60.00 |
| Batteries | 0.05 | Alternative Diversion Program |  |  | 0.03 | 60.00 |
| E-Waste | 5.95 | Electronic Waste Recycling |  |  | 3.57 | 60.00 |
| Food Waste | 131.47 | Organics |  |  | 78.88 | 60.00 |
| Tissue \& Toweling | 51.99 | Organics |  |  | 31.19 | 60.00 |


| Beverage Liquids | 14.69 | Organics |  | 8.81 | 60.00 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Compostable Containers | 10.42 | Organics |  | 6.25 | 60.00 |
| Plant and Yard Waste | 1.84 | Organics |  | 1.10 | 60.00 |
| Textiles | 0.36 | Waste | 0.04 |  | 10.00 |
| Disposable Gloves | 1.85 | Waste | 0.18 |  | 10.00 |
| Masks | 0.02 | Waste | 0.00 |  | 10.00 |
| Diapers | 0.49 | Waste | 0.05 |  | 10.00 |
| Coffee Pods | 0.17 | Waste | 0.02 |  | 10.00 |
| Sanitary Products | 0.45 | Waste | 0.04 |  | 10.00 |
| Scissors | 0.06 | Waste | 0.01 |  | 10.00 |
| Writing Utensil | 0.05 | Waste | 0.01 |  | 10.00 |
| Sponge | 0.02 | Waste | 0.00 |  | 10.00 |
| Wood | 2.39 | Waste | 0.24 |  | 10.00 |
| Scoby Gel | 1.17 | Waste | 0.12 |  | 10.00 |
| Cotton Swab | 0.02 | Waste | 0.00 |  | 10.00 |
| Lab Equipment | 0.19 | Waste | 0.02 |  | 10.00 |
| Filter | 0.56 | Waste | 0.06 |  | 10.00 |
| Sweepings | 1.80 | Waste | 0.18 |  | 10.00 |
| Insulation | 0.13 | Waste | 0.01 |  | 10.00 |
| Loose Insulation | 1.81 | Waste | 0.18 |  | 10.00 |
| PVC Pipe Ends | 0.87 | Waste | 0.09 |  | 10.00 |
| Butane Can | 0.77 | Waste | 0.08 |  | 10.00 |
| Eraser | 0.14 | Waste | 0.01 |  | 10.00 |
| Salt | 0.55 | Waste | 0.05 |  | 10.00 |
| CD | 0.04 | Waste | 0.00 |  | 10.00 |
| Cream Bottle | 0.04 | Waste | 0.00 |  | 10.00 |
| Utensil/Cutlery | 0.08 | Waste | 0.01 |  | 10.00 |
| Milk Pouches | 0.10 | Waste | 0.01 |  | 10.00 |
| Playdoh | 0.05 | Waste | 0.00 |  | 10.00 |
| CO2 Canister | 0.03 | Waste | 0.00 |  | 10.00 |
| Hydroperoxide Indicators | 0.02 | Waste | 0.00 |  | 10.00 |
| Plastic Band | 0.00 | Waste | 0.00 |  | 10.00 |
| Ice Pack | 3.13 | Waste | 0.31 |  | 10.00 |
| Sports Stick | 0.09 | Waste | 0.01 |  | 10.00 |
| Deodorant | 0.01 | Waste | 0.00 |  | 10.00 |

* Estimated Waste Produced = Waste Diverted (3Rs) + Waste Disposed
** Estimated Waste Diversion Rate = Amount of Waste Diverted (3Rs) $\div$ 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 <br> consumer product packaging applications. |
| :--- | :--- |
| Capture Rate | The proportion of divertable waste, expressed as a <br> percentage, which is successfully diverted from <br> disposal. |
| Cardboard | Corrugated containerboard. |
| Collective Waste Audit | Collective annualized waste audit of waste generated <br> as a whole; no breakdown of separate areas in the <br> building. |
| Commodity | A raw material product that could be bought or sold, |
| such as metal, cardboard and plastic. |  |

Point of generation waste
audit

Potential Diversion Rate
Recycling Council of Ontario
(RCO)

## Residual Waste

## Source Separation Material

## Source separation program

## Waste

## Waste Generation Index

## Waste per square foot

## Waste reduction work plan

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.

An annualized audit of waste generated by separate areas of the building.

Is the percentage of total materials that could be diverted from landfill if all divertable materials were placed in the proper recycling stream.

Is 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.

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.

Separating materials by type at the point of discard so they can be recycled.

A program to facilitate the source separation of waste for reuse or recycling.

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.

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.

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.

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.

Organics - Organic materials are taken to Storm Fisher Environmental Ltd. for 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 | 905-574-5533 | Not Required |
| Quantum Murray | 735 Strathearne Ave. N., Hamilton, ON L8H 5L3 | 905-312-8855 | 7577-4XGL5P |
| Storm Fisher Environmental Ltd. | 1087 Green Valley Road London, ON N6N 1E4 | 519-649-2664 | 1442-7RRKQL |
| 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. Imcalpine@gflenv.com

## APPENDIX VII - CALIBRATION CERTIFICATE

## Calibration Certificate

Date of Calibration: October 26, 2023

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 <br> Reading | Model \# of <br> Scale | Serial \# of <br> Scale | Calibrated <br> By <br> (Print <br> Name) | Date |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5 lbs | 5 lbs | $\mathrm{H}-5837$ | 02010016008 | Blue Top <br> Scale | October 26, <br> 2023 |
| 5 lbs | 5 lbs | $\mathrm{H}-5837$ | 01804016006 | Stainless <br> Steel Scale | October 26, <br> 2023 |



Laura McAlpine
Environmental Manager
GFL Environmental Inc.

## APPENDIX VIII -PHOTOGRAPHS



Recyclable boxboard found in landfill waste


Recyclable aseptic containers found in landfill waste


Recyclable aluminum cans found in landfill waste


Recyclable kraft paper found in landfill waste


Recyclable \#5 PP plastic found in landfill waste


Compostable wares found in landfill waste


Recyclable \#1 PETE plastic found in landfill waste


Disposable gloves found in landfill waste


Recyclable \#6 PS plastic found in landfill waste


Writing utensils found in landfill waste


Recyclable coffee cups found in landfill waste


Beverage liquids found in landfill waste


Filters found in landfill waste


Recyclable steel cans found in landfill waste


Recyclable cardboard found in landfill waste


Recyclable metal found in landfill waste

