



**Humber College**

**2021 Solid Non-Hazardous Waste Audit Report**

Prepared for

**Humber College**

205 Humber College Blvd  
Toronto, Ontario, M9W 5L7

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## Executive Summary

Humber College is required to conduct a solid non-hazardous waste audit of its two campuses (North Campus & Lakeshore Campus) located in Toronto, Ontario. All information was acquired directly from haulers and various contractors from Humber College. The data collected includes waste disposal from January 2020 to December 2020, from Humber College.

Waste diversion programs implemented on campus include cardboard, mixed papers, comingled recycling, confidential papers, organics, scrap metals, scrap woods/pallets, electronics, bulbs, batteries, printer toners, used furniture, oil and grease, yard wastes, construction & demolition and air filters, as well as waste reduction programs including water bottle refill stations, double sided printing and refillable coffee mug programs (on-hold due to COVID-19).

The following table summarizes the estimated annual quantities of waste materials generated, reduced, reused, recycled, composted and disposed.

**Table 1: Annual Quantities of Materials Diverted & Disposed**

Material	North Campus	Lakeshore Campus	Total Annual Amount	
	Metric Tonnes	Metric Tonnes	Metric Tonnes	Percent
Disposed to Landfill	316.95	116.5	433.45	38.4%
Materials Diverted	562.23	132.01	694.26	61.5%
<b>Total Waste Generated</b>	<b>879.18</b>	<b>248.33</b>	<b>1127.70</b>	<b>100%</b>

Based on the total annual amount of waste generated and materials reduced, reused, recycled and composted, the waste diversion rate through existing programs at Humber College was determined to be approximately 61.5%. The provincial objective is 60% waste diversion.

The unprecedented changes that COVID-19 brought to campus operations led this past year's audit to be an anomaly. Due to a large decrease in the number of students on campus, and an abnormal amount of construction work, this also led to a variation in the waste collected. It is important to take into consideration that roughly 20% of students were on campus when looking at our waste diversion rate for 2021.

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## **1 Introduction**

Humber College has completed a solid non-hazardous waste audit, conducted by BEST Service Pros. The waste audit report included information collected through haulers and contractors from Humber College, their reports were from January 2020 to December 2020. The goal of the waste audit report was to gain an understanding of the composition of solid non-hazardous waste generated on campus.

Humber College is a multi-building community that has approximately 21,963 Full-Time Equivalent ([Ontario Colleges Library Service, 2021](#)) that generate waste and divertible materials. Humber College took the initiative to conduct a solid non-hazardous waste audit with the intent of complying with O.Reg.102/94, to confirm compliance with O.Reg.103/94 and to further improve upon their present waste reduction, reuse and recycling initiatives.

### **1.1 Purpose**

The purpose of the solid non-hazardous waste audit was to:

- Comply with Part X of O.Reg. 102/94 ‘Waste Audits and Waste Reduction Work Plans’, which requires the operator of an educational institution with more than 350 students enrolled per year, to conduct an annual waste audit and prepare and implement a waste reduction work plan.
- Confirm compliance with Section 14 of O.Reg.103/94 ‘Industrial, Commercial and institutional Source Separation Programs’ and Part X ‘Educational Institutions’ of the Schedule attached to the Regulation.
- Determine the annual waste diversion rate for Humber College resulting from existing waste reduction, reuse, and recycling programs;
- Identify point of generation and quantify composition of wastes at Humber College;
- Identify any additional opportunities for waste reduction and diversion that may exist at Humber College;
- Address any specific concerns or opportunities identified during the study.

### **1.2 Scope of Work**

To satisfy the purpose of the waste audit, the following scope of work was completed;

- Collected data pertaining to waste composition from North Campus and Lakeshore Campus, from January 2020 to December 2020
- Determined the total quantity of waste materials diverted from landfill by Humber College through current reduction, reuse, and recycling programs;
- Completed a Waste Audit Report that addresses the amount, nature and composition of the waste, how the waste was generated, including management decisions and policies that relate to the production of waste, and the way in which the waste is managed on campus; and
- Completed a Waste Reduction Work Plan regarding plans to reduce, reuse and recycle waste on campus. The report set out who will implement each part of the plan, when each part will be implemented and what the expected results shall be.

## 2 Methodology

Discussions were held with Humber College personnel to review existing waste management and recycling programs implemented on campus. The waste audit accounted for waste taken from January 2020 to December 2020. Due to COVID-19 and the unforeseen closures of campuses, Humber College has decided to conduct an audit using data from Humber's waste hauler and custodial contractor.

In coordination with all haulers that are contracted by Humber College, information on waste disposal weights were sent over via email. The weights of waste material from each campus and functional area were calculated. Refer to Appendix B for copies of emails.

## 3 Diversion Programs & Waste Systems

### 3.1 Waste Diversion Programs

Waste diversion programs have been implemented at Humber College to reduce/reuse/recycle/compost a wide range of materials as described below.

Cardboard: cardboard recycling is provided across campus. Cardboard boxes are flattened and placed in dedicated bins. Compactor/Roll-off bins are used at North Campus and Front End bins are located at Lakeshore Campus. Cardboard bins are serviced by WasteCO as requested.

Mixed Containers: Mixed containers include assorted plastics food and beverage containers (PET, HDPE, LDPE, PP, and PS), aluminum and metal cans, glass food and beverage containers, gable top containers and aseptic containers (I.e., tetra packs, etc.). Additional items collected in the mixed container stream includes LDPE (#4) plastic films and coffee cups. Mixed containers are collected throughout campus in dedicated recycle depots, primarily concentrated in high waste generating areas. Collected materials are disposed into compactor/roll-off or front-end bins. Bins are serviced by WasteCO as required.

Mixed Papers: Mixed papers include a range of items such items as (but not limited to) newspapers, fine papers, envelopes, magazines, brochures, boxboard, packing paper, shipping/receiving supplies, paper bags and other clean food paper products. Mixed papers are collected throughout campus in dedicated recycle depots, primarily concentrated in high waste generating areas. Collected materials are disposed into dedicated bins. Bins are serviced by WasteCO as required.

Confidential Papers: Confidential papers are collected mainly in office/administrative areas in secure consoles or totes. All shredded materials were recycled via Blue Pencil.

Organics: Organic based food waste is collected on both campuses in pre- and post-consumer areas for composting. Bins are serviced by WasteCO as required.

Scrap Metals: Recyclable ferrous metals are collected by Humber College Staff. Scrap metal recycling service is provided by WasteCO or Recycler Canada as required.

Scrap Wood/Pallets: Scrap woods are collected by Humber College staff. Scrap woods recycling service is provided by WasteCO as required.

Electronics Wastes: Electronic wastes are collected across campus and stored in dedicated locations. Service is provided by Electronic Recycling Services as required.

Bulbs & Ballasts: Fluorescent bulbs and ballasts are collected across campus and stored in dedicated totes. Service is provided by Relamping as required.

Batteries: Various batteries are collected in small, dedicated containers across campus. Service is provided by Raw Materials Company Inc as required.

Printer Toner Cartridges: Humber College returns all empty toner bottles and printer toner cartridges to suppliers for recycling, reuse and/or energy-from-waste as required.

Oil & Grease: Oil & grease is collected from food service areas across campus, and stored in dedicated containers. Service is provided by Rothsay as required.

Used Furniture: Used furniture is collected from all areas across campus for recycling, donation and/or energy-from-waste. Service is provided by CSR as required.

Yard Wastes: Yard Wastes are collected from all areas across campus for diversion, service is provided by Humber College.

Air Filters: Air filters are collected from all areas across campus via energy-from-waste. Service is provided by Dafco Filtration Group as required.

Construction & Demolition: CD materials are collected across campus for recycling. Service is provided by CSR and WasteCO as required.

Waste Reduction Initiatives: various waste reduction initiatives have been implemented on-campus including water bottle refilling stations, a double-sided printing policy and a refillable coffee mug program.

Table 2 summarizes the estimated annual amount of waste materials diverted from landfills due to waste diversion programs implemented at Humber College. **The total amount of waste material diverted from landfill was approximately 694.26 metric Tonnes.** Evidence of annual quantity data obtained from Humber College and/or service providers is provided in Appendix B. Waste diversion programs implemented on campus exceed the minimum requirements of O.Reg. 103/94 for educational institutions.

### 3.2 Waste Disposal Systems

Regular solid non-hazardous waste is collected across campus by Humber College staff and placed in either front-end bins or compactors located at designated waste handling areas. WasteCO is responsible for the collection of waste depending on the waste generating area. **The total quantity of solid non-hazardous waste disposed to landfill in 2020 was estimated to be approximately 433.47 metric Tonnes,** as summarized in Table 2.

**Table 2: Waste Disposal & Diversion Summary**

Waste Materials	2017			2018			2019			2020			
	North Campus	Lakeshore Campus	Total	North Campus	Lakeshore Campus	Total	North Campu s	Lakeshore Campus	Total	North Campus	Lakeshore Campus	Total	Percent
<b>Waste/Garbage</b>	<b>397.4</b>	<b>199.6</b>	<b>597.0</b>	<b>566.46</b>	<b>209.98</b>	<b>776.44</b>	<b>695.56</b>	<b>252.22</b>	<b>947.78</b>	<b>308.9</b>	<b>116.5</b>	<b>425.4</b>	<b>98.1%</b>
Air filters	1.08	1.08	2.2	1.40	0.76	2.16	0.49	0.18	0.68	0.26	0	0.26	0.0005%
Printer Toners	0	0	0	0.20	0.11	0.11	0	0.0	0.0	0.01	0.01	0.02	0.00004%
Used Furniture	0	0	0	14.44	0.00	0.00	2.20	0.82	3.02	7.79	0	7.79	0.017%
<b>Disposal Total</b>	<b>398.5</b>	<b>200.7</b>	<b>599.1</b>	<b>582.50</b>	<b>210.84</b>	<b>793.34</b>	<b>698.26</b>	<b>253.21</b>	<b>951.48</b>	<b>316.96</b>	<b>116.5</b>	<b>433.47</b>	<b>100%</b>
<b>3R Programs</b>													
Organics – Food waste	434.3	154.2	588.5	481.09	158.96	640.05	410.99	134.47	545.46	147.65	39.19	186.84	26.9%
Mixed Papers (office, news, etc.)	109.07	45.21	154.3	108.06	43.08	151.14	267.90	93.89	361.79	44.25	21.91	66.16	9.5%
Comingled – Front End/Compactors	203.6	161.32	364.9	143.55	159.00	302.55	46.04	35.53	81.57	42.02	13.62	55.64	8%
Confidential Papers	67.4	14.80	82.2	67.42	14.80	82.22	123.23	45.58	168.61	43.36	21.2	64.56	9.3%
Electronic Wastes - Scraps	34.9	17.46	52.4	16.19	8.09	24.28	22.70	7.36	30.06	12.6	4.5	17.1	2.46%
Electronic Wastes - Refurbished										4.49	0.58	5.07	0.73%
Used Furniture/Equipment Recycled	49.22	0	49.2	47.43	0	47.43	29.82	11.03	40.85	13.1	0	13.1	1.88%
Scrap wood/Pallets	63.13	0	63.1	61.47	0	61.47	138.71	0	138.71	70.01	0	70.01	10.1%
Used Furniture donated for reuse	33.97	0	34	25.99	0	25.99	45.17	16.70	61.87	13.1	0	13.1	1.8%
Scrap Metals	30.81	0	30.8	38.61	0	38.61	57.15	0	57.15	23.74	0	23.74	3.41%
Cardboard	56.74	0	56.7	62.50	0	62.50	77.44	118.18	195.62	0	30.18	30.18	4.3%
Construction & Demolition	21.89	0	21.9	28.87	0	28.87	55.20	0	55.20	56.81	0	56.81	8.2%

Bulbs & Ballasts	0.03	0.03	0.1	0.31	0.16	0.47	0.33	0.14	0.48	0.5	0.31	0.82	0.12%
Batteries	0.09	0.09	0.2	0.04	0.02	0.06	0.21	0.15	0.36	0	0	0	0%
Printer Toners (recycled)	0.5	0.2	0.7	0.06	0.02	0.08	0.69	0.26	0.95	0.08	0.07	0.15	0.02%
Printer Toners (reused)	1.0	0.3	1.4	0	0	0	0.82	0.31	1.13	0.13	0.11	0.24	0.03%
Oil & Grease	3.7	0.8	4.5	3.71	2.46	6.17	3.32	1.14	4.46	0.44	0.34	0.79	0.11%
Carpet	0.45	0.45	0.9	0	0	0	3.42	1.26	4.68	2.13		2.13	0.3%
Yard Wastes	Note 2	Note 2	Note 2	68.18	0	68.18	233.60	86.40	320	65	0	5	0.72%
<b>3Rs Total</b>	<b>1110.9</b>	<b>349.9</b>	<b>1505.8</b>	<b>1153.47</b>	<b>386.59</b>	<b>1540.1</b>	<b>1516.74</b>	<b>552.40</b>	<b>2069.2</b>	<b>562.23</b>	<b>132.01</b>	<b>694.26</b>	<b>61.6%</b>
<b>Grand Total</b>	<b>1509.4</b>	<b>595.6</b>	<b>2105</b>	<b>1735.97</b>	<b>597.43</b>	<b>2333.4</b>	<b>2215.00</b>	<b>805.62</b>	<b>3020.6</b>	<b>879.18</b>	<b>248.51</b>	<b>1127.70</b>	<b>--</b>
<b>Waste Diversion Rate</b>	<b>73.6%</b>	<b>66.3%</b>	<b>71.5%</b>	<b>66.4%</b>	<b>64.7%</b>	<b>66%</b>	<b>68.5%</b>	<b>68.6%</b>	<b>68.5%</b>	<b>63.98%</b>	<b>53%</b>	<b>61.6%</b>	<b>--</b>

## 4 Performance Indicators

### 4.1 Waste Diversion Rate

Waste diversion rate is the percentage of waste materials that a facility diverts from landfill due to reduce, reuse and recycling (I.e. 3Rs) programs versus the total amount of waste generated (i.e. 3Rs plus disposed). According to the Ministry of the Environment, Conservation & Parks (MECP), Waste Diversion Rate is calculated as follows:

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

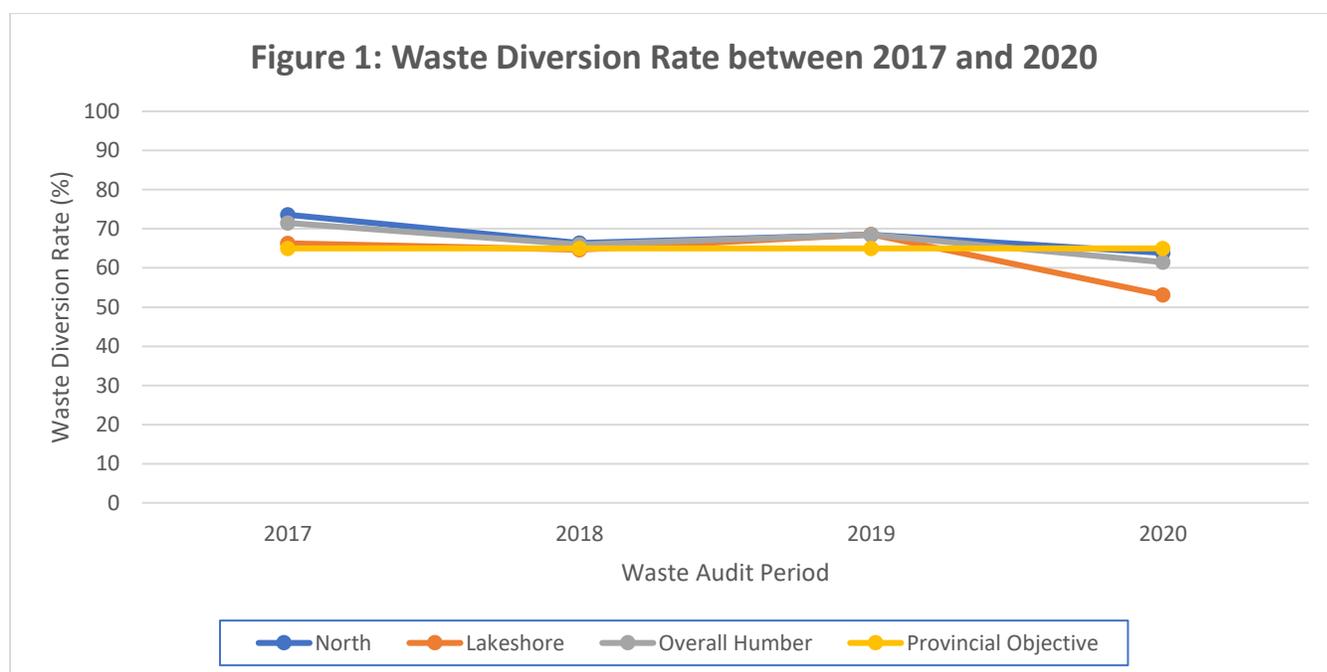
Based on the total annual amount of waste generated and materials reduced, reused and recycled in 2020 the waste diversion rate was determined to be approximately 61%. If 60% of all divertible materials found in the garbage stream were successfully captured and diverted, the overall facility could achieve a waste diversion rate of approximately 78%.

The waste diversion rate for 2021 is determined to be lower this past year, due to several factors: COVID-19 and the changes it has had on campus life, the increase of construction work on campus, elimination of on-campus activities.

Table 3 summarizes the quantities of wastes diverted, disposed and waste diversion rates between 2017 and 2020. Humber College's waste diversion rate in 2020 exceeded MECP's provincial objective of 60% waste diversion.

**Table 3: Quantities of Materials Diverted & Disposed**

Audit Period	Campus	Waste Disposed to landfill	Waste Materials Diverted	Total Waste Generated	Waste Diversion Rate
		MT	MT	MT	%
2017	North	398.5	1110.9	1509.4	<b>73.6%</b>
	Lakeshore	200.7	394.9	595.6	<b>66.3%</b>
	Total	599.1	1505.8	2105.0	<b>71.5%</b>
2018	North	582.5	1153.5	1736.0	<b>66.4%</b>
	Lakeshore	210.8	386.6	597.4	<b>64.7%</b>
	Total	793.3	1540.1	2333.4	<b>66%</b>
2019	North	698.26	1516.74	2215.00	<b>68.5%</b>
	Lakeshore	253.21	552.40	805.62	<b>68.6%</b>
	Total	951.48	2069.15	3020.62	<b>68.5%</b>
2020	North	316.95	559.89	876.8	<b>63.95%</b>
	Lakeshore	116.5	131.83	248.33	<b>53.12%</b>
	Total	433.4	691.74	1125	<b>61.6%</b>



#### 4.2 Year over Year Changes

Waste diversion rate and capture rate do not always demonstrate how effective a site’s 3R programs are operating. This is due to the continual change of many important factors involved in waste and recyclable material generation on campus, such as number of students enrolled, floor area of buildings, etc. As student numbers change or more buildings are added to the campus, quantities of waste and recyclables change making it difficult to have a direct comparison of data between years. Year to year comparisons allow the College in gaining an understand of the effectiveness of their waste diversion programs. For Humber College, the most applicable standard unit is Full-time equivalent students, or FTE.

#### 4.2.1 Year over Year Change in Waste Generation

The ‘Year-over-Year Change in Waste Generator’ is the indicator of the total amount of materials generated on-site including materials diverted and disposed per FTE compared to previous data. Table 4 summarizes the change in the amount of waste materials generated between 2018 and 2020.

**Table 4: Yr-over-Yr Change in Waste Generated**

Period	Total Materials Generated (MT)	FTE	Annual Generated Quantity (kg/FTE)	Yr-over-Yr Change in Generated Quantity (kg)	Total Waste Generated per Student (MT/Student)
2018	2333.4	26784	87.12	+7.92	0.087
2019	3020.6	27146	111.27	+24.15	0.111
2020	1127.72	21963	51.34	-59.93	0.051

#### 4.2.2 Year-over-Year Change in Garbage Disposed

The ‘Year over Year Change in Garbage Disposed’ is the indicator of the amount of reduction in waste materials disposed to landfill due to waste diversion activities on campus. A reduction in the year over year value will indicate the college is continually reducing wastes disposed to landfill. Table 5 summarizes the change in disposed quantities between 2018 and 2020.

**Table 5: Yr-over-Yr Change in Waste Disposed Quantities**

Period	Total Materials disposed (MT)	FTE	Annual Disposed Quantity (kg/FTE)	Yr-Over-Yr Change in Disposed Quantity (kg)
2018	793.3	26784	29.62	+7.08
2019	951.48	27146	35.05	+5.43
2020	433.47	21963	19.7	-15.35

### 5 Waste Audit Summary & Waste Reduction Work Plan

Refer to Appendix B and Appendix C for the Waste Audit Summary and the Waste Reduction Work Plan respectively. The last page of each set of forms in the appendices need to be signed by an authorized person at the College.

According to O.Reg 102/94, the Waste Reduction Work Plan (Appendix C) or a summary of the plan must be posted at the College in a place where staff/students can review it. If a summary is posted, the entire Work Plan should also be made available for review by any staff/student upon request.

## 6 Conclusions & Recommendations

Based on the results of the solid non-hazardous waste audit conducted for Humber College, the following conclusions can be made. Recommendations presented below are intended to assist Humber College in maximizing their waste diversion potential.

- In 2020, it was estimated that Humber College disposed of approximately 433.47 tonnes of solid waste in landfills. Approximately 694.26 tonnes of waste materials were diverted through existing waste diversion programs. This represents a waste diversion rate of approximately 61.5%. The provincial objective is 60% waste diversion.
- Humber College maintains waste diversion programs for cardboard, mixed papers, comingled recycling, confidential papers, organics, scrap metals, scrap woods/pallets, electronics, bulbs, batteries, printer toners, used furniture, oil and grease, yard wastes, construction & demolition and carpet, as well as waste reduction programs including water bottle refill stations, double sided printing and refillable coffee mug programs. These programs exceed the minimum requirements of O.Reg. 103/94 for educational institutions.
- Based on the waste audit results, North Campus generated more garbage and recyclables than Lakeshore Campus, representing approximately 78% of the overall waste production in 2020.
- It is recommended that Humber College conduct studies to add reduction weights to the College's waste diversion rate. For example, waste reduction credits can be calculated for a double-sided printing policy, refillable mug programs and/or refillable water bottle stations.
- Continue to make use of multi-compartment containers for waste collection and recycling as much as possible. Remove all single stream waste bins on campus.
- It is recommended that signs be continually updated on all garbage and recycling bins to assist students/staff in sorting wastes easily and correctly. Signs should be easily visible and instructive, such as those having pictograms. Signs are a very effective method of increasing participation, reducing contamination, and increasing capture rate.
- Ensure Humber College's Environmental Policy is clearly visible in all common areas throughout campus. Emphasize Humber College's commitment to environmental stewardship in its newsletters, brochures, annual reports and contracts. Regular newsletters promoting the school's waste reduction programs, goals and concerns will increase students/staff cooperation.
- Continue to increase awareness of current recycling programs through staff and student education programs. Such programs can include brief training programs as well as placement of posters in strategic locations around campus, and posting information regarding campus goals and recycling, reuse, and reduction rates at the school.
- It is important that all staff and students at Humber College be made aware of all available recycling programs. Humber College staff should provide easy access to contact information for questions and/or help regarding the various recycling programs. The recycling programs should have as much consistency as possible across campus.
- Support and encourage the purchase and use of reusable materials and packaging.
- According to O.Reg. 102/94, the Waste Reduction Work Plan (Appendix C) or a summary of the plan must be posted at the facility in a place where it can be viewed. If a summary of the work plan is posted, the full Work Plan must be made available for review upon request by any of the college's staff or students.

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# **Appendix A**

## **Supporting Documents**

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**Environmental Protection Act**  
**Loi sur la protection de l'environnement**

**ONTARIO REGULATION 102/94**

**WASTE AUDITS AND WASTE REDUCTION WORK PLANS**

Consolidation Period: From March 3, 1994 to the e-Laws currency date.

No amendments.

**This Regulation is made in English only.**

**PART I**  
**GENERAL**

1. In this Regulation,  
“waste” means municipal waste as defined in Regulation 347 of the Revised Regulations of Ontario, 1990;  
“waste audit” means a study relating to waste;  
“waste reduction work plan” means a plan to reduce, reuse and recycle waste. O. Reg. 102/94, s. 1.
2. A waste audit required under this Regulation shall address,
  - a. the amount, nature and composition of the waste;
  - b. the manner by which the waste gets produced, including management decisions and policies that relate to the production of waste; and
  - c. the way in which the waste is managed. O. Reg. 102/94, s. 2.
3. (1) A waste reduction work plan required under this Regulation shall include, to the extent that is reasonable, plans to reduce, reuse and recycle waste and shall set out who will implement each part of the plan, when each part will be implemented and what the expected results are.  
  
(2) In developing the work plan, regard shall be had to the following principles:
  1. Reduction is the first objective.
  2. If reduction is not possible, then reuse is the next objective.
  3. If reduction and reuse are not possible, then recycling is the final objective. O. Reg. 102/94, s. 3.
  4. A person who is required under this Regulation to prepare a report of a waste audit or a waste reduction work plan shall prepare it on a form provided by the Ministry or in the same format as such a form. O. Reg. 102/94, s. 4.
  5. (1) A person who is required under this Regulation to prepare a report of a waste audit or a waste reduction work plan shall retain a copy of the report or plan for at least five years after it was prepared.  
  
(2) A person who is required under this Regulation to prepare a report of a waste audit or a waste reduction work plan shall submit to the Director, on request, the required report or plan, within seven days of the Director requesting them. O. Reg. 102/94, s. 5.
6. (1) A person who becomes subject to an obligation under this Regulation to prepare a report of a waste audit or a waste reduction work plan shall do so within six months of becoming subject to the obligation.  
  
(2) This section does not apply with respect to updated reports or plans.  
  
(3) This section does not apply with respect to obligations of a builder under Part IV or a demolisher under Part V. O. Reg. 102/94, s. 6.
7. (1) A new owner or operator to whom this Regulation applies is not required to conduct a new waste audit or prepare a new waste reduction work plan if an audit or work plan was conducted or prepared by a previous owner or operator and the new owner or operator updates the audit and work plan as required under this Regulation.

(2) This section does not apply with respect to a builder under Part IV or a demolisher under Part V. O. Reg. 102/94, s. 7.

8. (1) A person who has an obligation to conduct a waste audit and prepare a report under Part II, III, VI, VII, VIII, IX, X or XI in respect of more than one retail shopping establishment, retail shopping complex, building, restaurant, hotel or motel, hospital, location or campus of an educational institution, or site of a manufacturing establishment, may conduct a single
50. The waste reduction work plan shall include measures for communicating the plan to the operator's employees who work at the hospital and, as a minimum, those measures shall require,
  - a. that the plan or a summary be posted in places where most employees will see it; and
  - b. if a summary is posted, that any employee who requests to look at the plan be allowed to do so. O. Reg. 102/94, s. 50.

## **PART X**

### **EDUCATIONAL INSTITUTIONS**

51. (1) This Part applies to the operator of an educational institution in respect of a location or campus of the institution if, at the location or campus, at any time during the calendar year, more than 350 persons are enrolled.

(2) This Part continues to apply in respect of a location or campus for the two calendar years following the last year in which more than 350 persons were enrolled at the location or campus. O. Reg. 102/94, s. 51.

52. (1) The operator shall conduct a waste audit covering the waste generated by the operation of the institution at the location or campus. The audit shall also address the extent to which materials or products used consist of recycled or reused materials or products.

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

(3) In every year following the initial waste audit, the operator shall update the audit and prepare an updated written report. O. Reg. 102/94, s. 52.

53. (1) The operator shall prepare a written waste reduction work plan, based on the waste audit, to reduce, reuse and recycle waste generated by the operation of the institution at the location or campus.

(2) In every year following the preparation of the initial waste reduction work plan, the operator shall prepare an updated written plan. O. Reg. 102/94, s. 53.

54. The operator shall implement the waste reduction work plan as updated. O. Reg. 102/94, s. 54.

55. The waste reduction work plan shall include measures for communicating the plan to the operator's employees who work at the location or campus and, as a minimum, those measures shall require,

- a. that the plan or a summary be posted in places where most employees will see it; and
- b. if a summary is posted, that any employee who requests to look at the plan be allowed to do so. O. Reg. 102/94, s. 55.

**Environmental Protection Act**

**Loi sur la protection de l'environnement**

**ONTARIO REGULATION 103/94**

**INDUSTRIAL, COMMERCIAL AND INSTITUTIONAL SOURCE SEPARATION PROGRAMS**

Consolidation Period: From March 3, 1994 to the e-Laws currency date.

No amendments.

**This Regulation is made in English only.**

**SOURCE SEPARATION PROGRAMS**

1. In this Regulation,

“Northern Ontario” means the territorial districts of Algoma, Cochrane, Kenora, Manitoulin, Nipissing, Parry Sound, Rainy River, Sudbury, Thunder Bay and Timiskaming and The Regional Municipality of Sudbury;

“source separation program” means a program to facilitate the source separation of waste for reuse or recycling. O. Reg. 103/94, s. 1.

2. (1) A source separation program required under this Regulation must include,
- a. the provision of facilities for the collection, handling and storage of source separated wastes described in subsection (2) adequate for the quantities of anticipated wastes;
  - b. measures to ensure that the source separated wastes that are collected are removed;
  - c. the provision of information to users and potential users of the program,
    - i. describing the performance of the program,
    - ii. encouraging effective source separation of waste and full use of the program;
  - d. reasonable efforts to ensure that full use is made of the program and that the separated waste is reused or recycled.

(2) The source separated waste referred to in clause (1) (a) is waste that has been source separated from other kinds of waste and that consists solely of waste from one or more of the following categories:

1. The categories of waste set out in the part of the Schedule applicable to the person required to implement the source separation program.

2. The categories of waste set out in Schedule 1, 2 or 3 of Ontario Regulation 101/94 that the source separation program accepts.

(3) A source separation program required under this Regulation must provide for all the categories of waste set out in the part of the Schedule applicable to the person required to implement the program except for categories of waste that cannot be reasonably anticipated. O. Reg. 103/94, s. 2.

3. Source separation programs required by this Regulation are exempt from sections 27, 40 and 41 of the Act. O. Reg. 103/94, s. 3.
4. (1) A source separation program that is not required by this Regulation is exempt from sections 27, 40 and 41 of the Act if,
- a. the program is restricted to waste generated at a single site;
  - b. the program only accepts waste that has been source separated from other kinds of waste and that consists solely of waste from one or more of the categories of waste set out in Schedule 1, 2 or 3 of Ontario Regulation 101/94;
  - c. the program includes everything set out in subsection 2 (1).

(2) For the purposes of clause (1) (c), the reference to source separated waste in clause 2 (1) (a) shall be deemed to be a reference to the waste described in clause (1) (b). O. Reg. 103/94, s. 4.

**EDUCATIONAL INSTITUTIONS**

14. 14. (1) This section applies to the operator of an educational institution in respect of a location or campus of the institution if, at the location or campus, at any time during the calendar year, more than 350 persons are enrolled.
- (2) The operator shall implement a source separation program for the waste generated by the operation of the institution at the location or campus or shall ensure that such a program is implemented.
- (3) This section continues to apply in respect of a location or campus for the two calendar years following the last year in which more than 350 persons were enrolled at the location or campus.
- (4) This section applies only in respect of a location or campus located within a local municipality that has a population of at least 5,000.
- (5) This section takes effect with respect to a location or campus in Northern Ontario on July 1, 1996. O. Reg. 103/94, s. 14.

TRANSITION

16. Except as otherwise provided, a person who, upon the coming into force of this Regulation, or at any time within twelve months after the coming into force of this Regulation, becomes subject to an obligation with respect to the implementation of a source separation program shall fulfil the obligation within twelve months after the coming into force of this Regulation. O.Reg. 103/94, s. 16.

SCHEDULE

WASTES TO BE PROVIDED FOR IN SOURCE SEPARATION PROGRAMS

**PART X**

**EDUCATIONAL INSTITUTIONS**

(referred to in section 14)

1. Aluminum food or beverage cans (including cans made primarily of aluminum).
2. Cardboard (corrugated).
3. Fine paper.
4. Glass bottles and jars for food or beverages.
5. Newsprint.
6. Steel food or beverage cans (including cans made primarily of steel).

---

# Appendix B

## Email Copies & Waste Audit Data

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**A. ERS-International – Electronic Waste**

RE: Annual Waste Audit Data Request: E-Waste

Account Co <accountco@ers-international.com>  
To: Safa Al-Haji  
Cc: Serge Faria; Lindsay Walker; Devon Fernandes

You replied to this message on 2021-02-01 3:55 PM.

Humber Scrap & Refurbished.xlsx  
12 KB

**CAUTION: External to Humber. Verify sender and use caution with links and attachments. Report suspicious emails using the Phish Alert Button (PAB).**

Good morning  
Please see attached the breakdown and advise on what else you may require.  
Please note that on Scrap 99% of all material is recycled.  
Reporting is sent to Humber on each load picked up within a 2 week period and all documentation should be available through that source.  
Regards Leslie

From: SAFA Al-Haji [mailto:Safa.Al-Haji@humber.ca]  
Sent: November 9, 2020 1:04 PM  
To: Account Co <accountco@ers-international.com>  
Cc: Serge Faria <Serge.Faria@humber.ca>; Lindsay Walker <lindsay.walker@humber.ca>; Devon Fernandes <Devon.Fernandes@humber.ca>  
Subject: Annual Waste Audit Data Request: E-Waste

Hi Leslie and Serge,

I am the environmental coordinator for BEST Service Pros and working with the Sustainability Office, I am helping Lindsay with the waste audit this year and collecting data.

It is time for Humber College's yearly waste data collection! We are emailing regarding E-Waste. Below is the information we need;

1. All material data for January 2020 – December 2020 – please provide the weight of material in metric tons and provide the weights by campus (North;

	A	B	C	D
1	HUMBER COLLEGE			
2	Date of pick up	Location	Regular scrap Lbs	Refurbished Lbs
3	December 16th, 2019	NORTH CAMPUS	3,045	1,804
4	December 16th, 2019	LAKE CAMPUS	3,012	749
5	February 6th, 2020	NORTH CAMPUS	3,146	432
6	February 12th, 2020	LAKE CAMPUS	2,795	181
7	February 27th, 2020	NORTH CAMPUS	1,800	0
8	June 4th, 2020	NORTH CAMPUS	6,323	244
9	June 10th, 2020	NORTH CAMPUS	6,320	0
10	August 26th, 2020	190 CARRIER DRIVE	599	400
11	September 2nd, 2020	NORTH CAMPUS	3,142	79
12	September 8th, 2020	LAKE CAMPUS	1,856	128
13	October 8th, 2020	NORTH CAMPUS	686	1,441
14	November 2nd, 2020	LAKE CAMPUS	1,493	0
15	November 27th, 2020	NORTH CAMPUS	1,007	3,626
16	December 9th, 2020	NORTH CAMPUS	1,888	1,877
17	December 16th, 2020	LAKE CAMPUS	697	221

**B. CSR Eco-Solutions: Used Furniture**

Life Cycle Management Report 6.2, Humber Institute of Technology and Advanced Learning, 2020 & Dashboard Su...

Mary-Jane Brunt <mjbrunt@csr-eco-solutions.com>  
To: Safa Al-Haji  
Cc: Janice Boyd; Rebecca Muiyal; Blake leal

You replied to this message on 2021-01-28 1:15 PM.  
This message was sent with High importance.

Dashboard Summary of Metrics 5.0, Humber College Toronto ON Canada, Jan2020-Dec2020.xlsx  
10 MB

Life Cycle Management Report 6.2, Humber Institute of Technology and Advanced Learning, 2020.pdf  
806 KB

**CAUTION: External to Humber. Verify sender and use caution with links and attachments. Report suspicious emails using the Phish Alert Button (PAB).**

Dear Safa,

Please find attached all reporting for last year:

- Life Cycle Management Report 6.2, Humber Institute of Technology and Advanced Learning, 2020
- Dashboard Summary of Metrics 5.0, Humber College Toronto ON Canada, Jan2020-Dec2020

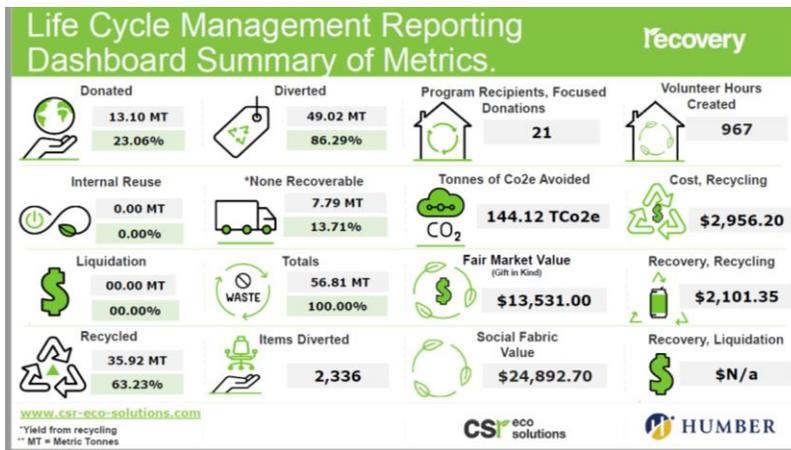
Please don't hesitate should you have any immediate queries around the data and metrics.

Finally, I will have Blake Leal Cc'd in the email forward the final inventory corporate transfer of title documents for your signature.

Kindest regards,

MJ

**CSR** eco solutions



**C. Relamping – Light Bulb and Ballast Recycling**

RE: Annual Waste Audit Data Request: Fluorescent Bulbs & Ballasts

John Caputi <jcaputi@relamping.ca>  
To: Safa Al-Haji  
Cc: Scott Skrinar; Devon Fernandes; Lindsay Walker; Chris Nanos

Humber College Lamps Recycling Year 2020.xls  
57 KB

See attached

Regards  
John Caputi  
Vice President  
Relamping Services Canada Limited  
Phone: 905-457-1815 ext 243  
Cell: 416-779-5892  
Toll-free: 1-800-387-2518  
E-mail: jcaputi@relamping.ca  
Visit our new website ..... www.relamping.ca

From: SAFA Al-Haji [mailto:Safa.Al-Haji@humber.ca]  
Sent: Monday, November 09, 2020 1:32 PM  
To: John Caputi <jcaputi@relamping.ca>  
Cc: Scott Skrinar <Scott.Skrinar@humber.ca>; Devon Fernandes <Devon.Fernandes@humber.ca>; Lindsay Walker <Lindsay.Walker@humber.ca>; Chris Nanos <Chris.Nanos@humber.ca>  
Subject: Annual Waste Audit Data Request: Fluorescent Bulbs & Ballasts

Hi John,

I am the environmental coordinator for BEST Service Pros and working with the Sustainability Office, I am helping Lindsay with the waste audit this year and collecting data.

Relamping Services Canada Limited					Lamps	Weight
Humber College Recycled Lamps Period Year 2020					Recycled	Lbs
#	Item No.	Item Description	Customer Code	Customer Name		
<b>North Campus</b>						
	ZZAA16	RECYCLE FLUOR. LAMPS 4' T8	HUMB00	HUMBER INST TECH & ADV. LEARNING-North Campus	4,503	1081
	ZZAA161	RECYCLE HID LAMPS	HUMB00	HUMBER INST TECH & ADV. LEARNING-North Campus	10	3
	ZZAA162	RECYCLE COMPACT FLUORESCENT LAMPS	HUMB00	HUMBER INST TECH & ADV. LEARNING-North Campus	147	27
<b>Sub-total North Campus</b>					<b>4,660</b>	<b>1,111</b>
<b>South Campus</b>						
	ZZAA16	RECYCLE FLUOR. LAMPS 4' T8	HUMB001	HUMBER INST TECH & ADV. LEARNING-South Campus	2,619	629
	ZZAA161	RECYCLE HID LAMPS	HUMB001	HUMBER INST TECH & ADV. LEARNING-South Campus	9	3
	ZZAA162	RECYCLE COMPACT FLUORESCENT LAMPS	HUMB001	HUMBER INST TECH & ADV. LEARNING-South Campus	344	62
<b>Sub-total South Campus</b>					<b>2,972</b>	<b>694</b>
<b>Total Humber College North &amp; South Campus</b>					<b>7,632</b>	<b>1,805</b>

**D. Raw Materials Company Inc – Battery Recycling**

RE: Annual **Waste Audit** Data Request: Battery Recycling

**SL** Sarah Lacharity <slacharity@rawmaterials.com>  
To: Safa Al-Haji  
Cc: Lindsay Walker; Devon Fernandes  
Mon 2021-01-04 12:01 PM

You replied to this message on 2021-01-05 10:55 AM.

**CAUTION: External to Humber. Verify sender and use caution with links and attachments. Report suspicious emails using the Phish Alert Button (PAB).**

Good Morning Safa,  
Happy New Years!  
Unfortunately we have no serviced either site this year, therefore I have no data to report on.  
If you happen to check to the bins and do require a pickup please let me know.  
Thank you

**Sarah Lacharity**  
Raw Materials Company Inc- ISO 14001  
& Marine Recycling Corporation  
Phone: 1-888-937-3382  
Cell: 905-651-5050  
Fax: 905-835-6824  
www.rawmaterials.com  
www.rawmaterials.com/ontario-school-recycling-challenge/

Recycling solutions for a cleaner, greener tomorrow.  
Please consider the environment before printing this email note

**E. Xerox Printing – Number of Printer Toners Reused and Recycled.**

Re: Annual **Waste Audit** data Request: Xerox and Shredding

**BA** Boudreau, Alain <Alain.Boudreau@xerox.com>  
To: Safa Al-Haji  
Cc: Devon Fernandes; Bishnu Singh  
Fri 2021-02-26 2:43 PM

You replied to this message on 2021-03-01 9:55 AM.  
This message is part of a tracked conversation. Click here to find all related messages or to open the original flagged message.

Humber Environmental Report -2020 Final.pdf  
162 KB

Hi Safa,  
Please find attached the updated report for the College. Sorry for the delay in reporting. We experienced some issues generating this report. Please review and let me know if you have questions.  
Alain

**From:** Safa Al-Haji <Safa.Al-Haji@humber.ca>  
**Date:** Tuesday, February 16, 2021 at 1:10 PM  
**To:** "Boudreau, Alain" <Alain.Boudreau@xerox.com>  
**Cc:** Devon Fernandes <Devon.Fernandes@humber.ca>  
**Subject:** FW: Annual Waste Audit data Request: Xerox and Shredding

**CAUTION:** This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Alain,  
I just wanted to follow up on the below request, and if you have any information ready for us?  
Thanks,

**Humber College - Return of Used Consumables - 2020 YTD (Jan - Dec)**

Used consumables returned from the following Humber College location:

City	Returns
HUMBER COLLEGE	182
LAKE SHORE BLVD WEST	168
CARRIER DRIVE	25
<b>Total</b>	<b>375</b>

Used consumables returns from Humber College were remanufactured 64% of the time:

Xerox's Environmental Asset Recovery Program Returns Program			
Return Use	Returns (pcs)	Lbs	
Remanufactured	239	504	
Recycled	136	307	
<b>Total</b>	<b>375</b>	<b>811</b>	

Recycled Materials from Humber College:

Recycled Materials	Recycled Materials %	Pounds Program TD
Metals	6%	29
Plastics	11%	33
Waste packaging	11%	35
Energy From Waste (EFW)	71%	218
<b>Total</b>	<b>100%</b>	<b>307</b>

\*above percentages based on all customer returns

**Humber College Returns**

Category	Percentage
Remanufactured	64%
Recycled	36%

**Humber College Recycled Materials**

Category	Percentage
Energy From Waste (EFW)	71%
Waste packaging	11%
Plastics	11%
Metals	6%

### F. Rothsay – Oil and Grease Recycling

2020 WEIGHTS

RSY CustON <DICATION@darlingit.com>  
To: Safa Al-Haji; Devon Fernandes; Lindsay Walker  
Cc: RSY CustON

2020 WEIGHTS.xlsx 34 KB  
2019 WEIGHTS.xlsx 50 KB

**CAUTION: External to Humber. Verify sender and use caution with links and attachments. Report suspicious emails using the Phish Alert Button (PAB).**

Good Morning Safa,  
Looks like very little product was picked up, which would make sense do to COVID, I run the report for 2019 just to compare (attached as well) huge difference.

- All material data for **January 2020 – December 2020** – please provide the weight of material in **metric tons** and provide the weights by campus (North; Lakeshore; Total) **\*\*\*attached in KG not metric ton**
- Provide documentation that confirms the material data (i.e., invoices, tracking, etc.) **\*\*\*attached**
- Provide definitions for any **waste** terms in your reporting (e.g., repurposed, post-consumer material, etc.)
- Can you confirm;
  - That you will be our main contact for future audits/inquiries? **\*\*\*Customer Service Team @ DICATION@darlingit.com**
  - Is (289)-983-8919 the best phone number to reach you? **\*\*\*Customer Service Team 1-800-263-0302**

Thank you

**Monika Tymczyszyn**  
Account Services Supervisor

**Darling Ingredients**  
We create solutions that sustain life

880 HWY 5 W  
Dundas, Ontario L9H 5E2

3	Sum of Received Wt	Column Labels									
4	Row Labels	6748240	7048212	7110026	7850323	7959830	8340527	8597814	8763764	8869570	Grand Total
5	104814		654		318						972
6	HUMBER COLLEGE HOSPITALITY		654		318						972
7	Mar		654								654
8	Jun				318						318
9	Oct										
10	107865			770							770
11	HUMBER COLLEGE LAKESHORE CAMPUS			770							770
12	Mar			770							770
13	Jul										
14	Oct										
15	109846										
16	HUMBER COLLEGE FOOD SERVICES										
17	Feb										
18	Aug										
22	<2/4/2020										
23	<b>Grand Total</b>		<b>654</b>	<b>770</b>	<b>318</b>						<b>1742</b>

### G. Viking Recycling: Carpet Recycling

Re: Annual **Waste Audit** Data Request: Viking

Kelly McCaig <kelly@vikingrecycling.ca>  
To: Safa Al-Haji  
Cc: Devon Fernandes; Lindsay Walker; Rebecca Moyal; Fernanda Burn

Mon 2021-02-22 1:26 PM

Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

- Humber College CAR 122 Millwright Lab (received on 23 / June / 2020) - **712 Lbs**
- Humber College North Campus E140A Renovation (received on 15 / July / 2020) - **365 Lbs**
- Humber College - North Campus - 205 Humber College Blvd, Computer Lab & Lounge, Etobicoke, ON (received on 23 / July / 2020) - **1720 Lbs**
- Humber College North Campus - Faculty of Business Phase 3 Renovation (received on 03 / Dec / 2020) - **1908 Lbs**

**Kelly McCaig**  
Leader | Viking Recycling  
416 452 7873  
www.vikingrecycling.ca  
kelly@vikingrecycling.ca

On Feb 22, 2021, at 1:07 PM, Safa Al-Haji <Safa.Al-Haji@humber.ca> wrote:  
Hi Kelly,

### H. Yard Waste – Humber College

RE: Annual Waste Audit - Yard Waste

MP Mark Palenchar  
To: Robert Gray, Lindsay Walker, Safa Al-Haji  
You replied to this message on 2021-02-09 11:07 AM.

Reply Reply All Forward

Mon 2021-02-08 10:05 AM

From: Mark Palenchar <Mark.Palenchar@humber.ca>  
Sent: Thursday, February 4, 2021 2:11 PM  
To: Safa Al-Haji <Safa.Al-Haji@humber.ca>; Robert Gray <Robert.Gray@humber.ca>; Roman Fuzak <Roman.Fuzak@humber.ca>  
Cc: Lindsay Walker <Lindsay.Walker@humber.ca>; Devon Fernandes <Devon.Fernandes@humber.ca>  
Subject: RE: Annual Waste Audit - Yard Waste

Hi Safa,  
Sorry, if you are just requesting Yard Waste (Brush, leaves, etc.) ?  
If so, from Site Services I would estimate approx.. 40 – 50 tonnes.

Mark Palenchar

From: Mark Palenchar  
Sent: Thursday, February 4, 2021 2:05 PM  
To: Safa Al-Haji <Safa.Al-Haji@humber.ca>; Robert Gray <Robert.Gray@humber.ca>; Roman Fuzak <Roman.Fuzak@humber.ca> <Roman.Fuzak@humber.ca>  
Cc: Lindsay Walker <Lindsay.Walker@humber.ca>; Devon Fernandes <Devon.Fernandes@humber.ca>  
Subject: RE: Annual Waste Audit - Yard Waste

Hi Safa,  
We Do **NOT** receive these slips from the hauler but Tracey Bickford in Facilities Management does.  
Also, we changed haulers in August from Canada Fibers to Westeco so that maybe a issue ?  
If you require 110 Carrier and 30 Carrier also please let Tracey know.

Regards,  
Mark Palenchar

### I. Dafco – Air Filter Recycling

RE: Annual Waste Audit data Request: Dafco

LG Laurie Green <lgreen@filtrationgroup.com>  
To: Dave Frigole, SAFA Al-Haji, Chris Nanos  
Cc: Devon Fernandes, Lindsay Walker, Debbie Turner  
Tue 2020-11-10 3:25 PM

Reply Reply All Forward

Dafco\_ZeroWaste Flyer\_FINAL\_150ppi.pdf 6 MB  
Humber College - 205 Humber College Blvd - January 23 2020.docx 750 KB

Good Afternoon,

We do offer a Volume Reduction Program (VRP) for the landfill diversion of used filters.  
This program was suspended in March 2020 due to COVID19.

In an effort to protect our employees, we have re-started the program but added a few changes. We need to ensure that the filters are securely packaged before we pick up. See below.

Before each pickup, the following will be required so the drivers can do this safely and efficiently.

1. Product must be packed in sealed cartons. (No loose filters)
2. All sealed cartons are to be palletized and shrink wrapped to the pallet. If the customer requires pallets and hand wrap, we can arrange to have some dropped off prior to the pickup date.
3. Pallets are to be on the loading dock upon arrival. If required, pick up times can be arranged.

There is a certificate provided to each customer for each calendar year. These are traditionally completed first quarter.

For 2020, we tally the total filters returned, and provide a certificate detailing the cubic foot diversion. The diversion numbers do not use weight as a metric. The weight of filters changes over the life of the product, and is not a consistent number. Our measurement unit is cubic foot.

I have attached the brochure for Humber College – North Campus for 2019 diversion. We will have the 2020 certificate available first quarter 2021.

I hope you find the attached information helpful.

Please let me know if you need anything further.



---

# Appendix C

## Waste Audit Summary

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**Ministry of the Environment Waste Form**

**Report of a Waste Audit**

**Industrial, Commercial and Institutional Establishments**

As required by O. Reg. 102/94

- *This report must be prepared for 6 months after becoming subject to O. Reg. 102/94 and a copy retained on file for at least five years after it is prepared, and be made available to the ministry upon request.*
- *For large construction and demolition projects, please refer to the forms included with “A Guide to Waste Audits and Waste Reduction Work Plans for Construction and Demolition Projects as required Under Ontario Regulation 102/94” (revised July 2008)*

**I. General Information**

<b>Name of Owner and/or Operator of Entity and Company Name:</b> Humber College			
<b>Name of Contact Person:</b> Lindsay Walker		<b>Telephone #:</b> 416-675-6622	<b>Email Address:</b> <a href="mailto:Lindsay.Walker@Humber.ca">Lindsay.Walker@Humber.ca</a>
<b>Street Address of Entities:</b> North Campus: 205 Humber College Boulevard Lakeshore Campus: 3199 Lakeshore Blvd West			
<b>Municipality:</b> North Campus: Toronto, Ontario Lakeshore Campus: Toronto, Ontario			
<b>Type of Entity (check one)</b>			
<input type="checkbox"/> Retail Shopping Establishments	<input type="checkbox"/>	<input type="checkbox"/> Hotels and Motels	<input type="checkbox"/>
<input type="checkbox"/> Retail Shopping Complexes	<input type="checkbox"/>	<input type="checkbox"/> Hospitals	<input type="checkbox"/>
<input type="checkbox"/> Office Buildings	<input type="checkbox"/>	<input type="checkbox"/> Educational Institutions	<input checked="" type="checkbox"/>
<input type="checkbox"/> Restaurants	<input type="checkbox"/>	<input type="checkbox"/> Large Manufacturing Establishments	<input type="checkbox"/>

**II. Description of Entity**

Provide a brief overview of the entity(ies):  Humber College is an educational institution with approximately 21,963 FTE students which satisfies Part X of Ontario Regulation 102/94 & 103/94. O.Reg. 102/94 requires operators of educational institutions with more than 350 full- or part-time students enrolled during the calendar year to conduct an annual waste audit and implement a waste reduction work plan. O.Reg. 103/94 requires that source separation programs be implemented and maintained for fine papers, newsprint, aluminum cans, steel cans, glass beverage containers and corrugated cardboard. Humber College undertook this audit in order to assist them in reducing wastes generated on campus and/or disposed to landfill, while being in compliance with the required Regulations.
--

**III. How Waste Is Produced and Decisions Affecting the Production of Waste**

For each category of waste that is produced at the entity(ies), explain how the waste will be produced and how management decisions and policies will affect the production of waste	
<b>Categories of Waste</b>	<b>How Is the Waste Produced and What Management Decisions/Policies Affect Its Production</b>
PET (#1) Plastic food and beverage bottles	Brought onto campus or generated on campus by staff/students
HDPE (#2) containers	Brought onto campus or generated on campus by staff/students
Polypropylene (#5) Containers	Brought onto campus or generated on campus by staff/students
Polystyrene (#6) Containers	Brought onto campus or generated on campus by staff/students
Glass food and beverage bottles/jars	Brought onto campus or generated on campus by staff/students
Aluminum food and beverage cans	Brought onto campus or generated on campus by staff/students
Steel food and beverage cans	Brought onto campus or generated on campus by staff/students
Gable top containers	Brought onto campus or generated on campus by staff/students
Aseptic containers	Brought onto campus or generated on campus by staff/students
Fine paper	Brought onto campus or generated on campus by staff/students
Newsprint	Brought onto campus or generated on campus by staff/students
Boxboard shoe boxes, cereal boxes, etc.	Brought onto campus or generated on campus by staff/students
Glossy magazines, catalogues, flyers	Brought onto campus or generated on campus by staff/students
Cardboard	Brought onto campus or generated on campus by staff/students
Paper towels	Generated by staff/students on campus
Coffee cups	Brought onto campus or generated on campus by staff/students
Organics/food waste	Brought onto campus or generated on campus by staff/students
LDPE (#4) plastic film	Brought onto campus or generated on campus by staff/students
Styrofoam	Brought onto campus or generated on campus by staff/students
Plastics Strapping	Brought onto campus or generated on campus by staff/students
Scrap Woods/Pallets	Generated by operations on campus
Scrap Metals	Generated by operations on campus
Electronics	Generated by staff/students on campus
Bulbs & Ballasts	Generated by staff/students on campus
Batteries	Generated by staff/students on campus
Printer Toners	Generated by operations on campus
Oil & Grease	Generated by operations on campus
Yard Wastes	Generated by operations on campus
Used Furniture Donations	Generated by operations on campus
Air filters	Generated by operations on campus
Construction & Demolition	Generated by operations on campus
Carpet	Generated by operations on campus
Other/Non-recyclable	Generated by staff/students on campus

**IV. Management of Waste**

For each category of waste listed below, indicate which waste items will be disposed or reused/recycled and how each item will be managed at the entity(ies).		
<b>Category</b>	<b>Waste to be Disposed</b>	<b>Reused or Recycled Waste</b>
PET (#1) Plastic food and beverage bottles	Staff/students may place in garbage	Staff/students may place in recycling containers
HDPE (#2) containers	Staff/students may place in garbage	Staff/students may place in recycling containers
Polypropylene (#5) Containers	Staff/students may place in garbage	Staff/students may place in recycling containers
Polystyrene (#6) Containers	Staff/students may place in garbage	Staff/students may place in recycling containers
Glass food and beverage bottles/jars	Staff/students may place in garbage	Staff/students may place in recycling containers
Aluminum food and beverage cans	Staff/students may place in garbage	Staff/students may place in recycling containers
Steel food and beverage cans	Staff/students may place in garbage	Staff/students may place in recycling containers
Gable top containers	Staff/students may place in garbage	Staff/students may place in recycling containers
Aseptic containers	Staff/students may place in garbage	Staff/students may place in recycling containers
Fine paper	Staff/students may place in garbage	Staff/students may place in recycling containers

Newsprint	Staff/students may place in garbage	Staff/students may place in recycling containers
Boxboard shoe boxes, cereal boxes, etc.	Staff/students may place in garbage	Staff/students may place in recycling containers
Glossy magazines, catalogues, flyers	Staff/students may place in garbage	Staff/students may place in recycling containers
Cardboard	Staff/students may place in garbage	Staff/students may place in recycling containers
Paper towels	Staff/students may place in garbage	Staff/students may place in recycling containers
Coffee cups	Staff/students may place in garbage	Staff/students may place in recycling containers
Organics/food waste	Staff/students may place in garbage	Staff/students may place in recycling containers
LDPE (#4) plastic film	Staff/students may place in garbage	Staff/students may place in recycling containers
Styrofoam	Staff/students may place in garbage	No recycling program implemented
Plastics Strapping	Staff/students may place in garbage	No recycling program implemented
Scrap Woods/Pallets	Staff/students may place in garbage	Staff may place in recycling containers
Scrap Metals	Staff/students may place in garbage	Staff may place in recycling containers
Electronics	Staff/students may place in garbage	Staff/students may place in recycling containers
Bulbs & Ballasts	Staff/students may place in garbage	Staff may place in recycling containers
Batteries	Staff/students may place in garbage	Staff/students may place in recycling containers
Printer Toners	Staff/students may place in garbage	Staff/students may place in recycling containers
Oil & Grease	Staff may place in garbage	Staff may place in recycling containers
Yard Wastes	Staff may place in garbage	Staff may place in recycling containers
Used Furniture Donations	Staff may place in garbage	Staff may place in recycling containers
Air filters	Staff may place in garbage	Staff may place in recycling containers
Construction & Demolition	Staff may place in garbage	Staff may place in recycling containers
Carpet	Staff may place in garbage	Staff may place in recycling containers
Other/Non-recyclable	Staff/students may place in garbage	Not applicable

**V. Extent to Which Materials or Products Used or Sold By the Entity Consist of Recycled or Reused Materials or Products**

Please answer the following questions:

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.

Humber College’s [Purchasing Policy](#) has the following language to promote sustainability: “Humber shall incorporate sustainability standards, social responsibility and fair labour practices into the procurement practices as appropriate, and give favorable consideration in its evaluation process to those goods and services that reflect this commitment.”

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.

Humber College’s Social Procurement Committee is working on developing a Social Procurement procedure that prioritizes the purchasing of diverse (owned, operated, and controlled), local, and sustainable businesses. The committee is working collaboratively with other post-secondary institutions and the City of Toronto to establish criteria for the recycling and reuse of materials.

<b>I hereby certify that the information provided in this Report of Waste Audit is complete and correct</b>		
<b>Signature of authorized official:</b>	<b>Title:</b>	<b>Date:</b>

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# Appendix D

## Waste Reduction Work Plan

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**Ministry of the Environment Waste Form**  
**Report of a Waste Reduction Work Plan**  
**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 a copy retained on file for at least five years after it is prepared, and be made available to the ministry upon request.*

**I. General Information**

<b>Name of Owner and/or Operator of Entity and Company Name:</b> Humber College			
<b>Name of Contact Person:</b> Lindsay Walker		<b>Telephone #:</b> 416-675-6622	<b>Email Address:</b> <a href="mailto:Lindsay.Walker@Humber.ca">Lindsay.Walker@Humber.ca</a>
<b>Street Address of Entities:</b> North Campus: 205 Humber College Boulevard Lakeshore Campus: 3199 Lakeshore Blvd West			
<b>Municipality:</b> North Campus: Toronto, Ontario Lakeshore Campus: Toronto, Ontario			
<b>Type of Entity (check one)</b>			
Retail Shopping Establishments	<input type="checkbox"/>	Hotels and Motels	<input type="checkbox"/>
Retail Shopping Complexes	<input type="checkbox"/>	Hospitals	<input type="checkbox"/>
Office Buildings	<input type="checkbox"/>	Educational Institutions	<input checked="" type="checkbox"/>
Restaurants	<input type="checkbox"/>	Large Manufacturing Establishments	<input type="checkbox"/>

**II. Description of the Entity**

Provide a brief overview of the entity(ies):
Humber College is an educational institution with approximately 21,963 FTE students which satisfies Part X of Ontario Regulation 102/94 & 103/94. O.Reg. 102/94 requires operators of educational institutions with more than 350 full- or part-time students enrolled during the calendar year to conduct an annual waste audit and implement a waste reduction work plan. O.Reg. 103/94 requires that source separation programs be implemented and maintained for fine papers, newsprint, aluminum cans, steel cans, glass beverage containers and corrugated cardboard. Humber College undertook this audit in order to assist them in reducing wastes generated on campus and/or disposed to landfill, while being in compliance with the required Regulations.

**III. Plans to Reduce, Reuse and Recycle Waste**

For each category of waste described in Part V of “Report of a Waste Audit” (on which this plan is based), explain what your plans are to Reduce, Reuse and Recycle the waste, including: 1) how the waste will be source separated at the establishment, and 2) the programs to reduce, reuse and recycle all source separated waste.	
<b>Waste Category</b> (as stated in Part V of your “Report of a Waste Audit”)	<b>Source Separation and 3Rs Program</b>
Mixed Containers (PET, HDPE, LDPE, PP, PS, Aluminum, Steel, Glass, Aseptic)	Comingled 3Rs Program Reduce: Staff/students will be encouraged to bring reusable containers food/beverage containers for lunch and breaks. Humber College will encourage suppliers to reduce the amount of polystyrene used to transport supplies. Humber College will encourage suppliers to reduce the amount of plastic film and wrapping materials used to transport supplies. Reuse: Staff/Students will be encouraged to reuse plastic crates and totes wherever possible. Recycle: Staff/Students will be provided with recycling bins in high waste generating areas and food service areas for mixed containers/plastics. Staff/Students will be encouraged to place mixed containers/plastics in appropriate recycling bins with appropriate signage affixed to the receptacle. Receptacles will be emptied on a regular basis before they become full into large roll away bins for collection as required.
Mixed Papers (Fine paper, newsprint, boxboard, magazines, molded papers, kraft, catalogues, flyers, etc.)	“Mixed Paper 3Rs Program” Reduce: Staff/Students will be encouraged to print on both sides of each piece of paper as well as not print when it is unnecessary. Staff/Students will be encouraged to take reading materials home with them after they are finished with them. Staff and students will be sent, via email, news sources that are available online opposed to purchasing paper copies of news. Reuse: Discarded paper with print only on one side will be used for note pads/scrap paper. Staff/Students will be encouraged to leave newspapers they are finished reading in common areas for others to read. Recycle: Staff/Students will be provided with instructions via email. Receptacles will be provided in each office, classroom and high waste generating areas. Staff/Students will be encouraged to place newsprint, fine paper, boxboard, magazines, molded papers, etc in appropriate recycling receptacles. Staff/Students will empty receptacles into centralized containers. Custodial Staff/Students will empty centralized containers into bulk container in designated area for collection as required.
Confidential papers	“Confidential Paper 3Rs Program” Reduce: None. Reuse: None. Recycle: Staff/Students will be reminded of the existing program. Receptacles will be provided in each designated office area as required. Staff/Students will be encouraged to place all confidential paper in the designated consoles. Contactor will empty consoles appropriately for shredding and recycling as required.
Cardboard	“Cardboard 3Rs Program” Reduce: Suppliers will be encouraged to make use of reusable containers for the shipment of supplies to Humber College. Reuse: Cardboard boxes will be reused for shipments when appropriate. Recycle: Staff/Students will be reminded of the existing program. Cleaners will be trained on where to dispose of waste correctly.
Paper towels	“Organics 3Rs Program” Reduce: None. Reuse: None. Recycle: Staff/Students will be reminded that paper towels can be placed in garbage bins where available.
Organics	“Organics 3Rs Program” Reduce: Students will be encouraged to bring uneaten food items home after lunch breaks or uneaten. Non-perishable food items can be donated to a local food drive. Reuse: Staff/Students provided with reusable china in some food service areas. Recycle: Staff/Students will be continually reminded of the existing program. Kitchen staff & cleaners trained on where to dispose of waste correctly. Additional bins added to the university food service areas to capture organic materials. Signs improved relating to organics program to assist staff/students in sorting organic stream correctly. Selling of disposable food containers discouraged on campus, and if sold, containers should be compostable. Updated organics handouts for staff/student education/training program. Training of food service staff regarding improvements to organics program
Coffee cups, LDPE (#4) films, plastic strapping	“Comingled 3Rs Program” – Refer above for description
Styrofoam	No 3Rs programs
Wood pallets/scrap woods	“Wood Pallets 3Rs Program” Reduce: Staff to monitor use of Pallet to eliminate/reduce broken pallets. Reuse: Staff will be reminded of the existing program. Staff/Students will be encouraged to use scrap wood before new wood is purchased for use at the College. Recycle: Staff will be reminded of scrap wood recycling program.
Scrap metals	“Scrap Metals 3Rs Program” Reduce: None. Reuse: None. Recycle: Staff will be reminded of the existing program.

Electronic waste	“Electronic Wastes 3Rs Program” Reduce: None. Reuse: Staff/students will be encouraged to reuse/donate electronic wastes if possible. . Recycle: Staff/Students will be reminded of the existing program, continue collecting for proper recycling of waste materials.
Bulbs and ballasts	“Bulbs & Ballasts 3Rs Program” Reduce: None. Reuse: None. Recycle: Staff/Students will be reminded of the existing program.
Batteries	“Batteries 3Rs Program” Reduce: None. Reuse: None. Recycle: Staff/Students will be reminded of the existing program.
Printer toners	“Electronic Wastes 3Rs Program” Reduce: None. Reuse: Staff/students will be encouraged to reuse/donate electronic wastes if possible. . Recycle: Staff/Students will be reminded of the existing program, continue collecting for proper recycling of waste materials
Oil & grease	“Oil & Grease 3Rs Program” Reduce: None. Reuse: None. Recycle: Staff/Students will be reminded of the existing program.
Yard waste	“Yard Wastes 3Rs Program” Reduce: None. Reuse: None. Recycle: Staff/Students will be reminded of the existing program.
Used furniture	“Used Furniture 3Rs Program” Reduce: None. Reuse: Staff/Students will be reminded of the existing program. Recycle: Staff/Students will be reminded of the existing program
Air filter	Staff will be reminded of the existing program with Daftco.
Construction & Demolition	“Construction & Demolition 3Rs Program” Reduce: None. Reuse: None. Recycle: Staff/Students will be reminded of the existing program.
Carpet	“Carpet 3Rs Program” Reduce: None. Reuse: None. Recycle: Staff/Students will be reminded of the existing program.

**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 each person is responsible for implementing.		
WasteCO – Paul Welsman	Waste/Garbage, Cardboard, Mixed containers, mixed papers, organics, scrap metals, scrap woods, construction & demolition	416-787-5000
Kevin Viflanzoff	Confidential papers/Shredding, printer toners	416-675-6622
Serge Faria	Electronic Wastes	416-675-6622
Scott Skrinias, Chris Nanos	Fluorescent bulbs & ballasts	416-675-6622
Lindsay Walker	Batteries	416-675-6622
Rebecca Muyal	Used Furniture	416-675-6622
Walter/Don	Oil & grease	416-675-6622
Mark Palenchar and Robert Gray	Yard Waste	416-675-6622

**V. Timetable for Implementing Waste Reduction Work Plan**

Provide a timetable indicating when each Source Separation and 3Rs program of the Waste Reduction Work Plan will be implemented.	
<b>Source Separation and 3Rs program</b>	<b>Schedule for Completion</b>
Mixed Containers	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Mixed Papers	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Confidential Papers	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Cardboard	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered

Organics	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Scrap Wood/Wood Pallets	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Scrap Metals	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Electronic Waste	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Bulbs & Ballasts	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Batteries	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Printer Toners	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Oil and Grease	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Yard Wastes	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Used Furniture	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Construction & Demolition	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered
Carpet	3Rs Program currently in place. Continual improvement to signage and additional promotional campaigns to be considered

**VI. Communication to Staff, Customers, Guests and Visitors**

Explain how the Waste Reduction Work Plan will be communicated to employees, customers, tenants, guests/visitors and students:
Explain how the Waste Reduction Work Plan will be communicated to employees, customers, tenants, guests/visitors and students. Sustainability committee will review and develop a work plan to be posted on campus for staff and students. Additional promotional campaigns will also be considered to target specific audiences for specific programs. Continue to improve educational materials (hand-outs, flyers) and signage across campus as required.

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