



WASTE AUDIT REPORT

SHERIDAN COLLEGE
TRAFALGAR & DAVIS CAMPUSES

2019 SOLID NON-HAZARDOUS WASTE
AUDIT O.REG. 102/94

PREPARED BY

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EXECUTIVE SUMMARY

This waste audit was conducted in April 2019 at the Trafalgar Campus of Sheridan College. The Trafalgar Campus is the second largest of the three Sheridan College campuses in terms of student population and the largest in terms of physical size. The Trafalgar campus has twenty buildings with a total floor area of approximately 1,055,000 sq. ft. This includes classrooms, studios, offices, cafeteria, washrooms, hallways, athletics centre, residences, etc. Eleven of the buildings in the main campus are multi-storied including both offices and classrooms/studios. Some of the office areas include kitchenettes and some only have microwave ovens on counters.

There are three campuses at Sheridan: Davis, Trafalgar & Hazel McCallion (HMC). All three campuses of Sheridan College have implemented a number of diversion programs in an effort of getting to Zero Waste by 2020. Each of the campuses has a variety of single-stream recycling/reuse programs (Ex. cardboard, E-waste) as well as the three-stream Zero Waste (ZW) bins, implemented in 2014, which are the identically marked and colour-coded collection stations for organics, mixed recycling and waste-to-landfill that are found throughout the campus.

In addition to single stream recycling/reuse collection programs and the ZW bin program, Sheridan College has implemented many reduction and sustainability programs including:

1. Installed water bottle refilling stations to reduce PET water bottle generation.
2. Implemented a program to eliminate paper towels from all washrooms by switching to air hand dryers instead of repairing broken paper towel dispensers (most washrooms have already eliminated paper towel usage).
3. Implemented a paper reduction program at all campus printers.
4. The campuses host Repair Cafe's to change society's throwaway mindset and empower people to repair broken household items.
5. The Sheridan Student Union (SSU) runs a Food Donation program.
6. The library has a well-established book donation program.
7. Sheridan hosted a Winter Office Cleanup collecting office furniture and supplies to donate to various charities (new 2018).

With the exception of the furniture donation program component of the Winter Office Cleanup, the waste reduction realized by these additional programs was not quantified for inclusion in this report.

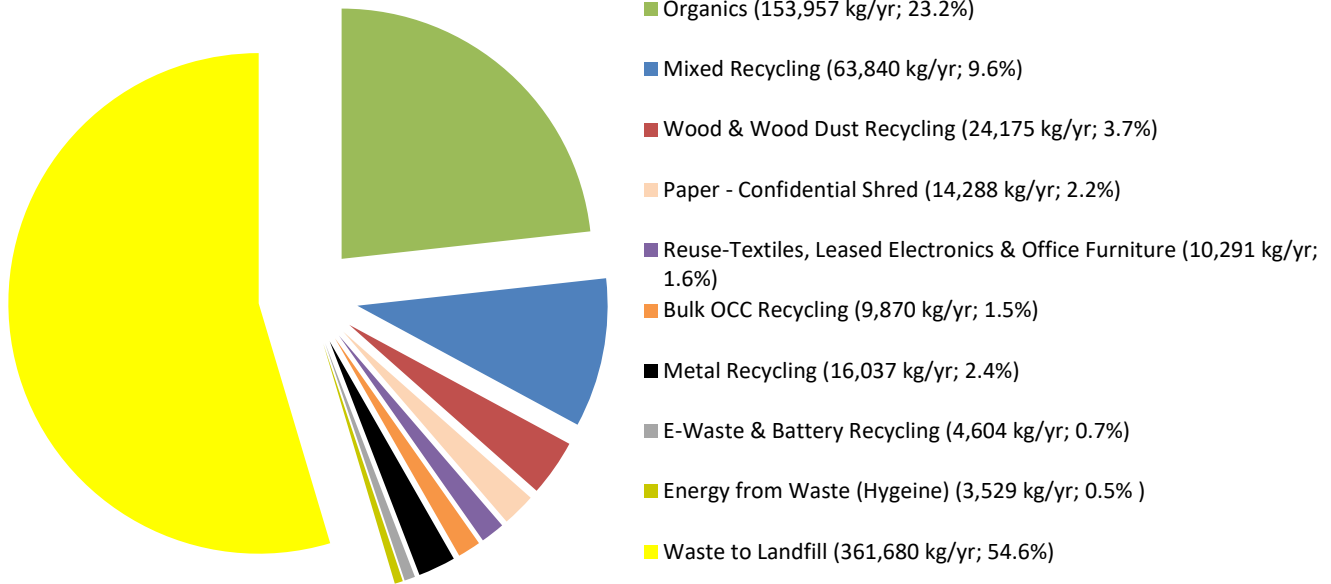
The ZW bin program was rolled out over the course of 2014 at the campuses so this program has matured: students and staff have are familiar with and knowledgeable of the ZW bin collection program. Sheridan continues to encourage participation through engagement and information programs. The weight based information for the 2019 waste audit was from 2018 data provided by the service providers.

Beyond the reporting of waste diversion at the Davis Campus and the inclusion of completed Ministry of the Environment, Conservation and Parks (MECP) waste audit reports in the appendix, the body of this report deals with the 2019 waste audit at the Trafalgar Campus.

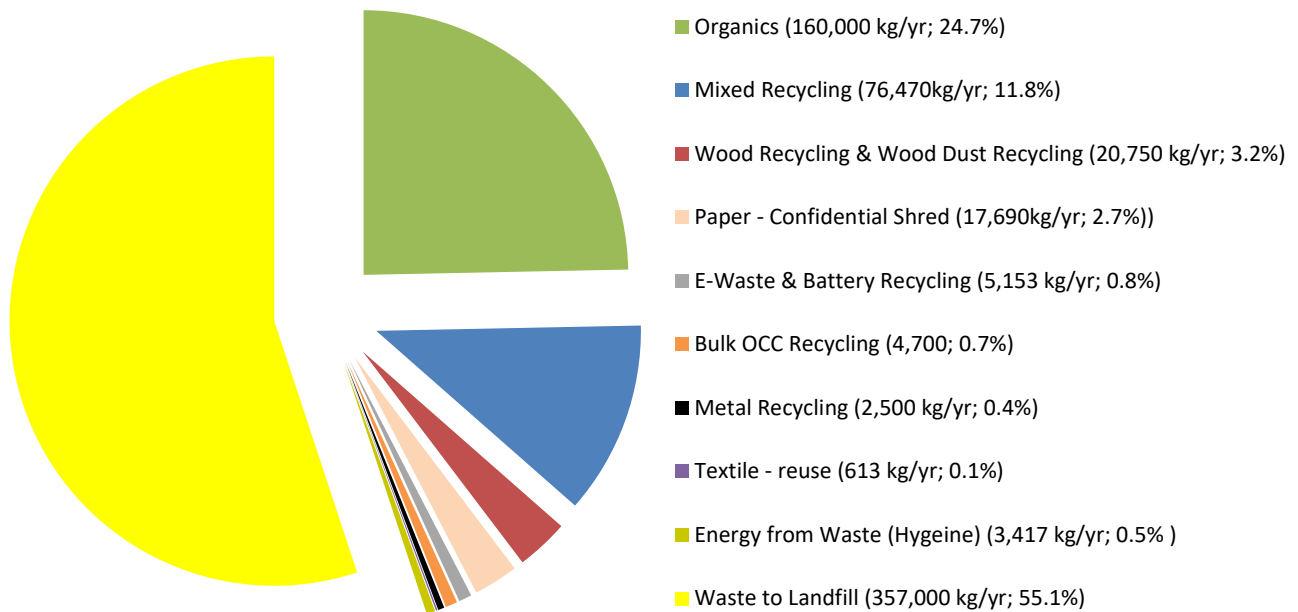
ANNUAL DIVERSION RATES OVER TIME (TRAFALGAR & DAVIS)

The 2019 waste diversion rates at the Trafalgar & Davis campuses are presented below. The 2019 diversion rates were calculated using calendar year 2018 weight-based information provided by Sheridan management and their waste service providers. Although the final disposition of the electronics in the electronics lease-return program is not known, it is included in the reuse category for the purpose of the 2019 waste audits at Sheridan College.

Trafalgar Campus 2019 Waste Diversion Rate: 44.9%

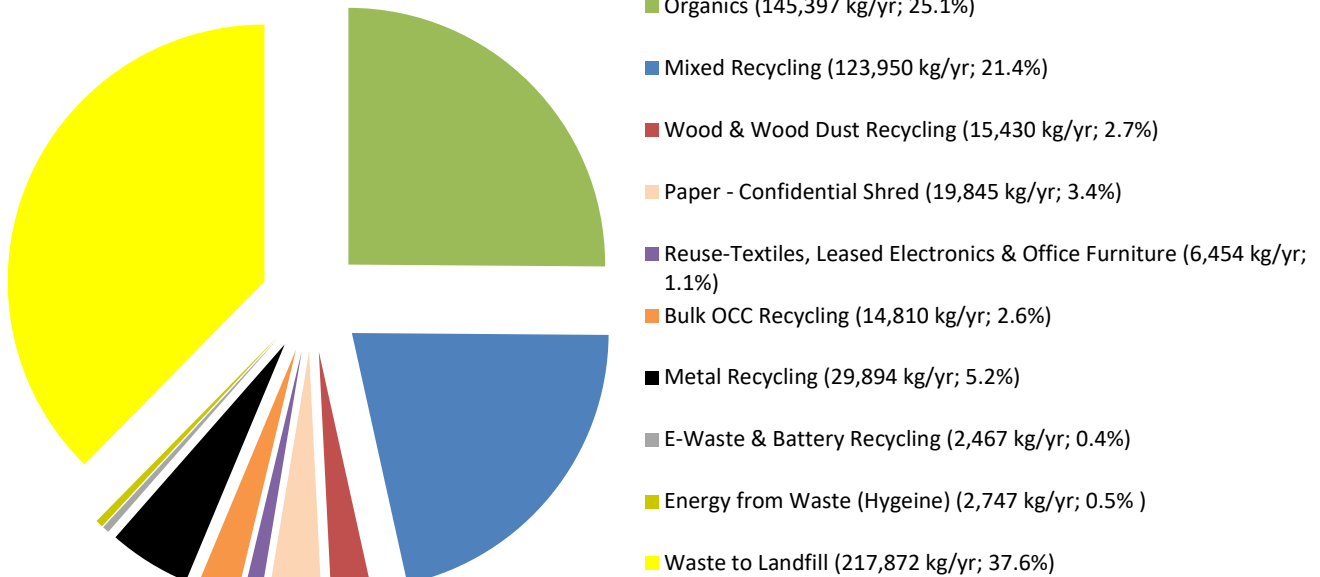


Trafalgar Campus 2018 Waste Diversion Rate: 44.4%

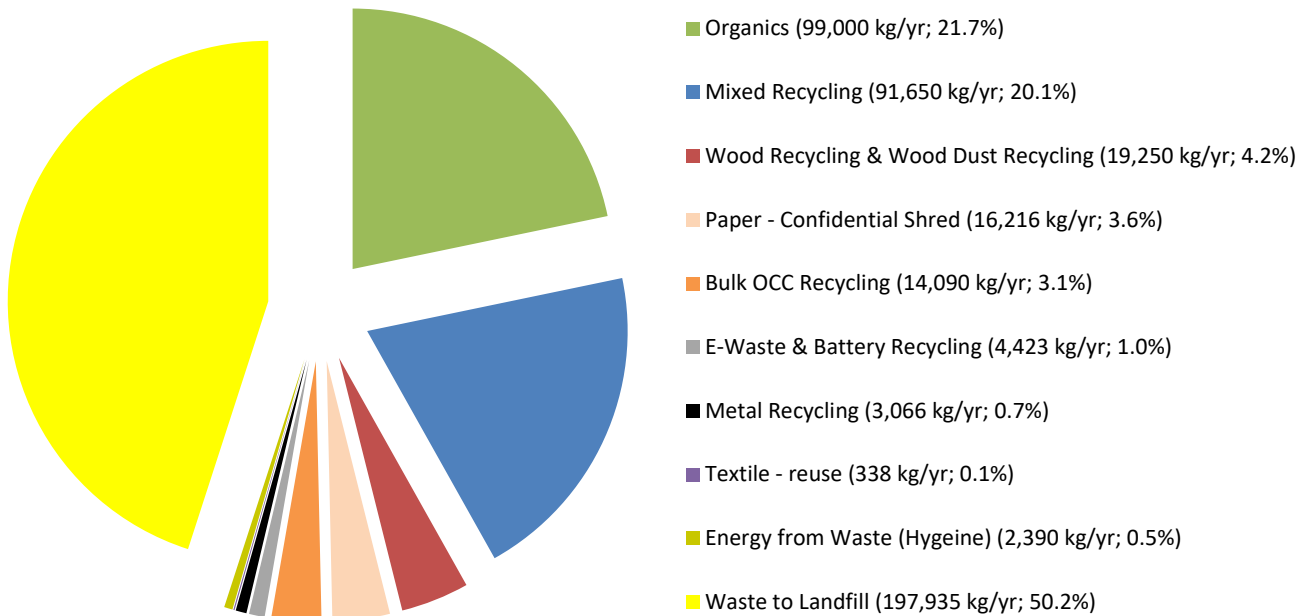


Since 2018, the Trafalgar Campus generated slightly more material while marginally increasing waste diversion due, in large part, to an increase in metal recycling.

Davis Campus 2019 Waste Diversion Rate: 61.9%



Davis Campus 2018 Waste Diversion Rate: 54.5%

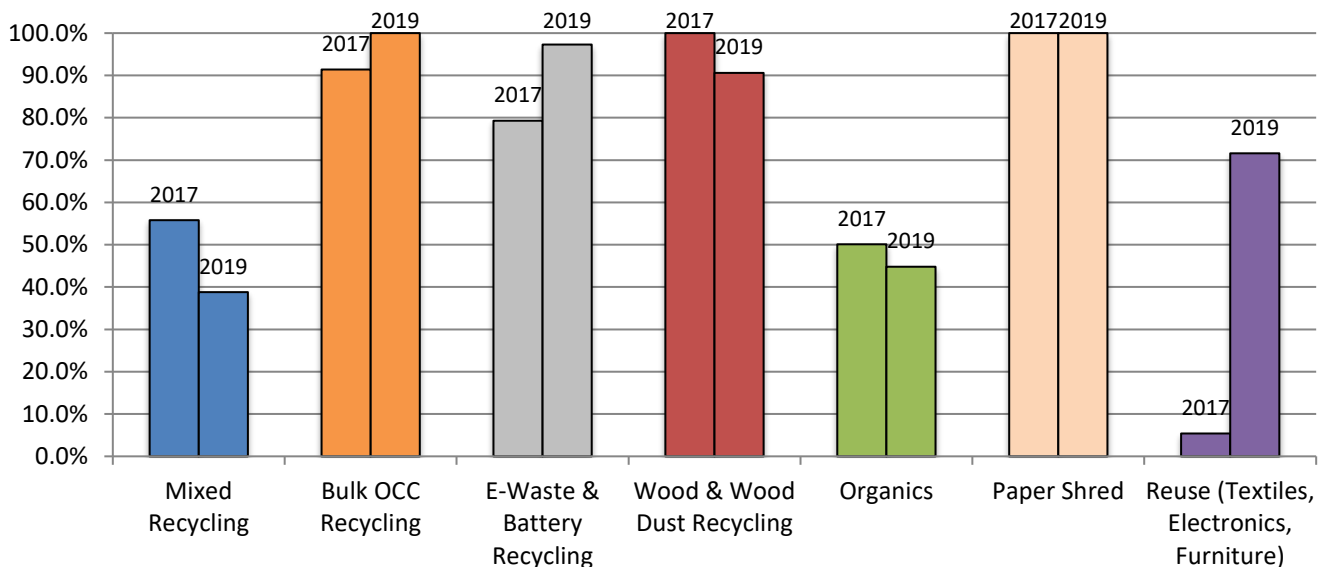


Since 2018, the Davis Campus generated 21.3% more material while significantly increasing waste diversion due, in large part, to improved capture of ZW organics and mixed recycling as well as an increase in metal recycling.

OVERALL CAPTURE RATES BY DIVERSION PROGRAM OVER TIME

Capture rates for each diversion program were calculated at the Trafalgar campus using results of the 2019 waste audit of the ZW bins, combined with 2018 weight based information on collection programs. The capture rates were consistently high for the bulk single-stream recycling programs where they exist. The capture rate for the ZW mixed recycling and to a somewhat lesser extent the ZW organics have declined slightly since 2017 (the last time an audit was conducted at this site). 2019 did however see a significant increase in reuse programs with the inclusion of electronics reuse (lease electronic equipment returns) and office furniture donation.

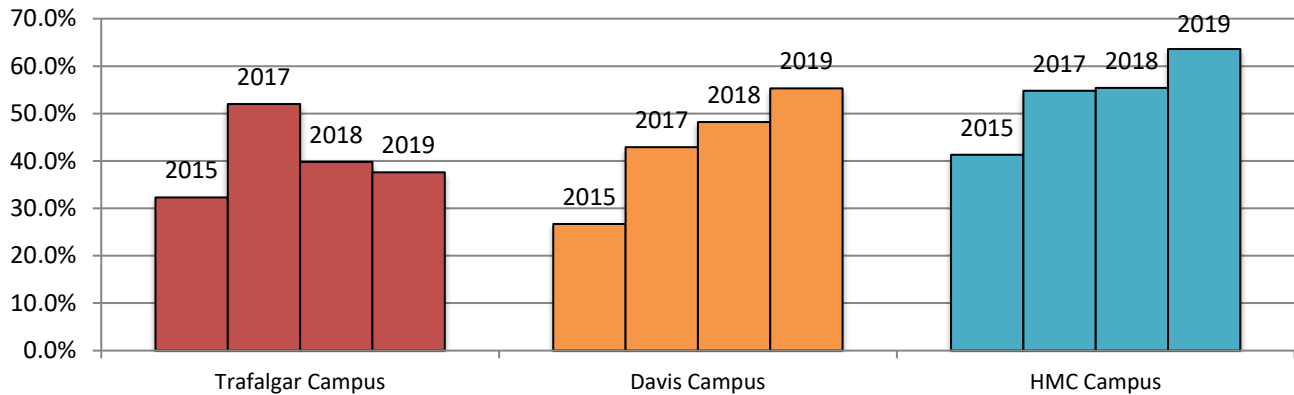
Capture Rates by Waste Diversion Collection Programs (Trafalgar Campus, 2017-2019)



ZW COLLECTION PROGRAM PERFORMANCE OVER-TIME

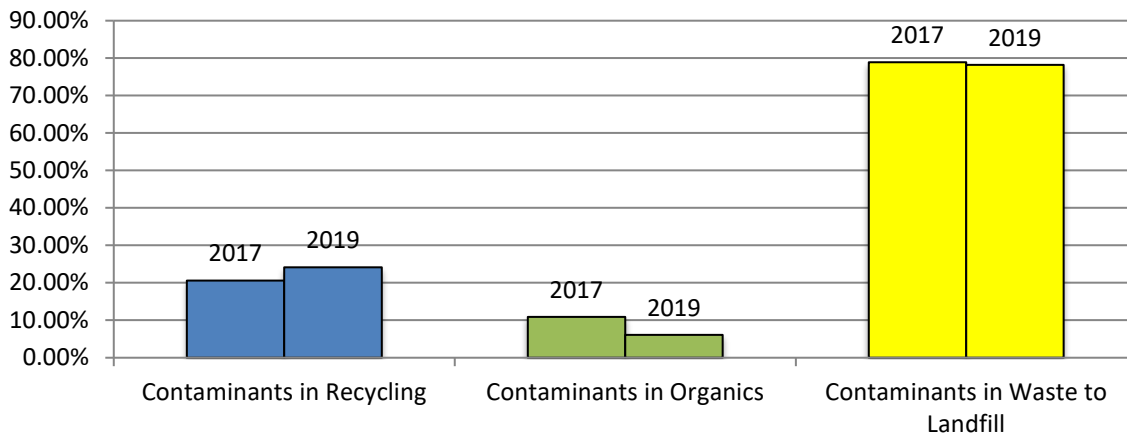
The ZW bin program waste diversion performance has been steadily increasing over time at both the Davis and HMC Campuses. However the Trafalgar Campus has seen a slight decline in waste diversion performance. At Trafalgar there was a slight increase in ZW waste-to-landfill, while a decline in both ZW mixed recycling and ZW organics from since 2017. This decline could in part be caused by higher rate of divertible loads being considered "contaminated" and disposed as waste-to-landfill at the Trafalgar Campus. At the Davis Campus 6.8% of waste-to-landfill was contaminated loads (organics and/or recycling), at HMC only 1.6% of waste-to-landfill was contaminated loads while at Trafalgar 12.3% of waste-to-landfill was divertible material that was reclassified as waste-to-landfill due to unacceptably high contamination.

ZW Diversion Rates over Time (2015-2019)



TRAFALGAR CAMPUS: ZW COLLECTION PROGRAM CONTAMINATION RATES OVER TIME

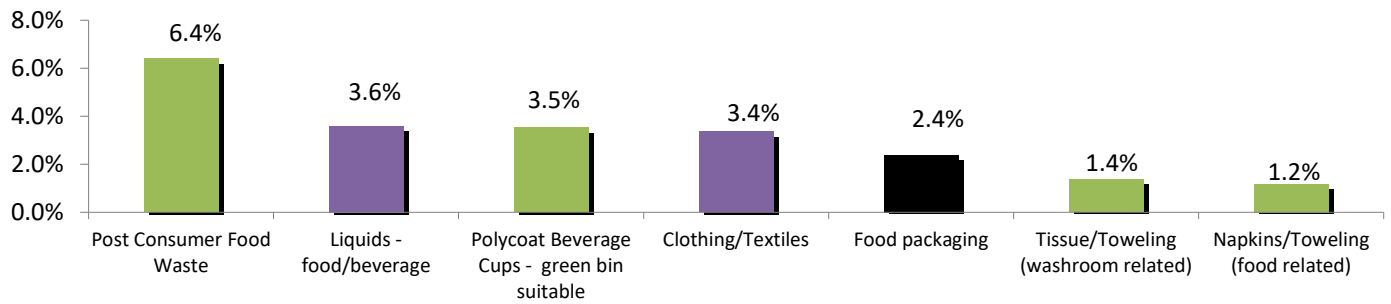
The site audits at the Trafalgar and Davis campuses have been conducted alternately: in 2015 and 2018 audits were conducted at Davis, in 2016 Sheridan conducted internal audits, and in 2017 and 2019 audits were conducted at the Trafalgar Campus. The 2019 Trafalgar Campus contamination rates for each of the three ZW bin streams were calculated and compared against contamination rates in 2017. Contamination rates at the Trafalgar Campus have remained relatively unchanged since 2017.



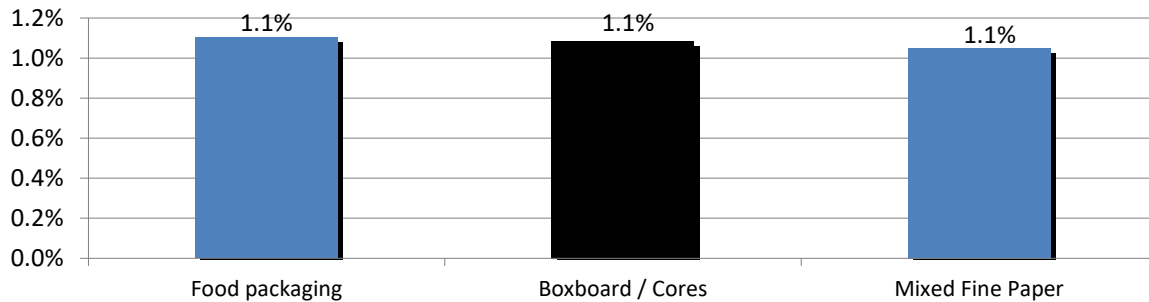
TRAFALGAR CAMPUS: ZW COLLECTION PROGRAM SPECIFIC WASTE CONTAMINANTS

The most significant contaminants in each of the ZW collection program streams are presented below. Contamination can be reduced through improving sorting behaviours with targeted programs to address the most significant contaminants. Food waste is the most consistently improperly disposed material in the ZW Recycling and ZW Waste-to-Landfill streams; while a variety of materials (mostly food packaging and coffee cups) contaminate the ZW Organics program.

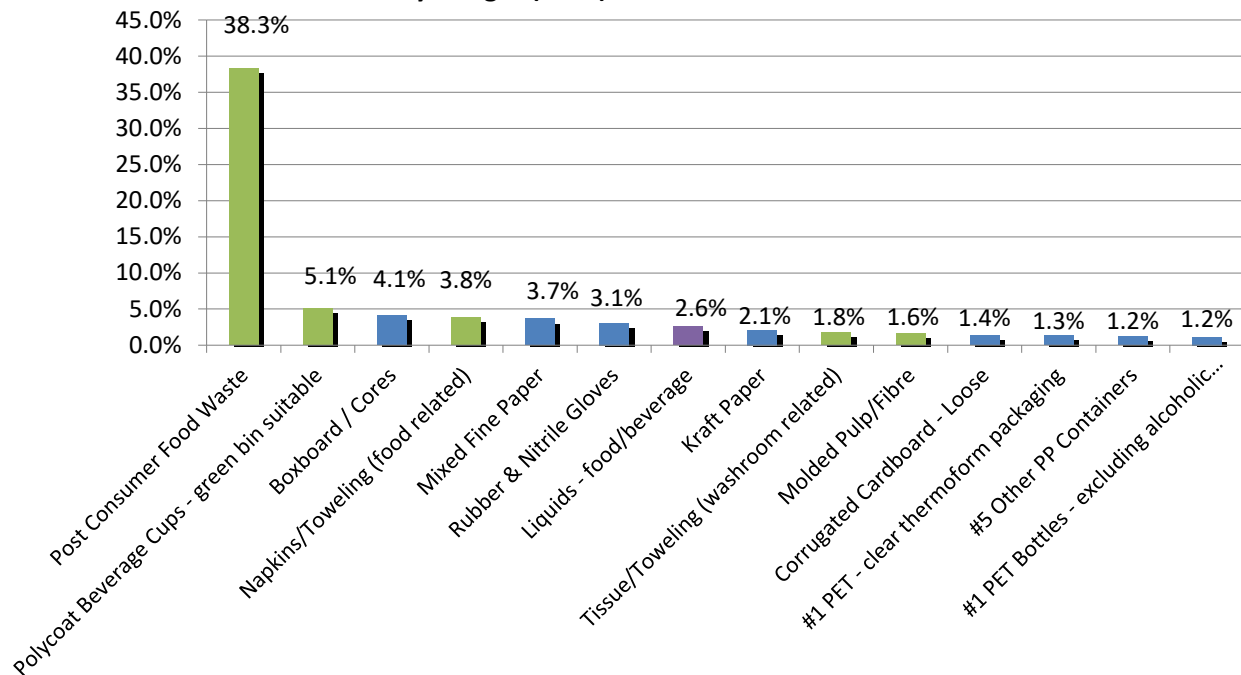
ZW Recycling Contaminants by Weight (2019)



ZW Organics Contaminants by Weight (2019)



ZW Waste-to-Landfill Contaminants by Weight (2019)



TRAFALGAR CAMPUS: ZW COLLECTION PROGRAM BY AREA

Waste diversion rates for the sixteen areas sampled during the audit at the Trafalgar campus are presented below. You will note that the Trafalgar Area ZW waste diversion rate (37.6%) is lower than the reported 2019 Trafalgar campus waste diversion rate (44.9%) because the diversion rates do not include single stream recycling/reuse programs. Two area samples of waste-to-landfill were not delivered to the auditors for categorization during the audit: A Wing first Floor PIT and Learning Common Plastic BIN.

Area	Percentage by Weight Collected During 24 Hour Sampling Period			ZW Area Waste Diversion Rate
	ZW Recycling	ZW Organics	ZW Waste-to-Landfill	
A Wing 1st Floor Hallways	10.9%	22.0%	67.1%	32.9%
A Wing 3rd Floor Hallways & Student Workspace	8.3%	28.0%	63.7%	36.3%
B Wing Tim Horton	0.9%	42.5%	56.6%	43.4%
B Wing 2nd Floor Hallways & Offices	10.8%	43.0%	46.2%	53.8%
B Wing 3rd Floor Hallways & Offices	6.3%	19.5%	74.1%	25.9%
B Wing Cafeteria Front of House	11.3%	28.5%	60.1%	39.9%
B Wing Cafeteria Back of House	2.0%	76.7%	21.3%	78.7%
A Wing First Floor PIT	40.8%	59.2%	0.0%*	100.0%
A Wing Hallways	14.5%	23.0%	62.5%	37.5%
C Wing 1st Floor	9.8%	25.4%	64.8%	35.2%
J Wing 2nd Floor Hallways	13.3%	16.6%	70.1%	29.9%
SCAET 1st Floor	13.8%	23.8%	62.3%	37.7%
Student Union & Food Serv Back of House	14.9%	18.1%	67.0%	33.0%
Learning Common Plastic Bin	66.1%	33.9%	0.0%*	100.0%
Residence1	7.1%	20.3%	72.6%	27.4%
Residence 2	23.7%	33.3%	43.0%	57.0%
All Areas (ZW Material Only)	11.0%	26.6%	62.4%	37.6%

** Area waste streams that were either not generated or missed being delivered to the auditors thereby possibly significantly affecting the Area waste diversion rate.*

TRAFALGAR & DAVIS: COFFEE CUP MANAGEMENT OVER TIME

Although all polycoat cups were considered suitable for the green bin program for the purpose of this audit, polycoat cups suitable for diversion programs is changing. Consequently coffee cups were classified as currently suitable for Sheridan's green bin program "green bin suitable" and at-risk of being excluded from Sheridan's green bin program in the future "at risk". This minor classification was done so that Sheridan management may be kept aware of how polycoat cup disposition changes may impact its existing polycoat cup diversion program. It is important to note that Campus compliance with disposing of coffee cups in the "signed" organic receptacles is not improving: in 2017, 44.8% of cups were captured in the green bin program and in 2019, 43.6% of cups were captured in the green bin program.

TRAFALGAR: IMPACT OF PLASTIC VS METAL ZW CONTAINERS ON WASTE DIVERSION RATES

In May 2018 the plastic ZW bins in hallways were removed (and placed in washrooms) at the Trafalgar Campus under order of the Fire Marshall. In January 2019 the new Fire Marshall compliant metal ZW bins were installed in the hallways with new signage that was bigger and clearer. The 2019 waste audit data was analyzed to see if there was any material impact from the improved ZW containers and signage by comparing 2017 Trafalgar hallway diversion rates against 2019 Trafalgar hallway diversion rates. The Hallway Only diversion rate was calculated by summing the data for each "hallway" area's ZW bin program and the diversion rate was calculated by dividing the sum of all the material disposed in ZW mixed recycling and ZW organics, divided by the entire ZW material stream.

	2019	2017
Hallway Only ZW Waste Diversion Rate	33.9%	72.4%
Campus-Wide ZW Waste Diversion Rate	37.6%	52.0%

From 2017 to 2019 the ZW diversion rate and hallway diversion rates both declined. Further, in 2017 the hallway diversion rate was significantly higher than other areas whereas in 2019 the hallway rate approximated the other area diversion rates. It is possible that the ZW container hallway disruption (no hallway ZW containers for the majority of 2018) decreased participation in these areas. However there is no evidence the new ZW containers improved waste diversion.

GENERAL RECOMMENDATIONS

The recommendations appearing in this report are to be considered for implementation as Sheridan College feels appropriate and cost effective.

Ensure the campuses waste reduction workplans use the hierarchical components of the 3Rs. Reduction or elimination of waste should be given top priority, then reuse and lastly recycling. Similarly, choose suppliers who offer products with post-consumer recycled content. Purchasing supplies and materials with recycled content encourages and sustains growth in existing and developing recycling end-markets. The 3Rs Regulations require not only that these practices are conducted but also recorded and documented.

Review purchasing, packaging and environmental policies to ensure each reflects and emphasizes consistent hierarchical Reduce, Reuse, Recycle strategies. Reduction or elimination of waste should be given top priority, then reuse and lastly recycling. A consistent 3Rs policy will benefit the campuses by communicating its environmental stewardship to its employees, its suppliers and its patrons.

Given that the recycling programs are well established, the campuses need to examine ways of reducing waste. Many facilities fail to achieve waste reduction targets because they use the 3Rs in the reverse order. Unfortunately, many companies use this approach based on the misinformed belief that recycling is the easiest, most cost-effective and the least time consuming form of waste diversion. Consider some of the following costs associated with recycling that would not be incurred if the materials were not generated in the first place:

- Recycling requires additional material handling

- Cost of containers / floor space / storage areas
- Education and training of employees
- Promotion of the programs to maintain cooperation
- Removal service costs
- Contamination issues/disposal fees
- Sourcing available end-markets for materials

In the auditor's experience, companies that make substantial gains in waste reduction are those that periodically improve their recycling programs while continuously examining ways to eliminate materials that contribute to their daily and annual waste output.

Employees should evaluate, improve and expand waste reduction efforts in their own areas. Active employee involvement will generate cooperation and enthusiasm.

Ontario Regulation 102/94 requires that the audit findings be posted in accessible areas to inform employees of the sources of waste generation and the company's commitment to waste reduction. Further, posting waste audit findings and educating employees in waste diversion programs and including them in the successes, will generate continued compliance with and commitment to the waste diversion programs.

SPECIFIC RECOMMENDATIONS –THE WASTE REDUCTION WORKPLANS

CAMPUS WIDE FOCUS:

Sheridan's Trafalgar Campus has an excellent combination of diversion programs that address the divertible materials generated at the campus. Consequently, future waste diversion improvements will likely come from enhancing compliance with the three stream ZW bins across campus. In particular, the Trafalgar Campus needs to ensure recycling and organics programs are kept "clean of contaminants". To this end, Sheridan should continue to assess and identify barriers to sorting and develop area-specific action plans to increase participation and decrease errors in sorting.

SPECIFIC RECOMMENDATIONS:

1. **Enhancing Food Waste, Polycoat Cup & Cup Trays and Napkins Capture Rate Throughout the Campus:** 138,547 kg/year of food waste, 18,432 kg/year of polycoat cups, 5,831 kg/year of coffee cup trays and 13,879 kg/year napkins are being disposed in waste-to-landfill. Sheridan must continue to encourage the proper disposal in organics through education/signage. Consider a campaign to encourage sorting behaviour using a multi-media approach and consider 'branding' the campaign. Engage and challenge environmental studies students to design the campaign and develop a multi-media approach/roll-out. Expected improvement in capture rate of 20%. Anticipated reduction in waste-to-landfill of 35,338 kg per year (20% of organics improperly disposed across the campus).
2. **Launching a "Keep Recycling Clean" campaign:** Educate students that their dirty recyclables could cause a big load good recyclables to be landfilled. Consider reporting that 12.3% of good recycling went bad in 2018 at the Trafalgar Campus due to improper sorting. Use visuals to capture attention. The program components should include:

- "Clean your recyclables": Encourage the emptying of food waste and napkins in the organics bin, then the disposal of the food packaging in the appropriate ZW mixed recycling or ZW waste-to-landfill bin
- Particular focus in Hallways and Front of House Cafeteria Areas where sorting is particularly poor

Anticipated reduction in waste-to-landfill of 22,293 kg/year (50% reduction in contaminated loads, bringing contamination rate in line with that at Davis Campus).

3. **Enhancing Mixed Recycling Capture Rate Throughout the Campus:** 84,357 kg/year of mixed recycling was disposed in waste-to-landfill in 2018. Encourage the proper disposal in mixed recycling of: boxboard/cores, mixed fine paper, kraft paper, molded pulp (coffee cup trays), cardboard & #1 PET (plastic water bottles). Expected improvement in capture rate of 20%. Anticipated reduction in waste-to-landfill of 16,872 kg per year (20% of mixed recycling improperly disposed across the campus).
4. **Emptying Beverage Containers:** Continue to encourage the emptying of beverage containers prior to placement in mixed recycling through a combination of education/signage and placement of emptying stations where practicable. Consider launching a campaign. Anticipated reduction in disposal of liquids in any stream: 40%. Anticipated reduction in waste-to-landfill of 3,748 kg per year as well as a significant reduction in contamination in the mixed recycling and organic streams (40% reduction in liquids in waste-to-landfill stream).
5. **Reducing/Eliminating Disposal of Washroom Paper Toweling:** Reduce/eliminate washroom paper towel use or provide facilities and education/signage to capture washroom paper toweling in the organics program. Anticipated reduction in disposal of 50% of washroom paper toweling and reduce 3,201 kg per year of waste-to-landfill.
6. **Improving Capture Rates for Clothing/Textiles:** Providing communication tools and/or receptacles for capture of clothing/textiles in those areas with highest generation rates and these include:
 - Learning Common
 - Residences
 Anticipated reduction in disposal of 50% of clothing/textiles and reduce 971 kg per year of waste-to-landfill and significant reduction of contamination in the ZW mixed recycling.
7. **Monitoring the Coffee Cup Program:** More and more cups are being considered not compostable all the while Sheridan's population continues haphazardly dispose of coffee cups largely in waste-to-landfill and organics, but also with significant disposal in recycling. Coffee cup types and disposition (compostable vs. non-compostable) is in flux. Consider developing a strategy to manage coffee cups at the three campuses to ensure the coffee cup program is future-looking, flexible, efficient and effective. Impact on waste diversion cannot be quantified at this time as it is strategy dependent.
8. **Capturing & Reporting Material Weights for All Diversion Programs at the Campus:** Sheridan has made significant progress in reporting material diversion streams since 2015 however there may be other diversion programs in place at the Trafalgar Campus but the weight-based data is not currently captured for reporting purposes (Examples Electronics Reuse and Office Furniture

Donation). Sheridan should continue to conduct an inventory of all diversion programs, with particular focus on reduction and reuse programs, and should ensure there are procedures in place to collect, monitor and report on these programs.

Anticipated Result:

With the implementation of the above noted waste reduction plans, it is estimated that the waste diversion rate at the Trafalgar Campus will increase from 44.9% to 57.4% and the Trafalgar Campus will divert an additional 82,834 kg of waste per year from landfill in 2020.

1.0 INTRODUCTION

1.1 PURPOSE

The solid waste audits performed by *Spinnaker Recycling Corp.* (“Spinnaker”) at the Trafalgar Campus of Sheridan College was designed to:

CALCULATE CURRENT DIVERSION RATES FOR RECYCLED, ORGANIC AND REUSED MATERIALS TO DETERMINE THE EFFECTIVENESS OF DIVERSION PROGRAMS

IDENTIFY OPPORTUNITIES FOR IMPROVEMENT AND EXPANSION TO DIVERSION PROGRAMS

DEVELOP A WASTE REDUCTION WORKPLAN THAT IDENTIFIES POLICIES, PRACTICES, TARGETS AND GOALS FOR NEW AND DEVELOPING WASTE REDUCTION PROGRAMS

COMPLETE & DOCUMENT THE AUDIT AS PER ONTARIO REGULATION 102/94 UNDER THE ENVIRONMENTAL PROTECTION ACT

Though the body of this report references the findings of the audit at the Trafalgar Campus, Ministry of the Environment, Conservation & Parks (MECP) of a Waste Audit and Waste Reduction Workplan for both Davis and Trafalgar are appended to this report. These waste audits have been conducted and documented to be compliant with Ontario Regulation 102/94. Beyond the reporting of waste diversion at Trafalgar and the inclusion of completed MECP waste audit reports in the appendix, the body of this report deals with the 2019 waste audit at the Trafalgar Campus.

At the time of the 2019 audit, the Davis & Trafalgar campuses had implemented and reported on the following collection programs and events:

1. ZW Mixed Recycling (includes glass, metal, paper, plastic)
2. ZW Organics (rolled out in 2014)
3. ZW Waste-to-landfill
4. Bulk Old Corrugated Cardboard (OCC) Recycling
5. Paper Shred Recycling
6. Metal Recycling
7. E-Waste Recycling
8. Battery Recycling (at Davis batteries are included in E-Waste program)
9. Wood Recycling
10. Wood Dust Recycling (Trafalgar only)
11. Textile Reuse
12. Office Furniture Reuse Event (new 2019)
13. Electronic Equipment Lease-Return (new 2019)
14. Hygiene Waste Energy from Waste (EFW) Program

Sheridan College recycling programs meet and exceed Ontario Regulation 102/94 requirements for designated facilities as the recycling programs include the capture of the following recyclable materials:

- Aluminum food or beverage cans

- Cardboard
- Fine Paper
- Glass Bottles, Jars & Food/Beverage
- Newsprint
- Steel Food & Beverage Cans
- Polyethylene Terephthalate (PET)

1.2 METHODOLOGY

The waste audit results presented in this report were obtained from observations and information collected during one on-site meeting and on two days of on-site waste auditing conducted in April 3-4, 2019 at the Trafalgar Campus.

Two data sets were employed to generate the annual waste generation rates of specific waste materials at the Trafalgar Campus. First, the 2018 annual weight information for the individual collection streams was obtained from the service providers and the second data set was generated during the sorting and weighing of a 24 hour accumulation of material in ZW bins during the April 2019 on-site waste audit at the Trafalgar Campus.

The 2018 single-material stream weights provided by the service providers were not audited and were assumed to be 100% single-stream without any contamination by other materials. Sheridan has implemented the following single-material stream diversion programs and events including:

1. Bulk Old Corrugated Cardboard (OCC) Recycling
2. Paper Shred Recycling
3. Metal Recycling
4. E-Waste Recycling
5. Battery Recycling (Trafalgar only)
6. Wood Recycling
7. Wood Dust Recycling (Trafalgar only)
8. Textile Reuse
9. Office Furniture Reuse Event
10. Electronic Equipment Lease-Return
11. Hygiene Waste Energy-from-Waste (EFW) Program

The second source of data was generated through the on-site audit of the ZW bin streams at Trafalgar. All Sheridan College campuses have implemented a Zero Waste (ZW) program with a long-term goal of eliminating all landfill waste by 2020. The ZW program includes three regular collection streams in ZW bins:

1. Organics
2. Mixed Recycling (glass, metal, paper, plastic)
3. Waste-to-landfill

These material streams are “mixed” composition so they were sorted and weighed to determine the relative proportions by weight of specific wastes in the individual ZW bin program streams. These relative proportions were applied to the 2018 annual weight information by ZW stream provided by the service providers. In this



way, it is possible to determine contamination levels and identify specific materials that are being improperly disposed in these “mixed” waste streams.

One project manager and three waste analysts sorted, quantified and recorded the waste generated over a 24-hour sample accumulation period. In order to identify opportunities to improve waste diversion at specific functional areas within the campus, the Trafalgar campus was divided into 16 areas for the purpose of the waste audit which represented most but not all of the campus. The areas audited included:

1. A Wing 1st Floor Hallways
2. A Wing 3rd Floor Hallways & Student Workspace
3. B Wing Tim Horton
4. B Wing 2nd Floor Hallways & Offices
5. B Wing 3rd Floor Hallways & Offices
6. B Wing Cafeteria Front of House
7. B Wing Cafeteria Back of House
8. A Wing First Floor PIT
9. A Wing Hallways
10. C Wing 1st Floor
11. J Wing 2nd Floor Hallways
12. SCAET 1st Floor
13. Student Union & Food Serv Back of House
14. Learning Common Plastic Bin
15. Residence1
16. Residence 2

ZW bin material streams were collected by the cleaning personnel and labeled as to the area from where it was generated. The ZW mixed recycling, organics and waste-to-landfill bags were collected on-site and delivered to a designated area for sorting and weighing. All bags were sorted by generation area and ZW bin type (organics, recycling, waste-to-landfill), opened, and further sorted into labeled collection bins by specific waste category (Appendix). A Digital Receiving Scale was used for all measurements to the nearest one thousandth decimal. All recyclable material and organic material removed from the waste were discarded in appropriate containers for diversion from landfill.

At the Trafalgar Campus, Spinnaker sorted, weighed and evaluated 149 kilograms of organics, 167 kilograms of mixed recycling, and 152 kilograms of waste-to-landfill. Eight areas were audited on the first day and eight areas were audited on the second audit day.

Because the Trafalgar and Davis campuses are of similar size, have similar functional areas including classrooms, offices, hallways, washrooms, have the same ZW bin program in place and because historical evidence suggest the material generation and disposal practices at the two campuses will be similar, the material breakdown data from the waste audit at the 2019 waste audit at Trafalgar Campus was used in conjunction with the annual waste generation data provided by the service providers for Davis. In this way the 2019 Davis Campus waste audit reported in the appendix is an amalgamation of 2018 weight-based information by stream for the Davis campus and the relative proportion by weight of the mixed waste ZW stream from the Trafalgar Campus 2019 audit. Beyond the reporting of waste diversion at Davis and the

inclusion of completed Ministry of the Environment, Conservation & Parks (MECP) waste audit reports in the appendix, the body of this report deals with the 2019 waste audit at the Trafalgar Campus.

Specific waste categories were established before the audit based on *Ontario Ministry of Environment, Conservation & Parks* guidelines and industry best practices. Additional categories were added to the list based on the waste composition observed during the audit. This audit surpasses the requirements outlined in the *Ontario Ministry of the Environment, Conservation & Parks' Guide to Waste Audits and Waste Reduction Work Plans* and includes completed Ministry required audit report forms in the Appendix.

The annual diversion rate was calculated by adding total recycled with total reused and dividing by the amount of total waste generated. *Annual Diversion Rate = (Total Recycled+Total Reused) / (Total Recycled+Total Reused+Total Landfilled)*.

1.3 TRAFALGAR CAMPUS: OBSERVATIONS

The Trafalgar Campus is the second largest of the three Sheridan College campuses in terms of student population and the largest in terms of physical size. The Trafalgar Campus has twenty buildings with a total floor area of approximately 1,055,000 sq. ft. This includes classrooms, studios, offices, cafeteria, washrooms, hallways, athletics centre, residences, etc. Eleven of the buildings in the main campus are multi-storied including both offices and classrooms/studios. Some of the office areas include kitchenettes and some only have microwave ovens on counters.

Trafalgar Campus of Sheridan College is committed to its Zero Waste Program: a program guiding the institution to becoming a zero waste campus by 2020. An integral part of the program, the Zero Waste (ZW) stations were introduced to increase waste diversion at Sheridan. These ZW stations have replaced the old waste bins in the public and office areas in all of the four campuses. Three waste streams are provided: Organics, Mixed Recycling, and Waste-to-Landfill (see photo). All ZW stations have the same order, colour coding, labeling and signage.

In 2018 the Fire Marshall issued a Fire Order requiring the removal of 3-stream plastic bins from all hallways at the Trafalgar Campus. The 3-stream containers were removed from hallways and placed in washrooms from May to December 2018 (Trafalgar) and late fall to December, 2018 (Davis). A new set of 3-stream metal bins with improved signage were designed and installed in hallways in January 2019. Consequently it can be anticipated that 2018 ZW diversion rates provided by service providers understate the current (2019) diversion practices and further that diversion rates at both Trafalgar and Davis campuses is better than herein reported.

Cleaning of this facility is completed by a team of cleaners who use a cart system for the collection of the ZW bin material from the office staff and students. The different ZW streams are collected daily on an as needs basis. The campus operates 7 days a week with offices open generally 5 days a week during normal business hours while other buildings such as the library are open on weekends with shortened hours. At the time of the audit there were regular classes and no unusual activities taking place in the building that may have altered the audit results.



Staff collect materials from the three stream ZW bins and deposit the bags in dedicated receptacles: roll-carts for the organics, large containers in various sizes for the mixed recycling and a compactor for the waste to landfill.

AUDIT: MISSING ZW STREAMS

Two area samples of waste-to-landfill were not delivered to the auditors for categorization during the audit: A Wing first Floor PIT and Learning Common Plastic BIN. This could be because there was none generated during the 24-hour period, there was an error in labeling and material handling during the audit or there was an omission in the collection of the bags from the cleaners. Labeling and material handling errors could dramatically affect both area waste diversion rate calculations and the campus diversion rate as a whole.

ADDITIONAL OBSERVATIONS

Some additional comments and observations made by the auditors at the waste audit include:

1. Over all there was more certainty in the delivering of samples during the 2019 waste audit than during prior audits with almost all areas providing complete sample sets for sorting and weighing.
2. Residence 2: Auditors report that the sample was of poor quality and the results are not likely reflective of current diversion activities.
3. Residence 2: Auditors reported that several bags of recycling were in coloured bags and suggest that specific signage could help.

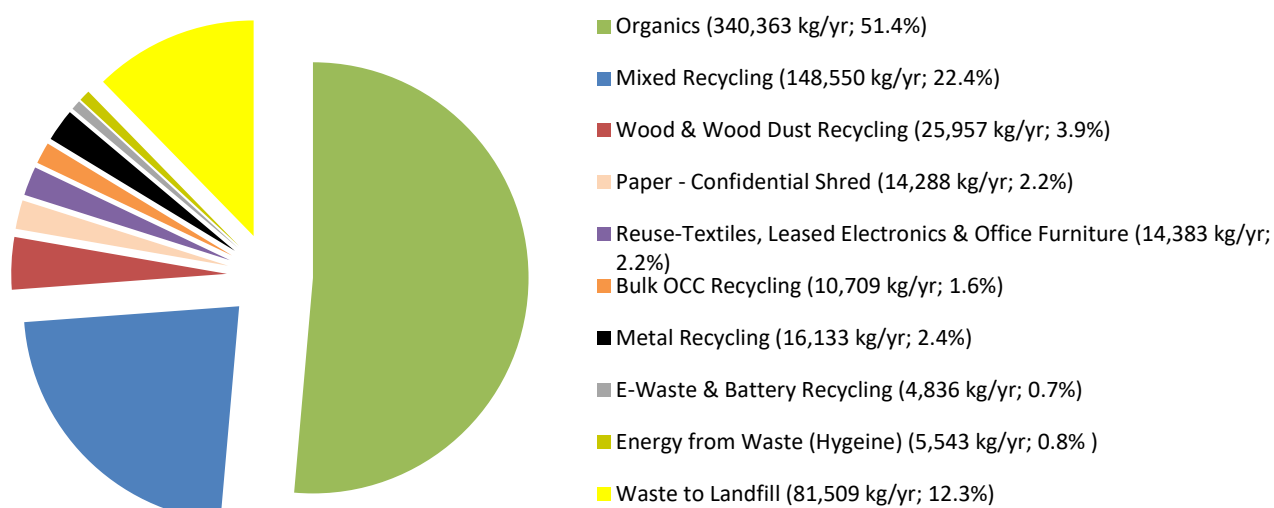


2.0 RESULTS

2.1 TRAFALGAR CAMPUS: WASTE DIVERSION

Analysis of all the specific wastes to be removed from Sheridan College Trafalgar Campus in 2019 reveals that the campus could potentially achieve a waste diversion rate of 86.9% through the existing diversion programs (note: hygiene waste is not considered diversion as it is combusted in an energy from waste facility. Figure 1 below shows the weight of the specific wastes being disposed at the campus in 2019 grouped by existing diversion, reuse and waste-to-landfill programs. This figure represents the Trafalgar Campus potential for waste diversion using existing programs and assumes a 100% capture rate for all programs.

Figure 1: Trafalgar Campus 2019 Waste Generation



The 2019 Trafalgar waste diversion rate is 44.9%. Figure 2 below shows the 2019 weight of material being collected through the existing waste collection programs.

Figure 2: Trafalgar Campus 2019 Waste Diversion

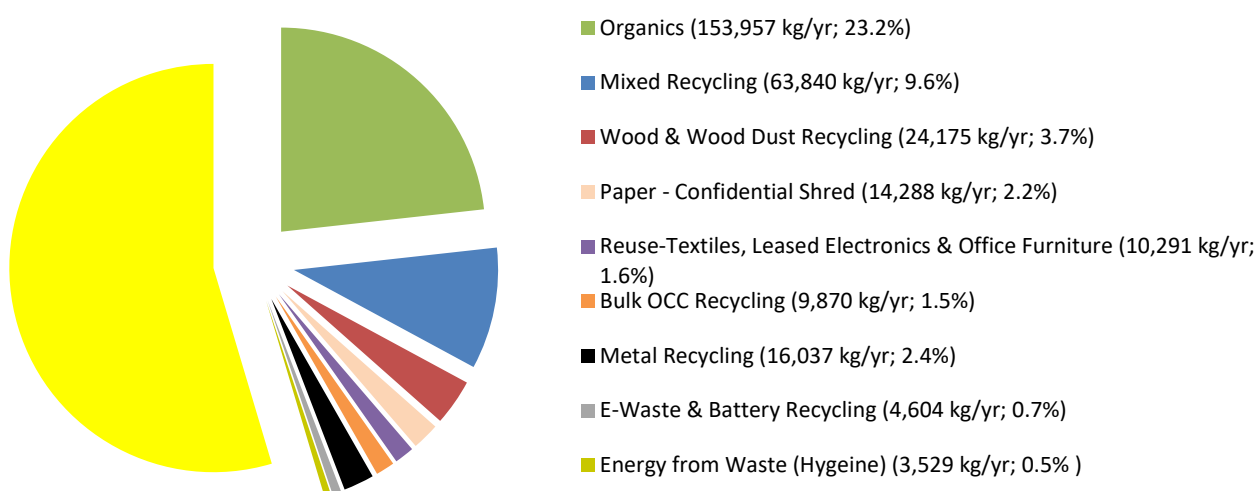
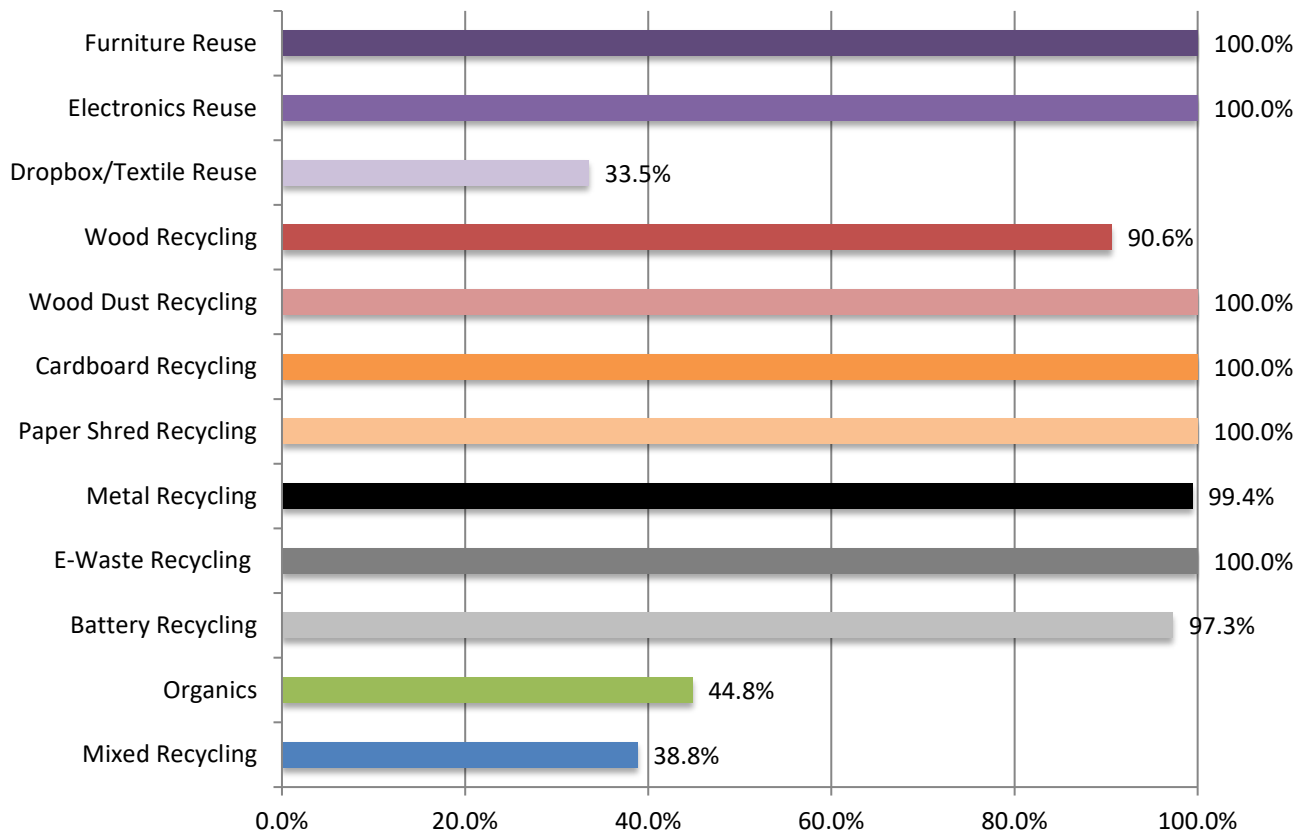


Figure 3 below shows the capture rates by the individual collection programs. The Trafalgar Campus has twelve diversion programs. Capture rates were calculated as follows: total weight of all divertible material correctly captured by the diversion stream exclusive of contaminants divided by the total weight of all divertible material generated at the campus in any stream.

Most programs have near 100% capture rates, however textile reuse, ZW organics and ZW mixed recycling capture rates could be improved.

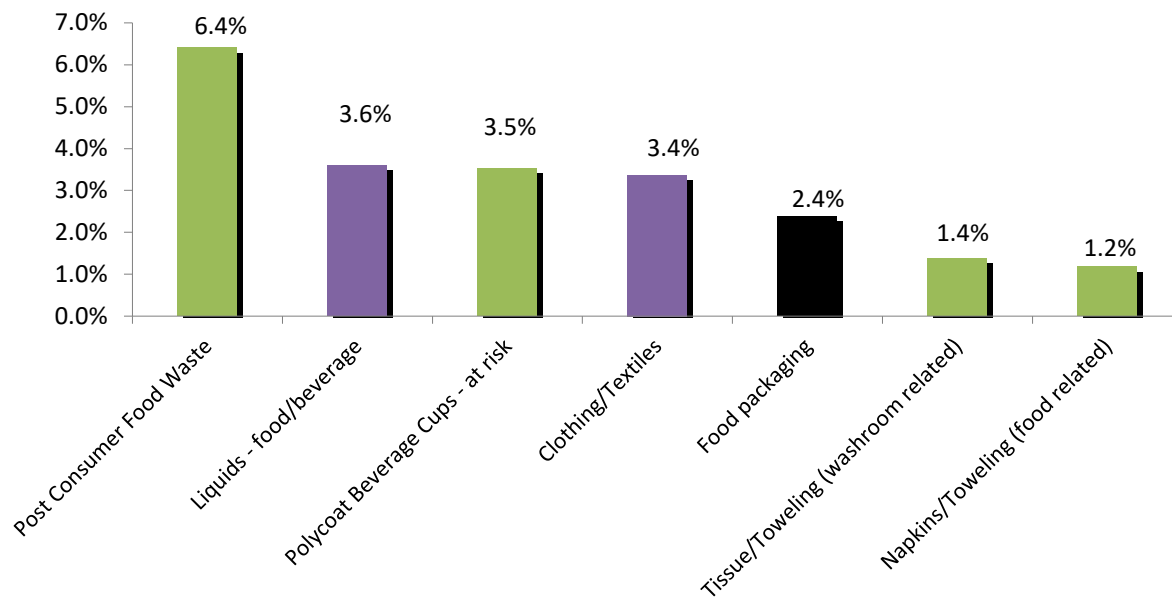
Figure 3: Trafalgar Capture Rates by Collection Program



2.2 TRAFALGAR CAMPUS: MIXED RECYCLING COMPOSITION

The ZW mixed recycling contamination rate was moderately low at 24.1% by weight. The most commonly disposed contaminants (i.e. non-recyclable specific wastes) disposed in the ZW mixed recycling at Trafalgar are presented in the Figure below. Specific wastes are colour coded: green are suitable for ZW organic bin, black are suitable for ZW waste-to-landfill bin and purple are reusable or reducible wastes.

Figure 4: Trafalgar Contaminants in Mixed Recycling (over 1.0% by weight of material stream)



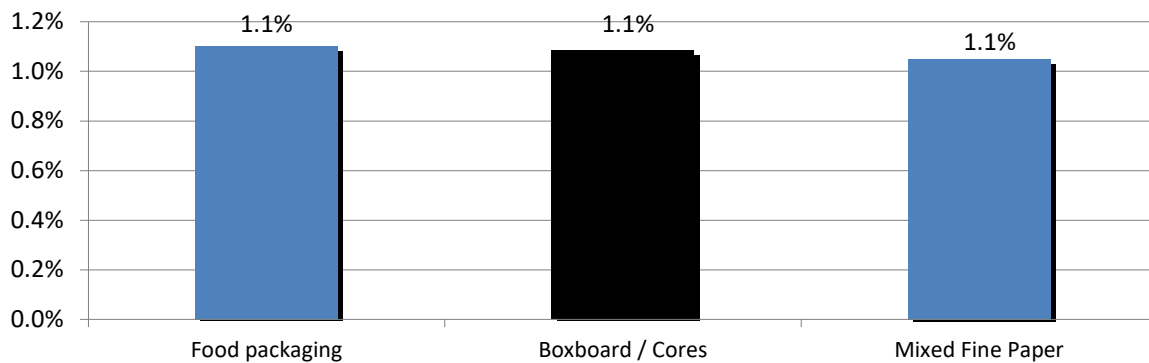
The waste reduction workplan should focus on those contaminants that can with minimal effort and cost be managed to be suitable for inclusion in ZW mixed recycling or eliminated from improper disposal. These include:

1. Minimizing post-consumer food waste, polycoat beverage cups and napkins/toweling in mixed recycling through education/signage - consider launching a "Keep it Clean" campaign to educate students that contaminants in ZW organics and ZW mixed recycling risk turning all the good divertible into garbage
2. Providing communication tools for capture of clothing/textiles in those areas with highest generation rates and these include: Learning Common and Residence 2

2.3 TRAFALGAR CAMPUS: ORGANIC COMPOSITION

The contamination rate in the ZW organic bins was very low at 6.1% by weight. The most commonly disposed contaminants (i.e. non-organic specific wastes) disposed in the ZW organics bins are presented in the Figure below. Specific wastes are colour coded: blue are suitable for ZW mixed recycling bin and black are suitable for ZW waste-to-landfill bin.

Figure 5: Trafalgar Contaminants in Organic Stream (over 1.0% by weight of material stream)



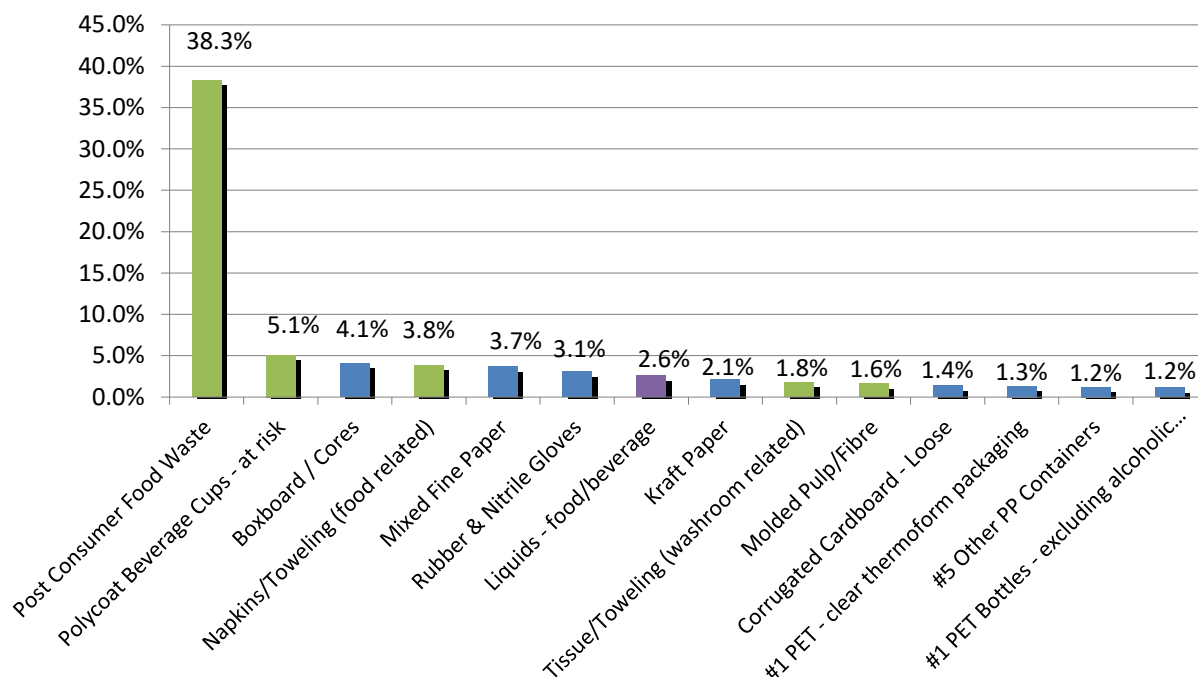
The waste reduction workplan should focus on those contaminants that can with minimal effort and cost be managed to be suitable for inclusion in ZW organics or eliminated from improper disposal. These include:

1. Encouraging the emptying of organic waste into organics container and placing empty food and beverage containers in the appropriate receptacle - consider launching a "Keep it Clean" campaign to educate students that contaminants in ZW organics and ZW mixed recycling could cause all the good divertible to be landfilled.

2.4 TRAFALGAR CAMPUS: WASTE-TO-LANDFILL COMPOSITION

The ZW waste-to-landfill contamination rate was calculated by summing the weight of material that was disposed in waste-to-landfill for which there is a diversion program available on campus divided by the total weight of material disposed in waste-to-landfill. The ZW waste-to-landfill contamination rate was high at 78.2% and most of the contamination is food waste suitable for the ZW organics program. This suggests that users are defaulting to disposing of mixed food related materials in this stream and are not sorting food waste & containers/packaging into appropriate streams. The top 10 most commonly disposed contaminants (i.e. organic or mixed recyclable wastes) disposed in the ZW waste-to-landfill bins at Trafalgar are presented in the Figure below. Specific wastes are colour coded: blue are suitable for ZW mixed recycling bin, green are suitable for ZW organics bin and purple are reducible.

Figure 6: Trafalgar Contaminants in Waste-to-Landfill (over 1.0% by weight of material stream)



Analysis of the ZW bin streams at this campus has indicated that the most significant impediment to improved diversion is the use of the ZW waste-to-landfill bin for the disposal of organic wastes. The waste reduction workplan must focus on those contaminants that can with minimal effort and cost be managed to be suitable for inclusion in ZW organics or eliminated from improper disposal. These include:

1. Encouraging the emptying of food waste, polycoat beverage cups, napkins and molded pulp (coffee cup trays) in the organics bin, then the disposal of the other food packaging in the appropriate ZW mixed recycling or ZW organics bin through education/signage.
2. Encouraging the capture of ZW mixed recyclables using education/signage with a focus on the following recyclables: boxboard/cores, mixed fine paper, kraft paper, cardboard, #1 PET.
3. Encouraging the emptying of beverage containers prior to placement in mixed recycling through a combination of education/signage and placement of emptying stations where practicable.
4. Reducing washroom tissue toweling at source and/or educating and providing facilities to collect washroom tissue toweling in ZW organics bin program.

2.5 TRAFALGAR CAMPUS: ANALYSIS OF ZW BINS BY AREA

For the purpose of identifying opportunities to improve waste diversion, sixteen areas of distinct waste generation were identified and audited. This sampling did not include every area of the campus. Each area generated a different amount of ZW mixed recycling, organics and mixed waste-to-landfill (Table 1). In order to maximize waste reduction, opportunities should focus on the areas with the lowest diversion rate and certainly those below 37.6% (the ZW Waste Diversion Rate campus-wide). The Table is organized presenting the best to worst performers. Areas appearing in red have a ZW diversion rate below the campus average.

Table 1: Trafalgar Campus ZW Material Diversion Rate by Area: Best to the Worst Performers

Area	Percent By Weight of Material Stream Generated During the 24-hour Sampling Period			
	ZW Mixed Recycling	ZW Organics	ZW Waste-to-landfill	ZW Diversion Rate
A Wing First Floor PIT	40.8%	59.2%	0.0%*	100.0%
Learning Common Plastic Bin	66.1%	33.9%	0.0%*	100.0%
B Wing Cafeteria Back of House	2.0%	76.7%	21.3%	78.7%
Residence 2	23.7%	33.3%	43.0%	57.0%
B Wing 2nd Floor Hallways & Offices	10.8%	43.0%	46.2%	53.8%
B Wing Tim Horton	0.9%	42.5%	56.6%	43.4%
B Wing Cafeteria Front of House	11.3%	28.5%	60.1%	39.9%
SCAET 1st Floor	13.8%	23.8%	62.3%	37.7%
A Wing Hallways	14.5%	23.0%	62.5%	37.5%
A Wing 3rd Floor Hallways & Student Workspace	8.3%	28.0%	63.7%	36.3%
C Wing 1st Floor	9.8%	25.4%	64.8%	35.2%
Student Union & Food Serv Back of House	14.9%	18.1%	67.0%	33.0%
A Wing 1st Floor Hallways	10.9%	22.0%	67.1%	32.9%
J Wing 2nd Floor Hallways	13.3%	16.6%	70.1%	29.9%
Residence1	7.1%	20.3%	72.6%	27.4%
B Wing 3rd Floor Hallways & Offices	6.3%	19.5%	74.1%	25.9%

** It is possible that where 0% is reported that it represented an instance where material streams were not delivered for the audit*

The contamination rates for each of the sixteen areas sampled during the audit were analyzed to identify the best and worst performers. This analysis was done for all three ZW bins streams.

Table 3 below presents the percentage by weight of contaminants in ZW mixed recycling by area sorted to present the best to worst performers. Areas appearing in red have a ZW contamination rate above the campus average.

Table 2: Percentage of Contaminants in ZW Mixed Recycling by Area: Best to the Worst Performers

Area	Contaminants in ZW Mixed Recycling
A Wing First Floor PIT	4.5%

Residence 1	6.2%
Student Union & Food Serv Back of House	6.4%
B Wing Tim Horton	6.6%
A Wing Hallways	18.4%
Cafeteria Back of House	18.4%
C Wing 1st Floor	20.0%
A Wing 1st Floor Hallways	20.1%
B Wing 3rd Floor Hallways & Offices	23.7%
A Wing 3rd Floor Hallways & Student Workspace	24.4%
J Wing 2nd Floor Hallways	27.2%
B Wing 2nd Floor Hallways & Offices	28.7%
SCAET 1st Floor	34.5%
Cafeteria Front of House	37.3%
Residence 2	54.3%
Learning Common -Plastic Bin	77.9%
Campus-Wide	24.1%

Table 4 below presents the percentage by weight of contaminants in ZW organics by area sorted to present the best to the worst performers. Areas appearing in red have a ZW contamination rate above the campus average.

Table 3: Percentage of Contaminants in ZW Organics by Area: the Best to the Worst Performers

Area	Contaminants in ZW Organics
A Wing First Floor PIT	0.0%
Residence1	0.0%
Residence 2	0.0%
Cafeteria Back of House	0.1%
Student Union & Food Serv Back of House	2.0%
B Wing Tim Horton	3.8%
B Wing 2nd Floor Hallways & Offices	5.9%
A Wing Hallways	6.2%
B Wing 3rd Floor Hallways & Offices	11.3%
A Wing 3rd Floor Hallways & Student Workspace	17.2%
Cafeteria Front of House	18.3%
A Wing 1st Floor Hallways	18.4%
C Wing 1st Floor	19.7%
SCAET 1st Floor	20.0%
J Wing 2nd Floor Hallways	20.9%
Learning Common -Plastic Bin	42.1%
Campus-Wide	8.0%

Table 5 below presents the percentage by weight of contaminants in ZW waste-to-landfill by area sorted to present the best to worst performers. The average contamination rate of ZW waste-to-landfill at the Trafalgar

campus is 78.2%. The average is the sum of the weights of the contaminants in the ZW waste-to-landfill bin in all fourteen areas audited divided by the total amount of ZW waste-to-landfill material sorted. Areas appearing in red have a ZW contamination rate above the campus average.

Table 4: Percentage of Contaminants in ZW Waste-to-Landfill by Area: Best to Worst Performers

Area	Contaminants in ZW Waste-to-landfill
A Wing First Floor PIT	*
Learning Common -Plastic Bin	*
Cafeteria Back of House	49.8%
Student Union & Food Serv Back of House	68.2%
B Wing 3rd Floor Hallways & Offices	70.8%
Residence 2	75.3%
J Wing 2nd Floor Hallways	78.4%
Residence 1	78.7%
SCAET 1st Floor	79.5%
A Wing 1st Floor Hallways	79.9%
C Wing 1st Floor	83.9%
Cafeteria Front of House	84.2%
B Wing Tim Horton	85.2%
B Wing 2nd Floor Hallways & Offices	86.0%
A Wing Hallways	88.4%
A Wing 3rd Floor Hallways & Student Workspace	90.5%
Campus-Wide	78.2%

* ZW waste-to-landfill was not delivered for the audit from these areas

For the purpose of identifying the areas where the ZW bin program is underperforming each Area was ranked for:

1. Waste Diversion Rate
2. ZW Recycling Contamination Rate
3. ZW Organics Contamination Rate, and
4. ZW Waste-to-Landfill Contamination Rate

Of the Areas audited at Trafalgar in 2019 the best to the worst Area for overall ZW bin performance are in order:

1. A Wing First Floor PIT
2. Cafeteria Back of House
3. Student Union & Food Serv Back of House
4. Residence 1
5. Residence 2
6. B Wing Tim Horton
7. Learning Common -Plastic Bin
8. A Wing Hallways
9. B Wing 2nd Floor Hallways & Offices

10. B Wing 3rd Floor Hallways & Offices
11. C Wing 1st Floor
12. A Wing 1st Floor Hallways
13. Cafeteria Front of House
14. SCAET 1st Floor
15. A Wing 3rd Floor Hallways & Student Workspace
16. J Wing 2nd Floor Hallways

Sheridan's Sustainability Office conducted bin audits and provided staff training in early 2019 in the Cafeteria Back of House suggesting that this approach was successful at improving diversion and sorting compliance.

Analysis of the poor performing areas above at this Campus indicates the waste reduction workplans should focus on "functional areas" with the worst performance and they include:

1. "Hallways" and
2. "Front of House Cafeterias".

2.6 ALL CAMPUSES: CONTAMINATED LOADS OF DIVERTIBLE MATERIAL

Loads of divertible material that were highly contaminated and re-directed to waste-to-landfill (as noted by the service supplier) were analyzed across the three campuses using the 2018 service data. Contamination of divertible material is a hot topic given waste processors decreasing tolerance for contamination.

Of the three Sheridan Campuses, Trafalgar has the highest rate of dedicated recycling material being rejected and disposed as waste-to-landfill. 12.3% of all the waste-to-landfill at the Trafalgar campus could be diverted had the contamination rate been lower. Had Trafalgar had no contaminated recycling loads in 2018, the Trafalgar campus waste diversion rate would have been 51.6% (not 44.9%).

Table 5: Contaminated Recycling: All Campuses

	Trafalgar (kg/a)	Davis (kg/a)	HMC (kg/a)
Waste-to-Landfill (dedicated)	317,094	203,152	34,766
Contaminated Recycling	44,586	14,720	572
Total Waste-to-Landfill	361,680	217,872	35,338
Percent of Waste-to-Landfill that is Contaminated Recycling	12.3%	6.8%	1.6%

Almost all contaminated loads at the Campuses were ZW mixed recycling that were too contaminated though there were a few contaminated loads of contaminated wood. At the Trafalgar Campus, the waste reduction workplan should include:

1. Launching a "Keep it Clean" campaign to educate students that contaminants in ZW mixed recycling could cause all the good recyclables to be landfilled. Consider reporting that 12.3% of good recycling went bad in 2018 due to improper sorting. Use visuals to capture attention.

2.7 TRAFALGAR & DAVIS CAMPUS: COFFEE CUP MANAGEMENT OVER TIME

Although all polycoat cups were considered suitable for the green bin program for the purpose of this audit, polycoat cups suitable for diversion programs is changing. Consequently coffee cups were classified as currently suitable for Sheridan's green bin program "green bin suitable" and at-risk of being excluded from Sheridan's green bin program in the future "at risk". This minor classification was done so that Sheridan management may be kept aware of how polycoat cup disposition changes may impact its existing polycoat cup diversion program. It is important to note that Campus compliance with disposing of coffee cups in the "signed" organic receptacles is not improving: in 2017, 44.8% of cups were captured in the green bin program and in 2019, 43.6% of cups were captured in the green bin program.

At the Trafalgar Campus, the waste reduction workplan should include:

1. A rethink of the coffee cup program at the three campuses to ensure the program is future-looking, flexible, efficient and effective.

3.0 RECOMMENDATIONS

CAMPUS WIDE FOCUS:

Sheridan's Trafalgar Campus has an excellent combination of diversion programs that address the divertible materials generated at the campus. Consequently, future waste diversion improvements will likely come from enhancing compliance with the three stream ZW bins across campus. In particular, the Trafalgar Campus needs to ensure recycling and organics programs are kept "clean of contaminants". To this end, Sheridan should continue to assess and identify barriers to sorting and develop area-specific action plans to increase participation and decrease errors in sorting.

SPECIFIC RECOMMENDATIONS:

1. **Enhancing Food Waste, Polycoat Cup & Cup Trays and Napkins Capture Rate Throughout the Campus:** 138,547 kg/year of food waste, 18,432 kg/year of polycoat cups, 5,831 kg/year of coffee cup trays and 13,879 kg/year napkins are being disposed in waste-to-landfill. Sheridan must continue to encourage the proper disposal in organics through education/signage. Consider a campaign to encourage sorting behaviour using a multi-media approach and consider 'branding' the campaign. Engage and challenge environmental studies students to design the campaign and develop a multi-media approach/roll-out. Expected improvement in capture rate of 20%. Anticipated reduction in waste-to-landfill of 35,338 kg per year (20% of organics improperly disposed across the campus).
2. **Launching a "Keep Recycling Clean" campaign:** Educate students that their dirty recyclables could cause a big load good recyclables to be landfilled. Consider reporting that 12.3% of good recycling went bad in 2018 at the Trafalgar Campus due to improper sorting. Use visuals to capture attention. The program components should include:
 - "Clean your recyclables": Encourage the emptying of food waste and napkins in the organics bin, then the disposal of the food packaging in the appropriate ZW mixed recycling or ZW waste-to-landfill bin
 - Particular focus in Hallways and Front of House Cafeteria Areas where sorting is particularly poorAnticipated reduction in waste-to-landfill of 22,293 kg/year (50% reduction in contaminated loads, bringing contamination rate in line with that at Davis Campus).
3. **Enhancing Mixed Recycling Capture Rate Throughout the Campus:** 84,357 kg/year of mixed recycling was disposed in waste-to-landfill in 2018. Encourage the proper disposal in mixed recycling of: boxboard/cores, mixed fine paper, kraft paper, molded pulp (coffee cup trays), cardboard & #1 PET (plastic water bottles). Expected improvement in capture rate of 20%. Anticipated reduction in waste-to-landfill of 16,872 kg per year (20% of mixed recycling improperly disposed across the campus).
4. **Emptying Beverage Containers:** Continue to encourage the emptying of beverage containers prior to placement in mixed recycling through a combination of education/signage and placement of emptying stations where practicable. Consider launching a campaign. Anticipated reduction in

disposal of liquids in any stream: 40%. Anticipated reduction in waste-to-landfill of 3,748 kg per year as well as a significant reduction in contamination in the mixed recycling and organic streams (40% reduction in liquids in waste-to-landfill stream).

5. **Reducing/Eliminating Disposal of Washroom Paper Toweling:** Reduce/eliminate washroom paper towel use or provide facilities and education/signage to capture washroom paper toweling in the organics program. Anticipated reduction in disposal of 50% of washroom paper toweling and reduce 3,201 kg per year of waste-to-landfill.
6. **Improving Capture Rates for Clothing/Textiles:** Providing communication tools and/or receptacles for capture of clothing/textiles in those areas with highest generation rates and these include:
 - Learning Common
 - ResidencesAnticipated reduction in disposal of 50% of clothing/textiles and reduce 971 kg per year of waste-to-landfill and significant reduction of contamination in the ZW mixed recycling.
7. **Monitoring the Coffee Cup Program:** More and more cups are being considered not compostable all the while Sheridan's population continues haphazardly dispose of coffee cups largely in waste-to-landfill and organics, but also with significant disposal in recycling. Coffee cup types and disposition (compostable vs. non-compostable) is in flux. Consider developing a strategy to manage coffee cups at the three campuses to ensure the coffee cup program is future-looking, flexible, efficient and effective. Impact on waste diversion cannot be quantified at this time as it is strategy dependent.
8. **Capturing & Reporting Material Weights for All Diversion Programs at the Campus:** Sheridan has made significant progress in reporting material diversion streams since 2015 however there may be other diversion programs in place at the Trafalgar Campus but the weight-based data is not currently captured for reporting purposes (Examples Electronics Reuse and Office Furniture Donation). Sheridan should continue to conduct an inventory of all diversion programs, with particular focus on reduction and reuse programs, and should ensure there are procedures in place to collect, monitor and report on these programs.

Anticipated Result:

With the implementation of the above noted waste reduction plans, it is estimated that the waste diversion rate at the Trafalgar Campus will increase from 44.9% to 57.4% and the Trafalgar Campus will divert an additional 82,834 kg of waste per year from landfill in 2020..

APPENDICES

GLOSSARY OF WASTE TERMS

In order to reduce potential confusion that may arise from the use of terms in this report, the following is a brief description of the waste and waste diversion terms.

TOTAL WASTE GENERATED

Total waste generated refers to all materials generated by the Facility's operations.

Total Waste Generated = Waste Disposed + Material Recovered From 3Rs Programs

RECOVERED WASTE

Recovered waste refers to materials diverted from the Facility's waste stream and from landfill as a result of 3Rs Programs.

CAPTURE RATES

Recycling rates for the Facility's 3Rs Programs based on the amount of material recovered versus the amount of the same material disposed into the waste stream.

Capture Rate = Recycled or Reused Material / (Material Disposed + Recycled or Reused)

ANNUAL DIVERSION RATE

The Facility's annual diversion rate is the percentage of waste material that it diverts from landfill versus what it generates in total.

Annual Diversion Rate = 3Rs Programs / Total Waste Generated

ONTARIO'S 60% REDUCTION TARGET

The *Ontario Ministry of Environment & Climate Change's* 60% reduction target is a comparison between a Facility's current year waste-to-landfill figure and a figure obtained from an earlier base year.

60% Reduction Target = (Waste Disposed 2018 - Waste Disposed Base Year 2012) / Waste Disposed Base Year 2012

SPECIFIC WASTE CATEGORIES & WASTE AUDIT DATA (TRAFALGAR CAMPUS)

The following is the list of specific wastes, the associated appropriate waste management collection program, and the amount by weight generated per year and disposed by collection program at the Trafalgar Campus in 2019. The specific wastes are listed alphabetically.

Specific Waste Category	Acceptable in Collection Program	All Streams (kg/yr)	ZW Mixed Recycling (kg/yr)	ZW Organics (kg/yr)	Other / Bulk Recycling (kg/yr)	Reuse (kg/yr)	Disposal (kg/yr)
#1 PET - clear thermoform packaging	Mixed Recycling	6,055	900	284	0	0	4,871
#1 PET - other thermoform (coloured)	Mixed Recycling	620	8	65	0	0	547
#1 PET Bottles - excluding alcoholic beverage	Mixed Recycling	8,483	3,939	363	0	0	4,182
#2 HDPE Bottles and Jugs	Mixed Recycling	79	79	0	0	0	0
#2 Other HDPE Containers	Mixed Recycling	2,571	782	0	0	0	1,789
#5 Other PP Containers	Mixed Recycling	7,137	2,248	460	0	0	4,429
#6 PS - Expanded polystyrene	Waste	3,791	124	130	0	0	3,538
#6 PS - Non-expanded - all other	Mixed Recycling	2,658	856	428	0	0	1,374
#7 Other Plastics	Mixed Recycling	4,381	479	252	0	0	3,650
Aluminum beverage - alcohol	Alcohol Beverage Container Reuse	797	124	0	0	0	673
Aluminum Foil & Foil Trays	Mixed Recycling	318	145	0	0	0	173
Aluminum Food & Other Beverage Cans	Mixed Recycling	3,427	1,581	36	0	0	1,810
Aseptic Containers - (excluding alcoholic beverages)	Mixed Recycling	1,473	276	43	0	0	1,153
Batteries	Battery Recycling	456	0	0	224	0	232
Boxboard / Cores	Mixed Recycling	20,426	3,909	1,669	0	0	14,848
Clear Glass Other Beverage and Food	Mixed Recycling	0	0	0	0	0	0
Clothing/Textiles	Dropbox/Textile Reuse	6,156	2,150	0	0	2,064	1,942
Coffee Grinds	Organics	6,741	80	6,661	0	0	0
Coffee pods	Waste	0	0	0	0	0	0
Confidential Paper - Paper Shred	Paper Shred Recycling	14,288	0	0	14,288	0	0
Corrugated Cardboard - Bulk	Cardboard Recycling	10,709	839	0	9,870	0	0
Corrugated Cardboard - Loose	Mixed Recycling	18,185	13,235	0	0	0	4,950
Diapers	Waste	0	0	0	0	0	0
Electronics	E-Waste Recycling & Reuse	8,114	0	0	4,380	3,734	0
Feminine Hygiene Products	Hygiene Waste*	5,543	162	0	0	0	5,381*
Food packaging	Waste	41,481	1,523	1,698	0	0	38,259
Furniture & Bulky Items	Furniture Reuse	4,493	0	0	0	4,493	0
Gable Top Containers	Mixed Recycling	2,654	1,276	179	0	0	1,199
Glass - Clear Other Beverage and Food	Mixed Recycling	7,615	4,734	0	0	0	2,881
Glass - Clear Alcoholic Beverage	Mixed Recycling	4,391	3,155	0	0	0	1,236
Kraft Paper	Mixed Recycling	9,534	1,002	1,001	0	0	7,531
Laminated Paper Packaging	Waste	131	0	0	0	0	131

Specific Waste Category	Acceptable in Collection Program	All Streams (kg/yr)	ZW Mixed Recycling (kg/yr)	ZW Organics (kg/yr)	Other / Bulk Recycling (kg/yr)	Reuse (kg/yr)	Disposal (kg/yr)
Large HDPE & PP Pails & Lids	Mixed Recycling	141	141	0	0	0	0
LDPE/HDPE Film - Products (non-packaging)	Waste	27,032	342	239	0	0	26,452
Liquids - food/beverage	Organics	12,584	2,299	914	0	0	9,370
Maintenance Waste	Waste	686	0	0	0	0	686
Metal - Bulk	Metal Recycling	16,133	0	0	16,037	0	96
Mixed Fine Paper	Mixed Recycling	19,605	4,756	1,618	0	0	13,231
Molded Pulp/Fibre	Organics or Mixed Recycling	10,984	2,156	2,997	0	0	5,831
Napkins/Toweling (food related)	Organics	21,432	753	6,800	0	0	13,879
Newspaper – Dailys and Weeklys	Mixed Recycling	363	182	0	0	0	181
Office Waste	Waste	4,502	258	217	0	0	4,027
Other Metal	Mixed Recycling	0	0	0	0	0	0
Other Non-Recyclable Material	Waste	0	0	0	0	0	0
Other Paper	Mixed Recycling	0	0	0	0	0	0
Paper Straws	Organics	41	3	11	0	0	26
Parchment Paper	Waste	3,786	0	3	0	0	3,782
Polycoat Beverage Cups - suitable for green bin	Organics	2,817	371	1,062	0	0	1,384
Polycoat Beverage Cups - at risk of exclusion from green bin	Organics	31,037	2,252	10,352	0	0	18,432
Post Consumer Food Waste	Organics	258,432	4,088	115,797	0	0	138,547
Rubber & Nitrile Gloves	Mixed Recycling	11,279	50	41	0	0	11,188
Spiral Wound Containers	Waste	101	101	0	0	0	0
Steel Food & Other Beverage Cans	Mixed Recycling	1,832	941	0	0	0	891
Straws/Plastic Cutlery	Mixed Recycling	3,542	660	636	0	0	2,246
Tissue/Toweling (cleaning related)	Waste	0	0	0	0	0	0
Tissue/Toweling (washroom related)	Organics	7,279	877	0	0	0	6,402
Wood	Wood Recycling	18,912	0	0	17,130	0	1,782
Wood Dust	Wood Dust Recycling	7,045	0	0	7,045	0	0
	Grand Total	662,271	63,840	153,957	68,974	10,291	361,680

**Feminine hygiene products are collected separately from ZW waste-to-landfill however the collected waste is combusted in an energy-from-waste facility so it is included as "disposal" for the purpose of calculating waste diversion rates.*

MECP WASTE FORM: REPORT OF A WASTE AUDIT (TRAFALGAR)

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.
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 (Trafalgar)

Name of Owner and/or Operator of Entity(ies) and Company Name: Sheridan College Institute of Technology and Advanced Learning		
Name of Contact Person: Wai Chu Cheng	Telephone #: 905 845 9430	Email address: Waichu.cheng@sheridancollege.ca
Street Address(es) of Entity(ies): Trafalgar Campus of Sheridan College		
Municipality: Oakville, ON Canada		
Type of entity Educational Institution		

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

II. Description of Entity (Trafalgar)

Provide a brief overview of the entity(ties):
<p>This waste audit was conducted in April 2019 at the Trafalgar Campus of Sheridan College. The Trafalgar Campus is the second largest of the three Sheridan College campuses in terms of student population and the largest in terms of physical size.</p> <p>The Zero Waste streams which include mixed recycling, organics and waste-to-landfill were audited for the purpose of identifying current diversion rates by specific waste category and to calculate contamination rates. A 24-hour sample of organics, mixed recycling and waste-to-landfill was sorted and weighed in each of the 14 areas audited. Weight based generation information from 2018 for the waste and diversion programs were obtained from the service provider(s) and were used in the calculation of diversion rates.</p> <p>At the time of the audit, the campus had fully implemented the following collection programs:</p> <ol style="list-style-type: none">1. ZW Mixed Recycling (includes glass, metal, paper, plastic)2. ZW Organics3. ZW Waste-to-landfill4. Bulk Old Corrugated Cardboard (OCC) Recycling5. Paper Shred Recycling6. Metal Recycling7. E-Waste Recycling8. Battery Recycling9. Wood Recycling

10. Wood Dust Recycling
11. Electronics Lease-Return
12. Office Furniture Reuse Event(s)
13. Textile Reuse
14. Hygiene Waste Energy-from-Waste (EFW)

III. How Waste is Produced And Decisions Affecting the Production of Waste (Trafalgar)

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.	
Categories of Waste	How Is the Waste Produced and What Management Decisions/Policies Affect Its Production?
#1 PET - clear thermoform packaging	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#1 PET - other thermoform (coloured)	Minimal amounts generated on campus
#1 PET Bottles - excluding alcoholic beverage	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students. ZW water bottle refill stations installed to reduce PET water bottle generation/disposal.
#2 HDPE Bottles and Jugs	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#2 Other HDPE Containers	Minimal amounts generated on campus
#5 Other PP Containers	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#6 PS - Expanded polystyrene	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#6 PS - Non-expanded - all other	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#7 Other Plastics	Minimal amounts generated on campus.
Aluminum beverage - alcohol	Alcohol is not available for sale on campus. Alcoholic beverage containers brought to campus by students, visitors and others.
Aluminum Foil & Foil Trays	Small quantities generated on campus and should be included in the ZW recycling program.
Aluminum Food & Other Beverage Cans	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Aseptic Containers - (excluding alcoholic beverages)	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Batteries	Minimal amounts generated in campus. Should be included in battery recycling program.
Boxboard / Cores	Generated all over the campus as a packaging material for food products, office products and class material supplies.
Clear Glass Other Beverage and Food	Small quantities generated on campus and disposed as

	waste.
Clothing/Textiles	Lost or intentionally disposed articles of clothing disposed of on campus.
Coffee Grinds	Minimal amounts generated on campus
Coffee pods	Generated at coffee stations around the campus.
Confidential Paper - Paper Shred	Generated across campus in offices and captured for shredding and recycling.
Corrugated Cardboard - Bulk	Generated in receiving area through delivery. Almost all captured in bulk recycling program.
Corrugated Cardboard - Loose	Generated across campus. Almost all captured in recycling program.
Diapers	Small quantities generated on campus and disposed as waste.
Electronics	Generated throughout campus and suitable for the E-waste recycling or Electronics Reuse (lease) program.
Feminine Hygiene Products	Generated across campus in washrooms. Material collected for diversion from landfill (incineration)
Food packaging	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Furniture & Bulky Items	Office and other furniture which from time to time is removed and, whenever possible, donated to charity for reuse.
Gable Top Containers	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Glass - Clear Other Beverage and Food	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Glass - Clear Alcoholic Beverage	Alcohol is not available for sale on campus. Alcoholic beverage containers brought to campus by students, visitors and others.
Kraft Paper	Paper products generated through campus activities. Most generated in printing and photocopying areas.
Laminated Paper Packaging	Minimal amounts generated on campus
Large HDPE & PP Pails & Lids	Minimal amounts generated on campus suitable for inclusion in the ZW recycling program.
LDPE/HDPE Film - Products (non-packaging)	Minimal amounts generated on campus
Liquids - food/beverage	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Maintenance Waste	Minimal amounts generated on campus.
Metal - Bulk	Generated in receiving and maintenance areas. Well captured by bulk metal recycling program.
Mixed Fine Paper	Paper products generated through campus activities. Most generated in printing and photocopying areas.

Molded Pulp/Fibre	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Napkins/Toweling (food related)	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Newspaper – Dailys and Weeklys	Available for sale at Campus. Most should be captured in the ZW mixed recycling.
Office Waste	Generated in offices and classrooms around campus. Disposed as waste.
Other Metal	Minimal amounts generated on campus and suitable for inclusion in ZW recycling program.
Other Non-Recyclable Material	Minimal amounts generated on campus.
Other Paper	Minimal amounts generated on campus
Paper Straws	Minimal amounts generated on campus. Should be included in ZW organics program.
Parchment Paper	Minimal amounts generated on campus.
Polycoat Beverage Cups - suitable for green bin	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Polycoat Beverage Cups - at risk of exclusion	Food packaging, beverage containers is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Post Consumer Food Waste	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Rubber & Nitrile Gloves	Generated in cafeterias across campus. Suitable for inclusion in the ZW recycling program.
Spiral Wound Containers	Minimal amounts generated on campus.
Steel Food & Other Beverage Cans	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Straws/Plastic Cutlery	Generated in cafeterias across campus. Suitable for inclusion in the ZW recycling program.
Tissue/Toweling (cleaning related)	Minimal amounts generated on campus.
Tissue/Toweling (washroom related)	Generated and disposed as waste in Residence. Have been removed from washrooms. Should be included in ZW organics program though much ends up in waste-to-landfill
Wood	Generated in receiving area through delivery. Almost all captured in bulk recycling program.
Wood Dust	Generated in woodworking area and collected for recycling into briquettes.
Note: When completing this form, write “n/a” in the columns where the entity will not produce any waste for a category of waste.	

IV. Management of Waste (Trafalgar)

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).		
Category	Waste to be Disposed	Reused or Recycled Waste
#1 PET - clear thermoform packaging		Should be included in ZW Recycling Bin Program though some may end up in landfill
#1 PET - other thermoform (coloured)		Should be included in ZW Recycling Bin Program though some may end up in landfill
#1 PET Bottles - excluding alcoholic beverage		Should be included in ZW Recycling Bin Program though some may end up in landfill. Reduction in PET water bottles through installation of reusable water bottle filling stations.
#2 HDPE Bottles and Jugs		Should be included in ZW Recycling Bin Program though some may end up in landfill
#2 Other HDPE Containers		Should be included in ZW Recycling Bin Program though some may end up in landfill
#5 Other PP Containers		Should be included in ZW Recycling Bin Program though some may end up in landfill
#6 PS - Expanded polystyrene	Generated in J Wing, C Wing Gym & J Wing Learning Commons. No diversion program currently available.	
#6 PS - Non-expanded - all other		Should be included in ZW Recycling Bin Program though some may end up in landfill
#7 Other Plastics		Should be included in ZW Recycling Bin Program though some may end up in landfill
Aluminum beverage - alcohol		Alcohol is not available for sale on campus. Alcoholic beverage containers brought to campus by students, visitors and others. Should be included in ZW Recycling Bin Program though some may end up in landfill.
Aluminum Foil & Foil Trays		Should be included in ZW Recycling Bin Program though some may end up in landfill
Aluminum Food & Other Beverage Cans		Should be included in ZW Recycling Bin Program though some may end

		up in landfill
Aseptic Containers - (excluding alcoholic beverages)		Should be included in ZW Recycling Bin Program though some may end up in landfill
Batteries		Should be included in Battery Recycling or captured during E-Recycling Events.
Boxboard / Cores		Should be included in ZW Recycling Bin Program though some may end up in landfill
Clear Glass Other Beverage and Food		Should be included in ZW Recycling Bin Program though some may end up in landfill
Clothing/Textiles		None generated at this campus.
Coffee Grinds		Little generated. Should be included in ZW Organics Bin Program.
Coffee pods	Little generated and no diversion program currently available.	
Confidential Paper - Paper Shred		Well captured in paper shred recycling
Corrugated Cardboard - Bulk		Well captured in OCC bulk recycling program.
Corrugated Cardboard - Loose		Should be included in ZW Recycling Bins throughout the campus, though some may end up in landfill
Diapers	Small quantities generated on campus and disposed as waste.	
Electronics		Should be included in E-Recycling, captured during E-Recycling Events or returned as part of electronics reuse/lease program.
Feminine Hygiene Products	Generated across campus in washrooms. Material collected for diversion from landfill. Material is sent to Energy-from-Waste facility.	
Food packaging	Generated across campus (with the exception of Animal Care) and no diversion program currently available.	
Furniture & Bulky Items		Assessed and, whenever possible, given to charity for donation/reuse.
Gable Top Containers		Should be included in ZW Recycling Bin Program though some may end up in landfill
Glass - Clear Other Beverage and		Should be included in ZW Recycling

Food		Bin Program though some may end up in landfill
Glass - Clear Alcoholic Beverage		Alcohol is not available for sale on campus. Alcoholic beverage containers brought to campus by students, visitors and others. Should be included in ZW Recycling Bin Program though some may end up in landfill.
Kraft Paper		Should be included in ZW Recycling Bin Program though some may end up in landfill
Laminated Paper Packaging	Little generated and no diversion program currently available.	
Large HDPE & PP Pails & Lids		Little generated and should be included in ZW Recycling Bin Program
LDPE/HDPE Film - Products (non-packaging)	Little generated and no diversion program currently available.	
Liquids - food/beverage		Should be included in ZW Organics Bin Program though much ends up in landfill
Maintenance Waste	Little generated and no diversion program currently available.	
Metal - Bulk		Generated in receiving and maintenance areas. Well captured by bulk metal recycling program.
Mixed Fine Paper		Should be included in ZW Recycling Bin Program though some may end up in landfill
Molded Pulp/Fibre		Should be included in ZW Organics or Recycling Bin Program though some may end up in landfill
Napkins/Toweling (food related)		Should be included in ZW Organics Bin Program though much ends up in landfill
Newspaper – Dailys and Weeklys		Should be included in ZW Recycling Bin Program though some may end up in landfill
Office Waste	No diversion program currently available.	
Other Metal		Should be included in ZW Recycling Bin Program though some may end up in landfill
Other Non-Recyclable Material	Little generated and no diversion program currently available.	
Other Paper		Little generated and should be

		included in ZW Recycling Bin Program
Paper Straws		Little generated and should be included in ZW Organics Program
Parchment Paper	No diversion program currently available.	
Polycoat Beverage Cups - suitable for green bin		Compostable and non-compostable cup identification and disposition is not clear at this time. Current direction: should be included in ZW Organics Bin Program though much ends up in landfill.
Polycoat Beverage Cups - at risk of exclusion		Compostable and non-compostable cup identification and disposition is not clear at this time. Current direction: should be included in ZW Organics Bin Program though much ends up in landfill.
Post Consumer Food Waste		Should be included in ZW Organics Bin Program though much ends up in landfill
Rubber & Nitrile Gloves		Should be included in ZW Recycling Bin Program though some may end up in landfill
Spiral Wound Containers	Little generated and no diversion program currently available.	
Steel Food & Other Beverage Cans		Should be included in ZW Recycling Bin Program though some may end up in landfill
Straws/Plastic Cutlery		Should be included in ZW Recycling Bin Program though some may end up in landfill
Tissue/Toweling (cleaning related)	Little generated. Should be included in waste-to-landfill	
Tissue/Toweling (washroom related)		Should be included in ZW organics program though most ends up in waste-to-landfill
Wood		Is captured by wood recycling program in deliveries.
Wood Dust		Should be captured in wood dust recycling (briquettes) program.

Note: When completing this form, write "n/a" in the columns where the entity will not produce any waste for a category of waste.

V. Estimated Quantity of Waste Produced Annually – Trafalgar

Categories of Waste	Estimated Amount of Waste Produced (kgs)											
	Generated			Reused			Recycled			Disposed		
	"A" Base Year 2012 (kg)	"B" * Current Year (kg)	"C" * Change (A-B) (kg)	"A" Base Year 2012 (kg)	"B" * Current Year (kg)	"C" * Change (A-B) (kg)	"A" Base Year 2012 (kg)	"B" * Current Year (kg)	"C" * Change (A-B) (kg)	"A" Base Year 2012 (kg)	"B" * Current Year (kg)	"C" * Change (A-B) (kg)
Cans/bottles/plastics (2012 grouping)	27,210		-27,210	0		0	10,470		-10,470	16,740		-16,740
Paper products (2012 grouping)	42,690		-42,690	0		0	36,320		-36,320	6,370		-6,370
Corrugated Cardboard	68,020		-68,020	0	0	0	68,000		-68,000	20		-20
Post Consumer Food Waste	32,150		-32,150	0	0	0	0		0	32,150		-32,150
Tissue/Toweling (washroom related)	4,060		-4,060	0	0	0	160		-160	3,910		-3,910
Other Non-Recyclable Material	155,420		-155,420	0	0	0	0		0	155,420		-155,420
#1 PET - clear thermoform packaging		6,055	6,055		0	0		1,185	1,185		4,871	4,871
#1 PET - other thermoform (coloured)		620	620		0	0		73	73		547	547
#1 PET Bottles - excluding alcoholic beverage		8,483	8,483		0	0		4,302	4,302		4,182	4,182
#2 HDPE Bottles and Jugs		79	79		0	0		79	79		0	0
#2 Other HDPE Containers		2,571	2,571		0	0		782	782		1,789	1,789
#5 Other PP Containers		7,137	7,137		0	0		2,708	2,708		4,429	4,429
#6 PS - Expanded polystyrene		3,791	3,791		0	0		254	254		3,538	3,538
#6 PS - Non-expanded - all		2,658	2,658		0	0		1,284	1,284		1,374	1,374

other												
#7 Other Plastics		4,381	4,381		0	0		731	731		3,650	3,650
Aluminum beverage - alcohol		797	797		0	0		124	124		673	673
Aluminum Foil & Foil Trays		318	318		0	0		145	145		173	173
Aluminum Food & Other Beverage Cans		3,427	3,427		0	0		1,617	1,617		1,810	1,810
Aseptic Containers - (excluding alcoholic beverages)		1,473	1,473		0	0		320	320		1,153	1,153
Batteries		456	456		0	0		224	224		232	232
Boxboard / Cores		20,426	20,426		0	0		5,578	5,578		14,848	14,848
Clear Glass Other Beverage and Food		0	0		0	0		0	0		0	0
Clothing/Textiles		6,156	6,156		2,064	2,064		2,150	2,150		1,942	1,942
Coffee Grinds		6,741	6,741		0	0		6,741	6,741		0	0
Coffee pods		0	0		0	0		0	0		0	0
Confidential Paper - Paper Shred		14,288	14,288		0	0		14,288	14,288		0	0
Corrugated Cardboard - Bulk		10,709	10,709		0	0		10,709	10,709		0	0
Corrugated Cardboard - Loose		18,185	18,185		0	0		13,235	13,235		4,950	4,950
Diapers		0	0		0	0		0	0		0	0
Electronics		8,114	8,114		3,734	3,734		4,380	4,380		0	0
Feminine Hygiene Products		5,543	5,543		0	0		162	162		5,381	5,381
Food packaging		41,481	41,481		0	0		3,222	3,222		38,259	38,259
Furniture & Bulky Items		4,493	4,493		4,493	4,493		0	0		0	0
Gable Top Containers		2,654	2,654		0	0		1,455	1,455		1,199	1,199
Glass - Clear Other Beverage and Food		7,615	7,615		0	0		4,734	4,734		2,881	2,881
Glass - Clear Alcoholic Beverage		4,391	4,391		0	0		3,155	3,155		1,236	1,236
Kraft Paper		9,534	9,534		0	0		2,003	2,003		7,531	7,531
Laminated Paper Packaging		131	131		0	0		0	0		131	131
Large HDPE & PP Pails &		141	141		0	0		141	141		0	0

Lids												
LDPE/HDPE Film - Products (non-packaging)		27,032	27,032		0	0		580	580		26,452	26,452
Liquids - food/beverage		12,584	12,584		0	0		3,214	3,214		9,370	9,370
Maintenance Waste		686	686		0	0		0	0		686	686
Metal - Bulk		16,133	16,133		0	0		16,037	16,037		96	96
Mixed Fine Paper		19,605	19,605		0	0		6,374	6,374		13,231	13,231
Molded Pulp/Fibre		10,984	10,984		0	0		5,153	5,153		5,831	5,831
Napkins/Toweling (food related)		21,432	21,432		0	0		7,553	7,553		13,879	13,879
Newspaper – Dailys and Weeklys		363	363		0	0		182	182		181	181
Office Waste		4,502	4,502		0	0		475	475		4,027	4,027
Other Metal		0	0		0	0		0	0		0	0
Other Non-Recyclable Material		0	0		0	0		0	0		0	0
Other Paper		0	0		0	0		0	0		0	0
Paper Straws		41	41		0	0		15	15		26	26
Parchment Paper		3,786	3,786		0	0		3	3		3,782	3,782
Polycoat Beverage Cups - suitable for green bin		2,817	2,817		0	0		1,433	1,433		1,384	1,384
Polycoat Beverage Cups - at risk of exclusion		31,037	31,037		0	0		12,604	12,604		18,432	18,432
Post Consumer Food Waste		258,432	258,432		0	0		119,885	119,885		138,547	138,547
Rubber & Nitrile Gloves		11,279	11,279		0	0		90	90		11,188	11,188
Spiral Wound Containers		101	101		0	0		101	101		0	0
Steel Food & Other Beverage Cans		1,832	1,832		0	0		941	941		891	891
Straws/Plastic Cutlery		3,542	3,542		0	0		1,296	1,296		2,246	2,246
Tissue/Toweling (cleaning related)		0	0		0	0		0	0		0	0
Tissue/Toweling (washroom related)		7,279	7,279		0	0		877	877		6,402	6,402
Wood		18,912	18,912		0	0		17,130	17,130		1,782	1,782
Wood Dust		7,045	7,045		0	0		7,045	7,045		0	0
Total	329,550	662,271	332,721	0	10,291	10,291	114,950	286,771	171,821	214,610	365,209	150,599

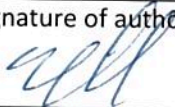
Percent Change (total C ÷ total A x 100) from Base Year:	100.96%	-	149.47%	70.17%
2019 Current year Diversion Rate:	44.9%			
<p>Note: When completing this form, write “n/a” in the “Estimated Amount of Waste Produced” column where the entity will not produce any waste for a category of waste.</p> <ul style="list-style-type: none">• Fill out these columns each year following the initial waste audit or baseline year to determine the progress that is being made by your waste reduction program.• Specific waste categories appearing in RED were ones employed during 2012 base audit				

VI. Extent to Which Materials or Products Used Or Sold By the Entity Consist of Recycled or Reused Materials or Products (Davis)

Please answer the following questions (and please attach any additional page(s) as required):

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.
	<p>Sheridan's Sustainability Policy outlines one of its principles that is based on a model called The Natural Step as follows: "We must eliminate our contributions to the systematic physical degradation of nature and natural processes (e.g. overharvesting forests, destroying habitat and overfishing)".</p> <p>In the Request of Proposal documents, the contractors are required to outline how they demonstrate sustainability in their project proposals.</p>
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. * 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.
	It is in Sheridan College's long-term plan.

I hereby certify that the information provided in this Report of Waste Audit is complete and correct.

Signature of authorized official:	Title:	Date:
	DIRECTOR SUSTAINABILITY	DECEMBER 18, 2019

MECP WASTE FORM: REPORT OF A WASTE REDUCTION WORK PLAN (TRAFALGAR)

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 (Trafalgar)

Name of Owner and/or Operator of Entity(ies) and Company Name: Sheridan College Institute of Technology and Advanced Learning		
Name of Contact Person: Wai Chu Cheng	Telephone #: 905 845 9430	Email address: Waichu.cheng@sheridancollege.ca
Street Address(es) of Entity(ies): Trafalgar Campus of Sheridan College		
Municipality: Oakville, ON Canada		
Type of entity Educational Institution		

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

II. Description of Entity (Trafalgar)

Provide a brief overview of the entity(ties):
<p>This waste audit was conducted in April 2019 at the Trafalgar Campus of Sheridan College. The Trafalgar Campus is the second largest of the three Sheridan College campuses in terms of student population and the largest in terms of physical size.</p> <p>The Zero Waste streams which include mixed recycling, organics and waste-to-landfill were audited for the purpose of identifying current diversion rates by specific waste category and to calculate contamination rates. A 24-hour sample of organics, mixed recycling and waste-to-landfill was sorted and weighed in each of the 14 areas audited. Weight based generation information from 2018 for the waste and diversion programs were obtained from the service provider(s) and were used in the calculation of diversion rates.</p> <p>At the time of the audit, the campus had fully implemented the following collection programs:</p> <ol style="list-style-type: none">1. ZW Mixed Recycling (includes glass, metal, paper, plastic)2. ZW Organics3. ZW Waste-to-landfill4. Bulk Old Corrugated Cardboard (OCC) Recycling5. Paper Shred Recycling6. Metal Recycling7. E-Waste Recycling8. Battery Recycling9. Wood Recycling10. Wood Dust Recycling11. Electronics Lease-Return12. Office Furniture Reuse Event(s)

13. Textile Reuse

14. Hygiene Waste Energy-from-Waste (EFW)

III. Plans to Reduce, Reuse and Recycle Waste (Trafalgar)

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.	
#1 PET - clear thermoform packaging	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#1 PET - other thermoform (coloured)	Little generated.
#1 PET Bottles - excluding alcoholic beverage	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#2 HDPE Bottles and Jugs	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#2 Other HDPE Containers	Little generated.
#5 Other PP Containers	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#6 PS - Expanded polystyrene	Little generated. Should be disposed in ZW waste-to-landfill.
#6 PS - Non-expanded - all other	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#7 Other Plastics	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Aluminum beverage - alcohol	Little generated. Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Aluminum Foil & Foil Trays	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Aluminum Food & Other Beverage Cans	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Aseptic Containers - (excluding alcoholic beverages)	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Batteries	Most captured through E-recycling programs.
Boxboard / Cores	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Clear Glass Other Beverage and Food	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Clothing/Textiles	Little generated.
Coffee Grinds	Little generated.
Coffee pods	Little generated. Should be disposed in ZW waste-to-landfill.
Confidential Paper - Paper Shred	Well captured in recycling program. No action required.
Corrugated	Well captured in recycling program. No action required.

Cardboard - Bulk	
Corrugated Cardboard - Loose	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Diapers	Little generated.
Electronics	Well captured through E-recycling programs and Electronics Reuse (lease) program.
Feminine Hygiene Products	Accurately quantify hygiene waste generation/disposal. Research diversion options that are higher use than incineration.
Food packaging	Little generated.
Furniture & Bulky Items	Well captured through Office Furniture Recycling program.
Gable Top Containers	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Glass - Clear Other Beverage and Food	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Glass - Clear Alcoholic Beverage	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Kraft Paper	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Laminated Paper Packaging	Little generated.
Large HDPE & PP Pails & Lids	Little generated. Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
LDPE/HDPE Film - Products (non-packaging)	Staff/students will be encouraged to include material in the ZW waste-to-landfill bin through education/signage.
Liquids - food/beverage	Staff/students will be encouraged to empty then recycle containers education/signage.
Maintenance Waste	Little generated.
Metal - Bulk	No action required.
Mixed Fine Paper	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Molded Pulp/Fibre	Staff/students will be encouraged to include material in the ZW organics or mixed recycling bin through education/signage.
Napkins/Toweling (food related)	Staff/students will be encouraged to include material in the ZW organics bin through education/signage.
Newspaper – Dailys and Weeklys	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Office Waste	Little generated.
Other Metal	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Other Non-Recyclable Material	Little generated.
Other Paper	Little generated.
Paper Straws	Little generated but most captured in organics program.
Parchment Paper	Staff/students will be encouraged to include material in the ZW waste-to-landfill bin through education/signage.

Polycoat Beverage Cups - suitable for green bin	Polycoat cups suitable for organics program though polycoat cup acceptance by recyclers is in flux with increasing amount of polycoat cups being not suitable for composting. Polycoat cup diversion program should be monitored to ensure best diversion result.
Polycoat Beverage Cups - at risk of exclusion	Polycoat cups suitable for organics program though polycoat cup acceptance by recyclers is in flux with increasing amount of polycoat cups being not suitable for composting. Polycoat cup diversion program should be monitored to ensure best diversion result.
Post Consumer Food Waste	Staff/students will be encouraged to include material in the ZW organics bin through education/signage.
Rubber & Nitrile Gloves	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Spiral Wound Containers	Little generated.
Steel Food & Other Beverage Cans	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Straws/Plastic Cutlery	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Tissue/Toweling (cleaning related)	Little generated.
Tissue/Toweling (washroom related)	Staff/students will be encouraged to include material in the ZW organics bin through education/signage.
Wood	Most captured through wood recycling program.
Wood Dust	All captured in wood briquette recycling program.

IV. Responsibility for Implementing The Waste Reduction Work Plan (Trafalgar)

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 #
Wai Chu Cheng	Promoting, developing and implementing the Zero Waste program, tracking and assessing of data and evaluating the program.	905-845-9430 x 5423
Herbert Sinnock	Developing and evaluating the Zero Waste program	905-875-4405

V. Timetable for Implementing Waste Reduction Work Plan (Trafalgar)

Provide a timetable indicating when each Source Separation and 3Rs program of the Waste Reduction Work Plan will be implemented.	
Source Separation and 3Rs Program	Schedule for Completion
Example: Fine Paper 3Rs Program	“Desk side receptacles and centralized containers to be purchased in March. New collection contract for recycling to be arranged for April Kick off for program and instructions to staff regarding 3Rs program to occur in April” <u>OR</u> “3Rs Program currently in place.”
1. Enhancing Food Waste, Polycoat Cup, Napkins & Molded Pulp Coffee Cup Tray Capture Rate	<p>Enhancing Food Waste, Polycoat Cup, Napkins & Molded Pulp Coffee Cup Tray Capture Rate Throughout the Campus: 138,547 kg/year of food waste, 156,979 kg/year of polycoat cups, 13,879 kg/year napkins and 5,831 kg/year molded pulp coffee cup trays are being disposed in waste-to-landfill. Sheridan must continue to encourage the proper disposal in organics through education/signage. Consider a campaign to encourage sorting behaviour using a multi-media approach and consider 'branding' the campaign. Engage and challenge environmental studies students to design the campaign and develop a multi-media approach/roll-out. Expected improvement in capture rate of 20%. Anticipated reduction in waste-to-landfill of 63,047 kg per year (20% of food waste, polycoat cups and napkins improperly disposed across the campus).</p> <p>Due date: December 31, 2020</p>
2. Launching a "Keep Recycling Clean" campaign	<p>Launching a "Keep Recycling Clean" campaign: Educate students that their dirty recyclables could cause a big load good recyclables to be landfilled. Consider reporting that 12.3% of good recycling went bad in 2018 at the Trafalgar Campus due to improper sorting. Use visuals to capture attention. The program components should include:</p> <p>"Clean your recyclables": Encourage the emptying of food waste and napkins in the organics bin, then the disposal of the food packaging in the appropriate ZW mixed recycling or ZW waste-to-landfill bin</p> <p>"Don't even try to recycle": food waste, beverage cups and napkins/toweling</p> <p>Particular focus in Hallways and Front of House Cafeteria Areas where sorting is particularly poor</p> <p>Anticipated reduction in waste-to-landfill of 22,293 kg/year (50% reduction in contaminated loads, bringing contamination rate in line with that at Davis Campus).</p> <p>Due date: December 31, 2020</p>
3. Enhancing Mixed Recycling Capture Rate	<p>Enhancing Mixed Recycling Capture Rate Throughout the Campus: 84,357 kg/year of mixed recycling was disposed in waste-to-landfill in 2018. Encourage the proper disposal in mixed recycling of: boxboard/cores, mixed fine paper, kraft paper, molded pulp, cardboard & #1 PET. Expected improvement in capture rate of 20%. Anticipated reduction in waste-to-landfill of 16,872 kg per year (20% of mixed recycling improperly disposed across the campus).</p> <p>Due date: December 31, 2020</p>

4. Encouraging Emptying of Beverage Containers	<p>Emptying Beverage Containers: Continue to encourage the emptying of beverage containers prior to placement in mixed recycling through a combination of education/signage and placement of emptying stations where practicable. Consider launching a campaign. Anticipated reduction in disposal of liquids in any stream: 40%. Anticipated reduction in waste-to-landfill of 3,748 kg per year as well as a significant reduction in contamination in the mixed recycling and organic streams (40% reduction in liquids in waste-to-landfill stream).</p> <p>Due date: December 31, 2020</p>
5. Reducing Disposal of Washroom Paper Toweling	<p>Reducing/eliminating Disposal of Washroom Paper Toweling: Reduce/eliminate washroom paper towel use or provide facilities and education/signage to capture washroom paper toweling in the organics program. Anticipated reduction in disposal of 50% of washroom paper toweling and reduce 3,201 kg per year of waste-to-landfill.</p> <p>Due date: December 31, 2020</p>
6. Improving Capture Rates for Clothing/Textiles	<p>Improving Capture Rates for Clothing/Textiles: Providing communication tools and/or receptacles for capture of clothing/textiles in those areas with highest generation rates and these include: Learning Common Residences Anticipated reduction in disposal of 50% of clothing/textiles and reduce 971 kg per year of waste-to-landfill and significant reduction of contamination in the ZW mixed recycling.</p> <p>Due date: December 31, 2020</p>
7. Monitoring the Coffee Cup Program	<p>Monitoring the Coffee Cup Program: More are more cups are being considered not compostable all the while Sheridan's population continues haphazardly dispose of coffee cups largely in waste-to-landfill and organics, but also with significant disposal in recycling. Coffee cup types and disposition (compostable vs. non-compostable) is in flux. Consider developing a strategy to manage coffee cups at the three campuses to ensure the coffee cup program is future-looking, flexible, efficient and effective. Impact on waste diversion cannot be quantified at this time as it is strategy dependent.</p> <p>Due date: December 31, 2020</p>
8. Capturing & Reporting Material Weights for All Diversion Programs at the Campus	<p>Capturing & Reporting Material Weights for All Diversion Programs at the Campus: Sheridan has made significant progress in reporting material diversion streams since 2015 however there may be other diversion programs in place at the Trafalgar Campus but the weight-based data is not currently captured accurately for reporting purposes. Sheridan should continue to conduct an inventory of all diversion programs, with particular focus on reduction and reuse</p>

	<p>programs, and should ensure there are procedures in place to collect, monitor and report on these programs.</p> <p>Anticipated reduction in waste-to-landfill: Effect on diversion rate likely significant but not quantifiable.</p> <p>Due date: December 31, 2020</p>
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VI. Communication to Staff, Customers, Guests and Visitors (Trafalgar)

Explain how the Waste Reduction Work Plan will be communicated to employees, customers, tenants, guests/visitors and students:

The Waste Reduction Plan will be posted on the Sheridan Sustainability website. Comprehensive strategies will be adopted in promoting the Zero Waste program, including the weekly e-newsletter Insider, Sustainability website, campus TV screens, campus newspaper, Sheridan social media and the Zero Waste promotion booths across all campuses. These media as well as promotional material and additional signage will be employed, where practicable, to promote the implementation of each of the individual waste reduction work plans.

VII. Estimated Waste Produced By Material Type And The Projected Amount (Trafalgar)

	Estimated Annual Waste Produced * (kg)	Annual Amount Currently Diverted (2019) (kg)	Name of Proposed 3Rs Program (as stated in Part III)	Projections to Further Reduce, Reuse or Recycle Waste (kg)			Estimated Annual Amount to be Diverted ** (%)
				Reduce	Re-use	Recycle	
#1 PET - clear thermoform packaging	6,055	1,185	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			974	35.7%
#1 PET - other thermoform (coloured)	620	73	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			109	11.7%
#1 PET Bottles - excluding alcoholic beverage	8,483	4,302	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			836	60.6%
#2 HDPE Bottles and Jugs	79	79	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			0	100.0%
#2 Other HDPE Containers	2,571	782	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			358	30.4%
#5 Other PP Containers	7,137	2,708	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			886	50.4%
#6 PS - Expanded polystyrene	3,791	254					6.7%
#6 PS - Non-	2,658	1,284	Enhance capture rate			275	58.6%

expanded - all other			for specific recyclables in ZW mixed recycling across the Campus through education and signage.				
#7 Other Plastics	4,381	731	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			730	16.7%
Aluminum beverage - alcohol	797	124	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			135	15.6%
Aluminum Foil & Foil Trays	318	145	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			35	56.5%
Aluminum Food & Other Beverage Cans	3,427	1,617	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			362	57.8%
Aseptic Containers - (excluding alcoholic beverages)	1,473	320	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			231	37.4%
Batteries	456	224					49.2%
Boxboard / Cores	20,426	5,578	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			2,970	41.8%
Clear Glass Other Beverage and Food	0	0	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			0	#DIV/0!
Clothing/Textiles	6,156	4,214	Improving Capture Rates for		971		68.4%

			Clothing/Textiles				
Coffee Grinds	6,741	6,741	Enhancing food waste coffee cups and napkins capture rate throughout the Campus			0	100.0%
Coffee pods	0	0					
Confidential Paper - Paper Shred	14,288	14,288					100.0%
Corrugated Cardboard - Bulk	10,709	10,709					100.0%
Corrugated Cardboard - Loose	18,185	13,235	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			990	78.2%
Diapers	0	0					
Electronics	8,114	8,114					100.0%
Feminine Hygiene Products	5,543	162					8.1%
Food packaging	41,481	3,222					
Furniture & Bulky Items	4,493	4,493					
Gable Top Containers	2,654	1,455	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			240	63.9%
Glass - Clear Other Beverage and Food	7,615	4,734	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			576	69.7%
Glass - Clear Alcoholic Beverage	4,391	3,155	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			247	77.5%
Kraft Paper	9,534	2,003	Enhance capture rate for specific recyclables in ZW mixed recycling			1,506	36.8%

			across the Campus through education and signage.				
Laminated Paper Packaging	131	0					
Large HDPE & PP Pails & Lids	141	141	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			0	100.0%
LDPE/HDPE Film - Products (non-packaging)	27,032	580					
Liquids - food/beverage	12,584	3,214	Promote the emptying of beverage containers prior to placement in ZW mixed recycling	3,748			25.5%
Maintenance Waste	686	0					0.0%
Metal - Bulk	16,133	16,037					99.4%
Mixed Fine Paper	19,605	6,374	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			2,646	46.0%
Molded Pulp/Fibre	10,984	5,153	Enhancing food waste coffee cups, napkins & molded pulp coffee cup trays capture rate throughout the Campus			1,166	57.5%
Napkins/Towel (food related)	21,432	7,553	Enhancing food waste coffee cups, napkins & molded pulp coffee cup trays capture rate throughout the Campus			2,776	48.2%
Newspaper – Dailys and Weeklys	363	182	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			36	60.2%
Office Waste	4,502	475					10.6%
Other Metal	0	0					
Other Non-	0	0					

Recyclable Material (Laundry)							
Other Paper (paper plates)	0	0					
Paper Straws	41	15					
Parchment Paper	3,786	3					0.1%
Polycoat Beverage Cups - suitable for green bin	2,817	1,433	Enhancing food waste coffee cups, napkins & molded pulp coffee cup trays capture rate throughout the Campus			277	60.7%
Polycoat Beverage Cups - at risk	31,037	12,604	Enhancing food waste coffee cups, napkins & molded pulp coffee cup trays capture rate throughout the Campus			3,686	40.6%
Post Consumer Food Waste	258,432	119,885	Enhancing food waste coffee cups, napkins & molded pulp coffee cup trays capture rate throughout the Campus			27,709	57.1%
Rubber & Nitrile Gloves	11,279	90	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			2,238	20.6%
Spiral Wound Containers	101	101					100.0%
Steel Food & Other Beverage Cans	1,832	941	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			178	61.1%
Straws/Plastic Cutlery	3,542	1,296	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			449	49.3%
Tissue/Towel ing (cleaning related)	0	0					
Tissue/Towel i	7,279	877	Reducing/eliminating	3,201			56.0%


ng (washroom related)			disposal of washroom paper toweling through reduction and/or capture in ZW organics program				
Wood	18,912	17,130					90.6%
Wood Dust	7,045	7,045					100.0%
All Mixed Recycling			Keep Recycling Clean Campaign to reduce contaminated loads of Recycling			22,293	
CAMPUS WIDE TOTALS	662,271	297,062		6,949	971	74,914	57.4%

* Estimated Waste Produced = Waste Diverted (3Rs) + Waste Disposed

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

*** Waste-to-landfill material that is being diverted as a contaminant in ZW organics and/or mixed recycling

I hereby certify that the information provided in this Waste Reduction Work Plan is complete and correct.

Signature of authorized official:	Title:	Date:
	DIRECTOR - SUSTAINABILITY	DECEMBER 18, 2019

MECP WASTE FORM: REPORT OF A WASTE AUDIT (DAVIS)

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.

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 (Davis)

Name of Owner and/or Operator of Entity(ies) and Company Name: Sheridan College Institute of Technology and Advanced Learning		
Name of Contact Person: Wai Chu Cheng	Telephone #: 905 845 9430	Email address: Waichu.cheng@sheridancollege.ca
Street Address(es) of Entity(ies): Davis Campus of Sheridan College		
Municipality: Brampton, ON Canada		
Type of entity Educational Institution		

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

II. Description of Entity (Davis)

Provide a brief overview of the entity(ties):
<p>The Davis Campus is the largest of the three Sheridan campuses which include: Trafalgar, Davis & HMC.</p> <p>Because the Davis and Trafalgar campuses are of similar size, have similar functional areas including classrooms, offices, hallways, washrooms, have the same ZW bin program in place and because historical evidence suggest the material generation and disposal practices at the two campuses will be similar, the material breakdown data from the waste audit at the 2018 waste audit at Trafalgar Campus was used in conjunction with the annual waste generation data provided by the service providers for Davis. In this way the 2019 Davis Campus waste audit reported here is an amalgamation of 2018 weight-based information by stream for the Davis campus and the relative proportion by weight of the mixed waste ZW stream from the Trafalgar Campus 2019 audit.</p> <p>At the time of the audit, the campus had fully implemented the following collection programs:</p> <ol style="list-style-type: none">1. ZW Mixed Recycling (includes glass, metal, paper, plastic)2. ZW Organics3. ZW Waste-to-landfill4. Bulk Old Corrugated Cardboard (OCC) Recycling5. Paper Shred Recycling6. Metal Recycling7. E-Waste Recycling (includes Battery Recycling)8. Wood Recycling

9. Electronic Lease-Return
10. Office Furniture Reuse Event(s)
11. Textile Reuse
12. Hygiene Waste Energy-from-Waste (EFW)

III. How Waste is Produced And Decisions Affecting the Production of Waste (Davis)

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.	
Categories of Waste	How Is the Waste Produced and What Management Decisions/Policies Affect Its Production?
#1 PET - clear thermoform packaging	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#1 PET - other thermoform (coloured)	Minimal amounts generated on campus
#1 PET Bottles - excluding alcoholic beverage	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students. ZW water bottle refill stations installed to reduce PET water bottle generation/disposal.
#2 HDPE Bottles and Jugs	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#2 Other HDPE Containers	Minimal amounts generated on campus
#5 Other PP Containers	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#6 PS - Expanded polystyrene	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#6 PS - Non-expanded - all other	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
#7 Other Plastics	Minimal amounts generated on campus.
Aluminum beverage - alcohol	Alcohol is not available for sale on campus. Alcoholic beverage containers brought to campus by students, visitors and others.
Aluminum Foil & Foil Trays	Small quantities generated on campus and should be included in the ZW recycling program.
Aluminum Food & Other Beverage Cans	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Aseptic Containers - (excluding alcoholic beverages)	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Batteries	Minimal amounts generated in campus. Should be included in battery recycling program.
Boxboard / Cores	Generated all over the campus as a packaging material for food products, office products and class material supplies.

Clear Glass Other Beverage and Food	Small quantities generated on campus and disposed as waste.
Clothing/Textiles	Lost or intentionally disposed articles of clothing disposed of on campus.
Coffee Grinds	Minimal amounts generated on campus
Coffee pods	Generated at coffee stations around the campus.
Confidential Paper - Paper Shred	Generated across campus in offices and captured for shredding and recycling.
Corrugated Cardboard - Bulk	Generated in receiving area through delivery. Almost all captured in bulk recycling program.
Corrugated Cardboard - Loose	Generated across campus. Almost all captured in recycling program.
Diapers	Small quantities generated on campus and disposed as waste.
Electronics	Generated throughout campus and suitable for the E-waste recycling or Electronics Reuse (lease) program.
Feminine Hygiene Products	Generated across campus in washrooms. Material collected for diversion from landfill (incineration)
Food packaging	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Furniture & Bulky Items	Office and other furniture which from time to time is removed and, whenever possible, donated to charity for reuse.
Gable Top Containers	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Glass - Clear Other Beverage and Food	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Glass - Clear Alcoholic Beverage	Alcohol is not available for sale on campus. Alcoholic beverage containers brought to campus by students, visitors and others.
Kraft Paper	Paper products generated through campus activities. Most generated in printing and photocopying areas.
Laminated Paper Packaging	Minimal amounts generated on campus
Large HDPE & PP Pails & Lids	Minimal amounts generated on campus suitable for inclusion in the ZW recycling program.
LDPE/HDPE Film - Products (non-packaging)	Minimal amounts generated on campus
Liquids - food/beverage	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Maintenance Waste	Minimal amounts generated on campus.
Metal - Bulk	Generated in receiving and maintenance areas. Well captured by bulk metal recycling program.
Mixed Fine Paper	Paper products generated through campus activities.

	Most generated in printing and photocopying areas.
Molded Pulp/Fibre	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Napkins/Toweling (food related)	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Newspaper – Dailys and Weeklys	Available for sale at Campus. Most should be captured in the ZW mixed recycling.
Office Waste	Generated in offices and classrooms around campus. Disposed as waste.
Other Metal	Minimal amounts generated on campus and suitable for inclusion in ZW recycling program.
Other Non-Recyclable Material	Minimal amounts generated on campus.
Other Paper	Minimal amounts generated on campus
Paper Straws	Minimal amounts generated on campus. Should be included in ZW organics program.
Parchment Paper	Minimal amounts generated on campus.
Polycoat Beverage Cups - suitable for green bin	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Polycoat Beverage Cups - at risk	Food packaging, beverage containers is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Post Consumer Food Waste	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Rubber & Nitrile Gloves	Generated in cafeterias across campus. Suitable for inclusion in the ZW recycling program.
Spiral Wound Containers	Minimal amounts generated on campus.
Steel Food & Other Beverage Cans	Food packaging, beverage containers and organic waste is available for sale at Campus cafeteria and is brought to campus by staff/faculty and students
Straws/Plastic Cutlery	Generated in cafeterias across campus. Suitable for inclusion in the ZW recycling program.
Tissue/Toweling (cleaning related)	Minimal amounts generated on campus.
Tissue/Toweling (washroom related)	Generated and disposed as waste in Residence. Have been removed from washrooms. Should be included in ZW organics program though much ends up in waste-to-landfill
Wood	Generated in receiving area through delivery. Almost all captured in bulk recycling program.
Wood Dust	Not generated at Davis Campus.
Note: When completing this form, write “n/a” in the columns where the entity will not produce any waste for a category of waste.	

IV. Management of Waste (Davis)

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).		
Category	Waste to be Disposed	Reused or Recycled Waste
#1 PET - clear thermoform packaging		Should be included in ZW Recycling Bin Program though some may end up in landfill
#1 PET - other thermoform (coloured)		Should be included in ZW Recycling Bin Program though some may end up in landfill
#1 PET Bottles - excluding alcoholic beverage		Should be included in ZW Recycling Bin Program though some may end up in landfill. Reduction in PET water bottles through installation of reusable water bottle filling stations.
#2 HDPE Bottles and Jugs		Should be included in ZW Recycling Bin Program though some may end up in landfill
#2 Other HDPE Containers		Should be included in ZW Recycling Bin Program though some may end up in landfill
#5 Other PP Containers		Should be included in ZW Recycling Bin Program though some may end up in landfill
#6 PS - Expanded polystyrene	Generated in J Wing, C Wing Gym & J Wing Learning Commons. No diversion program currently available.	
#6 PS - Non-expanded - all other		Should be included in ZW Recycling Bin Program though some may end up in landfill
#7 Other Plastics		Should be included in ZW Recycling Bin Program though some may end up in landfill
Aluminum beverage - alcohol		Alcohol is not available for sale on campus. Alcoholic beverage containers brought to campus by students, visitors and others. Should be included in ZW Recycling Bin Program though some may end up in landfill.
Aluminum Foil & Foil Trays		Should be included in ZW Recycling Bin Program though some may end up in landfill
Aluminum Food & Other Beverage Cans		Should be included in ZW Recycling Bin Program though some may end

		up in landfill
Aseptic Containers - (excluding alcoholic beverages)		Should be included in ZW Recycling Bin Program though some may end up in landfill
Batteries		Should be included in Battery Recycling or captured during E-Recycling Events.
Boxboard / Cores		Should be included in ZW Recycling Bin Program though some may end up in landfill
Clear Glass Other Beverage and Food		Should be included in ZW Recycling Bin Program though some may end up in landfill
Clothing/Textiles		None generated at this campus.
Coffee Grinds		Little generated. Should be included in ZW Organics Bin Program.
Coffee pods	Little generated and no diversion program currently available.	
Confidential Paper - Paper Shred		Well captured in paper shred recycling
Corrugated Cardboard - Bulk		Well captured in OCC bulk recycling program.
Corrugated Cardboard - Loose		Should be included in ZW Recycling Bins throughout the campus, though some may end up in landfill
Diapers	Small quantities generated on campus and disposed as waste.	
Electronics		Should be included in E-Recycling, captured during E-Recycling Events or returned as part of electronics reuse/lease program.
Feminine Hygiene Products	Generated across campus in washrooms. Material collected for diversion from landfill. Material is sent to Energy-from-Waste facility.	
Food packaging	Generated across campus (with the exception of Animal Care) and no diversion program currently available.	
Furniture & Bulky Items		Assessed and, whenever possible, given to charity for donation/reuse.
Gable Top Containers		Should be included in ZW Recycling Bin Program though some may end up in landfill
Glass - Clear Other Beverage and		Should be included in ZW Recycling

Food		Bin Program though some may end up in landfill
Glass - Clear Alcoholic Beverage		Alcohol is not available for sale on campus. Alcoholic beverage containers brought to campus by students, visitors and others. Should be included in ZW Recycling Bin Program though some may end up in landfill.
Kraft Paper		Should be included in ZW Recycling Bin Program though some may end up in landfill
Laminated Paper Packaging	Little generated and no diversion program currently available.	
Large HDPE & PP Pails & Lids		Little generated and should be included in ZW Recycling Bin Program
LDPE/HDPE Film - Products (non-packaging)	Little generated and no diversion program currently available.	
Liquids - food/beverage		Should be included in ZW Organics Bin Program though much ends up in landfill
Maintenance Waste	Little generated and no diversion program currently available.	
Metal - Bulk		Generated in receiving and maintenance areas. Well captured by bulk metal recycling program.
Mixed Fine Paper		Should be included in ZW Recycling Bin Program though some may end up in landfill
Molded Pulp/Fibre		Should be included in ZW Organics or Recycling Bin Program though some may end up in landfill
Napkins/Toweling (food related)		Should be included in ZW Organics Bin Program though much ends up in landfill
Newspaper – Dailys and Weeklys		Should be included in ZW Recycling Bin Program though some may end up in landfill
Office Waste	No diversion program currently available.	
Other Metal		Should be included in ZW Recycling Bin Program though some may end up in landfill
Other Non-Recyclable Material	Little generated and no diversion program currently available.	
Other Paper		Little generated and should be

		included in ZW Recycling Bin Program
Paper Straws		Little generated and should be included in ZW Organics Program
Parchment Paper	No diversion program currently available.	
Polycoat Beverage Cups - suitable for green bin		Compostable and non-compostable cup identification and disposition is not clear at this time. Current direction: should be included in ZW Organics Bin Program though much ends up in landfill.
Polycoat Beverage Cups - at risk of exclusion		Compostable and non-compostable cup identification and disposition is not clear at this time. Current direction: should be included in ZW Organics Bin Program though much ends up in landfill.
Post Consumer Food Waste		Should be included in ZW Organics Bin Program though much ends up in landfill
Rubber & Nitrile Gloves		Should be included in ZW Recycling Bin Program though some may end up in landfill
Spiral Wound Containers	Little generated and no diversion program currently available.	
Steel Food & Other Beverage Cans		Should be included in ZW Recycling Bin Program though some may end up in landfill
Straws/Plastic Cutlery		Should be included in ZW Recycling Bin Program though some may end up in landfill
Tissue/Toweling (cleaning related)	Little generated. Should be included in waste-to-landfill	
Tissue/Toweling (washroom related)		Should be included in ZW organics program though most ends up in waste-to-landfill
Wood		Is captured by wood recycling program in deliveries.
Wood Dust		Not generated at Davis Campus

Note: When completing this form, write "n/a" in the columns where the entity will not produce any waste for a category of waste.

V. Estimated Quantity of Waste Produced Annually – Davis

	Estimated Amount of Waste Produced (kgs)											
	Generated			Reused			Recycled			Disposed		
Categories of Waste	"A" Base Year 2012 (kg)	"B" * Current Year (kg)	"C" * Change (A-B) (kg)	"A" Base Year 2012 (kg)	"B" * Current Year (kg)	"C" * Change (A-B) (kg)	"A" Base Year 2012 (kg)	"B" * Current Year (kg)	"C" * Change (A-B) (kg)	"A" Base Year 2012 (kg)	"B" * Current Year (kg)	"C" * Change (A-B) (kg)
Cans/bottles/plastics (2012 grouping)	20,260		-20,260			0	8,340		-8,340	11,920		-11,920
Paper products (2012 grouping)	28,140		-28,140			0	22,810		-22,810	5,330		-5,330
Other Non-Recyclable Material (2012 grouping)	121,070		-121,070			0	0		0	121,070		-121,070
#1 PET - clear thermoform packaging		4,950	4,950			0		2,016	2,016		2,934	2,934
#1 PET - other thermoform (coloured)		406	406			0		76	76		329	329
#1 PET Bottles - excluding alcoholic beverage		10,509	10,509			0		7,990	7,990		2,519	2,519
#2 HDPE Bottles and Jugs		154	154			0		154	154		0	0
#2 Other HDPE Containers		2,597	2,597			0		1,519	1,519		1,078	1,078
#5 Other PP Containers		7,467	7,467			0		4,799	4,799		2,668	2,668
#6 PS - Expanded polystyrene		2,494	2,494			0		363	363		2,131	2,131
#6 PS - Non-expanded - all other		2,893	2,893			0		2,065	2,065		828	828
#7 Other Plastics		3,367	3,367			0		1,168	1,168		2,199	2,199
Aluminum beverage -		647	647			0		241	241		405	405

alcohol												
Aluminum Foil & Foil Trays		386	386			0		282	282		104	104
Aluminum Food & Other Beverage Cans		4,194	4,194			0		3,104	3,104		1,090	1,090
Aseptic Containers - (excluding alcoholic beverages)		1,272	1,272			0		578	578		695	695
Batteries		140	140			0		0	0		140	140
Boxboard / Cores		18,110	18,110			0		9,166	9,166		8,944	8,944
Clear Glass Other Beverage and Food		0	0			0		0	0		0	0
Clothing/Textiles		5,535	5,535	338	191	-147		4,174	4,174		1,170	1,170
Coffee Grinds		6,446	6,446			0		6,446	6,446		0	0
Coffee pods		0	0			0		0	0		0	0
Confidential Paper - Paper Shred		19,845	19,845			0		19,845	19,845		0	0
Corrugated Cardboard - Bulk	21,970	16,439	23,148			0	20,400	16,439	21,736	1,570	0	1,412
Corrugated Cardboard - Loose		28,679				0		25,697			2,982	0
Diapers		0	0			0		0	0		0	0
Electronics		4,958	4,958		2,491			2,467			0	
Feminine Hygiene Products		4,178	4,178			2,491		315	315		3,862	3,862
Food packaging		27,608	27,608			0		4,562	4,562		23,047	23,047
Furniture & Bulky Items		3,772	3,772		3,772	0		0	0		0	0
Gable Top Containers		3,369	3,369			3,772		2,647	2,647		722	722
Glass - Clear Other Beverage and Food		10,927	10,927			0		9,192	9,192		1,736	1,736
Glass - Clear Alcoholic Beverage		6,870	6,870			0		6,126	6,126		745	745

Kraft Paper		7,428	7,428			0		2,892	2,892		4,536	4,536
Laminated Paper Packaging		79	79			0		0	0		79	79
Large HDPE & PP Pails & Lids		275	275			0		275	275		0	0
LDPE/HDPE Film - Products (non-packaging)		16,823	16,823			0		889	889		15,934	15,934
Liquids - food/beverage		10,973	10,973			0		5,328	5,328		5,645	5,645
Maintenance Waste		413	413			0		0	0		413	413
Metal - Bulk		29,952	29,952			0		29,894	29,894		58	58
Mixed Fine Paper		18,732	18,732			0		10,763	10,763		7,970	7,970
Molded Pulp/Fibre		10,529	10,529			0		7,016	7,016		3,513	3,513
Napkins/Toweling (food related)		16,244	16,244			0		7,884	7,884		8,361	8,361
Newspaper – Dailys and Weeklys		462	462			0		353	353		109	109
Office Waste		3,132	3,132			0		706	706		2,426	2,426
Other Metal		0	0			0		0	0		0	0
Other Non-Recyclable Material (Laundry)		0	0			0		0	0		0	0
Other Paper (paper plates)		0	0			0		0	0		0	0
Paper Straws		33	33			0		17	17		16	16
Parchment Paper		2,281	2,281			0		3	3		2,278	2,278
Polycoat Beverage Cups - suitable for green bin		2,557	2,557			0		1,724	1,724		834	834
Polycoat Beverage Cups - at risk of exclusion		25,253	25,253			0		14,150	14,150		11,103	11,103
Post Consumer Food Waste	21,440	200,756	179,316			0		117,297	117,297	21,440	83,459	62,019
Rubber & Nitrile Gloves		6,875	6,875			0		135	135		6,740	6,740
Spiral Wound Containers		195	195			0		195	195		0	0

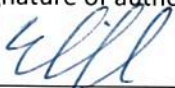
Steel Food & Other Beverage Cans		2,363	2,363			0		1,827	1,827		537	537
Straws/Plastic Cutlery		3,235	3,235			0		1,882	1,882		1,353	1,353
Tissue/Toweling (cleaning related)		0	0			0		0	0		0	0
Tissue/Toweling (washroom related)	1,710	5,560	3,850			0		1,703	1,703	1,710	3,856	2,146
Wood		16,503	16,503			0		15,430	15,430		1,073	1,073
Wood Dust		0	0			0		0	0		0	0
FACILITY WIDE TOTALS	214,590	578,866	364,276	338	6,454	6,116	51,550	351,793	297,776	163,040	220,619	57,579
Percent Change (total C ÷ total A x 100) from Base Year:	169.8%			1,809.5%			577.6%			35.3%		
2019 Current year Diversion Rate:	61.9%											
Note: When completing this form, write “n/a” in the “Estimated Amount of Waste Produced” column where the entity will not produce any waste for a category of waste.												
<ul style="list-style-type: none">Fill out these columns each year following the initial waste audit or baseline year to determine the progress that is being made by your waste reduction program.Specific waste categories appearing in RED were ones employed during 2012 base audit												

VI. Extent to Which Materials or Products Used Or Sold By the Entity Consist of Recycled or Reused Materials or Products (Trafalgar)

Please answer the following questions (and please attach any additional page(s) as required):

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.
	<p>Sheridan's Sustainability Policy outlines one of its principles that is based on a model called The Natural Step as follows: "We must eliminate our contributions to the systematic physical degradation of nature and natural processes (e.g. overharvesting forests, destroying habitat and overfishing)".</p> <p>In the Request of Proposal documents, the contractors are required to outline how they demonstrate sustainability in their project proposals.</p>
2.	<p>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.</p> <p>* 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.</p>
	<p>It is in Sheridan College's long-term plan.</p>

I hereby certify that the information provided in this Report of Waste Audit is complete and correct.

<p>Signature of authorized official:</p> 	<p>Title:</p> <p>Director - Sustainability</p>	<p>Date:</p> <p>December 18, 2019</p>
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MECP WASTE FORM: REPORT OF A WASTE REDUCTION WORK PLAN (DAVIS)

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 (Davis)

Name of Owner and/or Operator of Entity(ies) and Company Name: Sheridan College Institute of Technology and Advanced Learning		
Name of Contact Person: Wai Chu Cheng	Telephone #: 905 845 9430	Email address: Waichu.cheng@sheridancollege.ca
Street Address(es) of Entity(ies): Davis Campus of Sheridan College		
Municipality: Brampton, ON Canada		
Type of entity Educational Institution		

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

II. Description of Entity (Davis)

Provide a brief overview of the entity(ties):
<p>The Davis Campus is the largest of the three Sheridan campuses which include: Trafalgar, Davis & HMC.</p> <p>Because the Davis and Trafalgar campuses are of similar size, have similar functional areas including classrooms, offices, hallways, washrooms, have the same ZW bin program in place and because historical evidence suggest the material generation and disposal practices at the two campuses will be similar, the material breakdown data from the waste audit at the 2018 waste audit at Trafalgar Campus was used in conjunction with the annual waste generation data provided by the service providers for Davis. In this way the 2019 Davis Campus waste audit reported here is an amalgamation of 2018 weight-based information by stream for the Davis campus and the relative proportion by weight of the mixed waste ZW stream from the Trafalgar Campus 2019 audit.</p> <p>At the time of the audit, the campus had fully implemented the following collection programs:</p> <ol style="list-style-type: none">1. ZW Mixed Recycling (includes glass, metal, paper, plastic)2. ZW Organics3. ZW Waste-to-landfill4. Bulk Old Corrugated Cardboard (OCC) Recycling5. Paper Shred Recycling6. Metal Recycling7. E-Waste Recycling (includes Battery Recycling)8. Wood Recycling9. Electronic Lease-Return10. Office Furniture Reuse Event(s)11. Textile Reuse12. Hygiene Waste Energy-from-Waste (EFW)

III. Plans to Reduce, Reuse and Recycle Waste (Davis)

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.	
#1 PET - clear thermoform packaging	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#1 PET - other thermoform (coloured)	Little generated.
#1 PET Bottles - excluding alcoholic beverage	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#2 HDPE Bottles and Jugs	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#2 Other HDPE Containers	Little generated.
#5 Other PP Containers	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#6 PS - Expanded polystyrene	Little generated. Should be disposed in ZW waste-to-landfill.
#6 PS - Non-expanded - all other	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
#7 Other Plastics	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Aluminum beverage - alcohol	Little generated. Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Aluminum Foil & Foil Trays	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Aluminum Food & Other Beverage Cans	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Aseptic Containers - (excluding alcoholic beverages)	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Batteries	Most captured through E-recycling programs.
Boxboard / Cores	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Clear Glass Other Beverage and Food	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Clothing/Textiles	Little generated.
Coffee Grinds	Little generated.
Coffee pods	Little generated. Should be disposed in ZW waste-to-landfill.
Confidential Paper -	Well captured in recycling program. No action required.

Paper Shred	
Corrugated Cardboard - Bulk	Well captured in recycling program. No action required.
Corrugated Cardboard - Loose	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Diapers	Little generated.
Electronics	Well captured through E-recycling programs and Electronics Reuse (lease) program.
Feminine Hygiene Products	Accurately quantify hygiene waste generation/disposal. Research diversion options that are higher use than incineration.
Food packaging	Little generated.
Furniture & Bulky Items	Well captured through Office Furniture Recycling program.
Gable Top Containers	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Glass - Clear Other Beverage and Food	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Glass - Clear Alcoholic Beverage	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Kraft Paper	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Laminated Paper Packaging	Little generated.
Large HDPE & PP Pails & Lids	Little generated. Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
LDPE/HDPE Film - Products (non-packaging)	Staff/students will be encouraged to include material in the ZW waste-to-landfill bin through education/signage.
Liquids - food/beverage	Staff/students will be encouraged to empty then recycle containers education/signage.
Maintenance Waste	Little generated.
Metal - Bulk	No action required.
Mixed Fine Paper	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Molded Pulp/Fibre	Staff/students will be encouraged to include material in the ZW organics or mixed recycling bin through education/signage.
Napkins/Toweling (food related)	Staff/students will be encouraged to include material in the ZW organics bin through education/signage.
Newspaper – Dailys and Weeklys	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Office Waste	Little generated.
Other Metal	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Other Non-Recyclable Material	Little generated.
Other Paper	Little generated.
Paper Straws	Little generated but most captured in organics program.

Parchment Paper	Staff/students will be encouraged to include material in the ZW waste-to-landfill bin through education/signage.
Polycoat Beverage Cups - suitable for green bin	Polycoat cups suitable for organics program though polycoat cup acceptance by recyclers is in flux with increasing amount of polycoat cups being not suitable for composting. Polycoat cup diversion program should be monitored to ensure best diversion result.
Polycoat Beverage Cups - at risk of exclusion	Polycoat cups suitable for organics program though polycoat cup acceptance by recyclers is in flux with increasing amount of polycoat cups being not suitable for composting. Polycoat cup diversion program should be monitored to ensure best diversion result.
Post Consumer Food Waste	Staff/students will be encouraged to include material in the ZW organics bin through education/signage.
Rubber & Nitrile Gloves	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Spiral Wound Containers	Little generated.
Steel Food & Other Beverage Cans	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Straws/Plastic Cutlery	Staff/students will be encouraged to include material in the ZW mixed recycling bin through education/signage.
Tissue/Toweling (cleaning related)	Little generated.
Tissue/Toweling (washroom related)	Staff/students will be encouraged to include material in the ZW organics bin through education/signage.
Wood	Most captured through wood recycling program.
Wood Dust	Not generated at the Davis Campus.

IV. Responsibility for Implementing The Waste Reduction Work Plan (Davis)

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 #
Wai Chu Cheng	Promoting, developing and implementing the Zero Waste program, tracking and assessing of data and evaluating the program.	905-845-9430 x 5423
Herbert Sinnock	Developing and evaluating the Zero Waste program	905-875-4405

V. Timetable for Implementing Waste Reduction Work Plan (Davis)

Provide a timetable indicating when each Source Separation and 3Rs program of the Waste Reduction Work Plan will be implemented.	
Source Separation and 3Rs Program	Schedule for Completion
Example: Fine Paper 3Rs Program	“Desk side receptacles and centralized containers to be purchased in March. New collection contract for recycling to be arranged for April Kick off for program and instructions to staff regarding 3Rs program to occur in April” <u>OR</u> “3Rs Program currently in place.”
1. Enhancing Food Waste, Polycoat Cup, Napkins & Molded Pulp Coffee Cup Trays Capture Rate	<p>Enhancing Food Waste, Polycoat Cup, Napkins and Coffee Cup Trays Capture Rate Throughout the Campus: Food waste, polycoat cups and napkins are being disposed in waste-to-landfill. Sheridan must continue to encourage the proper disposal in organics through education/signage. Consider a campaign to encourage sorting behaviour using a multi-media approach and consider 'branding' the campaign. Engage and challenge environmental studies students to design the campaign and develop a multi-media approach/roll-out. Expected improvement in capture rate of 20%. Anticipated reduction in waste-to-landfill of 20,751 kg per year (20% of food waste, polycoat cups & trays and napkins improperly disposed across the campus).</p> <p>Due date: December 31, 2020</p>
2. Launching a "Keep Recycling Clean" campaign	<p>Launching a "Keep Recycling Clean" campaign: Educate students that their dirty recyclables could cause a big load good recyclables to be landfilled. Consider reporting that 6.8% of good recycling went bad in 2018 at the Davis Campus due to improper sorting. Use visuals to capture attention. The program components should include:</p> <p>"Clean your recyclables": Encourage the emptying of food waste and napkins in the organics bin, then the disposal of the food packaging in the appropriate ZW mixed recycling or ZW waste-to-landfill bin</p> <p>"Don't even try to recycle": food waste, beverage cups and napkins/toweling</p> <p>Particular focus in Hallways and Front of House Cafeteria Areas where sorting is particularly poor</p> <p>Anticipated reduction in waste-to-landfill of 7,360 kg/year (50% reduction in contaminated loads).</p> <p>Due date: December 31, 2020</p>
3. Enhancing Mixed Recycling Capture Rate	<p>Enhancing Mixed Recycling Capture Rate Throughout the Campus: Encourage the proper disposal in mixed recycling of: boxboard/cores, mixed fine paper, kraft paper, molded pulp, cardboard & #1 PET. Expected improvement in capture rate of 20%. Anticipated reduction in waste-to-landfill of 10,947 kg per year (20% of mixed recycling improperly disposed across the campus).</p> <p>Due date: December 31, 2020</p>
4. Encouraging Emptying	Emptying Beverage Containers: Continue to encourage the emptying of

of Beverage Containers	<p>beverage containers prior to placement in mixed recycling through a combination of education/signage and placement of emptying stations where practicable. Consider launching a campaign. Anticipated reduction in disposal of liquids in any stream: 40%. Anticipated reduction in waste-to-landfill of 2,258 kg per year as well as a significant reduction in contamination in the mixed recycling and organic streams (40% reduction in liquids in waste-to-landfill stream).</p> <p>Due date: December 31, 2020</p>
5. Reducing Disposal of Washroom Paper Toweling	<p>Reducing/eliminating Disposal of Washroom Paper Toweling: Reduce/eliminate washroom paper towel use or provide facilities and education/signage to capture washroom paper toweling in the organics program. Anticipated reduction in disposal of 50% of washroom paper toweling and reduce 1,928 kg per year of waste-to-landfill.</p> <p>Due date: December 31, 2020</p>
6. Improving Capture Rates for Clothing/Textiles	<p>Improving Capture Rates for Clothing/Textiles: Providing communication tools and/or receptacles for capture of clothing/textiles. Anticipated reduction in disposal of 50% of clothing/textiles and reduce 585 kg per year of waste-to-landfill and significant reduction of contamination in the ZW mixed recycling.</p> <p>Due date: December 31, 2020</p>
7. Monitoring the Coffee Cup Program	<p>Monitoring the Coffee Cup Program: More are more cups are being considered not compostable all the while Sheridan's population continues haphazardly dispose of coffee cups largely in waste-to-landfill and organics, but also with significant disposal in recycling. Coffee cup types and disposition (compostable vs. non-compostable) is in flux. Consider developing a strategy to manage coffee cups at the three campuses to ensure the coffee cup program is future-looking, flexible, efficient and effective. Impact on waste diversion cannot be quantified at this time as it is strategy dependent.</p> <p>Due date: December 31, 2020</p>
8. Capturing & Reporting Material Weights for All Diversion Programs at the Campus	<p>Capturing & Reporting Material Weights for All Diversion Programs at the Campus: Sheridan has made significant progress in reporting material diversion streams since 2015 however there may be other diversion programs in place at the Davis Campus but the weight-based data is not currently captured accurately for reporting purposes. Sheridan should continue to conduct an inventory of all diversion programs, with particular focus on reduction and reuse programs, and should ensure there are procedures in place to collect, monitor and report on these programs.</p> <p>Anticipated reduction in waste-to-landfill: Effect on diversion rate likely significant but not quantifiable.</p> <p>Due date: December 31, 2020</p>

VI. Communication to Staff, Customers, Guests and Visitors (Davis)

Explain how the Waste Reduction Work Plan will be communicated to employees, customers, tenants, guests/visitors and students:

The Waste Reduction Plan will be posted on the Sheridan Sustainability website. Comprehensive strategies will be adopted in promoting the Zero Waste program, including the weekly e-newsletter Insider, Sustainability website, campus TV screens, campus newspaper, Sheridan social media and the Zero Waste promotion booths across all campuses. These media as well as promotional material and additional signage will be employed, where practicable, to promote the implementation of each of the individual waste reduction work plans.

VII. Estimated Waste Produced By Material Type And The Projected Amount (Davis)

	Estimated Annual Waste Produced * (kg)	Annual Amount Currently Diverted (2019) (kg)	Name of Proposed 3Rs Program (as stated in Part III)	Projections to Further Reduce, Reuse or Recycle Waste (kg)			Estimated Annual Amount to be Diverted ** (%)
				Reduce	Re-use	Recycle	
#1 PET - clear thermoform packaging	4,950	2,016	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			587	52.6%
#1 PET - other thermoform (coloured)	406	76	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			66	18.8%
#1 PET Bottles - excluding alcoholic beverage	10,509	7,990	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			504	80.8%
#2 HDPE Bottles and Jugs	154	154	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			0	100.0%
#2 Other HDPE Containers	2,597	1,519	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			216	58.5%
#5 Other PP Containers	7,467	4,799	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			534	71.4%
#6 PS - Expanded polystyrene	2,494	363					14.6%
#6 PS - Non-expanded - all other	2,893	2,065	Enhance capture rate for specific recyclables in ZW mixed recycling			166	77.1%

			across the Campus through education and signage.				
#7 Other Plastics	3,367	1,168	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			440	34.7%
Aluminum beverage - alcohol	647	241	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			81	37.3%
Aluminum Foil & Foil Trays	386	282	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			21	78.4%
Aluminum Food & Other Beverage Cans	4,194	3,104	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			218	79.2%
Aseptic Containers - (excluding alcoholic beverages)	1,272	578	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			139	56.3%
Batteries	140	0					0.0%
Boxboard / Cores	18,110	9,166	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			1,789	60.5%
Clear Glass Other Beverage and Food	0	0	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			0	#DIV/0!
Clothing/Textiles	5,535	4,365	Improving Capture Rates for Clothing/Textiles		585		78.9%
Coffee Grinds	6,446	6,446				0	100.0%
Coffee pods	0	0					
Confidential	19,845	19,845					100.0%

Paper - Paper Shred							
Corrugated Cardboard - Bulk	16,439	16,439					100.0%
Corrugated Cardboard - Loose	28,679	25,697	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			596	91.7%
Diapers	0	0					
Electronics	4,958	4,958					100.0%
Feminine Hygiene Products	4,178	315					7.6%
Food packaging	27,608	4,562					
Furniture & Bulky Items	3,772	3,772					
Gable Top Containers	3,369	2,647	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			144	82.9%
Glass - Clear Other Beverage and Food	10,927	9,192	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			347	87.3%
Glass - Clear Alcoholic Beverage	6,870	6,126	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			149	91.3%
Kraft Paper	7,428	2,892	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			907	51.1%
Laminated Paper Packaging	79	0					
Large HDPE & PP Pails & Lids	275	275	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and			0	100.0%

			signage.				
LDPE/HDPE Film - Products (non-packaging)	16,823	889					
Liquids - food/beverage	10,973	5,328	Promote the emptying of beverage containers prior to placement in ZW mixed recycling	2,258			48.6%
Maintenance Waste	413	0					0.0%
Metal - Bulk	29,952	29,894					99.8%
Mixed Fine Paper	18,732	10,763	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			1,594	66.0%
Molded Pulp/Fibre	10,529	7,016	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			703	73.3%
Napkins/Towel (food related)	16,244	7,884	Enhancing food waste coffee cups & trays and napkins capture rate throughout the Campus			1,672	58.8%
Newspaper – Dailys and Weeklys	462	353	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			22	81.2%
Office Waste	3,132	706					22.5%
Other Metal	0	0					
Other Non-Recyclable Material (Laundry)	0	0					
Other Paper (paper plates)	0	0					
Paper Straws	33	17					
Parchment Paper	2,281	3					0.1%
Polycoat Beverage Cups - compostable	2,557	1,724	Enhancing food waste coffee cups & trays and napkins capture rate throughout the Campus			167	73.9%
Polycoat	25,253	14,150	Enhancing food waste			2,221	56.0%

Beverage Cups - non-compostable			coffee cups & trays and napkins capture rate throughout the Campus				
Post Consumer Food Waste	200,756	117,297	Enhancing food waste coffee cups & trays and napkins capture rate throughout the Campus			16,692	66.7%
Rubber & Nitrile Gloves	6,875	135	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			1,348	21.6%
Spiral Wound Containers	195	195					100.0%
Steel Food & Other Beverage Cans	2,363	1,827	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			107	81.8%
Straws/Plastic Cutlery	3,235	1,882	Enhance capture rate for specific recyclables in ZW mixed recycling across the Campus through education and signage.			271	66.5%
Tissue/Towel ing (cleaning related)	0	0					
Tissue/Towel ing (washroom related)	5,560	1,703	Reducing/eliminating disposal of washroom paper toweling through reduction and/or capture in ZW organics program	1,928			65.3%
Wood	16,503	15,430					93.5%
Wood Dust	0	0					
All Mixed Recycling			Keep Recycling Clean Campaign to reduce contaminated loads of Recycling			7,360	
CAMPUS WIDE TOTALS	578,866	358,247		4,186	585	39,058	69.5%

* Estimated Waste Produced = Waste Diverted (3Rs) + Waste Disposed

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

*** Waste-to-landfill material that is being diverted as a contaminant in ZW organics and/or mixed recycling

I hereby certify that the information provided in this Waste Reduction Work Plan is complete and correct.

Signature of authorized official:



Title:

DIRECTOR-SUSTAINABILITY

Date:

DECEMBER 18, 2019