



MALDEN CENTRAL PUBLIC SCHOOL
2023 Solid Non-Hazardous Waste Audit Report

Prepared For:

GREATER ESSEX COUNTY DISTRICT SCHOOL BOARD
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Executive Summary

The Greater Essex County District School Board retained the services of Waste Reduction Group Inc. (“WRG”) to conduct solid non-hazardous waste audits (in compliance with the Environmental Protection Act., O. Reg. 102/94: Waste Audits and Waste Reduction Work Plans and O. Reg. 103/92: Industrial, Commercial and Institutional Source Separation Program) for ten representative schools in October 2023. The following report details the waste audit results at Malden Central Public School (5620 County Road 20, Amherstburg, ON N9V 2Y8).

The objective of the waste audit was to analyze samples from the Garbage, Blue Box and Red Box waste streams, collected from each functional area, that illustrate the point of origin of each stream. This report includes an in-depth analysis of the waste audit and estimated annual data to develop a greater understanding of student and staff waste disposal practices and to determine additional opportunities for waste reduction and diversion to further improve awareness and performance.

Twenty-four-hour samples of garbage, and blue box and red box recyclables were collected for the waste audit, which consisted of 26.40 kg of garbage, 5.60 kg of blue box recycling, and 9.83 kg of red box recycling. The collected samples were audited on October 24, 2023, and the waste materials were differentiated through various tags to indicate each functional area of the school that generated waste, which included classrooms, library, staffroom, copy room and washrooms. The following table summarizes the waste stream compositions determined from the audit:

Material	Garbage Stream	Blue Box Stream	Red Box Stream
Organics	38.67%	16.43%	0.81%
Blue Box	14.05%	68.39%	0.71%
Paper Towels	13.98%	0.71%	2.64%
Red Box	13.71%	5.36%	94.00%
LDPE (#4) Plastic Films	8.83%	4.11%	--
Non-Recyclable	7.95%	3.57%	1.83 %
Cold Beverage Wax-Lined Paper Cups	2.61%	1.43%	--
Textiles	0.19%	--	--
Contamination Rate	--	31.61 %	6.00%

In the garbage stream, 72.23% consisted of accepted materials, such as non-recyclable waste, LDPE #4 plastic films, textiles, cold beverage wax-lined paper cups, organic waste and paper towels. The remaining 27.77% contained divertible materials, such as blue box and red box materials. It was found that a large portion of the garbage stream comprised of organic materials (52.65%), such as food waste and paper towels. No composting program is currently implemented at the school.

The Blue Box waste stream was composed of primarily mixed containers (68.39%). The contamination rate was 31.61%, which included materials such as non-recyclable waste, organics, red box recyclables, cold beverage wax-lined cups, paper towels and LDPE #4 plastic films.

The Red Box waste stream was composed of primarily mixed papers (94.00%). The contamination rate was 6.00%, which included paper towels, organics, non-recyclable waste, and blue box recyclables.

Waste diversion programs have been implemented at the school for blue box (mixed containers) and red box (mixed papers) recycling. The school currently meets the minimum requirements for Educational Institutions as per O. Reg. 102/94. Through discussions with GECSB, Malden Central Public School, and waste management and recycling service providers, estimates of the annual amounts of solid non-hazardous waste materials disposed and diverted were determined. The following table summarizes the annual quantities of wastes recycled and disposed in 2023.

Annual Quantities Disposed & Diverted

Metric	Disposed to Landfill	Diverted from Landfill	Total
Total Annual Generation (kg)	5,121.60	2,993.42	8,115.02
Total Generated/Student/Year (kg)	19.77	11.56	31.33
Percentage	63.11%	36.89%	100.00%

Based on the total annual amount of waste generated and materials diverted, the 2023 waste diversion rate at Malden Central Public School was determined to be approximately 36.89%. The Ministry of the Environment, Conservation & Parks (MECP) provincial objective is 60% waste diversion. GECSB is committed to attaining a diversion rate above 60% and minimizing the number of materials disposed to landfill.

WRG recommends that Malden Central Public School increase efforts to provide awareness regarding materials accepted in each stream and implement new waste diversion programs, such as a compost program, to improve the waste diversion rate. This can be accomplished through educational means, such as engaging assemblies, active events, clear signage with pictures/graphics on bins, and the implementation of a student/staff environmental committee. Moreover, it is also recommended that the school increase participation and engagement by promoting a culture of waste diversion through achievable goals and creating community diversion days for specific waste streams. The recommendations outlined in this report can potentially help GECSB increase its waste diversion rates and decrease contamination within each stream.

A Waste Reduction Work Plan is provided in this report.

1 Introduction

The Greater Essex County District School Board (GECDSB) retained the services of Waste Reduction Group Inc. (WRG) to conduct a solid non-hazardous waste audit and prepare a Waste Reduction Work Plan (WRWP) for each of the ten representative schools in GECDSB. The ten schools are considered representative of the remaining 69 currently operational school and administrative facilities, which would be used as a basis report and WRWP for the remaining schools in the district. This waste audit report focuses on Malden Central Public School, located at 5620 County Road 20, Amherstburg, ON N9V 2Y8.

The waste audit examined samples of waste (Garbage, Blue Box, Red Box) from the entire school over a day (1) period on October 24, 2023. The goal of the waste audit was to gain an understanding of the quantities and composition of solid wastes generated at the facility.

GECDSB conducted a solid non-hazardous waste audit with the intent of complying with the requirements of O. Reg. 102/94 and to further improve upon their present waste reduction, reduce, and recycling programs.

1.1 Purpose and Objectives

The purpose of the waste audit was to comply with Ontario Regulation 102/94 – Waste Audits and Waste Reduction Work Plans Part X, and prepare and implement a waste reduction work plan. The audit shall ensure compliance with Section 14 of Ontario Regulation 103/94 ‘Industrial, Commercial and Institutional Source Separation Programs’, and Part X ‘Educational Institutions’ of the Schedule attached to the regulation.

The objectives are as follows:

- Determine the composition of the Garbage, Blue Box, and Red Box streams by point of origin;
- Quantify the estimated 2023 annual waste generation for all waste streams using the 2023 collection data provided by each school;
- Determine the waste diversion and capture rates;
- Identify additional opportunities for waste reduction and diversion; and
- Address any specific concerns identified during the study.

1.2 Site Description

There were ten representative schools included in the October 2023 waste audits (Table 1). Malden Central Public School is the representative school focused on this report, located at 5620 County Road 20, Amherstburg, ON N9V 2Y8. It has an enrollment of 259 students in 2023. Malden Central Public School has diversion programs for Blue Box and Red Box recycling. The functional areas identified during the audit were classrooms, library, staffroom, copy room and washrooms.

The school facility is considered to be applicable to O. Reg. 103/94 – Educational Institutions.

Table 1: List of schools involved in the 2023 October Waste Audit.

School Name	Type	Address	Audit Date
Anderdon Public School	Elementary	3170 Middle Side Road, Amherstburg, ON N9V 2Y9	October 16 th , 2023
Princess Elizabeth Public School	Elementary	5399 Raymond Avenue, Windsor, ON N8S 1Z6	October 17 th , 2023
Dr. David Suzuki Public School	Elementary	6320 Raymond Avenue, Windsor, ON N8S 1Z9	October 18 th , 2023
Forest Glade Public School	Elementary	9485 Esplanade Drive, Windsor, ON N8R 1J5	October 19 th , 2023
Forest Glade Primary Learning Centre	Elementary	9367 Esplanade Drive, Windsor, ON N8R 1J3	October 20 th , 2023
Amherstburg Public School	Elementary	252 Hamilton Drive, Amherstburg, ON N9V 1E1	October 23 rd , 2023
Malden Central Public School	Elementary	5620 County Road 20, Amherstburg, ON N9V 2Y8	October 24 th , 2023
North Star High School	Secondary	330 Simcoe Street, Amherstburg, ON N9V 0H2	October 25 th , 2023
Eastview Horizon Public School	Elementary	3070 Stillmeadow Road, Windsor, ON N8R 1N3	October 26 th , 2023
Riverside Secondary School	Secondary	8465 Jerome Street, Windsor, ON N8S 1W8	October 27 th , 2023

1.3 Scope of Work

To satisfy the purpose of the waste audit, the following activities were undertaken by WRG:

- Collected data pertaining to waste composition and collection practices on October 24, 2023.
- Determined the total quantity of waste materials diverted from landfill by Malden Central Public School through current reduction, reuse, and recycling programs.
- Completed a Waste Audit Report (per MECP protocol) that addressed the amount, nature and composition of the waste, the manner by which the waste was generated, including management decisions and policies that relate to the production of waste, and the way in which the waste is managed at the school; and
- Completed a Waste Reduction Work Plan (per MECP protocol) regarding plans to reduce, reuse and recycle waste on campus. The report set out who will implement each part of the plan, when each part will be implemented and what the expected results shall be (Appendix D).

2 Methodology

Discussions were held with Malden Central Public School to review existing waste management and recycling programs implemented at the facility. In coordination with the school's facilities staff, one (1) twenty-four hour sample was collected from each of the identified functional areas of the building, including classrooms, library, staffroom, copy room and washrooms. Bags of garbage, and blue box and red box recyclables were collected, tagged, and brought to a designated sorting area by the custodial staff. The weights of waste materials from each functional area and stream were recorded. Refer to Appendix A for a copy of the Scale Calibration Certificate.

Waste materials were unloaded, sorted into individual waste categories, weighed, and disposed of in appropriate waste bins by a dedicated waste audit team from Waste Reduction Group. The materials were established prior to the audit (Appendix B), based on O. Reg. 103/94 requirements for source separation educational institutions, including:

- Aluminum food or beverage cans (including cans made primarily of aluminum).
- Cardboard (corrugated).
- Fine paper.
- Glass bottles and jars for food or beverages.
- Newsprint; and
- Steel food or beverage cans (including cans made primarily of steel).

In addition to these standard categories, other important waste streams, such as other mixed containers (PET, HDPE, polypropylene, polystyrene, aseptic, gable top), other mixed papers (boxboard, craft paper, coffee cups), organic wastes, paper towels (includes all compostable fibres and other one-time use paper products), mixed plastics, Styrofoam, wax-lined paper disposable cups, electronic waste (e-waste), textiles and special waste (i.e., batteries, bulbs and ballasts) were included, depending on what the auditors found in the samples.

3 Current Waste Management and Diversion Systems

As part of the waste audit, WRG staff conducted a tour of each school to document existing waste disposal systems. Interviews with GECSB personnel were also conducted to gain an understanding of the existing waste diversion programs and practices.

All schools within the GECSB follow the prescribed Windsor-Essex Solid Waste Management Authority's Red and Blue Box programs. Presently, waste materials generated in schools are typically segregated into three categories: Garbage, Red Box, and Blue Box (mixed containers).

Red box materials consist of a range of paper materials, including fine paper, newsprint, boxboard, craft paper, coffee cups, brochures, paper packing materials, envelopes, magazines, and clean food wrap products. These materials are collected throughout the school in dedicated Red Bins, situated in various functional areas of the facility. They are further stored in 95-gallon totes on-site for collection.

Blue box materials consist of a range of recyclable materials, including plastic food and beverage containers (PET #1, HDPE #2, PP #5, PS #6), aluminum, steel and glass food and beverage containers, and gable tops and aseptic containers (juice boxes, tetra packs). These materials are collected throughout the school in dedicated Blue Bins, situated in various functional areas of the school. Afterward, they are further stored in 95-gallon totes on-site for collection.

Garbage materials, such as non-recyclable plastics, Styrofoam, textiles, organic waste, and paper towels, are stored in 95-gallon containers or a 6-yard dumpster, depending on the school, for collection.

The following waste diversion programs exist at Malden Central Public School:

- Garbage – collected in one (1) 6-yard waste bin, picked up once a week by the City of Windsor.
- Blue Box and Red Box Recycling – diverted from landfill through collection in four (4) 95-gallon recycling totes per week. All waste materials are serviced by the City of Windsor.

Waste diversion programs implemented at the school meet the minimum requirements of O. Reg. 103/94 for educational institutions.

Based on information provided by GECDSB, Malden Central Public School produced approximately 5,121.60 kg of garbage, and 2,993.42 kg of Blue Box and Red Box recycling, which totalled 8,115.02 kg of waste annually in 2023, as shown in Table 2. Table 2 provides annual estimation values for each waste stream at Malden Central Public School, which has a student enrollment of 259 students.

Table 2: Malden Central Public School Estimated Annual Generation

Metric	Disposed to Landfill	Diverted from Landfill	Total
Total Annual Generation (kg)	5,121.60	2,993.42	8,115.02
Total Generated/Student/Year (kg)	19.77	11.56	31.33
Percentage	63.11%	36.89%	100.00%

4 Waste Audit Results

4.1 Waste Quantities & Distribution

A key aspect of O. Reg. 102/94 is for waste generators to gain a good understanding of the areas of their operation that generate the most waste, how it is generated, as well as the waste composition. One can use this information to focus their recycling and waste reduction efforts efficiently and effectively.

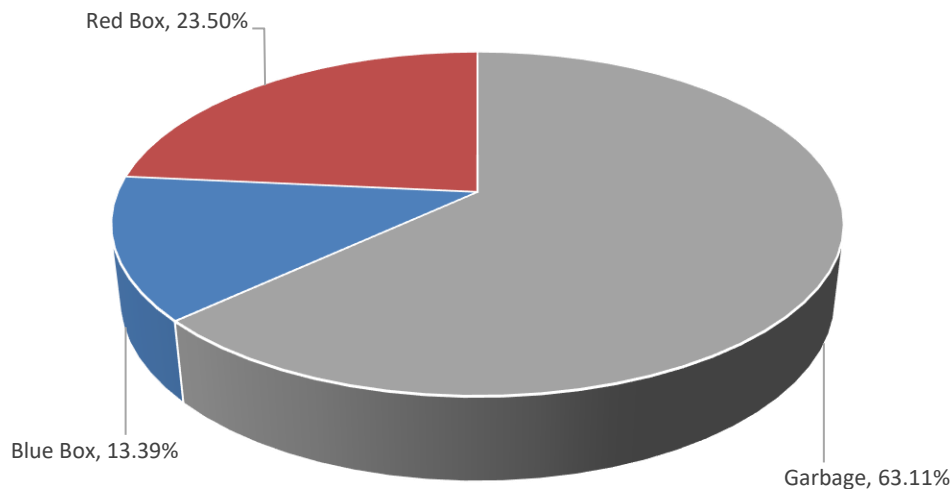


Figure 1: Distribution of the Garbage, Blue Box, and Red Box Waste Streams at Malden Central Public School

Figure 1 illustrates the waste stream at Malden Central Public School is dominated by the Garbage stream, representing 63.11% of waste generated (26.40 kg). The Red Box stream consists of 23.50% of waste materials (9.83 kg), while the Blue Box stream has the lowest amount of waste generated at 13.39% (5.60 kg). The total weight of all audit samples was determined to be 41.83 kg.

Table 3 and Figure 2 summarize the quantity and distribution of waste materials collected for the waste audit.

Table 3: Quantity & Distribution of Waste Audit Sample

Functional Area	Waste Stream	Waste Audit Sample	
		Sample Weight (kg)	Distribution (%)
Classrooms	Garbage	21.21	50.71%
	Blue Box	4.83	11.55%
	Red Box	8.89	21.25%
Library	Garbage	0.99	2.37%
	Red Box	0.44	1.05%
Staffroom	Garbage	3.45	8.25%
	Blue Box	0.77	1.84%
Copy Room	Red Box	0.50	1.20%
Washrooms	Garbage	0.75	1.79%
Total		26.82	41.83

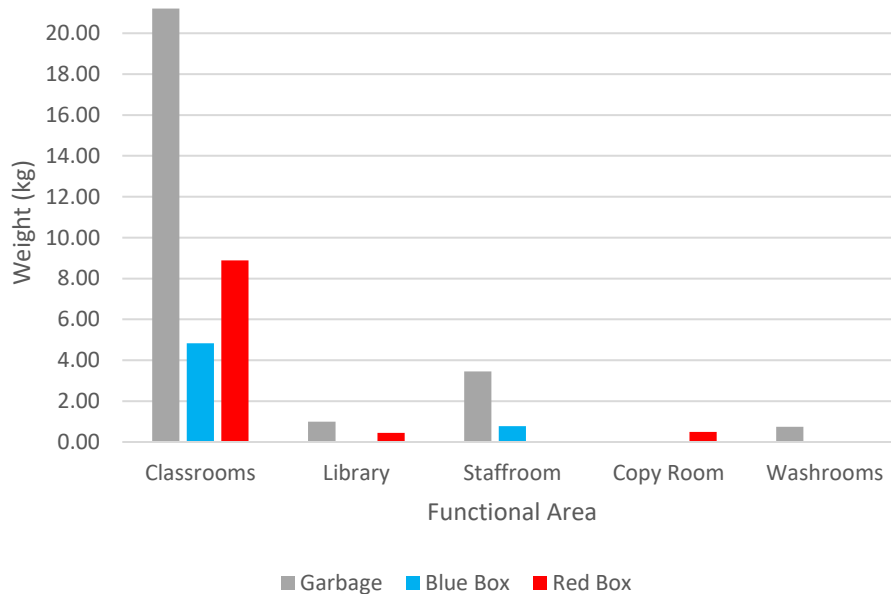


Figure 2: Malden Central Public School Waste Audit Waste Generation Distribution 2023

As noted above, a review of Malden Central Public School’s activities identified that following functional areas within school buildings:

- Classrooms
- Library
- Staffroom
- Washrooms
- Copy Room

It was discovered that classrooms were the most significant generator of waste in the facility, which accounted for approximately 83.50% of the overall waste sample. Classrooms were also the largest generator of Garbage, Blue Box and Red Box materials in the school, with approximately 50.71%, 11.55% and 21.25%, respectively, of the total audit waste sample.

4.2 Garbage Composition

The total weight of garbage collected and sorted for the audit was 26.40 kg. Figure 3 summarizes the overall combined garbage composition determined from the waste audit.

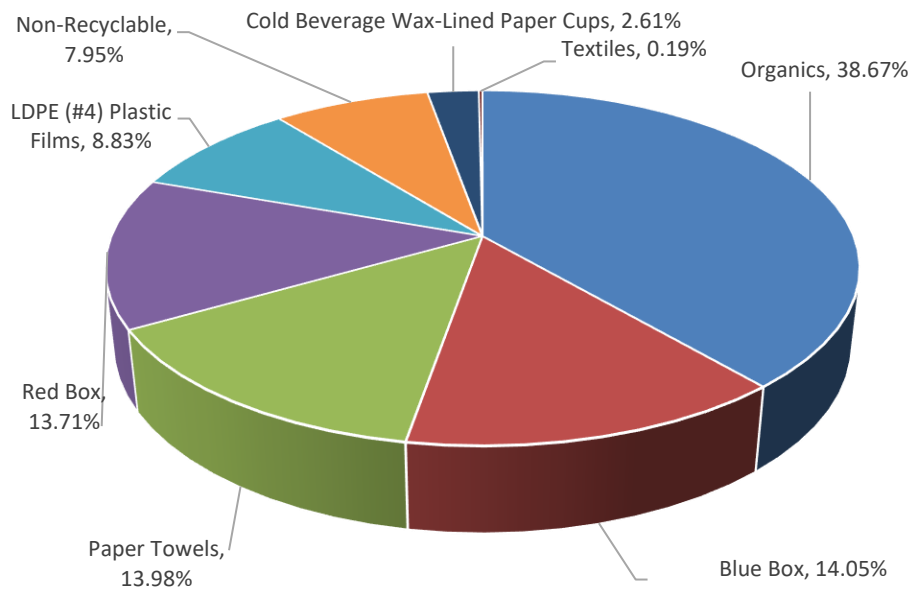


Figure 3: Overall Garbage Composition

Organics was the largest contributor to the Garbage stream, with approximately 38.67%, or 1,980.74 kg being disposed to landfill annually. This was followed by Blue Box recyclables and paper towels with 14.05% or 719.74 kg, and 13.98% or 715.86 kg, respectively.

Other material categories were found in small quantities, including Red Box (13.71%), LDPE #4 plastic films (8.83%), non-recyclables (7.95%), cold beverage wax-lined paper cups (2.61%), and textiles (0.19%). Refer to Appendix C for details of waste material items for each category and functional area.

A breakdown of the composition of the Garbage stream by functional area is displayed in Figure 4.

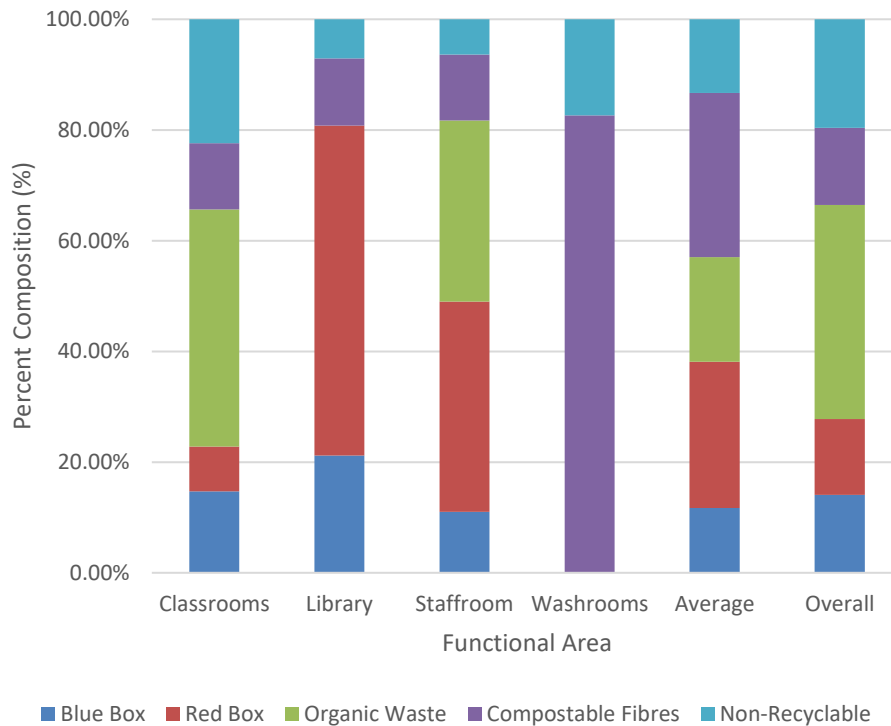


Figure 4: Percentage of the Garbage Stream by Functional Area

Organic waste was found to be significantly prevalent in various functional areas, including classrooms and staff rooms, which comprised an average of 18.89% in the waste stream per functional area. Notably, classrooms exhibited the highest concentration of organic waste at 42.81%. Moreover, compostable fibres was most dominant in washrooms, which constituted 82.67% of the total washroom sample and averaged approximately 29.66% in the waste stream per functional area. Collectively, these two organic material categories accounted for 52.65% of the total garbage stream, which made them viable candidates for an organics diversion program. It is noteworthy that Malden Central Public School currently lacks diversion initiatives for organic waste, such as a compost program. Therefore, it is recommended that the school considers the feasibility of implementing a compost program or a paper towel reduction initiative (e.g., transitioning to more air-dryers) on-site. The focus should be directed towards areas with the highest organic waste generation, namely classrooms and washrooms, to enhance the capture and diversion of organic materials from landfill.

Mixed containers eligible for diversion into the Blue Box stream constituted 14.05% of the overall garbage stream. Notably, it exhibited the highest concentration in the library at 21.21% of the total library sample, and averaged 11.73% in the garbage stream per functional area. Similarly, mixed papers suitable for diversion into the Red Box stream represented 13.71% of the overall garbage stream, with an average of 26.42% in the garbage stream per functional area. It was also found the highest in the library at 59.60% of the total library sample. Collectively, divertible materials accounted for 27.77% of the garbage stream. To enhance the capture rate of these materials and divert them from landfills, it is recommended to implement better collection systems, improve labeling, promote the program, and provide education to students and staff on proper waste disposal practices.

The non-recyclable materials within the garbage stream, excluding organic waste and paper towels, accounted for 19.58%. On average, each functional area contained 13.29% of non-recyclable waste in the garbage stream. This category encompasses LDPE #4 plastic films, cold beverage wax-lined paper cups, textiles and various other non-recyclable items such as rigid packaging and chip bags.

4.2.1 Percentage of Recyclable Materials in the Garbage Stream

O. Reg. 103/94 requires that educational institutions source separate the following materials (at a minimum):

- Aluminum food or beverage cans (including cans made primarily of aluminum).
- Cardboard (corrugated).
- Fine paper.
- Glass bottles and jars for food or beverages.
- Newsprint; and
- Steel food or beverage cans (including cans made primarily of steel).

Figure 5 summarizes the quantity of these ‘mandatory recyclable’ materials found in the waste audit garbage samples compared to ‘other recyclable’ materials (i.e., PET #1, boxboard, etc.) and ‘non-recyclable’ materials.

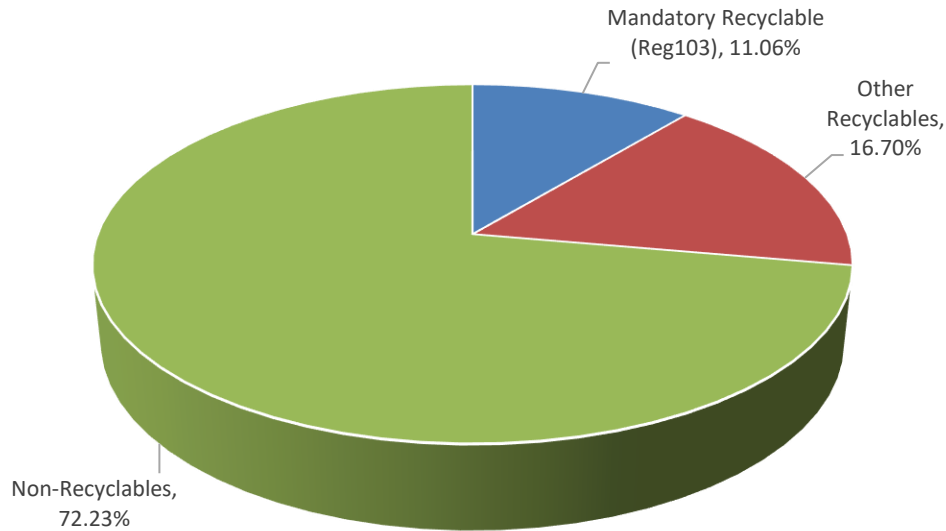


Figure 5: Percentage of Recyclables in the Garbage Stream

The data suggests that Malden Central Public School has an overall ‘mandatory’ recyclable content of 11.06% in the combined garbage of the facility. The main ‘mandatory’ recyclable materials were fine paper and aluminum food and beverage cans. ‘Other recyclables’ represented 16.70% of the sample and consisted mainly of boxboard, PP #5 and aseptic containers. ‘Non-recyclable’ waste represented approximately 72.23% of the overall garbage sample.

4.3 Blue Box Recycling

The total weight of blue box recycling collected and sorted for the audit was 5.60 kg. Figure 6 summarizes the overall combined blue box recycling composition determined from the waste audit.

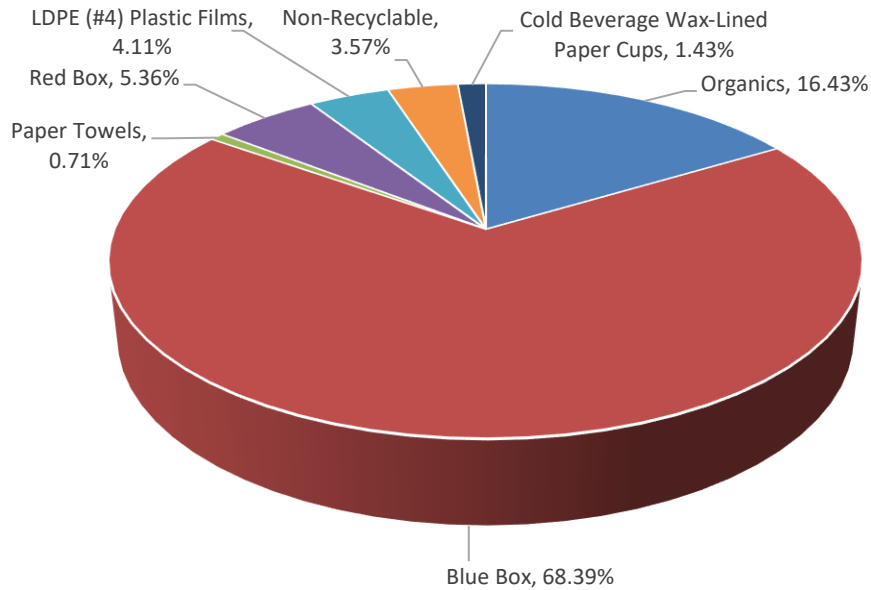


Figure 6: Overall Blue Box Recycling Composition

Detailed summary tables, including composition, weights, and percentages, are provided in Appendix C. The Blue Box recycling sample exhibited the following breakdown: 68.39% blue box materials, 16.43% organics, 5.36% red box materials, 4.11% LDPE #4 plastic films, 3.57% non-recyclable waste, 1.43% cold beverage wax-lined paper cups, and 0.71% paper towels. The contamination rate for this waste stream was determined to be 31.61%, with contaminants identified to be non-recyclable waste, organics, red box recyclables, LDPE #4 plastic films, cold beverage wax-lined paper cups and paper towels.

The Blue Box composition by functional area is illustrated in Figure 7. Based on the composition per functional area, the largest contamination can be found in the classrooms with approximately 6.21% red box recyclables, 19.05% organic waste, 0.83% compostable fibres, and 10.14% non-recyclables in the total classroom sample of blue box recycling. Each functional area had an average of 80.59% of blue box materials.

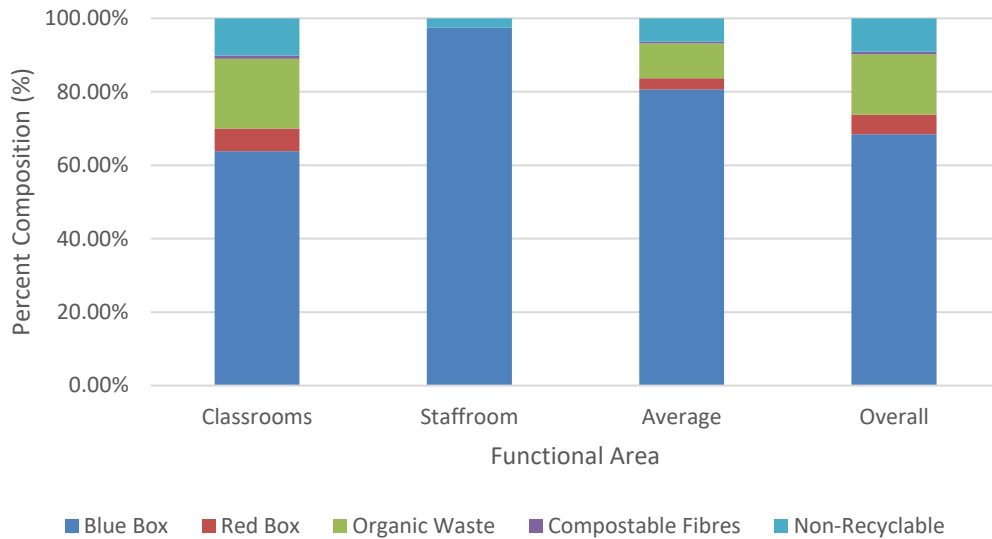


Figure 7: Percentage of the Blue Box Stream by Functional Area

4.4 Red Box Recycling

The total weight of red box recycling collected and sorted for the audit was 9.83 kg. Figure 8 summarizes the overall combined red box recycling composition determined from the waste audit.

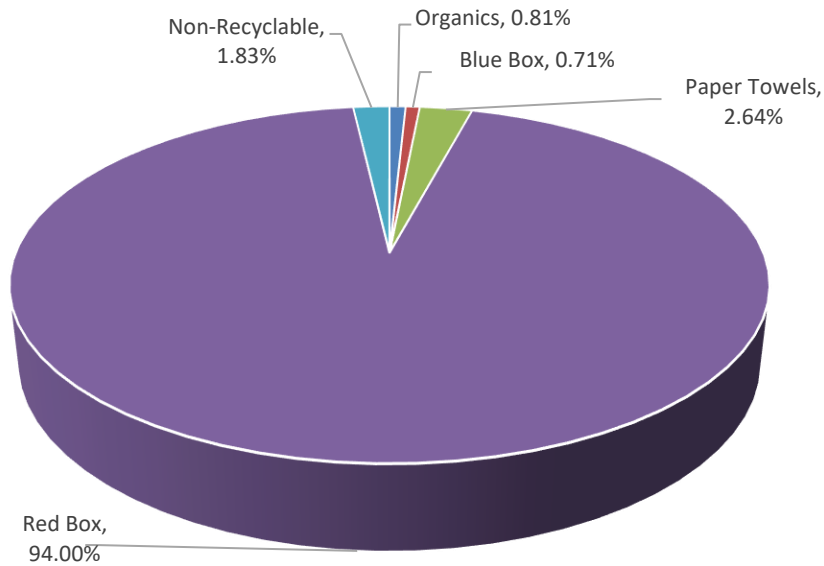


Figure 8: Overall Red Box Recycling Composition

Detailed summary tables, encompassing composition, weights, and percentages, are provided in Appendix C. The Red Box recycling sample displayed the following distribution: 94.00% red box materials, 2.64% paper towels, 1.83% non-recyclable waste, 0.81% organic waste and 0.71% blue box materials. The contamination rate for this waste stream was determined to be 6.00%, with contaminants identified to be paper towels, blue box recyclables, organics, and non-recyclable waste.

The Red Box composition by functional area is graphically represented in Figure 9. Examining the composition per functional area, the highest contamination levels were identified in classrooms, comprising approximately 0.79% of blue box materials, 0.90% of organic waste, 2.92% of compostable fibres, and 2.02% of non-recyclable waste in the total classroom sample of red box recycling. Across all functional areas, there was an average of 97.79% red box materials and a contamination rate of 2.21% in the red box stream.

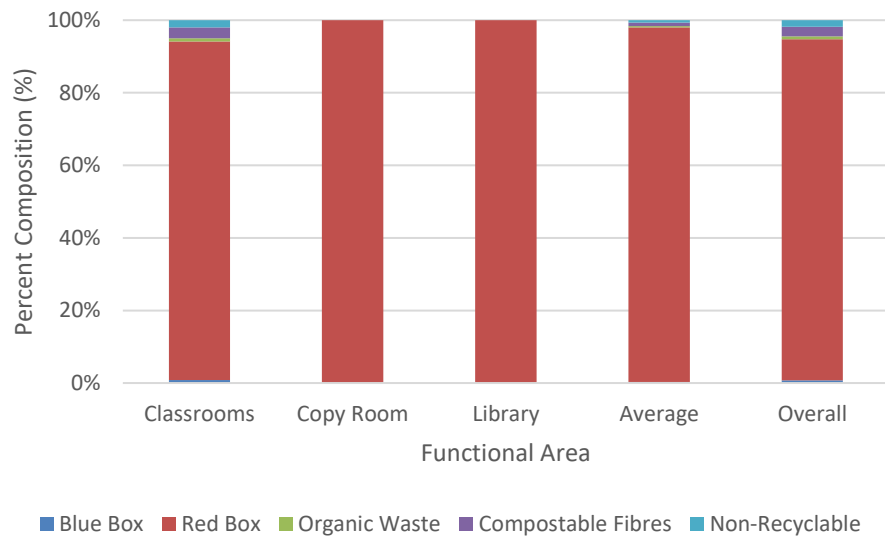


Figure 9: Percentage of the Red Box Stream by Functional Area

5 Performance Metrics

5.1 Waste Diversion Rate

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

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

Based on the total annual amount of waste generated and materials diverted, the 2023 waste diversion rate at Malden Central Public School was determined to be approximately 36.89%. Table 4 and Figure 10 summarize the quantities of waste reduced, reused, recycled, and disposed. Malden Central Public School’s 2023 waste diversion rate is falling short of the MECP provincial objective of 60% waste diversion.

In addition, if the divertible materials in garbage (2,039.33 kg) were disposed into the appropriate waste streams, the potential waste diversion rate would increase to 62.02%. However, if the contaminants in the blue box and red box streams (343.38 kg and 114.46 kg, respectively) were properly disposed of into garbage, the potential waste diversion rate would further decrease to 31.25% based on the increased garbage volume.

Table 4: Annual Quantities of Materials Diverted and Disposed

Material	Total Waste	
	Kilograms	Percent
Disposed to Landfill	5,121.60	63.11%
Materials Diverted	2,993.42	36.89%
Total Waste Generated	8,115.02	100.00%
ACHIEVED WASTE DIVERSION RATE		36.89%
<i>Additional Divertible Material in Wastes Disposed to Landfill (kg)</i>		2,039.33
POTENTIAL WASTE DIVERSION RATE		62.02%

Note: Annual values taken from the estimation of average weights.

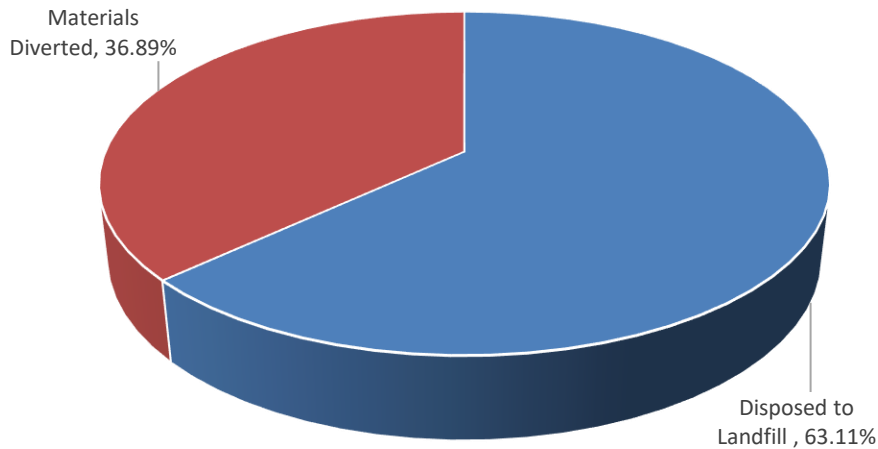


Figure 10: 2023 Waste Audit Summary

5.2 Capture Rate

Capture rate is the proportion of divertible waste materials which are successfully diverted from disposal compared to the total amount of the divertible waste materials generated. According to the Recycling Council of Ontario, capture rate is calculated as follows:

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

Thus, capture rate assists in determining the effectiveness of the recycling programs. Table 5 summarizes the capture rate for the divertible materials at Malden Central Public School.

Table 5: Capture Rate Summary

Divertible Material	Annual Material Generated (kg)	Annual Diverted Material Captured (kg)	Capture Rate (%)
Blue Box	1,819.72	1,086.40	59.70%
Red Box	2,667.50	1,907.02	71.49%
Overall Facility	4,487.22	2,993.42	66.71%

The capture rates at Malden Central Public School for all of the materials ranged from approximately 59.70% to 71.49%, which indicated that most of the divertible generated were placed into the appropriate recycling streams; and that the current systems in place were effective. The overall capture rate of all recyclables at Malden Central is considered to be fairly high at approximately 66.71%.

5.3 Year-over-Year Change in Waste Generation

The Waste diversion rate and capture rate may not consistently reflect the effectiveness of a site's 3R programs due to the ongoing variability of factors impacting waste and recyclable material generation, such as fluctuations in student enrollment. Changes in the number of students per year directly influence the quantities of waste and recyclables, complicating direct year-to-year data comparisons.

It is recommended that GECDSB implement a 'Year over Year' tracking system to monitor changes in the amount of waste disposed and/or materials recycled per standard unit. This approach facilitates direct year-to-year data comparison, providing the school board with a clearer understanding of the effectiveness of their waste diversion programs. The most relevant standard unit for GECDSB is the number of students enrolled, with each school level being the optimal focus. This methodology enables GECDSB to anticipate future requirements, initiate appropriate planning procedures, and gain valuable insights into the actual effectiveness of their diversion programs at a more granular level.

5.3.1 Year-over-Year Change in Diverted Quantities

The 'Year-over-Year Change in Diverted Quantities' is the indicator of the number of materials diverted from disposal through reduce, reuse, and/or recycle activities per student compared to previous data. Table 6 summarizes the results for the 2023/2024 school year. A positive year-over-year change indicates waste diversion programs are improving over time. Currently, the waste diverted per student at Malden Central Public School is 11.56 kg per year.

Table 6: Year-over-Year Change in Waste Diversion

Waste Diversion Metric	Value	Unit
Curriculum Year	2023/2024	Year
Total Materials Diverted	2,993.42	Kilogram (kg)
Enrollment	259	Students
Annual Diverted Quantity per Student	11.56	Kilogram (kg)
Year-over-Year Change in Diverted Quantity	To be determined	Kilogram (kg)

5.3.2 Year-over-Year Change in Garbage Disposed

The 'Year-over-Year Change in Garbage Disposed' is the indicator of the amount of reduction in waste materials disposed to landfill due to waste diversion activities at the facility. A reduction in the year-over-year value will indicate that the 3Rs programs are continually reducing waste disposed to landfills. Currently, the waste disposed to landfill per student at Malden Central Public School is 19.77 kg per year.

Table 6: Year-over-Year Change in Garbage Disposed

Waste Diversion Metric	Value	Unit
Curriculum Year	2023/2024	Year
Total Materials Disposed to Landfill	5,121.60	Kilogram (kg)
Enrollment	259	Students
Annual Disposed Quantity per Student	19.77	Kilogram (kg)
Year-over-Year Change in Disposed Quantity	To be determined	Kilogram (kg)

6 Waste Audit Summary and Waste Reduction Work Plan

Refer to Appendix C for the Waste Audit Summary and Waste Reduction Work Plan. The last page of each set of forms in the appendix needs to be signed by an authorized representative at the facility.

According to O. Reg. 102/94, the Waste Reduction Work Plan (Appendix C), or a summary of the plan must be posted at the facility in a place where staff can review it. The waste audit report and entire Work Plan will be located in the school environmental manual, located in the office.

7 Conclusions

Based on the results of the solid non-hazardous waste audit conducted for Malden Central Public School, the following conclusions can be made:

- For the curriculum year 2023/2024, Malden Central Public School is projected to have an estimated annual landfill disposal rate of 5,121.60 kg. Existing reduce, reuse, and recycling activities successfully diverted approximately 2,993.42 kg of waste materials, which yielded a current diversion rate of 36.89%. It is worth noting that the provincial waste diversion objective is set at 60%. Furthermore, if the divertible materials currently present in the garbage (2,039.33 kg) were appropriately redirected to the designated waste streams, the potential waste diversion rate would significantly increase to 62.02%. This adjustment reflects the considerable impact of effectively managing divertible materials within the school's waste management framework.
- Malden Central Public School maintains diversion programs for Red Box (i.e., cardboard and mixed papers) and Blue Box (i.e., mixed containers) recycling. These programs meet the minimum requirements of O. Reg. 103/94 for educational institutions.
- The capture rates for all divertible materials were ranked good at 59.70% to 71.49%. The overall capture rate of all recyclables at Malden Central Public School was 66.71%.
- Classrooms were the most significant generators of waste at the school, which accounted for approximately 83.50% of the overall waste sample.

- A substantial portion of the Garbage stream, specifically 72.23%, comprised of acceptable materials. This includes paper towels at 13.98%, non-recyclable waste at 19.58%, and organics at 38.67%. Additionally, divertible materials, such as blue box and red box recyclables, account for 14.05% and 13.71%, respectively.
- The overall ‘mandatory’ recyclable content in the Garbage stream was 11.06% of the combined waste of the facility, which consisted mainly of fine paper and aluminum food and beverage cans. ‘Other recyclables’ represented 16.70%, and ‘non-recyclables’ consisted of 72.23% of the overall Garbage sample.
- The Blue Box recycling was composed primarily of accepted mixed containers materials, which represented 68.39% of the whole stream. The contamination rate was determined to be 31.61%, where the remaining sample contained 16.43% organic waste, 5.36% red box recyclables, 4.11% LDPE #4 plastic films, 3.57% non-recyclable waste, 1.43% cold beverage paper cups, and 0.71% paper towels.
- The Red Box recycling was composed primarily of accepted mixed paper materials, which represented 94.00% of the whole stream. The contamination rate was determined to be 6.00%, where the remaining sample contained 2.64% paper towels, 1.83% non-recyclable waste, 0.81% organic waste, and 0.71% blue box recyclables.

8 Recommendations

Based on the conclusions, the following recommendations are presented below to assist Malden Central Public School in maximizing their waste diversion potential:

- Organic waste and paper towels constitute 38.67% and 13.98%, respectively, of the garbage stream and are prevalent in most functional areas of Malden Central Public School. Presently, the school lacks an organics diversion program. Visual observations during the waste audit revealed that a significant portion of the disposed organic waste comprised avoidable food products that were still edible. To minimize the disposal of edible food in landfills, the following recommendations are proposed:
 - Educational Initiatives: Implement educational programs to enlighten students and staff about the consequences of food waste in their communities. Emphasize their socioeconomic and environmental responsibilities in mitigating this issue through presentations, assemblies, and potentially incorporating an outdoor learning element in the curriculum.
 - Optimization of School Menu: Develop a high-quality and appealing school breakfast/lunch menu to encourage students to consume their entire servings, reducing the likelihood of disposal. Consider factors such as serving size and food presentation, particularly catering to the preferences of younger, potentially picky, students.
 - Compost Program Implementation: Introduce a compost program for a school or community

garden, offering a valuable outdoor learning experience for students. If on-site composting is unfeasible, designate clearly labeled waste bins throughout the school for the collection of organic waste. These bins can be earmarked for food donations or compost and strategically placed in hallways, classrooms, and common areas. Additionally, include specific waste bins labeled "paper towels only" in washrooms to enhance capture rates from landfills.

- Clear signage featuring images is instrumental in aiding staff and students to identify opportunities for proper disposal at the source. These signs should undergo regular updates and be consistently displayed on all garbage and recycling bins to facilitate easy and accurate waste sorting. The implementation of such signage proves highly effective in boosting participation, minimizing contamination, and enhancing the capture rate. For reference, a copy of the City of Windsor's recycling guide is available in Appendix A.
- The school requires updated receptacles that distinctly segregate various waste streams. These receptacles should be appropriately sized based on usage and color-coordinated to designate the type of waste (e.g., black for garbage, blue for mixed containers, and red for mixed papers). It is advisable to strategically position each type of waste bin in proximity to one another throughout the school while eliminating solitary garbage bins. This approach aims to enhance the capture rates of divertible materials.
- Establishing a committee, such as a student environmental club, is recommended to oversee waste reduction and promote sustainability within the school. This committee can play a pivotal role in cultivating a culture of waste diversion through various initiatives. Examples of recommended activities include:
 - Regular Electronic Newsletters: Periodic distribution of electronic newsletters to promote the school's waste reduction programs, goals, and concerns.
 - Informative Posters: Placement of informative posters in strategic locations throughout the school to raise awareness and encourage participation in waste diversion efforts.
 - Suggestion Box: Implementation of a suggestion box to gather concerns and suggestions regarding the development or modification of diversion programs. This provides an avenue for constructive feedback from the school community.
 - Promotion of Reusable or Recyclable Materials: Encouragement of the use of reusable or recyclable materials, such as reusable water bottles and scrap paper collection, to align with sustainable practices.

These activities collectively contribute to fostering a proactive and engaged approach to waste reduction and sustainability within the school community.

- It is important for GECDSB and Malden Central Public School staff to track year-over-year changes in

waste diversion and capture rates, and communicate progress to the staff and students to encourage further participation/engagement. A copy of the school's environmental policy should be posted in all common areas throughout the school. Continuously monitoring and reporting the year-over-year changes for this school annually would act as a basis for policy decisions regarding solid waste management for future projects. Further refinements to programs/processes can be made and adherence to provincial requirements can be achieved.

- According to O. Reg. 102/94, the Waste Reduction Work Plan or a summary of the plan must be posted at the facility in a place where it can be viewed. If a summary of the work plan is posted, the full work plan must be made available for review upon request by any of the school's staff or students. The waste audit report and waste reduction work plan must be retained on file for a minimum of five (5) years.

Appendices

Appendix A: Supporting Documentation

Environmental Protection Act Loi sur la protection de l'environnement

ONTARIO REGULATION 102/94 WASTE AUDITS AND WASTE REDUCTION WORK PLANS

Consolidation Period: From March 3, 1994 to the [e-Laws currency date](#).

No amendments.

This Regulation is made in English only.

PART I GENERAL

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

(3) This section does not apply with respect to obligations of a builder under Part IV or a demolisher under Part V. O. Reg. 102/94, s. 6.

7. (1) A new owner or operator to whom this Regulation applies is not required to conduct a new waste audit or prepare a new waste reduction work plan if an audit or work plan was conducted or prepared by a previous owner or operator and the new owner or operator updates the audit and work plan as required under this Regulation.

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

8. (1) A person who has an obligation to conduct a waste audit and prepare a report under Part II, III, VI, VII, VIII, IX, X or XI in respect of more than one retail shopping establishment, retail shopping complex, building, restaurant, hotel or motel, hospital, location or campus of an educational institution, or site of a manufacturing establishment, may conduct a single audit and prepare a single report for two or more of them if it is reasonable to expect that separate audits would have similar findings.

(2) Subsection (1) applies with necessary modifications with respect to updates of waste audits and reports. O. Reg. 102/94, s. 8.

PART X EDUCATIONAL INSTITUTIONS

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

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

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

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

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

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

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

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

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

(a) that the plan or a summary be posted in places where most employees will see it; and

(b) if a summary is posted, that any employee who requests to look at the plan be allowed to do so. O. Reg. 102/94, s. 55.

Environmental Protection Act Loi sur la protection de l'environnement

ONTARIO REGULATION 103/94

INDUSTRIAL, COMMERCIAL AND INSTITUTIONAL SOURCE SEPARATION PROGRAMS

Consolidation Period: From October 31, 2011 to the [e-Laws currency date](#).

Last amendment: [230/11](#).

Legislative History: [230/11](#).

This Regulation is made in English only.

SOURCE SEPARATION PROGRAMS

1. In this Regulation,

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

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

2. (1) A source separation program required under this Regulation must include,

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

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

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

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

3. Source separation programs required by this Regulation are exempt from sections 27, 40 and 41 of the Act. O. Reg. 103/94, s. 3.

4. (1) A source separation program that is not required by this Regulation is exempt from sections 27, 40 and 41 of the Act if,

- (a) the program is restricted to waste generated at a single site;
- (b) the program only accepts waste that has been source separated from other kinds of waste and that consists solely of waste from one or more of the categories of waste set out in Schedule 1, 2 or 3 of Ontario Regulation 101/94;

(c) the program includes everything set out in subsection 2 (1).

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

EDUCATIONAL INSTITUTIONS

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

(2) The operator shall implement a source separation program for the waste generated by the operation of the institution at the location or campus or shall ensure that such a program is implemented.

(3) This section continues to apply in respect of a location or campus for the two calendar years following the last year in which more than 350 persons were enrolled at the location or campus.

(4) This section applies only in respect of a location or campus located within a local municipality that has a population of at least 5,000.

(5) This section takes effect with respect to a location or campus in Northern Ontario on July 1, 1996. O. Reg. 103/94, s. 14.

TRANSITION

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

SCHEDULE WASTES TO BE PROVIDED FOR IN SOURCE SEPARATION PROGRAMS

PART X EDUCATIONAL INSTITUTIONS

(referred to in section 14)

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



CALIBRATION CERTIFICATE

DATE: Aug 17 2023

SR # 51702

CUSTOMER:

Waste Reduction Group
214 Merton St. Unit 101
Toronto ON

REMARKS

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

Western model EWA-150

Capacity - 150 kg

S/N - 202304031

CANADIAN SCALE COMPANY LIMITED is accredited with Measurement Canada

Technician's signature



CANADIAN SCALE COMPANY LIMITED

305 Horner Avenue, Toronto, ON M8W 1Z4

1-800-461-0634

www.canscale.com

EW SWA Recycling Guide



WHAT TO RECYCLE

HOW TO PREPARE (20 kg / 44 lb weight limit per box)

Weight Limit (per box): 20 kg / 44 lb

NEW! CLAMSHELLS, TRAYS AND CUPS	Clear plastic containers, trays, clamshells, cups, plastic (fruit) baskets, etc.	Rinse and place LOOSE in the Blue Box. Flatten or crush to make more room in the recycle box.	
POLYCOAT BEVERAGE CARTONS & TETRA PAKS discard plastic lids	Milk cartons, juice cartons, creamer cartons, juice boxes, broth cartons, soup cartons, etc.	Rinse and place LOOSE in the Blue Box. Flatten or crush to make more room in the recycle box.	
ALUMINUM FOIL	Aluminum foil (loose sheets), aluminum trays, and aluminum pie plates - ONLY .	Plates & trays flatten. Foil, roll into a ball. Place loose in Blue Box.	
TUBS & LIDS	Margarine tubs, sour cream, yogurt, ice cream, spreads, and dips, etc.	Empty, rinse and place LOOSE in the Blue Box. Remove lid, and recycle lid as well.	
FOOD & BEVERAGE CANS	Pop & juice cans, vegetable cans, fruit cans, etc. All aluminum and steel cans are accepted, including frozen juice cans.	Rinse and place LOOSE in the Blue Box.	
PLASTIC BOTTLES & JUGS discard plastic lids	Pop, water, sport drink bottles, lotion, shampoo, fabric softener & squeeze bottles.	Rinse, and place LOOSE in your Blue Box - discard plastic lids.	
EMPTY PAINT & AEROSOL CANS discard plastic lids (NO propane tanks)	Empty alkyd & latex paint cans - no plastic cans. Empty Aerosol spray cans: deodorizers, cooking spray, shaving cream, etc.	All cans MUST be empty. Paint Trick: Let product dry out first or use it up prior to recycling. Paint cans with rubber bottoms are not accepted.	
GLASS BOTTLES & JARS recycle metal lids	Clear and coloured glass bottles and jars - ONLY . (i.e. condiment bottles & jars, dressings, sauces, etc.)	Place LOOSE in Box. No ceramics, window glass, broken glass, etc. Don't fill Blue Box with glass - it's too heavy for collectors.	

CONTAINERS ONLY IN YOUR BLUE BOX! - No paper, no other products.

NOT IN YOUR RECYCLE BOX!



NEVER - Propane Tanks



NO - Pots & Pans



NO - Electronics



NO -Styrofoam™



NO - Plastic Bags



WHAT TO RECYCLE

HOW TO PREPARE (20 kg / 44 lb weight limit per box)

Weight Limit (per box): 20 kg / 44 lb

NEWSPAPER	Newspapers, junkmail, inserts and flyers.	Place LOOSE in your Red Box. Please remove any plastic inserts / wrap.	
MAGAZINES, CATALOGUES, & TELEPHONE BOOKS	Magazines, catalogues, telephone books, paperback books, & hardcover books.	Remove cover from hardcover books and discard. Place all materials LOOSE in your Red Box.	
MIXED PAPER & JUNKMAIL	Cereal, pasta, cookie, laundry detergent, tissue and shoe boxes. Pet food bags, sugar & flour bags, brown paper bags, toilet / paper towel tubes. Office paper, envelopes, paper egg trays, gift cards, gift wrap, etc.	Flatten boxes and place in a paper bag or one of the boxboard boxes. Remove any plastic inserts / wrap.	
CARDBOARD	Cardboard boxes, shipping or moving boxes, clean pizza boxes, etc.	Stack smaller boxes inside larger boxes. Large appliance boxes break down (no larger) than 30" x 30".	

PAPER ONLY IN YOUR RED BOX! - No containers, no other products.



CONTACT US FOR MORE INFORMATION:
 General Inquiries: 1-800-563-3377 • TTY: 1-877-624-4832
 Email: ask@ewswa.org • Web: www.wecanrecyclemore.org



GREATER ESSEX COUNTY DISTRICT SCHOOL BOARD
 School Year Calendar 2023-2024: Elementary

Month	1 st Week				2 nd Week				3 rd Week				4 th Week				5 th Week									
	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	
September 2023					1	4	6	8	7	8	11	12	13	14	15	18	19	20	21	22	P	25	26	27	28	29
October 2023	2	3	4	5	6	9	10	11	12	13	16	17	18	19	20	23	24	25	26	27	P	30	31			
November 2023			1	2	3	6	7	8	9	10	13	14	15	16	17	P	20	21	22	23	24	27	28	29	30	
December 2023					1	4	6	8	7	8	11	12	13	14	15	18	19	20	21	22	25	26	27	28	29	
January 2024	1	2	3	4	5	8	9	10	11	12	15	16	17	18	19	22	23	24	25	26	28	29	30	31		
February 2024					1	2	6	8	7	8	11	12	13	14	15	18	19	20	21	22	23	26	27	28	29	
March 2024					1	4	6	8	7	8	11	12	13	14	15	18	19	20	21	22	25	26	27	28	29	
April 2024	1	2	3	4	6	8	9	10	11	12	15	16	17	18	19	22	23	24	25	26	28	29	30			
May 2024			1	2	3	6	7	8	9	10	13	14	15	16	17	20	21	22	23	24	27	28	29	30	31	
June 2024	3	4	5	6	7	10	11	12	13	14	17	18	19	20	21	24	25	26	27	28	29					

★ First Day of School H: Statutory Holiday P: Professional Activity Day
 B: Board Designated Holiday

May 31, 2023

Appendix B: List of Categories

Material Category	Material Subcategory	Description
Mixed Containers (Blue Box)	#1 Polyethylene Terephthalate (PET)	All PET #1 plastics. Includes clear or coloured thermoform packaging, beverage bottles, non-beverage bottles used for food items and non-food items such as dish soap, shampoo, mouthwash, window cleaner, floor cleaner, etc. Does not include Black Plastics.
	#2 High-Density Polyethylene (HDPE)	All HDPE #2 plastics. Includes natural and coloured bottles, jugs, and containers for beverages, food items, and non-food items such as laundry soap, shampoo, bleach, vinegar, pill bottles, etc. Does not include Black Plastics.
	#5 Polypropylene (PP)	All #5 PP plastics. Includes clear and coloured food containers, jugs, and jars, take-out beverage cups, bottles, and jars for food items, etc. Does not include Black Plastics.
	#6 Non-Expanded Polystyrene (PS)	All Non-Expanded (rigid) #6 PS plastics. Includes clear or coloured rigid food trays, clamshells, cup lids, yogurt cups, CD and DVD cases only (no disk), etc. Does not include Black Plastics.
	Glass	All clear and coloured glass. Includes bottles and containers for food, beverage, cosmetics, toiletries, household pharmaceutical products, candle jars etc. Does not include non-recyclable glass such as windowpane glass, plates, drinking glasses, figures, incandescent light bulbs.
	Aluminum	All aluminum containers and foils. Includes food and beverage containers, rigid aluminum trays (pie plates, baking trays, etc.), empty aerosol containers, and containers for hair products, tubes, etc. Does not include full or partially full pressurized cans.
	Steel	All steel containers.

		Includes food and beverage containers, empty spray cans (for cooking oil, whipped cream, etc.), empty paint cans. Does not include full or partially full pressurized cans.
	Gable Top Containers	Polycoat containers with a gable shaped top used for milk, juice, some foods, etc.
	Aseptic Containers	Tetra-pak type polycoat packaging containers used for juice, milk, some soups & broths, alternative milk beverages, alcoholic beverages, etc.
Mixed Papers (Red Box)	Fine Paper	Includes mixed fine papers, writing paper, office paper, copy paper, bills and statements, ad mail, lottery tickets, receipts, envelopes, promotional cards, promotional calendars, printed information found within packaged products, etc. Also includes soft cover books, booklets, magazines, catalogs, calendars, flyers, and inserts.
	Newspaper	Major daily and weekly newspapers and community newspapers. Does not include flyers and inserts.
	Boxboard	Single layered paperboard and fiberboard with no corrugation. Includes cereal boxes, shoe boxes, cores from toilet paper/paper towels/gift wrap, etc.
	Craft Paper	Craft paper bags and wrap, grocery or retail bags, potato bags, some pet food bags, etc. Includes brown, white, and colored craft paper and bags. No bags with bonded plastic or foil lining.
	Cardboard	Waxed or unwaxed corrugated cardboard containers. Includes molded pulp materials such as egg cartons, drink trays, other trays, etc.
	Coffee Cups	All cups and containers used for hot beverages. Multiple layered, primarily fibre, hot beverage containers common in fast food industry.
	Organics	Compostable Fibres
Organic Food Waste		All edible and non-edible organic wastes that results from food items. Includes untouched and leftover bakery, meat & fish, dried food, fruits & vegetables, dairy, and other foods.
Operational Waste	Scrap Wood	Non-treated wood materials.

		Includes skids/pallets, wooden furniture, etc. Does not include branches, brush, or wood chips.
	Other Metals	Scrap metals, copper pipes, hardware, etc. Includes multi-material items that are mainly metal.
	Electronic Waste	All Waste from Electrical and Electronic Equipment (WEEE). Anything that is battery operated and/or can be plugged in to an electrical outlet. Includes computer / IT equipment, telecom equipment, TV & audio equipment, small kitchen appliances, wires/chargers/adapters, cocks, gadgets, etc.
	Batteries	All single-use and rechargeable batteries. Includes Alkaline-Manganese, Lithium, Silver Oxide, Zinc Air, Zinc-Carbon, etc.
Non-Recyclable Waste	Cold Beverage and Food Wax-Lined Paper Cups	All cups and containers used for cold beverages and food with a plastic or wax lining. Multiple layered, primarily fiber, cold food, and beverage containers, common in the fast food industry. Includes paper-based cups with a plastic lining, water cooler cups, freezer boxes, etc.
	#4 Low-Density Polyethylene (LDPE) Films	All #4 LDPE plastic films. Includes soft "stretchy" PE plastic used for items such as produce bags, overwrap for water bottles, garbage bags, kitchen liners, blue or clear recycling bags, sandwich and freezer bags, etc. Does not include Black Plastics.
	Expanded Polystyrene	Includes white, coloured, and black polystyrene foam packaging. Includes food trays, clamshells, etc. Also includes foam packaging "peanuts" and foam blocks used to protect boxed products.
	Plastic Strapping	All Plastic Strapping material. This material is used to bundle products together for retail sales and can come in a variety of colours and plastic materials.
	PPE	Single or multi-use face masks used as PPE. Includes

		<p>ear loop masks, procedure/surgical masks, medical masks, reusable cloth masks, N95 masks, disposable respirators, etc.</p> <p>Disposable PPE used for protecting hands. Includes latex, nitrile, rubber, plastic, vinyl, surgical-type gloves, etc.</p>
	Textiles	<p>Clothing & cloth-based items – e.g., drapes, bedsheets, towels, outerwear, footwear, stuffed toys, purses, belts, bags, hat, scarves, mittens, etc.</p>
	Non-recyclable/Garbage	<p>All other non-recyclable waste materials not classified elsewhere.</p> <p>Includes hazardous waste, black plastics, all described below.</p> <p>Includes chip bags, furnace filters, laminated papers, rigid or durable plastics, non-recyclable glass, dust, single-use cleaning wipes, single-use coffee pods, plastic straws and cutlery, materials too small to process, etc.</p>

Appendix C: Waste Audit Data

Table C1: Waste Audit Sample Summary

Sample #	Waste Stream	Waste Audit Date	Sample	
			kg	%
1	Garbage	24-Oct-23	26.40	63.11%
2	Blue Box	24-Oct-23	5.60	13.39%
3	Red Box	24-Oct-23	9.83	23.50%
Total			41.83	100.00%

Table C2: Garbage Sample Summary - By Functional Area

Waste Stream		Garbage									
Sample Date		24-Oct-23									
Waste Generating Areas		Classrooms		Library		Staffroom		Washrooms		Overall	
Total Weight of Sample		21.21		0.99		3.45		0.75		26.40	
Total Percent of Sample		80.34%		3.75%		13.07%		2.84%		100.00%	
Composition of Garbage:		kg	%	kg	%	kg	%	kg	%	kg	%
Blue Box	PET #1	0.10	0.47%	0.02	2.02%	0.10	2.90%	0.00	0.00%	0.22	0.83%
	HDPE Plastic Containers #2	0.32	1.51%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.32	1.21%
	PP #5	0.58	2.73%	0.10	10.10%	0.18	5.22%	0.00	0.00%	0.86	3.26%
	Polystyrene #6	0.68	3.21%	0.00	0.00%	0.02	0.58%	0.00	0.00%	0.70	2.65%
	Glass	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Aluminum	0.62	2.92%	0.09	9.09%	0.08	2.32%	0.00	0.00%	0.79	2.99%
	Steel Cans	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Gable Top Containers	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Aseptic Containers	0.82	3.87%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.82	3.11%
Red Box	Fine Paper	0.60	2.83%	0.37	37.37%	1.12	32.46%	0.00	0.00%	2.09	7.92%
	Newspaper	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Boxboard	1.03	4.86%	0.12	12.12%	0.00	0.00%	0.00	0.00%	1.15	4.36%
	Craft Paper	0.05	0.24%	0.06	6.06%	0.12	3.48%	0.00	0.00%	0.23	0.87%
	Cardboard	0.04	0.19%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.04	0.15%
	Coffee Cups	0.00	0.00%	0.04	4.04%	0.07	2.03%	0.00	0.00%	0.11	0.42%
Other Recyclables	Paper Towels	2.54	11.98%	0.12	12.12%	0.41	11.88%	0.62	82.67%	3.69	13.98%
	Organics	9.08	42.81%	0.00	0.00%	1.13	32.75%	0.00	0.00%	10.21	38.67%
	Scrap Wood	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Scrap Metal	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Electronic Waste	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Batteries	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Other	Cold Beverage Wax-Lined Paper Cups	0.68	3.21%	0.00	0.00%	0.01	0.29%	0.00	0.00%	0.69	2.61%
	LDPE (#4) Plastic Films	2.02	9.52%	0.07	7.07%	0.21	6.09%	0.03	4.00%	2.33	8.83%
	Styrofoam	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Plastic Strapping	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	PPE	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Textiles	0.05	0.24%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.05	0.19%
	Non-Recyclable	2.00	9.43%	0.00	0.00%	0.00	0.00%	0.10	13.33%	2.10	7.95%
y-Specific Waste	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	
QAQC Check		21.21	100.00%	0.99	100.00%	3.45	100.00%	0.75	100.00%	26.40	100.00%
Blue Box		3.12	14.71%	0.21	21.21%	0.38	11.01%	0.00	0.00%	3.71	14.05%
Red Box		1.72	8.11%	0.59	59.60%	1.31	37.97%	0.00	0.00%	3.62	13.71%
Mandatory Recyclable (Reg103)		1.26	5.94%	0.46	46.46%	1.20	34.78%	0.00	0.00%	2.92	11.06%
Other Recyclables		3.58	16.88%	0.34	34.34%	0.49	14.20%	0.00	0.00%	4.41	16.70%
Non-Recyclables		16.37	77.18%	0.19	19.19%	1.76	51.01%	0.75	100.00%	19.07	72.23%
QAQC Check		True	100.00%	True	100.00%	True	100.00%	True	100.00%	True	100.00%

Table C3: Blue Box Sample Summary - By Functional Area

Waste Stream		Blue Box					
Sample Date		24-Oct-23					
Waste Generating Areas		Classrooms		Staffroom		Overall	
Total Weight of Sample		4.83		0.77		5.60	
Total Percent of Sample		100.00%		100.00%		100.00%	
Composition of Garbage:		kg	%	kg	%	kg	%
Blue Box	PET #1	0.32	6.63%	0.23	29.87%	0.55	9.82%
	HDPE Plastic Containers #2	1.22	25.26%	0.10	12.99%	1.32	23.57%
	PP #5	0.20	4.14%	0.11	14.29%	0.31	5.54%
	Polystyrene #6	0.04	0.83%	0.00	0.00%	0.04	0.71%
	Glass	0.26	5.38%	0.00	0.00%	0.26	4.64%
	Aluminum	0.12	2.48%	0.20	25.97%	0.32	5.71%
	Steel Cans	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Gable Top Containers	0.00	0.00%	0.00	0.00%	0.00	0.00%
Red Box	Aseptic Containers	0.92	19.05%	0.11	14.29%	1.03	18.39%
	Fine Paper	0.22	4.55%	0.00	0.00%	0.22	3.93%
	Newspaper	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Boxboard	0.08	1.66%	0.00	0.00%	0.08	1.43%
	Craft Paper	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Cardboard	0.00	0.00%	0.00	0.00%	0.00	0.00%
Other Recyclables	Coffee Cups	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Paper Towels	0.04	0.83%	0.00	0.00%	0.04	0.71%
	Organics	0.92	19.05%	0.00	0.00%	0.92	16.43%
	Scrap Wood	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Scrap Metal	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Electronic Waste	0.00	0.00%	0.00	0.00%	0.00	0.00%
Other	Batteries	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Cold Beverage Wax-Lined Paper Cups	0.08	1.66%	0.00	0.00%	0.08	1.43%
	LDPE (#4) Plastic Films	0.21	4.35%	0.02	2.60%	0.23	4.11%
	Styrofoam	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Plastic Strapping	0.00	0.00%	0.00	0.00%	0.00	0.00%
	PPE	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Textiles	0.00	0.00%	0.00	0.00%	0.00	0.00%
Non-Recyclable	0.20	4.14%	0.00	0.00%	0.20	3.57%	
Facility-Specific Waste		0.00	0.00%	0.00	0.00%	0.00	0.00%
QAQC Check		4.83	100.00%	0.77	100.00%	5.60	100.00%
Blue Box		3.08	63.77%	0.75	97.40%	3.83	68.39%
Red Box		0.30	6.21%	0.00	0.00%	0.30	5.36%

Table C4: Red Box Sample Summary - By Functional Area

Waste Stream		Red Box							
Sample Date		24-Oct-23							
Waste Generating Areas		Classrooms		Copy Room		Library		Overall	
Total Weight of Sample		8.89		0.50		0.44		9.83	
Total Percent of Sample		90.44%		5.09%		4.48%		100.00%	
Composition of Garbage:		kg	%	kg	%	kg	%	kg	%
Blue Box	PET #1	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	HDPE Plastic Containers #2	0.06	0.67%	0.00	0.00%	0.00	0.00%	0.06	0.61%
	PP #5	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Polystyrene #6	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Glass	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Aluminum	0.01	0.11%	0.00	0.00%	0.00	0.00%	0.01	0.10%
	Steel Cans	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Gable Top Containers	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Aseptic Containers	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Red Box	Fine Paper	5.90	66.37%	0.30	60.00%	0.34	77.27%	6.54	66.53%
	Newspaper	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Boxboard	0.92	10.35%	0.00	0.00%	0.00	0.00%	0.92	9.36%
	Craft Paper	0.06	0.67%	0.20	40.00%	0.10	22.73%	0.36	3.66%
	Cardboard	1.34	15.07%	0.00	0.00%	0.00	0.00%	1.34	13.63%
	Coffee Cups	0.08	0.90%	0.00	0.00%	0.00	0.00%	0.08	0.81%
Other Recyclables	Paper Towels	0.26	2.92%	0.00	0.00%	0.00	0.00%	0.26	2.64%
	Organics	0.08	0.90%	0.00	0.00%	0.00	0.00%	0.08	0.81%
	Scrap Wood	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Scrap Metal	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Electronic Waste	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Other	Batteries	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Cold Beverage Wax-Lined Paper Cups	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	LDPE (#4) Plastic Films	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Styrofoam	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Plastic Strapping	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	PPE	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
	Textiles	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
Non-Recyclable	0.18	2.02%	0.00	0.00%	0.00	0.00%	0.18	1.83%	
Facility-Specific Waste		0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%
QAQC Check		8.89	100.00%	0.50	100.00%	0.44	100.00%	9.83	100.00%
Blue Box		0.07	0.79%	0.00	0.00%	0.00	0.00%	0.07	0.71%
Red Box		8.30	93.36%	0.50	100.00%	0.44	100.00%	9.24	94.00%

Table C5: Overall Garbage Composition Ranked

Waste Composition	%	Annual		Divert?	Est.
		5121.60	KG	Y/N	Amount
Organics	38.67%	1980.74	KG	Yes	1188.44
Blue Box	14.05%	719.74	KG	Yes	
Paper Towels	13.98%	715.86	KG	Yes	429.52
Red Box	13.71%	702.28	KG	Yes	421.37
LDPE (#4) Plastic Films	8.83%	452.02	KG	No	
Non-Recyclable	7.95%	407.40	KG	No	
Cold Beverage Wax-Lined Paper Cups	2.61%	133.86	KG	No	
Textiles	0.19%	9.70	KG	No	
QAQC Check	100.00%	5121.60	KG		2039.33

Note: Assumed 60% capture rate of materials in garbage stream.

Table C6: Percentage of Garbage Composition per Functional Area

Functional Area	Classrooms	Library	Staffroom	Washrooms	Average	Overall
Blue Box	14.71%	21.21%	11.01%	0.00%	11.73%	14.05%
Red Box	8.11%	59.60%	37.97%	0.00%	26.42%	13.71%
Organic Waste	42.81%	0.00%	32.75%	0.00%	18.89%	38.67%
Compostable Fibres	11.98%	12.12%	11.88%	82.67%	29.66%	13.98%
Non-Recyclable	22.40%	7.07%	6.38%	17.33%	13.29%	19.58%
QAQC Check	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Table C7: Overall Blue Box Composition Ranked

Waste Composition	%	Annual		Contam.?	Est.
		1086.40	KG	Y/N	Amount
Blue Box	68.39%	743.02	KG	No	
Organics	16.43%	178.48	KG	Yes	178.48
Red Box	5.36%	58.20	KG	Yes	58.20
LDPE (#4) Plastic Films	4.11%	44.62	KG	Yes	44.62
Non-Recyclable	3.57%	38.80	KG	Yes	38.80
Cold Beverage Wax-Lined Paper Cups	1.43%	15.52	KG	Yes	15.52
Paper Towels	0.71%	7.76	KG	Yes	7.76
QAQC Check	100.00%	1086.40	KG		343.38
<i>Contamination Rate</i>					31.61%

Table C8: Percentage of Blue Box Composition per Functional Area

Functional Area	Classrooms	Staffroom	Average	Overall
Blue Box	63.77%	97.40%	80.59%	68.39%
Red Box	6.21%	0.00%	3.11%	5.36%
Organic Waste	19.05%	0.00%	9.52%	16.43%
Compostable Fibres	0.83%	0.00%	0.41%	0.71%
Non-Recyclable	10.14%	2.60%	6.37%	9.11%
QAQC Check	100.00%	100.00%	100.00%	100.00%

Table C9: Overall Red Box Composition Ranked

Waste Composition	%	Annual		Contam.?	Est.
		1907.02	KG	Y/N	Amount
Red Box	94.00%	1792.56	KG	No	
Paper Towels	2.64%	50.44	KG	Yes	50.44
Non-Recyclable	1.83%	34.92	KG	Yes	34.92
Organics	0.81%	15.52	KG	Yes	15.52
Blue Box	0.71%	13.58	KG	Yes	13.58
QAQC Check	100.00%	1907.02	KG		114.46
<i>Contamination Rate</i>					6.00%

Table C10: Percentage of Red Box Composition per Functional Area

Functional Area	Classrooms	Copy Room	Library	Average	Overall
Blue Box	0.79%	0.00%	0.00%	0.26%	0.71%
Red Box	93.36%	100.00%	100.00%	97.79%	94.00%
Organic Waste	0.90%	0.00%	0.00%	0.30%	0.81%
Compostable Fibres	2.92%	0.00%	0.00%	0.97%	2.64%
Non-Recyclable	2.02%	0.00%	0.00%	0.67%	1.83%
QAQC Check	100.00%	100.00%	100.00%	100.00%	100.00%



Annual Data Request Form

Client Name: Malden Central Public School

WRG Project No:

Date: 2023 – 2024

Waste Management and Recycling Service Summary

If a bin is used for multiple waste streams (i.e. Garbage and PPE Gloves), please indicate these as separate on different rows so there is one row per waste stream.

Container Size	Waste Stream/Material	Service Provider	Contact Name	Contact Number	Equipment (Compactor/Shredder / Baler)	Pick-Up Frequency	Estimated Annual Quantity (MT)	Annual Quantity (Number of Items)	Average "Fullness" at Time of Pick-up (Check the cell with an "x" as applicable)					Notes			
									Empty	1/4 Full	1/2 Full	3/4 Full	Full				
Examples:																	
40-yard bin	Garbage	ABC	John Smith	(416) 823-4554		once every two weeks	191										
8-yard bin	Organics	ABC	John Smith	(416) 823-4554	Compactor	twice per week	70										
40-yard bin	PPE Gloves	ABC	John Smith	(416) 823-4554		once every two weeks											Consolidated with garbage stream
20L pail	light bulbs	XYZ	Bob	647-123-4567		once a month		40									
8-yard bin	Mixed Recycling	ABC	John Smith	(416) 823-4554		twice per week	95										
6-yard bin	Garbage		Jim Leather	NA	NA	Weekly	5.82	0.5									~50 kg/yd
95 GAL	Recycling		Jim Leather	NA	NA	Weekly	6.03	4									~82.6 kg/yd
																	38.8 weeks in calendar year
																	194 days in calendar year
																	259 students

Appendix D: Waste Reduction Work Plan

Ministry of the Environment Waste

Form Report of a Waste Audit

Industrial, Commercial and Institutional Establishments

As required by O. Reg. 102/94

- This report must be prepared 6 months after becoming subject to O. Reg. 102/94 and 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

Name of Owner and/or Operator of Entity(ies) and Company Name: Malden Central Public School - Greater Essex County District School Board			
Name of Contact Person: Rachel Bondy		Telephone #: (519) 966-0034 x10560	Email address: rachel.bondy@publicboard.ca
Street Address(es) of Entity(ies): 5620 County Road 20, Amherstburg, ON N9V 2Y8			
Municipality: Amherstburg, Ontario			
Type of Entity (check one)			
Retail Shopping Establishments	<input type="checkbox"/>	Hotels and Motels	<input type="checkbox"/>
Retail Shopping Complexes	<input type="checkbox"/>	Hospitals	<input type="checkbox"/>
Office Buildings	<input type="checkbox"/>	Educational Institutions	<input checked="" type="checkbox"/>
Restaurants	<input type="checkbox"/>	Large Manufacturing Establishments	<input type="checkbox"/>

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

II. DESCRIPTION OF ENTITY

Provide a brief overview of the entity(ties):
<p>Malden Central Public School is an educational institution accommodating approximately 259 students. A waste audit was conducted in association with the Greater Essex County District School Board. The objective of the waste audit was to analyze samples from the Garbage, Blue Box, and Red Box waste streams, collected from each functional area, that illustrate the point of origin of each stream</p> <p>This report has been meticulously prepared to support Malden Central Public School in emphasizing resource recovery through 3Rs diversion programs.</p>

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

For each category of waste that is produced at the entity(ies), explain how the waste will be produced and how management decisions and policies will affect the production of waste.

Categories of Waste	How Is the Waste Produced and What Management Decisions/Policies Affect Its Production?
PET (#1) plastic food and beverage bottles	Brought onto campus or generated on campus by staff/students.
HDPE (#2) plastic jugs, crates, totes and drums	Brought onto campus or generated on campus by staff/students..
PP (#5) plastic food containers	Brought onto campus or generated on campus by staff/students.
PS (#6) plastic food containers	Brought onto campus or generated on campus by staff/students.
Glass food and beverage bottles/jars	Brought onto campus or generated on campus by staff/students.
Aluminum food and beverage cans	Brought onto campus or generated on campus by staff/students.
Steel food and beverage cans	Brought onto campus or generated on campus by staff/students.
Gable Top Containers	Brought onto campus or generated on campus by staff/students.
Aseptic Containers	Brought onto campus or generated on campus by staff/students.
Coffee Cups	Brought onto campus or generated on campus by staff/students.
Fine paper	Brought onto campus or generated on campus by staff/students.
Newsprint	Brought onto campus or generated on campus by staff/students.
Boxboard shoe boxes, cereal boxes, etc.	Brought onto campus or generated on campus by staff/students.
Craft Paper	Brought onto campus or generated on campus by staff/students.
Cardboard	Brought onto campus or generated on campus by staff/students.
Paper towels	Generated by staff/students on campus.
Organics	Brought onto campus or generated on campus by staff/students.
LDPE (#4) Plastic Film	Brought onto campus or generated on campus by staff/students.
Expanded Polystyrene (Styrofoam)	Brought onto campus or generated on campus by staff/students.
Plastic Strapping	Generated by staff/students on campus.
Scrap Woods	Generated by staff/students on campus.
Scrap Metals	Generated by staff/students on campus.
Electronic Wastes	Generated by staff/students on campus.
Batteries	Generated by staff/students on campus.
PPE	Brought onto campus or generated on campus by staff/students.
Cold Beverage Cups (Wax-Lined)	Brought onto campus or generated on campus by staff/students.
Coffee cups	Brought onto campus or generated on campus by staff/students.
Textiles	Brought onto campus or generated on campus by staff/students.
Other/Non-recyclable	Generated by staff/students on 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

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
PET (#1) plastic food and beverage bottles	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
HDPE (#2) plastic jugs, crates, totes and drums	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
PP (#5) plastic food containers	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
PS (#6) plastic food containers	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Glass food and beverage bottles/jars	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Aluminum food and beverage cans	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Steel food and beverage cans	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Gable top containers	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Aseptic containers	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Coffee cups	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Fine paper	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Newsprint	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Boxboard shoe boxes, cereal boxes, etc.	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Craft Paper	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Cardboard	<i>Staff/Students may place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Paper towels	<i>Staff/Students may place in garbage</i>	<i>No recycling program currently implemented.</i>
Organics	<i>Staff/Students may place in garbage</i>	<i>No recycling program currently implemented.</i>
LDPE (#4) Plastic Film	<i>Staff/Students place in garbage</i>	<i>No recycling program implemented.</i>
Expanded Polystyrene (Styrofoam)	<i>Staff/Students place in garbage</i>	<i>No recycling program implemented.</i>
Plastic Strapping	<i>Staff/Students place in garbage</i>	<i>No recycling program implemented.</i>
Scrap Woods	<i>Staff/Students place in garbage</i>	<i>No recycling program currently implemented.</i>
Scrap Metals	<i>Staff/Students may place in garbage</i>	<i>No recycling program currently implemented.</i>
Electronic Wastes	<i>Staff/Students may place in garbage</i>	<i>No recycling program currently implemented.</i>
Batteries	<i>Staff/Students place in garbage</i>	<i>Place tape over battery contacts. Collect in sealed plastic bags and pack in a heavy duty containers. Label as "SPENT BATTERIES", send to the Kit Centre via board courier. To be recycled by Computers for Kids. Do NOT pack leaking batteries.</i>
PPE	<i>Staff/Students place in garbage</i>	<i>No recycling program implemented.</i>
Cold Beverage Cups (Wax-Lined)	<i>Staff/Students place in garbage</i>	<i>Staff/Students may place in recycling containers.</i>
Textiles	<i>Staff/Students place in garbage</i>	<i>No recycling program implemented.</i>
Other/Non-recyclable	<i>Staff/Students may place in garbage</i>	<i>Not applicable.</i>

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

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V. ESTIMATED QUANTITY OF WASTE PRODUCED

Categories of Waste	Estimated Amount of Waste											
	Generated			Reduced/Reused			Recycled			Disposed		
	"A" Base Year	"B" Current Year	"C" * Change (A - B)	"A" Base Year	"B" Current Year	"C" * Change (A - B)	"A" Base Year	"B" Current Year	"C" * Change (A - B)	"A" Base Year	"B" Current Year	"C" * Change (A - B)
	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms	Kilograms
PET (#1) plastic food and beverage bottles	0.00	198.69	0.00	0.00	0.00	0.00	0.00	156.01	0.00	0.00	42.68	0.00
HDPE (#2) Containers	0.00	436.51	0.00	0.00	0.00	0.00	0.00	374.43	0.00	0.00	62.08	0.00
Polypropylene (#5) Containers	0.00	254.77	0.00	0.00	0.00	0.00	0.00	87.93	0.00	0.00	166.84	0.00
Polystyrene (#6) Containers	0.00	147.15	0.00	0.00	0.00	0.00	0.00	11.35	0.00	0.00	135.80	0.00
Glass food and beverage bottles/jars	0.00	73.75	0.00	0.00	0.00	0.00	0.00	73.75	0.00	0.00	0.00	0.00
Aluminum food and beverage cans	0.00	244.03	0.00	0.00	0.00	0.00	0.00	90.77	0.00	0.00	153.26	0.00
Steel food and beverage cans	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gable Top/Milk Containers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aseptic Containers	0.00	451.25	0.00	0.00	0.00	0.00	0.00	292.17	0.00	0.00	159.08	0.00
Fine paper	0.00	1755.23	0.00	0.00	0.00	0.00	0.00	1349.77	0.00	0.00	405.46	0.00
Newsprint	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Boxboard shoe boxes, cereal boxes, etc.	0.00	412.98	0.00	0.00	0.00	0.00	0.00	189.88	0.00	0.00	223.10	0.00
Craft Paper	0.00	118.92	0.00	0.00	0.00	0.00	0.00	74.30	0.00	0.00	44.62	0.00
Corrugated Cardboard	0.00	284.32	0.00	0.00	0.00	0.00	0.00	276.56	0.00	0.00	7.76	0.00
Coffee Cups	0.00	37.85	0.00	0.00	0.00	0.00	0.00	16.51	0.00	0.00	21.34	0.00
Paper Towels	0.00	715.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	715.86	0.00
Organics	0.00	1980.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1980.74	0.00
Cold Beverage Wax-Lined Cups	0.00	133.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	133.86	0.00
LDPE (#4) Plastic Films	0.00	452.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	452.02	0.00
Styrofoam (#6) Plastic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PPE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Textiles	0.00	9.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.70	0.00
Non-recyclable	0.00	407.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	407.40	0.00
Total	0.00	8115.02	0.00	0.00	0.00	0.00	0.00	2993.42	0.00	0.00	5121.60	0.00
Percent Change (C ÷ A x 100)			N/A						N/A			N/A

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.

* 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.

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

Please answer the following questions:

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

No, however, when feasible, the Facility will purchase and/or use materials or products that consist of recycled and/or reused materials or products.

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.

No.

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

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

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

Signature of authorized official:	Title:	Date:
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Ministry of the Environment Waste
Form Report of a Waste Reduction Work
Plan

Industrial, Commercial and Institutional Establishments

As required by O. Reg. 102/94

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

I. GENERAL INFORMATION

Name of Owner and/or Operator of Entity(ies) and Company Name: Malden Central Public School – Greater Essex County District School Board			
Name of Contact Person: Rachel Bondy	Telephone #: (519) 966-0034 x10560	Email address: rachel.bondy@publicboard.ca	
Street Address(es) of Entity(ies): 5620 County Road 20, Amherstburg, ON N9V 2Y8			
Municipality: Amherstburg, Ontario			
Type of Entity (check one)			
Retail Shopping Establishments		Hotels and Motels	
Retail Shopping Complexes		Hospitals	
Office Buildings		Educational Institutions	X
Restaurants		Large Manufacturing Establishments	

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

II. DESCRIPTION OF THE ENTITY

<p>Provide a brief overview of the entity(ties):</p> <p>Malden Central Public School is an educational institution accommodating approximately 259 students. A waste audit was conducted in association with the Greater Essex County District School Board. The objective of the waste audit was to analyze samples from the Garbage, Blue Box, and Red Box waste streams, collected from each functional area, that illustrate the point of origin of each stream</p> <p>This report has been meticulously prepared to support Malden Central Public School in emphasizing resource recovery through 3Rs diversion programs.</p>

III. PLANS TO REDUCE, REUSE AND RECYCLE WASTE

For each category of waste described in Part V of “Report of a Waste Audit” (on which this plan is based), explain what your plans are to Reduce, Reuse and Recycle the waste, including: 1) how the waste will be source separated at the establishment, and 2) the programs to reduce, reuse and recycle all source separated waste.

Waste Category (As stated in Part V of your “Report of a Waste Audit”)	Source Separation and 3Rs Program
Mixed Containers (PET, HDPE, PP, PS, Glass, Aluminum, Steel, Gable Top, Aseptic, Coffee Cups)	<p><u>“Mixed Container/Plastics 3Rs Program”</u> <i>Reduce:</i> Staff and students will be encouraged to bring drinks and food in reusable containers. Also, a ban on bottled water is underway. <i>Reuse:</i> Staff and students will be encouraged to bring drinks in reusable containers <i>Recycle:</i> Staff and students will be encouraged to recycle all mixed containers and will be reminded that the material is recyclable regularly during announcements. Staff and students will place containers into blue recycling bins which will continue to be located in key areas throughout the school. New/appropriate labels with text and pictures will be placed on or above all receptacles</p>
Mixed Papers (Fine Paper, Newsprint, Boxboard, Craft Paper, etc.)	<p><u>“Mixed Paper 3Rs Program”</u> <i>Reduce:</i> Staff and students will be encouraged to print on both sides of each sheet. They will be encouraged to reduce newspaper use whenever possible and utilize all electronic options. <i>Reuse:</i> Discarded paper with print only on one side will be used for noting pads/scrap or to be placed in a bin. <i>Recycle:</i> Staff and students will be provided with instructions via email announcements and assemblies. Receptacles will be provided for every classroom. Staff will continue to break down boxes and place them into red recycling bins. Spot inspection will be encouraged to ensure that cardboard is not being placed in the waste stream.</p>
Cardboard	<p><u>“Cardboard 3Rs Program”</u> <i>Reduce:</i> None. <i>Reuse:</i> Staff will continue to break down boxes and place them into red recycling bins. Spot inspection will be encouraged to ensure that cardboard is not being placed in the waste stream.</p>
Paper Towels	<p><u>No 3Rs program currently implemented.</u> <i>Reduce:</i> None. <i>Reuse:</i> None. <i>Recycle:</i> Staff/Students will be trained about existing program. Cleaners will be trained on where to dispose of waste correctly.</p>
Organics	<p><u>No 3Rs program currently implemented.</u> <i>Reduce:</i> None. <i>Reuse:</i> None. <i>Recycle:</i> Staff/Students will be trained about existing program. Cleaners will be trained on where to dispose of waste correctly.</p>
Electronic wastes	<p><u>“Electronic waste 3Rs Program”</u> <i>Reduce:</i> None. <i>Reuse:</i> Staff/students will be encouraged to reuse/donate electronic wastes if possible. Usable spare parts are used for other programs. <i>Recycle:</i> Staff/Students will be reminded of the existing program. Electronic waste is collected via courier and brought to the Media Services Department</p>
Batteries	<p><u>“Batteries 3Rs Program”</u> <i>Reduce:</i> None. <i>Reuse:</i> None. <i>Recycle:</i> Spent batteries are deposited in the hard-sided container labeled "spent batteries" located in the school's main office. The ends of the batteries are taped. Once the container reaches full capacity, it is shipped via courier to the Facility Services Department for proper disposal as hazardous waste.</p>
Other/Non-recyclable	<p>No 3Rs Program.</p>

IV. RESPONSIBILITY FOR IMPLEMENTING THE WASTE REDUCTION WORK PLAN

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

Name of Person	Responsibility	Telephone #
	All recycling programs	

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V. TIMETABLE FOR IMPLEMENTING WASTE REDUCTION WORK PLAN

Provide a timetable indicating when each Source Separation and 3Rs program of the Waste Reduction Work Plan will be implemented.	
Source Separation and 3Rs Program	Schedule for Completion
Cardboard	Recycling program implemented
Mixed Container	Recycling program implemented
Mixed Paper	Recycling program implemented
Organics	Recycling program to be implemented
Electronic Wastes	Recycling program implemented
Batteries	Recycling program implemented

VI. COMMUNICATION TO STAFF, CUSTOMERS, GUESTS AND VISITORS

<p>Explain how the Waste Reduction Work Plan will be communicated to employees, customers, tenants, guests/visitors and students:</p> <p>A formal communication outlining the audit findings and the strategy for enhancing and sustaining recycling initiatives throughout the facility will be disseminated or displayed prominently for the benefit of all employees, students, and visitors. This comprehensive message will delineate the action items and objectives outlined in the Work Plan, acting as a catalyst for ongoing endeavors aimed at achieving heightened diversion success.</p> <p>Regular updates on the program's accomplishments, hurdles, and requisite improvements will be consistently communicated to all stakeholders. Recycling procedures and protocols will be seamlessly integrated into on-site Health and Safety Training and incorporated into the orientation programs for new staff. Informational materials will be strategically placed in all communal spaces, encouraging active participation in the available recycling programs by both employees and students.</p>
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VII. ESTIMATED WASTE PRODUCED BY AMOUNT MATERIAL TYPE AND THE PROJECTED

Material Categories <i>(as stated in Part III)</i>	Estimated Annual Waste Produced * <i>(kilograms)</i>	Name of Proposed 3Rs Program <i>(as stated in Part III)</i>	Projections to Reduce, Reuse or Recycle Waste <i>(kilograms)</i>			Estimated Annual Amount to be Diverted ** <i>(%)</i>
			Reduce	Reuse	Recycle	
PET #1	198.69	Mixed Container 3Rs Program			156.97	79%
HDPE Plastic Containers #2	436.51	Mixed Container 3Rs Program			375.39	86%
PP #5	254.77	Mixed Container 3Rs Program			152.86	60%
Polystyrene #6	147.15	Mixed Container 3Rs Program			88.29	60%
Glass	73.75	Mixed Container 3Rs Program			73.75	100%
Aluminum	244.03	Mixed Container 3Rs Program			146.42	60%
Steel	0.00	Mixed Container 3Rs Program			0.00	60%
Gable Top Containers	0.00	Mixed Container 3Rs Program			0.00	60%
Aseptic Containers	451.25	Mixed Container 3Rs Program			293.31	65%
Fine Paper	1755.23	Mixed Paper 3Rs Program			1351.53	77%
Newsprint	0.00	Mixed Paper 3Rs Program			0.00	60%
Boxboard	412.98	Mixed Paper 3Rs Program			247.79	60%
Craft Paper	118.92	Mixed Paper 3Rs Program			73.73	62%
Cardboard	284.32	Mixed Paper 3Rs Program,			275.79	97%
Coffee Cups	37.85	Mixed Paper 3Rs Program			22.71	60%
Paper Towels	715.86	No 3Rs Program				NA
Organics	1980.74	No 3Rs Program				NA
Cold Beverage Wax-Lined Cups	133.86	No 3Rs Program				
LDPE (#4) Plastic Films	452.02	No 3Rs Program				NA
Styrofoam	0.00	No 3Rs Program				NA
PPE	0.00	No 3Rs Program				NA
Textiles	9.70	No 3Rs Program				NA
Non-Recyclable	407.40	No 3Rs Program				NA

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

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

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

Signature of authorized official:

Title:

Date: