Talbot Trail Public School
4000 Ducharme St
Windsor, ON
N9G 0B6

2025 Waste Audit

Prepared For:

Carly Jacobs - Energy and Environmental Officer
C 519-796-5718 | T 519-966-0034 X 10560 |
carly.jacobs@publicboard.ca
Greater Essex County District School Board

This document and its contents are the property of Waste Reduction Group Inc. (WRG). This document contains information proprietary to waste reduction, including processes, methodologies, and architecture frameworks for consulting engagements. No part of this document may be used, copied, or disclosed in any manner, in whole or in part, electronic or otherwise, to any third party except as expressly authorized in writing by Waste Reduction Group.

Table of Contents

Executive Summary
1. Introduction
1.1 Purpose and Objectives
1.2 Site Description
2. Scope of Work
3. Sampling Methodology
4. Waste Audit Findings
4.1 Overall Sample Composition and Contamination
4.2 Garbage Sample Composition and Contamination
4.3 Recycling Composition and Contamination
4.3.1 Red Box Sample
4.3.2 Blue Box Sample
4.4 Recyclables in the Garbage Stream
5. Estimated Annual Quantities Generated
6. Performance Metrics
6.1 Waste Diversion Rate
6.2 Capture Rate
7. Waste Audit Summary and Waste Reduction Work Plan
8. Findings and Conclusions
9 Recommendations
9.1 Improve Existing Waste Diversion Programs
9.2 Add Organics/Paper Towels Diversion Programs
9.3 Dedicated Receptacles and Update Signage
9.4 Promoting Culture
9.5 Continuous Monitoring and Process Improvement
Appendices
Appendix A: List of Categories
Appendix B: Scale Calibration Certificate
Appendix C: Detailed Sample Composition
Appendix D: Site Photographs
Appendix E: School Calendar
Appendix F: Waste Audit and Reduction Work Plan

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Executive Summary

Greater Essex District School Board retained Waste Reduction Group ("WRG") to conduct a solid, non-hazardous waste audit for the Talbot Trail Public School located at 4000 Ducharme St in Windsor, Ontario (the Site). The audit complied with the Environmental Protection Act, O.Reg. 102/94: Waste Audits and Waste Reduction Work Plans, and O.Reg.103/94: Industrial, Commercial, and Institutional Source Separation Program.

The objectives of the audit were to determine the composition of the garbage and recycling streams by point of origin, quantify Talbot Trail Public School's estimated 2025 annual waste generation, determine the waste diversion and capture rates, identify additional opportunities for waste reduction and diversion, and address any specific concerns identified during the study.

The scope of the waste audit included collecting two (2) samples of the Red Box stream, one (1) sample of the Blue Box stream and five (5) samples of the Garbage stream.

Findings and Conclusions

The conclusions discussed below are based on the waste audit findings. It should be noted that the conclusions and recommendations presented in this report are based on the waste audit sample results, which are considered representative of the annual quantities reported in this document. The estimates in this report do not account for fluctuations in daily waste quantities.

Sample Composition

- The Garbage stream sample had the highest sample mass (83.47%), followed by Red Box (10.10%) and Blue Box stream (6.43%).

Composition By Waste Stream

- **Garbage Stream** - the garbage stream consisted primarily of organics (15.62 kg, 35.07%), paper towels/compostable fibres (9.84 kg, 22.09%) and non-recyclable (4.84 kg, 10.87%).
- **Red Box** - Fine paper had the greatest overall sample mass (3.31 kg, 61.41%), followed by paper towels/compostable fibres (0.45 kg, 8.35%).
- **Blue Box** - consisted primarily of organics (0.58 kg, 16.91%), aseptic containers (0.55 kg, 16.03%), and PET #1 (0.46 kg, 13.41%).

Composition by Functional Area

- **Classrooms** generated the highest overall proportion of the sample mass (77.62%) across the garbage and Red Box streams, and consisted primarily of organics, paper towels/compostable fibres, non-recyclables and fine paper.
- **Hallways/general areas** represented the second-highest sample mass (13.62%) of the Red Box and Blue Box streams, composed primarily of fine paper, aseptic containers, paper towels/compostable fibres and organics.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Contamination

- The contamination rates for the sampled streams were as follows: Garbage stream – 20.27% and overall Recycling stream – 25.62%. The contamination rates for the Red Box and Blue Box streams were 23.75% and 40.52%, respectively.
- The **Red Box** sample consisted of 76.25% Red Box material, 18.18% Garbage material and 5.57% Blue Box material.
- The **Blue Box** sample consisted of 59.48% Blue Box material, 37.32% garbage material and 3.21% Red Box material.
- The **garbage sample** consisted of 79.73% garbage material, 7.18% Red Box material, and 13.09% Blue Box material.

Recyclables in the Garbage Stream

- The garbage sample consisted of 4.80% Mandatory Recyclables, 14.35% Other Recyclables, and 80.85% Other (Non-Recyclable) material.
- The **Mandatory Recyclables** in the garbage stream consisted of (in % of total sample mass):
    - Fine paper – 19.34%
    - Aluminum –5.28%
    - Cardboard – 0.47%
- The **Other Recyclables** in the garbage stream consisted primarily of:
    - Aseptic containers – 35.29%
    - Kraft paper/other fibres – 8.44%
    - PP #5 – 8.09%
    - Polystyrene #6– 6.33%
    - HDPE plastic containers #2 – 5.98%

- The 2025 **waste diversion rate was calculated to be 16.53%** (below the provincial objective of 60%) based on 1.71 MT of potential diverted waste and 10.35 MT of total waste generated in 194 school days.
- The overall **capture rate was calculated at 39.45%**, based on an estimated diverted quantity of 1.19 MT and a total potential divertible quantity of 3.02 MT. The overall recycling capture rate was 39.45%, with the Red Box and Blue Box capture rates calculated at 55.39% and 24.97%, respectively.

Recommendations

- Improving the existing recycling program would reduce the presence of mandatory recyclables in the garbage stream and result in measurable increases in waste diversion and capture rates. Based on audit findings, the following materials present the greatest diversion potential:
    - *Fine paper:* An estimated 0.32 MT of fine paper is disposed of annually through the garbage stream. Redirecting this material to the recycling stream could increase the overall waste diversion rate by up to 2.5% and improve the capture rate by up to 10.6%.
    - *Aluminum:* Approximately 0.09 MT of aluminum is estimated to be disposed of annually in the garbage stream. Diverting this material through proper recycling could increase the waste

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

diversion rate by up to 0.72% and the capture rate by up to 2.97%.

- *Cardboard:* An estimated 0.01 MT of cardboard is disposed of annually in the garbage stream. Improved source separation and recycling could increase the waste diversion rate by up to 0.08% and the capture rate by up to 0.33%.

- Implementing enhanced waste diversion programs, including the source separation of organics and paper towels/compostable fibres through the installation of dedicated receptacles in key generation areas (e.g., classrooms, hallways, kitchens, and cafeterias), would significantly improve waste diversion and capture rates. Based on audit results, the following diversion opportunities were identified:
  - *Organics:* Approximately 3.14 MT of organic material is disposed of annually through the garbage stream. Diverting this material through a dedicated organics diversion program could increase the overall waste diversion rate by up to 19.43%.
  - *Paper towels/compostable fibres:* An estimated 2.05 MT of paper towels and compostable fibre materials are disposed of annually through the garbage stream. Diverting these materials through an organics diversion program could increase the waste diversion rate by up to 13.8%.
- Providing clear signage with pictures/graphics to help staff and students identify opportunities for proper disposal at the source should improve capture rates. This can include signage with pictures to help staff and students identify their waste. Dedicated receptacles as part of a collection program should be made available at each disposal location to help staff and students dispose of their waste accordingly at the source and include colour coordination to identify the type of waste (i.e., green for organics/compost, blue for recycling, black for garbage). Receptacles should be sized accordingly based on the type of activity or use.
- Promote a culture of waste diversion with the staff and students through education on its importance and communication of the municipal goals for waste diversion and sustainability. Create a positive message around the benefits of waste diversion and the role that the individual/family plays.
- Waste generated from single-use items such as coffee cups and coffee pods can be reduced by encouraging staff to bring personal mugs and implementing the purchase of coffee pods that are part of a collection and recycling program.
- Set achievable goals and metrics, track year-over-year changes in waste diversion and communicate progress to the community to encourage further participation/engagement.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

1. Introduction

Greater Essex District School Board retained Waste Reduction Group ("WRG") to conduct a solid, non-hazardous waste audit for Talbot Trail Public School located at 4000 Ducharme St in Windsor, Ontario (the Site). The audit complied with the Environmental Protection Act, O.Reg. 102/94: Waste Audits and Waste Reduction Work Plans, and O.Reg. 103/94: Industrial, Commercial, and Institutional Source Separation Program.

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 XI, which requires educational institutions to conduct a waste audit covering the waste generated by the establishment operating at the site and prepare and implement a waste reduction work plan on an annual basis to confirm compliance with Ontario Regulation 103/94 – IC&I Source Separation Programs.

The objectives are as follows:

- Determine the composition of the Red Box, Blue Box and Garbage streams by point of origin,
- Quantify the estimated 2025 annual waste generation for all waste streams based on audit data and the number of days in the school year,
- Determine the waste diversion and capture rates,
- Identify additional opportunities for waste reduction and diversion; and
- Address any specific concerns identified during the study.

The Site is considered to apply to O.Reg.103/94 – Educational Institutions.

1.2 Site Description

Talbot Trail Public School, located at 4000 Ducharme St, Windsor, Ontario, N9G 0B6, is a public educational institution serving approximately 848 students. The school provides education from kindergarten through grade 8 and includes functional areas such as classrooms, hallways, offices, staff rooms, and washrooms. Waste collection within the facility is organized by waste stream and corresponds to distinct areas of waste generation. The site is subject to Ontario Regulation 103/94 (Educational Institutions).

2. Scope of Work

To meet the objectives outlined above, the following activities were undertaken by WRG:

- Collected two (2) samples of the Red Box stream, one (1) sample of the Blue Box stream and five (5) samples of the Garbage stream.
- Sorted samples into predetermined categories as set out by WRG (detailed in Appendix A: List of Categories).

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

- Determined the total quantity of waste diverted from landfill through current reduction, reuse, and recycling programs implemented at the school. Quantities were calculated using sample mass multiplied by the number of school days per year.
- Completed a waste audit report summarizing the audit findings and provided recommendations for increased waste diversion efficiency.
- Conducted a site tour accompanied by site personnel and interviewed staff to obtain information on existing waste diversion practices.

3. Sampling Methodology

On November 27, 2025, WRG collected two (2) samples of the Red Box stream, one (1) sample of the Blue Box stream and five (5) samples of the Garbage stream from various waste generation areas—including classrooms, hallways and general areas, public areas, offices, the staff room, and washrooms—over a 24-hour period. Each sample comprised source-separated waste materials generated by staff, students, and visitors within the identified indoor areas.

Qualified WRG staff sorted the materials using containers to keep them separate. Waste was sorted into individual material categories and weighed using a calibrated scale (Appendix B: Scale Calibration Certificate). It was then re-bagged and disposed of in an appropriate waste container.

4. Waste Audit Findings

The overall results observed for Talbot Trail Public School are presented in Table 1 and Figure 1. The sample comprised a total of 53.36 kg of waste materials collected and sorted during the waste audit. Approximately 83.47% of the sample originated from garbage, 10.10% from the Red Box stream, and 6.43% from the Blue Box stream. The following sections provide an analysis of each waste stream sample.

4.1 Overall Sample Composition and Contamination

The following samples from the waste streams were collected and sorted. Table 1 below illustrates the total waste collected per area.

Notable observations are described below:

- Classrooms accounted for the largest proportion of the sample, contributing 41.42 kg (77.62% of the total sample mass); the majority originated from the garbage stream at 39.87 kg (74.72%). This was followed by hallways and general areas, which accounted for 13.62% of the total sample mass, with the largest contribution from the Red Box stream (7.20%). The public areas had the lowest distribution, with 0.49% of garbage material.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Table 1: Sample Summary

Generation Area	KG	%
Classroom	**41.42**	**77.62%**
Garbage	39.87	74.72%
Recycling Red Box	1.55	2.90%
Hallways/General Areas	**7.27**	**13.62%**
Recycling Red Box	3.84	7.20%
Recycling Blue Box	3.43	6.43%
Staff Room	**2.03**	**3.80%**
Garbage	2.03	3.80%
Washrooms	**1.52**	**2.85%**
Garbage	1.52	2.85%
Office	**0.86**	**1.61%**
Garbage	0.86	1.61%
Public Areas	**0.26**	**0.49%**
Garbage	0.26	0.49%
Total	**53.36**	**100.00%**

Below is a breakdown of the overall sample weight per generation area.

Table 2: Sample Composition by Functional Area and Material (in kg and % of total sample by mass)

Generation Area	Classroom		Hallways/General Areas		Office		Public Areas		Staff Room		Washrooms		Total	
Material	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%
Organics	15.00	28.11%	0.58	1.09%	0.14	0.26%	0.00	0.00%	0.48	0.90%	0.00	0.00%	**16.20**	**30.36%**
Paper Towels/Compostable Fibres	7.93	14.86%	0.62	1.16%	0.18	0.34%	0.00	0.00%	0.70	1.31%	1.13	2.12%	**10.56**	**19.79%**
Non-Recyclable	4.45	8.34%	0.50	0.94%	0.11	0.21%	0.09	0.17%	0.19	0.36%	0.00	0.00%	**5.34**	**10.01%**
Fine Paper	2.81	5.27%	2.22	4.16%	0.01	0.02%	0.00	0.00%	0.03	0.06%	0.00	0.00%	**5.07**	**9.50%**
LDPE (#4) Plastic Films	4.11	7.70%	0.38	0.71%	0.15	0.28%	0.12	0.22%	0.14	0.26%	0.14	0.26%	**5.04**	**9.45%**
Aseptic Containers	3.01	5.64%	0.69	1.29%	0.00	0.00%	0.02	0.04%	0.00	0.00%	0.00	0.00%	**3.72**	**6.97%**
Kraft Paper/Other Fibres	0.55	1.03%	0.31	0.58%	0.00	0.00%	0.00	0.00%	0.03	0.06%	0.14	0.26%	**1.03**	**1.93%**
PP #5	0.54	1.01%	0.24	0.45%	0.06	0.11%	0.00	0.00%	0.12	0.22%	0.00	0.00%	**0.96**	**1.80%**
PET #1	0.47	0.88%	0.46	0.86%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.93**	**1.74%**
Aluminum	0.36	0.67%	0.43	0.81%	0.02	0.04%	0.00	0.00%	0.07	0.13%	0.00	0.00%	**0.88**	**1.65%**
HDPE Plastic Containers #2	0.45	0.84%	0.33	0.62%	0.03	0.06%	0.03	0.06%	0.00	0.00%	0.00	0.00%	**0.84**	**1.57%**
Polystyrene #6	0.42	0.79%	0.14	0.26%	0.03	0.06%	0.00	0.00%	0.09	0.17%	0.00	0.00%	**0.68**	**1.27%**
Boxboard	0.20	0.37%	0.28	0.52%	0.00	0.00%	0.00	0.00%	0.08	0.15%	0.08	0.15%	**0.64**	**1.20%**
Coffee Cups	0.40	0.75%	0.03	0.06%	0.06	0.11%	0.00	0.00%	0.04	0.07%	0.00	0.00%	**0.53**	**0.99%**
PPE	0.23	0.43%	0.00	0.00%	0.07	0.13%	0.00	0.00%	0.00	0.00%	0.03	0.06%	**0.33**	**0.62%**
Cold Beverage Wax-Lined Paper Cups	0.28	0.52%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.02	0.04%	0.00	0.00%	**0.30**	**0.56%**
Moulded Pulp	0.05	0.09%	0.06	0.11%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.11**	**0.21%**
Other Plastics #3, #4, #7	0.11	0.21%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.11**	**0.21%**
Composite Cans	0.05	0.09%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.05**	**0.09%**
Cardboard	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.04	0.07%	0.00	0.00%	**0.04**	**0.07%**
Total	**41.42**	**77.62%**	**7.27**	**13.62%**	**0.86**	**1.61%**	**0.26**	**0.49%**	**2.03**	**3.80%**	**1.52**	**2.85%**	**53.36**	**100.00%**

Notable observations are described below:

- **Classroom (Garbage and Red Box)** - generated the highest sample mass (77.62% of total sample), which consisted primarily of organics, paper towels/compostable fibres, non-recyclable, LDPE #4

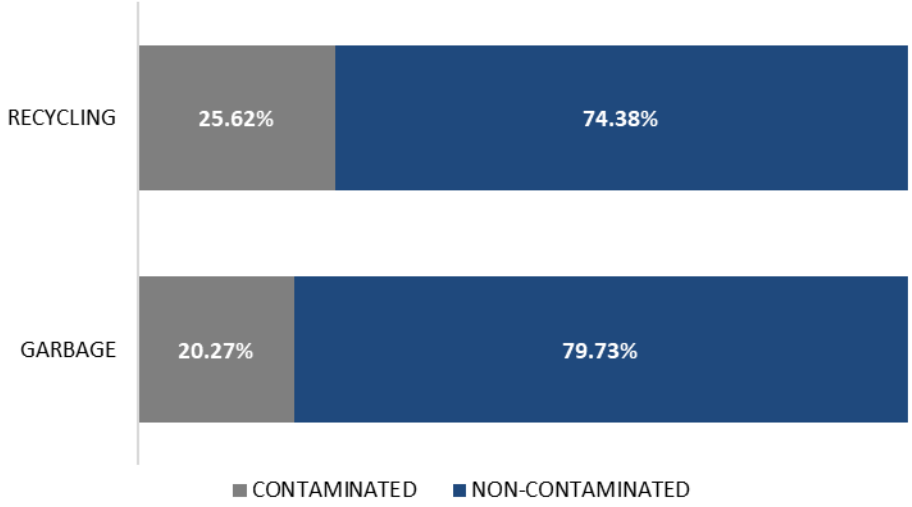
Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

plastic films and fine paper.

- **Hallways/general areas (Red Box and Blue Box)** - generated the second highest mass, accounting for 13.62% of the total sample mass, and consisted primarily of fine paper, aseptic containers and paper towels/compostable fibres.
- **Staff room (Garbage) -** generated 3.80% of the total sample mass and consisted primarily of paper towels/compostable fibres and organics.
- **Washroom (Garbage)** - generated 2.85% of the total sample mass and consisted of paper towels/compostable fibres.
- **Office (Garbage and Red Box)** - generated 1.61% of the total sample mass and consisted primarily of paper towels/compostable fibres and LDPE #4 plastic films.
- **Public areas (Garbage)** - generated 0.49% of the total sample mass and consisted of LDPE #4 plastic films and non-recyclables.
- Overall, organics, paper towels/compostable fibres, non-recyclable, and fine paper were the most generated materials across all areas and waste streams, collectively accounting for roughly 70% of the total sample mass.

The contamination rates for the sampled waste streams are presented in Figure 1, which illustrates the contamination rate for each waste stream individually. Percentages are calculated by row, indicating the proportion of each waste stream sample that was contaminated versus non-contaminated.
The garbage stream exhibited a contamination rate of 20.27%, while the overall recycling stream showed a contamination rate of 25.62%. Within the recycling streams, the Red Box and Blue Box exhibited contamination rates of 23.75% and 40.52%, respectively.

Figure 1: Contamination Rate by Sampled Stream



4.2 Garbage Sample Composition and Contamination

A total of 44.54 kg of garbage was collected and sorted during the audit, representing 83.47% of the overall sample mass. The largest portion originated from the classrooms, accounting for 39.87 kg (74.72%)

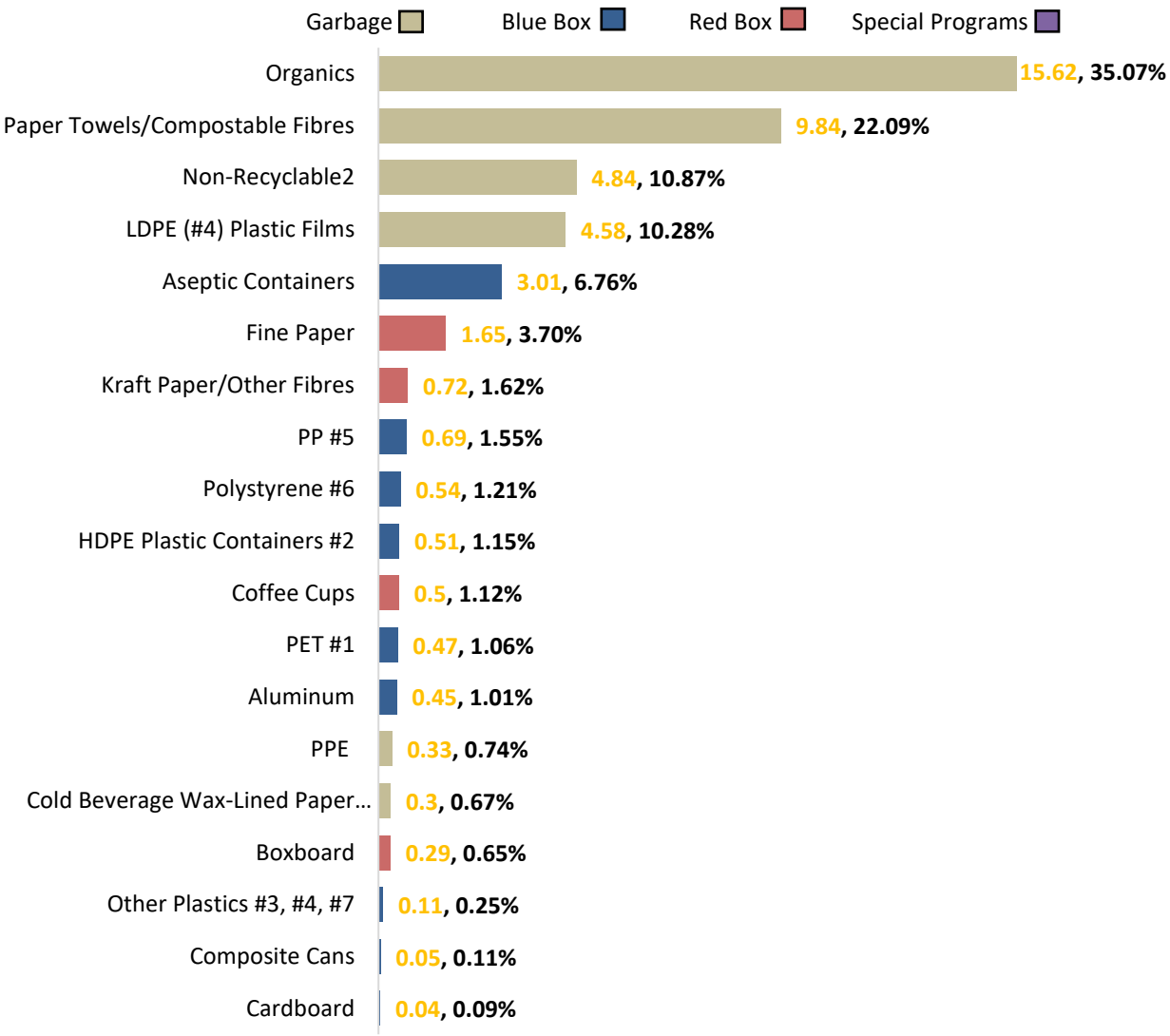
Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

of the total sample mass. This was followed by the staff room with 2.03 kg (3.80%) (Table 1). A detailed breakdown of the sample by material category is presented in Figure 2, and the corresponding sample contamination by generation area is illustrated in Figure 3.

Notable Observations

- The garbage sample was primarily composed of **organics**, which accounted for 35.07% (15.62 kg) of the total weight, followed by **Paper towels/compostable fibres** (22.09%), and **non-recyclable** (10.87%) (Figure 2).
- The remaining 31.97% consisted mainly of LDPE #4 plastic films, aseptic containers, mixed papers (fine paper, kraft paper), and mixed containers (PP #5, Polystyrene #6, HDPE #2 containers, PET #1, aluminum), and coffee cups (Figure 2).
- The garbage sample consisted of 79.73% garbage material, 7.18% Red Box material, and 13.09% Blue Box material (Figure 2).

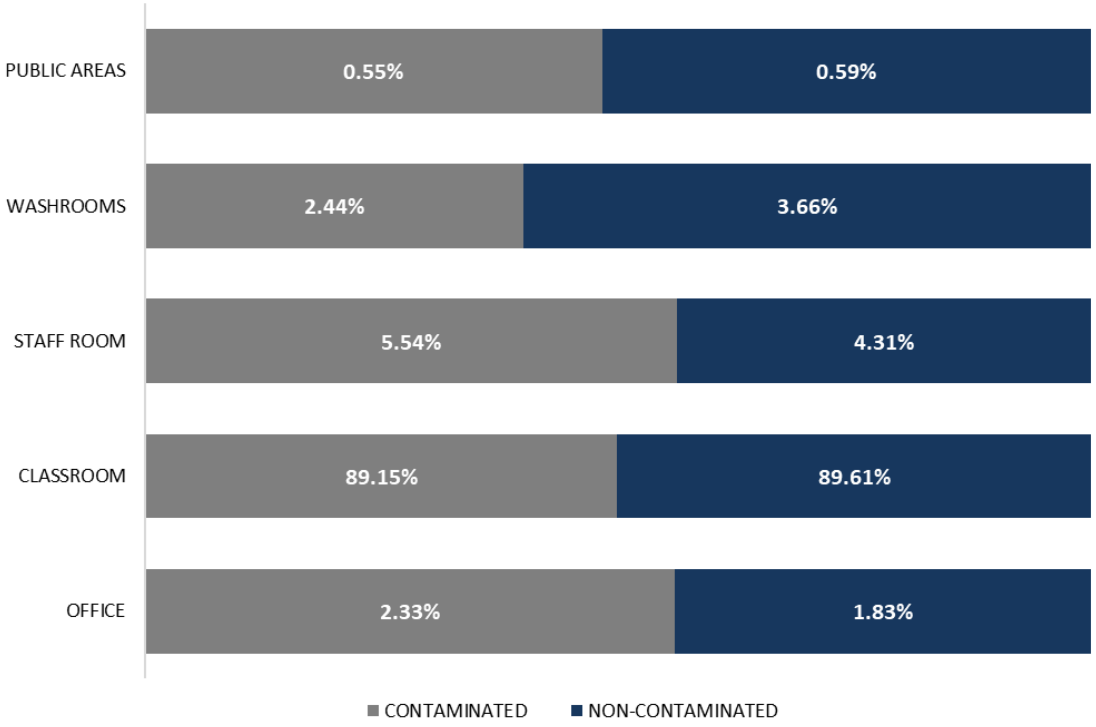
Figure 2: Garbage Sample Composition by Material (in kg and % of sample by mass)



Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Figure 3 is designed to compare contamination levels across the different generation areas and to identify the areas with the highest contamination. For this purpose, percentages are calculated by column, allowing comparison of each generation area within the "contaminated" and "non-contaminated" categories. As a result, the percentages sum to 100% vertically, enabling comparison of the distribution of contamination across all generation areas.

Figure 3: Contamination by Garbage Sample and Generation Area



Notable Observations

- The contamination rate for the sampled garbage stream was 20.27%.
- The sample consisted of contamination of Red Box (7.18%), and Blue Box (13.09%); the contamination was high in aseptic containers, fine paper, kraft paper/other fibres, and mixed containers (PP #5, polystyrene #6 and HDPE #2 containers) and coffee cups.
- The garbage sample showed that Classrooms (89.15%) were the most contaminated among all generation areas. The contamination consisted primarily of aseptic containers and fine paper. The public areas showed the lowest contamination at 0.55%.

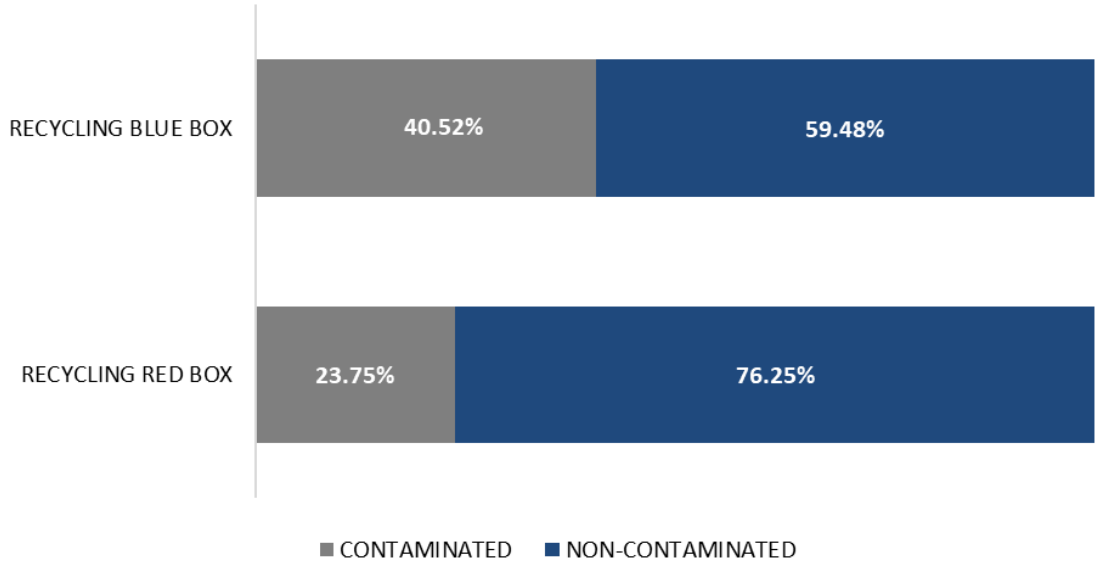
4.3 Recycling Composition and Contamination

In total, 8.82 kg of recyclable materials were collected and sorted during the audit, of which 5.39 kg (10.10%) corresponded to Red Box materials and 3.43 kg (6.43%) to Blue Box materials. The overall contamination rate for the recycling stream was calculated at 25.62% (Figure 1).

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Figure 4 below presents the contamination rates for both recycling streams assessed individually, with percentages calculated by row to show the proportion of contaminated versus non-contaminated material within each stream. The Red Box and Blue Box streams exhibited contamination rates of 23.75% and 40.52%, respectively.

Figure 4: Contamination Rate Recycling Stream



4.3.1 Red Box Sample

A total of 5.39 kg of Red Box material was collected and sorted during the audit, representing 10.10% of the overall sample mass. The largest portion originated from hallways/general areas, accounting for 3.84 kg (7.20%) of the total sample. A detailed breakdown of the sample by material category is presented in Figure 5, and the corresponding contamination by generation area is illustrated in Figure 6.

Notable Observations

- Within the Red Box stream, **fine paper was the highest material category generated**, accounting for approximately 61.41% of the total sample, followed by paper towels/compostable fibres (8.35%), and boxboard (6.49%).
- The remaining 23.75% was attributed to other material categories, including kraft paper, non-recyclable, LDPE #4 plastic films, aseptic containers, and moulded pulp.
- The Red Box sample consisted of 76.25% Red Box materials, 18.18% of garbage materials and 5.57% Blue Box materials.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Figure 5: Red Box Composition by Material (in kg and % of sample by mass)

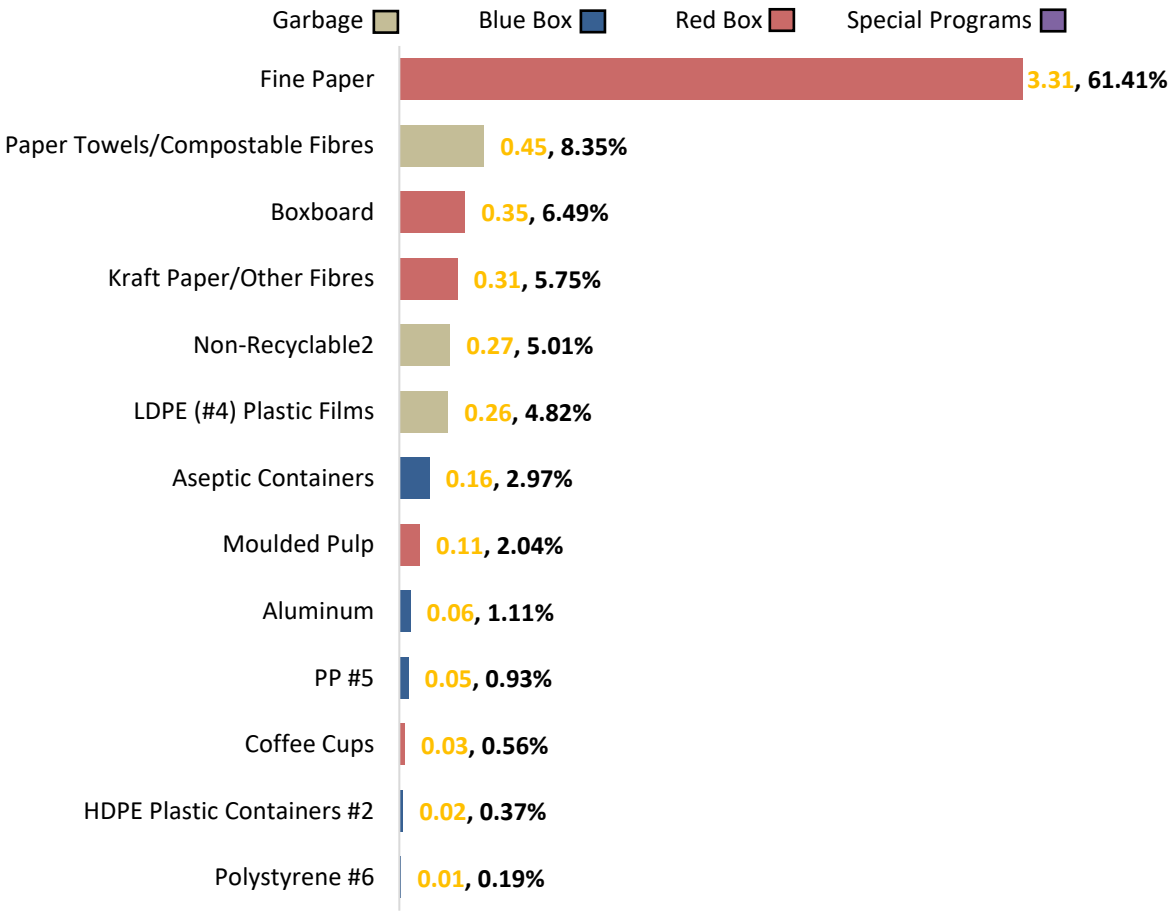
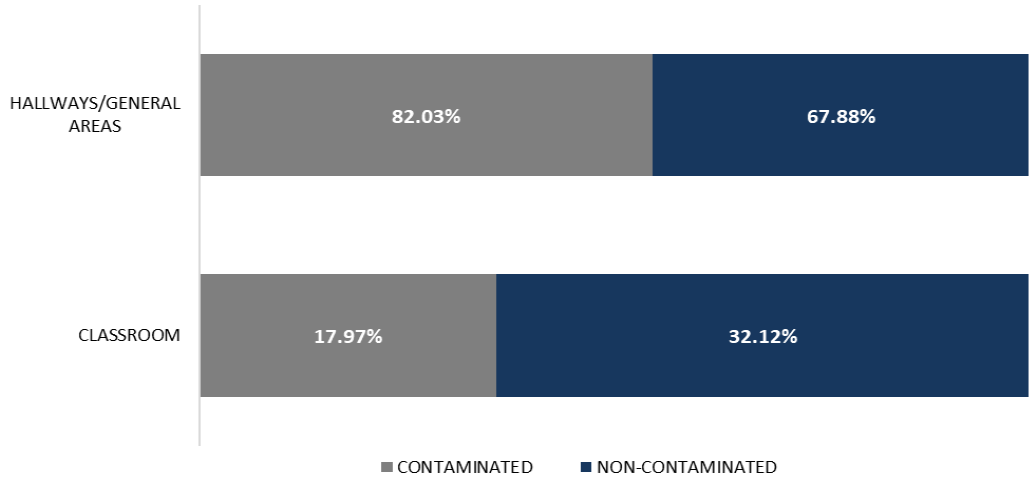


Figure 6 is designed to compare contamination levels across the different generation areas and to identify the areas with the highest contamination. For this purpose, percentages are calculated by column, allowing comparison of each generation area within the "contaminated" and "non-contaminated" categories. As a result, the percentages sum to 100% vertically.

Figure 6: Red Box Contamination by Generation Area



Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

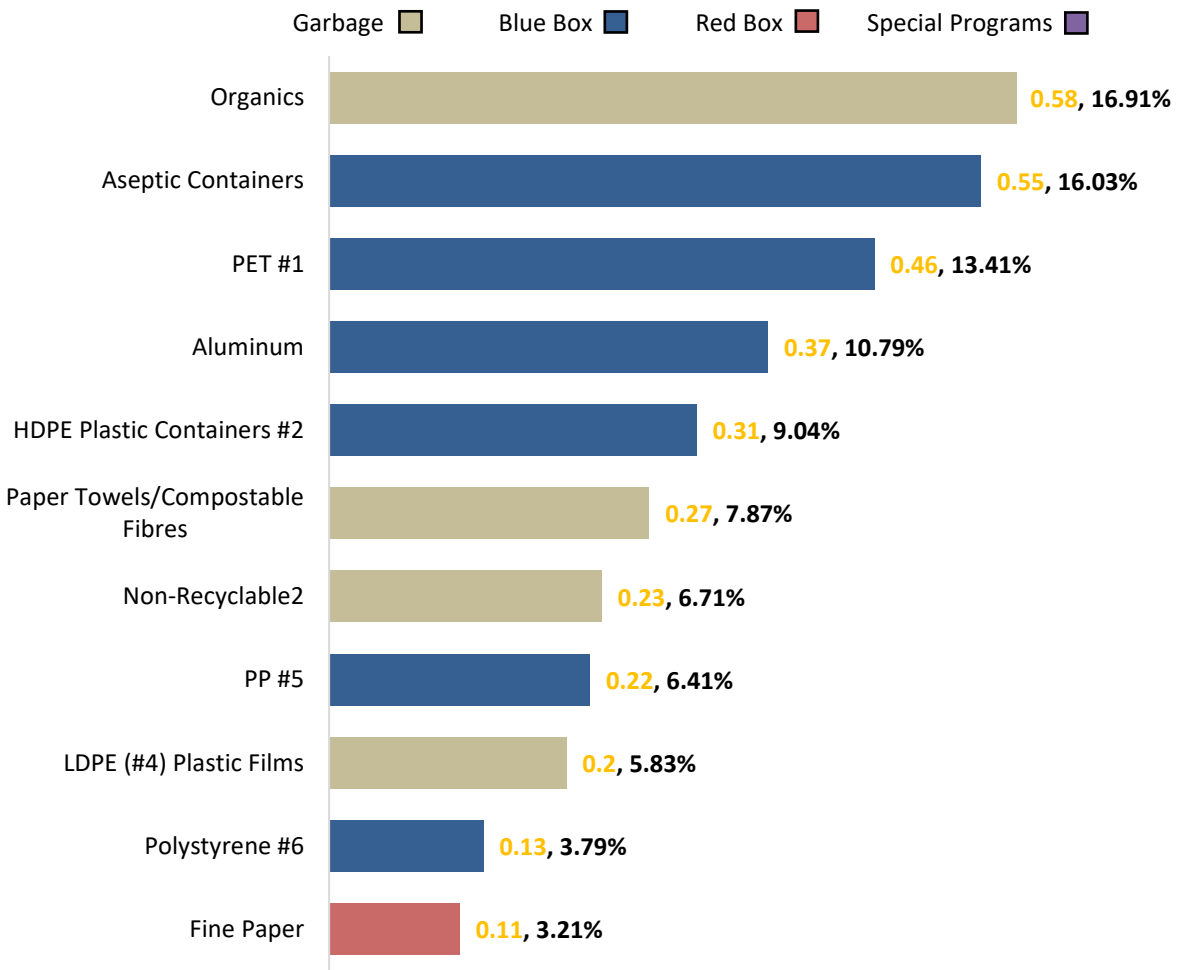
Notable Observations

- The contamination rate for the sampled Red Box stream was 23.75%.
- The sample consisted of contamination of garbage (18.18%) and Blue Box materials (5.57%); the contamination was mainly from paper towels/compostable fibres, non-recyclables and LDPE #4 plastic films.
- The Red Box sample showed that hallways/general areas (82.03%) were the most contaminated areas among all generation areas. The contamination consisted primarily of paper towels/compostable fibres and non-recyclables. Classrooms showed the lowest contamination at 17.97%.

4.3.2 Blue Box Sample

A total of 3.43 kg of Blue Box material was collected and sorted during the audit, representing 6.43% of the overall sample mass. The entire sample originated from the hallways/general areas. A detailed breakdown of the sample by material category is presented in Figure 7, and the corresponding contamination by generation area is illustrated in Figure 8.

Figure 7: Blue Box Composition by Material (in kg and % of sample by mass)

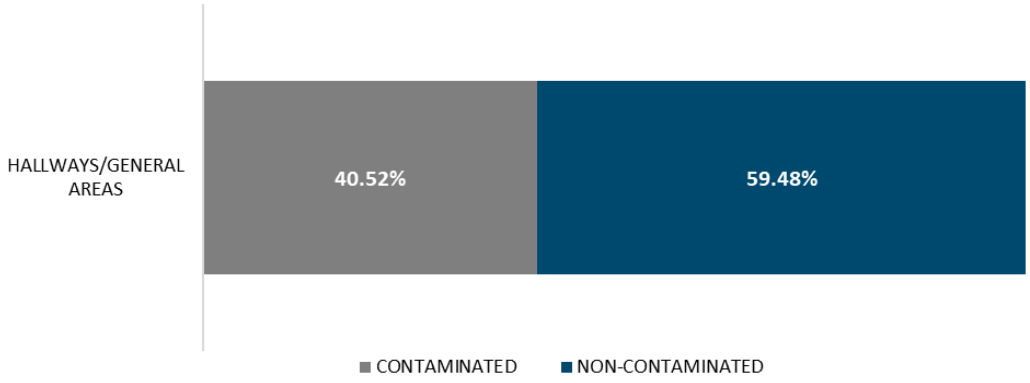


Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Notable Observations

- The Blue Box sample was primarily composed of **organics**, which accounted for 16.91% (0.58 kg) of the total weight, followed by **aseptic containers** (16.03%), and **PET #1** (13.41%).
- The remaining 53.64% was attributed to other material categories, including aluminum, HDPE #2 containers, paper towels/compostable fibres, non-recyclables, PP #5, LDPE #4 plastic films, polystyrene #6 and fine paper.
- The Blue Box sample consisted of 59.48% Blue Box material, 37.32% garbage material and 3.21% Red Box material.

Figure 8: Blue Box Contamination by Generation Area



Notable Observations

- The contamination rate for the sampled Blue Box stream was 40.52%. All samples were collected from hallways and general areas.
- The sample exhibited contamination from garbage materials (37.32%) and Red Box materials (3.21%), primarily consisting of organics, paper towels/compostable fibres, and non-recyclable materials.

4.4 Recyclables in the Garbage Stream

Based on the waste sample composition analysis, Mandatory Recyclables and Other Recyclables were identified in the garbage stream. The garbage sample consisted of 4.80% Mandatory Recyclables, 14.35% Other Recyclables, and 80.85% Other (Non-Recyclable) material.

A description of the recyclable materials subject to O.Reg.103/94 is provided below.

Mandatory Recyclables

O. Reg. 103/94 mandates that Educational Institutions with more than 350 students enrolled during the calendar year must implement a source separation program for waste generated by their operations. As part of this compliance, the establishment is required to implement a source separation program for the

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

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;
- Steel food or beverage cans (including cans made primarily of steel).

Other Recyclables

This includes any material eligible for recycling or that can be diverted from landfills. Other Recyclables include the following materials:

- Aseptic containers
- Batteries
- Boxboard
- Coffee Cups
- Composite Cans
- Electronics Waste
- Gable top containers
- HDPE #2 plastic containers
- Kraft paper/other fibres
- Lightbulbs
- Molded pulp
- Other plastics #7
- PET #1
- PP #5
- Printer toner/cartridges

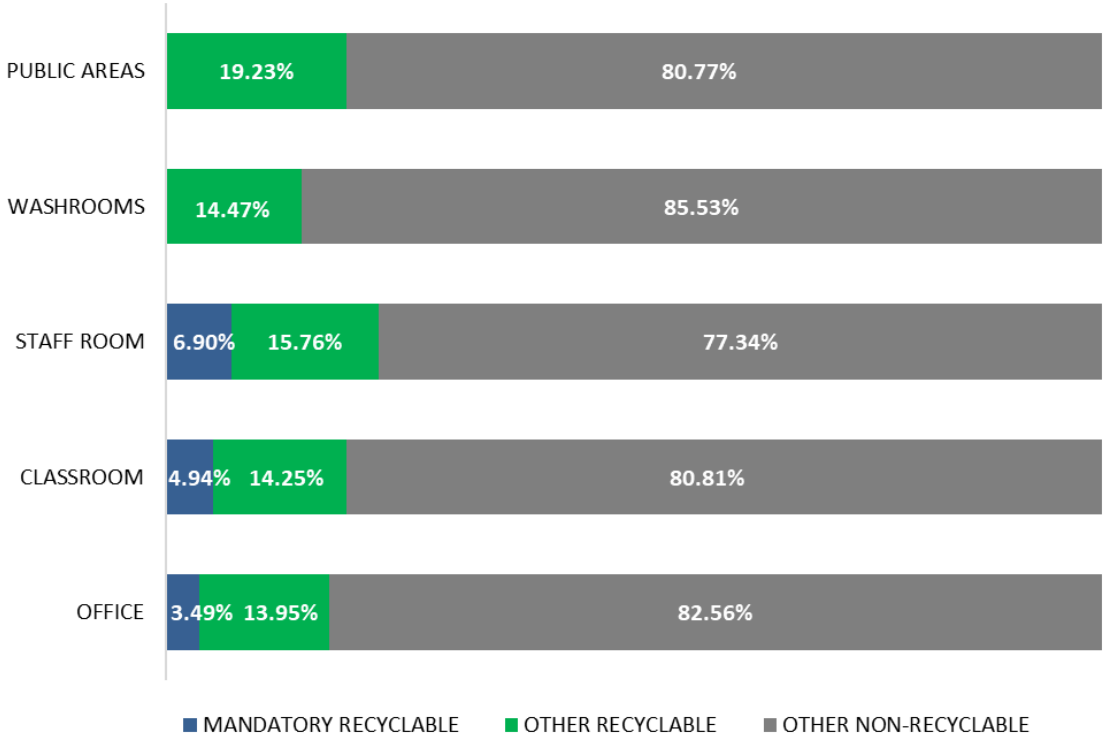
Other (Non-Recyclables)

Includes all other non-recyclable materials.

Below is an analysis of the garbage sample composition by material and material type (Mandatory Recyclables, Other Recyclables, and Non-Recyclables).

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Figure 9: Ratio of Recyclables in the Garbage Stream by Generation Area



The breakdown of recyclables in the garbage stream by material is shown in the figures below.

Table 3: Breakdown of Mandatory Recyclables in Garbage Sample by Material (in kg and % of garbage sample mass)

Sampled Stream	Garbage	
O. Reg 103/04 Material	Estimated Annual Quantity Generated Through Garbage Stream (MT)	%
Fine Paper	0.32	19.34%
Aluminum	0.09	5.28%
Cardboard	0.01	0.47%
Total	**0.42**	**25.09%**

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Table 4: Breakdown of Other Recyclables in Garbage Sample by Material (in kg and % of garbage sample mass)

Sampled Stream	Garbage	
O. Reg 103/04 Material	Estimated Annual Quantity Generated Through Garbage Stream (MT)	%
Aseptic Containers	0.58	35.29%
Kraft Paper/Other Fibres	0.14	8.44%
PP #5	0.13	8.09%
Polystyrene #6	0.10	6.33%
HDPE Plastic Containers #2	0.10	5.98%
PET #1	0.09	5.51%
Boxboard	0.06	3.40%
Other Plastics #3, #4, #7	0.02	1.29%
Composite Cans	0.01	0.59%
Total	**1.24**	**74.91%**

Notable observations are discussed below:

- The garbage sample consisted of 4.80% Mandatory Recyclables, 14.35% Other Recyclables, and 80.85% Other (Non-Recyclable) material.
- The staff room exhibited the highest proportion of mandatory recyclables (6.90%) within the garbage, while the public areas exhibited the highest proportion of other recyclables (19.23%). The public areas and washrooms exhibited the lowest proportion of mandatory recyclables at 0.00%.
- The Mandatory Recyclables in the garbage stream consisted of (in % of total sample mass):
    - Fine paper – 19.34%
    - Aluminum – 5.28%
    - Cardboard – 0.47%
- The Other Recyclables in the garbage stream consisted primarily of:
    - Aseptic containers – 35.29%
    - Kraft paper/other fibres – 8.44%
    - PP #5 – 8.09%
    - Polystyrene #6– 6.33%
    - HDPE plastic containers #2 – 5.98%

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

5. Estimated Annual Quantities Generated

The annual quantity was calculated in metric tonnes (MT) using the following equation, based on 194 days in the school year and the sample mass generated over a one-day sampling period.

Estimated Annual Quantity = Number of days in school year x sample mass

Each material's estimated annual quantities were calculated and provided in the table below.

Table 5: Estimated Annual Quantities by Material

Material	Diverted Through Recycling (MT)	Disposed to Landfill through Garbage (MT)	Total Generated (MT)	%
Organics	0.00	3.14	3.14	30.36%
Paper Towels/Compostable Fibres	0.00	2.05	2.05	19.79%
Non-Recyclable	0.00	1.04	1.04	10.01%
Fine Paper	0.64	0.34	0.98	9.50%
LDPE (#4) Plastic Films	0.00	0.98	0.98	9.45%
Aseptic Containers	0.11	0.61	0.72	6.97%
Kraft Paper/Other Fibres	0.06	0.14	0.20	1.93%
PP #5	0.04	0.14	0.19	1.80%
PET #1	0.09	0.09	0.18	1.74%
Aluminum	0.07	0.10	0.17	1.65%
HDPE Plastic Containers #2	0.06	0.10	0.16	1.57%
Polystyrene #6	0.03	0.11	0.13	1.27%
Boxboard	0.07	0.06	0.12	1.20%
Coffee Cups	0.01	0.10	0.10	0.99%
PPE	0.00	0.06	0.06	0.62%
Cold Beverage Wax-Lined Paper Cups	0.00	0.06	0.06	0.56%
Moulded Pulp	0.02	0.00	0.02	0.21%
Other Plastics #3, #4, #7	0.00	0.02	0.02	0.21%
Composite Cans	0.00	0.01	0.01	0.09%
Cardboard	0.00	0.01	0.01	0.07%
Batteries	0.00	0.00	0.00	0.00%
Bubble Wrap/Shrink Wrap	0.00	0.00	0.00	0.00%
Electronic Waste	0.00	0.00	0.00	0.00%
Gable Top Containers	0.00	0.00	0.00	0.00%
Glass	0.00	0.00	0.00	0.00%
Lightbulbs	0.00	0.00	0.00	0.00%
Newspaper	0.00	0.00	0.00	0.00%
Other Metal	0.00	0.00	0.00	0.00%
Other Organics	0.00	0.00	0.00	0.00%
Other Wood	0.00	0.00	0.00	0.00%
Plastic Strapping	0.00	0.00	0.00	0.00%
Printer Toners	0.00	0.00	0.00	0.00%
Shredded Paper	0.00	0.00	0.00	0.00%
Steel Cans	0.00	0.00	0.00	0.00%
Styrofoam	0.00	0.00	0.00	0.00%
Textiles	0.00	0.00	0.00	0.00%
Total	**1.19**	**9.16**	**10.35**	**100.00%**

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Notable Observations are discussed below:

- 10.35 MT of material is expected to be generated annually, which consists primarily of the following materials:
  - Organics – 3.14 MT
  - Paper towels/compostable fibres – 2.05 MT
  - Non-recyclable – 1.04 MT
  - Fine paper – 0.98 MT
  - LDPE #4 plastic films – 0.98 MT

6. Performance Metrics

6.1 Waste Diversion Rate

Waste diversion is the percentage of waste materials a facility diverts from landfills due to reducing, reuse and recycling (3Rs) programs versus the total amount of waste generated (3Rs plus landfill waste). The Ministry of the Environment, Conservation and Parks defines the Waste Diversion rate calculation as follows:

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

Where,

Total Waste Diverted (3Rs) = 1.71 MT

Total Waste Generated = 10.35 MT

$$Waste\ Diversion\ Rate = \frac{1.71\ MT}{10.35\ MT} \times 100$$

Waste Diversion Rate = 16.53%

The total waste diverted (1.71 MT) represents the estimated quantity of material sent to recycling, calculated by multiplying the audited Red Box and Blue Box material quantities by the number of operational days. This figure includes all materials present in the recycling streams, including items that were incorrectly placed.

Talbot Trail Public School's waste diversion rate was calculated to be 16.53% (below the provincial objective of 60%) based on 1.71 MT of potential diverted waste and 10.35 MT of total waste generated in 194 school days.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

6.2 Capture Rate

The capture rate is the proportion of divertible waste materials successfully diverted from disposal compared to the total amount of divertible waste materials generated. It measures the effectiveness of existing recycling programs.

The Recycling Council of Ontario defines the Capture Rate calculation as follows:

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

Below are the capture rates for all divertible materials included in existing waste diversion programs at the Site.

Table 6: Capture Rates for Diversion Programs

Stream	Diverted (MT)	Landfill Quantity (MT)	Total Generated (MT)	Capture Rate
Overall Recycling	**1.19**	**1.83**	**3.02**	**39.45%**
Red Box	0.80	0.64	1.44	55.39%
Blue Box	0.40	1.19	1.58	24.97%
Special Programs	0.00	0.00	0.00	0.00%
Total	**1.19**	**1.83**	**3.02**	**39.45%**

In the capture rate, the diverted quantity represents the estimated amount of divertible material correctly placed into the appropriate recycling streams. It was calculated by multiplying the audited Red Box and Blue Box quantities by the number of operational days and includes only materials that were properly disposed, excluding any incorrectly placed items. Conversely, the landfill quantity represents all divertible materials that were incorrectly disposed of in the garbage stream.

The overall **capture rate was calculated at 39.45%,** based on a total diverted quantity of 1.19 MT and a total potential divertible quantity of 3.02 MT. The overall recycling capture rate was 39.45%, with the Red Box and Blue Box capture rates calculated at 55.39% and 24.97%, respectively.

7. Waste Audit Summary and Waste Reduction Work Plan

Refer to Appendix F for the Waste Audit Summary and the Waste Reduction Work Plan.

According to O.Reg.102/94, the Waste Reduction Work Plan or a plan summary must be posted at the facility where employees can review it. If a summary is posted, the entire Work Plan should also be made available for review by any employee upon request.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

8. Findings and Conclusions

The conclusions discussed below are based on the waste audit findings. It should be noted that the conclusions and recommendations provided in this report are based on the waste audit sample results, which are considered representative of the annual quantities for this report. The estimates in this report have yet to account for fluctuations in waste quantities generated daily.

- The Garbage stream sample had the highest sample mass (83.47%), followed by Red Box (10.10%) and Blue Box stream (6.43%).

Overall Composition

- Classrooms accounted for the largest share of the sample (77.62%), the majority from the garbage stream, composed mainly of organics, paper towels/compostable fibres, non-recyclable, LDPE #4 plastic films and fine paper.
- Hallways and general areas generated the second-highest sample mass (13.62%), with the largest contribution from the Red Box stream (7.20%).
- Overall, organics, paper towels/compostable fibres, non-recyclable, and fine paper were the most generated materials across all areas and waste streams, collectively accounting for roughly 70% of the total sample mass.

Composition by Waste Stream

- The garbage stream was primarily composed of organics (35.07%), followed by paper towels/compostable fibres (22.09%), and non-recyclables (10.87%).
    - The Garbage sample consisted of 79.73% garbage material, 7.18% Red Box material, and 13.09% Blue Box material.
- Within the Red Box stream, fine paper was the dominant material at 61.41%, followed by paper towels/compostable fibres (8.35%) and boxboard (6.49%).
    - The Red Box stream was composed of 76.25% Red Box materials, 18.18% of garbage materials and 5.57% Blue Box materials.
- The Blue Box stream was primarily composed of organics (16.91%), aseptic containers (16.03%), and PET #1 (13.41%).
    - The Blue Box stream consisted of 59.48% Blue Box material, 37.32% garbage material and 3.21% Red Box material.

Contamination

- The garbage stream exhibited a contamination rate of 20.27%, while the overall recycling stream showed a contamination rate of 25.62%; contamination rates for the Red Box and Blue Box streams were 23.75% and 40.52%, respectively.
- The overall contamination rate for the garbage stream was 20.27%, indicating notable misplacement of recyclable materials.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

- Contamination within the garbage stream included 7.18% Red Box material, and 13.09% Blue Box material, with aseptic containers, fine paper, kraft paper/other fibres, PP #5, polystyrene #6, HDPE #2 containers, and coffee cups as the main contaminants.
- The garbage sample showed that Classrooms (89.15%) were the most contaminated among all generation areas. The contamination consisted primarily of aseptic containers and fine paper. The public areas showed the lowest contamination at 0.55%.

- The contamination rate for the Red Box stream was 23.75%, largely attributable to mis-sorted garbage. Contamination was primarily associated with garbage (18.18%) and Blue Box materials (5.57%), with paper towels/compostable fibres, non-recyclables, and LDPE #4 plastic films as the leading contaminants.
  - Hallways/general areas showed the highest Red Box contamination at 82.03%, whereas classrooms demonstrated the lowest contamination rate at 17.97%.
- The contamination rate for the Blue Box stream was found to be 40.52% from hallways and general areas. Contamination was associated with garbage materials (37.32%) and Red Box materials (3.21%), primarily consisting of organics, paper towels/compostable fibres, and non-recyclables.

Mandatory Recyclables

- The garbage stream consisted of 4.80% mandatory recyclables, 14.35% other recyclables, and 80.85% non-recyclable materials.
- The staff room demonstrated the highest proportion of mandatory recyclables disposed of as garbage (6.90%), while the public areas exhibited the highest proportion of other recyclables (19.23%). The public areas and washrooms showed the lowest proportion of mandatory recyclables disposed of as garbage at 0.00%.
- Mandatory recyclables disposed of in the garbage stream were primarily fine paper (19.34%), aluminum (5.28%), and cardboard (0.47%).

- Other recyclables in the garbage stream consisted mainly of aseptic containers (35.29%), kraft paper/other fibres (8.44%), PP #5 (8.09%), polystyrene #6 (6.33%), and HDPE #2 containers (5.98%).

Estimated Annual Quantities

- An approximate of 10.35 MT of waste is estimated to be generated annually in Talbot Trail Public School, dominated by organics (3.14 MT), paper towels/compostable fibres (2.05 MT), non-recyclable (1.04 MT), fine paper (0.98 MT), and LDPE#4 plastic films (0.98 MT).

Waste Diversion Rate

- The 2025 **waste diversion rate was calculated to be 16.53%** (below the provincial objective of 60%) based on 1.71 MT of diverted waste and 10.35 MT of total waste generated in 194 school days.

Capture Rate

- **The overall capture rate was calculated at 39.45%,** based on an estimated total diverted quantity of 1.19 MT and a total potential divertible quantity of 3.02 MT. The overall recycling capture rate

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

was 39.45%, with the Red Box and Blue Box capture rates calculated at 55.39% and 24.97%, respectively.

9 Recommendations

Based on the conclusions, the following recommendations are tied to the conclusions discussed in the previous section.

9.1 Improve Existing Waste Diversion Programs

Improving the following existing diversion programs could improve waste diversion and capture rates.

Mandatory Recyclables

- **Fine paper — 0.32 MT** of material is estimated to be generated annually through the garbage stream. Diverting this through the recycling stream could **increase the waste diversion rate up to 2.5%** and **could increase the capture rate up to 10.6%.**
- **Aluminum — 0.09 MT** of material is estimated to be generated annually through the garbage stream. Diverting this material through the recycling stream could **increase the waste diversion rate up to 0.72%** and **could increase the capture rate up to 2.97%.**
- **Cardboard — 0.01 MT** of material is estimated to be generated annually through the garbage stream. Diverting this material through the recycling stream could **increase the waste diversion rate up to 0.08%** and **could increase the capture rate up to 0.33%.**

9.2 Add Organics/Paper Towels Diversion Programs

- Organics generated in the garbage stream accounted for 3.14 MT of material annually. Diverting this material through a new organics diversion program **could increase waste diversion by up to 19.43%**.
- Paper towels generated in the garbage stream accounted for 2.05 MT of material annually. Diverting this material through a new organics diversion program **could increase waste diversion by up to 13.8%**.

9.3 Dedicated Receptacles and Update Signage

Waste diversion rates could be improved by implementing dedicated receptacles with clear signage to encourage waste separation at the source. Some rogue bins are located throughout the school, with no signage or consistency with size and colour (Image 1 & 2).

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Image 1& 2 Current bins and signage




- Dedicated receptacles for waste, including landfills, organics/compost, and mixed recyclables, should be implemented as part of collection programs. Receptacles should be sized appropriately according to their use and colour-coordinated to identify the type of waste (i.e., green for organics/compost, blue for recycling, black for garbage).
- Remove every "solitary" garbage container from the building. The implementation of multi-compartment recycling bins is advised. This will increase source separation and overall diversion rates, especially in common areas, which will also allow staff to specifically seek out a multi-streamed bin.
- Clear plastic garbage bags rather than black plastic bags should be used to gather all waste products. This enables the maintenance team to monitor garbage collection and ensure that different waste streams are disposed of in the appropriate containers.
- Implement clear signage for each bin explaining the type of waste to be disposed of, which will guide the viewer's gaze, and promote coherence in the waste disposal throughout the facility while presenting the information in a quick, digestible manner.

An example of dedicated, colour-coded receptacles and signage is provided below.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Image 3 & 4: Recommended Signage and bins



9.4 Promoting Culture

- A committee is recommended to oversee waste reduction and sustainability and promote a culture of waste diversion. Educate staff and students on the importance of waste diversion and communicate the corporate goals for waste diversion and sustainability. Create a positive message around the benefits of waste diversion and the individual's role.
- Support and promote the procurement and use of environmentally friendly, reusable, or recyclable materials and packaging, including products with recycled content. For example, prioritize the purchase of coffee pods that participate in a collection and recycling program to ensure proper disposal.
- Encourage staff to prioritize bringing reusable containers, water bottles, and coffee cups.
- Ensure an Environmental Policy is visible in common areas throughout the building and continue to emphasize the facility's commitment to environmental stewardship through its training program and green or environmental initiatives.
- Promote and highlight current environmental programs and efforts through newsletters, posters, and/or bulletin boards for waste management.

9.5 Continuous Monitoring and Process Improvement

Track year-over-year changes in waste diversion capture rates and communicate progress to staff and students to encourage further participation/engagement.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Continuous monitoring and reporting for this site annually and comparison with year-over-year changes would provide insight into trends, which can be used 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. Such programs may include wood pallet reuse, electronic waste recycling, bulbs & ballasts, batteries, printer toner reuse, double-sided printing policy, textiles donation and other programs.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Appendices

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Appendix A: List of Categories

Material Category	Description
1. Paper and Paper Products	
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 softcover books, booklets, magazines, catalogues, calendars, flyers, and inserts.
Newsprint	Major daily and weekly newspapers and community newspapers. Does not include flyers and inserts.
Shredded Confidential Papers	Any paper that has been shredded.
Boxboard	Single-layered paperboard and fibre board with no corrugation. This includes cereal boxes, shoe boxes, cores from toilet paper, paper towels, gift wrap, etc.
Kraft Paper	Kraft paper bags and wrap, grocery or retail bags, potato bags, pet food bags, etc. Includes brown, white, and coloured kraft paper and bags. No bags with bonded plastic or foil lining.
Corrugated Cardboard	Waxed or unwaxed corrugated cardboard containers. Includes moulded pulp materials such as egg cartons, drink trays, other trays, etc.
Gable Top Containers	Polycoat containers with a gable-shaped top are used for milk, juice, some foods, etc.
Aseptic Containers	Tetra-pak-type polycoat packaging containers are used for juice, milk, soups and broths, alternative milk beverages, and alcoholic beverages.
Composite Cans	Spiral-wound cans with paper walls and plastic or metal tops or bottoms. They contain frozen juice, Pringles chips, dough, some raisins, etc.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Coffee Cups	All cups and containers used for hot/cold beverages and food (without a plastic oHot Primarily, hot/cold food and beverage containers are common in the fast food industry. Includes paper-based cups with a plastic lining, water cooler cups, freezer boxes, etc.
2. Plastic	
#1 Polyethylene Terephthalate (PET)	All PET #1 plastics. This includes clear or coloured thermoform packaging, beverage bottles, and non-beverage bottles used for food and non-food items such as dish soap, shampoo, mouthwash, window cleaner, and floor cleaner. ● 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.
#4 Low-Density Polyethylene (LDPE) Films	All #4 LDPE plastic films. This includes soft, "stretchy" PE plastic used for items such as produce bags, water bottle overwraps, garbage bags, kitchen liners, blue or clear recycling bags, sandwich and freezer bags, etc. ● Does not include Black Plastics.
#5 Polypropylene (PP)	All #5 PP plastics. Includes clear and coloured food containers, jugs, jars, take-out beverage cups, bottles, and jars for food items. ● 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.
Other Recyclable Plastics (#3, 4, 7)	All other recyclable plastics (#3, 4, 7). Includes clear and coloured bottles, jugs, jars, and containers.
3. Glass/Metal	

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Glass:	All clear and coloured glass. Includes bottles and containers for food, beverages, cosmetics, toiletries, household pharmaceutical products, candle jars, etc. ● Does not include non-recyclable glass such as windowpane glass, plates, drinking glasses, figures, or 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.), and empty paint cans. ● Does not include full or partially full pressurized cans.
4. Organics	
Organic Food Waste	All edible and non-edible organic waste from food items. Includes untouched and leftover bakery, meat & fish, dried food, fruits & vegetables, dairy, and other foods.
Other Organics:	All other organic materials that are not derived from food items. Includes yard waste, grass clippings, small wood waste, pet waste, diapers and sanitary products, certified compostable plastic bin liners, and other compostable papers.
Compostable fibres	Include paper towels, paper napkins, toilet paper, facial tissues, etc.
5. Operational waste	
Other metals,	Scrap metals, copper pipes, hardware, etc. Includes multi-material items that are mainly metal.
Non-Treated Wood	Non-treated wood materials. Includes skids/pallets, wooden furniture, etc. ● Does not include branches, brush, or wood chips.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Batteries	All single-use and rechargeable batteries. Includes Alkaline-Manganese, Lithium, Silver Oxide, Zinc Air, Zinc-Carbon, etc.
Printer Toners	All ink cartridges and printer toners.
E-Waste	All waste is from electrical and electronic equipment (WEEE). Anything that is battery-operated and/or can be plugged into an electrical outlet. Includes computer/IT equipment, telecom equipment, TV & audio equipment, small kitchen appliances, wires/chargers /adapters, cocks, gadgets, etc.
Plastic Strapping	This is All-Plastic Strapping material. It is used to bundle products for retail sales and can come in various colours and plastic materials.
6. Non-Recyclable Waste	
Non-Recyclable/Garbage	All other non-recyclable waste materials are not classified elsewhere. Includes hazardous waste, coffee cups, black plastics, and expanded polystyrene, all described below. 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.
Hazardous Wastes	All hazardous wastes are not classified elsewhere. Includes full or partially full pressurized cans, paints, and oil containers. ● Also includes fluorescent light bulbs and tubes, medical sharps and syringes, mercury-containing devices, pharmaceuticals, antifreeze, fertilizers, solvents, pesticides, etc. ● Also includes all other liquid or non-liquid items with signal words such as "Poison," "Danger," "Warning," "Caution," and "Precautionary Statements."
Cold Beverage Wax-Lined Cups	All cups and containers have a plastic or wax lining. Multiple-layered, primarily fibre, hot/cold food and beverage containers are common in the fast food industry. This includes paper-based cups with a plastic lining, water cooler cups, freezer boxes, etc.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Black Plastics	Includes all Black Plastics #1-7 and unmarked. ● Also includes rigid, durable, and expanded Black Plastics and black plastic bags.
Expanded Polystyrene	This includes white, coloured, and black polystyrene foam packaging for food trays, clamshells, etc., as well as foam packaging for "peanuts" and foam blocks used to protect boxed products.

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Appendix B: Scale Calibration Certificate

CANADIAN SCALE COMPANY LIMITED

CALIBRATION CERTIFICATE

DATE: March 27, 2025 **SR #** 25C035

CUSTOMER:

Waste Reduction Group
214 Merton St. #101
Toronto, ON M4S 1A6
admin@wastereductiongroup.ca

REMARKS

This is to certify that the following weights have 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.

EWH-150
Capacity - 150 kg
S/N - 202304095

CANADIAN SCALE COMPANY LIMITED is an
Authorized Service Provider of Measurement Canada

PETER DAVIS STANDEN

Technician's signature

CANADIAN SCALE COMPANY LIMITED
305 Horner Avenue, Toronto, ON M8W 1Z4
1-800-461-0634 www.canscale.com

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Appendix C: Detailed Sample Composition

(Note: higher intensity of blue highlighting indicates higher sample weight/percent)

Sampled Stream	GARBAGE												RECYCLING BLUE BOX				RECYCLING RED BOX						TOTAL	
Generation Area	CLASSROOM		OFFICE		PUBLIC AREAS		STAFF ROOM		WASHROOMS		TOTAL		HALLWAYS / GENERAL AREAS		TOTAL		CLASSROOM		HALLWAYS / GENERAL AREAS		TOTAL			
Material	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%
Organics	15.00	28.11%	0.14	0.26%	0.00	0.00%	0.48	0.90%	0.00	0.00%	**15.62**	**29.27%**	0.58	1.09%	**0.58**	**1.09%**	0.00	0.00%	0.00	0.00%	**0.00**	**0.00%**	**16.20**	**30.36%**
Paper Towels/Compostable Fibres	7.83	14.67%	0.18	0.34%	0.00	0.00%	0.70	1.31%	1.13	2.12%	**9.84**	**18.44%**	0.27	0.51%	**0.27**	**0.51%**	0.10	0.19%	0.35	0.66%	**0.45**	**0.84%**	**10.56**	**19.79%**
Non-Recyclable	4.45	8.34%	0.11	0.21%	0.09	0.17%	0.19	0.36%	0.00	0.00%	**4.84**	**9.07%**	0.23	0.43%	**0.23**	**0.43%**	0.00	0.00%	0.27	0.51%	**0.27**	**0.51%**	**5.34**	**10.01%**
Fine Paper	1.61	3.02%	0.01	0.02%	0.00	0.00%	0.03	0.06%	0.00	0.00%	**1.65**	**3.09%**	0.11	0.21%	**0.11**	**0.21%**	1.20	2.25%	2.11	3.95%	**3.31**	**6.20%**	**5.07**	**9.50%**
LDPE (#4) Plastic Films	4.03	7.55%	0.15	0.28%	0.12	0.22%	0.14	0.26%	0.14	0.26%	**4.58**	**8.58%**	0.20	0.37%	**0.20**	**0.37%**	0.08	0.15%	0.18	0.34%	**0.26**	**0.49%**	**5.04**	**9.45%**
Aseptic Containers	2.99	5.60%	0.00	0.00%	0.02	0.04%	0.00	0.00%	0.00	0.00%	**3.01**	**5.64%**	0.55	1.03%	**0.55**	**1.03%**	0.02	0.04%	0.14	0.26%	**0.16**	**0.30%**	**3.72**	**6.97%**
Kraft Paper/Other Fibres	0.55	1.03%	0.00	0.00%	0.00	0.00%	0.03	0.06%	0.14	0.26%	**0.72**	**1.35%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	0.31	0.58%	**0.31**	**0.58%**	**1.03**	**1.93%**
PP #5	0.51	0.96%	0.06	0.11%	0.00	0.00%	0.12	0.22%	0.00	0.00%	**0.69**	**1.29%**	0.22	0.41%	**0.22**	**0.41%**	0.03	0.06%	0.02	0.04%	**0.05**	**0.09%**	**0.96**	**1.80%**
PET #1	0.47	0.88%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.47**	**0.88%**	0.46	0.86%	**0.46**	**0.86%**	0.00	0.00%	0.00	0.00%	**0.00**	**0.00%**	**0.93**	**1.74%**
Aluminum	0.36	0.67%	0.02	0.04%	0.00	0.00%	0.07	0.13%	0.00	0.00%	**0.45**	**0.84%**	0.37	0.69%	**0.37**	**0.69%**	0.00	0.00%	0.06	0.11%	**0.06**	**0.11%**	**0.88**	**1.65%**
HDPE Plastic Containers #2	0.45	0.84%	0.03	0.06%	0.03	0.06%	0.00	0.00%	0.00	0.00%	**0.51**	**0.96%**	0.31	0.58%	**0.31**	**0.58%**	0.00	0.00%	0.02	0.04%	**0.02**	**0.04%**	**0.84**	**1.57%**
Polystyrene #6	0.42	0.79%	0.03	0.06%	0.00	0.00%	0.09	0.17%	0.00	0.00%	**0.54**	**1.01%**	0.13	0.24%	**0.13**	**0.24%**	0.00	0.00%	0.01	0.02%	**0.01**	**0.02%**	**0.68**	**1.27%**
Boxboard	0.13	0.24%	0.00	0.00%	0.00	0.00%	0.08	0.15%	0.08	0.15%	**0.29**	**0.54%**	0.00	0.00%	**0.00**	**0.00%**	0.07	0.13%	0.28	0.52%	**0.35**	**0.66%**	**0.64**	**1.20%**
Coffee Cups	0.40	0.75%	0.06	0.11%	0.00	0.00%	0.04	0.07%	0.00	0.00%	**0.50**	**0.94%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	0.03	0.06%	**0.03**	**0.06%**	**0.53**	**0.99%**
PPE	0.23	0.43%	0.07	0.13%	0.00	0.00%	0.00	0.00%	0.03	0.06%	**0.33**	**0.62%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	0.00	0.00%	**0.00**	**0.00%**	**0.33**	**0.62%**
Cold Beverage Wax-Lined Paper Cups	0.28	0.52%	0.00	0.00%	0.00	0.00%	0.02	0.04%	0.00	0.00%	**0.30**	**0.56%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	0.00	0.00%	**0.00**	**0.00%**	**0.30**	**0.56%**
Moulded Pulp	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	0.05	0.09%	0.06	0.11%	**0.11**	**0.21%**	**0.11**	**0.21%**
Other Plastics #3, #4, #7	0.11	0.21%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.11**	**0.21%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	0.00	0.00%	**0.00**	**0.00%**	**0.11**	**0.21%**
Composite Cans	0.05	0.09%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.05**	**0.09%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	0.00	0.00%	**0.00**	**0.00%**	**0.05**	**0.09%**
Cardboard	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.04	0.07%	0.00	0.00%	**0.04**	**0.07%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	0.00	0.00%	**0.00**	**0.00%**	**0.04**	**0.07%**
Total	**39.87**	**74.72%**	**0.86**	**1.61%**	**0.26**	**0.49%**	**2.03**	**3.80%**	**1.52**	**2.85%**	**44.54**	**83.47%**	**3.43**	**6.43%**	**3.43**	**6.43%**	**1.55**	**2.90%**	**3.84**	**7.20%**	**5.39**	**10.10%**	**53.36**	**100.00%**

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Appendix D: Site Photographs



Site tour – Solitary garbage bin



Site tour – Red Box, Blue Box and garbage signage



Waste Audit – Organics in Garbage (Classrooms)



Waste Audit – Paper towels in Garbage (Classrooms)



Waste Audit – HDPE #2 in Garbage (Classrooms)



Waste Audit – PP #5 in Garbage (Classrooms)

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.



Waste audit – Non-recyclables (stationery items) in Garbage (Classrooms)



Waste audit – Aseptic containers in Garbage (Public areas)



Waste audit – Aluminum in Blue Box (Hallways/general areas)



Waste audit – PET #1 in Blue Box (Hallways/general areas)



Waste audit – Organics in Blue Box (Hallways/general areas)



Waste audit – PP #5 in Blue Box (Hallways/general areas)

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.



Waste audit – HDPE #2 containers in Blue Box (Hallways/general areas)



Waste audit – Fine paper in Red Box (Classrooms)



Waste audit – Boxboard in Red Box (Hallways/general areas)



Waste audit – Kraft paper in Red Box (Hallways/general areas)



Waste audit – Paper towels/compostable fibres in Red Box (Hallways/general areas)



Waste audit – Non-recyclable (chip plastics) in Red Box (Hallways/general areas)

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Appendix E: School Calendar

Greater Essex County District School Board

Ontario

Student Calendar 2025-2026

Elementary and Secondary

Elementary and Secondary PA Days	Secondary Only PA Days	Holidays
Elementary Only PA Days	Exam Days (Grades 9-12)	Break

SEPTEMBER

S	M	T	W	T	F	S
24	25	26	27	28	29	30
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

June

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Building Tomorrow Together

Important Dates	
First Day of Classes	September 2nd
Last Day of Classes	June 25th
194 Instructional Days	Large numbers in black
Elementary 5 Day Cycle (1-5)	Small numbers in black

Elem. and Sec. PA Days	Elementary PA Days	Secondary PA Days	Exam Days (Grades 9-12)
September 19th	January 16th	January 30th	January 23rd-29th
October 17th	June 5th	April 24th	June 19th-25th
November 14th			
February 27th			
June 26th			

Holidays and Breaks			
Labour Day	September 1st	March Break	March 16th—20th
Thanksgiving	October 13th	Good Friday	April 3rd
Holiday Break	Dec. 22nd-Jan. 2nd	Easter	April 6th
Family Day	February 16th	Victoria Day	May 18th

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.

Appendix F: Waste Audit and Reduction Work Plan

Copyright © 2023 Waste Reduction Group Inc. All Rights Reserved. Created in Ontario, Canada.