Essex District High School
244 Talbot N.
Essex, ON
N8M 2E1

2025 Waste Audit

Prepared For:

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Executive Summary

Greater Essex District School Board retained Waste Reduction Group ("WRG") to conduct a solid, non-hazardous waste audit for the Essex District High School located at 244 Talbot N.in Essex, 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 Essex District High 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 one (1) sample of the Red Box stream, one (1) sample of the Blue Box stream and seven (7) 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 (83.41%), followed by the Blue Box stream (9.16%) and the Red Box (7.43%).

Composition By Waste Stream

- **Garbage Stream** - the garbage stream consisted primarily of organics (15.80 kg, 31.08%), paper towels/compostable fibres (6.42 kg, 12.63%), and LDPE #4 plastic films (5.98 kg,11.76%).
- **Red Box** - Fine paper had the most significant overall sample mass (1.29 kg, 28.48%), followed by cardboard (1.20 kg, 26.49%) and LDPE#4 plastic films (0.63 kg, 13.91%).
- **Blue Box** - consisted primarily of LDPE #4 plastic films (1.03 kg, 18.46%), aluminum (0.79 kg, 14.16%), and Cardboard (0.75 kg, 13.44%).

Composition by Functional Area

- **Classrooms** generated the highest overall sample mass (41.51%), comprising only garbage, consisting primarily of organics, LDPE #4 plastic films, and paper towels/compostable fibres.
- **Hallways/general areas** represented the second-highest sample mass (16.59%) of Red Box and Blue Box streams, composed primarily of cardboard, LDPE #4 plastic films, and fine paper.

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Contamination

- The contamination rates for the sampled streams were as follows: Garbage stream – 32.45%, and overall Recycling stream – 21.86%. The contamination rates for the Red Box and Blue Box streams were 29.58% and 46.24%, respectively.
- The **Red Box** sample consisted of 70.42% Red Box material, 17.44% Garbage material and 12.14% Blue Box material.
- The **Blue Box** sample consisted of 53.76% Blue Box material, 25.45% garbage material and 20.79% Red Box material.
- The **Garbage** sample consisted of 67.55% garbage material, 14.87% Blue Box material, 16.86% Red Box material, and 0.73% electronic waste.

Recyclables in the Garbage Stream

- The garbage sample consisted of 9.87%Mandatory Recyclables, 20.10%Other Recyclables, and 70.02%Other (Non-Recyclable) material.
- The **Mandatory Recyclables** in the garbage stream consisted of (in % of total sample mass):
    - Cardboard – 13.32%
    - Fine paper – 11.22%
    - Aluminum – 4.92%
    - Newspaper – 1.44%
    - Glass – 1.12%
    - Steel Cans – 0.92%
- The **Other Recyclables** in the garbage stream consisted primarily of:
    - PP #5 – 16.80%
    - Boxboard – 11.81%
    - Kraft paper/other fibres – 9.51%
    - PET #1 – 6.69%
    - Aseptic containers – 5.18%

- The 2025 **waste diversion rate was calculated to be 16.59%** (below the provincial objective of 60%) based on 1.96 MT of potential diverted waste and 11.82 MT of total waste generated in 194 school days.
- The overall **capture rate was calculated at 25.37%**, based on an estimated diverted quantity of 1.20 MT and a total potential divertible quantity of 4.73 MT. The overall recycling capture rate was 25.76%, with the Red Box and Blue Box capture rates calculated at 24.69% and 27.00%, 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:
    - *Cardboard:* An estimated 0.39 MT of cardboard is disposed of annually through the garbage

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stream. Redirecting this material to the recycling stream could increase the overall waste diversion rate by up to 2.66% and improve the capture rate by up to 5.68%.

- *Fine paper:* An estimated 0.33 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 2.26% and improve the capture rate by up to 4.86%.
- *Aluminum:* Approximately 0.15 MT of aluminum is estimated to be disposed of annually in the garbage stream. Diverting this material through proper recycling could increase the waste diversion rate by up to 1.04% and the capture rate by up to 2.29%.
- *Newspaper:* An estimated 0.04 MT of newspaper is disposed of annually in the garbage stream. Improved source separation and recycling could increase the waste diversion rate by up to 0.28% and the capture rate by up to 0.62%.
- *Glass and Steel cans:* An estimated 0.03 MT of each, glass and steel cans, are disposed of annually in the garbage stream. Improved source separation and recycling could increase the waste diversion rate by up to 0.21% and the capture rate by up to 0.47%.

- 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 3.15 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 17.54%.
  - *Paper towels/compostable fibres:* An estimated 1.25 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 7.97%.
- Providing clear signage and colour-coordinated receptacles at each disposal point can improve waste capture by helping staff and students identify correct disposal methods. Receptacles should match the activity type and size. Promoting waste diversion through education and communicating municipal goals can foster a culture of sustainability. Reducing waste from single-use items like coffee cups involves encouraging personal mugs and purchasing recyclable coffee pods. Setting realistic goals, tracking progress annually, and sharing outcomes motivate ongoing community engagement.

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1. Introduction

Greater Essex District School Board retained Waste Reduction Group ("WRG") to conduct a solid, non-hazardous waste audit for Essex District High School located at 244 Talbot N. in Essex, 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

Essex District High School, located at 244 Talbot Street N., Essex, Ontario, N8M 2E1, is a public secondary educational institution serving approximately 714 students. The school provides education from Grade 9 through Grade 12 and includes functional areas such as classrooms, hallways, offices, staff rooms, a cafeteria, washrooms, and outdoor areas. 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 one (1) sample of the Red Box stream, one (1) sample of the Blue Box stream and seven (7) samples of the Garbage stream.
- Sorted samples into predetermined categories as set out by WRG (detailed in Appendix A: List of Categories)

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- 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 20, 2025, WRG collected one (1) Red Box sample, one (1) Blue Box sample, and seven (7) Garbage samples from various waste generation areas—including classrooms, hallways and general areas, offices, cafeteria, staff room, washrooms, outdoor and public places—over 24 hours. Each sample comprised source-separated waste materials generated by staff, students, and visitors within the identified 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 Essex District High School are presented in Table 1 and Figure 1. The sample comprised 60.95 kg of waste materials collected and sorted during the waste audit. Approximately 83.41% of the sample originated from garbage, 9.16% from the Blue Box stream, and 7.43% from the Red Box stream. The following sections analyze 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.

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Table 1: Sample Summary

Generation Area	Kg	%
Classroom	**25.30**	**41.51%**
Garbage	25.30	41.51%
Hallways/General Areas	**10.11**	**16.59%**
Recycling Red Box	4.53	7.43%
Recycling Blue Box	5.58	9.16%
Cafeteria	**9.20**	**15.09%**
Garbage	9.20	15.09%
Public Areas	**8.73**	**14.32%**
Garbage	8.73	14.32%
Washrooms	**2.50**	**4.10%**
Garbage	2.50	4.10%
Outdoor Areas	**2.33**	**3.82%**
Garbage	2.33	3.82%
Office	**1.91**	**3.13%**
Garbage	1.91	3.13%
Staff Room	**0.87**	**1.43%**
Garbage	0.87	1.43%
Total	**60.95**	**100.00%**

Notable observations are described below:

- Classrooms accounted for the most significant portion of the sample, contributing 25.30 kg (41.51% of the total sample mass) of garbage. This was followed by recycling (Blue Box and Red Box) generated in hallways/general areas and garbage from the cafeteria, which accounted for 15.09%.
- Therefore, classrooms, hallways/general areas and cafeteria were the most significant waste generators, accounting for approximately 73.2% of the total sample. The staff room was the lowest waste generator, accounting for only 1.43% of the total sample.

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

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

Generation Area	Cafeteria		Classroom		Hallways / General Areas		Office		Outdoor Areas		Public Areas		Staff Room		Washrooms		Total	
Material	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%
Organics	4.57	7.50%	8.12	13.32%	0.44	0.72%	0.85	1.39%	0.00	0.00%	2.06	3.38%	0.20	0.33%	0.00	0.00%	**16.24**	**26.64%**
LDPE (#4) Plastic Films	0.33	0.54%	3.85	6.32%	1.66	2.72%	0.10	0.16%	0.25	0.41%	1.13	1.85%	0.12	0.20%	0.20	0.33%	**7.64**	**12.53%**
Paper Towels/Compostable Fibres	0.12	0.20%	3.50	5.74%	0.03	0.05%	0.18	0.30%	0.06	0.10%	0.34	0.56%	0.14	0.23%	2.08	3.41%	**6.45**	**10.58%**
Cardboard	0.38	0.62%	0.12	0.20%	1.95	3.20%	0.00	0.00%	0.41	0.67%	1.12	1.84%	0.00	0.00%	0.00	0.00%	**3.98**	**6.53%**
Non-Recyclable	0.76	1.25%	1.85	3.04%	0.00	0.00%	0.20	0.33%	0.00	0.00%	0.48	0.79%	0.07	0.11%	0.00	0.00%	**3.36**	**5.51%**
Fine Paper	0.17	0.28%	1.21	1.99%	1.62	2.66%	0.07	0.11%	0.26	0.43%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**3.33**	**5.46%**
PP #5	0.81	1.33%	0.67	1.10%	0.56	0.92%	0.09	0.15%	0.00	0.00%	0.83	1.36%	0.16	0.26%	0.00	0.00%	**3.12**	**5.12%**
Boxboard	0.41	0.67%	0.55	0.90%	0.37	0.61%	0.08	0.13%	0.00	0.00%	0.57	0.94%	0.04	0.07%	0.15	0.25%	**2.17**	**3.56%**
Aluminum	0.13	0.21%	0.41	0.67%	0.89	1.46%	0.02	0.03%	0.07	0.11%	0.12	0.20%	0.00	0.00%	0.00	0.00%	**1.64**	**2.69%**
Kraft Paper/Other Fibres	0.39	0.64%	0.78	1.28%	0.11	0.18%	0.10	0.16%	0.18	0.30%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**1.56**	**2.56%**
Coffee Cups	0.07	0.11%	0.77	1.26%	0.24	0.39%	0.05	0.08%	0.20	0.33%	0.10	0.16%	0.00	0.00%	0.07	0.11%	**1.50**	**2.46%**
PET #1	0.11	0.18%	0.45	0.74%	0.44	0.72%	0.00	0.00%	0.00	0.00%	0.46	0.75%	0.00	0.00%	0.00	0.00%	**1.46**	**2.40%**
Aseptic Containers	0.32	0.53%	0.36	0.59%	0.43	0.71%	0.05	0.08%	0.03	0.05%	0.03	0.05%	0.00	0.00%	0.00	0.00%	**1.22**	**2.00%**
Other Metal	0.00	0.00%	0.80	1.31%	0.00	0.00%	0.00	0.00%	0.35	0.57%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**1.15**	**1.89%**
Steel Cans	0.00	0.00%	0.00	0.00%	0.73	1.20%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.14	0.23%	0.00	0.00%	**0.87**	**1.43%**
Polystyrene #6	0.16	0.26%	0.33	0.54%	0.12	0.20%	0.09	0.15%	0.00	0.00%	0.15	0.25%	0.00	0.00%	0.00	0.00%	**0.85**	**1.39%**
HDPE Plastic Containers #2	0.19	0.31%	0.18	0.30%	0.27	0.44%	0.00	0.00%	0.00	0.00%	0.21	0.34%	0.00	0.00%	0.00	0.00%	**0.85**	**1.39%**
Cold Beverage Wax-Lined Paper Cups	0.10	0.16%	0.08	0.13%	0.08	0.13%	0.03	0.05%	0.25	0.41%	0.21	0.34%	0.00	0.00%	0.00	0.00%	**0.75**	**1.23%**
Other Plastics #3, #4, #7	0.18	0.30%	0.39	0.64%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.15	0.25%	0.00	0.00%	0.00	0.00%	**0.72**	**1.18%**
Other Wood	0.00	0.00%	0.40	0.66%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.40**	**0.66%**
Electronic Waste	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.37	0.61%	0.00	0.00%	0.00	0.00%	**0.37**	**0.61%**
Textiles	0.00	0.00%	0.15	0.25%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.18	0.30%	0.00	0.00%	0.00	0.00%	**0.33**	**0.54%**
PPE	0.00	0.00%	0.23	0.38%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.23**	**0.38%**
Newspaper	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.22	0.36%	0.00	0.00%	0.00	0.00%	**0.22**	**0.36%**
Composite Cans	0.00	0.00%	0.00	0.00%	0.11	0.18%	0.00	0.00%	0.10	0.16%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.21**	**0.34%**
Glass	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.17	0.28%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.17**	**0.28%**
Moulded Pulp	0.00	0.00%	0.10	0.16%	0.06	0.10%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.16**	**0.26%**
Total	**9.20**	**15.09%**	**25.30**	**41.51%**	**10.11**	**16.59%**	**1.91**	**3.13%**	**2.33**	**3.82%**	**8.73**	**14.32%**	**0.87**	**1.43%**	**2.50**	**4.10%**	**60.95**	**100.00%**

Notable observations are described below:

- **Classroom (Garbage)** - generated the highest sample mass (41.51% of total sample mass), which consisted primarily of organics, LDPE #4 plastic films, and paper towels/compostable fibres.
- **Hallways/general areas (Red Box and Blue Box)** - generated the second highest mass, accounting for 16.59% of the total sample mass, and consisted primarily of cardboard, LDPE #4 plastic films and fine paper.
- **Cafeteria (Garbage)** - generated 15.09% of the total sample mass and mainly consisted of organics, PP #5 and non-recyclable.
- **Public Areas (Garbage)** - generated 14.32% of the total sample mass and consisted of mostly organics, LDPE #4 plastic films and cardboard.
- **Washroom (Garbage)** - generated 4.10% of the total sample mass and consisted of paper towels/compostable fibres.
- **Outdoor areas (Garbage)** - generated 3.82% of the total sample mass and consisted of mostly cardboard, other metals and fine paper.
- **Office (Garbage)** - generated 3.13% of the total sample mass and consisted primarily of organics and non-recyclables.
- **Staff Room (Garbage)** - generated 3.13% of the total sample mass and consisted primarily of

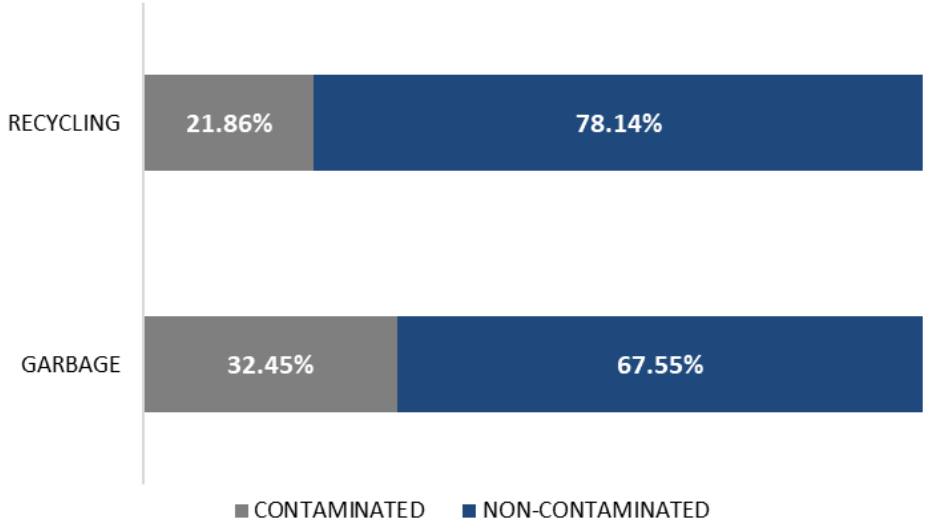
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organics and PP #5.

- Overall, Organics, LDPE #4 plastic films, paper towels/compostable fibres and cardboard were the most highly generated materials across all areas and waste streams, collectively accounting for roughly 56% 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 contamination rate for the garbage stream was 32.45%, while the overall recycling stream was 21.86%. The contamination rates for the Red Box and Blue Box streams were 29.58% and 46.24%, respectively (Figure 4).

Figure 1: Contamination Rate by Sampled Stream



4.2 Garbage Sample Composition and Contamination

A total of 50.84 kg of garbage was collected and sorted during the audit, representing 83.41% of the overall sample mass. The most significant portion originated from the classrooms, accounting for 25.3 kg (41.51%) of the total sample mass. The cafeteria followed this with 9.2 kg (15.09%) (Table 1). A detailed breakdown of the sample by material category is presented in Figure 2, and the corresponding contamination by generation area is illustrated in Figure 3.

Notable Observations

- The garbage sample was primarily composed of **organics**, which accounted for 31.08% (15.80 kg) of the total weight, followed by **Paper towels/compostable fibres** (12.63%), and **LDPE #4 plastic films** (11.76%) (Figure 2).
- The remaining 44.53% consisted mainly of mixed papers (cardboard, boxboard, fine paper, kraft paper and coffee cups) and containers (PP #5, PET #1, aseptic containers, aluminum, PS #6, other

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plastics #3, #4, #7 and HDPE #2) (Figure 2).

- The garbage sample consisted of 67.55% garbage material, 16.86% Red Box material, 14.87% Blue Box material and 0.73% electronic waste (Figure 2).

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

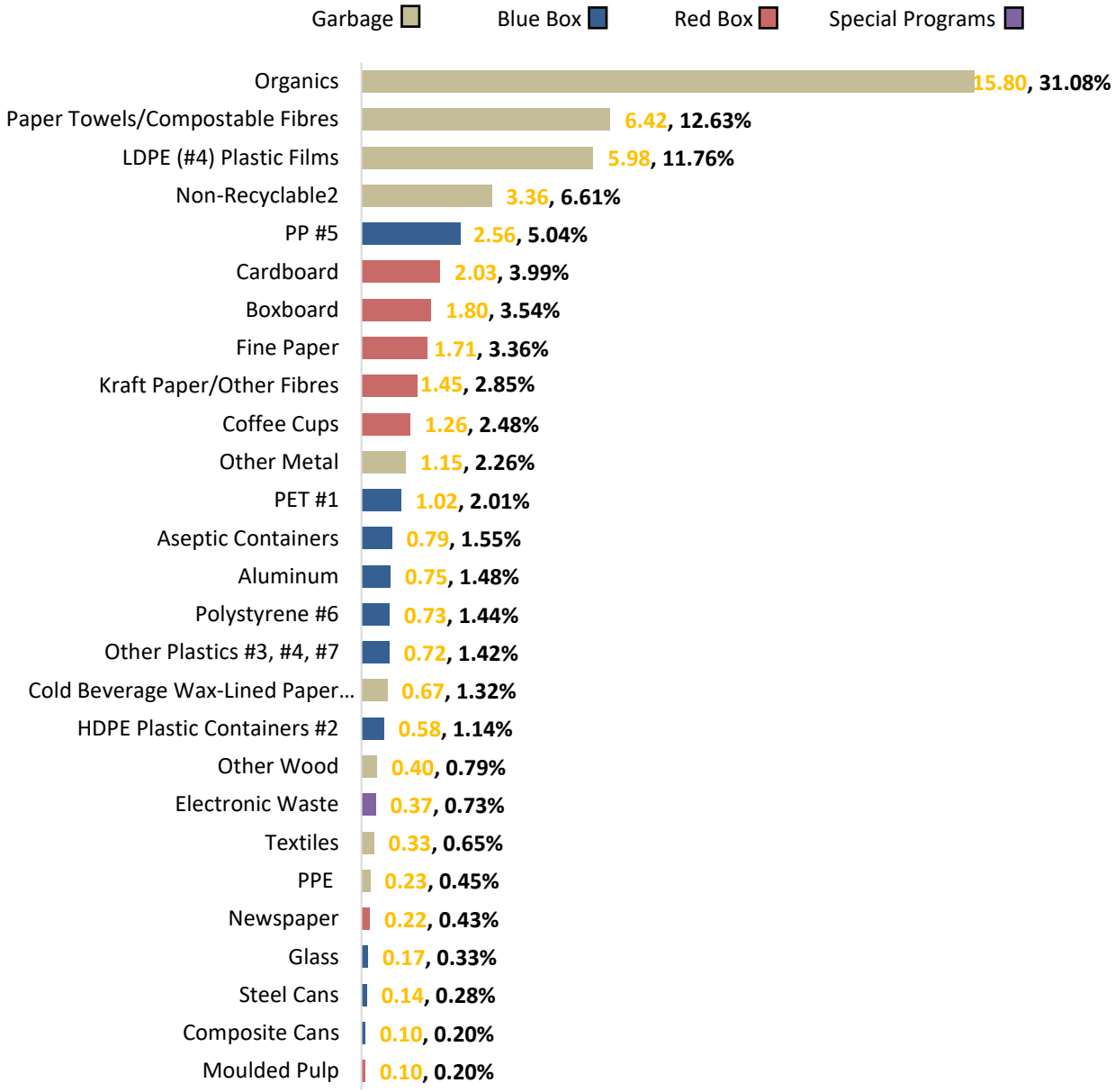
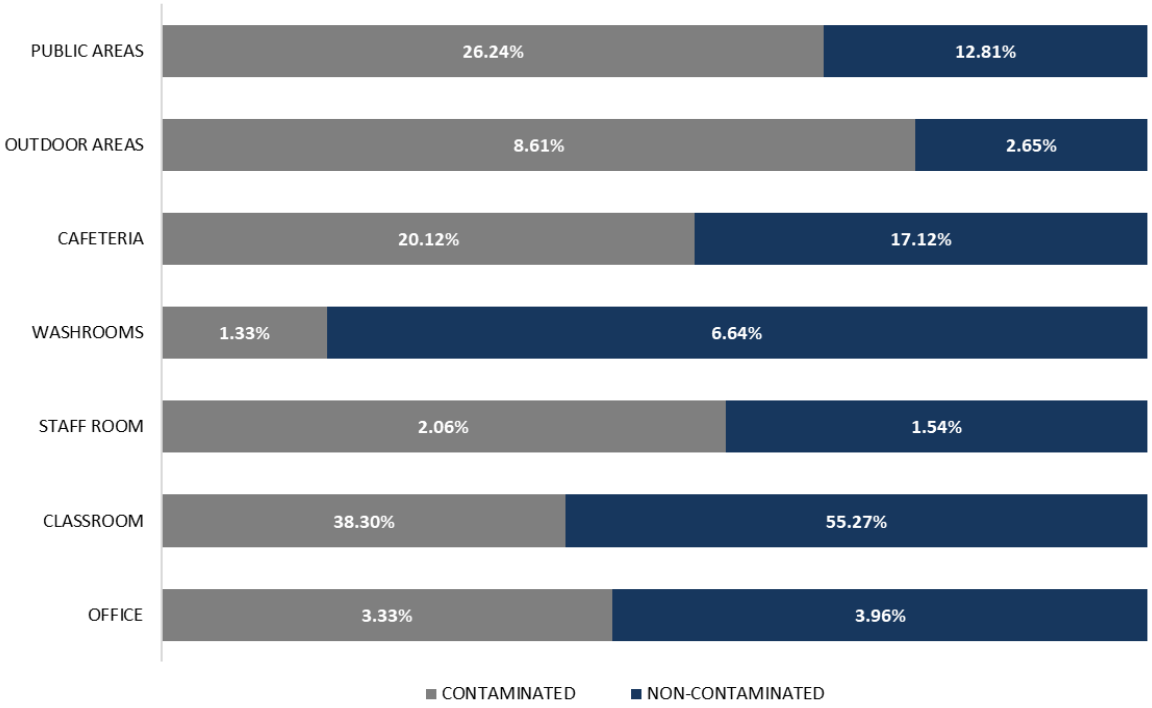


Figure 3 is designed to compare contamination levels across the different generation areas and to identify the areas with the highest contamination. For this purpose, percentages are calculated by column, allowing comparison of each generation area within the “contaminated” and “non-contaminated” categories.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

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Figure 3: Contamination Rate by Garbage Sample and Generation Area



Notable Observations

- The contamination rate for the sampled garbage stream was 32.45%.
- The sample consisted of contamination of Red Box (16.86%), Blue Box (14.87%) and 0.73% electronic waste; the contamination was high in PP #5 containers and mixed papers (cardboard, boxboard, fine paper, kraft paper and coffee cups).
- The garbage sample showed that Classrooms (38.30%) were the most contaminated among all generation areas. The contamination consisted primarily of fine paper, kraft paper/other fibres, coffee cups and PP#5. Washrooms showed the lowest contamination at 1.33%.

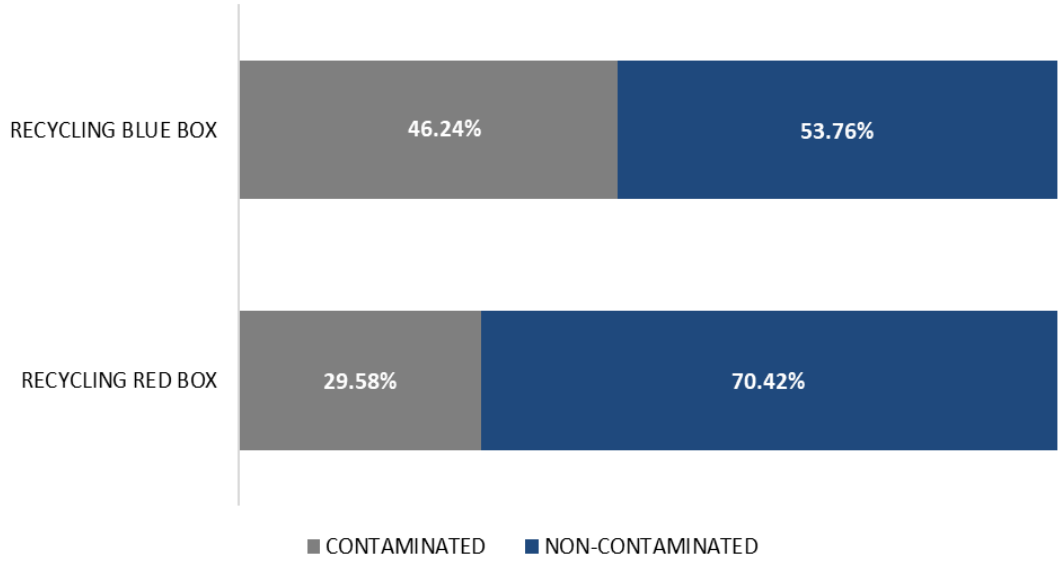
4.3 Recycling Composition and Contamination

In total, 10.11 kg of recyclable materials were collected and sorted during the audit, of which 7.43% (4.53 kg) corresponded to Red Box materials and 9.16% (5.58 kg) to Blue Box materials. The overall contamination rate for the recycling stream was calculated to be 21.86% (Figure 1).

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 29.58% and 46.24%, respectively.

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Figure 4: Contamination Rate Recycling Stream



4.3.1 Red Box Sample

A total of 4.53 kg of Red Box material was collected and sorted during the audit, representing 7.43% of the overall sample mass. All Red Box material was generated exclusively from hallways and general areas. A detailed breakdown of the sample by material category is presented in Figure 5.

Notable Observations

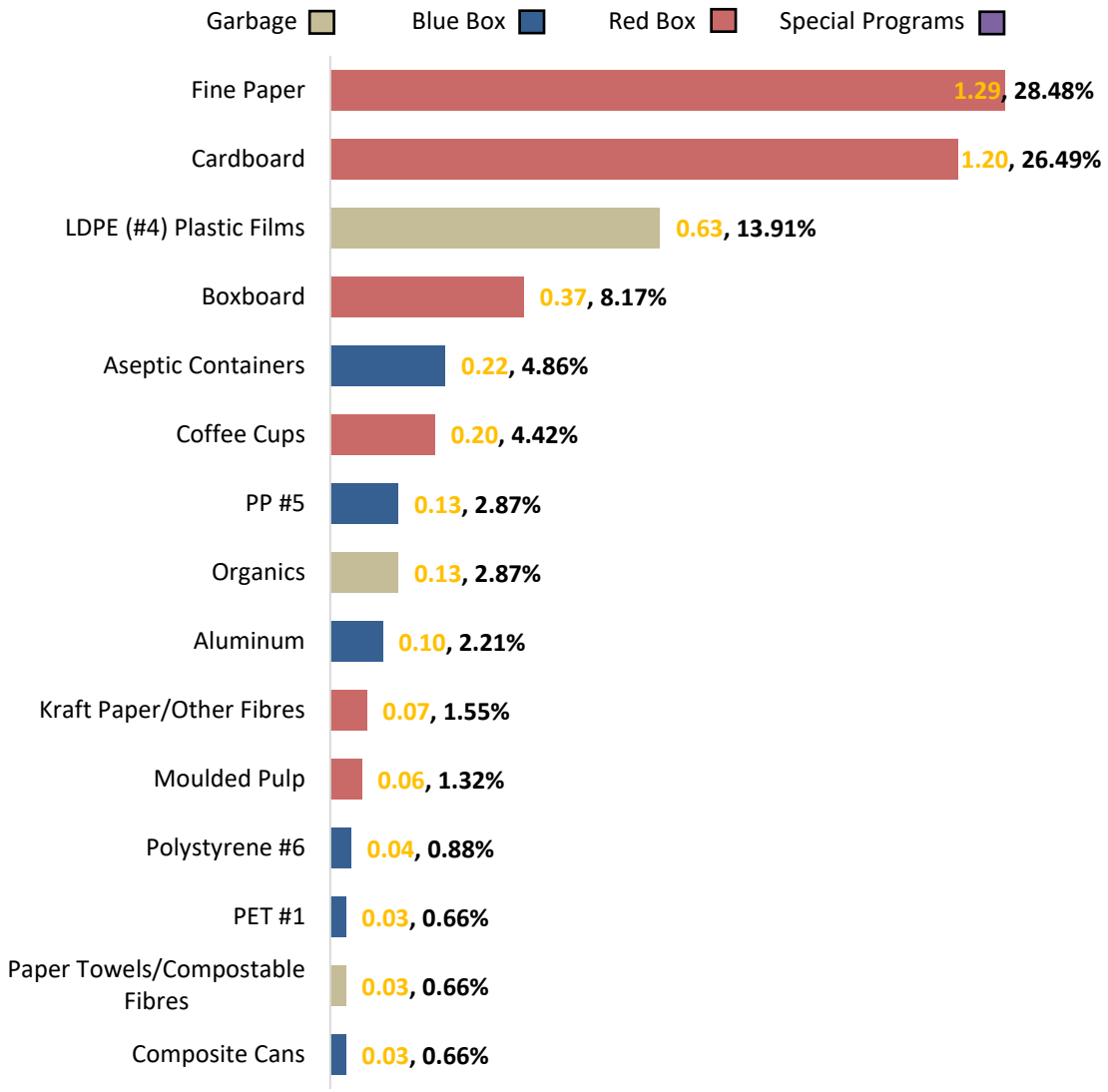
- Within the Red Box stream, **fine paper was the highest material category generated**, accounting for approximately 28.48% of the total sample, followed by cardboard (26.49%), and LDPE #4 plastic films (13.91%) (Figure 5).
- The remaining 31.13% was attributed to other material categories, including boxboard, aseptic containers, coffee cups, PP#5 and organics (Figure 5).
- The Red Box sample consisted of 70.42% Red Box materials, 17.44% of garbage materials and 12.14% Blue Box materials (Figure 5).

Contamination

- The sampled Red Box stream exhibited a contamination rate of 29.58%, originating from hallways and general areas (Figure 4).
- The sample consisted of contamination of garbage (17.44%) and Blue Box materials (12.14%); the contamination was primarily from LDPE #4 plastic films, aseptic containers, PP#5 and organics (Figure 5).

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

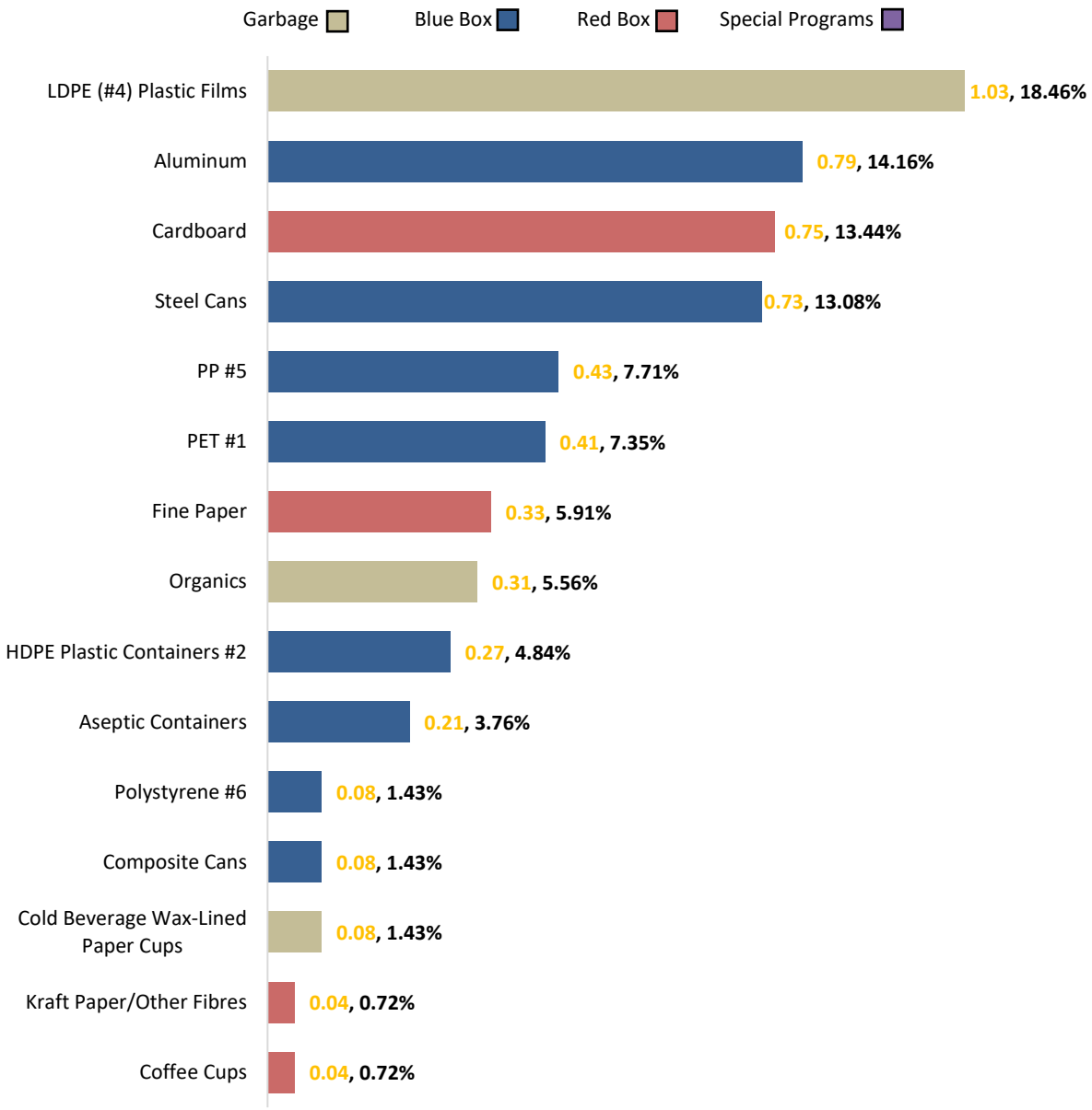


4.3.2 Blue Box Sample

A total of 5.58 kg of Blue Box material was collected and sorted during the audit, representing 9.16% of the overall sample mass. All Blue Box material was generated exclusively from hallways and general areas. A detailed breakdown of the sample by material category is presented in Figure 6.

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Figure 6: Blue Box Composition by Material (in kg and % of sample by mass)



Notable Observations

- The Blue Box sample was primarily composed of **LDPE #4 plastic films**, which accounted for 18.46% (1.03 kg) of the total weight, followed by **aluminum** (14.16%), **cardboard** (13.44%), and **steel cans** (13.08%).
- The remaining 40.86% was attributed to other material categories, including PP #5, PET #1, fine paper, organics and other mixed containers.
- The Blue Box sample consisted of 53.76% Blue Box materials, 25.45% of garbage materials and 20.79% Red Box materials.

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Contamination

- The sampled Blue Box stream, which was collected entirely from hallways and general areas, exhibited a high contamination rate of 46.24% (Figure 4).
- The sample exhibited high contamination of garbage (25.45%) and Red Box materials (20.79%); with LDPE #4 plastic films, cardboard, fine paper, and organics identified as the primary contaminants (Figure 6).

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 9.87% Mandatory Recyclables, 20.10% Other Recyclables, and 70.02% 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 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
- Lightbulbs
- Moulded pulp
- Other plastics #7
- PET #1
- PP #5
- Printer toner/cartridges

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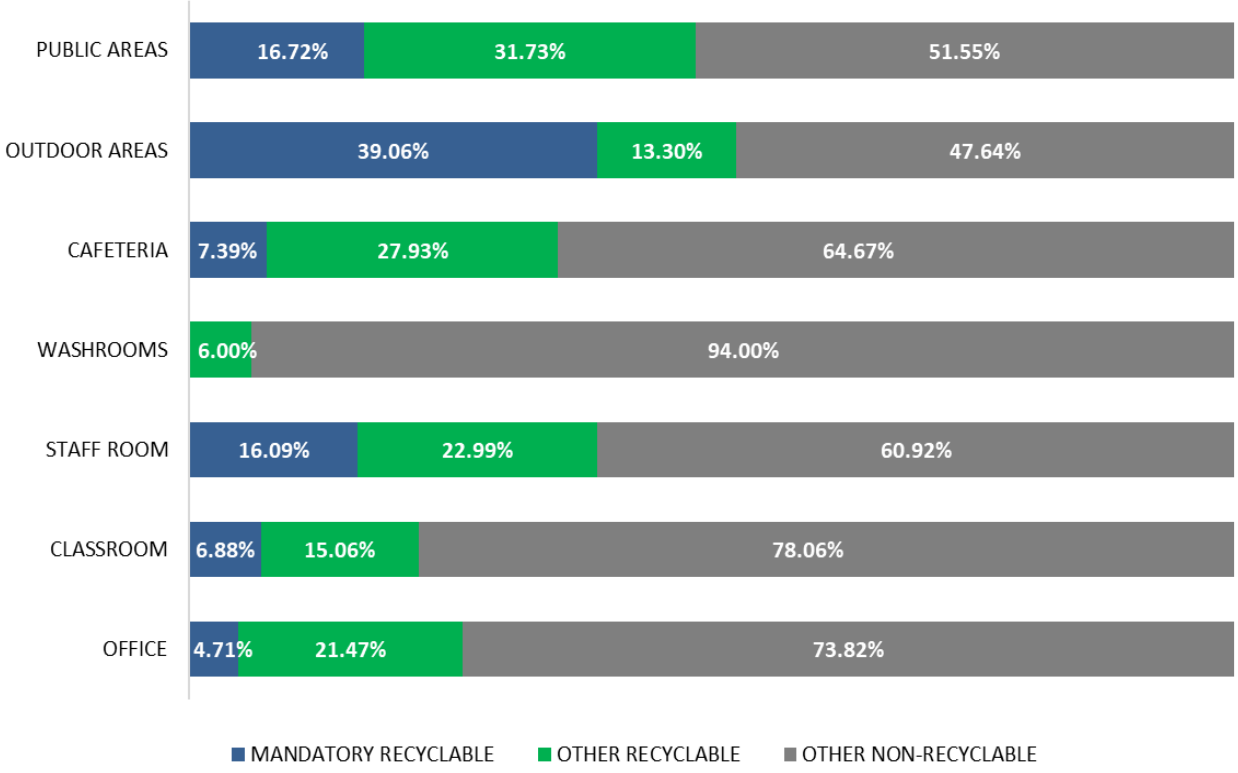
- HDPE #2 plastic containers
- Kraft paper/other fibres

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).

Figure 7: 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.

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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)	%
Cardboard	0.39	13.32%
Fine Paper	0.33	11.22%
Aluminum	0.15	4.92%
Newspaper	0.04	1.44%
Glass	0.03	1.12%
Steel Cans	0.03	0.92%
Total	**0.97**	**32.94%**

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)	%
PP #5	0.50	16.80%
Boxboard	0.35	11.81%
Kraft Paper/Other Fibres	0.28	9.51%
PET #1	0.20	6.69%
Aseptic Containers	0.15	5.18%
Polystyrene #6	0.14	4.79%
Other Plastics #3, #4, #7	0.14	4.72%
HDPE Plastic Containers #2	0.11	3.81%
Electronic Waste	0.07	2.43%
Composite Cans	0.02	0.66%
Moulded Pulp	0.02	0.66%
Total	**1.98**	**67.06%**

Notable observations are discussed below:

- The garbage sample consisted of 9.87%Mandatory Recyclables, 20.10%Other Recyclables, and 70.02%Other (Non-Recyclable) material.
- Outdoor areas exhibited the highest proportion of mandatory recyclables (39.06%) within the garbage, while the public areas exhibited the highest proportion of other recyclables (31.73%). Washrooms exhibited the lowest proportion of mandatory recyclables (0.00%).
- The Mandatory Recyclables in the garbage stream consisted of (in % of total sample mass):

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- Cardboard – 13.32%
- Fine paper – 11.22%
- Aluminum – 4.92%
- Newspaper – 1.44%
- Glass – 1.12%
- Steel cans– 0.92%

- The Other Recyclables in the garbage stream consisted primarily of:
  - PP #5 – 16.80%
  - Boxboard –11.81%
  - Kraft paper/other fibres – 9.51%
  - PET#1 – 6.69%
  - Aseptic containers – 5.18%

5. Estimated Annual Quantities Generated

The annual quantity was calculated in metric tons (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

The estimated annual quantities for each material are provided in Table 5 below.

Notable Observations:

- 11.82 MT of material are expected to be generated annually, which consists primarily of the following materials (Table 5):
  - Organics – 3.15 MT
  - LDPE #4 plastic films – 1.48 MT
  - Paper towels/compostable fibres – 1.25 MT
  - Cardboard – 0.77 MT
  - Non-Recyclable – 0.65 MT
  - Fine paper – 0.65 MT

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Table 5: Estimated Annual Quantities by Material

Material	Diverted Through Recycling (MT)	Disposed to Landfill through Garbage (MT)	Total Generated (MT)	%
Organics	0.00	3.15	3.15	26.64%
LDPE (#4) Plastic Films	0.00	1.48	1.48	12.53%
Paper Towels/Compostable Fibres	0.00	1.25	1.25	10.58%
Cardboard	0.23	0.54	0.77	6.53%
Non-Recyclable	0.00	0.65	0.65	5.51%
Fine Paper	0.25	0.40	0.65	5.46%
PP #5	0.08	0.52	0.61	5.12%
Boxboard	0.07	0.35	0.42	3.56%
Aluminum	0.15	0.16	0.32	2.69%
Kraft Paper/Other Fibres	0.01	0.29	0.30	2.56%
Coffee Cups	0.04	0.25	0.29	2.46%
PET #1	0.08	0.20	0.28	2.40%
Aseptic Containers	0.04	0.20	0.24	2.00%
Other Metal	0.00	0.22	0.22	1.89%
Steel Cans	0.14	0.03	0.17	1.43%
HDPE Plastic Containers #2	0.05	0.11	0.16	1.39%
Polystyrene #6	0.02	0.15	0.16	1.39%
Cold Beverage Wax-Lined Paper Cups	0.00	0.15	0.15	1.23%
Other Plastics #3, #4, #7	0.00	0.14	0.14	1.18%
Other Wood	0.00	0.08	0.08	0.66%
Electronic Waste	0.00	0.07	0.07	0.61%
Textiles	0.00	0.06	0.06	0.54%
PPE	0.00	0.04	0.04	0.38%
Newspaper	0.00	0.04	0.04	0.36%
Composite Cans	0.02	0.03	0.04	0.34%
Glass	0.00	0.03	0.03	0.28%
Moulded Pulp	0.01	0.02	0.03	0.26%
Batteries	0.00	0.00	0.00	0.00%
Bubble Wrap/Shrink Wrap	0.00	0.00	0.00	0.00%
Gable Top Containers	0.00	0.00	0.00	0.00%
Lightbulbs	0.00	0.00	0.00	0.00%
Other Organics	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%
Styrofoam	0.00	0.00	0.00	0.00%
Total	**1.20**	**10.62**	**11.82**	**100.00%**

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).

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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) = 1.96 MT

Total Waste Generated = 11.82 MT

$$Waste\ Diversion\ Rate = \frac{1.96\ MT}{11.82\ MT} \times 100$$

Waste Diversion Rate = 16.59%

The total waste diverted (1.96 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.

Essex District High School's waste diversion rate was calculated to be 16.59% (below the provincial objective of 60%) based on 1.96 MT of potential diverted waste and 11.82 MT of total waste generated in 194 school days.

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.

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Table 6: Capture Rates for Diversion Programs

Stream	Diverted (MT)	Landfill Quantity (MT)	Total Generated (MT)	Capture Rate
Overall Recycling	**1.20**	**3.46**	**4.66**	**25.76%**
Red Box	0.62	1.89	2.51	24.69%
Blue Box	0.58	1.57	2.16	27.00%
Special Programs	0.00	0.07	0.07	0.00%
Total	**1.20**	**3.53**	**4.73**	**25.37%**

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 25.37%,** based on a total diverted quantity of 1.20 MT and a total potential divertible quantity of 4.73 MT. The overall recycling capture rate was 25.76%, with the Red Box and Blue Box capture rates calculated at 24.69% and 27.00%, respectively. The capture rate for special programs was 0.00%.

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.

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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 (83.41%), followed by Red Box (7.43%) and Blue Box stream (9.16%).

Overall Composition

- Classrooms accounted for the largest share of the sample (41.51%), comprising only garbage, consisting primarily of organics, LDPE #4 plastic films, and paper towels/compostable fibres.
- Hallways and general areas generated the second-highest sample mass (16.59%), from the Blue Box and Red Box streams, with cardboard, LDPE #4 plastic films, and fine paper as the dominant materials.
- Across all areas and waste streams, organics, LDPE #4 plastic films, paper towels/compostable fibres, and cardboard dominated the waste composition, representing roughly 56% of the total sample mass.

Composition by Waste Stream

- The garbage stream was primarily composed of organics (31.08%), followed by paper towels/compostable fibres (12.63%) and LDPE #4 plastic films (11.76%).
    - Garbage samples consisted of consisted of 67.55% garbage material, 16.86% Red Box material, 14.87% Blue Box material and 0.73% electronic waste.
- Within the Red Box stream, fine paper was the dominant material at 28.48%, followed by cardboard (26.49%) and LDPE #4 plastic films (13.91%).
    - The Red Box stream was composed of 70.42% Red Box materials, 17.44% of garbage materials and 12.14% Blue Box materials.
- The Blue Box stream was primarily composed of LDPE #4 plastic films (18.46%), aluminum (14.16%), and cardboard (13.44%).
    - The Blue Box stream consisted of 53.76% Blue Box materials, 25.45% of garbage materials and 20.79% Red Box materials.

Contamination

- The garbage stream exhibited a contamination rate of 32.45%, while the overall recycling stream showed a contamination rate of 21.86%; contamination rates for the Red Box and Blue Box streams were 29.58% and 46.24%, respectively.
- The overall contamination rate for the garbage stream was 32.45%, indicating notable misplacement of recyclable materials.
    - Contamination within the garbage stream included Red Box (16.86%), Blue Box (14.87%) and 0.73% electronic waste; the contamination was high in PP #5 containers and mixed

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papers (cardboard, boxboard, fine paper, kraft paper and coffee cups).
    - Classrooms exhibited the highest contamination at 38.30%, primarily due to the presence of fine paper, kraft paper/other fibres, coffee cups and PP#5. Washrooms showed the lowest contamination at 1.33%.
- The contamination rate for the Red Box stream was 29.58%, attributable to mis-sorted garbage and recycling from hallways/general areas.
    - The sample consisted of contamination of garbage (17.44%) and Blue Box materials (12.14%, with LDPE #4 plastic films, aseptic containers, PP #5 containers, organics and aluminum as the principal contaminants.
- The contamination rate for the Blue Box stream was found to be 46.24%, attributable to mis-sorted garbage and recycling from hallways/general areas.
    - Contamination was primarily associated with garbage (25.45%) and Red Box materials (20.79%), with LDPE #4 plastic films and cardboard as the leading contaminants.

Mandatory Recyclables

- The garbage stream consisted of 9.87%mandatory recyclables, 20.10%other recyclables, and 70.02%non-recyclable materials.
- Outdoor areas exhibited the highest proportion of mandatory recyclables (39.06%) within the garbage, while the public areas exhibited the highest proportion of other recyclables (31.73%). Washrooms showed the lowest proportion of mandatory recyclables disposed of as garbage (0.00%)
- Mandatory recyclables disposed of in the garbage stream were primarily cardboard (13.32%), fine paper (11.22%), and aluminum (4.92%).
- Other recyclables in the garbage stream consisted mainly of PP #5 containers (16.80%), boxboard (11.81%), kraft paper/other fibres (9.51%) and PET #1 (6.69%).

Estimated Annual Quantities

- An approximate of 11.82 MT of waste is estimated to be generated annually in Essex District High School, dominated principally by organics (3.15 MT), LDPE #4 plastic films (1.48 MT), paper towels/compostable fibres (1.25 MT), cardboard (0.77 MT), non-recyclable materials (0.65 MT), and fine paper (0.65 MT).

Waste Diversion Rate

- The 2025 **waste diversion rate was calculated to be 16.59%** (below the provincial objective of 60%) based on 1.96 MT of diverted waste and 11.82 MT of total waste generated in 194 school days.

Capture Rate

- **The overall capture rate was calculated at 25.37%,** based on an estimated total diverted quantity of 1.20 MT and a total potential divertible quantity of 4.73 MT. The overall recycling capture rate was 25.76%, with the Red Box and Blue Box capture rates calculated at 24.69% and 27.00%, respectively.

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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

- **Cardboard — 0.39MT** 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 by up to 2.66% and the capture rate by up to 5.68%.**
- **Fine paper — 0.33 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 by up to 2.26% and the capture rate by up to 4.86%.**
- **Aluminum — 0.15 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 by up to 1.04% and the capture rate by up to 2.29%.**
- **Newspaper — 0.04 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 by up to 0.28% and the capture rate by up to 0.62%.**
- **Glass — 0.03 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 by up to 0.21% and the capture rate by up to 0.47%.**
- **Steel cans — 0.03 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 by up to 0.21% and the capture rate by up to 0.47%.**

9.2 Add Organics/Paper Towels Diversion Programs

- Organics generated in the garbage stream accounted for 3.15 MT of material annually. Diverting this material through a new organic diversion program **could increase waste diversion by up to 17.54%**.
- Paper towels generated in the garbage stream accounted for 1.25 MT of material annually. Diverting this material through a new organic diversion program **could increase waste diversion by up to 7.97%**.

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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).

Image 1 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 seek out a multi-streamed bin specifically.
- 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.

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Image 2 & 3: 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 purchasing 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 ecological 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.

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Continuous monitoring and annual reporting for this site, along with comparisons of year-over-year changes, would provide insight into trends that 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.

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Appendices

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.

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Coffee Cups	All cups and containers used for hot/cold beverages and food (without plastic). 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	

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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.

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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	Not all hazardous wastes are 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-based hot/cold food and beverage containers are typical in the fast-food industry. This includes paper-based cups with a plastic lining, water cooler cups, freezer boxes, etc.

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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.

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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

PER DAVE STANDEN

Technician's signature

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

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Appendix C: Detailed Sample Composition

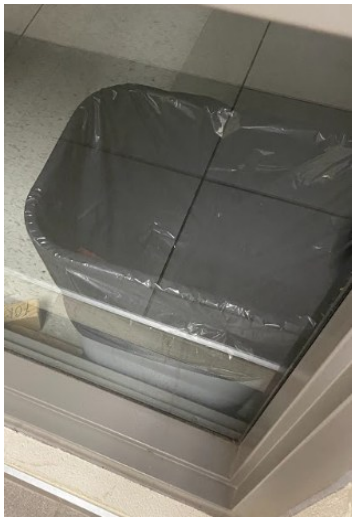
(Note: higher intensity of blue highlighting indicates higher sample weight/percent)

Sampled Stream	GARBAGE																RECYCLING BLUE BOX				RECYCLING RED BOX				TOTAL	
Generation Area	CAFETERIA		CLASSROOM		OFFICE		OUTDOOR AREAS		PUBLIC AREAS		STAFF ROOM		WASHROOMS		TOTAL		HALLWAYS / GENERAL AREAS		TOTAL		HALLWAYS / GENERAL AREAS		TOTAL			
Material	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%	KG	%
Organics	4.57	7.50%	8.12	13.32%	0.85	1.39%	0.00	0.00%	2.06	3.38%	0.20	0.33%	0.00	0.00%	**15.80**	**25.92%**	0.31	0.51%	**0.31**	**0.51%**	0.13	0.21%	**0.13**	**0.21%**	**16.24**	**26.64%**
LDPE (#4) Plastic Films	0.33	0.54%	3.85	6.32%	0.10	0.16%	0.25	0.41%	1.13	1.85%	0.12	0.20%	0.20	0.33%	**5.98**	**9.81%**	1.03	1.69%	**1.03**	**1.69%**	0.63	1.03%	**0.63**	**1.03%**	**7.64**	**12.53%**
Paper Towels/Compostable Fibres	0.12	0.20%	3.50	5.74%	0.18	0.30%	0.06	0.10%	0.34	0.56%	0.14	0.23%	2.08	3.41%	**6.42**	**10.53%**	0.00	0.00%	**0.00**	**0.00%**	0.03	0.05%	**0.03**	**0.05%**	**6.45**	**10.58%**
Cardboard	0.38	0.62%	0.12	0.20%	0.00	0.00%	0.41	0.67%	1.12	1.84%	0.00	0.00%	0.00	0.00%	**2.03**	**3.33%**	0.75	1.23%	**0.75**	**1.23%**	1.20	1.97%	**1.20**	**1.97%**	**3.98**	**6.53%**
Non-Recyclable	0.76	1.25%	1.85	3.04%	0.20	0.33%	0.00	0.00%	0.48	0.79%	0.07	0.11%	0.00	0.00%	**3.36**	**5.51%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	**3.36**	**5.51%**
Fine Paper	0.17	0.28%	1.21	1.99%	0.07	0.11%	0.26	0.43%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**1.71**	**2.81%**	0.33	0.54%	**0.33**	**0.54%**	1.29	2.12%	**1.29**	**2.12%**	**3.33**	**5.46%**
PP #5	0.81	1.33%	0.67	1.10%	0.09	0.15%	0.00	0.00%	0.83	1.36%	0.16	0.26%	0.00	0.00%	**2.56**	**4.20%**	0.43	0.71%	**0.43**	**0.71%**	0.13	0.21%	**0.13**	**0.21%**	**3.12**	**5.12%**
Boxboard	0.41	0.67%	0.55	0.90%	0.08	0.13%	0.00	0.00%	0.57	0.94%	0.04	0.07%	0.15	0.25%	**1.80**	**2.95%**	0.00	0.00%	**0.00**	**0.00%**	0.37	0.61%	**0.37**	**0.61%**	**2.17**	**3.56%**
Aluminum	0.13	0.21%	0.41	0.67%	0.02	0.03%	0.07	0.11%	0.12	0.20%	0.00	0.00%	0.00	0.00%	**0.75**	**1.23%**	0.79	1.30%	**0.79**	**1.30%**	0.10	0.16%	**0.10**	**0.16%**	**1.64**	**2.69%**
Kraft Paper/Other Fibres	0.39	0.64%	0.78	1.28%	0.10	0.16%	0.18	0.30%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**1.45**	**2.38%**	0.04	0.07%	**0.04**	**0.07%**	0.07	0.11%	**0.07**	**0.11%**	**1.56**	**2.56%**
Coffee Cups	0.07	0.11%	0.77	1.26%	0.05	0.08%	0.20	0.33%	0.10	0.16%	0.00	0.00%	0.07	0.11%	**1.26**	**2.07%**	0.04	0.07%	**0.04**	**0.07%**	0.20	0.33%	**0.20**	**0.33%**	**1.50**	**2.46%**
PET #1	0.11	0.18%	0.45	0.74%	0.00	0.00%	0.00	0.00%	0.46	0.75%	0.00	0.00%	0.00	0.00%	**1.02**	**1.67%**	0.41	0.67%	**0.41**	**0.67%**	0.03	0.05%	**0.03**	**0.05%**	**1.46**	**2.40%**
Aseptic Containers	0.32	0.53%	0.36	0.59%	0.05	0.08%	0.03	0.05%	0.03	0.05%	0.00	0.00%	0.00	0.00%	**0.79**	**1.30%**	0.21	0.34%	**0.21**	**0.34%**	0.22	0.36%	**0.22**	**0.36%**	**1.22**	**2.00%**
Other Metal	0.00	0.00%	0.80	1.31%	0.00	0.00%	0.35	0.57%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**1.15**	**1.89%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	**1.15**	**1.89%**
Steel Cans	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.14	0.23%	0.00	0.00%	**0.14**	**0.23%**	0.73	1.20%	**0.73**	**1.20%**	0.00	0.00%	**0.00**	**0.00%**	**0.87**	**1.43%**
Polystyrene #6	0.16	0.26%	0.33	0.54%	0.09	0.15%	0.00	0.00%	0.15	0.25%	0.00	0.00%	0.00	0.00%	**0.73**	**1.20%**	0.08	0.13%	**0.08**	**0.13%**	0.04	0.07%	**0.04**	**0.07%**	**0.85**	**1.39%**
HDPE Plastic Containers #2	0.19	0.31%	0.18	0.30%	0.00	0.00%	0.00	0.00%	0.21	0.34%	0.00	0.00%	0.00	0.00%	**0.58**	**0.95%**	0.27	0.44%	**0.27**	**0.44%**	0.00	0.00%	**0.00**	**0.00%**	**0.85**	**1.39%**
Cold Beverage Wax-Lined Paper Cups	0.10	0.16%	0.08	0.13%	0.03	0.05%	0.25	0.41%	0.21	0.34%	0.00	0.00%	0.00	0.00%	**0.67**	**1.10%**	0.08	0.13%	**0.08**	**0.13%**	0.00	0.00%	**0.00**	**0.00%**	**0.75**	**1.23%**
Other Plastics #3, #4, #7	0.18	0.30%	0.39	0.64%	0.00	0.00%	0.00	0.00%	0.15	0.25%	0.00	0.00%	0.00	0.00%	**0.72**	**1.18%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	**0.72**	**1.18%**
Other Wood	0.00	0.00%	0.40	0.66%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.40**	**0.66%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	**0.40**	**0.66%**
Electronic Waste	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.37	0.61%	0.00	0.00%	0.00	0.00%	**0.37**	**0.61%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	**0.37**	**0.61%**
Textiles	0.00	0.00%	0.15	0.25%	0.00	0.00%	0.00	0.00%	0.18	0.30%	0.00	0.00%	0.00	0.00%	**0.33**	**0.54%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	**0.33**	**0.54%**
PPE	0.00	0.00%	0.23	0.38%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.23**	**0.38%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	**0.23**	**0.38%**
Newspaper	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.22	0.36%	0.00	0.00%	0.00	0.00%	**0.22**	**0.36%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	**0.22**	**0.36%**
Composite Cans	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.10	0.16%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.10**	**0.16%**	0.08	0.13%	**0.08**	**0.13%**	0.03	0.05%	**0.03**	**0.05%**	**0.21**	**0.34%**
Glass	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.17	0.28%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.17**	**0.28%**	0.00	0.00%	**0.00**	**0.00%**	0.00	0.00%	**0.00**	**0.00%**	**0.17**	**0.28%**
Moulded Pulp	0.00	0.00%	0.10	0.16%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	0.00	0.00%	**0.10**	**0.16%**	0.00	0.00%	**0.00**	**0.00%**	0.06	0.10%	**0.06**	**0.10%**	**0.16**	**0.26%**
Total	**9.20**	**15.09%**	**25.30**	**41.51%**	**1.91**	**3.13%**	**2.33**	**3.82%**	**8.73**	**14.32%**	**0.87**	**1.43%**	**2.5**	**4.10%**	**50.84**	**83.41%**	**5.58**	**9.16%**	**5.58**	**9.16%**	**4.53**	**7.43%**	**4.53**	**7.43%**	**60.95**	**100.00%**

Appendix D: Site Photographs



Site Tour – Solitary garbage bins



Site Tour – Solitary garbage receptacle



Site Tour – Multi-Stream receptacles



Waste Audit – Organics in Garbage (Classrooms)



Waste Audit – Paper towels in Garbage (Classrooms)



Waste Audit – Fine paper in Garbage (Classrooms)

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Waste audit – PET #1 in Garbage (Classrooms)



Waste audit – Aluminum Containers in Garbage (Classrooms)



Waste audit – Electronic waste in garbage (Public area)



Waste Audit – Cardboard in Blue Box (Hallways/general areas)



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



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

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



Waste Audit – Steel cans in Blue Box
(Hallways/general areas)



Waste Audit – Fine paper in Red Box
(Hallways/general areas)



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



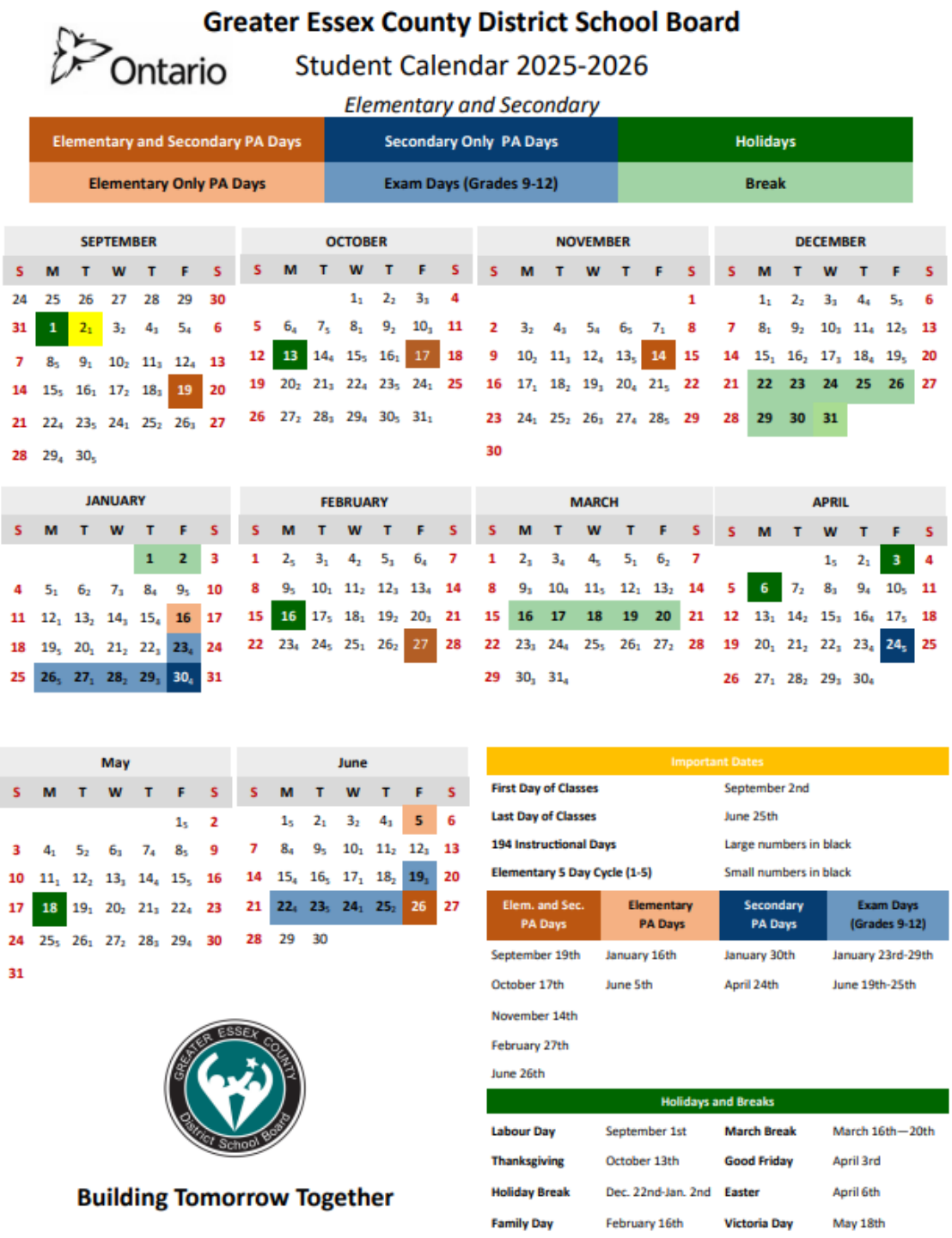
Waste Audit – Cardboard in Red Box
(Hallways/general areas)



Waste Audit – Coffee cups in Red Box
(Hallways/general areas)

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Appendix E: School Calendar



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Appendix F: Waste Audit and Reduction Work Plan

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