



HALIFAX REGIONAL MUNICIPALITY

# 2023 Organic Waste Audit

Source-Separated Organics Characterization

# Table of Contents

|       |                                                          |    |
|-------|----------------------------------------------------------|----|
| 1.0   | <b>Introduction</b>                                      | 1  |
| 1.1   | Background Information.....                              | 1  |
| 2.0   | <b>Methodology</b>                                       | 1  |
| 2.1   | Sample Selection .....                                   | 1  |
| 2.1.1 | Residential Sample Selection .....                       | 2  |
| 2.1.2 | IC&I Sample Selection.....                               | 2  |
| 2.2   | Sorting Procedure.....                                   | 2  |
| 2.3   | Sample Size .....                                        | 3  |
| 2.4   | Categories .....                                         | 4  |
| 3.0   | <b>Results and Discussion</b>                            | 6  |
| 3.1   | Residential Results .....                                | 6  |
| 3.2   | IC&I Results .....                                       | 8  |
| 3.3   | Comparison.....                                          | 10 |
| 4.0   | <b>Conclusion</b>                                        | 13 |
|       | <b>Figures</b>                                           |    |
|       | Figure 1: 2017 Audit Results vs 2023 Audit Results ..... | 11 |
|       | <b>Tables</b>                                            |    |
|       | Table 1: Residential Samples .....                       | 2  |
|       | Table 2: IC&I Samples.....                               | 2  |
|       | Table 3: Categories for Acceptable Materials.....        | 4  |
|       | Table 4: Categories for Unacceptable Materials.....      | 5  |
|       | Table 5: Residential Sample Results.....                 | 7  |
|       | Table 6: IC&C Sample Results .....                       | 9  |
|       | Table 7: 2017 Audit Results vs 2023 Audit Results .....  | 12 |

## Appendices

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- A Sample and Sub-Category Photos
- B Residential Sample Results
- C IC&I Sample Results

## 1.0 Introduction

Dillon Consulting Limited (Dillon) was retained by Halifax Regional Municipality (HRM) in July 2023 to support a review of HRM's Solid Waste Strategy. As part of the strategy review, Dillon completed an audit of source-separated organics (SSO) to determine the characteristics of the material received at HRM's composting facilities.

### 1.1 Background Information

HRM currently has two composting facilities processing SSO, the Ragged Lake Composting Facility, located in Goodwood, Nova Scotia and the Burnside Composting Facility, located in Dartmouth, Nova Scotia. However, these two composting facilities are anticipated to close in the Spring/Summer of 2024, with a new Ragged Lake Composting Facility expected to open next to the current facility in the Spring/Summer of 2024. This new composting facility will accept all SSO generated within HRM.

HRM's current collection program includes residential SSO, as well as leaf and yard waste from eight municipal areas. The program also includes SSO received from condominium units and multi-unit residential buildings, using contracted collectors. Source-separated organics generated within the industrial, commercial and institutional (IC&I) sector are also received and processed at the two active facilities.

Materials accepted by the facilities include all food waste (vegetable waste, fats and greases, meat, spoiled food, etc.), non-recyclable paper (soiled paper, boxboard and tissues) and other organics (leaf and yard waste).

## 2.0 Methodology

The audit was completed in accordance with the *2017 Organic Materials Audit* which followed the *Recommended Waste Characterization Methodology for Direct Waste Analysis Studies*, prepared by SENES Consultants Ltd. (1999) on behalf of the Canadian Council of the Ministers of the Environment (CCME). Photos of most samples and some sub-categories are included in Appendix A.

### 2.1 Sample Selection

The audit was conducted at the Ragged Lake Composting Facility from November 6, 2023, to November 17, 2023. The audit consisted of 20 samples, pre-determined by HRM, including a residential condo sample. The samples were further divided into 12 residential samples of various strata (urban, suburban and rural) and eight IC&I samples.

### 2.1.1 Residential Sample Selection

The 12 residential samples selected represent the residential areas located within HRM and are summarized in Table 1.

**Table 1: Residential Samples**

| Zone | Area                               | Number of Samples | Strata   | Sample ID | Collection Date | Truck No. |
|------|------------------------------------|-------------------|----------|-----------|-----------------|-----------|
| 1    | Halifax                            | 1                 | Urban    | 001       | 06Nov2023       | RE1037    |
| 2    | Dartmouth                          | 3                 | Urban    | 015       | 14Nov2023       | RE2094    |
|      |                                    |                   | Urban    | 018       | 15Nov2023       | RE1030    |
|      |                                    |                   | Urban    | 019       | 16Nov2023       | RE2082    |
| 3    | Bedford/Hammonds Plains            | 1                 | Condo    | 020       | 17Nov2023       | MW2422    |
| 5    | Sackville/Fall River               | 2                 | Rural    | 002       | 06Nov2023       | RE1029    |
|      |                                    |                   | Suburban | 004       | 07Nov2023       | RE1029    |
| 6    | Cole Harbour/Eastern Passage       | 2                 | Suburban | 003       | 07Nov2023       | RE2086    |
|      |                                    |                   | Suburban | 010       | 09Nov2023       | RE1030    |
| 7    | Preston/Lawrencetown/<br>Lake Echo | 3                 | Rural    | 013       | 13Nov2023       | MW9519    |
|      |                                    |                   | Rural    | 014       | 14Nov2023       | MW9524    |
|      |                                    |                   | Rural    | 015       | 14Nov2023       | MW9519    |

### 2.1.2 IC&I Sample Selection

The eight IC&I samples selected represent the IC&I sector within HRM and are summarized in Table 2.

**Table 2: IC&I Samples**

| Zone | Area           | Number of Samples | Sample ID | Collection Date | Truck No. |
|------|----------------|-------------------|-----------|-----------------|-----------|
| 1    | Halifax        | 2                 | 006       | 08Nov2023       | RE8185    |
|      |                |                   | 012       | 13Nov2023       | RE8185    |
| 4    | Western County | 6                 | 005       | 08Nov2023       | RE3067    |
|      |                |                   | 007       | 09Nov2023       | RE3230    |
|      |                |                   | 008       | 09Nov2023       | RE3067    |
|      |                |                   | 009       | 09Nov2023       | RE3067    |
|      |                |                   | 011       | 13Nov2023       | RE3067    |
|      |                |                   | 016       | 15Nov2023       | RE3067    |

## 2.2 Sorting Procedure

Upon arrival at the facility, the truck be weighed at the scale house and then directed to the receiving building, where the truck would deposit the load on the tipping floor. The facility staff would then thoroughly mix the load for homogeneity and place samples in organics carts which were transported to

the on site sorting area where the Dillon team conducted the audit. The sorting area consisted of an intermodal shipping container and an outdoor sorting area, shown in Photo 1.

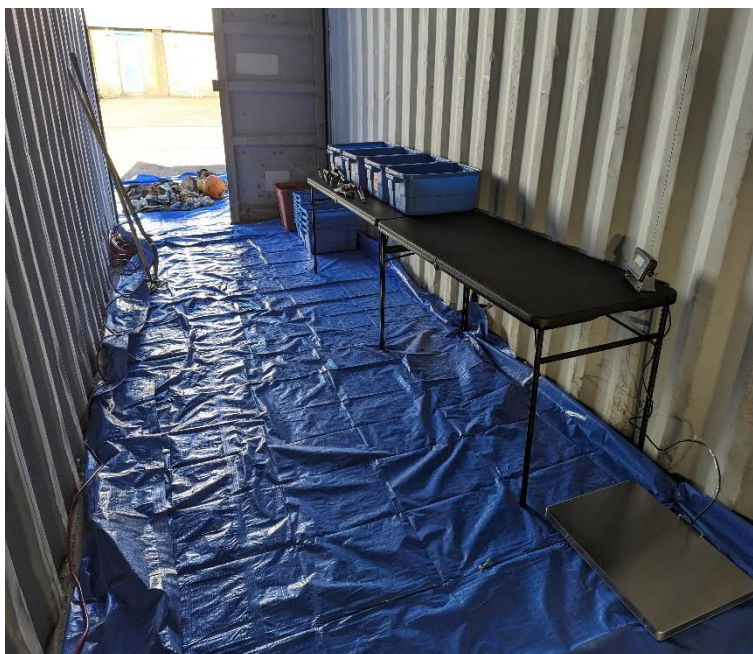


**Photo 1: Sorting Area**

In the sorting area, the samples were manually sorted into pre-weighted containers for each of the corresponding categories. Once the sample was sorted, the containers were weighed to determine the weight of each category. The data was recorded on a data sheet and later entered into a Microsoft Excel spreadsheet for analysis. The total weight for each waste category was divided by the total sample weight, yielding the percent fraction. The percent fraction provides a reflection of the typical composition by weight of the sample.

The number of samples sorted on a daily basis was dependant upon the time the load arrived at the facility, as well as the contents of the load (i.e., some residential samples that primarily consisted of leaf and yard took less time to sort compared to an IC&I sample).

## 2.3

### Sample Size

Dillon targeted obtaining a sample size ranging from 90 kg to 135 kg as per the methodology outlined by SENES Consultants Ltd. (1999). However, the actual sample sizes ranged from 38.60 kg to 168.20 kg, resulting in an average sample size of 104.36 kg. Based on conversations with facility staff, it was deemed that generally, the majority of residential SSO received during this period consists of leaf and yard waste, thus resulting in smaller sample weights in larger volumes collected. Upon receiving the sample, Dillon staff would request additional material from the sample as required (i.e., if the sample appeared to be underweight due to the amount of leaf and yard waste). However, this was not always

feasible due to constraints such as the arrival time of the loads, as loads which are typically delivered and processed at the Burnside Composting Facility were diverted to the Ragged Lake Composting Facility for the purposes of this audit. Additionally, some loads were received by the facility when the Dillon team was not present (e.g., end of the day) and samples were put aside by facility staff for Dillon to sort the following morning. These samples were not weighed by facility staff; therefore, it was not confirmed that the weight of materials set aside was between 90 kg and 135 kg. It is noted that the samples identified as underweight were a result of their primary composition consisting of leaf and yard waste.

## 2.4

## Categories

In consultation with HRM, the categories used in this audit were similar to those used in the 2017 *Organic Materials Audit*. The audit categories consisted of 13 primary categories and 39 sub-categories, where the categories were identified overall as Acceptable or Unacceptable Materials. The audit categories as well as examples are provided in Table 3 and Table 4.

Table 3: Categories for Acceptable Materials

| Acceptable Materials                                                                    | Description                                                                                            |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Paper & Paperboard                                                                      |                                                                                                        |
| Kraft Paper and Bags - including contents if intact (predominantly food waste)          | Kraft paper bags that are intact, containing food waste, boxboard containing food                      |
| Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | Kraft paper bags that are intact, containing leaf and yard waste                                       |
| Boxboard <sup>1</sup>                                                                   | Shoe boxes, cereal boxes, dry food packaging                                                           |
| Tissue, Paper Towel, Napkins                                                            |                                                                                                        |
| Soiled Paper Products                                                                   | Newspaper used to wrap food waste, paper take-out containers, coffee filters                           |
| Acceptable Wood                                                                         | Sticks, brush, branches less than 4' in length and less than 8' in diameter, wood shavings and sawdust |
| Organics                                                                                |                                                                                                        |
| Food Organics                                                                           |                                                                                                        |
| Yard Organics                                                                           | Leaf and yard waste, excluding grass clippings                                                         |
| Other Organics                                                                          | Animal carcasses, pumpkins                                                                             |

Table 4: Categories for Unacceptable Materials

| Unacceptable Materials              | Description                                                               |
|-------------------------------------|---------------------------------------------------------------------------|
| Paper & Paperboard                  |                                                                           |
| Fine Paper                          | Envelopes and office paper                                                |
| Magazines and Catalogues            |                                                                           |
| Newspaper                           | Newspaper and flyers                                                      |
| Books & Bound Material              |                                                                           |
| Telephone Books/Directories         |                                                                           |
| Corrugated Cardboard                | Corrugated cardboard, including pizza boxes                               |
| Other Paper                         | Labels, label backing, carbon paper                                       |
| Glass                               |                                                                           |
| Recyclable Glass                    | Bottles, jars                                                             |
| Non-Recyclable Glass                | Ceramics, mirrors, light bulbs                                            |
| Metal                               |                                                                           |
| Recyclable Metal                    | Tin/steel cans, aluminum cans, foil plates, foil                          |
| Non-Recyclable Metal                |                                                                           |
| Plastic                             |                                                                           |
| Recyclable Plastic - Containers     |                                                                           |
| Recyclables Plastic - Bags          | Compostable and non-compostable bags                                      |
| Non - Recyclable Plastic            | Polystyrene and miscellaneous plastic products including toys, cups, etc. |
| Multi-Material Wastes               |                                                                           |
| Predominantly Paper -Recyclable     | Milk and juice containers (gable top, aseptic)                            |
| Predominantly Paper -Non-Recyclable | Frozen food containers, coffee cups                                       |
| Other Multi Material Wastes         | Foil lined bags, mixed packaging                                          |
| Textiles                            |                                                                           |
| Textiles                            | Clothing, shoes, rags, tarps, other similar textiles                      |
| Unacceptable Wood                   |                                                                           |
| Unacceptable Wood                   | Lumber, branches greater than 4' in length and 8' in diameter             |

| Unacceptable Materials        | Description                                                                     |
|-------------------------------|---------------------------------------------------------------------------------|
| Other Organics - Unacceptable |                                                                                 |
| Pet Waste                     |                                                                                 |
| Leaf and Yard <sup>2</sup>    | Grass clippings, painted pumpkins, rocks                                        |
| Special-Care Wastes           |                                                                                 |
| Bio-Hazardous Waste           | First aid waste, sanitary products, diapers                                     |
| Household Special Waste       | Batteries, paint cans including contents                                        |
| Other                         |                                                                                 |
| Other Wastes                  |                                                                                 |
| Other Wastes                  | Cigarette butts, wipes                                                          |
| Materials Stuffed Into        |                                                                                 |
| Milk Containers               |                                                                                 |
| Corrugated Cardboard          |                                                                                 |
| Small Plastic Bags            | Food waste stuffed into small plastic bags, including opaque “compostable bags” |
| Large Plastic Bags            | Food waste stuffed into large plastic bags                                      |
| Other Container               | Plastic containers, food waste in original packaging                            |

<sup>1</sup>Boxboard is permitted for use in green carts to contain food waste, however it is also accepted in the paper recycling stream in the municipal curbside collection program.

<sup>2</sup> This category was referred to as “Other Organics – Unacceptable – Grass Clippings” in GHD’s 2017 *Organic Materials Audit*. For the purposes of this audit, the category was changed to “Other Organics – Unacceptable – Leaf and Yard” due to additional unacceptable leaf and yard waste encountered.

## 3.0 Results and Discussion

This section of the report outlines the results of the organics audit per audited sector.

### 3.1 Residential Results

A summary of the residential results is provided in Table 5. All comprehensive data for each of the residential samples is provided in Appendix B.

Table 5: Residential Sample Results

| Waste Category                |                                                                                         | Total Weight (kg) | Percent Composition (%) | Subtotal <sup>1</sup> |
|-------------------------------|-----------------------------------------------------------------------------------------|-------------------|-------------------------|-----------------------|
| Acceptable Material           |                                                                                         |                   |                         |                       |
| Paper and Paperboard          | Kraft Paper and Bags - including contents if intact (predominantly food waste)          | 167.40            | 18%                     | 275.25 kg<br>29%      |
|                               | Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | 38.15             | 4%                      |                       |
|                               | Boxboard                                                                                | 24.90             | 3%                      |                       |
|                               | Tissue, Paper Towel, Napkins                                                            | 22.45             | 2%                      |                       |
|                               | Soiled Paper Products                                                                   | 9.55              | 1%                      |                       |
|                               | Acceptable Wood                                                                         | 12.80             | 1%                      |                       |
| Organics                      | Food Organics                                                                           | 193.10            | 21%                     | 457.20 kg<br>50%      |
|                               | Yard Organics                                                                           | 107.50            | 12%                     |                       |
|                               | Other Organics                                                                          | 156.60            | 17%                     |                       |
| Total Acceptable Material     |                                                                                         | 732.45            | 79%                     |                       |
| Unacceptable Material         |                                                                                         |                   |                         |                       |
| Paper and Paperboard          | Fine Paper                                                                              | 1.95              | <1%                     | 26.05 kg<br>3%        |
|                               | Magazines and Catalogues                                                                | 0.20              | <1%                     |                       |
|                               | Newspaper                                                                               | 2.55              | <1%                     |                       |
|                               | Books & Bound Material                                                                  | 0.00              | 0%                      |                       |
|                               | Telephone Books/Directories                                                             | 0.00              | 0%                      |                       |
|                               | Corrugated Cardboard                                                                    | 21.10             | 2%                      |                       |
|                               | Other Paper                                                                             | 0.25              | <1%                     |                       |
| Glass                         | Recyclable Glass                                                                        | 0.45              | <1%                     | 0.60kg                |
|                               | Non-Recyclable Glass                                                                    | 0.15              | <1%                     | <1%                   |
| Metal                         | Recyclable Metal                                                                        | 0.30              | <1%                     | 0.55 kg               |
|                               | Non-Recyclable Metal                                                                    | 0.25              | <1%                     | <1%                   |
| Plastic                       | Recyclable Plastic – Containers                                                         | 1.55              | <1%                     | 6.90 kg<br><1%        |
|                               | Recyclables Plastic – Bags                                                              | 2.70              | <1%                     |                       |
|                               | Non - Recyclable Plastic                                                                | 2.65              | <1%                     |                       |
| Multi-Material Waste          | Predominantly Paper -Recyclable                                                         | 0.70              | <1%                     | 7.90 kg<br><1%        |
|                               | Predominantly Paper -Non-Recyclable                                                     | 4.10              | <1%                     |                       |
|                               | Other Multi Material Wastes                                                             | 3.10              | <1%                     |                       |
| Textiles                      | Textiles                                                                                | 6.40              | <1%                     | 6.40 kg<br><1%        |
| Unacceptable Wood             | Unacceptable Wood                                                                       | 4.85              | <1%                     | 4.85 kg<br><1%        |
| Other Organics - Unacceptable | Pet Waste                                                                               | 1.80              | <1%                     | 22.00 kg<br>2%        |
|                               | Leaf and Yard                                                                           | 20.20             | 2%                      |                       |
| Special Care Waste            | Bio-Hazardous Waste                                                                     | 0.05              | <1%                     | 0.30 kg<br><1%        |
|                               | Household Special Waste                                                                 | 0.15              | <1%                     |                       |
|                               | Other                                                                                   | 0.10              | <1%                     |                       |
| Other Wastes                  | Other Wastes                                                                            | 12.90             | 1%                      | 12.90 kg<br>1%        |
| Materials Stuffed Into        | Milk Containers                                                                         | 0.00              | 0%                      | 106.01 kg<br>11%      |
|                               | Corrugated Cardboard                                                                    | 3.10              | <1%                     |                       |
|                               | Small Plastic Bags                                                                      | 83.96             | 9%                      |                       |
|                               | Large Plastic Bags                                                                      | 2.50              | <1%                     |                       |
|                               | Other Container                                                                         | 16.45             | 2%                      |                       |
| Total Unacceptable Material   |                                                                                         | 194.46            | 21%                     |                       |

<sup>1</sup>Note that percentages were rounded to the nearest whole number, thus percentages may not sum to 100%.

The amount of Acceptable Material observed in the residential samples ranged from approximately 57% to 91%. Based on the total weight of the residential samples, approximately 79% of the material observed was identified as Acceptable Material. The Acceptable Materials observed were predominantly Food Organics (21%) and Kraft Paper and Bags (18%). It is noted that contents of the Kraft paper bags were not emptied and sorted during this audit to mimic the methodology of previously completed studies. Typically, the intact Kraft paper bags predominantly contained food waste or leaf and yard waste. This approach aligned with the sorting procedures applied to other categories such as Materials Stuffed Into. It is also noted that the Kraft Paper and Bags category encompassed boxboard containing food waste, as this does not fall in the Unacceptable Materials Stuffed Into category and the contents were not solely composed of boxboard.

The amount of Unacceptable Material observed in the residential samples ranged from approximately 9% to 43%. Based on the total weight of the residential samples, approximately 21% of the material observed was identified as Unacceptable Material.

The residential sample with the least amount of observed contamination was Sample 018 taken from Zone 2 – Dartmouth. This sample consisted of approximately 91% Acceptable Material and approximately 9% of the sample consisted of Unacceptable Material. Conversely, Sample 002 taken from Zone 5 – Sackville/Fall River presented less favourable results, with approximately 57% of the sample consisting of Acceptable Material and approximately 43% of the sample consisting of Unacceptable Material. The majority of the Unacceptable Materials observed were Materials Stuffed Into (11%), further categorized into Small Plastic Bags (9%) and Other Containers (2%). The Small Plastic Bags were predominantly the opaque “compostable” plastic bags, while Other Containers primarily consisted of food waste being disposed of in its original packaging.

## 3.2 IC&I Results

A summary of the IC&I results is provided in Table 6. All comprehensive data for each of the IC&I samples is provided in Appendix C.

Table 6: IC&amp;C Sample Results

| Waste Category                |                                                                                         | Total Weight (kg) | Percent Composition (%) | Subtotal <sup>1</sup> |
|-------------------------------|-----------------------------------------------------------------------------------------|-------------------|-------------------------|-----------------------|
| Acceptable Material           |                                                                                         |                   |                         |                       |
| Paper and Paperboard          | Kraft Paper and Bags - including contents if intact (predominantly food waste)          | 53.50             | 5%                      | 119.25 kg<br>11%      |
|                               | Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | 0.35              | <1%                     |                       |
|                               | Boxboard                                                                                | 4.30              | <1%                     |                       |
|                               | Tissue, Paper Towel, Napkins                                                            | 20.55             | 2%                      |                       |
|                               | Soiled Paper Products                                                                   | 40.20             | 4%                      |                       |
|                               | Acceptable Wood                                                                         | 0.35              | <1%                     |                       |
| Organics                      | Food Organics                                                                           | 711.90            | 68%                     | 751.90 kg<br>71%      |
|                               | Yard Organics                                                                           | 26.00             | 2%                      |                       |
|                               | Other Organics                                                                          | 14.00             | 1%                      |                       |
| Total Acceptable Material     |                                                                                         | 871.15            | 82%                     |                       |
| Unacceptable Material         |                                                                                         |                   |                         |                       |
| Paper and Paperboard          | Fine Paper                                                                              | 0.00              | 0%                      | 2.40 kg<br><1%        |
|                               | Magazines and Catalogues                                                                | 0.00              | 0%                      |                       |
|                               | Newspaper                                                                               | 0.55              | <1%                     |                       |
|                               | Books & Bound Material                                                                  | 0.00              | 0%                      |                       |
|                               | Telephone Books/Directories                                                             | 0.00              | 0%                      |                       |
|                               | Corrugated Cardboard                                                                    | 1.85              | <1%                     |                       |
|                               | Other Paper                                                                             | 0.00              | 0%                      |                       |
|                               |                                                                                         |                   |                         |                       |
| Glass                         | Recyclable Glass                                                                        | 0.00              | 0%                      | 0.00 kg               |
|                               | Non-Recyclable Glass                                                                    | 0.00              | 0%                      | 0%                    |
| Metal                         | Recyclable Metal                                                                        | 0.15              | <1%                     | 0.40 kg               |
|                               | Non-Recyclable Metal                                                                    | 0.25              | <1%                     | <1%                   |
| Plastic                       | Recyclable Plastic – Containers                                                         | 0.85              | <1%                     | 3.60 kg<br><1%        |
|                               | Recyclables Plastic – Bags                                                              | 0.75              | <1%                     |                       |
|                               | Non - Recyclable Plastic                                                                | 2.00              | <1%                     |                       |
| Multi-Material Waste          | Predominantly Paper -Recyclable                                                         | 0.00              | 0%                      | 23.05 kg<br>2%        |
|                               | Predominantly Paper -Non-Recyclable                                                     | 21.70             | 2%                      |                       |
|                               | Other Multi Material Wastes                                                             | 1.35              | <1%                     |                       |
| Textiles                      | Textiles                                                                                | 1.90              | <1%                     | 1.90 kg<br><1%        |
| Unacceptable Wood             | Unacceptable Wood                                                                       | 0.15              | <1%                     | 0.15 kg<br><1%        |
| Other Organics - Unacceptable | Pet Waste                                                                               | 0.15              | <1%                     | 0.15 kg               |
|                               | Leaf and Yard                                                                           | 0.00              | <1%                     | <1%                   |
| Special Care Waste            | Bio-Hazardous Waste                                                                     | 0.00              | 0%                      | 0.00 kg<br>0%         |
|                               | Household Special Waste                                                                 | 0.00              | 0%                      |                       |
|                               | Other                                                                                   | 0.00              | 0%                      |                       |
| Other Wastes                  | Other Wastes                                                                            | 0.00              | 0%                      | 0.00 kg<br>0%         |
| Materials Stuffed Into        | Milk Containers                                                                         | 0.00              | 0%                      | 148.95 kg<br>13%      |
|                               | Corrugated Cardboard                                                                    | 9.15              | <1%                     |                       |
|                               | Small Plastic Bags                                                                      | 51.50             | 5%                      |                       |
|                               | Large Plastic Bags                                                                      | 81.50             | 8%                      |                       |
|                               | Other Container                                                                         | 6.80              | <1%                     |                       |
| Total Unacceptable Material   |                                                                                         | 180.60            | 18%                     |                       |

<sup>1</sup>Note that percentages were rounded to the nearest whole number, thus percentages may not sum to 100%.

Acceptable Material observed in the IC&I samples ranged from approximately 33% to 99%. Based on the total weight of the residential samples, approximately 82% of the material observed was identified as Acceptable Material. The Acceptable Materials observed were predominantly Food Organics (68%).

The percentage of Unacceptable Material observed in the IC&I samples varied from approximately 1% to 68%. Based on the total weight of the IC&I samples, approximately 17% of the material observed was identified as Unacceptable Material. The predominant Unacceptable Materials observed were Materials Stuffed Into, primarily consisting of Small and Large plastic bags (5% and 8%, respectively).

The IC&I sample with the least amount of observed contamination was Sample 007. This sample consisted of approximately 99% Acceptable Material and approximately 1% Unacceptable Material. In contrast, Sample 006 presented the most contamination, with approximately 68% of the sample consisting of Unacceptable Material and approximately 32% of the sample consisting of Acceptable Material. Similarly, to the residential results, the majority of the Unacceptable Materials observed were Materials Stuffed Into (14%), further categorized into Small Plastic Bags (5%) and Large Plastic Bags (8%).

### 3.3 Comparison

The results from the 2023 organics audit were compared to the 2017 organics audit. Similar to the 2017 organics audit, 12 residential and 8 IC&I samples were collected and analyzed. While there was some overlap in origin of both residential and IC&I loads, the 2017 residential samples originated from Zones 1, 3, 4 and 5, whereas the 2023 residential samples originated from Zones 1, 2, 3, 5, 6 and 7. The 2017 IC&I loads originated from Zones 1, 3, 4 and 8, whereas the 2023 IC&I samples originated from Zones 1 and 4. The audits were compared by primary categories. Figure 1 presents the overall results from each audit.

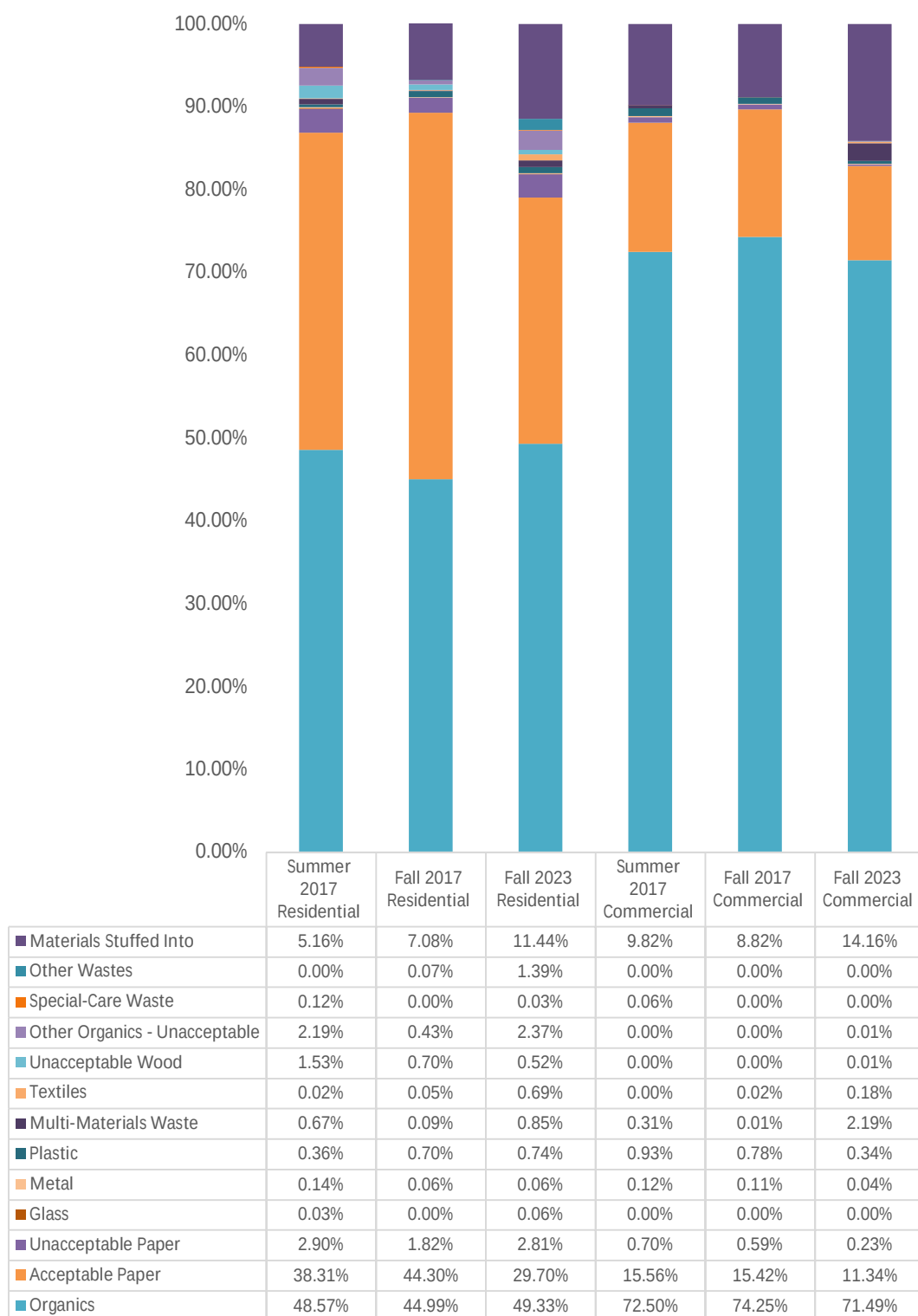


Figure 1: 2017 Audit Results vs 2023 Audit Results

In both the residential and IC&I samples, the percentage of Acceptable Materials - Organics was relatively consistent, ranging from approximately 45% to 49 % and 71% to 74%, respectively. Regarding Unacceptable Materials, Materials Stuffed Into was consistently the highest percentage for both samples, ranging from approximately 5% to 11% for the residential sector and approximately 10% to 14% for the IC&I sector. However, there has been an increase in Materials Stuffed Into since 2017, as highlighted in Table 7.

Table 7: 2017 Audit Results vs 2023 Audit Results

| Primary Category                         | Residential |           |           | Commercial  |           |           |
|------------------------------------------|-------------|-----------|-----------|-------------|-----------|-----------|
|                                          | Summer 2017 | Fall 2017 | Fall 2023 | Summer 2017 | Fall 2017 | Fall 2023 |
| Acceptable Materials                     |             |           |           |             |           |           |
| Acceptable Paper                         | 38%         | 44%       | 30%       | 16%         | 15%       | 11%       |
| Organics                                 | 49%         | 45%       | 49%       | 73%         | 74%       | 71%       |
| Total Acceptable Material <sup>1</sup>   | 87%         | 89%       | 79%       | 89%         | 89%       | 82%       |
| Unacceptable Materials                   |             |           |           |             |           |           |
| Unacceptable Paper                       | 3%          | 2%        | 3%        | <1%         | <1%       | <1%       |
| Glass                                    | <1%         | 0%        | <1%       | 0%          | 0%        | 0%        |
| Metal                                    | <1%         | <1%       | <1%       | <1%         | <1%       | <1%       |
| Plastic                                  | <1%         | 1%        | 1%        | 1%          | 1%        | <1%       |
| Multi-Materials Waste                    | 1%          | <1%       | 1%        | <1%         | <1%       | 2%        |
| Textiles                                 | <1%         | <1%       | 1%        | 0%          | <1%       | <1%       |
| Unacceptable Wood                        | 2%          | 1%        | 1%        | 0%          | 0%        | <1%       |
| Other Organics - Unacceptable            | 2%          | <1%       | 2%        | 0%          | 0%        | <1%       |
| Special-Care Waste                       | <1%         | 0%        | <1%       | <1%         | 0%        | 0%        |
| Other Wastes                             | 0%          | <1%       | 1%        | 0%          | 0%        | 0%        |
| Materials Stuffed Into                   | 5%          | 7%        | 11%       | 10%         | 9%        | 14%       |
| Total Unacceptable Material <sup>1</sup> | 13%         | 11%       | 21%       | 12%         | 10%       | 17%       |

<sup>1</sup>Note that percentages were rounded to the nearest whole number, thus percentages may not sum to 100%.

## Conclusion

The SSO audit was conducted by Dillon as part of HRM's Solid Waste Strategy to gain a comprehensive overview of the material received at HRM's composting facilities, encompassing both residential and IC&I sectors.

The results from the 2023 audit indicate that the majority of Acceptable Materials observed in the residential samples consisted of Food Organics (21%) and Kraft Paper and Bags (18%). While the Unacceptable Materials observed in residential samples consisted primarily of Materials Stuffed Into (11%), particularly Small Plastic Bags (9%) and Other Containers (2%).

In the IC&I sector, Acceptable Materials consisted predominantly of Food Organics (68%), while Materials Stuffed Into, primarily Small and Large Plastic Bags (5% and 8%, respectively), accounted for the highest percentage of unacceptable materials (14%).

The results of the 2023 audit were compared to those of the 2017 audit. It was observed that both the residential and IC&I sectors exhibited consistent percentages of Acceptable Materials - Organics, ranging between roughly 45% and 49% and 71% and 74%, respectively. However, an increase was observed in the percentage of Materials Stuffed Into from 2017 to 2023.

This report was prepared exclusively for the purposes, project and locations outlined in this report. The report was completed using a single snapshot of data over a two week period and is based on the composition of the inbound material over that period of time, as indicated in the report. Although a reasonable analysis was conducted by Dillon, Dillon's analysis was by no means exhaustive. Rather, Dillon's report represents a reasonable review of the available material, within the established scope and schedule.

## Appendix A

### *Sample and Sub-Category Photos*



Photo A1: Sample 001, **Residential (Zone 1)**

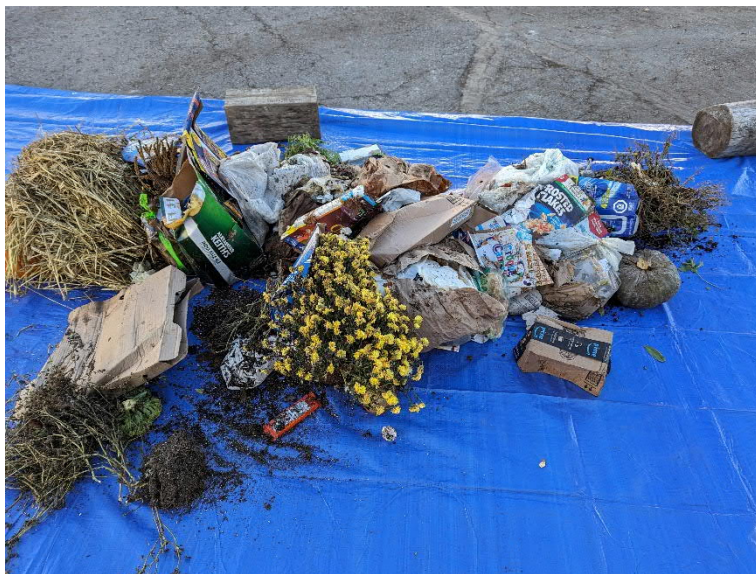


Photo A2: Sample 002, **Residential (Zone 5)**



Photo A3: Sample 003, **Residential (Zone 6)**

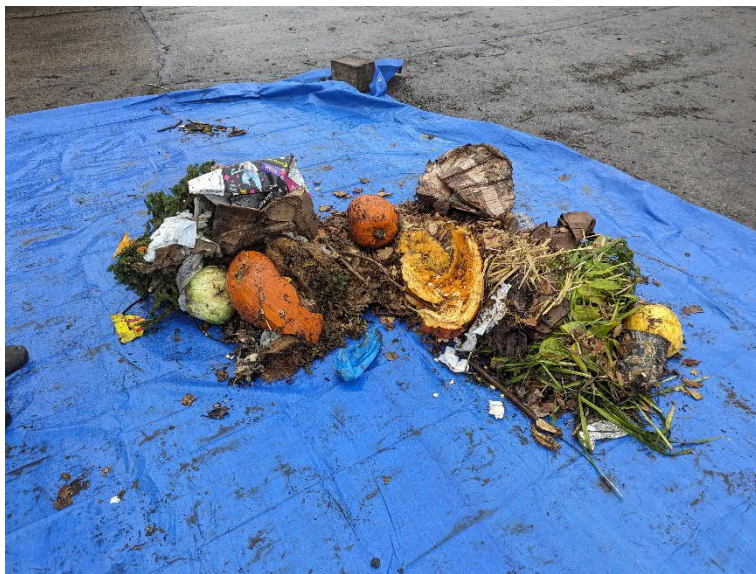


Photo A4: Sample 004, **Residential (Zone 5)**



Photo A5: Sample 005, IC&I (Zone 4)



Photo A6: Sample 006, IC&I (Zone 1)



Photo A7: Sample 007, IC&I (Zone 4)



Photo A8: Sample 008, IC&I (Zone 4)



Photo A9: Sample 009, IC&I (Zone 4)



Photo A10: Sample 010, **Residential** (Zone 6)



Photo A11: Sample 012, IC&I (Zone 1)



Photo A12: Sample 013, **Residential (Zone 7)**



Photo A13: Sample 014, Residential (Zone 7)



Photo A14: Sample 015, Residential (Zone 2)



Photo A15: Sample 016, IC&I (Zone 4)



Photo A16: Sample 017, **Residential** (Zone 7)



Photo A17: Sample 018, Residential (Zone 2)



Photo A18: Sample 019, Residential (Zone 2)



Photo A19 : Sample 020 (1), Condo (Zone 3)



Photo A20: Sample 020 (2), Condo (Zone 3)



Photo A21: Acceptable Materials – **Food Organics (Residential)**



Photo A22: Acceptable Materials – **Kraft Paper and Bags (Residential)**



Photo A23: Acceptable Materials – Kraft Paper and Bags (Residential)



Photo A24: Acceptable Materials – Yard Organics (Residential)



Photo A25: Acceptable Materials – **Other Organics (Residential)**



Photo A26: Unacceptable Materials – **Materials Stuffed Into – Other Container (Residential)**



Photo A27: Unacceptable Materials – Materials Stuffed Into – **Large Plastic Bags (Residential)**



Photo A28: Acceptable Materials – Food Organics (IC&I)

## Appendix B

### *Residential Sample Results*

|                                                                                         |                               |                                                 |                                |            |                                              |            |                                                      |            |
|-----------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------|--------------------------------|------------|----------------------------------------------|------------|------------------------------------------------------|------------|
| Sample ID                                                                               | Total Weight by Category (kg) | Total Weight by Category / Total Weight Sampled | 001                            |            | 002                                          |            | 003                                                  |            |
| Date Sampled                                                                            |                               |                                                 | 06-Nov-23                      |            | 06-Nov-23                                    |            | 07-Nov-23                                            |            |
| Truck #                                                                                 |                               |                                                 | RE1037                         |            | RE1029                                       |            | RE2086                                               |            |
| Route Type                                                                              |                               |                                                 | Residential - Halifax (Zone 1) |            | Residential - Sackville/ Fall River (Zone 5) |            | Residential - Cole Harbour/ Eastern Passage (Zone 6) |            |
| Sample Weight (kg)                                                                      |                               |                                                 | 99.65                          |            | 78.95                                        |            | 62.90                                                |            |
| Total Truck Weight Full (kg)                                                            |                               |                                                 | 25150.00                       |            | 23430.00                                     |            | 25210.00                                             |            |
| Total Truck Weight Empty (kg)                                                           |                               |                                                 | 16400.00                       |            | 16520.00                                     |            | 16150.00                                             |            |
| Truck Load Weight (kg)                                                                  |                               |                                                 | 8750.00                        |            | 6910.00                                      |            | 9060.00                                              |            |
| Acceptable Materials                                                                    |                               |                                                 | Weights (kg)                   | Percentage | Weights (kg)                                 | Percentage | Weights (kg)                                         | Percentage |
| Paper and Paperboard                                                                    |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Kraft Paper and Bags - including contents if intact (predominantly food waste)          | 167.40                        | 18.06%                                          | 3.35                           | 3.36%      | 15.00                                        | 19.00%     | 6.35                                                 | 10.10%     |
| Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | 38.15                         | 4.12%                                           | 14.95                          | 15.00%     | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Boxboard                                                                                | 24.90                         | 2.69%                                           | 7.00                           | 7.02%      | 3.20                                         | 4.05%      | 2.10                                                 | 3.34%      |
| Tissue, Paper Towel, Napkins                                                            | 22.45                         | 2.42%                                           | 0.25                           | 0.25%      | 0.50                                         | 0.63%      | 0.30                                                 | 0.48%      |
| Soiled Paper Products                                                                   | 9.55                          | 1.03%                                           | 0.20                           | 0.20%      | 0.20                                         | 0.25%      | 0.20                                                 | 0.32%      |
| Acceptable Wood                                                                         | 12.80                         | 1.38%                                           | 4.40                           | 4.42%      | 0.00                                         | 0.00%      | 2.25                                                 | 3.58%      |
| SUBTOTAL - Acceptable Paper                                                             | 275.25                        | 29.70%                                          | 30.15                          | 30.26%     | 18.90                                        | 23.94%     | 11.20                                                | 17.81%     |
| Organics                                                                                |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Food Organics                                                                           | 193.10                        | 20.83%                                          | 2.70                           | 2.71%      | 2.70                                         | 3.42%      | 0.95                                                 | 1.51%      |
| Yard Organics                                                                           | 107.50                        | 11.60%                                          | 14.50                          | 14.55%     | 11.05                                        | 14.00%     | 0.00                                                 | 0.00%      |
| Other Organics                                                                          | 156.60                        | 16.89%                                          | 21.40                          | 21.48%     | 12.50                                        | 15.83%     | 39.75                                                | 63.20%     |
| SUBTOTAL - Organics                                                                     | 457.20                        | 49.33%                                          | 38.60                          | 38.74%     | 26.25                                        | 33.25%     | 40.70                                                | 64.71%     |
| TOTAL ACCEPTABLE                                                                        | 732.45                        | 79.02%                                          | 68.75                          | 68.99%     | 45.15                                        | 57.19%     | 51.90                                                | 82.51%     |
| Unacceptable Materials                                                                  |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Paper and Paperboard                                                                    |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Fine Paper                                                                              | 1.95                          | 0.21%                                           | 0.00                           | 0.00%      | 0.15                                         | 0.19%      | 0.20                                                 | 0.32%      |
| Magazines and Catalogues                                                                | 0.20                          | 0.02%                                           | 0.00                           | 0.00%      | 0.10                                         | 0.13%      | 0.00                                                 | 0.00%      |
| Newspaper                                                                               | 2.55                          | 0.28%                                           | 0.05                           | 0.05%      | 0.10                                         | 0.13%      | 0.00                                                 | 0.00%      |
| Books & Bound Material                                                                  | 0.00                          | 0.00%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Telephone Books / Directories                                                           | 0.00                          | 0.00%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Corrugated Cardboard                                                                    | 21.10                         | 2.28%                                           | 4.40                           | 4.42%      | 2.20                                         | 2.79%      | 2.45                                                 | 3.90%      |
| Other Paper                                                                             | 0.25                          | 0.03%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| SUBTOTAL - Unacceptable Paper                                                           | 26.05                         | 2.81%                                           | 4.45                           | 4.47%      | 2.55                                         | 3.23%      | 2.65                                                 | 4.21%      |
| Glass                                                                                   |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Recyclable Glass                                                                        | 0.45                          | 0.05%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Non-Recyclable Glass                                                                    | 0.15                          | 0.02%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| SUBTOTAL - Glass                                                                        | 0.60                          | 0.06%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Metal                                                                                   |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Recyclable Metal                                                                        | 0.30                          | 0.03%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.05                                                 | 0.08%      |
| Non-Recyclable Metal                                                                    | 0.25                          | 0.03%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| SUBTOTAL - Metal                                                                        | 0.55                          | 0.06%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.05                                                 | 0.08%      |
| Plastic                                                                                 |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Recyclable Plastic - Containers                                                         | 1.55                          | 0.17%                                           | 0.05                           | 0.05%      | 0.10                                         | 0.13%      | 0.35                                                 | 0.56%      |
| Recyclables Plastic - Bags                                                              | 2.70                          | 0.29%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Non - Recyclable Plastic                                                                | 2.65                          | 0.29%                                           | 0.40                           | 0.40%      | 0.20                                         | 0.25%      | 0.35                                                 | 0.56%      |
| SUBTOTAL - Plastic                                                                      | 6.90                          | 0.74%                                           | 0.45                           | 0.45%      | 0.30                                         | 0.38%      | 0.70                                                 | 1.11%      |
| Multi-Materials Waste                                                                   |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Predominantly Paper -Recyclable                                                         | 0.70                          | 0.08%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.65                                                 | 1.03%      |
| Predominantly Paper -Non-Recyclable                                                     | 4.10                          | 0.44%                                           | 0.00                           | 0.00%      | 0.20                                         | 0.25%      | 0.00                                                 | 0.00%      |
| Other Multi Material Wastes                                                             | 3.10                          | 0.33%                                           | 1.60                           | 1.61%      | 0.05                                         | 0.06%      | 0.45                                                 | 0.72%      |
| SUBTOTAL - Multi-Materials                                                              | 7.90                          | 0.85%                                           | 1.60                           | 1.61%      | 0.25                                         | 0.32%      | 1.10                                                 | 1.75%      |
| Textiles                                                                                | 6.40                          | 0.69%                                           | 0.00                           | 0.00%      | 0.05                                         | 0.06%      | 0.00                                                 | 0.00%      |
| SUBTOTAL - Textiles                                                                     | 6.40                          | 0.69%                                           | 0.00                           | 0.00%      | 0.05                                         | 0.06%      | 0.00                                                 | 0.00%      |
| Unacceptable Wood                                                                       | 4.85                          | 0.52%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| SUBTOTAL - Unacceptable Wood                                                            | 4.85                          | 0.52%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Other Organics - Unacceptable                                                           |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Pet Waste                                                                               | 1.80                          | 0.19%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Leaf and Yard                                                                           | 20.20                         | 2.18%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.60                                                 | 0.95%      |
| SUBTOTAL - Other Organics                                                               | 22.00                         | 2.37%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.60                                                 | 0.95%      |
| Special-Care Waste                                                                      |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Bio-Hazardous Waste                                                                     | 0.05                          | 0.01%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Household Special Waste                                                                 | 0.15                          | 0.02%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Other                                                                                   | 0.10                          | 0.01%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.05                                                 | 0.08%      |
| SUBTOTAL - Special-Care                                                                 | 0.30                          | 0.03%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.05                                                 | 0.08%      |
| Other Wastes                                                                            | 12.90                         | 1.39%                                           | 9.10                           | 9.13%      | 0.55                                         | 0.70%      | 0.00                                                 | 0.00%      |
| SUBTOTAL - Other Wastes                                                                 | 12.90                         | 1.39%                                           | 9.10                           | 9.13%      | 0.55                                         | 0.70%      | 0.00                                                 | 0.00%      |
| Materials Stuffed Into:                                                                 |                               |                                                 |                                |            |                                              |            |                                                      |            |
| Milk Containers                                                                         | 0.00                          | 0.00%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      |
| Corrugated Cardboard                                                                    | 3.10                          | 0.33%                                           | 0.00                           | 0.00%      | 3.10                                         | 3.93%      | 0.00                                                 | 0.00%      |
| Small Plastic Bags                                                                      | 83.96                         | 9.06%                                           | 15.30                          | 15.35%     | 27.00                                        | 34.20%     | 4.50                                                 | 7.15%      |
| Large Plastic Bags                                                                      | 2.50                          | 0.27%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.50                                                 | 0.79%      |
| Other Container                                                                         | 16.45                         | 1.77%                                           | 0.00                           | 0.00%      | 0.00                                         | 0.00%      | 0.85                                                 | 1.35%      |
| SUBTOTAL - Materials Stuffed Into                                                       | 106.01                        | 11.44%                                          | 15.30                          | 15.35%     | 30.10                                        | 38.13%     | 5.85                                                 | 9.30%      |
| TOTAL UNACCEPTABLE                                                                      | 194.46                        | 20.98%                                          | 30.90                          | 31.01%     | 33.80                                        | 42.81%     | 11.00                                                | 17.49%     |

|                                                                                         |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
|-----------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------|----------------------------------------------|------------|------------------------------------------------------|------------|---------------------------------------------------------|------------|
| Sample ID                                                                               | Total Weight by Category (kg) | Total Weight by Category / Total Weight Sampled | 004                                          |            | 010                                                  |            | 013                                                     |            |
| Date Sampled                                                                            |                               |                                                 | 07-Nov-23                                    |            | 09-Nov-23                                            |            | 13-Nov-23                                               |            |
| Truck #                                                                                 |                               |                                                 | RE1029                                       |            | RE1030                                               |            | MW9519                                                  |            |
| Route Type                                                                              |                               |                                                 | Residential - Sackville/ Fall River (Zone 5) |            | Residential - Cole Harbour/ Eastern Passage (Zone 6) |            | Residential - Preston/ Lawrencetown/ Lake Echo (Zone 7) |            |
| Sample Weight (kg)                                                                      |                               |                                                 | 56.65                                        |            | 131.41                                               |            | 43.45                                                   |            |
| Total Truck Weight Full (kg)                                                            |                               |                                                 | 30310.00                                     |            | 23400.00                                             |            | 24350.00                                                |            |
| Total Truck Weight Empty (kg)                                                           |                               |                                                 | 16470.00                                     |            | 16300.00                                             |            | 17150.00                                                |            |
| Truck Load Weight (kg)                                                                  |                               |                                                 | 13840.00                                     |            | 7100.00                                              |            | 7200.00                                                 |            |
| Acceptable Materials                                                                    |                               |                                                 | Weights (kg)                                 | Percentage | Weights (kg)                                         | Percentage | Weights (kg)                                            | Percentage |
| Paper and Paperboard                                                                    |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Kraft Paper and Bags - including contents if intact (predominantly food waste)          | 167.40                        | 18.06%                                          | 0.50                                         | 0.88%      | 28.05                                                | 21.35%     | 4.65                                                    | 10.70%     |
| Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | 38.15                         | 4.12%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 3.55                                                    | 8.17%      |
| Boxboard                                                                                | 24.90                         | 2.69%                                           | 0.30                                         | 0.53%      | 3.45                                                 | 2.63%      | 1.50                                                    | 3.45%      |
| Tissue, Paper Towel, Napkins                                                            | 22.45                         | 2.42%                                           | 0.00                                         | 0.00%      | 5.75                                                 | 4.38%      | 2.60                                                    | 5.98%      |
| Soiled Paper Products                                                                   | 9.55                          | 1.03%                                           | 0.00                                         | 0.00%      | 0.65                                                 | 0.49%      | 0.55                                                    | 1.27%      |
| Acceptable Wood                                                                         | 12.80                         | 1.38%                                           | 2.40                                         | 4.24%      | 0.15                                                 | 0.11%      | 0.35                                                    | 0.81%      |
| SUBTOTAL - Acceptable Paper                                                             | 275.25                        | 29.70%                                          | 3.20                                         | 5.65%      | 38.05                                                | 28.96%     | 13.20                                                   | 30.38%     |
| Organics                                                                                |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Food Organics                                                                           | 193.10                        | 20.83%                                          | 0.00                                         | 0.00%      | 60.00                                                | 45.66%     | 7.05                                                    | 16.23%     |
| Yard Organics                                                                           | 107.50                        | 11.60%                                          | 11.70                                        | 20.65%     | 1.90                                                 | 1.45%      | 12.85                                                   | 29.57%     |
| Other Organics                                                                          | 156.60                        | 16.89%                                          | 31.10                                        | 54.90%     | 16.10                                                | 12.25%     | 0.80                                                    | 1.84%      |
| SUBTOTAL - Organics                                                                     | 457.20                        | 49.33%                                          | 42.80                                        | 75.55%     | 78.00                                                | 59.36%     | 20.70                                                   | 47.64%     |
| TOTAL ACCEPTABLE                                                                        | 732.45                        | 79.02%                                          | 46.00                                        | 81.20%     | 116.05                                               | 88.31%     | 33.90                                                   | 78.02%     |
| Unacceptable Materials                                                                  |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Paper and Paperboard                                                                    |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Fine Paper                                                                              | 1.95                          | 0.21%                                           | 0.75                                         | 1.32%      | 0.30                                                 | 0.23%      | 0.05                                                    | 0.12%      |
| Magazines and Catalogues                                                                | 0.20                          | 0.02%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Newspaper                                                                               | 2.55                          | 0.28%                                           | 0.00                                         | 0.00%      | 0.85                                                 | 0.65%      | 0.20                                                    | 0.46%      |
| Books & Bound Material                                                                  | 0.00                          | 0.00%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Telephone Books / Directories                                                           | 0.00                          | 0.00%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Corrugated Cardboard                                                                    | 21.10                         | 2.28%                                           | 4.40                                         | 7.77%      | 2.60                                                 | 1.98%      | 0.40                                                    | 0.92%      |
| Other Paper                                                                             | 0.25                          | 0.03%                                           | 0.00                                         | 0.00%      | 0.05                                                 | 0.04%      | 0.05                                                    | 0.12%      |
| SUBTOTAL - Unacceptable Paper                                                           | 26.05                         | 2.81%                                           | 5.15                                         | 9.09%      | 3.80                                                 | 2.89%      | 0.70                                                    | 1.61%      |
| Glass                                                                                   |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Recyclable Glass                                                                        | 0.45                          | 0.05%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Non-Recyclable Glass                                                                    | 0.15                          | 0.02%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Glass                                                                        | 0.60                          | 0.06%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Metal                                                                                   |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Recyclable Metal                                                                        | 0.30                          | 0.03%                                           | 0.00                                         | 0.00%      | 0.10                                                 | 0.08%      | 0.00                                                    | 0.00%      |
| Non-Recyclable Metal                                                                    | 0.25                          | 0.03%                                           | 0.00                                         | 0.00%      | 0.20                                                 | 0.15%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Metal                                                                        | 0.55                          | 0.06%                                           | 0.00                                         | 0.00%      | 0.30                                                 | 0.23%      | 0.00                                                    | 0.00%      |
| Plastic                                                                                 |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Recyclable Plastic - Containers                                                         | 1.55                          | 0.17%                                           | 0.15                                         | 0.26%      | 0.50                                                 | 0.38%      | 0.00                                                    | 0.00%      |
| Recyclables Plastic - Bags                                                              | 2.70                          | 0.29%                                           | 0.00                                         | 0.00%      | 0.40                                                 | 0.30%      | 0.30                                                    | 0.69%      |
| Non - Recyclable Plastic                                                                | 2.65                          | 0.29%                                           | 0.10                                         | 0.18%      | 1.05                                                 | 0.80%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Plastic                                                                      | 6.90                          | 0.74%                                           | 0.25                                         | 0.44%      | 1.95                                                 | 1.48%      | 0.30                                                    | 0.69%      |
| Multi-Materials Waste                                                                   |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Predominantly Paper -Recyclable                                                         | 0.70                          | 0.08%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Predominantly Paper -Non-Recyclable                                                     | 4.10                          | 0.44%                                           | 0.00                                         | 0.00%      | 1.05                                                 | 0.80%      | 0.45                                                    | 1.04%      |
| Other Multi Material Wastes                                                             | 3.10                          | 0.33%                                           | 0.35                                         | 0.62%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Multi-Materials                                                              | 7.90                          | 0.85%                                           | 0.35                                         | 0.62%      | 1.05                                                 | 0.80%      | 0.45                                                    | 1.04%      |
| Textiles                                                                                | 6.40                          | 0.69%                                           | 0.00                                         | 0.00%      | 0.80                                                 | 0.61%      | 0.05                                                    | 0.12%      |
| SUBTOTAL - Textiles                                                                     | 6.40                          | 0.69%                                           | 0.00                                         | 0.00%      | 0.80                                                 | 0.61%      | 0.05                                                    | 0.12%      |
| Unacceptable Wood                                                                       | 4.85                          | 0.52%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Unacceptable Wood                                                            | 4.85                          | 0.52%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Other Organics - Unacceptable                                                           |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Pet Waste                                                                               | 1.80                          | 0.19%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 1.55                                                    | 3.57%      |
| Leaf and Yard                                                                           | 20.20                         | 2.18%                                           | 0.00                                         | 0.00%      | 1.35                                                 | 1.03%      | 5.65                                                    | 13.00%     |
| SUBTOTAL - Other Organics                                                               | 22.00                         | 2.37%                                           | 0.00                                         | 0.00%      | 1.35                                                 | 1.03%      | 7.20                                                    | 16.57%     |
| Special-Care Waste                                                                      |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Bio-Hazardous Waste                                                                     | 0.05                          | 0.01%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.05                                                    | 0.12%      |
| Household Special Waste                                                                 | 0.15                          | 0.02%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Other                                                                                   | 0.10                          | 0.01%                                           | 0.05                                         | 0.09%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Special-Care                                                                 | 0.30                          | 0.03%                                           | 0.05                                         | 0.09%      | 0.00                                                 | 0.00%      | 0.05                                                    | 0.12%      |
| Other Wastes                                                                            | 12.90                         | 1.39%                                           | 1.20                                         | 2.12%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Other Wastes                                                                 | 12.90                         | 1.39%                                           | 1.20                                         | 2.12%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Materials Stuffed Into:                                                                 |                               |                                                 |                                              |            |                                                      |            |                                                         |            |
| Milk Containers                                                                         | 0.00                          | 0.00%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Corrugated Cardboard                                                                    | 3.10                          | 0.33%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Small Plastic Bags                                                                      | 83.96                         | 9.06%                                           | 1.30                                         | 2.29%      | 3.26                                                 | 2.48%      | 0.80                                                    | 1.84%      |
| Large Plastic Bags                                                                      | 2.50                          | 0.27%                                           | 0.00                                         | 0.00%      | 0.00                                                 | 0.00%      | 0.00                                                    | 0.00%      |
| Other Container                                                                         | 16.45                         | 1.77%                                           | 2.35                                         | 4.15%      | 2.85                                                 | 2.17%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Materials Stuffed Into                                                       | 106.01                        | 11.44%                                          | 3.65                                         | 6.44%      | 6.11                                                 | 4.65%      | 0.80                                                    | 1.84%      |
| TOTAL UNACCEPTABLE                                                                      | 194.46                        | 20.98%                                          | 10.65                                        | 18.80%     | 15.36                                                | 11.69%     | 9.55                                                    | 21.98%     |

|                                                                                         |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
|-----------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------|---------------------------------------------------------|------------|----------------------------------|------------|---------------------------------------------------------|------------|
| Sample ID                                                                               | Total Weight by Category (kg) | Total Weight by Category / Total Weight Sampled | 014                                                     |            | 015                              |            | 017                                                     |            |
| Date Sampled                                                                            |                               |                                                 | 14-Nov-23                                               |            | 15-Nov-23                        |            | 15-Nov-23                                               |            |
| Truck #                                                                                 |                               |                                                 | MW9524                                                  |            | RE2094                           |            | MW9519                                                  |            |
| Route Type                                                                              |                               |                                                 | Residential - Preston/ Lawrencetown/ Lake Echo (Zone 7) |            | Residential - Dartmouth (Zone 2) |            | Residential - Preston/ Lawrencetown/ Lake Echo (Zone 7) |            |
| Sample Weight (kg)                                                                      |                               |                                                 | 39.00                                                   |            | 38.60                            |            | 109.85                                                  |            |
| Total Truck Weight Full (kg)                                                            |                               |                                                 | 24610.00                                                |            | 21110.00                         |            | 26660.00                                                |            |
| Total Truck Weight Empty (kg)                                                           |                               |                                                 | 17100.00                                                |            | 15930.00                         |            | 17140.00                                                |            |
| Truck Load Weight (kg)                                                                  |                               |                                                 | 7510.00                                                 |            | 5180.00                          |            | 9520.00                                                 |            |
| Acceptable Materials                                                                    |                               |                                                 | Weights (kg)                                            | Percentage | Weights (kg)                     | Percentage | Weights (kg)                                            | Percentage |
| Paper and Paperboard                                                                    |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Kraft Paper and Bags - including contents if intact (predominantly food waste)          | 167.40                        | 18.06%                                          | 2.25                                                    | 5.77%      | 1.35                             | 3.50%      | 20.95                                                   | 19.07%     |
| Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | 38.15                         | 4.12%                                           | 7.85                                                    | 20.13%     | 4.65                             | 12.05%     | 0.00                                                    | 0.00%      |
| Boxboard                                                                                | 24.90                         | 2.69%                                           | 0.80                                                    | 2.05%      | 0.95                             | 2.46%      | 0.75                                                    | 0.68%      |
| Tissue, Paper Towel, Napkins                                                            | 22.45                         | 2.42%                                           | 1.25                                                    | 3.21%      | 0.20                             | 0.52%      | 3.80                                                    | 3.46%      |
| Soiled Paper Products                                                                   | 9.55                          | 1.03%                                           | 0.10                                                    | 0.26%      | 0.30                             | 0.78%      | 1.50                                                    | 1.37%      |
| Acceptable Wood                                                                         | 12.80                         | 1.38%                                           | 0.00                                                    | 0.00%      | 1.25                             | 3.24%      | 1.00                                                    | 0.91%      |
| SUBTOTAL - Acceptable Paper                                                             | 275.25                        | 29.70%                                          | 12.25                                                   | 31.41%     | 8.70                             | 22.54%     | 28.00                                                   | 25.49%     |
| Organics                                                                                |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Food Organics                                                                           | 193.10                        | 20.83%                                          | 3.95                                                    | 10.13%     | 1.60                             | 4.15%      | 44.30                                                   | 40.33%     |
| Yard Organics                                                                           | 107.50                        | 11.60%                                          | 0.00                                                    | 0.00%      | 9.55                             | 24.74%     | 14.00                                                   | 12.74%     |
| Other Organics                                                                          | 156.60                        | 16.89%                                          | 8.85                                                    | 22.69%     | 3.10                             | 8.03%      | 1.85                                                    | 1.68%      |
| SUBTOTAL - Organics                                                                     | 457.20                        | 49.33%                                          | 12.80                                                   | 32.82%     | 14.25                            | 36.92%     | 60.15                                                   | 54.76%     |
| TOTAL ACCEPTABLE                                                                        | 732.45                        | 79.02%                                          | 25.05                                                   | 64.23%     | 22.95                            | 59.46%     | 88.15                                                   | 80.25%     |
| Unacceptable Materials                                                                  |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Paper and Paperboard                                                                    |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Fine Paper                                                                              | 1.95                          | 0.21%                                           | 0.10                                                    | 0.26%      | 0.10                             | 0.26%      | 0.00                                                    | 0.00%      |
| Magazines and Catalogues                                                                | 0.20                          | 0.02%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.10                                                    | 0.09%      |
| Newspaper                                                                               | 2.55                          | 0.28%                                           | 0.00                                                    | 0.00%      | 0.65                             | 1.68%      | 0.00                                                    | 0.00%      |
| Books & Bound Material                                                                  | 0.00                          | 0.00%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Telephone Books / Directories                                                           | 0.00                          | 0.00%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Corrugated Cardboard                                                                    | 21.10                         | 2.28%                                           | 0.05                                                    | 0.13%      | 1.50                             | 3.89%      | 0.70                                                    | 0.64%      |
| Other Paper                                                                             | 0.25                          | 0.03%                                           | 0.05                                                    | 0.13%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Unacceptable Paper                                                           | 26.05                         | 2.81%                                           | 0.20                                                    | 0.51%      | 2.25                             | 5.83%      | 0.80                                                    | 0.73%      |
| Glass                                                                                   |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Recyclable Glass                                                                        | 0.45                          | 0.05%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Non-Recyclable Glass                                                                    | 0.15                          | 0.02%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.15                                                    | 0.14%      |
| SUBTOTAL - Glass                                                                        | 0.60                          | 0.06%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.15                                                    | 0.14%      |
| Metal                                                                                   |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Recyclable Metal                                                                        | 0.30                          | 0.03%                                           | 0.05                                                    | 0.13%      | 0.05                             | 0.13%      | 0.00                                                    | 0.00%      |
| Non-Recyclable Metal                                                                    | 0.25                          | 0.03%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.05                                                    | 0.05%      |
| SUBTOTAL - Metal                                                                        | 0.55                          | 0.06%                                           | 0.05                                                    | 0.13%      | 0.05                             | 0.13%      | 0.05                                                    | 0.05%      |
| Plastic                                                                                 |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Recyclable Plastic - Containers                                                         | 1.55                          | 0.17%                                           | 0.00                                                    | 0.00%      | 0.15                             | 0.39%      | 0.15                                                    | 0.14%      |
| Recyclables Plastic - Bags                                                              | 2.70                          | 0.29%                                           | 0.05                                                    | 0.13%      | 0.00                             | 0.00%      | 0.10                                                    | 0.09%      |
| Non - Recyclable Plastic                                                                | 2.65                          | 0.29%                                           | 0.30                                                    | 0.77%      | 0.05                             | 0.13%      | 0.10                                                    | 0.09%      |
| SUBTOTAL - Plastic                                                                      | 6.90                          | 0.74%                                           | 0.35                                                    | 0.90%      | 0.20                             | 0.52%      | 0.35                                                    | 0.32%      |
| Multi-Materials Waste                                                                   |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Predominantly Paper - Recyclable                                                        | 0.70                          | 0.08%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Predominantly Paper - Non-Recyclable                                                    | 4.10                          | 0.44%                                           | 0.40                                                    | 1.03%      | 0.15                             | 0.39%      | 0.80                                                    | 0.73%      |
| Other Multi Material Wastes                                                             | 3.10                          | 0.33%                                           | 0.15                                                    | 0.38%      | 0.05                             | 0.13%      | 0.05                                                    | 0.05%      |
| SUBTOTAL - Multi-Materials                                                              | 7.90                          | 0.85%                                           | 0.55                                                    | 1.41%      | 0.20                             | 0.52%      | 0.85                                                    | 0.77%      |
| Textiles                                                                                | 6.40                          | 0.69%                                           | 0.25                                                    | 0.64%      | 0.05                             | 0.13%      | 5.20                                                    | 4.73%      |
| SUBTOTAL - Textiles                                                                     | 6.40                          | 0.69%                                           | 0.25                                                    | 0.64%      | 0.05                             | 0.13%      | 5.20                                                    | 4.73%      |
| Unacceptable Wood                                                                       | 4.85                          | 0.52%                                           | 0.00                                                    | 0.00%      | 4.75                             | 12.31%     | 0.10                                                    | 0.09%      |
| SUBTOTAL - Unacceptable Wood                                                            | 4.85                          | 0.52%                                           | 0.00                                                    | 0.00%      | 4.75                             | 12.31%     | 0.10                                                    | 0.09%      |
| Other Organics - Unacceptable                                                           |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Pet Waste                                                                               | 1.80                          | 0.19%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.25                                                    | 0.23%      |
| Leaf and Yard                                                                           | 20.20                         | 2.18%                                           | 7.80                                                    | 20.00%     | 2.75                             | 7.12%      | 2.05                                                    | 1.87%      |
| SUBTOTAL - Other Organics                                                               | 22.00                         | 2.37%                                           | 7.80                                                    | 20.00%     | 2.75                             | 7.12%      | 2.30                                                    | 2.09%      |
| Special-Care Waste                                                                      |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Bio-Hazardous Waste                                                                     | 0.05                          | 0.01%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Household Special Waste                                                                 | 0.15                          | 0.02%                                           | 0.15                                                    | 0.38%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Other                                                                                   | 0.10                          | 0.01%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Special-Care                                                                 | 0.30                          | 0.03%                                           | 0.15                                                    | 0.38%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Other Wastes                                                                            | 12.90                         | 1.39%                                           | 0.00                                                    | 0.00%      | 2.05                             | 5.31%      | 0.00                                                    | 0.00%      |
| SUBTOTAL - Other Wastes                                                                 | 12.90                         | 1.39%                                           | 0.00                                                    | 0.00%      | 2.05                             | 5.31%      | 0.00                                                    | 0.00%      |
| Materials Stuffed Into:                                                                 |                               |                                                 |                                                         |            |                                  |            |                                                         |            |
| Milk Containers                                                                         | 0.00                          | 0.00%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Corrugated Cardboard                                                                    | 3.10                          | 0.33%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Small Plastic Bags                                                                      | 83.96                         | 9.06%                                           | 4.55                                                    | 11.67%     | 2.10                             | 5.44%      | 10.00                                                   | 9.10%      |
| Large Plastic Bags                                                                      | 2.50                          | 0.27%                                           | 0.00                                                    | 0.00%      | 0.00                             | 0.00%      | 0.00                                                    | 0.00%      |
| Other Container                                                                         | 16.45                         | 1.77%                                           | 0.05                                                    | 0.13%      | 1.25                             | 3.24%      | 1.90                                                    | 1.73%      |
| SUBTOTAL - Materials Stuffed Into                                                       | 106.01                        | 11.44%                                          | 4.60                                                    | 11.79%     | 3.35                             | 8.68%      | 11.90                                                   | 10.83%     |
| TOTAL UNACCEPTABLE                                                                      | 194.46                        | 20.98%                                          | 13.95                                                   | 35.77%     | 15.65                            | 40.54%     | 21.70                                                   | 19.75%     |

|                                                                                         |                               |                                                 |                                  |            |                                  |            |                                          |            |
|-----------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------|----------------------------------|------------|----------------------------------|------------|------------------------------------------|------------|
| Sample ID                                                                               | Total Weight by Category (kg) | Total Weight by Category / Total Weight Sampled | 018                              |            | 019                              |            | 020                                      |            |
| Date Sampled                                                                            |                               |                                                 | 15-Nov-23                        |            | 16-Nov-23                        |            | 17-Nov-23                                |            |
| Truck #                                                                                 |                               |                                                 | RE1030                           |            | RE2082                           |            | MW2422                                   |            |
| Route Type                                                                              |                               |                                                 | Residential - Dartmouth (Zone 2) |            | Residential - Dartmouth (Zone 2) |            | Condo - Bedford/Hammonds Plains (Zone 3) |            |
| Sample Weight (kg)                                                                      |                               |                                                 | 57.40                            |            | 87.40                            |            | 121.65                                   |            |
| Total Truck Weight Full (kg)                                                            |                               |                                                 | 22710.00                         |            | 23850.00                         |            | 14140.00                                 |            |
| Total Truck Weight Empty (kg)                                                           |                               |                                                 | 16260.00                         |            | 16040.00                         |            | 13420.00                                 |            |
| Truck Load Weight (kg)                                                                  |                               |                                                 | 6450.00                          |            | 7810.00                          |            | 720.00                                   |            |
| Acceptable Materials                                                                    |                               |                                                 | Weights (kg)                     | Percentage | Weights (kg)                     | Percentage | Weights (kg)                             | Percentage |
| Paper and Paperboard                                                                    |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Kraft Paper and Bags - including contents if intact (predominantly food waste)          | 167.40                        | 18.06%                                          | 17.70                            | 30.84%     | 18.40                            | 21.05%     | 48.85                                    | 40.16%     |
| Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | 38.15                         | 4.12%                                           | 0.00                             | 0.00%      | 7.15                             | 8.18%      | 0.00                                     | 0.00%      |
| Boxboard                                                                                | 24.90                         | 2.69%                                           | 0.85                             | 1.48%      | 3.00                             | 3.43%      | 1.00                                     | 0.82%      |
| Tissue, Paper Towel, Napkins                                                            | 22.45                         | 2.42%                                           | 2.75                             | 4.79%      | 1.90                             | 2.17%      | 3.15                                     | 2.59%      |
| Soiled Paper Products                                                                   | 9.55                          | 1.03%                                           | 0.10                             | 0.17%      | 0.60                             | 0.69%      | 5.15                                     | 4.23%      |
| Acceptable Wood                                                                         | 12.80                         | 1.38%                                           | 0.45                             | 0.78%      | 0.55                             | 0.63%      | 0.00                                     | 0.00%      |
| SUBTOTAL - Acceptable Paper                                                             | 275.25                        | 29.70%                                          | 21.85                            | 38.07%     | 31.60                            | 36.16%     | 58.15                                    | 47.80%     |
| Organics                                                                                |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Food Organics                                                                           | 193.10                        | 20.83%                                          | 14.75                            | 25.70%     | 9.65                             | 11.04%     | 45.45                                    | 37.36%     |
| Yard Organics                                                                           | 107.50                        | 11.60%                                          | 8.70                             | 15.16%     | 21.85                            | 25.00%     | 1.40                                     | 1.15%      |
| Other Organics                                                                          | 156.60                        | 16.89%                                          | 7.05                             | 12.28%     | 11.05                            | 12.64%     | 3.05                                     | 2.51%      |
| SUBTOTAL - Organics                                                                     | 457.20                        | 49.33%                                          | 30.50                            | 53.14%     | 42.55                            | 48.68%     | 49.90                                    | 41.02%     |
| TOTAL ACCEPTABLE                                                                        | 732.45                        | 79.02%                                          | 52.35                            | 91.20%     | 74.15                            | 84.84%     | 108.05                                   | 88.82%     |
| Unacceptable Materials                                                                  |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Paper and Paperboard                                                                    |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Fine Paper                                                                              | 1.95                          | 0.21%                                           | 0.25                             | 0.44%      | 0.05                             | 0.06%      | 0.00                                     | 0.00%      |
| Magazines and Catalogues                                                                | 0.20                          | 0.02%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Newspaper                                                                               | 2.55                          | 0.28%                                           | 0.65                             | 1.13%      | 0.05                             | 0.06%      | 0.00                                     | 0.00%      |
| Books & Bound Material                                                                  | 0.00                          | 0.00%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Telephone Books / Directories                                                           | 0.00                          | 0.00%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Corrugated Cardboard                                                                    | 21.10                         | 2.28%                                           | 0.00                             | 0.00%      | 2.40                             | 2.75%      | 0.00                                     | 0.00%      |
| Other Paper                                                                             | 0.25                          | 0.03%                                           | 0.00                             | 0.00%      | 0.05                             | 0.06%      | 0.05                                     | 0.04%      |
| SUBTOTAL - Unacceptable Paper                                                           | 26.05                         | 2.81%                                           | 0.90                             | 1.57%      | 2.55                             | 2.92%      | 0.05                                     | 0.04%      |
| Glass                                                                                   |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Recyclable Glass                                                                        | 0.45                          | 0.05%                                           | 0.00                             | 0.00%      | 0.45                             | 0.51%      | 0.00                                     | 0.00%      |
| Non-Recyclable Glass                                                                    | 0.15                          | 0.02%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| SUBTOTAL - Glass                                                                        | 0.60                          | 0.06%                                           | 0.00                             | 0.00%      | 0.45                             | 0.51%      | 0.00                                     | 0.00%      |
| Metal                                                                                   |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Recyclable Metal                                                                        | 0.30                          | 0.03%                                           | 0.05                             | 0.09%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Non-Recyclable Metal                                                                    | 0.25                          | 0.03%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| SUBTOTAL - Metal                                                                        | 0.55                          | 0.06%                                           | 0.05                             | 0.09%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Plastic                                                                                 |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Recyclable Plastic - Containers                                                         | 1.55                          | 0.17%                                           | 0.00                             | 0.00%      | 0.10                             | 0.11%      | 0.00                                     | 0.00%      |
| Recyclables Plastic - Bags                                                              | 2.70                          | 0.29%                                           | 0.00                             | 0.00%      | 0.05                             | 0.06%      | 1.80                                     | 1.48%      |
| Non - Recyclable Plastic                                                                | 2.65                          | 0.29%                                           | 0.05                             | 0.09%      | 0.00                             | 0.00%      | 0.05                                     | 0.04%      |
| SUBTOTAL - Plastic                                                                      | 6.90                          | 0.74%                                           | 0.05                             | 0.09%      | 0.15                             | 0.17%      | 1.85                                     | 1.52%      |
| Multi-Materials Waste                                                                   |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Predominantly Paper -Recyclable                                                         | 0.70                          | 0.08%                                           | 0.00                             | 0.00%      | 0.05                             | 0.06%      | 0.00                                     | 0.00%      |
| Predominantly Paper -Non-Recyclable                                                     | 4.10                          | 0.44%                                           | 0.35                             | 0.61%      | 0.15                             | 0.17%      | 0.55                                     | 0.45%      |
| Other Multi Material Wastes                                                             | 3.10                          | 0.33%                                           | 0.10                             | 0.17%      | 0.00                             | 0.00%      | 0.30                                     | 0.25%      |
| SUBTOTAL - Multi-Materials                                                              | 7.90                          | 0.85%                                           | 0.45                             | 0.78%      | 0.20                             | 0.23%      | 0.85                                     | 0.70%      |
| Textiles                                                                                | 6.40                          | 0.69%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| SUBTOTAL - Textiles                                                                     | 6.40                          | 0.69%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Unacceptable Wood                                                                       | 4.85                          | 0.52%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| SUBTOTAL - Unacceptable Wood                                                            | 4.85                          | 0.52%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Other Organics - Unacceptable                                                           |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Pet Waste                                                                               | 1.80                          | 0.19%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Leaf and Yard                                                                           | 20.20                         | 2.18%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| SUBTOTAL - Other Organics                                                               | 22.00                         | 2.37%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Special-Care Waste                                                                      |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Bio-Hazardous Waste                                                                     | 0.05                          | 0.01%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Household Special Waste                                                                 | 0.15                          | 0.02%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Other                                                                                   | 0.10                          | 0.01%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| SUBTOTAL - Special-Care                                                                 | 0.30                          | 0.03%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Other Wastes                                                                            | 12.90                         | 1.39%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| SUBTOTAL - Other Wastes                                                                 | 12.90                         | 1.39%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Materials Stuffed Into:                                                                 |                               |                                                 |                                  |            |                                  |            |                                          |            |
| Milk Containers                                                                         | 0.00                          | 0.00%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Corrugated Cardboard                                                                    | 3.10                          | 0.33%                                           | 0.00                             | 0.00%      | 0.00                             | 0.00%      | 0.00                                     | 0.00%      |
| Small Plastic Bags                                                                      | 83.96                         | 9.06%                                           | 3.40                             | 5.92%      | 2.15                             | 2.46%      | 9.60                                     | 7.89%      |
| Large Plastic Bags                                                                      | 2.50                          | 0.27%                                           | 0.00                             | 0.00%      | 2.00                             | 2.29%      | 0.00                                     | 0.00%      |
| Other Container                                                                         | 16.45                         | 1.77%                                           | 0.20                             | 0.35%      | 5.75                             | 6.58%      | 1.25                                     | 1.03%      |
| SUBTOTAL - Materials Stuffed Into                                                       | 106.01                        | 11.44%                                          | 3.60                             | 6.27%      | 9.90                             | 11.33%     | 10.85                                    | 8.92%      |
| TOTAL UNACCEPTABLE                                                                      | 194.46                        | 20.98%                                          | 5.05                             | 8.80%      | 13.25                            | 15.16%     | 13.60                                    | 11.18%     |

## Appendix C

### *IC&I Sample Results*

|                                                                                         |                               |                                                 |                                      |            |                               |            |                                      |            |
|-----------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------|--------------------------------------|------------|-------------------------------|------------|--------------------------------------|------------|
| Sample ID                                                                               | Total Weight by Category (kg) | Total Weight by Category / Total Weight Sampled | 005                                  |            | 006                           |            | 007                                  |            |
| Date Sampled                                                                            |                               |                                                 | 08-Nov-23                            |            | 08-Nov-23                     |            | 09-Nov-23                            |            |
| Truck #                                                                                 |                               |                                                 | RE3067                               |            | RE8185                        |            | RE3230                               |            |
| Route Type                                                                              |                               |                                                 | Commercial - Western County (Zone 4) |            | Commercial - Halifax (Zone 1) |            | Commercial - Western County (Zone 4) |            |
| Sample Weight (kg)                                                                      |                               |                                                 | 97.25                                |            | 116.90                        |            | 146.75                               |            |
| Total Truck Weight Full (kg)                                                            |                               |                                                 | 26620.00                             |            | 22280.00                      |            | 17490.00                             |            |
| Total Truck Weight Empty (kg)                                                           |                               |                                                 | 16950.00                             |            | 16990.00                      |            | 16080.00                             |            |
| Truck Load Weight (kg)                                                                  |                               |                                                 | 9670.00                              |            | 5290.00                       |            | 1410.00                              |            |
| Acceptable Materials                                                                    |                               |                                                 | Weights (kg)                         | Percentage | Weights (kg)                  | Percentage | Weights (kg)                         | Percentage |
| Paper and Paperboard                                                                    |                               |                                                 |                                      |            |                               |            |                                      |            |
| Kraft Paper and Bags - including contents if intact (predominantly food waste)          | 53.50                         | 5.09%                                           | 4.65                                 | 4.78%      | 11.95                         | 10.22%     | 0.00                                 | 0.00%      |
| Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | 0.35                          | 0.03%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Boxboard                                                                                | 4.30                          | 0.41%                                           | 0.00                                 | 0.00%      | 0.10                          | 0.09%      | 0.50                                 | 0.34%      |
| Tissue, Paper Towel, Napkins                                                            | 20.55                         | 1.95%                                           | 0.15                                 | 0.15%      | 1.45                          | 1.24%      | 0.00                                 | 0.00%      |
| Soiled Paper Products                                                                   | 40.20                         | 3.82%                                           | 1.45                                 | 1.49%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Acceptable Wood                                                                         | 0.35                          | 0.03%                                           | 0.00                                 | 0.00%      | 0.10                          | 0.09%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Acceptable Paper                                                             | 119.25                        | 11.34%                                          | 6.25                                 | 6.43%      | 13.60                         | 11.63%     | 0.50                                 | 0.34%      |
| Organics                                                                                |                               |                                                 |                                      |            |                               |            |                                      |            |
| Food Organics                                                                           | 711.90                        | 67.69%                                          | 61.50                                | 63.24%     | 18.60                         | 15.91%     | 136.95                               | 93.32%     |
| Yard Organics                                                                           | 26.00                         | 2.47%                                           | 0.00                                 | 0.00%      | 5.75                          | 4.92%      | 0.00                                 | 0.00%      |
| Other Organics                                                                          | 14.00                         | 1.33%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 8.15                                 | 5.55%      |
| SUBTOTAL - Organics                                                                     | 751.90                        | 71.49%                                          | 61.50                                | 63.24%     | 24.35                         | 20.83%     | 145.10                               | 98.88%     |
| TOTAL ACCEPTABLE                                                                        | 871.15                        | 82.83%                                          | 67.75                                | 69.67%     | 37.95                         | 32.46%     | 145.60                               | 99.22%     |
| Unacceptable Materials                                                                  |                               |                                                 |                                      |            |                               |            |                                      |            |
| Paper and Paperboard                                                                    |                               |                                                 |                                      |            |                               |            |                                      |            |
| Fine Paper                                                                              | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Magazines and Catalogues                                                                | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Newspaper                                                                               | 0.55                          | 0.05%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Books & Bound Material                                                                  | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Telephone Books / Directories                                                           | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Corrugated Cardboard                                                                    | 1.85                          | 0.18%                                           | 0.25                                 | 0.26%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Other Paper                                                                             | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Unacceptable Paper                                                           | 2.40                          | 0.23%                                           | 0.25                                 | 0.26%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Glass                                                                                   |                               |                                                 |                                      |            |                               |            |                                      |            |
| Recyclable Glass                                                                        | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Non-Recyclable Glass                                                                    | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Glass                                                                        | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Metal                                                                                   |                               |                                                 |                                      |            |                               |            |                                      |            |
| Recyclable Metal                                                                        | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Non-Recyclable Metal                                                                    | 0.25                          | 0.02%                                           | 0.05                                 | 0.05%      | 0.10                          | 0.09%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Metal                                                                        | 0.40                          | 0.04%                                           | 0.05                                 | 0.05%      | 0.10                          | 0.09%      | 0.00                                 | 0.00%      |
| Plastic                                                                                 |                               |                                                 |                                      |            |                               |            |                                      |            |
| Recyclable Plastic - Containers                                                         | 0.85                          | 0.08%                                           | 0.25                                 | 0.26%      | 0.05                          | 0.04%      | 0.00                                 | 0.00%      |
| Recyclables Plastic - Bags                                                              | 0.75                          | 0.07%                                           | 0.00                                 | 0.00%      | 0.05                          | 0.04%      | 0.00                                 | 0.00%      |
| Non - Recyclable Plastic                                                                | 2.00                          | 0.19%                                           | 0.50                                 | 0.51%      | 0.05                          | 0.04%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Plastic                                                                      | 3.60                          | 0.34%                                           | 0.75                                 | 0.77%      | 0.15                          | 0.13%      | 0.00                                 | 0.00%      |
| Multi-Materials Waste                                                                   |                               |                                                 |                                      |            |                               |            |                                      |            |
| Predominantly Paper -Recyclable                                                         | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Predominantly Paper -Non-Recyclable                                                     | 21.70                         | 2.06%                                           | 3.95                                 | 4.06%      | 0.75                          | 0.64%      | 0.55                                 | 0.37%      |
| Other Multi Material Wastes                                                             | 1.35                          | 0.13%                                           | 1.05                                 | 1.08%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Multi-Materials                                                              | 23.05                         | 2.19%                                           | 5.00                                 | 5.14%      | 0.75                          | 0.64%      | 0.55                                 | 0.37%      |
| Textiles                                                                                | 1.90                          | 0.18%                                           | 1.10                                 | 1.13%      | 0.10                          | 0.09%      | 0.40                                 | 0.27%      |
| SUBTOTAL - Textiles                                                                     | 1.90                          | 0.18%                                           | 1.10                                 | 1.13%      | 0.10                          | 0.09%      | 0.40                                 | 0.27%      |
| Unacceptable Wood                                                                       | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Unacceptable Wood                                                            | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Other Organics - Unacceptable                                                           |                               |                                                 |                                      |            |                               |            |                                      |            |
| Pet Waste                                                                               | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Leaf and Yard                                                                           | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Other Organics                                                               | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Special-Care Waste                                                                      |                               |                                                 |                                      |            |                               |            |                                      |            |
| Bio-Hazardous Waste                                                                     | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Household Special Waste                                                                 | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Other                                                                                   | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Special-Care                                                                 | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Other Wastes                                                                            | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Other Wastes                                                                 | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Materials Stuffed Into:                                                                 |                               |                                                 |                                      |            |                               |            |                                      |            |
| Milk Containers                                                                         | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Corrugated Cardboard                                                                    | 9.15                          | 0.87%                                           | 9.15                                 | 9.41%      | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Small Plastic Bags                                                                      | 51.50                         | 4.90%                                           | 13.20                                | 13.57%     | 4.75                          | 4.06%      | 0.00                                 | 0.00%      |
| Large Plastic Bags                                                                      | 81.50                         | 7.75%                                           | 0.00                                 | 0.00%      | 72.70                         | 62.19%     | 0.00                                 | 0.00%      |
| Other Container                                                                         | 6.80                          | 0.65%                                           | 0.00                                 | 0.00%      | 0.40                          | 0.34%      | 0.20                                 | 0.14%      |
| SUBTOTAL - Materials Stuffed Into                                                       | 148.95                        | 14.16%                                          | 22.35                                | 22.98%     | 77.85                         | 66.60%     | 0.20                                 | 0.14%      |
| TOTAL UNACCEPTABLE                                                                      | 180.60                        | 17.17%                                          | 29.50                                | 30.33%     | 78.95                         | 67.54%     | 1.15                                 | 0.78%      |

|                                                                                         |                               |                                                 |                                      |            |                                      |            |                                      |            |
|-----------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------|--------------------------------------|------------|--------------------------------------|------------|--------------------------------------|------------|
| Sample ID                                                                               | Total Weight by Category (kg) | Total Weight by Category / Total Weight Sampled | 008                                  |            | 009                                  |            | 011                                  |            |
| Date Sampled                                                                            |                               |                                                 | 09-Nov-23                            |            | 09-Nov-23                            |            | 13-Nov-23                            |            |
| Truck #                                                                                 |                               |                                                 | RE3067                               |            | RE3067                               |            | RE3067                               |            |
| Route Type                                                                              |                               |                                                 | Commercial - Western County (Zone 4) |            | Commercial - Western County (Zone 4) |            | Commercial - Western County (Zone 4) |            |
| Sample Weight (kg)                                                                      |                               |                                                 | 146.70                               |            | 144.85                               |            | 168.20                               |            |
| Total Truck Weight Full (kg)                                                            |                               |                                                 | 25850.00                             |            | 23660.00                             |            | 24600.00                             |            |
| Total Truck Weight Empty (kg)                                                           |                               |                                                 | 16970.00                             |            | 19690.00                             |            | 16960.00                             |            |
| Truck Load Weight (kg)                                                                  |                               |                                                 | 8880.00                              |            | 3970.00                              |            | 7640.00                              |            |
| Acceptable Materials                                                                    |                               |                                                 | Weights (kg)                         | Percentage | Weights (kg)                         | Percentage | Weights (kg)                         | Percentage |
| Paper and Paperboard                                                                    |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Kraft Paper and Bags - including contents if intact (predominantly food waste)          | 53.50                         | 5.09%                                           | 8.55                                 | 5.83%      | 12.00                                | 8.28%      | 8.20                                 | 4.88%      |
| Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | 0.35                          | 0.03%                                           | 0.35                                 | 0.24%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Boxboard                                                                                | 4.30                          | 0.41%                                           | 0.95                                 | 0.65%      | 1.30                                 | 0.90%      | 0.30                                 | 0.18%      |
| Tissue, Paper Towel, Napkins                                                            | 20.55                         | 1.95%                                           | 2.30                                 | 1.57%      | 11.15                                | 7.70%      | 2.40                                 | 1.43%      |
| Soiled Paper Products                                                                   | 40.20                         | 3.82%                                           | 2.50                                 | 1.70%      | 0.10                                 | 0.07%      | 5.50                                 | 3.27%      |
| Acceptable Wood                                                                         | 0.35                          | 0.03%                                           | 0.05                                 | 0.03%      | 0.00                                 | 0.00%      | 0.15                                 | 0.09%      |
| SUBTOTAL - Acceptable Paper                                                             | 119.25                        | 11.34%                                          | 14.70                                | 10.02%     | 24.55                                | 16.95%     | 16.55                                | 9.84%      |
| Organics                                                                                |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Food Organics                                                                           | 711.90                        | 67.69%                                          | 91.50                                | 62.37%     | 89.55                                | 61.82%     | 138.70                               | 82.46%     |
| Yard Organics                                                                           | 26.00                         | 2.47%                                           | 16.10                                | 10.97%     | 0.00                                 | 0.00%      | 1.15                                 | 0.68%      |
| Other Organics                                                                          | 14.00                         | 1.33%                                           | 3.10                                 | 2.11%      | 2.75                                 | 1.90%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Organics                                                                     | 751.90                        | 71.49%                                          | 110.70                               | 75.46%     | 92.30                                | 63.72%     | 139.85                               | 83.15%     |
| TOTAL ACCEPTABLE                                                                        | 871.15                        | 82.83%                                          | 125.40                               | 85.48%     | 116.85                               | 80.67%     | 156.40                               | 92.98%     |
| Unacceptable Materials                                                                  |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Paper and Paperboard                                                                    |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Fine Paper                                                                              | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Magazines and Catalogues                                                                | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Newspaper                                                                               | 0.55                          | 0.05%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.20                                 | 0.12%      |
| Books & Bound Material                                                                  | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Telephone Books / Directories                                                           | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Corrugated Cardboard                                                                    | 1.85                          | 0.18%                                           | 1.25                                 | 0.85%      | 0.00                                 | 0.00%      | 0.20                                 | 0.12%      |
| Other Paper                                                                             | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Unacceptable Paper                                                           | 2.40                          | 0.23%                                           | 1.25                                 | 0.85%      | 0.00                                 | 0.00%      | 0.40                                 | 0.24%      |
| Glass                                                                                   |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Recyclable Glass                                                                        | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Non-Recyclable Glass                                                                    | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Glass                                                                        | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Metal                                                                                   |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Recyclable Metal                                                                        | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Non-Recyclable Metal                                                                    | 0.25                          | 0.02%                                           | 0.05                                 | 0.03%      | 0.00                                 | 0.00%      | 0.05                                 | 0.03%      |
| SUBTOTAL - Metal                                                                        | 0.40                          | 0.04%                                           | 0.05                                 | 0.03%      | 0.00                                 | 0.00%      | 0.05                                 | 0.03%      |
| Plastic                                                                                 |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Recyclable Plastic - Containers                                                         | 0.85                          | 0.08%                                           | 0.00                                 | 0.00%      | 0.10                                 | 0.07%      | 0.20                                 | 0.12%      |
| Recyclables Plastic - Bags                                                              | 0.75                          | 0.07%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.25                                 | 0.15%      |
| Non - Recyclable Plastic                                                                | 2.00                          | 0.19%                                           | 0.30                                 | 0.20%      | 0.35                                 | 0.24%      | 0.40                                 | 0.24%      |
| SUBTOTAL - Plastic                                                                      | 3.60                          | 0.34%                                           | 0.30                                 | 0.20%      | 0.45                                 | 0.31%      | 0.85                                 | 0.51%      |
| Multi-Materials Waste                                                                   |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Predominantly Paper -Recyclable                                                         | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Predominantly Paper -Non-Recyclable                                                     | 21.70                         | 2.06%                                           | 3.85                                 | 2.62%      | 0.80                                 | 0.55%      | 5.65                                 | 3.36%      |
| Other Multi Material Wastes                                                             | 1.35                          | 0.13%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.25                                 | 0.15%      |
| SUBTOTAL - Multi-Materials                                                              | 23.05                         | 2.19%                                           | 3.85                                 | 2.62%      | 0.80                                 | 0.55%      | 5.90                                 | 3.51%      |
| Textiles                                                                                | 1.90                          | 0.18%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Textiles                                                                     | 1.90                          | 0.18%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Unacceptable Wood                                                                       | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Unacceptable Wood                                                            | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Other Organics - Unacceptable                                                           |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Pet Waste                                                                               | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.10                                 | 0.07%      | 0.00                                 | 0.00%      |
| Leaf and Yard                                                                           | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Other Organics                                                               | 0.15                          | 0.01%                                           | 0.00                                 | 0.00%      | 0.10                                 | 0.07%      | 0.00                                 | 0.00%      |
| Special-Care Waste                                                                      |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Bio-Hazardous Waste                                                                     | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Household Special Waste                                                                 | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Other                                                                                   | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Special-Care                                                                 | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Other Wastes                                                                            | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Other Wastes                                                                 | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Materials Stuffed Into:                                                                 |                               |                                                 |                                      |            |                                      |            |                                      |            |
| Milk Containers                                                                         | 0.00                          | 0.00%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Corrugated Cardboard                                                                    | 9.15                          | 0.87%                                           | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Small Plastic Bags                                                                      | 51.50                         | 4.90%                                           | 4.50                                 | 3.07%      | 23.90                                | 16.50%     | 4.25                                 | 2.53%      |
| Large Plastic Bags                                                                      | 81.50                         | 7.75%                                           | 8.80                                 | 6.00%      | 0.00                                 | 0.00%      | 0.00                                 | 0.00%      |
| Other Container                                                                         | 6.80                          | 0.65%                                           | 2.55                                 | 1.74%      | 2.75                                 | 1.90%      | 0.35                                 | 0.21%      |
| SUBTOTAL - Materials Stuffed Into                                                       | 148.95                        | 14.16%                                          | 15.85                                | 10.80%     | 26.65                                | 18.40%     | 4.60                                 | 2.73%      |
| TOTAL UNACCEPTABLE                                                                      | 180.60                        | 17.17%                                          | 21.30                                | 14.52%     | 28.00                                | 19.33%     | 11.80                                | 7.02%      |

|                                                                                         |                               |                                                 |                               |            |                                      |            |
|-----------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------|-------------------------------|------------|--------------------------------------|------------|
| Sample ID                                                                               | Total Weight by Category (kg) | Total Weight by Category / Total Weight Sampled | 012                           |            | 016                                  |            |
| Date Sampled                                                                            |                               |                                                 | 13-Nov-23                     |            | 15-Nov-23                            |            |
| Truck #                                                                                 |                               |                                                 | RE8185                        |            | RE3067                               |            |
| Route Type                                                                              |                               |                                                 | Commercial - Halifax (Zone 1) |            | Commercial - Western County (Zone 4) |            |
| Sample Weight (kg)                                                                      |                               |                                                 | 80.00                         |            | 151.10                               |            |
| Total Truck Weight Full (kg)                                                            |                               |                                                 | 24810.00                      |            | 25280.00                             |            |
| Total Truck Weight Empty (kg)                                                           |                               |                                                 | 17060.00                      |            | 17000.00                             |            |
| Truck Load Weight (kg)                                                                  |                               |                                                 | 7750.00                       |            | 8280.00                              |            |
| Acceptable Materials                                                                    |                               |                                                 | Weights (kg)                  | Percentage | Weights (kg)                         | Percentage |
| Paper and Paperboard                                                                    |                               |                                                 |                               |            |                                      |            |
| Kraft Paper and Bags - including contents if intact (predominantly food waste)          | 53.50                         | 5.09%                                           | 5.05                          | 6.31%      | 3.10                                 | 2.05%      |
| Kraft Paper and Bags - including contents if intact (predominantly leaf and yard waste) | 0.35                          | 0.03%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Boxboard                                                                                | 4.30                          | 0.41%                                           | 0.90                          | 1.13%      | 0.25                                 | 0.17%      |
| Tissue, Paper Towel, Napkins                                                            | 20.55                         | 1.95%                                           | 1.25                          | 1.56%      | 1.85                                 | 1.22%      |
| Soiled Paper Products                                                                   | 40.20                         | 3.82%                                           | 7.30                          | 9.13%      | 23.35                                | 15.45%     |
| Acceptable Wood                                                                         | 0.35                          | 0.03%                                           | 0.05                          | 0.06%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Acceptable Paper                                                             | 119.25                        | 11.34%                                          | 14.55                         | 18.19%     | 28.55                                | 18.89%     |
| Organics                                                                                |                               |                                                 |                               |            |                                      |            |
| Food Organics                                                                           | 711.90                        | 67.69%                                          | 57.35                         | 71.69%     | 117.75                               | 77.93%     |
| Yard Organics                                                                           | 26.00                         | 2.47%                                           | 3.00                          | 3.75%      | 0.00                                 | 0.00%      |
| Other Organics                                                                          | 14.00                         | 1.33%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Organics                                                                     | 751.90                        | 71.49%                                          | 60.35                         | 75.44%     | 117.75                               | 77.93%     |
| TOTAL ACCEPTABLE                                                                        | 871.15                        | 82.83%                                          | 74.90                         | 93.63%     | 146.30                               | 96.82%     |
| Unacceptable Materials                                                                  |                               |                                                 |                               |            |                                      |            |
| Paper and Paperboard                                                                    |                               |                                                 |                               |            |                                      |            |
| Fine Paper                                                                              | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Magazines and Catalogues                                                                | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Newspaper                                                                               | 0.55                          | 0.05%                                           | 0.35                          | 0.44%      | 0.00                                 | 0.00%      |
| Books & Bound Material                                                                  | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Telephone Books / Directories                                                           | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Corrugated Cardboard                                                                    | 1.85                          | 0.18%                                           | 0.15                          | 0.19%      | 0.00                                 | 0.00%      |
| Other Paper                                                                             | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Unacceptable Paper                                                           | 2.40                          | 0.23%                                           | 0.50                          | 0.63%      | 0.00                                 | 0.00%      |
| Glass                                                                                   |                               |                                                 |                               |            |                                      |            |
| Recyclable Glass                                                                        | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Non-Recyclable Glass                                                                    | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Glass                                                                        | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Metal                                                                                   |                               |                                                 |                               |            |                                      |            |
| Recyclable Metal                                                                        | 0.15                          | 0.01%                                           | 0.15                          | 0.19%      | 0.00                                 | 0.00%      |
| Non-Recyclable Metal                                                                    | 0.25                          | 0.02%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Metal                                                                        | 0.40                          | 0.04%                                           | 0.15                          | 0.19%      | 0.00                                 | 0.00%      |
| Plastic                                                                                 |                               |                                                 |                               |            |                                      |            |
| Recyclable Plastic - Containers                                                         | 0.85                          | 0.08%                                           | 0.20                          | 0.25%      | 0.05                                 | 0.03%      |
| Recyclables Plastic - Bags                                                              | 0.75                          | 0.07%                                           | 0.40                          | 0.50%      | 0.05                                 | 0.03%      |
| Non - Recyclable Plastic                                                                | 2.00                          | 0.19%                                           | 0.10                          | 0.13%      | 0.30                                 | 0.20%      |
| SUBTOTAL - Plastic                                                                      | 3.60                          | 0.34%                                           | 0.70                          | 0.88%      | 0.40                                 | 0.26%      |
| Multi-Materials Waste                                                                   |                               |                                                 |                               |            |                                      |            |
| Predominantly Paper -Recyclable                                                         | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Predominantly Paper -Non-Recyclable                                                     | 21.70                         | 2.06%                                           | 1.85                          | 2.31%      | 4.30                                 | 2.85%      |
| Other Multi Material Wastes                                                             | 1.35                          | 0.13%                                           | 0.05                          | 0.06%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Multi-Materials                                                              | 23.05                         | 2.19%                                           | 1.90                          | 2.38%      | 4.30                                 | 2.85%      |
| Textiles                                                                                | 1.90                          | 0.18%                                           | 0.20                          | 0.25%      | 0.10                                 | 0.07%      |
| SUBTOTAL - Textiles                                                                     | 1.90                          | 0.18%                                           | 0.20                          | 0.25%      | 0.10                                 | 0.07%      |
| Unacceptable Wood                                                                       | 0.15                          | 0.01%                                           | 0.15                          | 0.19%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Unacceptable Wood                                                            | 0.15                          | 0.01%                                           | 0.15                          | 0.19%      | 0.00                                 | 0.00%      |
| Other Organics - Unacceptable                                                           |                               |                                                 |                               |            |                                      |            |
| Pet Waste                                                                               | 0.15                          | 0.01%                                           | 0.05                          | 0.06%      | 0.00                                 | 0.00%      |
| Leaf and Yard                                                                           | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Other Organics                                                               | 0.15                          | 0.01%                                           | 0.05                          | 0.06%      | 0.00                                 | 0.00%      |
| Special-Care Waste                                                                      |                               |                                                 |                               |            |                                      |            |
| Bio-Hazardous Waste                                                                     | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Household Special Waste                                                                 | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Other                                                                                   | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Special-Care                                                                 | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Other Wastes                                                                            | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Other Wastes                                                                 | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Materials Stuffed Into:                                                                 |                               |                                                 |                               |            |                                      |            |
| Milk Containers                                                                         | 0.00                          | 0.00%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Corrugated Cardboard                                                                    | 9.15                          | 0.87%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Small Plastic Bags                                                                      | 51.50                         | 4.90%                                           | 0.90                          | 1.13%      | 0.00                                 | 0.00%      |
| Large Plastic Bags                                                                      | 81.50                         | 7.75%                                           | 0.00                          | 0.00%      | 0.00                                 | 0.00%      |
| Other Container                                                                         | 6.80                          | 0.65%                                           | 0.55                          | 0.69%      | 0.00                                 | 0.00%      |
| SUBTOTAL - Materials Stuffed Into                                                       | 148.95                        | 14.16%                                          | 1.45                          | 1.81%      | 0.00                                 | 0.00%      |
| TOTAL UNACCEPTABLE                                                                      | 180.60                        | 17.17%                                          | 5.10                          | 6.38%      | 4.80                                 | 3.18%      |