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# Delaware Solid Waste Authority Statewide Waste Characterization Study, FY 2016

FINAL REPORT

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## EXECUTIVE SUMMARY

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### Introduction

The Delaware Solid Waste Authority (DSWA) contracted with DSM Environmental Services, Inc. (DSM) to conduct a characterization study of municipal solid waste (MSW) generated in Delaware and disposed at DSWA facilities. DSM has sub-contracted with MidAtlantic Solid Waste Consultants (MSW Consultants) to conduct hand sorting of MSW, and Cascadia Consulting Group (Cascadia) to statistically analyze the samples (collectively called the Project Team).

DSWA contracted for a two season study to characterize mixed solid waste delivered to DSWA's six transfer and disposal facilities. One hundred and eight samples of Residential and Industrial, Commercial and Institutional (ICI) waste were sorted over one week in November, 2015 and another 102 samples sorted over one week in June, 2016.

Solid waste from both the Residential and ICI sectors were subject to a statistical sampling process, and the representative, randomly chosen samples hand sorted into up to 54 material types. An analysis of the weight data associated with each sample produced estimates of the average waste composition from each sector.

Hand sorting also involved sorting of targeted generator loads from the following specified ICI generator categories, as well as residential waste from multi-family buildings:

- Small retail;
- Large retail;
- Office;
- Restaurant;
- Convenience stores; and,
- Grocery stores.

Visual characterizations of Self-Haul loads were also carried out to characterize this waste stream for inclusion in the total waste characterization analysis.

Finally, surveys of waste truck drivers entering each facility were carried out to more accurately characterize the delivered waste between residential and ICI loads. These driver surveys were used to refine the estimates of total tons of residential versus ICI waste delivered to each DSWA facility. The refined tonnage data, multiplied by the waste characterization percentages, yield total estimated tons by material type and generator type disposed at each DSWA facility, and in aggregate, state-wide.

Data from the two seasons were aggregated to create state-wide tonnages by material type. These are weighted averages based on the throughput of each facility, and are therefore representative of total state-wide waste disposal by material type.

The sampling methodology for this 2015/16 waste characterization analysis is the same as that used to conduct the 2006/2007 waste characterization study (Final Report, October 31, 2007). As such it is

possible to compare the results over the two time periods to determine what changes have occurred in waste disposal in Delaware over the past seven years<sup>1</sup>.

## Results

### *Total Tonnage by Facility*

Table E.1 presents total Residential, ICI, and C&D/Other tonnage by facility which were used to calculate tons by material type delivered to each facility, and to aggregate the tonnage over the six DSWA facilities.

Note that because C&D wastes were not characterized, C&D waste delivered by Self-Haul vehicles as well as by commercial haulers has been excluded from the analysis, in order to calculate total municipal solid waste (MSW) only, by facility, as presented in the grey highlighted columns.

**Table E.1. Allocation of Tonnage by Facility, July 2015 – June 2016**

| Facility         | MSW           |               | Self-Haul     |               |               | Total MSW     |               | Non-MSW               |                 | Grand Total   |                     |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------------|-----------------|---------------|---------------------|
|                  | Res<br>(tons) | ICI<br>(tons) | Res<br>(tons) | ICI<br>(tons) | C&D<br>(tons) | Res<br>(tons) | ICI<br>(tons) | C&D & Other<br>(tons) | Bulky<br>(tons) | MSW<br>(tons) | All Waste<br>(tons) |
| Sandtown         | 33,369        | 39,050        | 3,147         | 179           | 851           | 36,516        | 39,229        | 10,257                | 4,877           | 75,745        | 91,730              |
| Jones Crossroads | 21,274        | 29,762        | 2,468         | 1,825         | 7,971         | 23,741        | 31,587        | 70,376                | 12,091          | 55,328        | 145,766             |
| Cherry Island    | 152,618       | 151,901       | 1,310         | 9,836         | 6,001         | 153,927       | 161,737       | 40,344                | 6,277           | 315,664       | 368,285             |
| Pine Tree        | 37,945        | 24,064        | 1,676         | 450           | 1,486         | 39,621        | 24,514        | 3,747                 | 1,497           | 64,135        | 70,866              |
| Milford          | 20,665        | 14,571        | 1,778         | 252           | 614           | 22,443        | 14,823        | 836                   | 651             | 37,266        | 39,366              |
| Route 5          | 41,392        | 34,716        | 2,519         | 149           | 1,816         | 43,910        | 34,866        | 3,265                 | 1,251           | 78,776        | 85,108              |
| Total            |               |               |               |               | 18,738        | 320,159       | 306,755       | 128,825               | 26,644          | 626,914       | 801,121             |

### *Per Capita and Per Household Disposal*

Total residential and ICI waste disposed at DSWA facilities has declined by 35 and 31 percent respectively between 2006/07 and 2015/16. It is interesting to convert this decline into per capita and per household disposal, both overall and for residential waste only.

Extrapolating from US census data, the population of Delaware in 2007 was roughly 863,500 with approximately 328,300 (rounded) households. Delaware's population had increased to 945,900 (rounded) by 2015 with 360,000 households.

Dividing total, residential and ICI waste by population and households in both time periods, per capita and per household disposal rates can be calculated. As illustrated by Table E.2, there has been a significant decline in per capita and per household disposal over the seven years between the two waste characterization studies. As discussed in the body of this report, this is due to both national trends toward light-weighting of materials as well as State of Delaware policies enacted since 2007 which have increased diversion for recycling and yard waste processing.

<sup>1</sup> The only exception is that Construction & Demolition (C&D) wastes were not characterized for this study but were characterized in 2006/07.

**Table E.2. Comparison of Annual Per Capita and Per Household Disposal Rates, 2006/08 and 2015/16, in Pounds**

| <b>2006/07</b>   | <b>Unit</b> | <b>Per Capita</b> | <b>Per HH</b> |
|------------------|-------------|-------------------|---------------|
| Population       | 863,500     |                   |               |
| Households       | 328,327     |                   |               |
| Total MSW (tons) | 933,683     | 2,163             | 5,688         |
| Residential Tons | 491,686     | 1,139             | 2,995         |
| ICI Tons         | 441,997     | 1,024             | 2,692         |
| <b>2015/16</b>   |             |                   |               |
| Population       | 945,934     |                   |               |
| Households       | 359,677     |                   |               |
| Total MSW (tons) | 626,914     | 1,325             | 3,486         |
| Residential Tons | 320,159     | 677               | 1,780         |
| ICI Tons         | 306,755     | 649               | 1,706         |

Table E.3 then compares disposal of recyclables accepted at the single stream MRF, and yard waste banned from landfills for 2006/07 and 2015/16. Paper and bottles and cans accepted at the Single Stream MRF are highlighted in blue, with yard waste banned from landfill highlighted in green.

As illustrated by Table E.3, there has been an overall reduction in disposal of recyclables since the 2006/07 Waste Characterization of 52 percent, and a similar reduction in yard waste disposal of 61 percent. The bulk of the reduction in recyclables disposed at DSWA facilities comes from reductions in paper – with the greatest reduction occurring in newsprint. Newsprint declines represent a combination of declining newspaper sales, and the ease of recycling newspaper under the Universal Recycling law.

Corrugated cardboard disposal has also declined significantly, despite the increased use of corrugated cardboard to ship products to homes via Amazon and other large on-line retailers. In this case, the decline is almost completely attributable to the ease of recycling under the Universal Recycling law.

Disposal of plastic packaging has also declined, although by smaller amounts due in part to the large increase in quantities of plastic packaging over the past ten years.

And finally, as illustrated by Table E.2, yard waste has declined significantly due to the ban on disposal of yard waste and the availability of alternative management options for yard waste.



**Table E.3. Percent Reduction in Recyclables and Yard Waste Disposed at DSWA Facilities, 2006/07 to 2015/2016**

| <b>Material</b>                                 | <b>2006/07</b> | <b>2015/16</b> | <b>% Reduction</b> |
|---|----------------|----------------|--------------------|
|   | (tons)         | (tons)         |                    |
| <b>Total Paper</b>                              | <b>189,959</b> | <b>77,205</b>  | <b>59%</b>         |
| Newspaper and Inserts                           | 31,530         | 10,317         | 67%                |
| Corrugated Cardboard/Kraft Paper                | 89,803         | 36,907         | 59%                |
| High Grade Office Paper                         | 18,013         | 5,809          | 68%                |
| Mixed Recyclable Paper                          | 50,613         | 22,731         | 55%                |
| Aseptic Boxes and Gable Top Cartons             | -              | 1,441          |                    |
| <b>Total Plastic</b>                            | <b>24,135</b>  | <b>19,773</b>  | <b>18%</b>         |
| PET #1 Bottles, Jars, or Containers             | 9,638          | 10,993         | -14%               |
| HDPE #2 Natural and Colored Bottles             | 6,945          | 5,352          | 23%                |
| Rigid HDPE #2 Containers                        | -              | 510            |                    |
| #3 to #7 Bottles or Jars                        | 1,026          | 523            | 49%                |
| Injection Molded Tubs #2, #4, #5, #6, & #7      | 2,076          | 1,728          | 17%                |
| All Other Rigid Plastic Packaging               | 4,450          | 668            | 85%                |
| <b>Total Metal Food and Beverage Containers</b> | <b>12,596</b>  | <b>8,053</b>   | <b>36%</b>         |
| Tin/Steel Containers                            | 8,220          | 5,333          | 35%                |
| Aluminum Beverage & Cat Food Containers         | 4,376          | 2,720          | 38%                |
| <b>Total Glass Containers</b>                   | <b>18,188</b>  | <b>13,437</b>  | <b>26%</b>         |
| Glass Bottles and Jars                          | 18,188         | 13,437         | 26%                |
| <b>Total Single Stream Material</b>             | <b>244,878</b> | <b>118,468</b> | <b>52%</b>         |
| <b>Total Yard Waste</b>                         | <b>70,392</b>  | <b>27,571</b>  | <b>61%</b>         |
| Leaves, Grass, and Brush                        | 68,662         | 25,690         | 63%                |
| Branches and Stumps                             | 1,730          | 1,881          | -9%                |

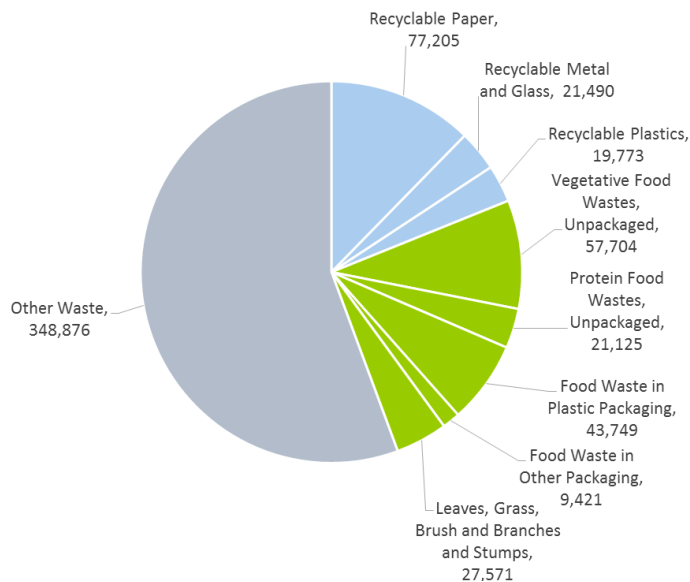
### **State-Wide Aggregated Composition**

Figures E.1 through E.2 present state-wide composition (combined Residential and ICI MSW) by potential management category, showing materials being disposed that could be delivered to the Materials Recovery Facility (MRF) in blue, and materials that could conceivably be managed through an organics management facility in green.

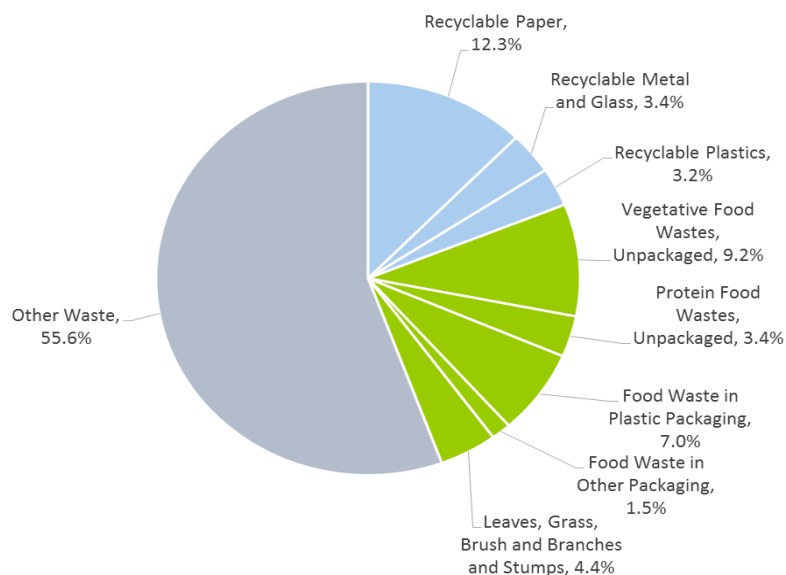
As illustrated by Figure E.2 roughly 19 percent (rounded) of the total material disposed at DSWA facilities could be recycled under the Universal Recycling law, and another 26 percent diverted to one or more organics processing facilities. However, it is important to note that no recycling or organics diversion program recovers one hundred percent of the material that could be managed. In fact, recent recovery rate data from other states indicate that a recovery rate of 60 to 80 percent would be considered a high performing program.

A second report outlining actual recovery rates for key materials is being prepared by DSM for DSWA based on the results of this Waste Characterization study and the annual RPAC recycling report. This second report will provide additional information for DSWA as to the success of current recycling programs. However, as illustrated by Table E.2 above, increased recycling and yard waste management have clearly resulted in significant declines in the disposal or recyclables and yard waste.

**Figure E.1.**  
**Tons Disposed by Management Category, Statewide Residential and ICI MSW Combined**



**Figure E.2.**  
**Percent Composition by Management Category, Statewide Combined Residential and ICI MSW Disposed**

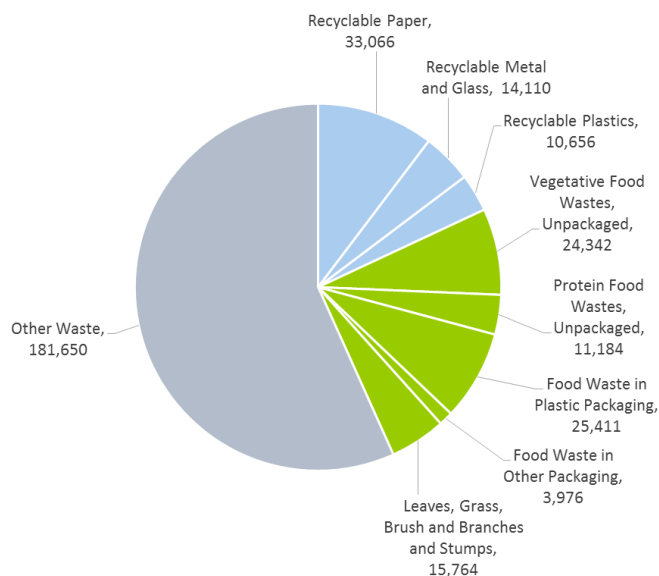




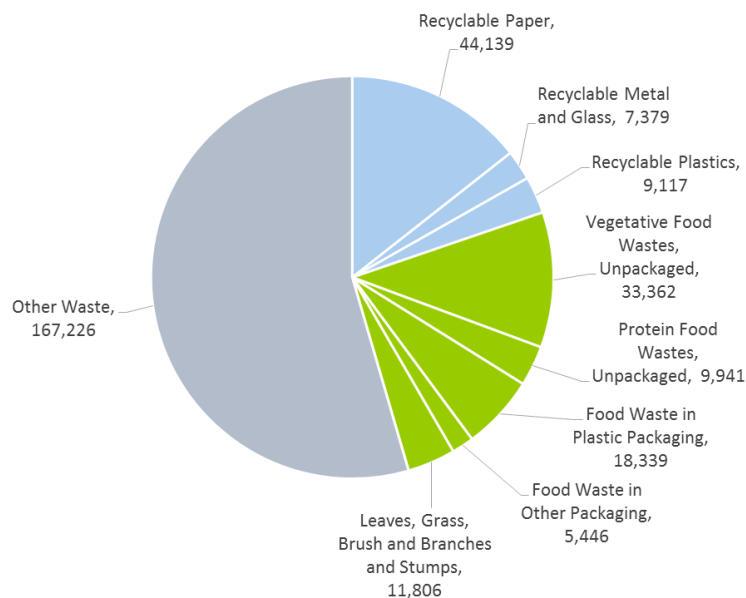
***State-Wide Aggregated Composition- Allocation of Residential and ICI MSW***

Figures E.3 and E.4 present state-wide aggregated composition by management category for Residential MSW only and ICI MSW only.

**Figure E.3.**  
**State-Wide Composition of Residential MSW by Management Category**



**Figure E.4.**  
**State-Wide Composition of ICI MSW by Management Category**



## I. INTRODUCTION

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The Delaware Solid Waste Authority (DSWA) contracted with DSM Environmental Services, Inc. (DSM) to conduct a characterization study of municipal solid waste (MSW) generated in Delaware and disposed at DSWA facilities. DSM sub-contracted with MidAtlantic Solid Waste Consultants (MSW Consultants) to conduct hand sorting of MSW, and Cascadia Consulting Group (Cascadia) to statistically analyze the samples (collectively called the Project Team). The primary purpose of the Statewide Waste Characterization Study was to estimate the composition of waste from Residential and Institutional /Commercial/Industrial (ICI) generators disposed at DSWA facilities. The resultant data will help guide DSWA future planning.

The study was carried out over the course of two seasons (Fall/November, 2015 and Summer/June, 2016), with waste sampling activities occurring at all six DSWA facilities. An Interim Report (March 2016) presented the results of the fall season sort in percentages only, not in tons. This was to emphasize that the fall data could not be relied on to adequately characterize deliveries to DSWA facilities, given the sample size and single season of sampling.

Subsequent to the June sampling, the results of the fall and summer waste sampling were combined, and are presented in detail in this Final Report. The data for the summer sort only are presented, in percentages by material type, in Appendix A for comparison against the fall (November) sample results.

Solid waste from both the Residential and ICI sectors were subject to a statistical sampling process, and the representative, randomly chosen samples hand sorted into up to 54 material types (note that not all material types will be present in any one sample). An analysis of the weight data associated with each sample produces estimates of the average waste composition from each sector.

Hand sorting also involved collection and sorting of samples from targeted generator loads from the following specified ICI generator categories:

- Small retail;
- Large retail;
- Office;
- Restaurant;
- Convenience stores; and,
- Grocery stores.

Finally, hand sorting included limited sorting of residential waste identified as coming from multi-family buildings.

Visual characterizations of Self-Haul loads were also carried out to characterize this waste stream for inclusion in the total waste characterization analysis.<sup>2</sup>

In addition to hand sorting of residential and ICI waste, DSM also conducted surveys of drivers entering each facility to more accurately allocate waste deliveries to the residential and ICI sectors. Driver survey

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<sup>2</sup> Exclusive of yard waste delivered to the yard waste recycling areas

results by vehicle type were used to refine the estimates of total tons of residential versus ICI waste delivered to each DSWA facility. The refined tonnage data, multiplied by the waste characterization percentages, yield total estimated tons by material type and generator type disposed at each DSWA facility, and in aggregate, state-wide.

It should be noted that the sampling methodology for this 2015/16 waste characterization analysis is the same as that used to conduct the 2006/2007 waste characterization study (Final Report, October 31, 2007). However, this 2015/2016 characterization does not characterize waste coded as construction and demolition (C&D) waste entering DSWA facilities. Because C&D wastes were characterized in 2006/2007 with the results added to the mixed solid waste, the 2015/2016 facility tonnages shown are lower because coded C&D loads are excluded.

While this difference in methodology prevents direct comparison of the composition percentages when compared to 2006/2007, a review of tons disposed, by material type, allows for comparing the two reports.

Percentages by material type will be higher for MSW materials in 2015/2016 because coded C&D wastes have been excluded from the tables.<sup>3</sup> But tonnages have been significantly reduced, as illustrated by Table E.2 and 43.

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<sup>3</sup> C&D material disposed as mixed solid waste (MSW) is included in this analysis but the majority of C&D waste delivered to DSWA facilities is coded as C&D waste at the scale house and is not included in this analysis.

## II. METHODOLOGY

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### Definitions of Waste Sectors

The sectors of the waste stream analyzed in the study are defined as follows:

- **Residential** – defined as waste brought to the DSWA landfill or transfer station by commercially or municipally operated vehicles, in which 80% or more of the waste is from single-family and/or multifamily residential sources.
- **Institutional/Commercial/Industrial (ICI)** – defined as waste brought to the DSWA landfill or transfer station by commercially operated vehicles, in which 80% or more of the waste is from institutional, commercial, or industrial sources. This sector excludes Construction and Demolition debris as well as Bulky Waste.
- **Unacceptable Loads** – Loads that contain less than 80% of either residential or ICI waste, and loads primarily containing Bulky Waste, C&D waste, or Special Wastes.
- **Self-Haul Wastes** – Wastes delivered to DSWA facilities by residents and small contractors, as opposed to commercial haulers. This waste was visually characterized at each facility and included in this report.

### Statistical Sampling of Residential and ICI Wastes

#### *Vehicle Selection*

At each facility the Field Supervisor followed a systematic selection procedure to identify residential and ICI waste vehicles for sampling. To calculate vehicle sampling frequency for each waste sector, the Field Supervisor first established a sampling interval at each facility. Sampling intervals were determined by dividing the total expected number of loads for each sector arriving at the facility on the scheduled day by the number of samples needed each day. The resulting number was the sampling frequency, which determined whether, for example, every third vehicle, sixth vehicle, or 20<sup>th</sup> vehicle was selected for sampling.

Vehicles entering the DSWA facility during the hand sorting days that met the definition of the n<sup>th</sup> vehicle were first surveyed by the Field Supervisor to verify they were eligible for sampling. Eligibility was determined by verifying the load fit within the residential and ICI definitions (see above). The Field Supervisor collected data regarding the vehicle type and waste type and assuming the load was suitable for sampling, contacted the scale house with the appropriate identifying information (hauler name and DSWA placard number) so that a weight slip could be set aside for the Field Supervisor to collect at the end of the day for all loads sampled.

The driver was then directed to dump the entire load in a designated area for sampling. From each selected load, one sample of waste was taken based on systematic “grabs” from the perimeter of the load. For example, if the tipped pile is viewed from the top as a clock face with 12:00 being the part of the load closest to the front of the truck, the first sample is taken from 3 o’clock, then 6 o’clock, 9 o’clock, in a continuous rotation.

Then, with the assistance of a loader operator, a sample of waste was removed by machine from the designated area and brought to the sample staging area. Depending upon the availability of key host facility personnel, the Field Supervisor either collected the sample directly from the bucket of the front-end loader, or directed the sample to be dumped on a tarp or a paved surface. When collecting samples directly from the bucket, 35-gallon cans or carts were arranged side-by-side on a tarp, with the loader bucket positioned directly overhead. The Field Supervisor then collected the sample systematically, by working from one side of the bucket to the other, emptying all of the contents from the front of the bucket to the back, until the desired sample weight (200 – 250 pounds) was achieved. To minimize sample collection bias, samples were collected from the loader bucket in an alternating fashion by working from the left side of the bucket to the right side for one sample, and then from right to left for the next sample.

### *Allocation of Samples by Site, Sector, Vehicle Type, and Season*

The Study Design specified hand-sorting 40 samples of residential and 60 samples of ICI waste each season, each weighing 200 to 250 pounds. The overall quota of 208 samples (over the two seasons) was split relatively evenly over the six DSWA facilities, although more days were spent at the Cherry Island facility to accommodate the additional multi-family and targeted generator loads (see below).

Tables 1 and 2 summarize planned and actual sample targets by generator category and facility for each season. Note that for the targeted commercial generator loads, four samples were taken from a single load which contained waste from multiple generators of the same commercial sector due to the high cost of obtaining the samples (which required paying the company an hourly charge for the truck and driver to collect the load from multiple locations). A single sample could also be obtained from a roll-off that is identified as one of the targeted loads, such as a grocery store. In addition, if a roll-off was randomly selected for ICI sampling, but also identified as one of the targeted generators (e.g. grocery, large retail, or office) the sample was counted as both one of the ICI samples and one of the targeted samples.

As illustrated by Tables 1 and 2, the Project Team exceeded the goal of 208 samples over both seasons.

**Table 1. Planned and Actual Sample Count by Generator Type and Location, November 2015**

| Facility                  | Season 1 Sample Summary |               |               |              |                |               |                              |                             |                           |                          |                  |                 |
|---------------------------|-------------------------|---------------|---------------|--------------|----------------|---------------|------------------------------|-----------------------------|---------------------------|--------------------------|------------------|-----------------|
|                           | Planned<br>RES          | Actual<br>RES | Planned<br>MF | Actual<br>MF | Planned<br>ICI | Actual<br>ICI | Planned<br>Sourced<br>Target | Actual<br>Sourced<br>Target | Planned<br>Targeted<br>RO | Actual<br>Targeted<br>RO | Planned<br>TOTAL | Actual<br>TOTAL |
| Milford TS                | 5                       | 5             |               |              | 5              | 5             |                              |                             |                           | 1                        | 10               | 11              |
| Route 5 TS                | 5                       | 5             |               |              | 6              | 6             |                              |                             |                           |                          | 11               | 12              |
| Sandtown Landfill         | 4                       | 5             |               |              | 8              | 11            |                              |                             |                           | 1                        | 12               | 17              |
| Cherry Island Landfill    | 5                       | 4             | 8             | 8            | 5              | 5             | 8                            | 20                          | 4                         |                          | 30               | 37              |
| Jones Crossroads Landfill | 4                       | 6             |               |              | 4              | 6             | 4                            | 4                           | 8                         | 1                        | 20               | 17              |
| Pine Tree Corners TS      | 9                       | 7             |               |              | 8              | 3             |                              |                             | 4                         | 4                        | 21               | 14              |
| <b>Totals</b>             | <b>32</b>               | <b>32</b>     | <b>8</b>      | <b>8</b>     | <b>36</b>      | <b>36</b>     | <b>12</b>                    | <b>24</b>                   | <b>16</b>                 | <b>7</b>                 | <b>104</b>       | <b>108</b>      |

Notes: RES – Residential  
MF – Multi-Family  
ICI – Institutional, Commercial, Industrial  
RO – Roll-Off

**Table 2. Planned and Actual Sample Count by Generator Type and Location, June 2016**

| Facility                  | Season 2 Sample Summary |               |               |              |                |               |                                |                               |                           |                          |                  |                 |
|---------------------------|-------------------------|---------------|---------------|--------------|----------------|---------------|--------------------------------|-------------------------------|---------------------------|--------------------------|------------------|-----------------|
|                           | Planned<br>RES          | Actual<br>RES | Planned<br>MF | Actual<br>MF | Planned<br>ICI | Actual<br>ICI | Planned<br>Sourced<br>Targeted | Actual<br>Sourced<br>Targeted | Planned<br>Targeted<br>RO | Actual<br>Targeted<br>RO | Planned<br>TOTAL | Actual<br>TOTAL |
| Milford TS                | 5                       | 8             |               |              | 5              | 4             |                                |                               |                           | 1                        | 10               | 13              |
| Route 5 TS                | 5                       | 4             |               |              | 6              | 4             |                                | 4                             |                           | 1                        | 11               | 13              |
| Sandtown Landfill         | 4                       | 7             |               |              | 8              | 8             |                                |                               |                           | 1                        | 12               | 16              |
| Cherry Island Landfill    | 5                       | 3             | 8             | 4            | 5              | 5             | 8                              | 16                            | 4                         | 1                        | 30               | 29              |
| Jones Crossroads Landfill | 4                       | 6             |               |              | 4              | 8             | 4                              | 0                             | 8                         | 1                        | 20               | 15              |
| Pine Tree TS              | 9                       | 5             |               |              | 8              | 10            |                                |                               | 4                         | 1                        | 21               | 16              |
| <b>Totals</b>             | <b>32</b>               | <b>33</b>     | <b>8</b>      | <b>4</b>     | <b>36</b>      | <b>39</b>     | <b>12</b>                      | <b>20</b>                     | <b>16</b>                 | <b>6</b>                 | <b>104</b>       | <b>102</b>      |

### *Visual Surveys of Self-Haul Loads*

In addition to hand sorting, the Project Team conducted four (4) hours of visual surveys of self-haul loads at each facility each season. This resulted in completing a total of 162 visual surveys in November and 178 visual surveys in June, as illustrated by Table 3. The visual surveys were conducted similar to a recent C&D characterization study performed by DSWA (see *Construction and Demolition Waste Characterization, Jones Crossroads Landfill, December 2015*), using the same visual form, but with the enumerator stationed at the small vehicle unloading area. It should be noted here, that because of the more extensive analysis of loads at the Jones Crossroads landfill in 2015, self-haul visuals were conducted only at the lower level at the Jones Crossroads landfill, as opposed to both the lower level and the small load landfill face at both Sandtown and Cherry Island.

**Table 3. Visual Survey Count by Facility, November 2015 and June 2016**

| Facility         | November   | June       |
|------------------|------------|------------|
| Cherry Island    | 37         | 39         |
| Pine Tree        | 40         | 33         |
| Milford          | 22         | 20         |
| Route 5          | 14         | 25         |
| Sandtown         | 29         | 49         |
| Jones Crossroads | 20         | 12         |
| <b>Total</b>     | <b>162</b> | <b>178</b> |

Standard visual estimation protocol requires the enumerator to first annotate all of the materials observed in the load, and then to estimate the volume percentage of each material from the largest to the smallest.

Note that there is significantly greater error in visual volumetric estimation compared to physical sorting and weighing. For that reason, volumetric estimates for large materials are typically to the nearest five percent, with trace amounts of materials recorded as one percent. All bagged waste was simply recorded as MSW, with the volume estimated. The composition of the bagged waste was then assumed to be the same as the average of the hand sorted residential and ICI waste.



### ***Driver Surveys***

Driver Surveys were carried out for a minimum of four (4) hours at each of the six DSWA facilities. The purpose of the driver surveys was to confirm (or modify) past DSWA driver survey data designed to allocate waste in rear-load, side-load and front-load trucks into residential versus ICI wastes. A total of 152 driver surveys were carried out over the six DSWA facilities in Season 1 and 169 in Season 2, as illustrated by Tables 4 and 5.

**Table 4. Driver Surveys by Facility, November 2015**

| Date          | Location         | # Surveys  |
|---------------|------------------|------------|
| 16-Nov-15     | Cherry Island    | 31         |
| 17-Nov-15     | Pine Tree        | 24         |
| 18-Nov-15     | Sandtown         | 25         |
| 19-Nov-15     | Milford          | 11         |
| 19-Nov-15     | Route 5          | 16         |
| 20-Nov-15     | Jones Crossroads | 45         |
| <b>Total:</b> |                  | <b>152</b> |

**Table 5. Driver Surveys by Facility, June 2016**

| Date          | Location         | # Surveys  |
|---------------|------------------|------------|
|               |                  |            |
| 22-Jun-16     | Route 5          | 35         |
| 23-Jun-16     | Milford          | 20         |
| 24-Jun-16     | Jones Crossroads | 53         |
| 27-Jun-16     | Pinetree         | 11         |
| 27-Jun-16     | Sandtown         | 9          |
| 28-Jun-16     | Cherry Island    | 41         |
| <b>Total:</b> |                  | <b>169</b> |

The surveys involved asking the driver what type of waste they had collected on that load – residential or ICI - with a follow-up question to determine if there was residential waste in a load described as ICI waste, or ICI waste in a load described as residential waste. If the driver answers yes, then the enumerator pressed the driver to provide their best estimate of the percent of the load represented by residential versus ICI. The data was recorded by truck type.

The enumerator also collected DSWA placard information from all surveyed trucks, as well as the time of the survey. This assured that net weights for each truck surveyed could be matched to the survey results to develop weighted averages by truck type to allocate residential and ICI waste entering each DSWA facility. The results from the two seasons were averaged for allocation purposes.

### III. RESULTS

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#### Allocation of Tons Delivered to DSWA Facilities

The goal of the two season waste characterization is to develop estimated tons disposed by material type for the waste characterized. To achieve this, the Project Team converted DSWA incoming scale data to tons by material type, both state-wide and by facility following the protocol described below.

First, DSWA provided the Project Team with scale data for FY 2016 (July 2015 – June 2016) “Vehicle Type for Revenue Tons” for all six DSWA facilities. Tons delivered to the three DSWA transfer stations are ultimately transferred for disposal at one of the three DSWA landfills. For purposes of this analysis, the tons delivered to a transfer station are reported by material type at that transfer station, and are then not used to allocate tons by material type at the landfill, since that would be double counting.

Second, the truck survey data (321 surveys over two seasons), together with an analysis of the scale data by material type were used to allocate tons by vehicle type to MSW, C&D and “Other” Waste by facility. The intent was to make sure that the hand sort data of mixed solid waste (MSW) are only applied to MSW, and not to C&D waste and to “Other” waste. This waste characterization did not include C&D wastes; and the hand sort data are not representative of “Other” wastes, which include sludge, and residue from the Revolution Recovery facility (C&D processing).

Third, the driver survey data were also used to allocate MSW tons delivered between Residential and ICI sources. That is, while most rear-loading packer trucks are used to collect residential waste, some waste collected in a rear-loader may be from businesses. Also, it is not uncommon for a front-load truck to contain residential waste collected from multi-family households and condominiums together with business waste. And, some front load trucks are now used to collect and tip carts. The driver surveys asked the driver to estimate what percent of the load was residential versus business (or institutional) waste, and the results of the driver surveys were used to allocate waste by vehicle type.

Fourth, while some bulky waste is included in MSW – and accounted for in the MSW hand sorts – there are roll-off loads of bulky waste from household and ICI clean-outs which are also not representative of the MSW hand sort. Data on the amount of bulky waste entering the individual facilities was not available. However, DSM undertook a separate C&D waste composition analysis at the Jones Crossroads landfill in 2015 which did include visual analysis of “dry wastes” delivered in roll-offs – which included bulky wastes. Bulky wastes were 17.7 percent by weight of open top roll-off waste delivered to the Jones Crossroads landfill (2015). This same allocation was applied to roll-off waste delivered at the other DSWA facilities as a rough means of eliminating bulky waste delivered in roll-offs from total MSW characterized by facility.

Finally, visual analysis of self-haul loads were conducted as part of this waste characterization. The visual data were converted to tons using scale data for each vehicle surveyed together with material density data; and then the self-haul data were allocated to residential and ICI MSW, and to self-haul C&D. This allocation was based on questions asked of the driver of the self-haul load, observations of the load content and the allocation of waste to MSW and C&D by the enumerator. This enabled C&D loads delivered to the self-haul area to be removed from the MSW characterization.

Table 6 presents the final allocation by facility. As illustrated by Table 6, of the 801,121 tons delivered to DSWA facilities during FY 2016:

- Total MSW (highlighted in grey) includes 320,159 tons of Residential MSW and 306,755 tons of ICI MSW, for a grand total of 626,914 tons; and,
- Non MSW deliveries (highlighted in blue) include an estimated 26,644 tons (roughly 3 percent) of bulky waste clean-out loads and 147,563 tons of C&D or Other Wastes (including 18,738 tons of Self-Haul C&D wastes) totaling 174,207 tons.

That means that the hand sort and self-haul MSW characterized represent 78 percent of the total waste delivered to DSWA facilities in FY 2016. These MSW tons are allocated by material type in the Composition Tables below.

**Table 6. Allocation of Waste by Facility and Material Type, FY 2016**

| Facility         | MSW     |         | Self-Haul |        |        | Total MSW |         | Non-MSW     |        | Grand Total |           |
|------------------|---------|---------|-----------|--------|--------|-----------|---------|-------------|--------|-------------|-----------|
|                  | Res     | ICI     | Res       | ICI    | C&D    | Res       | ICI     | C&D & Other | Bulky  | MSW         | All Waste |
|                  | (tons)  | (tons)  | (tons)    | (tons) | (tons) | (tons)    | (tons)  | (tons)      | (tons) | (tons)      | (tons)    |
| Sandtown         | 33,369  | 39,050  | 3,147     | 179    | 851    | 36,516    | 39,229  | 10,257      | 4,877  | 75,745      | 91,730    |
| Jones Crossroads | 21,274  | 29,762  | 2,468     | 1,825  | 7,971  | 23,741    | 31,587  | 70,376      | 12,091 | 55,328      | 145,766   |
| Cherry Island    | 152,618 | 151,901 | 1,310     | 9,836  | 6,001  | 153,927   | 161,737 | 40,344      | 6,277  | 315,664     | 368,285   |
| Pine Tree        | 37,945  | 24,064  | 1,676     | 450    | 1,486  | 39,621    | 24,514  | 3,747       | 1,497  | 64,135      | 70,866    |
| Milford          | 20,665  | 14,571  | 1,778     | 252    | 614    | 22,443    | 14,823  | 836         | 651    | 37,266      | 39,366    |
| Route 5          | 41,392  | 34,716  | 2,519     | 149    | 1,816  | 43,910    | 34,866  | 3,265       | 1,251  | 78,776      | 85,108    |
| Total            |         |         |           |        | 18,738 | 320,159   | 306,755 | 128,825     | 26,644 | 626,914     | 801,121   |

### Material Composition by Management Type

Data are presented in table form for statewide aggregate composition, state-wide residential, and statewide ICI composition; and then in the same format for each of the six DSWA facilities.

In each case a table listing all of the material categories is presented first followed by a table of the top ten materials, based on weight. In each case certain material types are highlighted by management category, with blue highlights indicating metal, plastic and glass materials that can be recycled under the universal recycling law and green indicating organic materials (food wastes and dirty paper) that might be diverted to a composting or anaerobic digester. The material categories by management type are:

- Recyclable paper (accepted at the Single Stream MRF)
- Recyclable metal and glass (accepted at the Single Stream MRF)
- Recyclable plastic (accepted at the Single Stream MRF)
- Vegetative food wastes, unpackaged
- Protein food waste, unpackaged
- Food waste in plastic packaging
- Food waste in other packaging
- Yard waste
- Other waste

The intent of the management breakdown is to provide information on the maximum amount of diversion that could occur under the existing universal recycling law, and if DSWA were to construct one or more organic waste processing facilities.

It should be noted here that no materials diversion strategy succeeds in diverting 100 percent of the material. In general, an eighty percent diversion rate for any targeted recyclable would be considered a high performing program. As such, there will always be some material that could be diverted in the landfill.

This is even more important for organics diversion because of contaminants inherent in the material. For this reason, organic wastes have been further sub-divided into relatively uncontaminated vegetative and protein waste, and then vegetative and protein (meat) waste that would be contaminated with packaging. Contamination can be a significant impediment to both aerobic and anaerobic processing systems.

### State-Wide Aggregate Waste Composition

Tables 7 and 8 present the overall composition of MSW delivered to the six DSWA facilities. These tables combine Residential and ICI MSW based on the allocations by facility. As above, all materials accepted at the MRF are highlighted in blue and organic materials that could be managed through composting or anaerobic digestion are highlighted in green.

These are followed by overall, state-wide Residential MSW composition (Tables 9 and 10) and state-wide ICI MSW composition (Tables 11 and 12).

Table 7 through 12 all represent weighted averages based on the tonnage delivered to each facility (Table 6, above).

All tables present the weighted average tons by material type followed by the expected range of the mean (as a percentage) at a 90 percent confidence interval. Thus, for each material, the second column presents the range that the actual mean is expected to vary around the calculated mean at a 90 percent confidence interval.

The standard deviation is also presented. The standard deviation measures how widely values within the data set are dispersed from the sample mean. A higher standard deviation denotes higher variation in the underlying samples for each material, while a lower standard deviation reflects lower variation among the individual samples. The standard deviation is stated in the same unit as the sample mean, which in this case is percent by weight.

**Table 7. Overall State-Wide MSW Composition by Material Type**

| Material                                   | Est. Tons      | Mean         | +/-  | Std. Dev. | Material  | Est. Tons      | Mean         | +/-  | Std. Dev. |
|--|----------------|--------------|------|-----------|---|----------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>148,030</b> | <b>23.6%</b> |      |           | <b>Metal</b>  | <b>19,557</b>  | <b>3.1%</b>  |      |           |
| Newspaper and Inserts                      | 10,317         | 1.6%         | 0.4% | 0.3%      | Tin/Steel Containers  | 5,333          | 0.9%         | 0.1% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 36,907         | 5.9%         | 1.2% | 0.7%      | Other Ferrous   | 6,829          | 1.1%         | 0.4% | 0.2%      |
| High Grade Office Paper                    | 5,809          | 0.9%         | 0.3% | 0.2%      | Aluminum Beverage & Cat Food Containers                       | 2,720          | 0.4%         | 0.1% | 0.0%      |
| Mixed Recyclable Paper                     | 22,731         | 3.6%         | 0.7% | 0.4%      | Other Aluminum  | 1,757          | 0.3%         | 0.1% | 0.0%      |
| Compostable Paper                          | 62,258         | 9.9%         | 1.6% | 1.0%      | Other Non-Ferrous   | 2,919          | 0.5%         | 0.3% | 0.2%      |
| Aseptic Boxes and Gable Top Cartons        | 1,441          | 0.2%         | 0.1% | 0.1%      |   |                |              |      |           |
| Remainder/Composite Paper                  | 8,567          | 1.4%         | 0.4% | 0.2%      | <b>Glass</b>  | <b>16,612</b>  | <b>2.6%</b>  |      |           |
|  |                |              |      |           | Glass Bottles and Jars  | 13,437         | 2.1%         | 0.4% | 0.2%      |
| <b>Plastic</b>                             | <b>93,369</b>  | <b>14.9%</b> |      |           | Remainder/Composite Glass                                     | 3,176          | 0.5%         | 0.3% | 0.2%      |
| PET #1 Bottles, Jars, or Containers        | 10,993         | 1.8%         | 0.3% | 0.2%      |   |                |              |      |           |
| HDPE #2 Natural and Colored Bottles        | 5,352          | 0.9%         | 0.1% | 0.1%      | <b>C&amp;D</b>  | <b>66,131</b>  | <b>10.5%</b> |      |           |
| Rigid HDPE #2 Containers                   | 510            | 0.1%         | 0.0% | 0.0%      | Pallets/Crates  | 2,161          | 0.3%         | 0.2% | 0.1%      |
| #3 to #7 Bottles or Jars                   | 523            | 0.1%         | 0.0% | 0.0%      | Clean Lumber  | 9,554          | 1.5%         | 0.5% | 0.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 1,728          | 0.3%         | 0.1% | 0.0%      | Painted and Stained Wood                                      | 2,428          | 0.4%         | 0.2% | 0.1%      |
| All Other Rigid Plastic Packaging          | 668            | 0.1%         | 0.1% | 0.0%      | Other Engineered Wood   | 10,679         | 1.7%         | 0.8% | 0.5%      |
| White Expanded Polystyrene (Styrofoam)     | 4,346          | 0.7%         | 0.2% | 0.1%      | Wood Furniture  | 11,515         | 1.8%         | 1.0% | 0.6%      |
| Recoverable Film                           | 5,196          | 0.8%         | 0.2% | 0.1%      | Other Wood  | 5,233          | 0.8%         | 0.4% | 0.2%      |
| All Other Film                             | 35,565         | 5.7%         | 0.6% | 0.4%      | Asphalt Roofing   | 780            | 0.1%         | 0.1% | 0.1%      |
| Agricultural Film & Marine Shrink Wrap     | 508            | 0.1%         | 0.1% | 0.1%      | Asphalt, Brick, Concrete, and Rocks                           | 11,667         | 1.9%         | 2.7% | 1.7%      |
| Large Plastic Items                        | 3,134          | 0.5%         | 0.3% | 0.2%      | Drywall/Gypsum Board  | 3,046          | 0.5%         | 0.5% | 0.3%      |
| Remainder/Composite Plastic                | 24,848         | 4.0%         | 0.7% | 0.4%      | Remainder/Composite C&D                                       | 9,069          | 1.4%         | 0.9% | 0.6%      |
|  |                |              |      |           |   |                |              |      |           |
| <b>Organic</b>                             | <b>252,039</b> | <b>40.2%</b> |      |           | <b>Other</b>  | <b>31,175</b>  | <b>5.0%</b>  |      |           |
| Vegetative Food Waste, Unpackaged          | 57,704         | 9.2%         | 1.9% | 1.2%      | Tires   | 2,132          | 0.3%         | 0.5% | 0.3%      |
| Protein Food Waste, Unpackaged             | 21,125         | 3.4%         | 0.8% | 0.5%      | Small Appliances  | 474            | 0.1%         | 0.1% | 0.0%      |
| Food Waste in Plastic Packaging            | 43,749         | 7.0%         | 1.0% | 0.6%      | Large Electronics   | 6,154          | 1.0%         | 0.6% | 0.4%      |
| Food Waste in Other Packaging              | 9,421          | 1.5%         | 0.6% | 0.4%      | Other Small Consumer Electronics                              | 1,566          | 0.2%         | 0.2% | 0.1%      |
| Leaves, Grass, and Brush                   | 25,690         | 4.1%         | 1.4% | 0.9%      | Items with CRTs   | 1,857          | 0.3%         | 0.4% | 0.2%      |
| Branches and Stumps                        | 1,881          | 0.3%         | 0.2% | 0.1%      | Other Larger Electronics                                      | 14             | 0.0%         | 0.0% | 0.0%      |
| Textiles                                   | 32,323         | 5.2%         | 2.1% | 1.2%      | Other Haz. or Household Haz. Waste (HHW)                      | 3,168          | 0.5%         | 0.3% | 0.2%      |
| Rubber/Leather                             | 3,842          | 0.6%         | 0.2% | 0.1%      | All Other Wastes  | 15,809         | 2.5%         | 0.6% | 0.4%      |
| Diapers and Sanitary Products              | 18,705         | 3.0%         | 0.5% | 0.3%      |   |                |              |      |           |
| Carpet and Carpet Padding                  | 20,072         | 3.2%         | 2.2% | 1.3%      | <b>Hauler Collected MSW Tons</b>                              | <b>601,326</b> |              |      |           |
| Remainder/Composite Organic                | 17,526         | 2.8%         | 0.6% | 0.4%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>25,588</b>  |              |      |           |
|  |                |              |      |           |   |                |              |      |           |
|  |                |              |      |           | <b>Totals</b>   | <b>626,914</b> | <b>100%</b>  |      |           |
|  |                |              |      |           | <b>Sample Count</b>   |                | <b>152</b>   |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 8. Top Ten Materials, By Weight, Overall State-Wide Material Composition**

| Material Type                     | Estimated Percent | Cumulative Percent | Estimated Tons |
|-----------------------------------|-------------------|--------------------|----------------|
| Compostable Paper                 | 9.9%              | 9.9%               | 62,258         |
| Vegetative Food Waste, Unpackaged | 9.2%              | 19.1%              | 57,704         |
| Food Waste in Plastic Packaging   | 7.0%              | 26.1%              | 43,749         |
| Corrugated Cardboard/Kraft Paper  | 5.9%              | 32.0%              | 36,907         |
| All Other Film                    | 5.7%              | 37.7%              | 35,565         |
| Textiles                          | 5.2%              | 42.8%              | 32,323         |
| Leaves, Grass, and Brush          | 4.1%              | 46.9%              | 25,690         |
| Remainder/Composite Plastic       | 4.0%              | 50.9%              | 24,848         |
| Mixed Recyclable Paper            | 3.6%              | 54.5%              | 22,731         |
| Protein Food Waste, Unpackaged    | 3.4%              | 57.9%              | 21,125         |
| <b>Subtotal</b>                   | <b>57.9%</b>      |                    | <b>362,901</b> |
| All Other Materials               | 42.1%             |                    | 264,013        |
| <b>Total</b>                      | <b>100.0%</b>     |                    | <b>626,914</b> |

**Table 9. State-Wide Residential MSW Composition**

| Material                                   | Est. Tons      | Mean         | +/-  | Std. Dev. | Material  | Est. Tons      | Mean        | +/-  | Std. Dev. |
|--|----------------|--------------|------|-----------|---|----------------|-------------|------|-----------|
| <b>Paper</b>                               | <b>68,421</b>  | <b>21.4%</b> |      |           | <b>Metal</b>  | <b>10,569</b>  | <b>3.3%</b> |      |           |
| Newspaper and Inserts                      | 5,922          | 1.8%         | 0.6% | 0.4%      | Tin/Steel Containers  | 3,554          | 1.1%        | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 11,560         | 3.6%         | 0.9% | 0.5%      | Other Ferrous   | 2,979          | 0.9%        | 0.3% | 0.2%      |
| High Grade Office Paper                    | 1,992          | 0.6%         | 0.2% | 0.1%      | Aluminum Beverage & Cat Food Containers                       | 1,541          | 0.5%        | 0.1% | 0.0%      |
| Mixed Recyclable Paper                     | 13,147         | 4.1%         | 0.6% | 0.4%      | Other Aluminum  | 1,052          | 0.3%        | 0.0% | 0.0%      |
| Compostable Paper                          | 30,867         | 9.6%         | 0.9% | 0.5%      | Other Non-Ferrous   | 1,444          | 0.5%        | 0.2% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 445            | 0.1%         | 0.0% | 0.0%      | <b>Glass</b>  | <b>11,472</b>  | <b>3.6%</b> |      |           |
| Remainder/Composite Paper                  | 4,489          | 1.4%         | 0.6% | 0.4%      | Glass Bottles and Jars  | 9,015          | 2.8%        | 0.5% | 0.3%      |
| <b>Plastic</b>                             | <b>41,404</b>  | <b>12.9%</b> |      |           | Remainder/Composite Glass                                     | 2,457          | 0.8%        | 0.5% | 0.3%      |
| PET #1 Bottles, Jars, or Containers        | 5,467          | 1.7%         | 0.2% | 0.1%      | <b>C&amp;D</b>  | <b>29,703</b>  | <b>9.3%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 3,243          | 1.0%         | 0.1% | 0.1%      | Pallets/Crates  | 93             | 0.0%        | 0.0% | 0.0%      |
| Rigid HDPE #2 Containers                   | 332            | 0.1%         | 0.1% | 0.0%      | Clean Lumber  | 5,498          | 1.7%        | 0.9% | 0.5%      |
| #3 to #7 Bottles or Jars                   | 372            | 0.1%         | 0.1% | 0.0%      | Painted and Stained Wood                                      | 2,045          | 0.6%        | 0.4% | 0.2%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 736            | 0.2%         | 0.0% | 0.0%      | Other Engineered Wood   | 6,918          | 2.2%        | 1.3% | 0.8%      |
| All Other Rigid Plastic Packaging          | 505            | 0.2%         | 0.1% | 0.1%      | Wood Furniture  | 6,328          | 2.0%        | 1.3% | 0.8%      |
| White Expanded Polystyrene (Styrofoam)     | 1,733          | 0.5%         | 0.1% | 0.0%      | Other Wood  | 1,853          | 0.6%        | 0.3% | 0.2%      |
| Recoverable Film                           | 2,465          | 0.8%         | 0.1% | 0.1%      | Asphalt Roofing   | 322            | 0.1%        | 0.2% | 0.1%      |
| All Other Film                             | 14,676         | 4.6%         | 0.4% | 0.2%      | Asphalt, Brick, Concrete, and Rocks                           | 220            | 0.1%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 425            | 0.1%         | 0.2% | 0.1%      | Drywall/Gypsum Board  | 2,205          | 0.7%        | 0.9% | 0.5%      |
| Large Plastic Items                        | 1,860          | 0.6%         | 0.4% | 0.3%      | Remainder/Composite C&D                                       | 4,219          | 1.3%        | 0.8% | 0.5%      |
| Remainder/Composite Plastic                | 9,587          | 3.0%         | 0.4% | 0.2%      | <b>Other</b>  | <b>23,987</b>  | <b>7.5%</b> |      |           |
| <b>Organic</b>                             | <b>134,603</b> | <b>42.0%</b> |      |           | Tires   | 1,988          | 0.6%        | 1.0% | 0.6%      |
| Vegetative Food Waste, Unpackaged          | 24,342         | 7.6%         | 1.1% | 0.7%      | Small Appliances  | 474            | 0.1%        | 0.2% | 0.1%      |
| Protein Food Waste, Unpackaged             | 11,184         | 3.5%         | 0.7% | 0.5%      | Large Electronics   | 6,079          | 1.9%        | 1.2% | 0.8%      |
| Food Waste in Plastic Packaging            | 25,411         | 7.9%         | 1.2% | 0.7%      | Other Small Consumer Electronics                              | 808            | 0.3%        | 0.1% | 0.1%      |
| Food Waste in Other Packaging              | 3,976          | 1.2%         | 0.4% | 0.2%      | Items with CRTs   | 1,416          | 0.4%        | 0.7% | 0.4%      |
| Leaves, Grass, and Brush                   | 14,709         | 4.6%         | 1.5% | 0.9%      | Other Larger Electronics                                      | 14             | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 1,056          | 0.3%         | 0.2% | 0.1%      | Other Haz. or Household Haz. Waste (HHW)                      | 1,610          | 0.5%        | 0.2% | 0.1%      |
| Textiles                                   | 17,705         | 5.5%         | 0.9% | 0.5%      | All Other Wastes  | 11,597         | 3.6%        | 1.0% | 0.6%      |
| Rubber/Leather                             | 2,070          | 0.6%         | 0.2% | 0.1%      | <b>Hauler Collected MSW Tons</b>                              | <b>307,262</b> |             |      |           |
| Diapers and Sanitary Products              | 14,273         | 4.5%         | 0.7% | 0.4%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>12,897</b>  |             |      |           |
| Carpet and Carpet Padding                  | 8,816          | 2.8%         | 1.2% | 0.7%      |   |                |             |      |           |
| Remainder/Composite Organic                | 11,061         | 3.5%         | 0.9% | 0.5%      |   |                |             |      |           |
|  |                |              |      |           | <b>Totals</b>   | <b>320,159</b> | <b>100%</b> |      |           |
|  |                |              |      |           | <b>Sample Count</b>   |                | <b>77</b>   |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 10. Top Ten Materials, by Weight in State-Wide Residential Waste**

| Material Type                     | Estimated Percent | Cumulative Percent | Estimated Tons |
|-----------------------------------|-------------------|--------------------|----------------|
| Compostable Paper                 | 9.6%              | 9.6%               | 30,867         |
| Food Waste in Plastic Packaging   | 7.9%              | 17.6%              | 25,411         |
| Vegetative Food Waste, Unpackaged | 7.6%              | 25.2%              | 24,342         |
| Textiles                          | 5.5%              | 30.7%              | 17,705         |
| Leaves, Grass, and Brush          | 4.6%              | 35.3%              | 14,709         |
| All Other Film                    | 4.6%              | 39.9%              | 14,676         |
| Diapers and Sanitary Products     | 4.5%              | 44.3%              | 14,273         |
| Mixed Recyclable Paper            | 4.1%              | 48.5%              | 13,147         |
| All Other Wastes                  | 3.6%              | 52.1%              | 11,597         |
| Corrugated Cardboard/Kraft Paper  | 3.6%              | 55.7%              | 11,560         |
| <b>Subtotal</b>                   | <b>55.7%</b>      |                    | <b>178,286</b> |
| All Other Materials               | 44.3%             |                    | 141,873        |
| <b>Total</b>                      | <b>100.0%</b>     |                    | <b>320,159</b> |



**Table 11. State-Wide ICI MSW Composition**

| Material                                   | Est. Tons      | Mean         | +/-  | Std. Dev. | Material  | Est. Tons      | Mean         | +/-  | Std. Dev. |
|--|----------------|--------------|------|-----------|---|----------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>79,608</b>  | <b>26.0%</b> |      |           | <b>Metal</b>  | <b>8,988</b>   | <b>2.9%</b>  |      |           |
| Newspaper and Inserts                      | 4,395          | 1.4%         | 0.6% | 0.4%      | Tin/Steel Containers  | 1,779          | 0.6%         | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 25,347         | 8.3%         | 2.3% | 1.4%      | Other Ferrous   | 3,849          | 1.3%         | 0.7% | 0.4%      |
| High Grade Office Paper                    | 3,816          | 1.2%         | 0.6% | 0.4%      | Aluminum Beverage & Cat Food Containers                       | 1,179          | 0.4%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 9,584          | 3.1%         | 1.3% | 0.8%      | Other Aluminum  | 706            | 0.2%         | 0.1% | 0.1%      |
| Compostable Paper                          | 31,391         | 10.2%        | 3.2% | 1.9%      | Other Non-Ferrous   | 1,475          | 0.5%         | 0.5% | 0.3%      |
| Aseptic Boxes and Gable Top Cartons        | 996            | 0.3%         | 0.2% | 0.1%      | <b>Glass</b>  | <b>5,140</b>   | <b>1.7%</b>  |      |           |
| Remainder/Composite Paper                  | 4,078          | 1.3%         | 0.5% | 0.3%      | Glass Bottles and Jars  | 4,421          | 1.4%         | 0.6% | 0.3%      |
|  |                |              |      |           | Remainder/Composite Glass                                     | 719            | 0.2%         | 0.2% | 0.1%      |
| <b>Plastic</b>                             | <b>51,965</b>  | <b>16.9%</b> |      |           | <b>C&amp;D</b>  | <b>36,428</b>  | <b>11.9%</b> |      |           |
| PET #1 Bottles, Jars, or Containers        | 5,525          | 1.8%         | 0.5% | 0.3%      | Pallets/Crates  | 2,068          | 0.7%         | 0.4% | 0.2%      |
| HDPE #2 Natural and Colored Bottles        | 2,109          | 0.7%         | 0.2% | 0.1%      | Clean Lumber  | 4,055          | 1.3%         | 0.6% | 0.4%      |
| Rigid HDPE #2 Containers                   | 178            | 0.1%         | 0.0% | 0.0%      | Painted and Stained Wood                                      | 382            | 0.1%         | 0.1% | 0.1%      |
| #3 to #7 Bottles or Jars                   | 150            | 0.0%         | 0.0% | 0.0%      | Other Engineered Wood   | 3,762          | 1.2%         | 0.8% | 0.5%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 991            | 0.3%         | 0.1% | 0.1%      | Wood Furniture  | 5,186          | 1.7%         | 1.4% | 0.9%      |
| All Other Rigid Plastic Packaging          | 163            | 0.1%         | 0.0% | 0.0%      | Other Wood  | 3,380          | 1.1%         | 0.7% | 0.4%      |
| White Expanded Polystyrene (Styrofoam)     | 2,613          | 0.9%         | 0.3% | 0.2%      | Asphalt Roofing   | 457            | 0.1%         | 0.2% | 0.1%      |
| Recoverable Film                           | 2,730          | 0.9%         | 0.4% | 0.3%      | Asphalt, Brick, Concrete, and Rocks                           | 11,446         | 3.7%         | 5.6% | 3.4%      |
| All Other Film                             | 20,889         | 6.8%         | 1.1% | 0.7%      | Drywall/Gypsum Board  | 841            | 0.3%         | 0.4% | 0.2%      |
| Agricultural Film & Marine Shrink Wrap     | 83             | 0.0%         | 0.0% | 0.0%      | Remainder/Composite C&D                                       | 4,850          | 1.6%         | 1.7% | 1.0%      |
| Large Plastic Items                        | 1,273          | 0.4%         | 0.3% | 0.2%      |   |                |              |      |           |
| Remainder/Composite Plastic                | 15,260         | 5.0%         | 1.4% | 0.8%      | <b>Other</b>  | <b>7,189</b>   | <b>2.3%</b>  |      |           |
| <b>Organic</b>                             | <b>117,436</b> | <b>38.3%</b> |      |           | Tires   | 143            | 0.0%         | 0.1% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 33,362         | 10.9%        | 3.7% | 2.3%      | Small Appliances  | -              | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 9,941          | 3.2%         | 1.5% | 0.9%      | Large Electronics   | 75             | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 18,339         | 6.0%         | 1.5% | 0.9%      | Other Small Consumer Electronics                              | 758            | 0.2%         | 0.3% | 0.2%      |
| Food Waste in Other Packaging              | 5,446          | 1.8%         | 1.1% | 0.7%      | Items with CRTs   | 441            | 0.1%         | 0.2% | 0.1%      |
| Leaves, Grass, and Brush                   | 10,981         | 3.6%         | 2.4% | 1.5%      | Other Larger Electronics                                      | -              | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 825            | 0.3%         | 0.4% | 0.2%      | Other Haz. or Household Haz. Waste (HHW)                      | 1,558          | 0.5%         | 0.5% | 0.3%      |
| Textiles                                   | 14,618         | 4.8%         | 4.1% | 2.5%      | All Other Wastes  | 4,212          | 1.4%         | 0.6% | 0.4%      |
| Rubber/Leather                             | 1,772          | 0.6%         | 0.2% | 0.1%      |   |                |              |      |           |
| Diapers and Sanitary Products              | 4,432          | 1.4%         | 0.7% | 0.4%      | <b>Hauler Collected MSW Tons</b>                              | <b>294,064</b> |              |      |           |
| Carpet and Carpet Padding                  | 11,256         | 3.7%         | 4.3% | 2.6%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>12,691</b>  |              |      |           |
| Remainder/Composite Organic                | 6,464          | 2.1%         | 0.9% | 0.5%      |   |                |              |      |           |
|  |                |              |      |           | <b>Totals</b>   | <b>306,755</b> | <b>100%</b>  |      |           |
|  |                |              |      |           | <b>Sample Count</b>   |                | <b>75</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 12. Top Ten Materials, by Weight, State-Wide ICI MSW**

| Material Type                       | Estimated Percent | Cumulative Percent | Estimated Tons |
|-------------------------------------|-------------------|--------------------|----------------|
| Vegetative Food Waste, Unpackaged   | 10.9%             | 10.9%              | 33,362         |
| Compostable Paper                   | 10.2%             | 21.1%              | 31,391         |
| Corrugated Cardboard/Kraft Paper    | 8.3%              | 29.4%              | 25,347         |
| All Other Film                      | 6.8%              | 36.2%              | 20,889         |
| Food Waste in Plastic Packaging     | 6.0%              | 42.2%              | 18,339         |
| Remainder/Composite Plastic         | 5.0%              | 47.1%              | 15,260         |
| Textiles                            | 4.8%              | 51.9%              | 14,618         |
| Asphalt, Brick, Concrete, and Rocks | 3.7%              | 55.6%              | 11,446         |
| Carpet and Carpet Padding           | 3.7%              | 59.3%              | 11,256         |
| Leaves, Grass, and Brush            | 3.6%              | 62.9%              | 10,981         |
| <b>Subtotal</b>                     | <b>62.9%</b>      |                    | <b>192,890</b> |
| All Other Materials                 | 37.1%             |                    | 113,864        |
| <b>Total</b>                        | <b>100.0%</b>     |                    | <b>306,755</b> |

## Analysis by Facility

The following 18 tables provide data at the individual DSWA facility level for hand sorted MSW.

### Cherry Island Landfill

**Table 13. Overall MSW Composition, Cherry Island Landfill**

| Material                                   | Est. Tons      | Mean         | +/-  | Std. Dev. | Material  | Est. Tons      | Mean         | +/-  | Std. Dev. |
|--|----------------|--------------|------|-----------|---|----------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>69,085</b>  | <b>21.9%</b> |      |           | <b>Metal</b>  | <b>9,116</b>   | <b>2.9%</b>  |      |           |
| Newspaper and Inserts                      | 5,255          | 1.7%         | 0.6% | 0.4%      | Tin/Steel Containers  | 2,646          | 0.8%         | 0.3% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 15,529         | 4.9%         | 1.5% | 0.9%      | Other Ferrous   | 2,457          | 0.8%         | 0.5% | 0.3%      |
| High Grade Office Paper                    | 2,645          | 0.8%         | 0.4% | 0.3%      | Aluminum Beverage & Cat Food Containers                       | 1,290          | 0.4%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 10,962         | 3.5%         | 1.3% | 0.8%      | Other Aluminum  | 902            | 0.3%         | 0.1% | 0.1%      |
| Compostable Paper                          | 30,787         | 9.8%         | 3.1% | 1.9%      | Other Non-Ferrous   | 1,821          | 0.6%         | 0.5% | 0.3%      |
| Aseptic Boxes and Gable Top Cartons        | 422            | 0.1%         | 0.0% | 0.0%      | <b>Glass</b>  | <b>9,453</b>   | <b>3.0%</b>  |      |           |
| Remainder/Composite Paper                  | 3,486          | 1.1%         | 0.7% | 0.4%      | Glass Bottles and Jars  | 7,621          | 2.4%         | 0.7% | 0.4%      |
| <b>Plastic</b>                             | <b>42,612</b>  | <b>13.5%</b> |      |           | Remainder/Composite Glass                                     | 1,831          | 0.6%         | 0.5% | 0.3%      |
| PET #1 Bottles, Jars, or Containers        | 6,172          | 2.0%         | 0.5% | 0.3%      | <b>C&amp;D</b>  | <b>36,551</b>  | <b>11.6%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 2,493          | 0.8%         | 0.1% | 0.1%      | Pallets/Crates  | -              | 0.0%         | 0.0% | 0.0%      |
| Rigid HDPE #2 Containers                   | 4              | 0.0%         | 0.0% | 0.0%      | Clean Lumber  | 2,856          | 0.9%         | 0.7% | 0.4%      |
| #3 to #7 Bottles or Jars                   | 136            | 0.0%         | 0.0% | 0.0%      | Painted and Stained Wood                                      | 1,941          | 0.6%         | 0.4% | 0.2%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 1,057          | 0.3%         | 0.1% | 0.1%      | Other Engineered Wood   | 5,617          | 1.8%         | 1.3% | 0.8%      |
| All Other Rigid Plastic Packaging          | 402            | 0.1%         | 0.1% | 0.1%      | Wood Furniture  | 4,795          | 1.5%         | 1.5% | 0.9%      |
| White Expanded Polystyrene (Styrofoam)     | 1,474          | 0.5%         | 0.1% | 0.1%      | Other Wood  | 2,637          | 0.8%         | 0.7% | 0.4%      |
| Recoverable Film                           | 1,696          | 0.5%         | 0.2% | 0.1%      | Asphalt Roofing   | -              | 0.0%         | 0.0% | 0.0%      |
| All Other Film                             | 17,122         | 5.4%         | 1.0% | 0.6%      | Asphalt, Brick, Concrete, and Rocks                           | 10,960         | 3.5%         | 5.5% | 3.3%      |
| Agricultural Film & Marine Shrink Wrap     | 76             | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board  | 2,072          | 0.7%         | 0.9% | 0.6%      |
| Large Plastic Items                        | 1,610          | 0.5%         | 0.4% | 0.2%      | Remainder/Composite C&D                                       | 5,673          | 1.8%         | 1.7% | 1.0%      |
| Remainder/Composite Plastic                | 10,369         | 3.3%         | 0.6% | 0.4%      | <b>Other</b>  | <b>14,708</b>  | <b>4.7%</b>  |      |           |
| <b>Organic</b>                             | <b>134,139</b> | <b>42.5%</b> |      |           | Tires   | 1,928          | 0.6%         | 1.0% | 0.6%      |
| Vegetative Food Waste, Unpackaged          | 31,019         | 9.8%         | 3.5% | 2.1%      | Small Appliances  | 49             | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 10,434         | 3.3%         | 1.4% | 0.8%      | Large Electronics   | 4,664          | 1.5%         | 1.2% | 0.7%      |
| Food Waste in Plastic Packaging            | 26,099         | 8.3%         | 1.8% | 1.1%      | Other Small Consumer Electronics                              | 974            | 0.3%         | 0.3% | 0.2%      |
| Food Waste in Other Packaging              | 3,751          | 1.2%         | 0.6% | 0.3%      | Items with CRTs   | 1,416          | 0.4%         | 0.7% | 0.4%      |
| Leaves, Grass, and Brush                   | 12,164         | 3.9%         | 2.4% | 1.5%      | Other Larger Electronics                                      | -              | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 774            | 0.2%         | 0.3% | 0.2%      | Other Haz. or Household Haz. Waste (HHW)                      | 373            | 0.1%         | 0.1% | 0.0%      |
| Textiles                                   | 19,024         | 6.0%         | 4.0% | 2.4%      | All Other Wastes  | 5,304          | 1.7%         | 0.8% | 0.5%      |
| Rubber/Leather                             | 1,293          | 0.4%         | 0.2% | 0.1%      | <b>Hauler Collected MSW Tons</b>                              | <b>304,519</b> |              |      |           |
| Diapers and Sanitary Products              | 9,575          | 3.0%         | 0.9% | 0.5%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>11,145</b>  |              |      |           |
| Carpet and Carpet Padding                  | 13,378         | 4.2%         | 4.3% | 2.6%      |   |                |              |      |           |
| Remainder/Composite Organic                | 6,627          | 2.1%         | 0.6% | 0.4%      |   |                |              |      |           |
|  |                |              |      |           | <b>Totals</b>   | <b>315,664</b> | <b>100%</b>  |      |           |
|  |                |              |      |           | <b>Sample Count</b>   |                | <b>29</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 14. Composition of Residential MSW, Cherry Island Landfill**

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons      | Mean        | +/-       | Std. Dev. |
|--|---------------|--------------|------|-----------|---|----------------|-------------|-----------|-----------|
| <b>Paper</b>                               | <b>33,072</b> | <b>21.5%</b> |      |           | <b>Metal</b>  | <b>4,835</b>   | <b>3.1%</b> |           |           |
| Newsprint and Inserts                      | 2,981         | 1.9%         | 0.8% | 0.5%      | Tin/Steel Containers  | 1,732          | 1.1%        | 0.3%      | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 7,526         | 4.9%         | 1.7% | 1.0%      | Other Ferrous   | 1,313          | 0.9%        | 0.5%      | 0.3%      |
| High Grade Office Paper                    | 935           | 0.6%         | 0.3% | 0.2%      | Aluminum Beverage & Cat Food Containers                       | 550            | 0.4%        | 0.1%      | 0.1%      |
| Mixed Recyclable Paper                     | 6,461         | 4.2%         | 0.9% | 0.6%      | Other Aluminum  | 452            | 0.3%        | 0.1%      | 0.0%      |
| Compostable Paper                          | 12,856        | 8.4%         | 1.4% | 0.9%      | Other Non-Ferrous   | 789            | 0.5%        | 0.4%      | 0.2%      |
| Aseptic Boxes and Gable Top Cartons        | 215           | 0.1%         | 0.0% | 0.0%      |   |                |             |           |           |
| Remainder/Composite Paper                  | 2,099         | 1.4%         | 1.2% | 0.7%      | <b>Glass</b>  | <b>7,233</b>   | <b>4.7%</b> |           |           |
|  |               |              |      |           | Glass Bottles and Jars  | 5,939          | 3.9%        | 1.0%      | 0.6%      |
| <b>Plastic</b>                             | <b>19,309</b> | <b>12.5%</b> |      |           | Remainder/Composite Glass                                     | 1,294          | 0.8%        | 1.0%      | 0.6%      |
| PET #1 Bottles, Jars, or Containers        | 2,781         | 1.8%         | 0.3% | 0.2%      |   |                |             |           |           |
| HDPE #2 Natural and Colored Bottles        | 1,490         | 1.0%         | 0.1% | 0.1%      | <b>C&amp;D</b>  | <b>14,656</b>  | <b>9.5%</b> |           |           |
| Rigid HDPE #2 Containers                   | -             | 0.0%         | 0.0% | 0.0%      | Pallets/Crates  | -              | 0.0%        | 0.0%      | 0.0%      |
| #3 to #7 Bottles or Jars                   | 126           | 0.1%         | 0.1% | 0.0%      | Clean Lumber  | 2,316          | 1.5%        | 1.3%      | 0.8%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 361           | 0.2%         | 0.1% | 0.1%      | Painted and Stained Wood                                      | 1,589          | 1.0%        | 0.8%      | 0.5%      |
| All Other Rigid Plastic Packaging          | 312           | 0.2%         | 0.2% | 0.1%      | Other Engineered Wood   | 4,014          | 2.6%        | 2.5%      | 1.5%      |
| White Expanded Polystyrene (Styrofoam)     | 745           | 0.5%         | 0.1% | 0.1%      | Wood Furniture  | 2,533          | 1.6%        | 2.0%      | 1.2%      |
| Recoverable Film                           | 1,144         | 0.7%         | 0.2% | 0.1%      | Other Wood  | 506            | 0.3%        | 0.3%      | 0.2%      |
| All Other Film                             | 6,476         | 4.2%         | 0.6% | 0.3%      | Asphalt Roofing   | -              | 0.0%        | 0.0%      | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 28            | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks                           | 145            | 0.1%        | 0.1%      | 0.0%      |
| Large Plastic Items                        | 1,234         | 0.8%         | 0.8% | 0.5%      | Drywall/Gypsum Board  | 2,042          | 1.3%        | 1.9%      | 1.1%      |
| Remainder/Composite Plastic                | 4,612         | 3.0%         | 0.7% | 0.4%      | Remainder/Composite C&D                                       | 1,512          | 1.0%        | 0.8%      | 0.5%      |
|  |               |              |      |           |   |                |             |           |           |
| <b>Organic</b>                             | <b>61,219</b> | <b>39.8%</b> |      |           | <b>Other</b>  | <b>13,603</b>  | <b>8.8%</b> |           |           |
| Vegetative Food Waste, Unpackaged          | 11,652        | 7.6%         | 1.8% | 1.1%      | Tires   | 1,928          | 1.3%        | 2.0%      | 1.2%      |
| Protein Food Waste, Unpackaged             | 5,118         | 3.3%         | 1.0% | 0.6%      | Small Appliances  | 49             | 0.0%        | 0.1%      | 0.0%      |
| Food Waste in Plastic Packaging            | 14,751        | 9.6%         | 2.3% | 1.4%      | Large Electronics   | 4,664          | 3.0%        | 2.4%      | 1.5%      |
| Food Waste in Other Packaging              | 1,981         | 1.3%         | 0.6% | 0.3%      | Other Small Consumer Electronics                              | 377            | 0.2%        | 0.2%      | 0.1%      |
| Leaves, Grass, and Brush                   | 2,972         | 1.9%         | 1.4% | 0.8%      | Items with CRTs   | 1,416          | 0.9%        | 1.5%      | 0.9%      |
| Branches and Stumps                        | 113           | 0.1%         | 0.1% | 0.1%      | Other Large Electronics                                       | -              | 0.0%        | 0.0%      | 0.0%      |
| Textiles                                   | 8,899         | 5.8%         | 1.4% | 0.9%      | Other Haz. or Household Haz. Waste (HHW)                      | 134            | 0.1%        | 0.0%      | 0.0%      |
| Rubber/Leather                             | 522           | 0.3%         | 0.2% | 0.1%      | All Other Wastes  | 5,034          | 3.3%        | 1.6%      | 1.0%      |
| Diapers and Sanitary Products              | 6,975         | 4.5%         | 1.1% | 0.7%      |   |                |             |           |           |
| Carpet and Carpet Padding                  | 3,853         | 2.5%         | 2.0% | 1.2%      | <b>Hauler Collected MSW Tons</b>                              | <b>152,618</b> |             |           |           |
| Remainder/Composite Organic                | 4,384         | 2.8%         | 0.9% | 0.6%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>1,310</b>   |             |           |           |
|  |               |              |      |           |   |                |             |           |           |
|  |               |              |      |           | <b>Totals</b>   | <b>153,927</b> | <b>100%</b> |           |           |
|  |               |              |      |           | <b>Sample Count</b>   |                |             | <b>19</b> |           |

Confidence intervals calculated at a 90% confidence level.

**Table 15. Composition, ICI MSW, Cherry Island Landfill**

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons      | Mean         | +/-       | Std. Dev. |
|--|---------------|--------------|------|-----------|---|----------------|--------------|-----------|-----------|
| <b>Paper</b>                               | <b>36,013</b> | <b>22.3%</b> |      |           | <b>Metal</b>  | <b>4,280</b>   | <b>2.6%</b>  |           |           |
| Newsprint and Inserts                      | 2,274         | 1.4%         | 0.9% | 0.5%      | Tin/Steel Containers  | 914            | 0.6%         | 0.4%      | 0.3%      |
| Corrugated Cardboard/Kraft Paper           | 8,003         | 4.9%         | 2.4% | 1.5%      | Other Ferrous   | 1,144          | 0.7%         | 0.8%      | 0.5%      |
| High Grade Office Paper                    | 1,710         | 1.1%         | 0.8% | 0.5%      | Aluminum Beverage & Cat Food Containers                       | 741            | 0.5%         | 0.2%      | 0.1%      |
| Mixed Recyclable Paper                     | 4,501         | 2.8%         | 2.3% | 1.4%      | Other Aluminum  | 450            | 0.3%         | 0.2%      | 0.1%      |
| Compostable Paper                          | 17,931        | 11.1%        | 5.8% | 3.5%      | Other Non-Ferrous   | 1,032          | 0.6%         | 0.9%      | 0.5%      |
| Aseptic Boxes and Gable Top Cartons        | 207           | 0.1%         | 0.1% | 0.0%      |   |                |              |           |           |
| Remainder/Composite Paper                  | 1,387         | 0.9%         | 0.6% | 0.4%      | <b>Glass</b>  | <b>2,220</b>   | <b>1.4%</b>  |           |           |
|  |               |              |      |           | Glass Bottles and Jars  | 1,682          | 1.0%         | 0.9%      | 0.5%      |
| <b>Plastic</b>                             | <b>23,303</b> | <b>14.4%</b> |      |           | Remainder/Composite Glass                                     | 537            | 0.3%         | 0.3%      | 0.2%      |
| PET #1 Bottles, Jars, or Containers        | 3,392         | 2.1%         | 1.0% | 0.6%      |   |                |              |           |           |
| HDPE #2 Natural and Colored Bottles        | 1,003         | 0.6%         | 0.2% | 0.1%      | <b>C&amp;D</b>  | <b>21,895</b>  | <b>13.5%</b> |           |           |
| Rigid HDPE #2 Containers                   | 4             | 0.0%         | 0.0% | 0.0%      | Pallets/Crates  | -              | 0.0%         | 0.0%      | 0.0%      |
| #3 to #7 Bottles or Jars                   | 10            | 0.0%         | 0.0% | 0.0%      | Clean Lumber  | 540            | 0.3%         | 0.5%      | 0.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 695           | 0.4%         | 0.3% | 0.2%      | Painted and Stained Wood                                      | 352            | 0.2%         | 0.3%      | 0.2%      |
| All Other Rigid Plastic Packaging          | 89            | 0.1%         | 0.1% | 0.0%      | Other Engineered Wood   | 1,604          | 1.0%         | 1.1%      | 0.7%      |
| White Expanded Polystyrene (Styrofoam)     | 730           | 0.5%         | 0.2% | 0.1%      | Wood Furniture  | 2,261          | 1.4%         | 2.3%      | 1.4%      |
| Recoverable Film                           | 553           | 0.3%         | 0.2% | 0.1%      | Other Wood  | 2,131          | 1.3%         | 1.3%      | 0.8%      |
| All Other Film                             | 10,646        | 6.6%         | 1.8% | 1.1%      | Asphalt Roofing   | -              | 0.0%         | 0.0%      | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 48            | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks                           | 10,815         | 6.7%         | 10.7%     | 6.5%      |
| Large Plastic Items                        | 376           | 0.2%         | 0.3% | 0.2%      | Drywall/Gypsum Board  | 30             | 0.0%         | 0.0%      | 0.0%      |
| Remainder/Composite Plastic                | 5,757         | 3.6%         | 1.0% | 0.6%      | Remainder/Composite C&D                                       | 4,161          | 2.6%         | 3.3%      | 2.0%      |
|  |               |              |      |           |   |                |              |           |           |
| <b>Organic</b>                             | <b>72,921</b> | <b>45.1%</b> |      |           | <b>Other</b>  | <b>1,105</b>   | <b>0.7%</b>  |           |           |
| Vegetative Food Waste, Unpackaged          | 19,367        | 12.0%        | 6.6% | 4.0%      | Tires   | -              | 0.0%         | 0.0%      | 0.0%      |
| Protein Food Waste, Unpackaged             | 5,316         | 3.3%         | 2.5% | 1.5%      | Small Appliances  | -              | 0.0%         | 0.0%      | 0.0%      |
| Food Waste in Plastic Packaging            | 11,347        | 7.0%         | 2.6% | 1.6%      | Large Electronics   | -              | 0.0%         | 0.0%      | 0.0%      |
| Food Waste in Other Packaging              | 1,771         | 1.1%         | 1.0% | 0.6%      | Other Small Consumer Electronics                              | 597            | 0.4%         | 0.6%      | 0.4%      |
| Leaves, Grass, and Brush                   | 9,192         | 5.7%         | 4.5% | 2.7%      | Items with CRTs   | -              | 0.0%         | 0.0%      | 0.0%      |
| Branches and Stumps                        | 661           | 0.4%         | 0.7% | 0.4%      | Other Large Electronics                                       | -              | 0.0%         | 0.0%      | 0.0%      |
| Textiles                                   | 10,125        | 6.3%         | 7.7% | 4.7%      | Other Haz. or Household Haz. Waste (HHW)                      | 239            | 0.1%         | 0.1%      | 0.1%      |
| Rubber/Leather                             | 771           | 0.5%         | 0.3% | 0.2%      | All Other Wastes  | 270            | 0.2%         | 0.1%      | 0.1%      |
| Diapers and Sanitary Products              | 2,601         | 1.6%         | 1.3% | 0.8%      |   |                |              |           |           |
| Carpet and Carpet Padding                  | 9,525         | 5.9%         | 8.2% | 5.0%      | <b>Hauler Collected MSW Tons</b>                              | <b>151,901</b> |              |           |           |
| Remainder/Composite Organic                | 2,243         | 1.4%         | 0.8% | 0.5%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>9,836</b>   |              |           |           |
|  |               |              |      |           |   |                |              |           |           |
|  |               |              |      |           | <b>Totals</b>   | <b>161,737</b> | <b>100%</b>  |           |           |
|  |               |              |      |           | <b>Sample Count</b>   |                |              | <b>10</b> |           |

Confidence intervals calculated at a 90% confidence level.

## Pine Tree Transfer Station

**Table 16. Overall MSW Composition, Pine Tree Transfer Station**

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean         | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>14,508</b> | <b>22.6%</b> |      |           | <b>Metal</b>  | <b>1,841</b>  | <b>2.9%</b>  |      |           |
| Newspaper and Inserts                      | 938           | 1.5%         | 0.8% | 0.5%      | Tin/Steel Containers  | 519           | 0.8%         | 0.3% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 3,768         | 5.9%         | 3.5% | 2.2%      | Other Ferrous   | 685           | 1.1%         | 0.8% | 0.5%      |
| High Grade Office Paper                    | 1,289         | 2.0%         | 1.8% | 1.1%      | Aluminum Beverage & Cat Food Containers                       | 223           | 0.3%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 2,022         | 3.2%         | 1.4% | 0.8%      | Other Aluminum  | 159           | 0.2%         | 0.1% | 0.0%      |
| Compostable Paper                          | 5,104         | 8.0%         | 1.4% | 0.8%      | Other Non-Ferrous   | 255           | 0.4%         | 0.5% | 0.3%      |
| Aseptic Boxes and Gable Top Cartons        | 135           | 0.2%         | 0.1% | 0.1%      | <b>Glass</b>  | <b>739</b>    | <b>1.2%</b>  |      |           |
| Remainder/Composite Paper                  | 1,252         | 2.0%         | 1.0% | 0.6%      | Glass Bottles and Jars  | 654           | 1.0%         | 0.4% | 0.2%      |
| <b>Plastic</b>                             | <b>6,932</b>  | <b>10.8%</b> |      |           | Remainder/Composite Glass                                     | 85            | 0.1%         | 0.1% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 852           | 1.3%         | 0.3% | 0.2%      | <b>C&amp;D</b>  | <b>8,975</b>  | <b>14.0%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 607           | 0.9%         | 0.2% | 0.1%      | Pallets/Crates  | 517           | 0.8%         | 0.9% | 0.6%      |
| Rigid HDPE #2 Containers                   | 27            | 0.0%         | 0.0% | 0.0%      | Clean Lumber  | 1,672         | 2.6%         | 2.1% | 1.3%      |
| #3 to #7 Bottles or Jars                   | 116           | 0.2%         | 0.2% | 0.1%      | Painted and Stained Wood                                      | 130           | 0.2%         | 0.3% | 0.2%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 152           | 0.2%         | 0.2% | 0.1%      | Other Engineered Wood   | 2,159         | 3.4%         | 2.4% | 1.5%      |
| All Other Rigid Plastic Packaging          | 182           | 0.3%         | 0.2% | 0.1%      | Wood Furniture  | 3,015         | 4.7%         | 3.9% | 2.4%      |
| White Expanded Polystyrene (Styrofoam)     | 266           | 0.4%         | 0.1% | 0.1%      | Other Wood  | 113           | 0.2%         | 0.1% | 0.1%      |
| Recoverable Film                           | 394           | 0.6%         | 0.2% | 0.1%      | Asphalt Roofing   | 322           | 0.5%         | 0.8% | 0.5%      |
| All Other Film                             | 2,922         | 4.6%         | 0.9% | 0.6%      | Asphalt, Brick, Concrete, and Rocks                           | 232           | 0.4%         | 0.6% | 0.3%      |
| Agricultural Film & Marine Shrink Wrap     | 19            | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board  | 1             | 0.0%         | 0.0% | 0.0%      |
| Large Plastic Items                        | 80            | 0.1%         | 0.2% | 0.1%      | Remainder/Composite C&D                                       | 813           | 1.3%         | 1.3% | 0.8%      |
| Remainder/Composite Plastic                | 1,317         | 2.1%         | 0.6% | 0.4%      | <b>Other</b>  | <b>3,102</b>  | <b>4.8%</b>  |      |           |
| <b>Organic</b>                             | <b>28,039</b> | <b>43.7%</b> |      |           | Tires   | -             | 0.0%         | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 4,781         | 7.5%         | 3.3% | 2.0%      | Small Appliances  | 293           | 0.5%         | 0.7% | 0.4%      |
| Protein Food Waste, Unpackaged             | 1,855         | 2.9%         | 1.2% | 0.8%      | Large Electronics   | -             | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 4,436         | 6.9%         | 1.5% | 0.9%      | Other Small Consumer Electronics                              | 228           | 0.4%         | 0.2% | 0.1%      |
| Food Waste in Other Packaging              | 1,388         | 2.2%         | 1.5% | 0.9%      | Items with CRTs   | -             | 0.0%         | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 4,171         | 6.5%         | 3.8% | 2.3%      | Other Larger Electronics                                      | -             | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | -             | 0.0%         | 0.0% | 0.0%      | Other Haz. or Household Haz. Waste (HHW)                      | 440           | 0.7%         | 0.4% | 0.2%      |
| Textiles                                   | 4,033         | 6.3%         | 2.4% | 1.5%      | All Other Wastes  | 2,140         | 3.3%         | 1.7% | 1.0%      |
| Rubber/Leather                             | 370           | 0.6%         | 0.3% | 0.2%      | <b>Hauler Collected MSW Tons</b>                              | <b>62,009</b> |              |      |           |
| Diapers and Sanitary Products              | 2,118         | 3.3%         | 1.2% | 0.7%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>2,126</b>  |              |      |           |
| Carpet and Carpet Padding                  | 3,431         | 5.3%         | 3.2% | 1.9%      |   |               |              |      |           |
| Remainder/Composite Organic                | 1,457         | 2.3%         | 1.0% | 0.6%      |   |               |              |      |           |
|  |               |              |      |           | <b>Totals</b>   | <b>64,135</b> | <b>100%</b>  |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>25</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

Table 17. Composition of Residential MSW, Pine Tree Transfer Station

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean         | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>7,682</b>  | <b>19.4%</b> |      |           | <b>Metal</b>  | <b>1,068</b>  | <b>2.7%</b>  |      |           |
| Newsprint and Inserts                      | 482           | 1.2%         | 0.6% | 0.3%      | Tin/Steel Containers  | 245           | 0.6%         | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 1,157         | 2.9%         | 1.1% | 0.7%      | Other Ferrous   | 352           | 0.9%         | 0.7% | 0.4%      |
| High Grade Office Paper                    | 365           | 0.9%         | 0.6% | 0.4%      | Aluminum Beverage & Cat Food Containers                       | 159           | 0.4%         | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 1,607         | 4.1%         | 2.2% | 1.3%      | Other Aluminum  | 105           | 0.3%         | 0.1% | 0.0%      |
| Compostable Paper                          | 3,172         | 8.0%         | 1.8% | 1.1%      | Other Non-Ferrous   | 206           | 0.5%         | 0.8% | 0.5%      |
| Aseptic Boxes and Gable Top Cartons        | 58            | 0.1%         | 0.1% | 0.1%      |   |               |              |      |           |
| Remainder/Composite Paper                  | 842           | 2.1%         | 1.2% | 0.7%      | <b>Glass</b>  | <b>355</b>    | <b>0.9%</b>  |      |           |
|  |               |              |      |           | Glass Bottles and Jars  | 277           | 0.7%         | 0.3% | 0.2%      |
| <b>Plastic</b>                             | <b>4,329</b>  | <b>10.9%</b> |      |           | Remainder/Composite Glass                                     | 78            | 0.2%         | 0.1% | 0.1%      |
| PET #1 Bottles, Jars, or Containers        | 525           | 1.3%         | 0.3% | 0.2%      |   |               |              |      |           |
| HDPE #2 Natural and Colored Bottles        | 382           | 1.0%         | 0.3% | 0.2%      | <b>C&amp;D</b>  | <b>5,417</b>  | <b>13.7%</b> |      |           |
| Rigid HDPE #2 Containers                   | 23            | 0.1%         | 0.1% | 0.0%      | Pallets/Crates  | -             | 0.0%         | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 101           | 0.3%         | 0.3% | 0.2%      | Clean Lumber  | 802           | 2.0%         | 2.2% | 1.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 39            | 0.1%         | 0.1% | 0.0%      | Painted and Stained Wood                                      | 130           | 0.3%         | 0.4% | 0.3%      |
| All Other Rigid Plastic Packaging          | 171           | 0.4%         | 0.4% | 0.2%      | Other Engineered Wood   | 1,266         | 3.2%         | 2.4% | 1.5%      |
| White Expanded Polystyrene (Styrofoam)     | 134           | 0.3%         | 0.1% | 0.1%      | Wood Furniture  | 2,031         | 5.1%         | 5.9% | 3.6%      |
| Recoverable Film                           | 243           | 0.6%         | 0.1% | 0.1%      | Other Wood  | 76            | 0.2%         | 0.2% | 0.1%      |
| All Other Film                             | 1,701         | 4.3%         | 0.8% | 0.5%      | Asphalt Roofing   | 322           | 0.8%         | 1.2% | 0.8%      |
| Agricultural Film & Marine Shrink Wrap     | 19            | 0.0%         | 0.1% | 0.0%      | Asphalt, Brick, Concrete, and Rocks                           | 11            | 0.0%         | 0.0% | 0.0%      |
| Large Plastic Items                        | 80            | 0.2%         | 0.3% | 0.2%      | Drywall/Gypsum Board  | 1             | 0.0%         | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 912           | 2.3%         | 1.0% | 0.6%      | Remainder/Composite C&D                                       | 779           | 2.0%         | 2.2% | 1.3%      |
|  |               |              |      |           |   |               |              |      |           |
| <b>Organic</b>                             | <b>17,836</b> | <b>45.0%</b> |      |           | <b>Other</b>  | <b>2,934</b>  | <b>7.4%</b>  |      |           |
| Vegetative Food Waste, Unpackaged          | 1,646         | 4.2%         | 1.7% | 1.0%      | Tires   | -             | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 785           | 2.0%         | 1.1% | 0.7%      | Small Appliances  | 293           | 0.7%         | 1.1% | 0.7%      |
| Food Waste in Plastic Packaging            | 2,550         | 6.4%         | 1.6% | 1.0%      | Large Electronics   | -             | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 923           | 2.3%         | 2.3% | 1.4%      | Other Small Consumer Electronics                              | 194           | 0.5%         | 0.3% | 0.2%      |
| Leaves, Grass, and Brush                   | 3,858         | 9.7%         | 6.2% | 3.7%      | Items with CRTs   | -             | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | -             | 0.0%         | 0.0% | 0.0%      | Other Larger Electronics                                      | -             | 0.0%         | 0.0% | 0.0%      |
| Textiles                                   | 2,451         | 6.2%         | 3.3% | 2.0%      | Other Haz. or Household Haz. Waste (HHW)                      | 412           | 1.0%         | 0.6% | 0.4%      |
| Rubber/Leather                             | 150           | 0.4%         | 0.3% | 0.2%      | All Other Wastes  | 2,035         | 5.1%         | 2.7% | 1.7%      |
| Diapers and Sanitary Products              | 1,620         | 4.1%         | 1.8% | 1.1%      |   |               |              |      |           |
| Carpet and Carpet Padding                  | 2,616         | 6.6%         | 4.5% | 2.7%      | <b>Hauler Collected MSW Tons</b>                              | <b>37,945</b> |              |      |           |
| Remainder/Composite Organic                | 1,237         | 3.1%         | 1.6% | 1.0%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>1,676</b>  |              |      |           |
|  |               |              |      |           |   |               |              |      |           |
|  |               |              |      |           | <b>Totals</b>   | <b>39,621</b> | <b>100%</b>  |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>12</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

Table 18. Composition of ICI MSW, Pine Tree Transfer Station

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean         | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>6,826</b>  | <b>27.8%</b> |      |           | <b>Metal</b>  | <b>773</b>    | <b>3.2%</b>  |      |           |
| Newsprint and Inserts                      | 456           | 1.9%         | 1.9% | 1.2%      | Tin/Steel Containers  | 274           | 1.1%         | 0.6% | 0.4%      |
| Corrugated Cardboard/Kraft Paper           | 2,610         | 10.6%        | 9.1% | 5.5%      | Other Ferrous   | 332           | 1.4%         | 1.8% | 1.1%      |
| High Grade Office Paper                    | 924           | 3.8%         | 4.5% | 2.7%      | Aluminum Beverage & Cat Food Containers                       | 63            | 0.3%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 416           | 1.7%         | 0.8% | 0.5%      | Other Aluminum  | 54            | 0.2%         | 0.1% | 0.1%      |
| Compostable Paper                          | 1,932         | 7.9%         | 2.0% | 1.2%      | Other Non-Ferrous   | 49            | 0.2%         | 0.2% | 0.2%      |
| Aseptic Boxes and Gable Top Cartons        | 78            | 0.3%         | 0.3% | 0.2%      |   |               |              |      |           |
| Remainder/Composite Paper                  | 409           | 1.7%         | 1.8% | 1.1%      | <b>Glass</b>  | <b>383</b>    | <b>1.6%</b>  |      |           |
|  |               |              |      |           | Glass Bottles and Jars  | 376           | 1.5%         | 1.0% | 0.6%      |
| <b>Plastic</b>                             | <b>2,602</b>  | <b>10.6%</b> |      |           | Remainder/Composite Glass                                     | 7             | 0.0%         | 0.0% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 327           | 1.3%         | 0.5% | 0.3%      |   |               |              |      |           |
| HDPE #2 Natural and Colored Bottles        | 225           | 0.9%         | 0.2% | 0.1%      | <b>C&amp;D</b>  | <b>3,558</b>  | <b>14.5%</b> |      |           |
| Rigid HDPE #2 Containers                   | 3             | 0.0%         | 0.0% | 0.0%      | Pallets/Crates  | 517           | 2.1%         | 2.4% | 1.5%      |
| #3 to #7 Bottles or Jars                   | 15            | 0.1%         | 0.1% | 0.0%      | Clean Lumber  | 870           | 3.5%         | 4.2% | 2.5%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 113           | 0.5%         | 0.5% | 0.3%      | Painted and Stained Wood                                      | -             | 0.0%         | 0.0% | 0.0%      |
| All Other Rigid Plastic Packaging          | 11            | 0.0%         | 0.1% | 0.0%      | Other Engineered Wood   | 893           | 3.6%         | 5.0% | 3.1%      |
| White Expanded Polystyrene (Styrofoam)     | 132           | 0.5%         | 0.2% | 0.1%      | Wood Furniture  | 984           | 4.0%         | 3.5% | 2.1%      |
| Recoverable Film                           | 151           | 0.6%         | 0.4% | 0.3%      | Other Wood  | 37            | 0.2%         | 0.2% | 0.1%      |
| All Other Film                             | 1,221         | 5.0%         | 2.1% | 1.3%      | Asphalt Roofing   | -             | 0.0%         | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | -             | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks                           | 222           | 0.9%         | 1.5% | 0.9%      |
| Large Plastic Items                        | -             | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board  | -             | 0.0%         | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 405           | 1.7%         | 0.4% | 0.2%      | Remainder/Composite C&D                                       | 34            | 0.1%         | 0.2% | 0.1%      |
|  |               |              |      |           |   |               |              |      |           |
| <b>Organic</b>                             | <b>10,204</b> | <b>41.6%</b> |      |           | <b>Other</b>  | <b>167</b>    | <b>0.7%</b>  |      |           |
| Vegetative Food Waste, Unpackaged          | 3,135         | 12.8%        | 8.1% | 4.9%      | Tires   | -             | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 1,071         | 4.4%         | 2.7% | 1.7%      | Small Appliances  | -             | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 1,886         | 7.7%         | 2.9% | 1.8%      | Large Electronics   | -             | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 464           | 1.9%         | 1.2% | 0.8%      | Other Small Consumer Electronics                              | 34            | 0.1%         | 0.2% | 0.1%      |
| Leaves, Grass, and Brush                   | 313           | 1.3%         | 1.4% | 0.9%      | Items with CRTs   | -             | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | -             | 0.0%         | 0.0% | 0.0%      | Other Larger Electronics                                      | -             | 0.0%         | 0.0% | 0.0%      |
| Textiles                                   | 1,582         | 6.5%         | 3.5% | 2.1%      | Other Haz. or Household Haz. Waste (HHW)                      | 28            | 0.1%         | 0.1% | 0.0%      |
| Rubber/Leather                             | 220           | 0.9%         | 0.6% | 0.4%      | All Other Wastes  | 105           | 0.4%         | 0.4% | 0.3%      |
| Diapers and Sanitary Products              | 498           | 2.0%         | 1.4% | 0.9%      |   |               |              |      |           |
| Carpet and Carpet Padding                  | 815           | 3.3%         | 4.0% | 2.4%      | <b>Hauler Collected MSW Tons</b>                              | <b>24,064</b> |              |      |           |
| Remainder/Composite Organic                | 220           | 0.9%         | 0.6% | 0.3%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>450</b>    |              |      |           |
|  |               |              |      |           |   |               |              |      |           |
|  |               |              |      |           | <b>Totals</b>   | <b>24,514</b> | <b>100%</b>  |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>13</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

**Sandtown Landfill**

**Table 19. Overall Composition, Sandtown MSW**

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean        | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|-------------|------|-----------|
| <b>Paper</b>                               | <b>16,540</b> | <b>21.8%</b> |      |           | <b>Metal</b>  | <b>2,692</b>  | <b>3.6%</b> |      |           |
| Newspaper and Inserts                      | 985           | 1.3%         | 0.6% | 0.4%      | Tin/Steel Containers  | 790           | 1.0%        | 0.3% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 2,816         | 3.7%         | 1.1% | 0.7%      | Other Ferrous   | 1,035         | 1.4%        | 0.9% | 0.6%      |
| High Grade Office Paper                    | 629           | 0.8%         | 0.6% | 0.4%      | Aluminum Beverage & Cat Food Containers                       | 341           | 0.4%        | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 3,407         | 4.5%         | 1.3% | 0.8%      | Other Aluminum  | 209           | 0.3%        | 0.1% | 0.1%      |
| Compostable Paper                          | 7,800         | 10.3%        | 2.0% | 1.2%      | Other Non-Ferrous   | 319           | 0.4%        | 0.4% | 0.3%      |
| Aseptic Boxes and Gable Top Cartons        | 246           | 0.3%         | 0.3% | 0.2%      | <b>Glass</b>  | <b>1,975</b>  | <b>2.6%</b> |      |           |
| Remainder/Composite Paper                  | 657           | 0.9%         | 0.4% | 0.2%      | Glass Bottles and Jars  | 1,618         | 2.1%        | 0.8% | 0.5%      |
| <b>Plastic</b>                             | <b>15,787</b> | <b>20.8%</b> |      |           | Remainder/Composite Glass                                     | 357           | 0.5%        | 0.4% | 0.2%      |
| PET #1 Bottles, Jars, or Containers        | 1,234         | 1.6%         | 0.3% | 0.2%      | <b>C&amp;D</b>  | <b>6,696</b>  | <b>8.8%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 691           | 0.9%         | 0.2% | 0.1%      | Pallets/Crates  | 750           | 1.0%        | 0.9% | 0.6%      |
| Rigid HDPE #2 Containers                   | 150           | 0.2%         | 0.2% | 0.1%      | Clean Lumber  | 1,799         | 2.4%        | 1.4% | 0.8%      |
| #3 to #7 Bottles or Jars                   | 99            | 0.1%         | 0.1% | 0.1%      | Painted and Stained Wood                                      | 88            | 0.1%        | 0.1% | 0.1%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 106           | 0.1%         | 0.0% | 0.0%      | Other Engineered Wood   | 1,138         | 1.5%        | 1.4% | 0.9%      |
| All Other Rigid Plastic Packaging          | 17            | 0.0%         | 0.0% | 0.0%      | Wood Furniture  | 225           | 0.3%        | 0.5% | 0.3%      |
| White Expanded Polystyrene (Styrofoam)     | 361           | 0.5%         | 0.1% | 0.1%      | Other Wood  | 1,423         | 1.9%        | 1.2% | 0.7%      |
| Recoverable Film                           | 765           | 1.0%         | 0.4% | 0.2%      | Asphalt Roofing   | 457           | 0.6%        | 1.0% | 0.6%      |
| All Other Film                             | 5,137         | 6.8%         | 2.0% | 1.2%      | Asphalt, Brick, Concrete, and Rocks                           | 119           | 0.2%        | 0.2% | 0.1%      |
| Agricultural Film & Marine Shrink Wrap     | 379           | 0.5%         | 0.8% | 0.5%      | Drywall/Gypsum Board  | 110           | 0.1%        | 0.2% | 0.1%      |
| Large Plastic Items                        | 340           | 0.4%         | 0.7% | 0.4%      | Remainder/Composite C&D                                       | 585           | 0.8%        | 0.7% | 0.4%      |
| Remainder/Composite Plastic                | 6,509         | 8.6%         | 4.9% | 3.0%      | <b>Other</b>  | <b>3,021</b>  | <b>4.0%</b> |      |           |
| <b>Organic</b>                             | <b>29,033</b> | <b>38.3%</b> |      |           | Tires   | 204           | 0.3%        | 0.3% | 0.2%      |
| Vegetative Food Waste, Unpackaged          | 5,244         | 6.9%         | 2.3% | 1.4%      | Small Appliances  | -             | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 2,468         | 3.3%         | 1.3% | 0.8%      | Large Electronics   | 79            | 0.1%        | 0.2% | 0.1%      |
| Food Waste in Plastic Packaging            | 4,946         | 6.5%         | 1.9% | 1.1%      | Other Small Consumer Electronics                              | 48            | 0.1%        | 0.1% | 0.0%      |
| Food Waste in Other Packaging              | 2,874         | 3.8%         | 4.0% | 2.4%      | Items with CRTs   | 441           | 0.6%        | 1.0% | 0.6%      |
| Leaves, Grass, and Brush                   | 2,203         | 2.9%         | 2.7% | 1.7%      | Other Larger Electronics                                      | 4             | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 342           | 0.5%         | 0.4% | 0.3%      | Other Haz. or Household Haz. Waste (HHW)                      | 319           | 0.4%        | 0.2% | 0.1%      |
| Textiles                                   | 3,211         | 4.2%         | 1.6% | 0.9%      | All Other Wastes  | 1,926         | 2.5%        | 2.1% | 1.3%      |
| Rubber/Leather                             | 518           | 0.7%         | 0.3% | 0.2%      | <b>Hauler Collected MSW Tons</b>                              | <b>72,418</b> |             |      |           |
| Diapers and Sanitary Products              | 1,936         | 2.6%         | 0.7% | 0.4%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>3,326</b>  |             |      |           |
| Carpet and Carpet Padding                  | 1,850         | 2.4%         | 1.6% | 1.0%      |   |               |             |      |           |
| Remainder/Composite Organic                | 3,441         | 4.5%         | 3.0% | 1.8%      |   |               |             |      |           |
|  |               |              |      |           | <b>Totals</b>   | <b>75,745</b> | <b>100%</b> |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>31</b>   |      |           |

Confidence intervals calculated at a 90% confidence level.



Table 20. Composition of Residential MSW, Sandtown Landfill

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean        | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|-------------|------|-----------|
| <b>Paper</b>                               | <b>7,610</b>  | <b>20.8%</b> |      |           | <b>Metal</b>  | <b>1,461</b>  | <b>4.0%</b> |      |           |
| Newsprint and Inserts                      | 382           | 1.0%         | 0.3% | 0.2%      | Tin/Steel Containers  | 608           | 1.7%        | 0.6% | 0.4%      |
| Corrugated Cardboard/Kraft Paper           | 1,004         | 2.7%         | 0.9% | 0.5%      | Other Ferrous   | 385           | 1.1%        | 0.9% | 0.5%      |
| High Grade Office Paper                    | 108           | 0.3%         | 0.2% | 0.1%      | Aluminum Beverage & Cat Food Containers                       | 271           | 0.7%        | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 1,890         | 5.2%         | 2.0% | 1.2%      | Other Aluminum  | 156           | 0.4%        | 0.2% | 0.1%      |
| Compostable Paper                          | 3,837         | 10.5%        | 1.5% | 0.9%      | Other Non-Ferrous   | 41            | 0.1%        | 0.1% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 60            | 0.2%         | 0.1% | 0.0%      |   |               |             |      |           |
| Remainder/Composite Paper                  | 330           | 0.9%         | 0.2% | 0.1%      | <b>Glass</b>  | <b>931</b>    | <b>2.5%</b> |      |           |
|  |               |              |      |           | Glass Bottles and Jars  | 689           | 1.9%        | 0.6% | 0.4%      |
|  |               |              |      |           | Remainder/Composite Glass                                     | 242           | 0.7%        | 0.7% | 0.4%      |
| <b>Plastic</b>                             | <b>6,185</b>  | <b>16.9%</b> |      |           | <b>C&amp;D</b>  | <b>2,309</b>  | <b>6.3%</b> |      |           |
| PET #1 Bottles, Jars, or Containers        | 684           | 1.9%         | 0.3% | 0.2%      | Pallets/Crates  | -             | 0.0%        | 0.0% | 0.0%      |
| HDPE #2 Natural and Colored Bottles        | 467           | 1.3%         | 0.2% | 0.2%      | Clean Lumber  | 664           | 1.8%        | 1.4% | 0.9%      |
| Rigid HDPE #2 Containers                   | 102           | 0.3%         | 0.4% | 0.2%      | Painted and Stained Wood                                      | 74            | 0.2%        | 0.2% | 0.1%      |
| #3 to #7 Bottles or Jars                   | 70            | 0.2%         | 0.2% | 0.1%      | Other Engineered Wood   | 492           | 1.3%        | 2.1% | 1.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 76            | 0.2%         | 0.1% | 0.0%      | Wood Furniture  | -             | 0.0%        | 0.0% | 0.0%      |
| All Other Rigid Plastic Packaging          | 10            | 0.0%         | 0.0% | 0.0%      | Other Wood  | 945           | 2.6%        | 1.9% | 1.2%      |
| White Expanded Polystyrene (Styrofoam)     | 210           | 0.6%         | 0.1% | 0.1%      | Asphalt Roofing   | -             | 0.0%        | 0.0% | 0.0%      |
| Recoverable Film                           | 451           | 1.2%         | 0.7% | 0.4%      | Asphalt, Brick, Concrete, and Rocks                           | 29            | 0.1%        | 0.1% | 0.1%      |
| All Other Film                             | 2,213         | 6.1%         | 1.5% | 0.9%      | Drywall/Gypsum Board  | 78            | 0.2%        | 0.3% | 0.2%      |
| Agricultural Film & Marine Shrink Wrap     | 379           | 1.0%         | 1.6% | 1.0%      | Remainder/Composite C&D                                       | 27            | 0.1%        | 0.1% | 0.0%      |
| Large Plastic Items                        | 340           | 0.9%         | 1.5% | 0.9%      |   |               |             |      |           |
| Remainder/Composite Plastic                | 1,183         | 3.2%         | 0.4% | 0.2%      | <b>Other</b>  | <b>564</b>    | <b>1.5%</b> |      |           |
|  |               |              |      |           | Tires   | 60            | 0.2%        | 0.3% | 0.2%      |
| <b>Organic</b>                             | <b>17,456</b> | <b>47.8%</b> |      |           | Small Appliances  | -             | 0.0%        | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 2,709         | 7.4%         | 2.5% | 1.5%      | Large Electronics   | 4             | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 1,361         | 3.7%         | 1.1% | 0.6%      | Other Small Consumer Electronics                              | 39            | 0.1%        | 0.1% | 0.1%      |
| Food Waste in Plastic Packaging            | 2,783         | 7.6%         | 2.5% | 1.5%      | Items with CRTs   | -             | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 278           | 0.8%         | 0.3% | 0.2%      | Other Large Electronics                                       | 4             | 0.0%        | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 1,712         | 4.7%         | 5.2% | 3.2%      | Other Haz. or Household Haz. Waste (HHW)                      | 177           | 0.5%        | 0.3% | 0.2%      |
| Branches and Stumps                        | 342           | 0.9%         | 0.9% | 0.5%      | All Other Wastes  | 280           | 0.8%        | 0.8% | 0.5%      |
| Textiles                                   | 2,217         | 6.1%         | 2.0% | 1.2%      |   |               |             |      |           |
| Rubber/Leather                             | 259           | 0.7%         | 0.4% | 0.3%      | <b>Hauler Collected MSW Tons</b>                              | <b>33,369</b> |             |      |           |
| Diapers and Sanitary Products              | 1,421         | 3.9%         | 1.1% | 0.7%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>3,147</b>  |             |      |           |
| Carpet and Carpet Padding                  | 1,472         | 4.0%         | 3.2% | 1.9%      |   |               |             |      |           |
| Remainder/Composite Organic                | 2,900         | 7.9%         | 6.2% | 3.7%      | <b>Totals</b>   | <b>36,516</b> | <b>100%</b> |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>12</b>   |      |           |

Confidence intervals calculated at a 90% confidence level.

Table 21. Composition of ICI MSW, Sandtown Landfill

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean         | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>8,930</b>  | <b>22.8%</b> |      |           | <b>Metal</b>  | <b>1,231</b>  | <b>3.1%</b>  |      |           |
| Newsprint and Inserts                      | 603           | 1.5%         | 1.1% | 0.7%      | Tin/Steel Containers  | 182           | 0.5%         | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 1,812         | 4.6%         | 2.0% | 1.2%      | Other Ferrous   | 650           | 1.7%         | 1.6% | 1.0%      |
| High Grade Office Paper                    | 522           | 1.3%         | 1.1% | 0.7%      | Aluminum Beverage & Cat Food Containers                       | 69            | 0.2%         | 0.1% | 0.0%      |
| Mixed Recyclable Paper                     | 1,517         | 3.9%         | 1.8% | 1.1%      | Other Aluminum  | 53            | 0.1%         | 0.1% | 0.0%      |
| Compostable Paper                          | 3,962         | 10.1%        | 3.7% | 2.2%      | Other Non-Ferrous   | 278           | 0.7%         | 0.9% | 0.5%      |
| Aseptic Boxes and Gable Top Cartons        | 187           | 0.5%         | 0.5% | 0.3%      |   |               |              |      |           |
| Remainder/Composite Paper                  | 327           | 0.8%         | 0.7% | 0.4%      | <b>Glass</b>  | <b>1,044</b>  | <b>2.7%</b>  |      |           |
|  |               |              |      |           | Glass Bottles and Jars  | 930           | 2.4%         | 1.4% | 0.8%      |
|  |               |              |      |           | Remainder/Composite Glass                                     | 115           | 0.3%         | 0.3% | 0.2%      |
| <b>Plastic</b>                             | <b>9,601</b>  | <b>24.5%</b> |      |           | <b>C&amp;D</b>  | <b>4,388</b>  | <b>11.2%</b> |      |           |
| PET #1 Bottles, Jars, or Containers        | 549           | 1.4%         | 0.5% | 0.3%      | Pallets/Crates  | 750           | 1.9%         | 1.8% | 1.1%      |
| HDPE #2 Natural and Colored Bottles        | 224           | 0.6%         | 0.2% | 0.1%      | Clean Lumber  | 1,135         | 2.9%         | 2.3% | 1.4%      |
| Rigid HDPE #2 Containers                   | 47            | 0.1%         | 0.1% | 0.1%      | Painted and Stained Wood                                      | 15            | 0.0%         | 0.1% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 29            | 0.1%         | 0.1% | 0.0%      | Other Engineered Wood   | 645           | 1.6%         | 1.9% | 1.2%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 30            | 0.1%         | 0.0% | 0.0%      | Wood Furniture  | 225           | 0.6%         | 0.9% | 0.6%      |
| All Other Rigid Plastic Packaging          | 7             | 0.0%         | 0.0% | 0.0%      | Other Wood  | 479           | 1.2%         | 1.4% | 0.8%      |
| White Expanded Polystyrene (Styrofoam)     | 152           | 0.4%         | 0.2% | 0.1%      | Asphalt Roofing   | 457           | 1.2%         | 1.9% | 1.2%      |
| Recoverable Film                           | 314           | 0.8%         | 0.5% | 0.3%      | Asphalt, Brick, Concrete, and Rocks                           | 91            | 0.2%         | 0.3% | 0.2%      |
| All Other Film                             | 2,925         | 7.5%         | 3.6% | 2.2%      | Drywall/Gypsum Board  | 32            | 0.1%         | 0.1% | 0.1%      |
| Agricultural Film & Marine Shrink Wrap     | -             | 0.0%         | 0.0% | 0.0%      | Remainder/Composite C&D                                       | 559           | 1.4%         | 1.3% | 0.8%      |
| Large Plastic Items                        | -             | 0.0%         | 0.0% | 0.0%      |   |               |              |      |           |
| Remainder/Composite Plastic                | 5,325         | 13.6%        | 9.4% | 5.7%      | <b>Other</b>  | <b>2,456</b>  | <b>6.3%</b>  |      |           |
|  |               |              |      |           | Tires   | 143           | 0.4%         | 0.6% | 0.4%      |
| <b>Organic</b>                             | <b>11,577</b> | <b>29.5%</b> |      |           | Small Appliances  | -             | 0.0%         | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 2,535         | 6.5%         | 3.9% | 2.4%      | Large Electronics   | 75            | 0.2%         | 0.3% | 0.2%      |
| Protein Food Waste, Unpackaged             | 1,106         | 2.8%         | 2.4% | 1.5%      | Other Small Consumer Electronics                              | 9             | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 2,163         | 5.5%         | 2.8% | 1.7%      | Items with CRTs   | 441           | 1.1%         | 1.9% | 1.1%      |
| Food Waste in Other Packaging              | 2,595         | 6.6%         | 7.8% | 4.7%      | Other Large Electronics                                       | -             | 0.0%         | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 491           | 1.3%         | 2.1% | 1.3%      | Other Haz. or Household Haz. Waste (HHW)                      | 141           | 0.4%         | 0.3% | 0.2%      |
| Branches and Stumps                        | -             | 0.0%         | 0.0% | 0.0%      | All Other Wastes  | 1,646         | 4.2%         | 4.1% | 2.5%      |
| Textiles                                   | 994           | 2.5%         | 2.4% | 1.4%      |   |               |              |      |           |
| Rubber/Leather                             | 259           | 0.7%         | 0.4% | 0.2%      | <b>Hauler Collected MSW Tons</b>                              | <b>39,050</b> |              |      |           |
| Diapers and Sanitary Products              | 515           | 1.3%         | 0.8% | 0.5%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>179</b>    |              |      |           |
| Carpet and Carpet Padding                  | 378           | 1.0%         | 1.1% | 0.7%      |   |               |              |      |           |
| Remainder/Composite Organic                | 541           | 1.4%         | 0.5% | 0.3%      | <b>Totals</b>   | <b>39,229</b> | <b>100%</b>  |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>19</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

**Milford Transfer Station**

**Table 22. Composition of Overall MSW, Milford Transfer Station**

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean        | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|-------------|------|-----------|
| <b>Paper</b>                               | <b>9,410</b>  | <b>25.3%</b> |      |           | <b>Metal</b>  | <b>1,456</b>  | <b>3.9%</b> |      |           |
| Newspaper and Inserts                      | 329           | 0.9%         | 0.3% | 0.2%      | Tin/Steel Containers  | 420           | 1.1%        | 0.4% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 1,713         | 4.6%         | 2.0% | 1.2%      | Other Ferrous   | 596           | 1.6%        | 1.4% | 0.9%      |
| High Grade Office Paper                    | 421           | 1.1%         | 0.7% | 0.4%      | Aluminum Beverage & Cat Food Containers                       | 209           | 0.6%        | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 1,275         | 3.4%         | 1.3% | 0.8%      | Other Aluminum  | 182           | 0.5%        | 0.2% | 0.1%      |
| Compostable Paper                          | 4,063         | 10.9%        | 1.6% | 1.0%      | Other Non-Ferrous   | 48            | 0.1%        | 0.1% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 133           | 0.4%         | 0.5% | 0.3%      | <b>Glass</b>  | <b>706</b>    | <b>1.9%</b> |      |           |
| Remainder/Composite Paper                  | 1,475         | 4.0%         | 2.3% | 1.4%      | Glass Bottles and Jars  | 543           | 1.5%        | 0.5% | 0.3%      |
| <b>Plastic</b>                             | <b>6,810</b>  | <b>18.3%</b> |      |           | Remainder/Composite Glass                                     | 164           | 0.4%        | 0.5% | 0.3%      |
| PET #1 Bottles, Jars, or Containers        | 614           | 1.6%         | 0.3% | 0.2%      | <b>C&amp;D</b>  | <b>1,164</b>  | <b>3.1%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 361           | 1.0%         | 0.3% | 0.2%      | Pallets/Crates  | 91            | 0.2%        | 0.3% | 0.2%      |
| Rigid HDPE #2 Containers                   | 47            | 0.1%         | 0.2% | 0.1%      | Clean Lumber  | 329           | 0.9%        | 0.7% | 0.4%      |
| #3 to #7 Bottles or Jars                   | 34            | 0.1%         | 0.1% | 0.1%      | Painted and Stained Wood                                      | 35            | 0.1%        | 0.1% | 0.1%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 112           | 0.3%         | 0.1% | 0.1%      | Other Engineered Wood   | 116           | 0.3%        | 0.3% | 0.2%      |
| All Other Rigid Plastic Packaging          | 21            | 0.1%         | 0.1% | 0.0%      | Wood Furniture  | 28            | 0.1%        | 0.1% | 0.1%      |
| White Expanded Polystyrene (Styrofoam)     | 391           | 1.0%         | 0.5% | 0.3%      | Other Wood  | 263           | 0.7%        | 0.5% | 0.3%      |
| Recoverable Film                           | 234           | 0.6%         | 0.3% | 0.2%      | Asphalt Roofing   | -             | 0.0%        | 0.0% | 0.0%      |
| All Other Film                             | 2,593         | 7.0%         | 1.6% | 1.0%      | Asphalt, Brick, Concrete, and Rocks                           | 177           | 0.5%        | 0.8% | 0.5%      |
| Agricultural Film & Marine Shrink Wrap     | 35            | 0.1%         | 0.2% | 0.1%      | Drywall/Gypsum Board  | 72            | 0.2%        | 0.3% | 0.2%      |
| Large Plastic Items                        | 84            | 0.2%         | 0.4% | 0.2%      | Remainder/Composite C&D                                       | 53            | 0.1%        | 0.1% | 0.1%      |
| Remainder/Composite Plastic                | 2,283         | 6.1%         | 2.3% | 1.4%      | <b>Other</b>  | <b>2,801</b>  | <b>7.5%</b> |      |           |
| <b>Organic</b>                             | <b>14,919</b> | <b>40.0%</b> |      |           | Tires   | -             | 0.0%        | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 3,581         | 9.6%         | 2.9% | 1.8%      | Small Appliances  | -             | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 1,365         | 3.7%         | 1.1% | 0.7%      | Large Electronics   | 99            | 0.3%        | 0.4% | 0.3%      |
| Food Waste in Plastic Packaging            | 2,477         | 6.6%         | 1.9% | 1.1%      | Other Small Consumer Electronics                              | 58            | 0.2%        | 0.1% | 0.1%      |
| Food Waste in Other Packaging              | 561           | 1.5%         | 0.8% | 0.5%      | Items with CRTs   | -             | 0.0%        | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 1,757         | 4.7%         | 2.8% | 1.7%      | Other Larger Electronics                                      | 10            | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 493           | 1.3%         | 1.4% | 0.9%      | Other Haz. or Household Haz. Waste (HHW)                      | 423           | 1.1%        | 1.3% | 0.8%      |
| Textiles                                   | 934           | 2.5%         | 0.7% | 0.4%      | All Other Wastes  | 2,211         | 5.9%        | 2.2% | 1.3%      |
| Rubber/Leather                             | 591           | 1.6%         | 0.9% | 0.5%      | <b>Hauler Collected MSW Tons</b>                              | <b>35,236</b> |             |      |           |
| Diapers and Sanitary Products              | 1,294         | 3.5%         | 1.1% | 0.7%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>2,030</b>  |             |      |           |
| Carpet and Carpet Padding                  | 402           | 1.1%         | 1.8% | 1.1%      |   |               |             |      |           |
| Remainder/Composite Organic                | 1,465         | 3.9%         | 2.1% | 1.3%      |   |               |             |      |           |
|  |               |              |      |           | <b>Totals</b>   | <b>37,266</b> | <b>100%</b> |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>22</b>   |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 23. Composition of Residential MSW, Milford Transfer Station**

| Material                                   | Est. Tons    | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean         | +/-  | Std. Dev. |
|--|--------------|--------------|------|-----------|---|---------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>5,150</b> | <b>22.9%</b> |      |           | <b>Metal</b>  | <b>864</b>    | <b>3.8%</b>  |      |           |
| Newspaper and Inserts                      | 270          | 1.2%         | 0.4% | 0.3%      | Tin/Steel Containers  | 320           | 1.4%         | 0.6% | 0.4%      |
| Corrugated Cardboard/Kraft Paper           | 706          | 3.1%         | 1.5% | 0.9%      | Other Ferrous   | 227           | 1.0%         | 0.9% | 0.5%      |
| High Grade Office Paper                    | 187          | 0.8%         | 0.4% | 0.3%      | Aluminum Beverage & Cat Food Containers                       | 169           | 0.8%         | 0.3% | 0.2%      |
| Mixed Recyclable Paper                     | 835          | 3.7%         | 2.0% | 1.2%      | Other Aluminum  | 122           | 0.5%         | 0.2% | 0.1%      |
| Compostable Paper                          | 2,572        | 11.5%        | 1.7% | 1.0%      | Other Non-Ferrous   | 25            | 0.1%         | 0.1% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 29           | 0.1%         | 0.1% | 0.0%      |   |               |              |      |           |
| Remainder/Composite Paper                  | 554          | 2.5%         | 1.6% | 1.0%      | <b>Glass</b>  | <b>580</b>    | <b>2.6%</b>  |      |           |
|  |              |              |      |           | Glass Bottles and Jars  | 419           | 1.9%         | 0.8% | 0.5%      |
| <b>Plastic</b>                             | <b>3,194</b> | <b>14.2%</b> |      |           | Remainder/Composite Glass                                     | 161           | 0.7%         | 0.8% | 0.5%      |
| PET #1 Bottles, Jars, or Containers        | 426          | 1.9%         | 0.4% | 0.3%      |   |               |              |      |           |
| HDPE #2 Natural and Colored Bottles        | 224          | 1.0%         | 0.3% | 0.2%      | <b>C&amp;D</b>  | <b>768</b>    | <b>3.4%</b>  |      |           |
| Rigid HDPE #2 Containers                   | 41           | 0.2%         | 0.3% | 0.2%      | Pallets/Crates  | 91            | 0.4%         | 0.5% | 0.3%      |
| #3 to #7 Bottles or Jars                   | 12           | 0.1%         | 0.0% | 0.0%      | Clean Lumber  | 313           | 1.4%         | 1.2% | 0.7%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 54           | 0.2%         | 0.1% | 0.1%      | Painted and Stained Wood                                      | 34            | 0.1%         | 0.2% | 0.1%      |
| All Other Rigid Plastic Packaging          | 5            | 0.0%         | 0.0% | 0.0%      | Other Engineered Wood   | 104           | 0.5%         | 0.5% | 0.3%      |
| White Expanded Polystyrene (Styrofoam)     | 145          | 0.6%         | 0.2% | 0.1%      | Wood Furniture  | -             | 0.0%         | 0.0% | 0.0%      |
| Recoverable Film                           | 126          | 0.6%         | 0.2% | 0.1%      | Other Wood  | 131           | 0.6%         | 0.4% | 0.3%      |
| All Other Film                             | 1,121        | 5.0%         | 1.0% | 0.6%      | Asphalt Roofing   | -             | 0.0%         | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | -            | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks                           | 6             | 0.0%         | 0.0% | 0.0%      |
| Large Plastic Items                        | -            | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board  | 66            | 0.3%         | 0.5% | 0.3%      |
| Remainder/Composite Plastic                | 1,040        | 4.6%         | 1.7% | 1.1%      | Remainder/Composite C&D                                       | 24            | 0.1%         | 0.1% | 0.1%      |
|  |              |              |      |           |   |               |              |      |           |
| <b>Organic</b>                             | <b>9,592</b> | <b>42.7%</b> |      |           | <b>Other</b>  | <b>2,295</b>  | <b>10.2%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 2,082        | 9.3%         | 3.1% | 1.9%      | Tires   | -             | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 811          | 3.6%         | 1.1% | 0.7%      | Small Appliances  | -             | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 1,553        | 6.9%         | 1.9% | 1.2%      | Large Electronics   | 99            | 0.4%         | 0.7% | 0.4%      |
| Food Waste in Other Packaging              | 179          | 0.8%         | 0.4% | 0.3%      | Other Small Consumer Electronics                              | 42            | 0.2%         | 0.2% | 0.1%      |
| Leaves, Grass, and Brush                   | 1,205        | 5.4%         | 3.9% | 2.4%      | Items with CRTs   | -             | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 493          | 2.2%         | 2.4% | 1.4%      | Other Large Electronics                                       | 10            | 0.0%         | 0.1% | 0.0%      |
| Textiles                                   | 787          | 3.5%         | 1.1% | 0.7%      | Other Haz. or Household Haz. Waste (HHW)                      | 413           | 1.8%         | 2.2% | 1.3%      |
| Rubber/Leather                             | 450          | 2.0%         | 1.4% | 0.9%      | All Other Wastes  | 1,731         | 7.7%         | 3.3% | 2.0%      |
| Diapers and Sanitary Products              | 1,146        | 5.1%         | 1.7% | 1.0%      |   |               |              |      |           |
| Carpet and Carpet Padding                  | 402          | 1.8%         | 2.9% | 1.8%      | <b>Hauler Collected MSW Tons</b>                              | <b>20,665</b> |              |      |           |
| Remainder/Composite Organic                | 484          | 2.2%         | 0.8% | 0.5%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>1,778</b>  |              |      |           |
|  |              |              |      |           |   |               |              |      |           |
|  |              |              |      |           | <b>Totals</b>   | <b>22,443</b> | <b>100%</b>  |      |           |
|  |              |              |      |           | <b>Sample Count</b>   |               | <b>13</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 24. Composition of ICI MSW, Milford Transfer Station**

| Material                                   | Est. Tons    | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean        | +/-  | Std. Dev. |
|--|--------------|--------------|------|-----------|---|---------------|-------------|------|-----------|
| <b>Paper</b>                               | <b>4,260</b> | <b>28.7%</b> |      |           | <b>Metal</b>  | <b>592</b>    | <b>4.0%</b> |      |           |
| Newspaper and Inserts                      | 60           | 0.4%         | 0.3% | 0.2%      | Tin/Steel Containers  | 101           | 0.7%        | 0.4% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 1,008        | 6.8%         | 4.4% | 2.7%      | Other Ferrous   | 369           | 2.5%        | 3.3% | 2.0%      |
| High Grade Office Paper                    | 234          | 1.6%         | 1.7% | 1.0%      | Aluminum Beverage & Cat Food Containers                       | 40            | 0.3%        | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 440          | 3.0%         | 1.6% | 1.0%      | Other Aluminum  | 60            | 0.4%        | 0.3% | 0.2%      |
| Compostable Paper                          | 1,491        | 10.1%        | 3.2% | 2.0%      | Other Non-Ferrous   | 23            | 0.2%        | 0.1% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 105          | 0.7%         | 1.1% | 0.7%      |   |               |             |      |           |
| Remainder/Composite Paper                  | 922          | 6.2%         | 5.3% | 3.2%      | <b>Glass</b>  | <b>126</b>    | <b>0.9%</b> |      |           |
|  |              |              |      |           | Glass Bottles and Jars  | 123           | 0.8%        | 0.6% | 0.4%      |
| <b>Plastic</b>                             | <b>3,616</b> | <b>24.4%</b> |      |           | Remainder/Composite Glass                                     | 3             | 0.0%        | 0.0% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 188          | 1.3%         | 0.6% | 0.4%      |   |               |             |      |           |
| HDPE #2 Natural and Colored Bottles        | 137          | 0.9%         | 0.7% | 0.4%      | <b>C&amp;D</b>  | <b>396</b>    | <b>2.7%</b> |      |           |
| Rigid HDPE #2 Containers                   | 6            | 0.0%         | 0.1% | 0.0%      | Pallets/Crates  | -             | 0.0%        | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 23           | 0.2%         | 0.2% | 0.1%      | Clean Lumber  | 17            | 0.1%        | 0.2% | 0.1%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 58           | 0.4%         | 0.2% | 0.1%      | Painted and Stained Wood                                      | 1             | 0.0%        | 0.0% | 0.0%      |
| All Other Rigid Plastic Packaging          | 16           | 0.1%         | 0.1% | 0.1%      | Other Engineered Wood   | 12            | 0.1%        | 0.1% | 0.1%      |
| White Expanded Polystyrene (Styrofoam)     | 246          | 1.7%         | 1.2% | 0.7%      | Wood Furniture  | 28            | 0.2%        | 0.3% | 0.2%      |
| Recoverable Film                           | 108          | 0.7%         | 0.8% | 0.5%      | Other Wood  | 132           | 0.9%        | 1.1% | 0.7%      |
| All Other Film                             | 1,472        | 9.9%         | 3.7% | 2.2%      | Asphalt Roofing   | -             | 0.0%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 35           | 0.2%         | 0.4% | 0.2%      | Asphalt, Brick, Concrete, and Rocks                           | 171           | 1.2%        | 1.9% | 1.2%      |
| Large Plastic Items                        | 84           | 0.6%         | 0.9% | 0.6%      | Drywall/Gypsum Board  | 6             | 0.0%        | 0.1% | 0.0%      |
| Remainder/Composite Plastic                | 1,243        | 8.4%         | 5.2% | 3.1%      | Remainder/Composite C&D                                       | 29            | 0.2%        | 0.2% | 0.1%      |
|  |              |              |      |           |   |               |             |      |           |
| <b>Organic</b>                             | <b>5,327</b> | <b>35.9%</b> |      |           | <b>Other</b>  | <b>506</b>    | <b>3.4%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 1,499        | 10.1%        | 5.7% | 3.4%      | Tires   | -             | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 554          | 3.7%         | 2.3% | 1.4%      | Small Appliances  | -             | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 924          | 6.2%         | 3.7% | 2.3%      | Large Electronics   | -             | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 383          | 2.6%         | 2.0% | 1.2%      | Other Small Consumer Electronics                              | 16            | 0.1%        | 0.1% | 0.1%      |
| Leaves, Grass, and Brush                   | 552          | 3.7%         | 3.9% | 2.3%      | Items with CRTs   | -             | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | -            | 0.0%         | 0.0% | 0.0%      | Other Large Electronics                                       | -             | 0.0%        | 0.0% | 0.0%      |
| Textiles                                   | 147          | 1.0%         | 0.6% | 0.4%      | Other Haz. or Household Haz. Waste (HHW)                      | 10            | 0.1%        | 0.0% | 0.0%      |
| Rubber/Leather                             | 140          | 0.9%         | 0.6% | 0.4%      | All Other Wastes  | 481           | 3.2%        | 2.1% | 1.3%      |
| Diapers and Sanitary Products              | 148          | 1.0%         | 1.0% | 0.6%      |   |               |             |      |           |
| Carpet and Carpet Padding                  | -            | 0.0%         | 0.0% | 0.0%      | <b>Hauler Collected MSW Tons</b>                              | <b>14,571</b> |             |      |           |
| Remainder/Composite Organic                | 980          | 6.6%         | 5.0% | 3.1%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>252</b>    |             |      |           |
|  |              |              |      |           |   |               |             |      |           |
|  |              |              |      |           | <b>Totals</b>   | <b>14,823</b> | <b>100%</b> |      |           |
|  |              |              |      |           | <b>Sample Count</b>   |               | <b>9</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

## Route 5 Transfer Station

**Table 23. Overall Composition of MSW, Route 5 Transfer Station**

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean        | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|-------------|------|-----------|
| <b>Paper</b>                               | <b>23,475</b> | <b>29.8%</b> |      |           | <b>Metal</b>  | <b>2,414</b>  | <b>3.1%</b> |      |           |
| Newspaper and Inserts                      | 2,409         | 3.1%         | 2.1% | 1.3%      | Tin/Steel Containers  | 537           | 0.7%        | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 6,388         | 8.1%         | 5.2% | 3.2%      | Other Ferrous   | 899           | 1.1%        | 1.1% | 0.7%      |
| High Grade Office Paper                    | 672           | 0.9%         | 0.5% | 0.3%      | Aluminum Beverage & Cat Food Containers                       | 454           | 0.6%        | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 2,743         | 3.5%         | 1.2% | 0.8%      | Other Aluminum  | 178           | 0.2%        | 0.1% | 0.0%      |
| Compostable Paper                          | 9,840         | 12.5%        | 2.4% | 1.5%      | Other Non-Ferrous   | 347           | 0.4%        | 0.4% | 0.3%      |
| Aseptic Boxes and Gable Top Cartons        | 104           | 0.1%         | 0.1% | 0.0%      | <b>Glass</b>  | <b>2,852</b>  | <b>3.6%</b> |      |           |
| Remainder/Composite Paper                  | 1,320         | 1.7%         | 0.7% | 0.5%      | Glass Bottles and Jars  | 2,174         | 2.8%        | 1.0% | 0.6%      |
| <b>Plastic</b>                             | <b>12,450</b> | <b>15.8%</b> |      |           | Remainder/Composite Glass                                     | 678           | 0.9%        | 0.7% | 0.4%      |
| PET #1 Bottles, Jars, or Containers        | 1,361         | 1.7%         | 0.4% | 0.2%      | <b>C&amp;D</b>  | <b>6,714</b>  | <b>8.5%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 915           | 1.2%         | 0.4% | 0.2%      | Pallets/Crates  | 302           | 0.4%        | 0.6% | 0.4%      |
| Rigid HDPE #2 Containers                   | 152           | 0.2%         | 0.2% | 0.1%      | Clean Lumber  | 2,384         | 3.0%        | 2.5% | 1.5%      |
| #3 to #7 Bottles or Jars                   | 59            | 0.1%         | 0.0% | 0.0%      | Painted and Stained Wood                                      | 143           | 0.2%        | 0.1% | 0.1%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 223           | 0.3%         | 0.1% | 0.1%      | Other Engineered Wood   | 1,399         | 1.8%        | 1.7% | 1.0%      |
| All Other Rigid Plastic Packaging          | 30            | 0.0%         | 0.1% | 0.0%      | Wood Furniture  | 925           | 1.2%        | 1.3% | 0.8%      |
| White Expanded Polystyrene (Styrofoam)     | 658           | 0.8%         | 0.3% | 0.2%      | Other Wood  | 544           | 0.7%        | 0.7% | 0.4%      |
| Recoverable Film                           | 1,592         | 2.0%         | 1.6% | 1.0%      | Asphalt Roofing   | -             | 0.0%        | 0.0% | 0.0%      |
| All Other Film                             | 4,406         | 5.6%         | 0.8% | 0.5%      | Asphalt, Brick, Concrete, and Rocks                           | 40            | 0.1%        | 0.1% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | -             | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board  | 773           | 1.0%        | 1.5% | 0.9%      |
| Large Plastic Items                        | 320           | 0.4%         | 0.4% | 0.2%      | Remainder/Composite C&D                                       | 206           | 0.3%        | 0.2% | 0.1%      |
| Remainder/Composite Plastic                | 2,735         | 3.5%         | 1.3% | 0.8%      | <b>Other</b>  | <b>2,537</b>  | <b>3.2%</b> |      |           |
| <b>Organic</b>                             | <b>28,334</b> | <b>36.0%</b> |      |           | Tires   | -             | 0.0%        | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 6,837         | 8.7%         | 3.3% | 2.0%      | Small Appliances  | -             | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 4,166         | 5.3%         | 2.9% | 1.8%      | Large Electronics   | 1,024         | 1.3%        | 1.6% | 0.9%      |
| Food Waste in Plastic Packaging            | 4,172         | 5.3%         | 1.4% | 0.9%      | Other Small Consumer Electronics                              | 153           | 0.2%        | 0.2% | 0.1%      |
| Food Waste in Other Packaging              | 330           | 0.4%         | 0.3% | 0.2%      | Items with CRTs   | -             | 0.0%        | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 4,419         | 5.6%         | 3.8% | 2.3%      | Other Larger Electronics                                      | -             | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | -             | 0.0%         | 0.0% | 0.0%      | Other Haz. or Household Haz. Waste (HHW)                      | 439           | 0.6%        | 0.3% | 0.2%      |
| Textiles                                   | 2,843         | 3.6%         | 1.3% | 0.8%      | All Other Wastes  | 921           | 1.2%        | 0.5% | 0.3%      |
| Rubber/Leather                             | 743           | 0.9%         | 0.7% | 0.4%      | <b>Hauler Collected MSW Tons</b>                              | <b>76,108</b> |             |      |           |
| Diapers and Sanitary Products              | 2,368         | 3.0%         | 1.0% | 0.6%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>2,668</b>  |             |      |           |
| Carpet and Carpet Padding                  | 135           | 0.2%         | 0.2% | 0.1%      |   |               |             |      |           |
| Remainder/Composite Organic                | 2,322         | 2.9%         | 1.1% | 0.7%      |   |               |             |      |           |
|  |               |              |      |           | <b>Totals</b>   | <b>78,776</b> | <b>100%</b> |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>19</b>   |      |           |

Confidence intervals calculated at a 90% confidence level.

Table 24. Composition of Residential MSW, Route 5 Transfer Station

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean        | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|-------------|------|-----------|
| <b>Paper</b>                               | <b>10,531</b> | <b>24.0%</b> |      |           | <b>Metal</b>  | <b>1,280</b>  | <b>2.9%</b> |      |           |
| Newsprint and Inserts                      | 1,455         | 3.3%         | 2.9% | 1.8%      | Tin/Steel Containers  | 394           | 0.9%        | 0.3% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 748           | 1.7%         | 1.1% | 0.7%      | Other Ferrous   | 218           | 0.5%        | 0.3% | 0.2%      |
| High Grade Office Paper                    | 324           | 0.7%         | 0.4% | 0.3%      | Aluminum Beverage & Cat Food Containers                       | 271           | 0.6%        | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 1,570         | 3.6%         | 1.8% | 1.1%      | Other Aluminum  | 128           | 0.3%        | 0.1% | 0.0%      |
| Compostable Paper                          | 5,859         | 13.3%        | 2.9% | 1.8%      | Other Non-Ferrous   | 270           | 0.6%        | 0.7% | 0.4%      |
| Aseptic Boxes and Gable Top Cartons        | 68            | 0.2%         | 0.1% | 0.0%      |   |               |             |      |           |
| Remainder/Composite Paper                  | 506           | 1.2%         | 0.6% | 0.4%      | <b>Glass</b>  | <b>1,872</b>  | <b>4.3%</b> |      |           |
|  |               |              |      |           | Glass Bottles and Jars  | 1,245         | 2.8%        | 0.9% | 0.5%      |
| <b>Plastic</b>                             | <b>5,338</b>  | <b>12.2%</b> |      |           | Remainder/Composite Glass                                     | 627           | 1.4%        | 1.2% | 0.8%      |
| PET #1 Bottles, Jars, or Containers        | 733           | 1.7%         | 0.4% | 0.2%      |   |               |             |      |           |
| HDPE #2 Natural and Colored Bottles        | 497           | 1.1%         | 0.3% | 0.2%      | <b>C&amp;D</b>  | <b>3,260</b>  | <b>7.4%</b> |      |           |
| Rigid HDPE #2 Containers                   | 40            | 0.1%         | 0.2% | 0.1%      | Pallets/Crates  | -             | 0.0%        | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 32            | 0.1%         | 0.1% | 0.0%      | Clean Lumber  | 1,007         | 2.3%        | 3.7% | 2.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 153           | 0.3%         | 0.2% | 0.1%      | Painted and Stained Wood                                      | 129           | 0.3%        | 0.3% | 0.2%      |
| All Other Rigid Plastic Packaging          | -             | 0.0%         | 0.0% | 0.0%      | Other Engineered Wood   | 951           | 2.2%        | 2.5% | 1.5%      |
| White Expanded Polystyrene (Styrofoam)     | 362           | 0.8%         | 0.2% | 0.1%      | Wood Furniture  | 925           | 2.1%        | 2.3% | 1.4%      |
| Recoverable Film                           | 290           | 0.7%         | 0.2% | 0.1%      | Other Wood  | 84            | 0.2%        | 0.2% | 0.1%      |
| All Other Film                             | 1,848         | 4.2%         | 0.6% | 0.4%      | Asphalt Roofing   | -             | 0.0%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | -             | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks                           | 14            | 0.0%        | 0.1% | 0.0%      |
| Large Plastic Items                        | 123           | 0.3%         | 0.5% | 0.3%      | Drywall/Gypsum Board  | -             | 0.0%        | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 1,259         | 2.9%         | 0.7% | 0.4%      | Remainder/Composite C&D                                       | 150           | 0.3%        | 0.4% | 0.2%      |
|  |               |              |      |           |   |               |             |      |           |
| <b>Organic</b>                             | <b>19,621</b> | <b>44.7%</b> |      |           | <b>Other</b>  | <b>2,009</b>  | <b>4.6%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 3,855         | 8.8%         | 3.4% | 2.1%      | Tires   | -             | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 2,583         | 5.9%         | 3.9% | 2.4%      | Small Appliances  | -             | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 2,550         | 5.8%         | 1.5% | 0.9%      | Large Electronics   | 1,024         | 2.3%        | 2.8% | 1.7%      |
| Food Waste in Other Packaging              | 225           | 0.5%         | 0.4% | 0.3%      | Other Small Consumer Electronics                              | 100           | 0.2%        | 0.3% | 0.2%      |
| Leaves, Grass, and Brush                   | 4,299         | 9.8%         | 6.8% | 4.2%      | Items with CRTs   | -             | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | -             | 0.0%         | 0.0% | 0.0%      | Other Larger Electronics                                      | -             | 0.0%        | 0.0% | 0.0%      |
| Textiles                                   | 2,029         | 4.6%         | 1.7% | 1.1%      | Other Haz. or Household Haz. Waste (HHW)                      | 337           | 0.8%        | 0.5% | 0.3%      |
| Rubber/Leather                             | 451           | 1.0%         | 1.1% | 0.7%      | All Other Wastes  | 548           | 1.2%        | 0.7% | 0.4%      |
| Diapers and Sanitary Products              | 2,124         | 4.8%         | 1.7% | 1.0%      |   |               |             |      |           |
| Carpet and Carpet Padding                  | 11            | 0.0%         | 0.0% | 0.0%      | <b>Hauler Collected MSW Tons</b>                              | <b>41,392</b> |             |      |           |
| Remainder/Composite Organic                | 1,494         | 3.4%         | 1.8% | 1.1%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>2,519</b>  |             |      |           |
|  |               |              |      |           |   |               |             |      |           |
|  |               |              |      |           | <b>Totals</b>   | <b>43,910</b> | <b>100%</b> |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>9</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

Table 25. Composition of ICI MSW, Route 5 Transfer Station

| Material                                   | Est. Tons     | Mean         | +/-   | Std. Dev. | Material  | Est. Tons     | Mean        | +/-  | Std. Dev. |
|--|---------------|--------------|-------|-----------|---|---------------|-------------|------|-----------|
| <b>Paper</b>                               | <b>12,944</b> | <b>37.1%</b> |       |           | <b>Metal</b>  | <b>1,134</b>  | <b>3.3%</b> |      |           |
| Newsprint and Inserts                      | 954           | 2.7%         | 2.8%  | 1.7%      | Tin/Steel Containers  | 143           | 0.4%        | 0.3% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 5,639         | 16.2%        | 11.7% | 7.1%      | Other Ferrous   | 681           | 2.0%        | 2.4% | 1.5%      |
| High Grade Office Paper                    | 348           | 1.0%         | 1.1%  | 0.7%      | Aluminum Beverage & Cat Food Containers                       | 183           | 0.5%        | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 1,172         | 3.4%         | 1.7%  | 1.0%      | Other Aluminum  | 49            | 0.1%        | 0.1% | 0.1%      |
| Compostable Paper                          | 3,981         | 11.4%        | 4.0%  | 2.4%      | Other Non-Ferrous   | 77            | 0.2%        | 0.3% | 0.2%      |
| Aseptic Boxes and Gable Top Cartons        | 35            | 0.1%         | 0.1%  | 0.1%      |   |               |             |      |           |
| Remainder/Composite Paper                  | 814           | 2.3%         | 1.5%  | 0.9%      | <b>Glass</b>  | <b>980</b>    | <b>2.8%</b> |      |           |
|  |               |              |       |           | Glass Bottles and Jars  | 929           | 2.7%        | 2.1% | 1.3%      |
| <b>Plastic</b>                             | <b>7,112</b>  | <b>20.4%</b> |       |           | Remainder/Composite Glass                                     | 51            | 0.1%        | 0.2% | 0.1%      |
| PET #1 Bottles, Jars, or Containers        | 627           | 1.8%         | 0.7%  | 0.4%      |   |               |             |      |           |
| HDPE #2 Natural and Colored Bottles        | 418           | 1.2%         | 0.9%  | 0.5%      | <b>C&amp;D</b>  | <b>3,454</b>  | <b>9.9%</b> |      |           |
| Rigid HDPE #2 Containers                   | 112           | 0.3%         | 0.3%  | 0.2%      | Pallets/Crates  | 302           | 0.9%        | 1.4% | 0.9%      |
| #3 to #7 Bottles or Jars                   | 27            | 0.1%         | 0.1%  | 0.0%      | Clean Lumber  | 1,376         | 3.9%        | 3.0% | 1.8%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 70            | 0.2%         | 0.1%  | 0.1%      | Painted and Stained Wood                                      | 13            | 0.0%        | 0.1% | 0.0%      |
| All Other Rigid Plastic Packaging          | 30            | 0.1%         | 0.1%  | 0.1%      | Other Engineered Wood   | 448           | 1.3%        | 2.1% | 1.3%      |
| White Expanded Polystyrene (Styrofoam)     | 296           | 0.8%         | 0.6%  | 0.3%      | Wood Furniture  | -             | 0.0%        | 0.0% | 0.0%      |
| Recoverable Film                           | 1,302         | 3.7%         | 3.5%  | 2.2%      | Other Wood  | 460           | 1.3%        | 1.5% | 0.9%      |
| All Other Film                             | 2,557         | 7.3%         | 1.6%  | 1.0%      | Asphalt Roofing   | -             | 0.0%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | -             | 0.0%         | 0.0%  | 0.0%      | Asphalt, Brick, Concrete, and Rocks                           | 26            | 0.1%        | 0.1% | 0.1%      |
| Large Plastic Items                        | 197           | 0.6%         | 0.6%  | 0.4%      | Drywall/Gypsum Board  | 773           | 2.2%        | 3.4% | 2.1%      |
| Remainder/Composite Plastic                | 1,476         | 4.2%         | 2.9%  | 1.8%      | Remainder/Composite C&D                                       | 56            | 0.2%        | 0.2% | 0.1%      |
|  |               |              |       |           |   |               |             |      |           |
| <b>Organic</b>                             | <b>8,714</b>  | <b>25.0%</b> |       |           | <b>Other</b>  | <b>528</b>    | <b>1.5%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 2,982         | 8.6%         | 6.1%  | 3.7%      | Tires   | -             | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 1,583         | 4.5%         | 4.4%  | 2.7%      | Small Appliances  | -             | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 1,622         | 4.7%         | 2.6%  | 1.6%      | Large Electronics   | -             | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 105           | 0.3%         | 0.3%  | 0.2%      | Other Small Consumer Electronics                              | 53            | 0.2%        | 0.1% | 0.1%      |
| Leaves, Grass, and Brush                   | 120           | 0.3%         | 0.3%  | 0.2%      | Items with CRTs   | -             | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | -             | 0.0%         | 0.0%  | 0.0%      | Other Larger Electronics                                      | -             | 0.0%        | 0.0% | 0.0%      |
| Textiles                                   | 814           | 2.3%         | 1.9%  | 1.1%      | Other Haz. or Household Haz. Waste (HHW)                      | 102           | 0.3%        | 0.3% | 0.2%      |
| Rubber/Leather                             | 292           | 0.8%         | 0.8%  | 0.5%      | All Other Wastes  | 373           | 1.1%        | 0.7% | 0.4%      |
| Diapers and Sanitary Products              | 244           | 0.7%         | 0.7%  | 0.4%      |   |               |             |      |           |
| Carpet and Carpet Padding                  | 124           | 0.4%         | 0.4%  | 0.3%      | <b>Hauler Collected MSW Tons</b>                              | <b>34,716</b> |             |      |           |
| Remainder/Composite Organic                | 828           | 2.4%         | 1.1%  | 0.6%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>149</b>    |             |      |           |
|  |               |              |       |           |   |               |             |      |           |
|  |               |              |       |           | <b>Totals</b>   | <b>34,866</b> | <b>100%</b> |      |           |
|  |               |              |       |           | <b>Sample Count</b>   |               | <b>10</b>   |      |           |

Confidence intervals calculated at a 90% confidence level.

**Jones Crossroads Landfill**

**Table 26. Overall Composition of MSW, Jones Crossroads Landfill**

| Material                                   | Est. Tons     | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean         | +/-  | Std. Dev. |
|--|---------------|--------------|------|-----------|---|---------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>15,011</b> | <b>27.1%</b> |      |           | <b>Metal</b>  | <b>2,039</b>  | <b>3.7%</b>  |      |           |
| Newspaper and Inserts                      | 400           | 0.7%         | 0.3% | 0.2%      | Tin/Steel Containers  | 421           | 0.8%         | 0.3% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 6,694         | 12.1%        | 6.8% | 4.1%      | Other Ferrous   | 1,157         | 2.1%         | 2.1% | 1.3%      |
| High Grade Office Paper                    | 153           | 0.3%         | 0.1% | 0.1%      | Aluminum Beverage & Cat Food Containers                       | 204           | 0.4%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 2,322         | 4.2%         | 2.2% | 1.3%      | Other Aluminum  | 128           | 0.2%         | 0.1% | 0.1%      |
| Compostable Paper                          | 4,664         | 8.4%         | 1.8% | 1.1%      | Other Non-Ferrous   | 129           | 0.2%         | 0.1% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 401           | 0.7%         | 1.1% | 0.7%      | <b>Glass</b>  | <b>887</b>    | <b>1.6%</b>  |      |           |
| Remainder/Composite Paper                  | 377           | 0.7%         | 0.4% | 0.2%      | Glass Bottles and Jars  | 826           | 1.5%         | 0.6% | 0.4%      |
| <b>Plastic</b>                             | <b>8,779</b>  | <b>15.9%</b> |      |           | Remainder/Composite Glass                                     | 61            | 0.1%         | 0.1% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 760           | 1.4%         | 0.5% | 0.3%      | <b>C&amp;D</b>  | <b>6,030</b>  | <b>10.9%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 284           | 0.5%         | 0.2% | 0.1%      | Pallets/Crates  | 500           | 0.9%         | 1.0% | 0.6%      |
| Rigid HDPE #2 Containers                   | 130           | 0.2%         | 0.2% | 0.1%      | Clean Lumber  | 513           | 0.9%         | 1.1% | 0.7%      |
| #3 to #7 Bottles or Jars                   | 79            | 0.1%         | 0.1% | 0.1%      | Painted and Stained Wood                                      | 91            | 0.2%         | 0.2% | 0.1%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 78            | 0.1%         | 0.1% | 0.0%      | Other Engineered Wood   | 250           | 0.5%         | 0.3% | 0.2%      |
| All Other Rigid Plastic Packaging          | 18            | 0.0%         | 0.0% | 0.0%      | Wood Furniture  | 2,527         | 4.6%         | 4.3% | 2.6%      |
| White Expanded Polystyrene (Styrofoam)     | 1,195         | 2.2%         | 1.5% | 0.9%      | Other Wood  | 254           | 0.5%         | 0.4% | 0.2%      |
| Recoverable Film                           | 514           | 0.9%         | 0.7% | 0.4%      | Asphalt Roofing   | -             | 0.0%         | 0.0% | 0.0%      |
| All Other Film                             | 3,385         | 6.1%         | 1.6% | 1.0%      | Asphalt, Brick, Concrete, and Rocks                           | 138           | 0.2%         | 0.3% | 0.2%      |
| Agricultural Film & Marine Shrink Wrap     | -             | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board  | 19            | 0.0%         | 0.1% | 0.0%      |
| Large Plastic Items                        | 699           | 1.3%         | 1.6% | 1.0%      | Remainder/Composite C&D                                       | 1,738         | 3.1%         | 3.6% | 2.2%      |
| Remainder/Composite Plastic                | 1,636         | 3.0%         | 1.0% | 0.6%      | <b>Other</b>  | <b>5,007</b>  | <b>9.0%</b>  |      |           |
| <b>Organic</b>                             | <b>17,575</b> | <b>31.8%</b> |      |           | Tires   | -             | 0.0%         | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 6,242         | 11.3%        | 4.4% | 2.7%      | Small Appliances  | 132           | 0.2%         | 0.3% | 0.2%      |
| Protein Food Waste, Unpackaged             | 837           | 1.5%         | 0.6% | 0.4%      | Large Electronics   | 289           | 0.5%         | 0.8% | 0.5%      |
| Food Waste in Plastic Packaging            | 1,620         | 2.9%         | 0.7% | 0.4%      | Other Small Consumer Electronics                              | 105           | 0.2%         | 0.2% | 0.1%      |
| Food Waste in Other Packaging              | 517           | 0.9%         | 0.3% | 0.2%      | Items with CRTs   | -             | 0.0%         | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 977           | 1.8%         | 1.5% | 0.9%      | Other Larger Electronics                                      | -             | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 271           | 0.5%         | 0.6% | 0.4%      | Other Haz. or Household Haz. Waste (HHW)                      | 1,175         | 2.1%         | 2.7% | 1.6%      |
| Textiles                                   | 2,279         | 4.1%         | 1.8% | 1.1%      | All Other Wastes  | 3,307         | 6.0%         | 2.8% | 1.7%      |
| Rubber/Leather                             | 328           | 0.6%         | 0.5% | 0.3%      | <b>Hauler Collected MSW Tons</b>                              | <b>51,036</b> |              |      |           |
| Diapers and Sanitary Products              | 1,415         | 2.6%         | 0.8% | 0.5%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>4,293</b>  |              |      |           |
| Carpet and Carpet Padding                  | 875           | 1.6%         | 1.5% | 0.9%      |   |               |              |      |           |
| Remainder/Composite Organic                | 2,214         | 4.0%         | 4.0% | 2.4%      |   |               |              |      |           |
|  |               |              |      |           | <b>Totals</b>   | <b>55,328</b> | <b>100%</b>  |      |           |
|  |               |              |      |           | <b>Sample Count</b>   |               | <b>26</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.



**Table 27. Composition of Residential MSW, Jones Crossroads Landfill**

| Material                                   | Est. Tons    | Mean         | +/-  | Std. Dev. | Material  | Est. Tons     | Mean         | +/-  | Std. Dev. |
|--|--------------|--------------|------|-----------|---|---------------|--------------|------|-----------|
| <b>Paper</b>                               | <b>4,376</b> | <b>18.4%</b> |      |           | <b>Metal</b>  | <b>1,062</b>  | <b>4.5%</b>  |      |           |
| Newspaper and Inserts                      | 352          | 1.5%         | 0.8% | 0.5%      | Tin/Steel Containers  | 256           | 1.1%         | 0.6% | 0.4%      |
| Corrugated Cardboard/Kraft Paper           | 420          | 1.8%         | 1.0% | 0.6%      | Other Ferrous   | 484           | 2.0%         | 1.9% | 1.2%      |
| High Grade Office Paper                    | 75           | 0.3%         | 0.2% | 0.1%      | Aluminum Beverage & Cat Food Containers                       | 121           | 0.5%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 785          | 3.3%         | 1.5% | 0.9%      | Other Aluminum  | 88            | 0.4%         | 0.2% | 0.1%      |
| Compostable Paper                          | 2,571        | 10.8%        | 2.0% | 1.2%      | Other Non-Ferrous   | 113           | 0.5%         | 0.3% | 0.2%      |
| Aseptic Boxes and Gable Top Cartons        | 16           | 0.1%         | 0.0% | 0.0%      |   |               |              |      |           |
| Remainder/Composite Paper                  | 158          | 0.7%         | 0.4% | 0.2%      | <b>Glass</b>  | <b>501</b>    | <b>2.1%</b>  |      |           |
|  |              |              |      |           | Glass Bottles and Jars  | 446           | 1.9%         | 0.9% | 0.5%      |
| <b>Plastic</b>                             | <b>3,049</b> | <b>12.8%</b> |      |           | Remainder/Composite Glass                                     | 56            | 0.2%         | 0.2% | 0.1%      |
| PET #1 Bottles, Jars, or Containers        | 318          | 1.3%         | 0.3% | 0.2%      |   |               |              |      |           |
| HDPE #2 Natural and Colored Bottles        | 183          | 0.8%         | 0.3% | 0.2%      | <b>C&amp;D</b>  | <b>3,293</b>  | <b>13.9%</b> |      |           |
| Rigid HDPE #2 Containers                   | 124          | 0.5%         | 0.5% | 0.3%      | Pallets/Crates  | 2             | 0.0%         | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 32           | 0.1%         | 0.1% | 0.1%      | Clean Lumber  | 396           | 1.7%         | 2.4% | 1.5%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 54           | 0.2%         | 0.1% | 0.1%      | Painted and Stained Wood                                      | 90            | 0.4%         | 0.5% | 0.3%      |
| All Other Rigid Plastic Packaging          | 8            | 0.0%         | 0.0% | 0.0%      | Other Engineered Wood   | 91            | 0.4%         | 0.4% | 0.2%      |
| White Expanded Polystyrene (Styrofoam)     | 138          | 0.6%         | 0.2% | 0.1%      | Wood Furniture  | 839           | 3.5%         | 3.9% | 2.4%      |
| Recoverable Film                           | 212          | 0.9%         | 0.4% | 0.3%      | Other Wood  | 112           | 0.5%         | 0.4% | 0.2%      |
| All Other Film                             | 1,317        | 5.5%         | 1.3% | 0.8%      | Asphalt Roofing   | -             | 0.0%         | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | -            | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks                           | 16            | 0.1%         | 0.1% | 0.0%      |
| Large Plastic Items                        | 83           | 0.3%         | 0.5% | 0.3%      | Drywall/Gypsum Board  | 19            | 0.1%         | 0.1% | 0.1%      |
| Remainder/Composite Plastic                | 581          | 2.4%         | 0.8% | 0.5%      | Remainder/Composite C&D                                       | 1,728         | 7.3%         | 8.3% | 5.1%      |
|  |              |              |      |           |   |               |              |      |           |
| <b>Organic</b>                             | <b>8,880</b> | <b>37.4%</b> |      |           | <b>Other</b>  | <b>2,581</b>  | <b>10.9%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 2,398        | 10.1%        | 3.9% | 2.3%      | Tires   | -             | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 526          | 2.2%         | 1.1% | 0.7%      | Small Appliances  | 132           | 0.6%         | 0.8% | 0.5%      |
| Food Waste in Plastic Packaging            | 1,223        | 5.2%         | 1.4% | 0.9%      | Large Electronics   | 289           | 1.2%         | 2.0% | 1.2%      |
| Food Waste in Other Packaging              | 390          | 1.6%         | 0.6% | 0.4%      | Other Small Consumer Electronics                              | 55            | 0.2%         | 0.2% | 0.1%      |
| Leaves, Grass, and Brush                   | 663          | 2.8%         | 2.6% | 1.6%      | Items with CRTs   | -             | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 108          | 0.5%         | 0.7% | 0.5%      | Other Larger Electronics                                      | -             | 0.0%         | 0.0% | 0.0%      |
| Textiles                                   | 1,322        | 5.6%         | 2.4% | 1.4%      | Other Haz. or Household Haz. Waste (HHW)                      | 137           | 0.6%         | 0.4% | 0.2%      |
| Rubber/Leather                             | 238          | 1.0%         | 1.2% | 0.8%      | All Other Wastes  | 1,969         | 8.3%         | 5.1% | 3.1%      |
| Diapers and Sanitary Products              | 988          | 4.2%         | 1.5% | 0.9%      |   |               |              |      |           |
| Carpet and Carpet Padding                  | 461          | 1.9%         | 2.0% | 1.2%      | <b>Hauler Collected MSW Tons</b>                              | <b>21,274</b> |              |      |           |
| Remainder/Composite Organic                | 562          | 2.4%         | 1.3% | 0.8%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>2,468</b>  |              |      |           |
|  |              |              |      |           |   |               |              |      |           |
|  |              |              |      |           | <b>Totals</b>   | <b>23,741</b> | <b>100%</b>  |      |           |
|  |              |              |      |           | <b>Sample Count</b>   |               | <b>12</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 28. Composition of ICI MSW, Jones Crossroads Landfill**

| Material                                   | Est. Tons     | Mean         | +/-   | Std. Dev. | Material  | Est. Tons     | Mean        | +/-  | Std. Dev. |
|--|---------------|--------------|-------|-----------|---|---------------|-------------|------|-----------|
| <b>Paper</b>                               | <b>10,635</b> | <b>33.7%</b> |       |           | <b>Metal</b>  | <b>977</b>    | <b>3.1%</b> |      |           |
| Newspaper and Inserts                      | 48            | 0.2%         | 0.1%  | 0.1%      | Tin/Steel Containers  | 165           | 0.5%        | 0.3% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 6,275         | 19.9%        | 11.8% | 7.2%      | Other Ferrous   | 673           | 2.1%        | 3.4% | 2.1%      |
| High Grade Office Paper                    | 78            | 0.2%         | 0.2%  | 0.1%      | Aluminum Beverage & Cat Food Containers                       | 83            | 0.3%        | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 1,537         | 4.9%         | 3.6%  | 2.2%      | Other Aluminum  | 40            | 0.1%        | 0.1% | 0.1%      |
| Compostable Paper                          | 2,094         | 6.6%         | 2.7%  | 1.7%      | Other Non-Ferrous   | 16            | 0.1%        | 0.0% | 0.0%      |
| Aseptic Boxes and Gable Top Cartons        | 385           | 1.2%         | 1.9%  | 1.2%      |   |               |             |      |           |
| Remainder/Composite Paper                  | 219           | 0.7%         | 0.6%  | 0.3%      | <b>Glass</b>  | <b>386</b>    | <b>1.2%</b> |      |           |
|  |               |              |       |           | Glass Bottles and Jars  | 381           | 1.2%        | 0.8% | 0.5%      |
| <b>Plastic</b>                             | <b>5,730</b>  | <b>18.1%</b> |       |           | Remainder/Composite Glass                                     | 6             | 0.0%        | 0.0% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 442           | 1.4%         | 0.9%  | 0.5%      |   |               |             |      |           |
| HDPE #2 Natural and Colored Bottles        | 101           | 0.3%         | 0.2%  | 0.1%      | <b>C&amp;D</b>  | <b>2,737</b>  | <b>8.7%</b> |      |           |
| Rigid HDPE #2 Containers                   | 6             | 0.0%         | 0.0%  | 0.0%      | Pallets/Crates  | 498           | 1.6%        | 1.8% | 1.1%      |
| #3 to #7 Bottles or Jars                   | 47            | 0.1%         | 0.2%  | 0.1%      | Clean Lumber  | 117           | 0.4%        | 0.5% | 0.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 24            | 0.1%         | 0.1%  | 0.0%      | Painted and Stained Wood                                      | 1             | 0.0%        | 0.0% | 0.0%      |
| All Other Rigid Plastic Packaging          | 11            | 0.0%         | 0.0%  | 0.0%      | Other Engineered Wood   | 159           | 0.5%        | 0.5% | 0.3%      |
| White Expanded Polystyrene (Styrofoam)     | 1,057         | 3.3%         | 2.7%  | 1.6%      | Wood Furniture  | 1,688         | 5.3%        | 7.0% | 4.2%      |
| Recoverable Film                           | 303           | 1.0%         | 1.2%  | 0.7%      | Other Wood  | 142           | 0.4%        | 0.6% | 0.3%      |
| All Other Film                             | 2,068         | 6.5%         | 2.7%  | 1.6%      | Asphalt Roofing   | -             | 0.0%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | -             | 0.0%         | 0.0%  | 0.0%      | Asphalt, Brick, Concrete, and Rocks                           | 122           | 0.4%        | 0.6% | 0.4%      |
| Large Plastic Items                        | 616           | 2.0%         | 2.8%  | 1.7%      | Drywall/Gypsum Board  | -             | 0.0%        | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 1,054         | 3.3%         | 1.7%  | 1.0%      | Remainder/Composite C&D                                       | 11            | 0.0%        | 0.0% | 0.0%      |
|  |               |              |       |           |   |               |             |      |           |
| <b>Organic</b>                             | <b>8,695</b>  | <b>27.5%</b> |       |           | <b>Other</b>  | <b>2,426</b>  | <b>7.7%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 3,844         | 12.2%        | 7.2%  | 4.4%      | Tires   | -             | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 311           | 1.0%         | 0.7%  | 0.4%      | Small Appliances  | -             | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 396           | 1.3%         | 0.6%  | 0.4%      | Large Electronics   | -             | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 127           | 0.4%         | 0.3%  | 0.2%      | Other Small Consumer Electronics                              | 50            | 0.2%        | 0.3% | 0.2%      |
| Leaves, Grass, and Brush                   | 314           | 1.0%         | 1.6%  | 1.0%      | Items with CRTs   | -             | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 164           | 0.5%         | 0.8%  | 0.5%      | Other Larger Electronics                                      | -             | 0.0%        | 0.0% | 0.0%      |
| Textiles                                   | 956           | 3.0%         | 2.7%  | 1.6%      | Other Haz. or Household Haz. Waste (HHW)                      | 1,038         | 3.3%        | 4.6% | 2.8%      |
| Rubber/Leather                             | 89            | 0.3%         | 0.1%  | 0.1%      | All Other Wastes  | 1,338         | 4.2%        | 3.0% | 1.8%      |
| Diapers and Sanitary Products              | 427           | 1.4%         | 0.8%  | 0.5%      |   |               |             |      |           |
| Carpet and Carpet Padding                  | 413           | 1.3%         | 2.1%  | 1.2%      | <b>Hauler Collected MSW Tons</b>                              | <b>29,762</b> |             |      |           |
| Remainder/Composite Organic                | 1,652         | 5.2%         | 7.0%  | 4.2%      | <b>Tons of Non C&amp;D Materials from Self-haul Customers</b> | <b>1,825</b>  |             |      |           |
|  |               |              |       |           |   |               |             |      |           |
|  |               |              |       |           | <b>Totals</b>   | <b>31,587</b> | <b>100%</b> |      |           |
|  |               |              |       |           | <b>Sample Count</b>   |               | <b>14</b>   |      |           |

Confidence intervals calculated at a 90% confidence level.

## Multi-Family MSW

The Project Team also obtained several loads of multi-family municipal solid waste over the two seasons. Table 29 presents the data. It should be noted that all multi-family MSW obtained for sampling was generated in New Castle County, and is typically delivered to the Cherry Island Landfill.

**Table 29. Composition of Multi-Family MSW**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean         | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|--------------|------|-----------|
| <b>Paper</b>                               | <b>24.0%</b> |      |           | <b>Metal</b>                             | <b>3.2%</b>  |      |           |
| Newspaper and Inserts                      | 2.4%         | 1.2% | 0.7%      | Tin/Steel Containers                     | 1.1%         | 0.3% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 6.4%         | 2.3% | 1.4%      | Other Ferrous                            | 0.8%         | 0.7% | 0.4%      |
| High Grade Office Paper                    | 0.7%         | 0.4% | 0.3%      | Aluminum Beverage & Cat Food Containers  | 0.4%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 4.8%         | 1.2% | 0.7%      | Other Aluminum                           | 0.2%         | 0.1% | 0.0%      |
| Compostable Paper                          | 7.8%         | 1.5% | 0.9%      | Other Non-Ferrous                        | 0.6%         | 0.6% | 0.4%      |
| Aseptic Boxes and Gable Top Cartons        | 0.2%         | 0.1% | 0.0%      | <b>Glass</b>                             | <b>5.4%</b>  |      |           |
| Remainder/Composite Paper                  | 1.7%         | 1.9% | 1.1%      | Glass Bottles and Jars                   | 4.2%         | 1.3% | 0.8%      |
| <b>Plastic</b>                             | <b>13.0%</b> |      |           | Remainder/Composite Glass                | 1.2%         | 1.5% | 0.9%      |
| PET #1 Bottles, Jars, or Containers        | 1.9%         | 0.2% | 0.1%      | <b>C&amp;D</b>                           | <b>6.7%</b>  |      |           |
| HDPE #2 Natural and Colored Bottles        | 1.0%         | 0.2% | 0.1%      | Pallets/Crates                           | 0.0%         | 0.0% | 0.0%      |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0% | 0.0%      | Clean Lumber                             | 1.3%         | 1.4% | 0.8%      |
| #3 to #7 Bottles or Jars                   | 0.1%         | 0.0% | 0.0%      | Painted and Stained Wood                 | 1.2%         | 1.1% | 0.7%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.3%         | 0.1% | 0.1%      | Other Engineered Wood                    | 1.5%         | 1.8% | 1.1%      |
| All Other Rigid Plastic Packaging          | 0.2%         | 0.3% | 0.2%      | Wood Furniture                           | 2.0%         | 3.2% | 1.9%      |
| White Expanded Polystyrene (Styrofoam)     | 0.5%         | 0.1% | 0.1%      | Other Wood                               | 0.0%         | 0.1% | 0.0%      |
| Recoverable Film                           | 0.8%         | 0.3% | 0.2%      | Asphalt Roofing                          | 0.0%         | 0.0% | 0.0%      |
| All Other Film                             | 3.9%         | 0.4% | 0.3%      | Asphalt, Brick, Concrete, and Rocks      | 0.1%         | 0.1% | 0.1%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board                     | 0.1%         | 0.2% | 0.1%      |
| Large Plastic Items                        | 0.9%         | 1.1% | 0.7%      | Remainder/Composite C&D                  | 0.3%         | 0.3% | 0.2%      |
| Remainder/Composite Plastic                | 3.4%         | 0.9% | 0.6%      | <b>Other</b>                             | <b>11.0%</b> |      |           |
| <b>Organic</b>                             | <b>36.8%</b> |      |           | Tires                                    | 1.9%         | 3.2% | 1.9%      |
| Vegetative Food Waste, Unpackaged          | 6.7%         | 1.7% | 1.1%      | Small Appliances                         | 0.1%         | 0.1% | 0.1%      |
| Protein Food Waste, Unpackaged             | 3.2%         | 1.3% | 0.8%      | Large Electronics                        | 4.0%         | 3.6% | 2.2%      |
| Food Waste in Plastic Packaging            | 10.0%        | 3.4% | 2.1%      | Other Small Consumer Electronics         | 0.3%         | 0.2% | 0.1%      |
| Food Waste in Other Packaging              | 1.4%         | 0.8% | 0.5%      | Items with CRTs                          | 1.5%         | 2.4% | 1.5%      |
| Leaves, Grass, and Brush                   | 0.2%         | 0.2% | 0.2%      | Other Larger Electronics                 | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0% | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.1%         | 0.0% | 0.0%      |
| Textiles                                   | 6.4%         | 1.8% | 1.1%      | All Other Wastes                         | 3.3%         | 2.2% | 1.4%      |
| Rubber/Leather                             | 0.5%         | 0.3% | 0.2%      | <b>Totals</b>                            | <b>100%</b>  |      |           |
| Diapers and Sanitary Products              | 4.9%         | 1.6% | 1.0%      | <b>Sample Count</b>                      | <b>12</b>    |      |           |
| Carpet and Carpet Padding                  | 1.3%         | 1.1% | 0.7%      |  |              |      |           |
| Remainder/Composite Organic                | 2.1%         | 0.7% | 0.4%      |  |              |      |           |

Confidence intervals calculated at a 90% confidence level.

## Self-Haul Loads

In addition to hand sorting of Residential and ICI MSW delivered to each facility, the Project Team also conducted visual analysis of Self-Haul loads at each facility during both seasons.

Tables 30 through 36 present the average of all observed Self-Haul loads, first as an overall weighted average of the six facilities, and then by individual facility.

**Table 30. Overall Composition of Self-Haul MSW**

| Material               | Est. Tons    | Mean         | +/-  | Std. Dev. | Material                     | Est. Tons     | Mean         | +/-  | Std. Dev. |
|------------------------|--------------|--------------|------|-----------|------------------------------|---------------|--------------|------|-----------|
| <b>Paper</b>           | <b>2,297</b> | <b>5.2%</b>  |      |           | <b>C&amp;D</b>               | <b>21,481</b> | <b>48.5%</b> |      |           |
| OCC/Kraft              | 2,224        | 5.0%         | 2.5% | 1.5%      | Concrete/Brick/Rock          | 611           | 1.4%         | 1.1% | 0.7%      |
| R/C and Other Paper    | 73           | 0.2%         | 0.2% | 0.1%      | Asphalt Paving               | 39            | 0.1%         | 0.1% | 0.1%      |
|                        |              |              |      |           | Asphalt Roofing              | 5,178         | 11.7%        | 7.9% | 4.8%      |
| <b>Plastic</b>         | <b>876</b>   | <b>2.0%</b>  |      |           | Wood Roofing                 | -             | 0.0%         | 0.0% | 0.0%      |
| HDPE Buckets           | 153          | 0.3%         | 0.3% | 0.2%      | Ceiling Tiles                | 96            | 0.2%         | 0.3% | 0.2%      |
| Clean Recoverable Film | 84           | 0.2%         | 0.1% | 0.1%      | Vinyl Siding                 | 177           | 0.4%         | 0.3% | 0.2%      |
| Foamed Insulation      | 11           | 0.0%         | 0.0% | 0.0%      | Pallets and Crates           | 488           | 1.1%         | 0.8% | 0.5%      |
| R/C and Other Plastic  | 628          | 1.4%         | 0.6% | 0.4%      | Clean Lumber                 | 2,497         | 5.6%         | 1.7% | 1.0%      |
|                        |              |              |      |           | Plywood                      | 1,515         | 3.4%         | 1.4% | 0.8%      |
| <b>Glass</b>           | <b>1,262</b> | <b>2.8%</b>  |      |           | Other Engineered Wood        | 1,469         | 3.3%         | 1.3% | 0.8%      |
| R/C and Other Glass    | 1,262        | 2.8%         | 2.2% | 1.3%      | Wood Furniture               | 971           | 2.2%         | 0.9% | 0.5%      |
|                        |              |              |      |           | Painted/Stained Wood         | 2,612         | 5.9%         | 3.2% | 1.9%      |
| <b>Organic</b>         | <b>4,686</b> | <b>10.6%</b> |      |           | Treated Wood                 | 1,245         | 2.8%         | 1.5% | 0.9%      |
| Yard Waste             | 3,312        | 7.5%         | 9.0% | 5.5%      | Clean Gypsum Board           | 923           | 2.1%         | 1.8% | 1.1%      |
| Carpet                 | 1,162        | 2.6%         | 1.1% | 0.6%      | Painted/Papered Gypsum Board | 867           | 2.0%         | 1.7% | 1.0%      |
| Carpet Padding         | 160          | 0.4%         | 0.2% | 0.1%      | Dirt, Sand, and Gravel       | 56            | 0.1%         | 0.2% | 0.1%      |
| R/C and Other Organics | 52           | 0.1%         | 0.2% | 0.1%      | Fiberglass Insulation        | 41            | 0.1%         | 0.1% | 0.0%      |
|                        |              |              |      |           | R/C and Other C&D            | 2,696         | 6.1%         | 2.4% | 1.4%      |
| <b>Metal</b>           | <b>420</b>   | <b>0.9%</b>  |      |           | <b>MSW</b>                   | <b>8,970</b>  | <b>20.2%</b> |      |           |
| HVAC Ducting           | 11           | 0.0%         | 0.0% | 0.0%      | Mixed MSW                    | 8,970         | 20.2%        | 3.9% | 2.4%      |
| Wire Sheathing         | -            | 0.0%         | 0.0% | 0.0%      |                              |               |              |      |           |
| Other Ferrous          | 336          | 0.8%         | 0.3% | 0.2%      |                              |               |              |      |           |
| Non-Ferrous            | 73           | 0.2%         | 0.2% | 0.1%      |                              |               |              |      |           |
|                        |              |              |      |           |                              |               |              |      |           |
| <b>Special</b>         | <b>4,334</b> | <b>9.8%</b>  |      |           |                              |               |              |      |           |
| Appliances             | 216          | 0.5%         | 0.3% | 0.2%      |                              |               |              |      |           |
| Electronics            | 577          | 1.3%         | 0.5% | 0.3%      |                              |               |              |      |           |
| Items with CRTs        | 308          | 0.7%         | 0.4% | 0.2%      |                              |               |              |      |           |
| Bulky Items            | 2,953        | 6.7%         | 1.9% | 1.2%      |                              |               |              |      |           |
| Tires                  | 114          | 0.3%         | 0.4% | 0.3%      |                              |               |              |      |           |
| Lead acid batteries    | -            | 0.0%         | 0.0% | 0.0%      |                              |               |              |      |           |
| Vehicle Fluids         | -            | 0.0%         | 0.0% | 0.0%      |                              |               |              |      |           |
| Paint                  | -            | 0.0%         | 0.0% | 0.0%      |                              |               |              |      |           |
| Other Hazardous        | -            | 0.0%         | 0.0% | 0.0%      |                              |               |              |      |           |
| Fines/Mixed Residue    | 167          | 0.4%         | 0.5% | 0.3%      |                              |               |              |      |           |
|                        |              |              |      |           |                              |               |              |      |           |
|                        |              |              |      |           | <b>Totals</b>                | <b>44,326</b> | <b>100%</b>  |      |           |
|                        |              |              |      |           | <b>Sample Count</b>          |               | <b>350</b>   |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 31. Composition of Self-Haul Loads, Cherry Island Landfill**

| Material               | Est. Tons    | Mean         | +/-   | Std. Dev. | Material                     | Est. Tons     | Mean         | +/-  | Std. Dev. |
|------------------------|--------------|--------------|-------|-----------|------------------------------|---------------|--------------|------|-----------|
| <b>Paper</b>           | <b>1,452</b> | <b>8.5%</b>  |       |           | <b>C&amp;D</b>               | <b>6,927</b>  | <b>40.4%</b> |      |           |
| OCC/Kraft              | 1,441        | 8.4%         | 6.2%  | 3.8%      | Concrete/Brick/Rock          | 51            | 0.3%         | 0.5% | 0.3%      |
| R/C and Other Paper    | 11           | 0.1%         | 0.1%  | 0.1%      | Asphalt Paving               | -             | 0.0%         | 0.0% | 0.0%      |
| <b>Plastic</b>         | <b>386</b>   | <b>2.2%</b>  |       |           | Asphalt Roofing              | 1,526         | 8.9%         | 8.0% | 4.9%      |
| HDPE Buckets           | 62           | 0.4%         | 0.6%  | 0.4%      | Wood Roofing                 | -             | 0.0%         | 0.0% | 0.0%      |
| Clean Recoverable Film | 21           | 0.1%         | 0.2%  | 0.1%      | Ceiling Tiles                | -             | 0.0%         | 0.0% | 0.0%      |
| Foamed Insulation      | -            | 0.0%         | 0.0%  | 0.0%      | Vinyl Siding                 | 51            | 0.3%         | 0.3% | 0.2%      |
| R/C and Other Plastic  | 303          | 1.8%         | 1.4%  | 0.9%      | Pallets and Crates           | 199           | 1.2%         | 1.4% | 0.9%      |
| <b>Glass</b>           | <b>718</b>   | <b>4.2%</b>  |       |           | Clean Lumber                 | 489           | 2.9%         | 1.6% | 1.0%      |
| R/C and Other Glass    | 718          | 4.2%         | 4.4%  | 2.6%      | Plywood                      | 403           | 2.4%         | 1.6% | 1.0%      |
| <b>Organic</b>         | <b>3,635</b> | <b>21.2%</b> |       |           | Other Engineered Wood        | 688           | 4.0%         | 2.3% | 1.4%      |
| Yard Waste             | 3,051        | 17.8%        | 23.3% | 14.2%     | Wood Furniture               | 303           | 1.8%         | 1.2% | 0.7%      |
| Carpet                 | 484          | 2.8%         | 2.0%  | 1.2%      | Painted/Stained Wood         | 1,204         | 7.0%         | 7.1% | 4.3%      |
| Carpet Padding         | 92           | 0.5%         | 0.4%  | 0.2%      | Treated Wood                 | 440           | 2.6%         | 2.1% | 1.3%      |
| R/C and Other Organics | 8            | 0.0%         | 0.1%  | 0.0%      | Clean Gypsum Board           | 114           | 0.7%         | 0.6% | 0.4%      |
| <b>Metal</b>           | <b>77</b>    | <b>0.5%</b>  |       |           | Painted/Papered Gypsum Board | 573           | 3.3%         | 4.1% | 2.5%      |
| HVAC Ducting           | 5            | 0.0%         | 0.1%  | 0.0%      | Dirt, Sand, and Gravel       | 56            | 0.3%         | 0.5% | 0.3%      |
| Wire Sheathing         | -            | 0.0%         | 0.0%  | 0.0%      | Fiberglass Insulation        | 8             | 0.0%         | 0.1% | 0.0%      |
| Other Ferrous          | 52           | 0.3%         | 0.4%  | 0.2%      | R/C and Other C&D            | 821           | 4.8%         | 2.6% | 1.6%      |
| Non-Ferrous            | 20           | 0.1%         | 0.1%  | 0.1%      | <b>MSW</b>                   | <b>2,869</b>  | <b>16.7%</b> |      |           |
| <b>Special</b>         | <b>1,081</b> | <b>6.3%</b>  |       |           | Mixed MSW                    | 2,869         | 16.7%        | 8.3% | 5.0%      |
| Appliances             | 59           | 0.3%         | 0.6%  | 0.4%      |                              |               |              |      |           |
| Electronics            | 64           | 0.4%         | 0.4%  | 0.2%      |                              |               |              |      |           |
| Items with CRTs        | 70           | 0.4%         | 0.5%  | 0.3%      |                              |               |              |      |           |
| Bulky Items            | 888          | 5.2%         | 2.6%  | 1.6%      |                              |               |              |      |           |
| Tires                  | -            | 0.0%         | 0.0%  | 0.0%      |                              |               |              |      |           |
| Lead acid batteries    | -            | 0.0%         | 0.0%  | 0.0%      |                              |               |              |      |           |
| Vehicle Fluids         | -            | 0.0%         | 0.0%  | 0.0%      |                              |               |              |      |           |
| Paint                  | -            | 0.0%         | 0.0%  | 0.0%      |                              |               |              |      |           |
| Other Hazardous        | -            | 0.0%         | 0.0%  | 0.0%      |                              |               |              |      |           |
| Fines/Mixed Residue    | -            | 0.0%         | 0.0%  | 0.0%      |                              |               |              |      |           |
|                        |              |              |       |           | <b>Totals</b>                | <b>17,146</b> | <b>100%</b>  |      |           |
|                        |              |              |       |           | <b>Sample Count</b>          |               | <b>78</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 32. Composition of Self-Haul Loads, Pine Tree Corners Transfer Station**

| Material               | Est. Tons  | Mean         | +/-  | Std. Dev. | Material                     | Est. Tons    | Mean         | +/-   | Std. Dev. |
|------------------------|------------|--------------|------|-----------|------------------------------|--------------|--------------|-------|-----------|
| <b>Paper</b>           | <b>182</b> | <b>5.0%</b>  |      |           | <b>C&amp;D</b>               | <b>1,681</b> | <b>46.5%</b> |       |           |
| OCC/Kraft              | 182        | 5.0%         | 5.0% | 3.1%      | Concrete/Brick/Rock          | 267          | 7.4%         | 11.4% | 6.9%      |
| R/C and Other Paper    | -          | 0.0%         | 0.0% | 0.0%      | Asphalt Paving               | -            | 0.0%         | 0.0%  | 0.0%      |
| <b>Plastic</b>         | <b>19</b>  | <b>0.5%</b>  |      |           | Asphalt Roofing              | 154          | 4.3%         | 6.1%  | 3.7%      |
| HDPE Buckets           | 4          | 0.1%         | 0.2% | 0.1%      | Wood Roofing                 | -            | 0.0%         | 0.0%  | 0.0%      |
| Clean Recoverable Film | -          | 0.0%         | 0.0% | 0.0%      | Ceiling Tiles                | -            | 0.0%         | 0.0%  | 0.0%      |
| Foamed Insulation      | -          | 0.0%         | 0.0% | 0.0%      | Vinyl Siding                 | 57           | 1.6%         | 2.1%  | 1.3%      |
| R/C and Other Plastic  | 15         | 0.4%         | 0.6% | 0.4%      | Pallets and Crates           | -            | 0.0%         | 0.0%  | 0.0%      |
| <b>Glass</b>           | <b>-</b>   | <b>0.0%</b>  |      |           | Clean Lumber                 | -            | 0.0%         | 0.0%  | 0.0%      |
| R/C and Other Glass    | -          | 0.0%         | 0.0% | 0.0%      | Plywood                      | 73           | 2.0%         | 1.7%  | 1.0%      |
| <b>Organic</b>         | <b>223</b> | <b>6.2%</b>  |      |           | Other Engineered Wood        | 54           | 1.5%         | 1.2%  | 0.7%      |
| Yard Waste             | 80         | 2.2%         | 3.0% | 1.8%      | Wood Furniture               | 110          | 3.0%         | 2.1%  | 1.3%      |
| Carpet                 | 119        | 3.3%         | 3.2% | 2.0%      | Painted/Stained Wood         | 495          | 13.7%        | 10.4% | 6.3%      |
| Carpet Padding         | 24         | 0.7%         | 0.8% | 0.5%      | Treated Wood                 | 91           | 2.5%         | 2.8%  | 1.7%      |
| R/C and Other Organics | -          | 0.0%         | 0.0% | 0.0%      | Clean Gypsum Board           | -            | 0.0%         | 0.0%  | 0.0%      |
| <b>Metal</b>           | <b>37</b>  | <b>1.0%</b>  |      |           | Painted/Papered Gypsum Board | 184          | 5.1%         | 4.8%  | 2.9%      |
| HVAC Ducting           | -          | 0.0%         | 0.0% | 0.0%      | Dirt, Sand, and Gravel       | -            | 0.0%         | 0.0%  | 0.0%      |
| Wire Sheathing         | -          | 0.0%         | 0.0% | 0.0%      | Fiberglass Insulation        | 10           | 0.3%         | 0.3%  | 0.2%      |
| Other Ferrous          | 37         | 1.0%         | 0.9% | 0.5%      | R/C and Other C&D            | 186          | 5.1%         | 3.4%  | 2.0%      |
| Non-Ferrous            | -          | 0.0%         | 0.0% | 0.0%      | <b>MSW</b>                   | <b>1,057</b> | <b>29.3%</b> |       |           |
| <b>Special</b>         | <b>414</b> | <b>11.5%</b> |      |           | Mixed MSW                    | 1,057        | 29.3%        | 11.5% | 7.0%      |
| Appliances             | 12         | 0.3%         | 0.5% | 0.3%      |                              |              |              |       |           |
| Electronics            | 91         | 2.5%         | 2.2% | 1.3%      |                              |              |              |       |           |
| Items with CRTs        | 54         | 1.5%         | 1.9% | 1.1%      |                              |              |              |       |           |
| Bulky Items            | 255        | 7.1%         | 5.3% | 3.2%      |                              |              |              |       |           |
| Tires                  | 2          | 0.1%         | 0.1% | 0.1%      |                              |              |              |       |           |
| Lead acid batteries    | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Vehicle Fluids         | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Paint                  | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Other Hazardous        | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Fines/Mixed Residue    | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
|                        |            |              |      |           | <b>Totals</b>                | <b>3,612</b> | <b>100%</b>  |       |           |
|                        |            |              |      |           | <b>Sample Count</b>          |              | <b>73</b>    |       |           |

Confidence intervals calculated at a 90% confidence level.

Table 33. Composition of Self-Haul Loads, Sandtown Landfill

| Material               | Est. Tons  | Mean         | +/-  | Std. Dev. | Material                     | Est. Tons    | Mean         | +/-  | Std. Dev. |
|------------------------|------------|--------------|------|-----------|------------------------------|--------------|--------------|------|-----------|
| <b>Paper</b>           | <b>231</b> | <b>5.5%</b>  |      |           | <b>C&amp;D</b>               | <b>1,022</b> | <b>24.5%</b> |      |           |
| OCC/Kraft              | 185        | 4.4%         | 2.6% | 1.6%      | Concrete/Brick/Rock          | -            | 0.0%         | 0.0% | 0.0%      |
| R/C and Other Paper    | 46         | 1.1%         | 1.5% | 0.9%      | Asphalt Paving               | 39           | 0.9%         | 1.5% | 0.9%      |
| <b>Plastic</b>         | <b>111</b> | <b>2.7%</b>  |      |           | Asphalt Roofing              | 112          | 2.7%         | 4.0% | 2.5%      |
| HDPE Buckets           | -          | 0.0%         | 0.0% | 0.0%      | Wood Roofing                 | -            | 0.0%         | 0.0% | 0.0%      |
| Clean Recoverable Film | -          | 0.0%         | 0.0% | 0.0%      | Ceiling Tiles                | -            | 0.0%         | 0.0% | 0.0%      |
| Foamed Insulation      | -          | 0.0%         | 0.0% | 0.0%      | Vinyl Siding                 | -            | 0.0%         | 0.0% | 0.0%      |
| R/C and Other Plastic  | 111        | 2.7%         | 2.2% | 1.4%      | Pallets and Crates           | -            | 0.0%         | 0.0% | 0.0%      |
| <b>Glass</b>           | <b>-</b>   | <b>0.0%</b>  |      |           | Clean Lumber                 | 249          | 5.9%         | 3.6% | 2.2%      |
| R/C and Other Glass    | -          | 0.0%         | 0.0% | 0.0%      | Plywood                      | 91           | 2.2%         | 1.6% | 0.9%      |
| <b>Organic</b>         | <b>192</b> | <b>4.6%</b>  |      |           | Other Engineered Wood        | 43           | 1.0%         | 1.5% | 0.9%      |
| Yard Waste             | 43         | 1.0%         | 1.3% | 0.8%      | Wood Furniture               | 96           | 2.3%         | 2.2% | 1.3%      |
| Carpet                 | 150        | 3.6%         | 2.8% | 1.7%      | Painted/Stained Wood         | 136          | 3.2%         | 2.6% | 1.6%      |
| Carpet Padding         | -          | 0.0%         | 0.0% | 0.0%      | Treated Wood                 | 226          | 5.4%         | 7.1% | 4.3%      |
| R/C and Other Organics | -          | 0.0%         | 0.0% | 0.0%      | Clean Gypsum Board           | -            | 0.0%         | 0.0% | 0.0%      |
| <b>Metal</b>           | <b>56</b>  | <b>1.3%</b>  |      |           | Painted/Papered Gypsum Board | -            | 0.0%         | 0.0% | 0.0%      |
| HVAC Ducting           | -          | 0.0%         | 0.0% | 0.0%      | Dirt, Sand, and Gravel       | -            | 0.0%         | 0.0% | 0.0%      |
| Wire Sheathing         | -          | 0.0%         | 0.0% | 0.0%      | Fiberglass Insulation        | 5            | 0.1%         | 0.2% | 0.1%      |
| Other Ferrous          | 49         | 1.2%         | 1.1% | 0.7%      | R/C and Other C&D            | 25           | 0.6%         | 1.0% | 0.6%      |
| Non-Ferrous            | 7          | 0.2%         | 0.3% | 0.2%      | <b>MSW</b>                   | <b>2,052</b> | <b>49.1%</b> |      |           |
| <b>Special</b>         | <b>512</b> | <b>12.3%</b> |      |           | Mixed MSW                    | 2,052        | 49.1%        | 9.3% | 5.7%      |
| Appliances             | 57         | 1.4%         | 1.2% | 0.7%      |                              |              |              |      |           |
| Electronics            | 49         | 1.2%         | 1.2% | 0.7%      |                              |              |              |      |           |
| Items with CRTs        | 81         | 1.9%         | 1.7% | 1.0%      |                              |              |              |      |           |
| Bulky Items            | 325        | 7.8%         | 4.7% | 2.9%      |                              |              |              |      |           |
| Tires                  | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |      |           |
| Lead acid batteries    | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |      |           |
| Vehicle Fluids         | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |      |           |
| Paint                  | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |      |           |
| Other Hazardous        | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |      |           |
| Fines/Mixed Residue    | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |      |           |
|                        |            |              |      |           | <b>Totals</b>                | <b>4,177</b> | <b>100%</b>  |      |           |
|                        |            |              |      |           | <b>Sample Count</b>          |              | <b>81</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

Table 34. Composition of Self-Haul Loads, Milford Transfer Station

| Material               | Est. Tons  | Mean         | +/-  | Std. Dev. | Material                     | Mean         | Est. Tons    | +/-   | Std. Dev. |
|------------------------|------------|--------------|------|-----------|------------------------------|--------------|--------------|-------|-----------|
| <b>Paper</b>           | <b>89</b>  | <b>3.4%</b>  |      |           | <b>C&amp;D</b>               | <b>33.6%</b> | <b>887</b>   |       |           |
| OCC/Kraft              | 85         | 3.2%         | 2.4% | 1.5%      | Concrete/Brick/Rock          | 0.0%         | -            | 0.0%  | 0.0%      |
| R/C and Other Paper    | 3          | 0.1%         | 0.2% | 0.1%      | Asphalt Paving               | 0.0%         | -            | 0.0%  | 0.0%      |
| <b>Plastic</b>         | <b>98</b>  | <b>3.7%</b>  |      |           | Asphalt Roofing              | 2.4%         | 63           | 3.6%  | 2.2%      |
| HDPE Buckets           | -          | 0.0%         | 0.0% | 0.0%      | Wood Roofing                 | 0.0%         | -            | 0.0%  | 0.0%      |
| Clean Recoverable Film | 2          | 0.1%         | 0.1% | 0.1%      | Ceiling Tiles                | 0.0%         | -            | 0.0%  | 0.0%      |
| Foamed Insulation      | -          | 0.0%         | 0.0% | 0.0%      | Vinyl Siding                 | 0.3%         | 9            | 0.4%  | 0.2%      |
| R/C and Other Plastic  | 96         | 3.6%         | 2.8% | 1.7%      | Pallets and Crates           | 0.7%         | 19           | 1.2%  | 0.7%      |
| <b>Glass</b>           | <b>-</b>   | <b>0.0%</b>  |      |           | Clean Lumber                 | 8.6%         | 228          | 6.7%  | 4.1%      |
| R/C and Other Glass    | -          | 0.0%         | 0.0% | 0.0%      | Plywood                      | 4.7%         | 125          | 2.8%  | 1.7%      |
| <b>Organic</b>         | <b>101</b> | <b>3.8%</b>  |      |           | Other Engineered Wood        | 2.6%         | 68           | 2.7%  | 1.6%      |
| Yard Waste             | 52         | 2.0%         | 2.5% | 1.5%      | Wood Furniture               | 1.7%         | 44           | 1.3%  | 0.8%      |
| Carpet                 | 43         | 1.6%         | 1.8% | 1.1%      | Painted/Stained Wood         | 3.0%         | 79           | 2.8%  | 1.7%      |
| Carpet Padding         | 6          | 0.2%         | 0.4% | 0.2%      | Treated Wood                 | 1.1%         | 29           | 1.7%  | 1.1%      |
| R/C and Other Organics | -          | 0.0%         | 0.0% | 0.0%      | Clean Gypsum Board           | 0.0%         | -            | 0.0%  | 0.0%      |
| <b>Metal</b>           | <b>71</b>  | <b>2.7%</b>  |      |           | Painted/Papered Gypsum Board | 2.6%         | 69           | 4.3%  | 2.6%      |
| HVAC Ducting           | -          | 0.0%         | 0.0% | 0.0%      | Dirt, Sand, and Gravel       | 0.0%         | -            | 0.0%  | 0.0%      |
| Wire Sheathing         | -          | 0.0%         | 0.0% | 0.0%      | Fiberglass Insulation        | 0.0%         | -            | 0.0%  | 0.0%      |
| Other Ferrous          | 71         | 2.7%         | 2.7% | 1.6%      | R/C and Other C&D            | 5.8%         | 153          | 4.0%  | 2.4%      |
| Non-Ferrous            | -          | 0.0%         | 0.0% | 0.0%      | <b>MSW</b>                   | <b>37.9%</b> | <b>1,001</b> |       |           |
| <b>Special</b>         | <b>395</b> | <b>15.0%</b> |      |           | Mixed MSW                    | 37.9%        | 1,001        | 11.8% | 7.1%      |
| Appliances             | 48         | 1.8%         | 2.1% | 1.3%      |                              |              |              |       |           |
| Electronics            | 9          | 0.3%         | 0.6% | 0.3%      |                              |              |              |       |           |
| Items with CRTs        | 46         | 1.7%         | 2.9% | 1.7%      |                              |              |              |       |           |
| Bulky Items            | 292        | 11.1%        | 5.5% | 3.4%      |                              |              |              |       |           |
| Tires                  | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Lead acid batteries    | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Vehicle Fluids         | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Paint                  | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Other Hazardous        | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Fines/Mixed Residue    | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
|                        |            |              |      |           | <b>Totals</b>                | <b>100%</b>  | <b>2,643</b> |       |           |
|                        |            |              |      |           | <b>Sample Count</b>          | <b>43</b>    |              |       |           |

Confidence intervals calculated at a 90% confidence level.

**Table 35. Composition of Self-Haul Loads, Route 5 Transfer Station**

| Material               | Est. Tons  | Mean         | +/-  | Std. Dev. | Material                     | Est. Tons    | Mean         | +/-   | Std. Dev. |
|------------------------|------------|--------------|------|-----------|------------------------------|--------------|--------------|-------|-----------|
| <b>Paper</b>           | <b>127</b> | <b>2.8%</b>  |      |           | <b>C&amp;D</b>               | <b>1,967</b> | <b>43.9%</b> |       |           |
| OCC/Kraft              | 115        | 2.6%         | 2.4% | 1.4%      | Concrete/Brick/Rock          | 116          | 2.6%         | 3.0%  | 1.9%      |
| R/C and Other Paper    | 12         | 0.3%         | 0.5% | 0.3%      | Asphalt Paving               | -            | 0.0%         | 0.0%  | 0.0%      |
| <b>Plastic</b>         | <b>173</b> | <b>3.9%</b>  |      |           | Asphalt Roofing              | 246          | 5.5%         | 6.6%  | 4.0%      |
| HDPE Buckets           | 86         | 1.9%         | 1.6% | 1.0%      | Wood Roofing                 | -            | 0.0%         | 0.0%  | 0.0%      |
| Clean Recoverable Film | 21         | 0.5%         | 0.8% | 0.5%      | Ceiling Tiles                | 70           | 1.6%         | 2.5%  | 1.5%      |
| Foamed Insulation      | 11         | 0.2%         | 0.4% | 0.2%      | Vinyl Siding                 | 55           | 1.2%         | 1.7%  | 1.0%      |
| R/C and Other Plastic  | 55         | 1.2%         | 1.2% | 0.7%      | Pallets and Crates           | -            | 0.0%         | 0.0%  | 0.0%      |
| <b>Glass</b>           | <b>260</b> | <b>5.8%</b>  |      |           | Clean Lumber                 | 582          | 13.0%        | 6.8%  | 4.1%      |
| R/C and Other Glass    | 260        | 5.8%         | 9.2% | 5.6%      | Plywood                      | 36           | 0.8%         | 0.9%  | 0.6%      |
| <b>Organic</b>         | <b>236</b> | <b>5.3%</b>  |      |           | Other Engineered Wood        | 116          | 2.6%         | 2.8%  | 1.7%      |
| Yard Waste             | 27         | 0.6%         | 1.0% | 0.6%      | Wood Furniture               | 24           | 0.5%         | 0.7%  | 0.4%      |
| Carpet                 | 157        | 3.5%         | 3.7% | 2.2%      | Painted/Stained Wood         | 379          | 8.5%         | 11.0% | 6.7%      |
| Carpet Padding         | 7          | 0.2%         | 0.3% | 0.2%      | Treated Wood                 | 20           | 0.4%         | 0.7%  | 0.4%      |
| R/C and Other Organics | 44         | 1.0%         | 1.6% | 1.0%      | Clean Gypsum Board           | 120          | 2.7%         | 3.4%  | 2.0%      |
| <b>Metal</b>           | <b>105</b> | <b>2.3%</b>  |      |           | Painted/Papered Gypsum Board | -            | 0.0%         | 0.0%  | 0.0%      |
| HVAC Ducting           | -          | 0.0%         | 0.0% | 0.0%      | Dirt, Sand, and Gravel       | -            | 0.0%         | 0.0%  | 0.0%      |
| Wire Sheathing         | -          | 0.0%         | 0.0% | 0.0%      | Fiberglass Insulation        | 2            | 0.0%         | 0.1%  | 0.0%      |
| Other Ferrous          | 105        | 2.3%         | 1.7% | 1.1%      | R/C and Other C&D            | 200          | 4.5%         | 2.7%  | 1.7%      |
| Non-Ferrous            | -          | 0.0%         | 0.0% | 0.0%      | <b>MSW</b>                   | <b>1,007</b> | <b>22.5%</b> |       |           |
| <b>Special</b>         | <b>608</b> | <b>13.6%</b> |      |           | Mixed MSW                    | 1,007        | 22.5%        | 9.5%  | 5.8%      |
| Appliances             | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Electronics            | 177        | 4.0%         | 3.0% | 1.9%      |                              |              |              |       |           |
| Items with CRTs        | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Bulky Items            | 430        | 9.6%         | 5.9% | 3.6%      |                              |              |              |       |           |
| Tires                  | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Lead acid batteries    | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Vehicle Fluids         | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Paint                  | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Other Hazardous        | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
| Fines/Mixed Residue    | -          | 0.0%         | 0.0% | 0.0%      |                              |              |              |       |           |
|                        |            |              |      |           | <b>Totals</b>                | <b>4,484</b> | <b>100%</b>  |       |           |
|                        |            |              |      |           | <b>Sample Count</b>          |              | <b>40</b>    |       |           |

Confidence intervals calculated at a 90% confidence level.

**Table 36. Composition of Self-Haul Loads, Jones Crossroads Landfill<sup>4</sup>**

| Material               | Est. Tons    | Mean         | +/-  | Std. Dev. | Material                     | Est. Tons     | Mean         | +/-   | Std. Dev. |
|------------------------|--------------|--------------|------|-----------|------------------------------|---------------|--------------|-------|-----------|
| <b>Paper</b>           | <b>216</b>   | <b>1.8%</b>  |      |           | <b>C&amp;D</b>               | <b>8,997</b>  | <b>73.4%</b> |       |           |
| OCC/Kraft              | 216          | 1.8%         | 1.8% | 1.1%      | Concrete/Brick/Rock          | 176           | 1.4%         | 1.5%  | 0.9%      |
| R/C and Other Paper    | -            | 0.0%         | 0.0% | 0.0%      | Asphalt Paving               | -             | 0.0%         | 0.0%  | 0.0%      |
| <b>Plastic</b>         | <b>88</b>    | <b>0.7%</b>  |      |           | Asphalt Roofing              | 3,077         | 25.1%        | 25.9% | 15.7%     |
| HDPE Buckets           | -            | 0.0%         | 0.0% | 0.0%      | Wood Roofing                 | -             | 0.0%         | 0.0%  | 0.0%      |
| Clean Recoverable Film | 40           | 0.3%         | 0.3% | 0.2%      | Ceiling Tiles                | 26            | 0.2%         | 0.4%  | 0.2%      |
| Foamed Insulation      | -            | 0.0%         | 0.0% | 0.0%      | Vinyl Siding                 | 5             | 0.0%         | 0.1%  | 0.0%      |
| R/C and Other Plastic  | 47           | 0.4%         | 0.5% | 0.3%      | Pallets and Crates           | 270           | 2.2%         | 2.0%  | 1.2%      |
| <b>Glass</b>           | <b>283</b>   | <b>2.3%</b>  |      |           | Clean Lumber                 | 949           | 7.7%         | 4.7%  | 2.9%      |
| R/C and Other Glass    | 283          | 2.3%         | 3.7% | 2.3%      | Plywood                      | 787           | 6.4%         | 4.3%  | 2.6%      |
| <b>Organic</b>         | <b>299</b>   | <b>2.4%</b>  |      |           | Other Engineered Wood        | 500           | 4.1%         | 3.2%  | 1.9%      |
| Yard Waste             | 59           | 0.5%         | 0.8% | 0.5%      | Wood Furniture               | 393           | 3.2%         | 2.5%  | 1.5%      |
| Carpet                 | 209          | 1.7%         | 1.9% | 1.1%      | Painted/Stained Wood         | 319           | 2.6%         | 2.3%  | 1.4%      |
| Carpet Padding         | 31           | 0.3%         | 0.4% | 0.2%      | Treated Wood                 | 440           | 3.6%         | 3.8%  | 2.3%      |
| R/C and Other Organics | -            | 0.0%         | 0.0% | 0.0%      | Clean Gypsum Board           | 689           | 5.6%         | 6.2%  | 3.8%      |
| <b>Metal</b>           | <b>73</b>    | <b>0.6%</b>  |      |           | Painted/Papered Gypsum Board | 42            | 0.3%         | 0.6%  | 0.4%      |
| HVAC Ducting           | 6            | 0.0%         | 0.1% | 0.0%      | Dirt, Sand, and Gravel       | -             | 0.0%         | 0.0%  | 0.0%      |
| Wire Sheathing         | -            | 0.0%         | 0.0% | 0.0%      | Fiberglass Insulation        | 16            | 0.1%         | 0.2%  | 0.1%      |
| Other Ferrous          | 22           | 0.2%         | 0.3% | 0.2%      | R/C and Other C&D            | 1,310         | 10.7%        | 7.6%  | 4.6%      |
| Non-Ferrous            | 46           | 0.4%         | 0.6% | 0.4%      | <b>MSW</b>                   | <b>985</b>    | <b>8.0%</b>  |       |           |
| <b>Special</b>         | <b>1,323</b> | <b>10.8%</b> |      |           | Mixed MSW                    | 985           | 8.0%         | 4.9%  | 3.0%      |
| Appliances             | 40           | 0.3%         | 0.4% | 0.2%      |                              |               |              |       |           |
| Electronics            | 185          | 1.5%         | 1.3% | 0.8%      |                              |               |              |       |           |
| Items with CRTs        | 57           | 0.5%         | 0.6% | 0.3%      |                              |               |              |       |           |
| Bulky Items            | 762          | 6.2%         | 4.8% | 2.9%      |                              |               |              |       |           |
| Tires                  | 112          | 0.9%         | 1.5% | 0.9%      |                              |               |              |       |           |
| Lead acid batteries    | -            | 0.0%         | 0.0% | 0.0%      |                              |               |              |       |           |
| Vehicle Fluids         | -            | 0.0%         | 0.0% | 0.0%      |                              |               |              |       |           |
| Paint                  | -            | 0.0%         | 0.0% | 0.0%      |                              |               |              |       |           |
| Other Hazardous        | -            | 0.0%         | 0.0% | 0.0%      |                              |               |              |       |           |
| Fines/Mixed Residue    | 167          | 1.4%         | 1.9% | 1.2%      | <b>Totals</b>                | <b>12,264</b> | <b>100%</b>  |       |           |
|                        |              |              |      |           | <b>Sample Count</b>          |               | <b>35</b>    |       |           |

Confidence intervals calculated at a 90% confidence level.

<sup>4</sup> Note that unlike Cherry Island and Sandtown, Self-Haul loads delivered to the small load landfill face are excluded because this material was analyzed in detail in an earlier report. We may have to revisit this tonnage data.



## Targeted Generator Loads

The Project Team also hand sorted loads from targeted commercial generators. Tables 37 through 43 present the results of the two season hand sorts of these loads. Note that in this case percentages by material type are presented but not tonnages since data are not available on total tons by each of these targeted generator types.

**Table 37. Composition of Small Retail MSW**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean         | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|--------------|------|-----------|
| <b>Paper</b>                               | <b>34.5%</b> |      |           | <b>Metal</b>                             | <b>2.2%</b>  |      |           |
| Newspaper and Inserts                      | 1.3%         | 1.3% | 0.8%      | Tin/Steel Containers                     | 0.7%         | 0.4% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 16.6%        | 5.2% | 3.2%      | Other Ferrous                            | 0.3%         | 0.2% | 0.1%      |
| High Grade Office Paper                    | 0.9%         | 0.7% | 0.4%      | Aluminum Beverage & Cat Food Containers  | 0.2%         | 0.0% | 0.0%      |
| Mixed Recyclable Paper                     | 4.6%         | 2.4% | 1.5%      | Other Aluminum                           | 0.1%         | 0.1% | 0.1%      |
| Compostable Paper                          | 6.0%         | 1.9% | 1.2%      | Other Non-Ferrous                        | 0.9%         | 0.6% | 0.4%      |
| Aseptic Boxes and Gable Top Cartons        | 0.1%         | 0.0% | 0.0%      | <b>Glass</b>                             | <b>6.4%</b>  |      |           |
| Remainder/Composite Paper                  | 5.0%         | 4.0% | 2.4%      | Glass Bottles and Jars                   | 5.9%         | 5.1% | 3.1%      |
| <b>Plastic</b>                             | <b>11.0%</b> |      |           | Remainder/Composite Glass                | 0.5%         | 0.4% | 0.2%      |
| PET #1 Bottles, Jars, or Containers        | 0.7%         | 0.2% | 0.1%      | <b>C&amp;D</b>                           | <b>12.1%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 0.6%         | 0.4% | 0.2%      | Pallets/Crates                           | 1.8%         | 1.9% | 1.1%      |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0% | 0.0%      | Clean Lumber                             | 1.8%         | 1.8% | 1.1%      |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.0% | 0.0%      | Painted and Stained Wood                 | 0.9%         | 1.3% | 0.8%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.1%         | 0.1% | 0.0%      | Other Engineered Wood                    | 3.1%         | 2.2% | 1.3%      |
| All Other Rigid Plastic Packaging          | 0.1%         | 0.1% | 0.1%      | Wood Furniture                           | 1.2%         | 2.0% | 1.2%      |
| White Expanded Polystyrene (Styrofoam)     | 1.3%         | 0.9% | 0.5%      | Other Wood                               | 0.5%         | 0.6% | 0.4%      |
| Recoverable Film                           | 1.5%         | 1.0% | 0.6%      | Asphalt Roofing                          | 0.0%         | 0.0% | 0.0%      |
| All Other Film                             | 4.4%         | 1.0% | 0.6%      | Asphalt, Brick, Concrete, and Rocks      | 0.8%         | 1.1% | 0.6%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board                     | 0.0%         | 0.0% | 0.0%      |
| Large Plastic Items                        | 0.3%         | 0.6% | 0.3%      | Remainder/Composite C&D                  | 2.1%         | 1.7% | 1.1%      |
| Remainder/Composite Plastic                | 1.8%         | 0.8% | 0.5%      | <b>Other</b>                             | <b>1.5%</b>  |      |           |
| <b>Organic</b>                             | <b>32.3%</b> |      |           | Tires                                    | 0.0%         | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 13.6%        | 7.4% | 4.5%      | Small Appliances                         | 0.3%         | 0.3% | 0.2%      |
| Protein Food Waste, Unpackaged             | 2.0%         | 1.2% | 0.8%      | Large Electronics                        | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 3.7%         | 2.4% | 1.5%      | Other Small Consumer Electronics         | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 0.7%         | 0.3% | 0.2%      | Items with CRTs                          | 0.0%         | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 0.4%         | 0.4% | 0.3%      | Other Larger Electronics                 | 0.4%         | 0.7% | 0.4%      |
| Branches and Stumps                        | 0.1%         | 0.2% | 0.1%      | Other Haz. or Household Haz. Waste (HHW) | 0.1%         | 0.1% | 0.1%      |
| Textiles                                   | 2.2%         | 1.8% | 1.1%      | All Other Wastes                         | 0.6%         | 0.4% | 0.2%      |
| Rubber/Leather                             | 1.1%         | 1.0% | 0.6%      | <b>Totals</b>                            | <b>100%</b>  |      |           |
| Diapers and Sanitary Products              | 0.6%         | 0.4% | 0.3%      | <b>Sample Count</b>                      | <b>12</b>    |      |           |
| Carpet and Carpet Padding                  | 0.7%         | 1.2% | 0.7%      |  |              |      |           |
| Remainder/Composite Organic                | 7.2%         | 4.3% | 2.6%      |  |              |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 38. Composition of Large Retail MSW**

| Material                                   | Mean         | +/-   | Std. Dev. | Material                                 | Mean         | +/-   | Std. Dev. |
|--|--------------|-------|-----------|--|--------------|-------|-----------|
| <b>Paper</b>                               | <b>56.5%</b> |       |           | <b>Metal</b>                             | <b>1.5%</b>  |       |           |
| Newspaper and Inserts                      | 0.3%         | 0.3%  | 0.2%      | Tin/Steel Containers                     | 0.0%         | 0.0%  | 0.0%      |
| Corrugated Cardboard/Kraft Paper           | 43.6%        | 19.9% | 12.1%     | Other Ferrous                            | 1.1%         | 1.2%  | 0.7%      |
| High Grade Office Paper                    | 0.3%         | 0.2%  | 0.1%      | Aluminum Beverage & Cat Food Containers  | 0.3%         | 0.2%  | 0.1%      |
| Mixed Recyclable Paper                     | 2.2%         | 1.5%  | 0.9%      | Other Aluminum                           | 0.0%         | 0.0%  | 0.0%      |
| Compostable Paper                          | 4.7%         | 2.8%  | 1.7%      | Other Non-Ferrous                        | 0.0%         | 0.1%  | 0.0%      |
| Aseptic Boxes and Gable Top Cartons        | 0.0%         | 0.0%  | 0.0%      | <b>Glass</b>                             | <b>0.2%</b>  |       |           |
| Remainder/Composite Paper                  | 5.5%         | 4.4%  | 2.7%      | Glass Bottles and Jars                   | 0.2%         | 0.2%  | 0.1%      |
| <b>Plastic</b>                             | <b>9.3%</b>  |       |           | Remainder/Composite Glass                | 0.0%         | 0.0%  | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 1.1%         | 0.8%  | 0.5%      | <b>C&amp;D</b>                           | <b>15.7%</b> |       |           |
| HDPE #2 Natural and Colored Bottles        | 0.1%         | 0.1%  | 0.1%      | Pallets/Crates                           | 3.2%         | 3.5%  | 2.1%      |
| Rigid HDPE #2 Containers                   | 0.3%         | 0.4%  | 0.2%      | Clean Lumber                             | 2.5%         | 4.1%  | 2.5%      |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.0%  | 0.0%      | Painted and Stained Wood                 | 0.0%         | 0.0%  | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.1%         | 0.1%  | 0.1%      | Other Engineered Wood                    | 2.4%         | 3.5%  | 2.2%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0%  | 0.0%      | Wood Furniture                           | 6.7%         | 11.0% | 6.7%      |
| White Expanded Polystyrene (Styrofoam)     | 1.2%         | 1.8%  | 1.1%      | Other Wood                               | 0.0%         | 0.0%  | 0.0%      |
| Recoverable Film                           | 2.0%         | 1.8%  | 1.1%      | Asphalt Roofing                          | 0.0%         | 0.0%  | 0.0%      |
| All Other Film                             | 2.6%         | 1.4%  | 0.8%      | Asphalt, Brick, Concrete, and Rocks      | 0.0%         | 0.0%  | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0%  | 0.0%      | Drywall/Gypsum Board                     | 0.0%         | 0.0%  | 0.0%      |
| Large Plastic Items                        | 0.6%         | 1.0%  | 0.6%      | Remainder/Composite C&D                  | 1.0%         | 1.5%  | 0.9%      |
| Remainder/Composite Plastic                | 1.3%         | 1.4%  | 0.8%      | <b>Other</b>                             | <b>2.8%</b>  |       |           |
| <b>Organic</b>                             | <b>13.9%</b> |       |           | Tires                                    | 0.0%         | 0.0%  | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 0.8%         | 0.6%  | 0.3%      | Small Appliances                         | 0.0%         | 0.0%  | 0.0%      |
| Protein Food Waste, Unpackaged             | 0.7%         | 1.1%  | 0.7%      | Large Electronics                        | 0.0%         | 0.0%  | 0.0%      |
| Food Waste in Plastic Packaging            | 3.3%         | 4.7%  | 2.9%      | Other Small Consumer Electronics         | 0.1%         | 0.1%  | 0.1%      |
| Food Waste in Other Packaging              | 2.7%         | 3.6%  | 2.2%      | Items with CRTs                          | 0.0%         | 0.0%  | 0.0%      |
| Leaves, Grass, and Brush                   | 1.8%         | 3.0%  | 1.8%      | Other Larger Electronics                 | 0.0%         | 0.0%  | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0%  | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.0%         | 0.0%  | 0.0%      |
| Textiles                                   | 2.4%         | 2.3%  | 1.4%      | All Other Wastes                         | 2.7%         | 2.9%  | 1.7%      |
| Rubber/Leather                             | 0.1%         | 0.1%  | 0.0%      | <b>Totals</b>                            | <b>100%</b>  |       |           |
| Diapers and Sanitary Products              | 0.1%         | 0.1%  | 0.1%      | <b>Sample Count</b>                      | <b>9</b>     |       |           |
| Carpet and Carpet Padding                  | 1.3%         | 2.1%  | 1.2%      |  |              |       |           |
| Remainder/Composite Organic                | 0.7%         | 0.7%  | 0.4%      |  |              |       |           |

Confidence intervals calculated at a 90% confidence level.

**Table 39. Composition of Office MSW**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean        | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|-------------|------|-----------|
| <b>Paper</b>                               | <b>50.7%</b> |      |           | <b>Metal</b>                             | <b>4.9%</b> |      |           |
| Newspaper and Inserts                      | 2.7%         | 1.7% | 1.0%      | Tin/Steel Containers                     | 0.5%        | 0.4% | 0.3%      |
| Corrugated Cardboard/Kraft Paper           | 6.2%         | 3.9% | 2.4%      | Other Ferrous                            | 0.9%        | 1.1% | 0.7%      |
| High Grade Office Paper                    | 6.1%         | 3.4% | 2.1%      | Aluminum Beverage & Cat Food Containers  | 0.6%        | 0.3% | 0.2%      |
| Mixed Recyclable Paper                     | 4.2%         | 2.2% | 1.4%      | Other Aluminum                           | 0.3%        | 0.3% | 0.2%      |
| Compostable Paper                          | 13.1%        | 7.0% | 4.2%      | Other Non-Ferrous                        | 2.6%        | 3.5% | 2.1%      |
| Aseptic Boxes and Gable Top Cartons        | 0.1%         | 0.0% | 0.0%      | <b>Glass</b>                             | <b>3.5%</b> |      |           |
| Remainder/Composite Paper                  | 18.2%        | 8.0% | 4.8%      | Glass Bottles and Jars                   | 3.5%        | 2.5% | 1.5%      |
| <b>Plastic</b>                             | <b>14.9%</b> |      |           | Remainder/Composite Glass                | 0.0%        | 0.0% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 2.5%         | 1.0% | 0.6%      | <b>C&amp;D</b>                           | <b>7.6%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 0.4%         | 0.1% | 0.1%      | Pallets/Crates                           | 3.1%        | 2.9% | 1.8%      |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0% | 0.0%      | Clean Lumber                             | 0.0%        | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.1%         | 0.1% | 0.0%      | Painted and Stained Wood                 | 0.0%        | 0.0% | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.4%         | 0.2% | 0.1%      | Other Engineered Wood                    | 0.0%        | 0.0% | 0.0%      |
| All Other Rigid Plastic Packaging          | 0.2%         | 0.2% | 0.1%      | Wood Furniture                           | 3.0%        | 3.4% | 2.1%      |
| White Expanded Polystyrene (Styrofoam)     | 0.7%         | 0.6% | 0.4%      | Other Wood                               | 0.0%        | 0.0% | 0.0%      |
| Recoverable Film                           | 0.6%         | 0.3% | 0.2%      | Asphalt Roofing                          | 0.0%        | 0.0% | 0.0%      |
| All Other Film                             | 5.7%         | 1.8% | 1.1%      | Asphalt, Brick, Concrete, and Rocks      | 1.4%        | 1.3% | 0.8%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board                     | 0.0%        | 0.0% | 0.0%      |
| Large Plastic Items                        | 0.0%         | 0.0% | 0.0%      | Remainder/Composite C&D                  | 0.1%        | 0.2% | 0.1%      |
| Remainder/Composite Plastic                | 4.5%         | 1.5% | 0.9%      | <b>Other</b>                             | <b>4.0%</b> |      |           |
| <b>Organic</b>                             | <b>14.3%</b> |      |           | Tires                                    | 0.0%        | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 4.8%         | 1.2% | 0.7%      | Small Appliances                         | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 2.0%         | 1.0% | 0.6%      | Large Electronics                        | 3.2%        | 3.4% | 2.1%      |
| Food Waste in Plastic Packaging            | 3.6%         | 1.6% | 1.0%      | Other Small Consumer Electronics         | 0.5%        | 0.5% | 0.3%      |
| Food Waste in Other Packaging              | 0.8%         | 0.5% | 0.3%      | Items with CRTs                          | 0.0%        | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 1.0%         | 1.6% | 0.9%      | Other Larger Electronics                 | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0% | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.1%        | 0.1% | 0.1%      |
| Textiles                                   | 0.1%         | 0.1% | 0.1%      | All Other Wastes                         | 0.2%        | 0.2% | 0.1%      |
| Rubber/Leather                             | 0.2%         | 0.1% | 0.1%      | <b>Totals</b>                            | <b>100%</b> |      |           |
| Diapers and Sanitary Products              | 0.1%         | 0.2% | 0.1%      | <b>Sample Count</b>                      | <b>8</b>    |      |           |
| Carpet and Carpet Padding                  | 0.0%         | 0.0% | 0.0%      |  |             |      |           |
| Remainder/Composite Organic                | 1.6%         | 1.0% | 0.6%      |  |             |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 40. Composition of Restaurant MSW**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean        | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|-------------|------|-----------|
| <b>Paper</b>                               | <b>25.7%</b> |      |           | <b>Metal</b>                             | <b>2.1%</b> |      |           |
| Newspaper and Inserts                      | 0.1%         | 0.1% | 0.1%      | Tin/Steel Containers                     | 1.3%        | 0.5% | 0.3%      |
| Corrugated Cardboard/Kraft Paper           | 12.2%        | 4.5% | 2.7%      | Other Ferrous                            | 0.1%        | 0.1% | 0.0%      |
| High Grade Office Paper                    | 1.1%         | 1.0% | 0.6%      | Aluminum Beverage & Cat Food Containers  | 0.1%        | 0.1% | 0.0%      |
| Mixed Recyclable Paper                     | 0.7%         | 0.3% | 0.2%      | Other Aluminum                           | 0.6%        | 0.5% | 0.3%      |
| Compostable Paper                          | 10.8%        | 1.7% | 1.0%      | Other Non-Ferrous                        | 0.0%        | 0.0% | 0.0%      |
| Aseptic Boxes and Gable Top Cartons        | 0.3%         | 0.2% | 0.1%      | <b>Glass</b>                             | <b>5.3%</b> |      |           |
| Remainder/Composite Paper                  | 0.5%         | 0.6% | 0.4%      | Glass Bottles and Jars                   | 5.3%        | 3.0% | 1.8%      |
| <b>Plastic</b>                             | <b>12.1%</b> |      |           | Remainder/Composite Glass                | 0.0%        | 0.0% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 0.6%         | 0.2% | 0.1%      | <b>C&amp;D</b>                           | <b>0.5%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 1.0%         | 0.2% | 0.1%      | Pallets/Crates                           | 0.0%        | 0.0% | 0.0%      |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0% | 0.0%      | Clean Lumber                             | 0.0%        | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.0% | 0.0%      | Painted and Stained Wood                 | 0.3%        | 0.4% | 0.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.3%         | 0.2% | 0.1%      | Other Engineered Wood                    | 0.1%        | 0.1% | 0.1%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0% | 0.0%      | Wood Furniture                           | 0.0%        | 0.0% | 0.0%      |
| White Expanded Polystyrene (Styrofoam)     | 0.3%         | 0.1% | 0.1%      | Other Wood                               | 0.1%        | 0.1% | 0.1%      |
| Recoverable Film                           | 0.2%         | 0.1% | 0.1%      | Asphalt Roofing                          | 0.0%        | 0.0% | 0.0%      |
| All Other Film                             | 7.3%         | 1.2% | 0.7%      | Asphalt, Brick, Concrete, and Rocks      | 0.0%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board                     | 0.0%        | 0.0% | 0.0%      |
| Large Plastic Items                        | 0.2%         | 0.3% | 0.2%      | Remainder/Composite C&D                  | 0.0%        | 0.1% | 0.0%      |
| Remainder/Composite Plastic                | 2.0%         | 0.5% | 0.3%      | <b>Other</b>                             | <b>0.1%</b> |      |           |
| <b>Organic</b>                             | <b>54.2%</b> |      |           | Tires                                    | 0.0%        | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 28.3%        | 5.6% | 3.4%      | Small Appliances                         | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 13.3%        | 5.3% | 3.2%      | Large Electronics                        | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 5.1%         | 2.0% | 1.2%      | Other Small Consumer Electronics         | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 1.9%         | 1.5% | 0.9%      | Items with CRTs                          | 0.0%        | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 0.6%         | 0.5% | 0.3%      | Other Larger Electronics                 | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0% | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.0%        | 0.0% | 0.0%      |
| Textiles                                   | 0.6%         | 0.2% | 0.1%      | All Other Wastes                         | 0.1%        | 0.1% | 0.1%      |
| Rubber/Leather                             | 0.7%         | 0.3% | 0.2%      | <b>Totals</b>                            | <b>100%</b> |      |           |
| Diapers and Sanitary Products              | 0.1%         | 0.1% | 0.1%      | <b>Sample Count</b>                      | <b>16</b>   |      |           |
| Carpet and Carpet Padding                  | 1.4%         | 1.5% | 0.9%      |  |             |      |           |
| Remainder/Composite Organic                | 2.2%         | 1.0% | 0.6%      |  |             |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 41. Composition of Convenience Store MSW**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean        | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|-------------|------|-----------|
| <b>Paper</b>                               | <b>22.7%</b> |      |           | <b>Metal</b>                             | <b>0.9%</b> |      |           |
| Newspaper and Inserts                      | 5.3%         | 4.1% | 2.5%      | Tin/Steel Containers                     | 0.3%        | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 1.6%         | 0.9% | 0.5%      | Other Ferrous                            | 0.0%        | 0.0% | 0.0%      |
| High Grade Office Paper                    | 0.3%         | 0.3% | 0.2%      | Aluminum Beverage & Cat Food Containers  | 0.5%        | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 2.4%         | 1.0% | 0.6%      | Other Aluminum                           | 0.0%        | 0.0% | 0.0%      |
| Compostable Paper                          | 11.9%        | 1.8% | 1.1%      | Other Non-Ferrous                        | 0.0%        | 0.0% | 0.0%      |
| Aseptic Boxes and Gable Top Cartons        | 0.7%         | 0.3% | 0.2%      | <b>Glass</b>                             | <b>0.9%</b> |      |           |
| Remainder/Composite Paper                  | 0.5%         | 0.2% | 0.1%      | Glass Bottles and Jars                   | 0.8%        | 0.3% | 0.2%      |
| <b>Plastic</b>                             | <b>14.8%</b> |      |           | Remainder/Composite Glass                | 0.1%        | 0.1% | 0.1%      |
| PET #1 Bottles, Jars, or Containers        | 1.5%         | 0.5% | 0.3%      | <b>C&amp;D</b>                           | <b>0.0%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 0.9%         | 0.2% | 0.1%      | Pallets/Crates                           | 0.0%        | 0.0% | 0.0%      |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0% | 0.0%      | Clean Lumber                             | 0.0%        | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.1%         | 0.1% | 0.0%      | Painted and Stained Wood                 | 0.0%        | 0.0% | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.6%         | 0.2% | 0.1%      | Other Engineered Wood                    | 0.0%        | 0.0% | 0.0%      |
| All Other Rigid Plastic Packaging          | 0.2%         | 0.3% | 0.2%      | Wood Furniture                           | 0.0%        | 0.0% | 0.0%      |
| White Expanded Polystyrene (Styrofoam)     | 0.2%         | 0.1% | 0.1%      | Other Wood                               | 0.0%        | 0.0% | 0.0%      |
| Recoverable Film                           | 0.5%         | 0.2% | 0.1%      | Asphalt Roofing                          | 0.0%        | 0.0% | 0.0%      |
| All Other Film                             | 8.3%         | 1.9% | 1.2%      | Asphalt, Brick, Concrete, and Rocks      | 0.0%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board                     | 0.0%        | 0.0% | 0.0%      |
| Large Plastic Items                        | 0.0%         | 0.0% | 0.0%      | Remainder/Composite C&D                  | 0.0%        | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 2.6%         | 0.7% | 0.4%      | <b>Other</b>                             | <b>0.3%</b> |      |           |
| <b>Organic</b>                             | <b>60.3%</b> |      |           | Tires                                    | 0.0%        | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 26.4%        | 9.3% | 5.7%      | Small Appliances                         | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 4.4%         | 3.8% | 2.3%      | Large Electronics                        | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 18.1%        | 6.5% | 4.0%      | Other Small Consumer Electronics         | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 6.3%         | 2.6% | 1.6%      | Items with CRTs                          | 0.0%        | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 2.0%         | 3.2% | 2.0%      | Other Larger Electronics                 | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0% | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.1%        | 0.1% | 0.0%      |
| Textiles                                   | 0.4%         | 0.2% | 0.1%      | All Other Wastes                         | 0.2%        | 0.3% | 0.2%      |
| Rubber/Leather                             | 0.7%         | 0.3% | 0.2%      | <b>Totals</b>                            | <b>100%</b> |      |           |
| Diapers and Sanitary Products              | 0.2%         | 0.2% | 0.1%      | <b>Sample Count</b>                      | <b>8</b>    |      |           |
| Carpet and Carpet Padding                  | 0.0%         | 0.0% | 0.0%      |  |             |      |           |
| Remainder/Composite Organic                | 2.1%         | 1.7% | 1.0%      |  |             |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table 42. Composition of Grocery MSW**

| Material                                   | Mean         | +/-   | Std. Dev. | Material                                 | Mean         | +/-  | Std. Dev. |
|--|--------------|-------|-----------|--|--------------|------|-----------|
| <b>Paper</b>                               | <b>38.2%</b> |       |           | <b>Metal</b>                             | <b>0.7%</b>  |      |           |
| Newspaper and Inserts                      | 1.0%         | 0.8%  | 0.5%      | Tin/Steel Containers                     | 0.1%         | 0.1% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 19.3%        | 13.9% | 8.4%      | Other Ferrous                            | 0.3%         | 0.3% | 0.2%      |
| High Grade Office Paper                    | 1.7%         | 2.2%  | 1.3%      | Aluminum Beverage & Cat Food Containers  | 0.1%         | 0.0% | 0.0%      |
| Mixed Recyclable Paper                     | 2.6%         | 3.8%  | 2.3%      | Other Aluminum                           | 0.2%         | 0.2% | 0.1%      |
| Compostable Paper                          | 6.1%         | 3.9%  | 2.4%      | Other Non-Ferrous                        | 0.0%         | 0.0% | 0.0%      |
| Aseptic Boxes and Gable Top Cartons        | 0.0%         | 0.0%  | 0.0%      | <b>Glass</b>                             | <b>0.3%</b>  |      |           |
| Remainder/Composite Paper                  | 7.3%         | 9.3%  | 5.6%      | Glass Bottles and Jars                   | 0.3%         | 0.2% | 0.1%      |
| <b>Plastic</b>                             | <b>16.7%</b> |       |           | Remainder/Composite Glass                | 0.0%         | 0.1% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 0.9%         | 0.4%  | 0.3%      | <b>C&amp;D</b>                           | <b>11.6%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 1.3%         | 1.7%  | 1.0%      | Pallets/Crates                           | 3.7%         | 6.2% | 3.7%      |
| Rigid HDPE #2 Containers                   | 0.3%         | 0.5%  | 0.3%      | Clean Lumber                             | 0.0%         | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.1%         | 0.1%  | 0.1%      | Painted and Stained Wood                 | 0.0%         | 0.0% | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.3%         | 0.4%  | 0.3%      | Other Engineered Wood                    | 0.0%         | 0.1% | 0.0%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0%  | 0.0%      | Wood Furniture                           | 4.8%         | 7.9% | 4.8%      |
| White Expanded Polystyrene (Styrofoam)     | 2.1%         | 1.7%  | 1.0%      | Other Wood                               | 3.0%         | 3.9% | 2.4%      |
| Recoverable Film                           | 0.2%         | 0.1%  | 0.1%      | Asphalt Roofing                          | 0.0%         | 0.0% | 0.0%      |
| All Other Film                             | 5.9%         | 3.6%  | 2.2%      | Asphalt, Brick, Concrete, and Rocks      | 0.0%         | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0%  | 0.0%      | Drywall/Gypsum Board                     | 0.0%         | 0.0% | 0.0%      |
| Large Plastic Items                        | 0.0%         | 0.0%  | 0.0%      | Remainder/Composite C&D                  | 0.0%         | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 5.6%         | 5.5%  | 3.3%      | <b>Other</b>                             | <b>0.9%</b>  |      |           |
| <b>Organic</b>                             | <b>31.7%</b> |       |           | Tires                                    | 0.0%         | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 12.4%        | 8.3%  | 5.0%      | Small Appliances                         | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 2.7%         | 1.9%  | 1.1%      | Large Electronics                        | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 10.6%        | 4.1%  | 2.5%      | Other Small Consumer Electronics         | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 3.0%         | 1.7%  | 1.0%      | Items with CRTs                          | 0.0%         | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 1.3%         | 1.6%  | 1.0%      | Other Larger Electronics                 | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0%  | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.3%         | 0.4% | 0.2%      |
| Textiles                                   | 0.2%         | 0.3%  | 0.2%      | All Other Wastes                         | 0.6%         | 0.9% | 0.5%      |
| Rubber/Leather                             | 0.5%         | 0.4%  | 0.2%      | <b>Totals</b>                            | <b>100%</b>  |      |           |
| Diapers and Sanitary Products              | 0.0%         | 0.1%  | 0.0%      | <b>Sample Count</b>                      | <b>5</b>     |      |           |
| Carpet and Carpet Padding                  | 0.0%         | 0.0%  | 0.0%      |  |              |      |           |
| Remainder/Composite Organic                | 1.0%         | 0.7%  | 0.4%      |  |              |      |           |

Confidence intervals calculated at a 90% confidence level.



## IV. ANALYSIS OF RESULTS

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The Analysis of Results is divided into two parts. First, the 2015/16 results are compared against the 2006/07 waste characterization to assess the effectiveness of the diversion initiatives implemented subsequent to the last waste characterization.

Second, general observations concerning the results of the hand sorts of residential and ICI generators, the targeted generator sorts, and the visual analysis of self-haul waste are outlined.

### Change in Tons Disposed

It is important to note, when comparing the 2006/07 and 2015/16 results that there has been a significant decline in overall MSW tons disposed at DSWA facilities. As illustrated in Table 43, below, residential MSW deliveries have declined by 35 percent and ICI MSW tonnage by 31 percent. This obviously impacts the comparison of tons, by material type between the two waste characterization studies.

This reduction in deliveries is due to the following factors:

- Significant diversion efforts undertaken between 2006/2007 and 2015/16;
- The “evolving ton” associated with continuous light-weighting of packaging and significant declines in paper use – especially newspaper; and
- General reductions in waste generation by both household and ICI generators.

In addition, as discussed in the Introduction to this report, this most recent characterization did not include characterization of C&D wastes, and therefore C&D wastes are not included in the presentation of material types by facility. As a consequence, one cannot compare percentages by material type between the two waste characterizations because the significant reduction in C&D materials in the 2015/16 analysis (due to excluding coded C&D loads from the characterization) increases the percentages (or share of the total) of all other materials that were characterized and are reported on in this study.

Therefore, it is necessary to compare tonnages by material type across the two waste characterizations. Table 43 compares tonnages for residential and ICI MSW by facility received during both waste characterizations, and calculates the percentage reduction by facility for both residential and ICI waste for use in the comparison<sup>5</sup>.

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<sup>5</sup> Note that it was necessary to estimate the amount of Self-Haul tonnage that was residential versus ICI and C&D for the 2007/08 analysis since that was not reported separately. For purposes of comparison the percent allocation for 2015/16 was applied to Self-Haul tonnages by facility for 2007/08.

**Table 43. Comparison of 2006/07 Tonnages by Facility to 2015/16**

| Facility         | Total MSW FY 08 |                | Total MSW FY 16 |                | Percent Reduction |            |
|------------------|-----------------|----------------|-----------------|----------------|-------------------|------------|
|                  | Res             | ICI            | Res             | ICI            | Res               | ICI        |
|                  | (tons)          | (tons)         | (tons)          | (tons)         | (tons)            | (tons)     |
| Sandtown         | 84,989          | 44,757         | 36,516          | 39,229         | 57%               | 12%        |
| Jones Crossroads | 57,392          | 81,909         | 23,741          | 31,587         | 59%               | 61%        |
| Cherry Island    | 253,275         | 232,401        | 153,927         | 161,737        | 39%               | 30%        |
| Pine Tree        | 46,044          | 37,512         | 39,621          | 24,514         | 14%               | 35%        |
| Milford          | 21,288          | 19,367         | 22,443          | 14,823         | -5%               | 23%        |
| Route 5          | 28,698          | 26,052         | 43,910          | 34,866         | -53%              | -34%       |
| <b>Total</b>     | <b>491,686</b>  | <b>441,997</b> | <b>320,159</b>  | <b>306,755</b> | <b>35%</b>        | <b>31%</b> |

### Success of Recent Diversion Efforts

Subsequent to the 2006/07 Waste Characterization analysis the State of Delaware enacted bans on disposal of yard waste, and implemented the Universal Recycling law (which included repeal of the deposit on glass and PET carbonated beverage containers). Both of these measures were meant to divert material from DSWA landfills to more productive uses.

Tables 44 and 45 illustrate the results of these two measures on single stream recyclable materials and on yard waste disposal from the residential and ICI sectors, respectively.

**Table 44. Comparison of Residential Single Stream and Yard Waste Materials Disposed at DSWA Facilities, 2006/07 and 2015/16**

| Material  | 2006/07        | 2015/16       | % Reduction |
|---|----------------|---------------|-------------|
|   | (tons)         | (tons)        |             |
| <b>Total Paper</b>                                | <b>90,822</b>  | <b>33,066</b> | <b>64%</b>  |
| Newspaper and Inserts                             | 22,578         | 5,922         | 74%         |
| Corrugated Cardboard/Kraft Paper                  | 28,581         | 11,560        | 60%         |
| High Grade Office Paper                           | 8,057          | 1,992         | 75%         |
| Mixed Recyclable Paper                            | 31,606         | 13,147        | 58%         |
| Aseptic Boxes and Gable Top Cartons               |                | 445           |             |
| <b>Total Plastic</b>                              | <b>8,705</b>   | <b>5,189</b>  | <b>40%</b>  |
| PET #1 Bottles, Jars, or Containers               | 5,890          | 5,467         | 7%          |
| HDPE #2 Natural and Colored Bottles               | 4,510          | 3,243         | 28%         |
| Rigid HDPE #2 Containers                          |                | 332           |             |
| #3 to #7 Bottles or Jars                          | 756            | 372           | 51%         |
| Injection Molded Tubs #2, #4, #5, #6, & #7        | 1,125          | 736           | 35%         |
| All Other Rigid Plastic Packaging                 | 2,314          | 505           | 78%         |
| <b>Total Metal Food &amp; Beverage Containers</b> | <b>7,610</b>   | <b>5,095</b>  | <b>33%</b>  |
| Tin/Steel Containers                              | 4,483          | 3,554         | 21%         |
| Aluminum Beverage & Cat Food Containers           | 3,127          | 1,541         | 51%         |
| <b>Total Glass Containers</b>                     | <b>12,025</b>  | <b>9,015</b>  | <b>25%</b>  |
| Glass Bottles and Jars                            | 12,025         | 9,015         | 25%         |
| <b>Total Single Stream Material</b>               | <b>119,162</b> | <b>52,365</b> | <b>56%</b>  |
| <b>Total Yard Waste</b>                           | <b>62,339</b>  | <b>15,764</b> | <b>75%</b>  |
| Leaves, Grass, and Brush                          | 60,807         | 14,709        | 76%         |
| Branches and Stumps                               | 1,532          | 1,056         | 31%         |

As illustrated by Table 44, total residential single stream material delivered to DSWA facilities has fallen by 56 percent between 2006/07 and 2015/16, and total yard waste by 75 percent. This decline occurred during an increase of 8.7 percent in total population of Delaware during this same time period.

Calculated on a per capita disposal basis, single stream material disposed at DSWA facilities fell from 276 pounds per capita to 132 pounds per capita, or (roughly) from 726 pounds per household to 347 pounds per household.

Similarly for yard waste, households have reduced the disposal of yard waste at DSWA facilities from 144 pounds per household to 33 pounds per household from 2007/08 to 2015/16.

Based on DSM's work in many other states, these declines represent very significant improvements in diversion and are likely to represent very high materials recovery rates.

**Table 45. Comparison of ICI Single Stream and Yard Waste Materials Disposed at DSWA Facilities, 2007/08 and 2015/16**

| <b>Material</b>                                 | <b>2006/07</b> | <b>2015/16</b> | <b>% Reduction</b> |
|---|----------------|----------------|--------------------|
|   | (tons)         | (tons)         |                    |
| <b>Total Paper</b>                              | <b>99,137</b>  | <b>44,139</b>  | <b>55%</b>         |
| Newspaper and Inserts                           | 8,952          | 4,395          | 51%                |
| Corrugated Cardboard/Kraft Paper                | 61,222         | 25,347         | 59%                |
| High Grade Office Paper                         | 9,956          | 3,816          | 62%                |
| Mixed Recyclable Paper                          | 19,007         | 9,584          | 50%                |
| Aseptic Boxes and Gable Top Cartons             |                | 996            |                    |
| <b>Total Plastic</b>                            | <b>9,540</b>   | <b>9,117</b>   | <b>4%</b>          |
| PET #1 Bottles, Jars, or Containers             | 3,748          | 5,525          | -47%               |
| HDPE #2 Natural and Colored Bottles             | 2,435          | 2,109          | 13%                |
| Rigid HDPE #2 Containers                        |                | 178            |                    |
| #3 to #7 Bottles or Jars                        | 270            | 150            | 44%                |
| Injection Molded Tubs #2, #4, #5, #6, & #7      | 951            | 991            | -4%                |
| All Other Rigid Plastic Packaging               | 2,136          | 163            | 92%                |
| <b>Total Metal Food and Beverage Containers</b> | <b>4,986</b>   | <b>2,958</b>   | <b>41%</b>         |
| Tin/Steel Containers                            | 3,737          | 1,779          | 52%                |
| Aluminum Beverage & Cat Food Containers         | 1,249          | 1,179          | 6%                 |
| <b>Total Glass Containers</b>                   | <b>6,163</b>   | <b>4,421</b>   | <b>28%</b>         |
| Glass Bottles and Jars                          | 6,163          | 4,421          | 28%                |
| <b>Total Single Stream Material</b>             | <b>119,826</b> | <b>60,635</b>  | <b>49%</b>         |
| <b>Total Yard Waste</b>                         | <b>8,053</b>   | <b>11,806</b>  | <b>-47%</b>        |
| Leaves, Grass, and Brush                        | 7,855          | 10,981         | -40%               |
| Branches and Stumps                             | 198            | 825            | -317%              |

As illustrated by Table 45, there has been a significant reduction in single stream material disposed at DSWA facilities from ICI generators. While there appears to be room for continued improvement, it should be recognized that ICI generators have been recycling large quantities of homogeneous materials

for a much longer time than residential generators, so recovery rates are typically more stable, and require sustained efforts to achieve relatively marginal increases. However, the ban on yard waste does not appear to have had much impact on disposal of yard waste from ICI generators.

### Organic Waste Diversion

Tables 46 and 47 compare residential and ICI organic waste disposal from 2006/07 and 2015/16.

**Table 46. Disposal of Residential Organic Waste, 2006/07 and 2015/16**

| <b>Organic</b>                    | <b>2006/07</b> | <b>2015/16</b> | <b>% Reduction</b> |
|-----------------------------------|----------------|----------------|--------------------|
| <b>Food Waste</b>                 | <b>50,516</b>  | <b>64,913</b>  | <b>-28%</b>        |
| Vegetative Food Waste, Unpackaged |                | 24,342         |                    |
| Protein Food Waste, Unpackaged    |                | 11,184         |                    |
| Food Waste in Plastic Packaging   |                | 25,411         |                    |
| Food Waste in Other Packaging     |                | 3,976          |                    |
| Leaves, Grass, and Brush          | 60,807         | 14,709         | 76%                |
| Branches and Stumps               | 1,532          | 1,056          | 31%                |
| Compostable Paper                 | 29,799         | 30,867         | -4%                |
| <b>Total Organic Waste</b>        | <b>112,855</b> | <b>80,677</b>  | <b>29%</b>         |

As illustrated by Table 46, disposal of Residential Food Waste has increased by 28 percent since 2006/07, which is greater than the increase in population. As a result, annual per capita and per household food waste has also increased, from 117 to 137 pounds per capita, and from 308 to 361 pounds per household per year. While data are not available from the 2006/07 waste characterization, in 2015/16, approximately 55 percent of the food waste was uncontaminated by packaging (or 45 percent of food waste was contaminated by packaging) suggesting that any effort to divert significant amounts of food waste would require investment in de-packaging equipment.

**Table 47. Disposal of ICI Organic Waste, 2006/07 and 2015/16**

| <b>Organic</b>                    | <b>2006/07</b> | <b>2015/16</b> | <b>% Reduction</b> |
|-----------------------------------|----------------|----------------|--------------------|
| <b>Food Waste</b>                 | <b>53,970</b>  | <b>67,087</b>  | <b>-24%</b>        |
| Vegetative Food Waste, Unpackaged |                | 33,362         |                    |
| Protein Food Waste, Unpackaged    |                | 9,941          |                    |
| Food Waste in Plastic Packaging   |                | 18,339         |                    |
| Food Waste in Other Packaging     |                | 5,446          |                    |
| Leaves, Grass, and Brush          | 7,855          | 10,981         | -40%               |
| Branches and Stumps               | 198            | 825            | -317%              |
| Compostable Paper                 | 32,167         | 30,867         | 4%                 |
| <b>Total Organic Waste</b>        | <b>94,190</b>  | <b>109,760</b> | <b>-17%</b>        |

As illustrated by Table 47, as with Residential Organics, ICI Organics disposal has increased between 2006/07 and 2015/16, even as total deliveries of waste to DSWA landfills has fallen. And, similar to residential waste, the amount of uncontaminated food waste represents only about 60 percent of the ICI food waste.

## General Observations

### *Per Capita and Per Household Disposal*

There has been a relatively significant decline in total MSW disposal at DSWA landfills and transfer stations between 2007/08 and 2015/16. It is interesting to convert this decline into per capita and per household disposal, both overall and for residential waste only.

Extrapolating from 2000, 2010, and 2015 census data it is estimated that the population of Delaware in 2007 was roughly 863,500 with approximately 328,300 (rounded, at 2.63 persons/household) households. This had increased to a population of 945,900 (rounded) by 2015 with 360,000 households.

However, during this period of time total residential and ICI waste disposal has declined by 35 and 31 percent respectively. It is interesting to put this in perspective by dividing total, residential and ICI waste by population and households in both time periods to calculate a per capita and per household disposal rate, as illustrated in Table 48.

**Table 48. Comparison of Pounds Per Capita Per Year and Annual Per Household Disposal Rates, 2006/07 and 2015/16**

| <b>2007/08</b>   | <b>Unit</b> | <b>Per Capita</b> | <b>Per HH</b> |
|------------------|-------------|-------------------|---------------|
| Population       | 863,500     |                   |               |
| Households       | 328,327     |                   |               |
| Total MSW (tons) | 933,683     | 2,163             | 5,688         |
| Residential Tons | 491,686     | 1,139             | 2,995         |
| ICI Tons         | 441,997     | 1,024             | 2,692         |
| <b>2015/16</b>   |             |                   |               |
| Population       | 945,934     |                   |               |
| Households       | 359,677     |                   |               |
| Total MSW (tons) | 626,914     | 1,325             | 3,486         |
| Residential Tons | 320,159     | 677               | 1,780         |
| ICI Tons         | 306,755     | 649               | 1,706         |

As illustrated by Table 48, there has been a significant decline in per capita or per household disposal over the nine years between the two waste characterization studies. As discussed above, this is due to a combination of light-weighting of materials and increased diversion for recycling and yard waste processing.

### *Comparison with Other Recent Waste Characterizations*

The Project Team completed state-wide waste characterization studies in Rhode Island (2014/15) and Connecticut (2015). Table 49 below compares the state-wide results for the three states for all MSW, Residential MSW and ICI MSW. Only the major categories are included, with the exception that food waste has been broken out from all other organics in each case.

It should be noted when comparing the results that while the material categories are similar there are some differences in what are included in each major category, which can impact the overall comparison. An attempt has been made to combine categories where necessary to as closely as possible mimic the Delaware categories, but it is not exact. Despite these differences, an analysis of Table 49 illustrates that Delaware's results are roughly similar to both Rhode Island and Connecticut, with no categories that stand out as an anomaly for Delaware.

**Table 49. Comparison of State-Wide Results, Delaware, Rhode Island and Connecticut**

| Material             | Delaware | Rhode Island | Connecticut |
|----------------------|----------|--------------|-------------|
| <b>All MSW</b>       | (%)      | (%)          | (%)         |
| <b>Paper</b>         | 23.6%    | 23.9%        | 23.1%       |
| <b>Plastic</b>       | 14.9%    | 12.2%        | 11.8%       |
| <b>Food Waste</b>    | 21.1%    | 19.0%        | 22.3%       |
| <b>Other Organic</b> | 19.1%    | 14.0%        | 11.1%       |
| <b>Metal</b>         | 3.1%     | 3.0%         | 3.5%        |
| <b>Glass</b>         | 2.6%     | 2.0%         | 2.5%        |
| <b>C&amp;D</b>       | 10.5%    | 9.7%         | 11.9%       |
| <b>Other</b>         | 5.0%     | 16.3%        | 13.7%       |
| <b>Residential</b>   |          |              |             |
| <b>Paper</b>         | 21.4%    | 18.5%        | 20.0%       |
| <b>Plastic</b>       | 12.9%    | 11.8%        | 10.7%       |
| <b>Food Waste</b>    | 20.2%    | 20.0%        | 20.0%       |
| <b>Other Organic</b> | 21.8%    | 17.5%        | 14.5%       |
| <b>Metal</b>         | 3.3%     | 3.1%         | 2.9%        |
| <b>Glass</b>         | 3.6%     | 1.6%         | 2.8%        |
| <b>C&amp;D</b>       | 9.3%     | 8.7%         | 12.3%       |
| <b>Other</b>         | 7.5%     | 18.8%        | 16.7%       |
| <b>ICI</b>           |          |              |             |
| <b>Paper</b>         | 26.0%    | 31.2%        | 27.5%       |
| <b>Plastic</b>       | 16.9%    | 12.6%        | 13.3%       |
| <b>Food Waste</b>    | 21.9%    | 17.5%        | 25.5%       |
| <b>Other Organic</b> | 16.4%    | 9.3%         | 6.3%        |
| <b>Metal</b>         | 2.9%     | 2.8%         | 4.4%        |
| <b>Glass</b>         | 1.7%     | 2.6%         | 2.1%        |
| <b>C&amp;D</b>       | 11.9%    | 11.0%        | 11.3%       |
| <b>Other</b>         | 2.3%     | 12.9%        | 9.7%        |

### ***Comparison of Residential and ICI MSW***

As illustrated by Table 49, and by the detailed composition tables on state-wide Residential and ICI MSW, there is still an opportunity to increase paper recycling in general for the ICI sector. The result for Delaware is comparable to both Rhode Island and Connecticut illustrating the difficulty of outreach to the wide variety of commercial generators, and the potential increased cost to at least some of these generators associated with leasing separate containers and contracting for collection for recyclables over and above the cost of a single dumpster for MSW.



### *Multi-Family Residential*

Table 50 compares the State-Wide Residential MSW composition against the targeted Multi-Family results. As illustrated by Table 50, while there is a slightly higher percent of paper and containers, the difference is not as significant as one would expect if there were no multi-family recycling. However, it should be noted here that the Project Team did not ride on the truck during collection of the multi-family MSW so we do not know if these buildings are “typical” of multi-family housing in Delaware both in terms of demographics and in terms of access to adequate recycling containers.

**Table 50. Comparison of Overall Residential MSW and Multi-Family Residential MSW**

| Material              | Residential (%) | Multi-Family (%) |
|-----------------------|-----------------|------------------|
| <b>Paper</b>          | 21.4%           | 24.0%            |
| <b>Plastic</b>        | 12.9%           | 13.0%            |
| <b>Food Waste</b>     | 20.2%           | 21.3%            |
| <b>Other Organics</b> | 21.8%           | 15.5%            |
| <b>Metal</b>          | 3.3%            | 3.2%             |
| <b>Glass</b>          | 3.6%            | 5.4%             |
| <b>C&amp;D</b>        | 9.3%            | 6.7%             |
| <b>Other</b>          | 7.5%            | 11.0%            |

### *Targeted Commercial Generators*

Table 51, on the next page, compares single stream and organic wastes across the six targeted generator categories. As illustrated by Table 51, there are relatively large quantities of corrugated containers potentially available from small and large retailers and from grocery stores. There is also some additional high grade office paper potentially available from offices. There also appears to be some capacity to increase PET, glass and aluminum container recycling from offices and restaurants.

Finally, while one would anticipate that grocery stores would be the largest source of food waste, this was not the case, with restaurants, and surprisingly, convenience stores generating very high quantities of food waste<sup>6</sup>.

<sup>6</sup> It should be noted that the convenience store loads came primarily from one of the largest convenience store chains in Delaware and may or may not be indicative of other convenience stores in terms of their waste composition.

**Table 51. Comparison of Single Stream and Organic Materials, Small Retail, Large Retail, Office, Grocery, Restaurant, and Convenience Stores**

| Material                                   | Small Retail (%) | Large Retail (%) | Office (%)   | Grocery (%)  | Restaurant (%) | Convenience Stores (%) |
|--|------------------|------------------|--------------|--------------|----------------|------------------------|
| <b>Paper</b>                               | <b>23.5%</b>     | <b>46.4%</b>     | <b>19.4%</b> | <b>24.6%</b> | <b>14.4%</b>   | <b>10.3%</b>           |
| Newspaper and Inserts                      | 1.3%             | 0.3%             | 2.7%         | 1.0%         | 0.1%           | 5.3%                   |
| Corrugated Cardboard/Kraft Paper           | 16.6%            | 43.6%            | 6.2%         | 19.3%        | 12.2%          | 1.6%                   |
| High Grade Office Paper                    | 0.9%             | 0.3%             | 6.1%         | 1.7%         | 1.1%           | 0.3%                   |
| Mixed Recyclable Paper                     | 4.6%             | 2.2%             | 4.2%         | 2.6%         | 0.7%           | 2.4%                   |
| Aseptic Boxes and Gable Top Cartons        | 0.1%             | 0.0%             | 0.1%         | 0.0%         | 0.3%           | 0.7%                   |
| <b>Plastic</b>                             | <b>1.5%</b>      | <b>1.6%</b>      | <b>3.5%</b>  | <b>2.9%</b>  | <b>2.0%</b>    | <b>3.3%</b>            |
| PET #1 Bottles, Jars, or Containers        | 0.7%             | 1.1%             | 2.5%         | 0.9%         | 0.6%           | 1.5%                   |
| HDPE #2 Natural and Colored Bottles        | 0.6%             | 0.1%             | 0.4%         | 1.3%         | 1.0%           | 0.9%                   |
| Rigid HDPE #2 Containers                   | 0.0%             | 0.3%             | 0.0%         | 0.3%         | 0.0%           | 0.0%                   |
| #3 to #7 Bottles or Jars                   | 0.0%             | 0.0%             | 0.1%         | 0.1%         | 0.0%           | 0.1%                   |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.1%             | 0.1%             | 0.4%         | 0.3%         | 0.3%           | 0.6%                   |
| All Other Rigid Plastic Packaging          | 0.1%             | 0.0%             | 0.2%         | 0.0%         | 0.0%           | 0.2%                   |
| <b>Metal</b>                               | <b>0.9%</b>      | <b>0.3%</b>      | <b>1.1%</b>  | <b>0.2%</b>  | <b>1.4%</b>    | <b>0.8%</b>            |
| Tin/Steel Containers                       | 0.7%             | 0.0%             | 0.5%         | 0.1%         | 1.3%           | 0.3%                   |
| Aluminum Beverage & Cat Food Containers    | 0.2%             | 0.3%             | 0.6%         | 0.1%         | 0.1%           | 0.5%                   |
| <b>Glass</b>                               | <b>5.9%</b>      | <b>0.2%</b>      | <b>3.5%</b>  | <b>0.3%</b>  | <b>5.3%</b>    | <b>0.8%</b>            |
| Glass Bottles and Jars                     | 5.9%             | 0.2%             | 3.5%         | 0.3%         | 5.3%           | 0.8%                   |
| <b>Organic</b>                             | <b>26.6%</b>     | <b>14.0%</b>     | <b>25.3%</b> | <b>36.1%</b> | <b>60.0%</b>   | <b>69.0%</b>           |
| Vegetative Food Waste, Unpackaged          | 13.6%            | 0.8%             | 4.8%         | 12.4%        | 28.3%          | 26.4%                  |
| Protein Food Waste, Unpackaged             | 2.0%             | 0.7%             | 2.0%         | 2.7%         | 13.3%          | 4.4%                   |
| Food Waste in Plastic Packaging            | 3.7%             | 3.3%             | 3.6%         | 10.6%        | 5.1%           | 18.1%                  |
| Food Waste in Other Packaging              | 0.7%             | 2.7%             | 0.8%         | 3.0%         | 1.9%           | 6.3%                   |
| Leaves, Grass, and Brush                   | 0.4%             | 1.8%             | 1.0%         | 1.3%         | 0.6%           | 2.0%                   |
| Branches and Stumps                        | 0.1%             | 0.0%             | 0.0%         | 0.0%         | 0.0%           | 0.0%                   |
| Compostable Paper                          | 6.0%             | 4.7%             | 13.1%        | 6.1%         | 10.8%          | 11.9%                  |

## **Appendix A: Material Sort Categories**

| 2006  | Proposed 2015   | Notes  |
|---|---|--|
| <b>PAPER</b>  | <b>PAPER</b>  |  |
| 1 Newspaper (incl. Inserts)                                 | Newspaper (incl. Inserts)                                   | 1  |
| 2 Magazines/Catalogs/Glossy                                 |   |  |
| 3 OCC (unwaxed)/Kraft                                       | OCC/Kraft   | 2 Both waxed and unwaxed and brown bags  |
| 4 Telephone Books   |   |  |
| 5 High Grade Paper  | High Grade Paper  | 3  |
|   |   |  |
| 6 Mixed (Recyclable Paper) (junk mail, molded pulp, papbrd) | Mixed (Recyclable Paper) (junk mail, molded pulp, papbrd)   | 4 Includes all other recyclable paper categories separated in the 2006 study including magazines and telephone booklets  |
| 7 Compostable Paper   | Compostable Paper   | 5  |
|   |   |  |
| 8 Other (Non-recyclable) Paper (incl R/C)                   | Other (Non-recyclable) Paper (incl R/C)                     | 6 Includes spiral bound note books, composite papers, label backing, chinese carry out containers                        |
|   | Aseptic Containers  | 7  |
| <b>PLASTICS</b>   | <b>PLASTICS</b>   |  |
| 9 #1 PET Bottles/Jars                                       | #1 PET Bottles/Jars   | 8 Soda and food  |
| 10 #2 HDPE Bottles  | #2 HDPE Natural and Colored Bottles                         | 9  |
|   | Rigid HDPE containers (less than 5 gallons)                 | 10 #2 Rigid plastic containers   |
| 11 #3-#7 Bottles  | #3-#7 Bottles   | 11   |
| 12 Injection Molded Tubs (primarily #2 and #5)              | Injection Molded Tubs (#2, #4, #5, #6, #7)                  | 12 yogurt and butter tubs  |
| 13 Clamshell/Thermofom/Press mold Plastic Packaging         | All other rigid plastic packaging                           | 13 Clamshells, thermoforms, but not EPS clamshells   |
|   |   | 14 Packaging and food service, but not peanuts, white only   |
| 14 Expanded Polystyrene (includes food svc & pkgng)         | White Expanded Polystyrene (EPS)                            | 14   |
|   |   |  |
| 15 Recoverable Film   | Recoverable Film (clean retail bags, shrink wrap)           | 15 Excludes retail bags containing wastes, and all film which is contaminated with dirt, water or other wastes           |
|   |   |  |
| 16 Other Film   | All other film  | 16 Includes all contaminated film and all multi-laminate pouches and film - such as potatoe chip bags and candy wrappers |
| 17 Other Rigid Plastic (incl food svc & misc rigids)        | Ag Film and Marine Shrink Wrap                              | 17 Bale wrap, greenhouse covers, and boat covers   |
|   |   |  |
|   | Large Plastic Items (5 gallon buckets and larger)           | 18 5 gallons and larger, including plastic toys containing that may contain some metals                                  |
|   | All other (R/C) plastic                                     | 19 All plastic not fitting into one of the categories above  |
| <b>ORGANIC</b>  | <b>ORGANIC</b>  |  |
| 18 Food Wastes  | Vegatative Food Waste, Unpackaged                           | 20   |
|   | Protein Food Waste, Unpackaged                              | 21   |
|   | Vegatative and protein food waste in plastic                | 22 All vegatative and protein in plastic   |
|   | Vegatative and protein food waste in metal, glass, boxboard | 23 All other vegatative and protein in packaging   |
| 19 Leaves, Grass, Brush                                     | Leaves, Grass, Brush  | 24   |
| 20 Branches and Stumps                                      | Branches and Stumps   | 25   |
| 21 Textiles   | Textiles  | 26   |
| 22 Rubber/Leather   | Rubber/Leather  | 27   |
| 23 Diapers  | Diapers   | 28   |
| 24 Carpet/Carpet Padding                                    | Carpet/Carpet Padding                                       | 29   |
| 25 Manure (incl animal wastes)                              |   |  |
| 26 Fines  |   |  |
|   |   |  |
| 27 Other Organic (R/C/ Organic)                             | Other Organic (R/C/ Organic)                                | 30 Includes manures, fines, and all other (R/C) organics   |
| <b>METAL</b>  | <b>METAL</b>  |  |
| 28 Ferrous/Bimetal Cans (incl empty Aerosols)               | Ferrous/Bimetal Cans (incl empty Aerosols)                  | 31   |
| 29 Other Ferrous  | Other Ferrous   | 32   |
| 30 Aluminum Cans  | Aluminum Cans   | 33   |
| 31 Other Aluminum   | Other Aluminum  | 34   |
| 32 Other Non-Ferrous  | Other Non-Ferrous   | 35   |
| <b>GLASS</b>  | <b>GLASS</b>  |  |
| 33 Clear Bottles/Jars                                       | Glass Bottles and Jars                                      | 36   |
| 34 Green Bottles/jars                                       |   |  |
| 35 Brown Bottles/Jars                                       |   |  |
| 36 Other Glass (R/C Glass)                                  | Other Glass (R/C Glass)                                     | 37   |
| <b>WOOD</b>   | <b>WOOD</b>   |  |
| 37 Pallets/Crates   | Pallets/Crates  | 38   |
| 38 Clean Lumber   | Clean Lumber  | 39   |
| 39 Treated and Painted Wood                                 | Painted and Stained Wood                                    | 40   |
| 40 Other Engineered Wood                                    | Other Engineered Wood                                       | 41 Includes OSB and plywood  |
| 41 Plywood  |   |  |
| 42 Wood Furniture   | Wood Furniture  | 42   |
| 43 Oriented Strandboard (OSB)                               |   |  |
| 44 Other Wood (R/C Wood)                                    | Other Wood (R/C Wood)                                       | 43   |
| <b>C&amp;D INERT</b>  | <b>C&amp;D INERT</b>  |  |
| 45 Asphalt Roofing Material                                 | Asphalt Roofing Materials                                   | 44   |
| 46 Concrete/Brick/Rock                                      | Concrete/Brick/Rocks  | 45   |
| 47 Gypsum Board   | Gypsum Boards   | 46   |
| 48 Ceiling Tiles  |   |  |
| 49 Dirt/Dust  |   |  |
| 50 Other Inert (R/C Inert)                                  |   |  |
| 51 Other C&D (R/C C&D)                                      | Other C&D (R/C C&D)s  | 47   |
| <b>SPECIAL</b>  | <b>SPECIAL</b>  |  |
| 52 Tires  | Tires   | 48   |
| 53 Appliances (large and small)                             | Small Appliances  | 49 Excludes refrigerators, washers and dryers  |
| 54 Electronics (large and small)                            | Large Electronics   | 50 Over 5 pounds   |
| 55 Items with CRTs  | Small Electronics   | 51   |
| 56 Lead Acid Batteries                                      | Items with CRTs   | 52   |
| 57 Other Batteries  |   |  |
| 58 Automotive (oil/filters/fluids)                          |   |  |
| 59 Other HHW  | Other HHW   | 53   |
| <b>ALL OTHER WASTES</b>                                     | <b>ALL OTHER WASTES</b>                                     |  |
|   | All Other (R/C) Wastes                                      | 54   |

## Appendix B: Season 2 Hand Sort Tables

The following tables present the hand sort data for Season 2 (June 2016), only. These tables can be compared with the Season 1 data presented in the Interim Report, March 2016.

### State-Wide

**Table B.1. State-Wide Aggregated ICI Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean         | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|--------------|------|-----------|
| <b>Paper</b>                               | <b>26.2%</b> |      |           | <b>Metal</b>                             | <b>3.2%</b>  |      |           |
| Newspaper and Inserts                      | 1.8%         | 1.1% | 0.7%      | Tin/Steel Containers                     | 0.5%         | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 10.6%        | 4.1% | 2.5%      | Other Ferrous                            | 2.0%         | 1.4% | 0.8%      |
| High Grade Office Paper                    | 1.4%         | 1.5% | 0.9%      | Aluminum Beverage & Cat Food Containers  | 0.3%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 2.2%         | 0.9% | 0.5%      | Other Aluminum                           | 0.2%         | 0.1% | 0.0%      |
| Compostable Paper                          | 8.4%         | 1.7% | 1.0%      | Other Non-Ferrous                        | 0.1%         | 0.1% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 0.6%         | 0.7% | 0.4%      | <b>Glass</b>                             | <b>2.3%</b>  |      |           |
| Remainder/Composite Paper                  | 1.3%         | 0.7% | 0.4%      | Glass Bottles and Jars                   | 2.1%         | 0.9% | 0.5%      |
| <b>Plastic</b>                             | <b>20.1%</b> |      |           | Remainder/Composite Glass                | 0.2%         | 0.1% | 0.1%      |
| PET #1 Bottles, Jars, or Containers        | 1.3%         | 0.4% | 0.2%      | <b>C&amp;D</b>                           | <b>10.7%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 0.6%         | 0.1% | 0.1%      | Pallets/Crates                           | 1.5%         | 1.1% | 0.7%      |
| Rigid HDPE #2 Containers                   | 0.1%         | 0.1% | 0.0%      | Clean Lumber                             | 1.8%         | 1.6% | 1.0%      |
| #3 to #7 Bottles or Jars                   | 0.1%         | 0.1% | 0.0%      | Painted and Stained Wood                 | 0.0%         | 0.1% | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.3%         | 0.2% | 0.1%      | Other Engineered Wood                    | 1.3%         | 1.7% | 1.0%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0% | 0.0%      | Wood Furniture                           | 3.1%         | 2.8% | 1.7%      |
| White Expanded Polystyrene (Styrofoam)     | 1.0%         | 0.9% | 0.5%      | Other Wood                               | 0.2%         | 0.2% | 0.1%      |
| Recoverable Film                           | 0.3%         | 0.2% | 0.1%      | Asphalt Roofing                          | 0.0%         | 0.0% | 0.0%      |
| All Other Film                             | 7.4%         | 2.0% | 1.2%      | Asphalt, Brick, Concrete, and Rocks      | 2.4%         | 2.8% | 1.7%      |
| Agricultural Film & Marine Shrink Wrap     | 0.1%         | 0.1% | 0.1%      | Drywall/Gypsum Board                     | 0.1%         | 0.1% | 0.1%      |
| Large Plastic Items                        | 0.3%         | 0.3% | 0.2%      | Remainder/Composite C&D                  | 0.2%         | 0.1% | 0.1%      |
| Remainder/Composite Plastic                | 8.5%         | 4.9% | 3.0%      | <b>Other</b>                             | <b>2.8%</b>  |      |           |
| <b>Organic</b>                             | <b>34.7%</b> |      |           | Tires                                    | 0.0%         | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 12.6%        | 3.9% | 2.4%      | Small Appliances                         | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 2.6%         | 1.2% | 0.7%      | Large Electronics                        | 0.1%         | 0.2% | 0.1%      |
| Food Waste in Plastic Packaging            | 5.3%         | 1.7% | 1.0%      | Other Small Consumer Electronics         | 0.1%         | 0.1% | 0.0%      |
| Food Waste in Other Packaging              | 1.7%         | 1.2% | 0.8%      | Items with CRTs                          | 0.6%         | 0.9% | 0.6%      |
| Leaves, Grass, and Brush                   | 3.1%         | 1.8% | 1.1%      | Other Larger Electronics                 | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.2%         | 0.3% | 0.2%      | Other Haz. or Household Haz. Waste (HHW) | 0.4%         | 0.2% | 0.1%      |
| Textiles                                   | 3.1%         | 1.5% | 0.9%      | All Other Wastes                         | 1.7%         | 1.0% | 0.6%      |
| Rubber/Leather                             | 0.6%         | 0.2% | 0.1%      | <b>Totals</b>                            | <b>100%</b>  |      |           |
| Diapers and Sanitary Products              | 1.6%         | 0.6% | 0.4%      | <b>Sample Count</b>                      | <b>39</b>    |      |           |
| Carpet and Carpet Padding                  | 1.1%         | 1.0% | 0.6%      |  |              |      |           |
| Remainder/Composite Organic                | 2.9%         | 2.7% | 1.7%      |  |              |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table B.2. State-Wide Aggregated Residential Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean        | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|-------------|------|-----------|
| <b>Paper</b>                               | <b>18.8%</b> |      |           | <b>Metal</b>                             | <b>3.6%</b> |      |           |
| Newspaper and Inserts                      | 1.3%         | 0.3% | 0.2%      | Tin/Steel Containers                     | 1.0%        | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 2.7%         | 0.7% | 0.4%      | Other Ferrous                            | 1.2%        | 0.8% | 0.5%      |
| High Grade Office Paper                    | 0.6%         | 0.2% | 0.1%      | Aluminum Beverage & Cat Food Containers  | 0.5%        | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 2.2%         | 0.5% | 0.3%      | Other Aluminum                           | 0.4%        | 0.1% | 0.1%      |
| Compostable Paper                          | 10.2%        | 1.1% | 0.7%      | Other Non-Ferrous                        | 0.4%        | 0.3% | 0.2%      |
| Aseptic Boxes and Gable Top Cartons        | 0.1%         | 0.1% | 0.0%      | <b>Glass</b>                             | <b>2.8%</b> |      |           |
| Remainder/Composite Paper                  | 1.7%         | 0.8% | 0.5%      | Glass Bottles and Jars                   | 2.2%        | 0.6% | 0.3%      |
| <b>Plastic</b>                             | <b>13.6%</b> |      |           | Remainder/Composite Glass                | 0.7%        | 0.5% | 0.3%      |
| PET #1 Bottles, Jars, or Containers        | 1.7%         | 0.2% | 0.1%      | <b>C&amp;D</b>                           | <b>6.4%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 1.0%         | 0.1% | 0.1%      | Pallets/Crates                           | 0.1%        | 0.2% | 0.1%      |
| Rigid HDPE #2 Containers                   | 0.2%         | 0.2% | 0.1%      | Clean Lumber                             | 2.6%        | 1.3% | 0.8%      |
| #3 to #7 Bottles or Jars                   | 0.1%         | 0.0% | 0.0%      | Painted and Stained Wood                 | 0.8%        | 0.4% | 0.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.3%         | 0.0% | 0.0%      | Other Engineered Wood                    | 1.5%        | 0.9% | 0.5%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0% | 0.0%      | Wood Furniture                           | 0.6%        | 0.6% | 0.4%      |
| White Expanded Polystyrene (Styrofoam)     | 0.5%         | 0.1% | 0.1%      | Other Wood                               | 0.6%        | 0.3% | 0.2%      |
| Recoverable Film                           | 0.5%         | 0.1% | 0.1%      | Asphalt Roofing                          | 0.0%        | 0.0% | 0.0%      |
| All Other Film                             | 5.5%         | 0.5% | 0.3%      | Asphalt, Brick, Concrete, and Rocks      | 0.0%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board                     | 0.2%        | 0.1% | 0.1%      |
| Large Plastic Items                        | 0.8%         | 0.6% | 0.4%      | Remainder/Composite C&D                  | 0.1%        | 0.1% | 0.0%      |
| Remainder/Composite Plastic                | 3.1%         | 0.4% | 0.3%      | <b>Other</b>                             | <b>8.2%</b> |      |           |
| <b>Organic</b>                             | <b>46.5%</b> |      |           | Tires                                    | 0.7%        | 1.0% | 0.6%      |
| Vegetative Food Waste, Unpackaged          | 10.9%        | 1.8% | 1.1%      | Small Appliances                         | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 3.6%         | 1.1% | 0.7%      | Large Electronics                        | 0.7%        | 0.8% | 0.5%      |
| Food Waste in Plastic Packaging            | 6.6%         | 1.2% | 0.7%      | Other Small Consumer Electronics         | 0.3%        | 0.1% | 0.1%      |
| Food Waste in Other Packaging              | 1.3%         | 0.4% | 0.2%      | Items with CRTs                          | 0.5%        | 0.8% | 0.5%      |
| Leaves, Grass, and Brush                   | 5.5%         | 2.4% | 1.5%      | Other Larger Electronics                 | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 1.1%         | 0.9% | 0.5%      | Other Haz. or Household Haz. Waste (HHW) | 0.5%        | 0.2% | 0.1%      |
| Textiles                                   | 5.4%         | 1.3% | 0.8%      | All Other Wastes                         | 5.5%        | 2.0% | 1.2%      |
| Rubber/Leather                             | 1.2%         | 0.7% | 0.4%      | <b>Totals</b>                            | <b>100%</b> |      |           |
| Diapers and Sanitary Products              | 4.4%         | 0.8% | 0.5%      | <b>Sample Count</b>                      | <b>37</b>   |      |           |
| Carpet and Carpet Padding                  | 3.5%         | 2.0% | 1.2%      |  |             |      |           |
| Remainder/Composite Organic                | 3.1%         | 2.2% | 1.3%      |  |             |      |           |

Confidence intervals calculated at a 90% confidence level.



## Cherry Island

**Table B.3. Cherry Island ICI Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-   | Std. Dev. | Material                                 | Mean         | +/-   | Std. Dev. |
|--|--------------|-------|-----------|--|--------------|-------|-----------|
| <b>Paper</b>                               | <b>19.9%</b> |       |           | <b>Metal</b>                             | <b>3.1%</b>  |       |           |
| Newspaper and Inserts                      | 1.3%         | 0.8%  | 0.5%      | Tin/Steel Containers                     | 0.8%         | 0.8%  | 0.5%      |
| Corrugated Cardboard/Kraft Paper           | 7.9%         | 3.6%  | 2.2%      | Other Ferrous                            | 1.4%         | 1.6%  | 1.0%      |
| High Grade Office Paper                    | 0.6%         | 0.7%  | 0.4%      | Aluminum Beverage & Cat Food Containers  | 0.5%         | 0.3%  | 0.2%      |
| Mixed Recyclable Paper                     | 1.3%         | 0.4%  | 0.2%      | Other Aluminum                           | 0.4%         | 0.3%  | 0.2%      |
| Compostable Paper                          | 7.7%         | 2.3%  | 1.4%      | Other Non-Ferrous                        | 0.0%         | 0.0%  | 0.0%      |
| Aseptic Boxes and Gable Top Cartons        | 0.2%         | 0.1%  | 0.1%      | <b>Glass</b>                             | <b>0.8%</b>  |       |           |
| Remainder/Composite Paper                  | 1.0%         | 1.2%  | 0.8%      | Glass Bottles and Jars                   | 0.3%         | 0.4%  | 0.3%      |
| <b>Plastic</b>                             | <b>14.7%</b> |       |           | Remainder/Composite Glass                | 0.4%         | 0.5%  | 0.3%      |
| PET #1 Bottles, Jars, or Containers        | 1.4%         | 0.6%  | 0.4%      | <b>C&amp;D</b>                           | <b>13.4%</b> |       |           |
| HDPE #2 Natural and Colored Bottles        | 0.8%         | 0.3%  | 0.2%      | Pallets/Crates                           | 0.0%         | 0.0%  | 0.0%      |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0%  | 0.0%      | Clean Lumber                             | 0.0%         | 0.0%  | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.0%  | 0.0%      | Painted and Stained Wood                 | 0.3%         | 0.5%  | 0.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.6%         | 0.4%  | 0.2%      | Other Engineered Wood                    | 0.1%         | 0.1%  | 0.1%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0%  | 0.0%      | Wood Furniture                           | 0.0%         | 0.0%  | 0.0%      |
| White Expanded Polystyrene (Styrofoam)     | 0.4%         | 0.3%  | 0.2%      | Other Wood                               | 0.2%         | 0.2%  | 0.1%      |
| Recoverable Film                           | 0.1%         | 0.0%  | 0.0%      | Asphalt Roofing                          | 0.0%         | 0.0%  | 0.0%      |
| All Other Film                             | 7.3%         | 1.9%  | 1.1%      | Asphalt, Brick, Concrete, and Rocks      | 12.8%        | 21.1% | 12.8%     |
| Agricultural Film & Marine Shrink Wrap     | 0.1%         | 0.1%  | 0.1%      | Drywall/Gypsum Board                     | 0.0%         | 0.0%  | 0.0%      |
| Large Plastic Items                        | 0.5%         | 0.5%  | 0.3%      | Remainder/Composite C&D                  | 0.0%         | 0.0%  | 0.0%      |
| Remainder/Composite Plastic                | 3.6%         | 1.4%  | 0.9%      | <b>Other</b>                             | <b>0.5%</b>  |       |           |
| <b>Organic</b>                             | <b>47.6%</b> |       |           | Tires                                    | 0.0%         | 0.0%  | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 18.7%        | 10.9% | 6.6%      | Small Appliances                         | 0.0%         | 0.0%  | 0.0%      |
| Protein Food Waste, Unpackaged             | 4.8%         | 4.4%  | 2.7%      | Large Electronics                        | 0.0%         | 0.0%  | 0.0%      |
| Food Waste in Plastic Packaging            | 7.6%         | 3.3%  | 2.0%      | Other Small Consumer Electronics         | 0.0%         | 0.0%  | 0.0%      |
| Food Waste in Other Packaging              | 1.5%         | 1.9%  | 1.2%      | Items with CRTs                          | 0.0%         | 0.0%  | 0.0%      |
| Leaves, Grass, and Brush                   | 7.9%         | 8.3%  | 5.1%      | Other Larger Electronics                 | 0.0%         | 0.0%  | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0%  | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.2%         | 0.2%  | 0.1%      |
| Textiles                                   | 2.1%         | 1.5%  | 0.9%      | All Other Wastes                         | 0.3%         | 0.2%  | 0.1%      |
| Rubber/Leather                             | 0.5%         | 0.4%  | 0.2%      | <b>Totals</b>                            | <b>100%</b>  |       |           |
| Diapers and Sanitary Products              | 2.1%         | 2.5%  | 1.5%      | <b>Sample Count</b>                      | <b>5</b>     |       |           |
| Carpet and Carpet Padding                  | 2.0%         | 3.3%  | 2.0%      |  |              |       |           |
| Remainder/Composite Organic                | 0.4%         | 0.4%  | 0.2%      |  |              |       |           |

Confidence intervals calculated at a 90% confidence level.

**Table B.4. Cherry Island Residential Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean         | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|--------------|------|-----------|
| <b>Paper</b>                               | <b>17.4%</b> |      |           | <b>Metal</b>                             | <b>3.0%</b>  |      |           |
| Newspaper and Inserts                      | 1.7%         | 1.0% | 0.6%      | Tin/Steel Containers                     | 1.2%         | 0.7% | 0.4%      |
| Corrugated Cardboard/Kraft Paper           | 4.3%         | 2.4% | 1.4%      | Other Ferrous                            | 0.5%         | 0.5% | 0.3%      |
| High Grade Office Paper                    | 0.4%         | 0.4% | 0.2%      | Aluminum Beverage & Cat Food Containers  | 0.4%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 2.7%         | 0.8% | 0.5%      | Other Aluminum                           | 0.3%         | 0.2% | 0.1%      |
| Compostable Paper                          | 5.9%         | 0.5% | 0.3%      | Other Non-Ferrous                        | 0.5%         | 0.4% | 0.2%      |
| Aseptic Boxes and Gable Top Cartons        | 0.1%         | 0.1% | 0.0%      |  |              |      |           |
| Remainder/Composite Paper                  | 2.5%         | 3.2% | 2.0%      | <b>Glass</b>                             | <b>4.0%</b>  |      |           |
|  |              |      |           | Glass Bottles and Jars                   | 3.6%         | 1.7% | 1.0%      |
| <b>Plastic</b>                             | <b>15.0%</b> |      |           | Remainder/Composite Glass                | 0.4%         | 0.2% | 0.1%      |
| PET #1 Bottles, Jars, or Containers        | 2.1%         | 0.5% | 0.3%      |  |              |      |           |
| HDPE #2 Natural and Colored Bottles        | 1.0%         | 0.3% | 0.2%      | <b>C&amp;D</b>                           | <b>8.7%</b>  |      |           |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0% | 0.0%      | Pallets/Crates                           | 0.0%         | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.0% | 0.0%      | Clean Lumber                             | 2.7%         | 2.9% | 1.7%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.2%         | 0.0% | 0.0%      | Painted and Stained Wood                 | 2.2%         | 1.8% | 1.1%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0% | 0.0%      | Other Engineered Wood                    | 2.7%         | 2.9% | 1.8%      |
| White Expanded Polystyrene (Styrofoam)     | 0.4%         | 0.3% | 0.2%      | Wood Furniture                           | 0.0%         | 0.0% | 0.0%      |
| Recoverable Film                           | 0.4%         | 0.1% | 0.1%      | Other Wood                               | 0.5%         | 0.7% | 0.4%      |
| All Other Film                             | 5.1%         | 1.3% | 0.8%      | Asphalt Roofing                          | 0.0%         | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks      | 0.1%         | 0.1% | 0.0%      |
| Large Plastic Items                        | 2.2%         | 1.9% | 1.1%      | Drywall/Gypsum Board                     | 0.5%         | 0.4% | 0.3%      |
| Remainder/Composite Plastic                | 3.5%         | 1.5% | 0.9%      | Remainder/Composite C&D                  | 0.1%         | 0.1% | 0.1%      |
|  |              |      |           |  |              |      |           |
| <b>Organic</b>                             | <b>40.1%</b> |      |           | <b>Other</b>                             | <b>11.9%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 10.2%        | 3.1% | 1.9%      | Tires                                    | 3.3%         | 5.5% | 3.3%      |
| Protein Food Waste, Unpackaged             | 3.3%         | 1.0% | 0.6%      | Small Appliances                         | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 5.2%         | 2.6% | 1.6%      | Large Electronics                        | 3.7%         | 3.9% | 2.4%      |
| Food Waste in Other Packaging              | 1.9%         | 1.3% | 0.8%      | Other Small Consumer Electronics         | 0.4%         | 0.4% | 0.2%      |
| Leaves, Grass, and Brush                   | 2.1%         | 3.2% | 1.9%      | Items with CRTs                          | 2.5%         | 4.1% | 2.5%      |
| Branches and Stumps                        | 0.2%         | 0.3% | 0.2%      | Other Larger Electronics                 | 0.0%         | 0.0% | 0.0%      |
| Textiles                                   | 6.1%         | 2.2% | 1.3%      | Other Haz. or Household Haz. Waste (HHW) | 0.1%         | 0.0% | 0.0%      |
| Rubber/Leather                             | 0.3%         | 0.2% | 0.1%      | All Other Wastes                         | 1.9%         | 1.4% | 0.9%      |
| Diapers and Sanitary Products              | 5.4%         | 1.9% | 1.2%      |  |              |      |           |
| Carpet and Carpet Padding                  | 4.0%         | 5.1% | 3.1%      | <b>Totals</b>                            | <b>100%</b>  |      |           |
| Remainder/Composite Organic                | 1.3%         | 1.3% | 0.8%      | <b>Sample Count</b>                      | <b>7</b>     |      |           |

Confidence intervals calculated at a 90% confidence level.

## Pine Tree Transfer Station

**Table B.5. Pine Tree Transfer Station, ICI Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-   | Std. Dev. | Material                                 | Mean         | +/-  | Std. Dev. |
|--|--------------|-------|-----------|--|--------------|------|-----------|
| <b>Paper</b>                               | <b>30.3%</b> |       |           | <b>Metal</b>                             | <b>3.2%</b>  |      |           |
| Newspaper and Inserts                      | 2.0%         | 2.5%  | 1.5%      | Tin/Steel Containers                     | 0.8%         | 0.6% | 0.4%      |
| Corrugated Cardboard/Kraft Paper           | 12.8%        | 11.7% | 7.1%      | Other Ferrous                            | 1.6%         | 2.4% | 1.4%      |
| High Grade Office Paper                    | 4.3%         | 5.9%  | 3.6%      | Aluminum Beverage & Cat Food Containers  | 0.2%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 1.6%         | 1.0%  | 0.6%      | Other Aluminum                           | 0.2%         | 0.2% | 0.1%      |
| Compostable Paper                          | 7.1%         | 2.3%  | 1.4%      | Other Non-Ferrous                        | 0.2%         | 0.3% | 0.2%      |
| Aseptic Boxes and Gable Top Cartons        | 0.4%         | 0.4%  | 0.2%      | <b>Glass</b>                             | <b>1.8%</b>  |      |           |
| Remainder/Composite Paper                  | 2.1%         | 2.4%  | 1.4%      | Glass Bottles and Jars                   | 1.8%         | 1.3% | 0.8%      |
| <b>Plastic</b>                             | <b>9.6%</b>  |       |           | Remainder/Composite Glass                | 0.0%         | 0.0% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 0.8%         | 0.3%  | 0.2%      | <b>C&amp;D</b>                           | <b>19.0%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 0.8%         | 0.2%  | 0.1%      | Pallets/Crates                           | 2.8%         | 3.1% | 1.9%      |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0%  | 0.0%      | Clean Lumber                             | 4.6%         | 5.4% | 3.3%      |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.1%  | 0.0%      | Painted and Stained Wood                 | 0.0%         | 0.0% | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.6%         | 0.6%  | 0.4%      | Other Engineered Wood                    | 4.8%         | 6.5% | 4.0%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0%  | 0.0%      | Wood Furniture                           | 5.3%         | 4.4% | 2.7%      |
| White Expanded Polystyrene (Styrofoam)     | 0.4%         | 0.2%  | 0.1%      | Other Wood                               | 0.2%         | 0.3% | 0.2%      |
| Recoverable Film                           | 0.7%         | 0.6%  | 0.4%      | Asphalt Roofing                          | 0.0%         | 0.0% | 0.0%      |
| All Other Film                             | 4.5%         | 2.5%  | 1.5%      | Asphalt, Brick, Concrete, and Rocks      | 1.2%         | 1.9% | 1.2%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0%  | 0.0%      | Drywall/Gypsum Board                     | 0.0%         | 0.0% | 0.0%      |
| Large Plastic Items                        | 0.0%         | 0.0%  | 0.0%      | Remainder/Composite C&D                  | 0.2%         | 0.3% | 0.2%      |
| Remainder/Composite Plastic                | 1.8%         | 0.5%  | 0.3%      | <b>Other</b>                             | <b>0.4%</b>  |      |           |
| <b>Organic</b>                             | <b>35.7%</b> |       |           | Tires                                    | 0.0%         | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 14.7%        | 10.4% | 6.3%      | Small Appliances                         | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 4.2%         | 3.2%  | 1.9%      | Large Electronics                        | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 5.9%         | 2.6%  | 1.6%      | Other Small Consumer Electronics         | 0.2%         | 0.2% | 0.1%      |
| Food Waste in Other Packaging              | 0.7%         | 0.5%  | 0.3%      | Items with CRTs                          | 0.0%         | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 0.7%         | 1.2%  | 0.7%      | Other Larger Electronics                 | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0%  | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.1%         | 0.1% | 0.1%      |
| Textiles                                   | 4.9%         | 3.4%  | 2.1%      | All Other Wastes                         | 0.1%         | 0.0% | 0.0%      |
| Rubber/Leather                             | 0.6%         | 0.3%  | 0.2%      | <b>Totals</b>                            | <b>100%</b>  |      |           |
| Diapers and Sanitary Products              | 2.3%         | 1.8%  | 1.1%      | <b>Sample Count</b>                      | <b>10</b>    |      |           |
| Carpet and Carpet Padding                  | 1.4%         | 2.2%  | 1.4%      |  |              |      |           |
| Remainder/Composite Organic                | 0.5%         | 0.4%  | 0.3%      |  |              |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table B.6. Pine Tree Transfer Station, Residential Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-   | Std. Dev. | Material                                 | Mean        | +/-  | Std. Dev. |
|--|--------------|-------|-----------|--|-------------|------|-----------|
| <b>Paper</b>                               | <b>19.9%</b> |       |           | <b>Metal</b>                             | <b>2.9%</b> |      |           |
| Newspaper and Inserts                      | 1.5%         | 1.0%  | 0.6%      | Tin/Steel Containers                     | 0.5%        | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 3.3%         | 2.0%  | 1.2%      | Other Ferrous                            | 0.2%        | 0.3% | 0.2%      |
| High Grade Office Paper                    | 1.6%         | 1.3%  | 0.8%      | Aluminum Beverage & Cat Food Containers  | 0.5%        | 0.4% | 0.2%      |
| Mixed Recyclable Paper                     | 3.1%         | 1.5%  | 0.9%      | Other Aluminum                           | 0.4%        | 0.1% | 0.0%      |
| Compostable Paper                          | 8.8%         | 2.7%  | 1.6%      | Other Non-Ferrous                        | 1.2%        | 2.0% | 1.2%      |
| Aseptic Boxes and Gable Top Cartons        | 0.3%         | 0.3%  | 0.2%      |  |             |      |           |
| Remainder/Composite Paper                  | 1.3%         | 0.4%  | 0.2%      | <b>Glass</b>                             | <b>0.7%</b> |      |           |
|  |              |       |           | Glass Bottles and Jars                   | 0.5%        | 0.2% | 0.1%      |
| <b>Plastic</b>                             | <b>12.1%</b> |       |           | Remainder/Composite Glass                | 0.2%        | 0.1% | 0.1%      |
| PET #1 Bottles, Jars, or Containers        | 1.1%         | 0.5%  | 0.3%      |  |             |      |           |
| HDPE #2 Natural and Colored Bottles        | 0.8%         | 0.3%  | 0.2%      | <b>C&amp;D</b>                           | <b>5.9%</b> |      |           |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0%  | 0.0%      | Pallets/Crates                           | 0.0%        | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.1%         | 0.1%  | 0.0%      | Clean Lumber                             | 3.1%        | 5.0% | 3.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.2%         | 0.1%  | 0.1%      | Painted and Stained Wood                 | 0.8%        | 1.0% | 0.6%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0%  | 0.0%      | Other Engineered Wood                    | 0.8%        | 0.9% | 0.6%      |
| White Expanded Polystyrene (Styrofoam)     | 0.3%         | 0.1%  | 0.1%      | Wood Furniture                           | 0.7%        | 1.2% | 0.7%      |
| Recoverable Film                           | 0.5%         | 0.1%  | 0.1%      | Other Wood                               | 0.3%        | 0.4% | 0.2%      |
| All Other Film                             | 4.9%         | 1.6%  | 1.0%      | Asphalt Roofing                          | 0.0%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.1%         | 0.2%  | 0.1%      | Asphalt, Brick, Concrete, and Rocks      | 0.0%        | 0.0% | 0.0%      |
| Large Plastic Items                        | 0.0%         | 0.0%  | 0.0%      | Drywall/Gypsum Board                     | 0.0%        | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 4.1%         | 1.5%  | 0.9%      | Remainder/Composite C&D                  | 0.2%        | 0.3% | 0.2%      |
|  |              |       |           |  |             |      |           |
| <b>Organic</b>                             | <b>50.8%</b> |       |           | <b>Other</b>                             | <b>7.8%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 6.8%         | 2.7%  | 1.7%      | Tires                                    | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 2.3%         | 2.3%  | 1.4%      | Small Appliances                         | 0.1%        | 0.2% | 0.1%      |
| Food Waste in Plastic Packaging            | 7.2%         | 2.5%  | 1.5%      | Large Electronics                        | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 1.2%         | 1.5%  | 0.9%      | Other Small Consumer Electronics         | 0.2%        | 0.3% | 0.2%      |
| Leaves, Grass, and Brush                   | 12.9%        | 12.6% | 7.7%      | Items with CRTs                          | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0%  | 0.0%      | Other Larger Electronics                 | 0.0%        | 0.0% | 0.0%      |
| Textiles                                   | 6.6%         | 7.3%  | 4.5%      | Other Haz. or Household Haz. Waste (HHW) | 0.3%        | 0.2% | 0.1%      |
| Rubber/Leather                             | 0.1%         | 0.1%  | 0.1%      | All Other Wastes                         | 7.3%        | 4.2% | 2.6%      |
| Diapers and Sanitary Products              | 3.8%         | 2.1%  | 1.3%      |  |             |      |           |
| Carpet and Carpet Padding                  | 7.2%         | 8.7%  | 5.3%      | <b>Totals</b>                            | <b>100%</b> |      |           |
| Remainder/Composite Organic                | 2.6%         | 3.1%  | 1.9%      | <b>Sample Count</b>                      | <b>5</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.

## Sandtown

**Table B.7. Sandtown ICI Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-   | Std. Dev. | Material                                 | Mean        | +/-  | Std. Dev. |
|--|--------------|-------|-----------|--|-------------|------|-----------|
| <b>Paper</b>                               | <b>21.2%</b> |       |           | <b>Metal</b>                             | <b>2.8%</b> |      |           |
| Newspaper and Inserts                      | 2.6%         | 2.5%  | 1.5%      | Tin/Steel Containers                     | 0.2%        | 0.2% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 6.0%         | 4.4%  | 2.7%      | Other Ferrous                            | 2.4%        | 3.7% | 2.3%      |
| High Grade Office Paper                    | 0.4%         | 0.6%  | 0.4%      | Aluminum Beverage & Cat Food Containers  | 0.1%        | 0.0% | 0.0%      |
| Mixed Recyclable Paper                     | 3.9%         | 3.4%  | 2.1%      | Other Aluminum                           | 0.1%        | 0.1% | 0.0%      |
| Compostable Paper                          | 7.5%         | 5.2%  | 3.2%      | Other Non-Ferrous                        | 0.0%        | 0.1% | 0.0%      |
| Aseptic Boxes and Gable Top Cartons        | 0.1%         | 0.1%  | 0.1%      | <b>Glass</b>                             | <b>2.9%</b> |      |           |
| Remainder/Composite Paper                  | 0.6%         | 0.5%  | 0.3%      | Glass Bottles and Jars                   | 2.6%        | 2.9% | 1.7%      |
| <b>Plastic</b>                             | <b>39.4%</b> |       |           | Remainder/Composite Glass                | 0.3%        | 0.4% | 0.2%      |
| PET #1 Bottles, Jars, or Containers        | 0.8%         | 0.4%  | 0.3%      | <b>C&amp;D</b>                           | <b>1.3%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 0.6%         | 0.4%  | 0.3%      | Pallets/Crates                           | 0.0%        | 0.0% | 0.0%      |
| Rigid HDPE #2 Containers                   | 0.2%         | 0.3%  | 0.2%      | Clean Lumber                             | 0.5%        | 0.8% | 0.5%      |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.0%  | 0.0%      | Painted and Stained Wood                 | 0.0%        | 0.0% | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.1%         | 0.1%  | 0.0%      | Other Engineered Wood                    | 0.0%        | 0.0% | 0.0%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0%  | 0.0%      | Wood Furniture                           | 0.0%        | 0.0% | 0.0%      |
| White Expanded Polystyrene (Styrofoam)     | 0.2%         | 0.3%  | 0.2%      | Other Wood                               | 0.1%        | 0.1% | 0.1%      |
| Recoverable Film                           | 0.1%         | 0.1%  | 0.0%      | Asphalt Roofing                          | 0.0%        | 0.0% | 0.0%      |
| All Other Film                             | 9.5%         | 8.4%  | 5.1%      | Asphalt, Brick, Concrete, and Rocks      | 0.0%        | 0.1% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0%  | 0.0%      | Drywall/Gypsum Board                     | 0.2%        | 0.3% | 0.2%      |
| Large Plastic Items                        | 0.0%         | 0.0%  | 0.0%      | Remainder/Composite C&D                  | 0.5%        | 0.5% | 0.3%      |
| Remainder/Composite Plastic                | 28.0%        | 19.9% | 12.1%     | <b>Other</b>                             | <b>3.6%</b> |      |           |
| <b>Organic</b>                             | <b>28.9%</b> |       |           | Tires                                    | 0.0%        | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 8.7%         | 8.2%  | 5.0%      | Small Appliances                         | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 0.6%         | 0.7%  | 0.4%      | Large Electronics                        | 0.5%        | 0.8% | 0.5%      |
| Food Waste in Plastic Packaging            | 6.8%         | 6.2%  | 3.8%      | Other Small Consumer Electronics         | 0.1%        | 0.1% | 0.0%      |
| Food Waste in Other Packaging              | 3.4%         | 5.4%  | 3.3%      | Items with CRTs                          | 2.7%        | 4.4% | 2.7%      |
| Leaves, Grass, and Brush                   | 3.0%         | 4.9%  | 3.0%      | Other Larger Electronics                 | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0%  | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.4%        | 0.4% | 0.3%      |
| Textiles                                   | 4.5%         | 5.5%  | 3.4%      | All Other Wastes                         | 0.0%        | 0.0% | 0.0%      |
| Rubber/Leather                             | 0.9%         | 0.8%  | 0.5%      | <b>Totals</b>                            | <b>100%</b> |      |           |
| Diapers and Sanitary Products              | 0.7%         | 0.6%  | 0.3%      | <b>Sample Count</b>                      | <b>8</b>    |      |           |
| Carpet and Carpet Padding                  | 0.0%         | 0.0%  | 0.0%      |  |             |      |           |
| Remainder/Composite Organic                | 0.4%         | 0.4%  | 0.2%      |  |             |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table B.8. Sandtown Residential Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-   | Std. Dev. | Material                                 | Mean        | +/-  | Std. Dev. |
|--|--------------|-------|-----------|--|-------------|------|-----------|
| <b>Paper</b>                               | <b>19.1%</b> |       |           | <b>Metal</b>                             | <b>4.2%</b> |      |           |
| Newspaper and Inserts                      | 1.0%         | 0.4%  | 0.2%      | Tin/Steel Containers                     | 1.4%        | 0.6% | 0.4%      |
| Corrugated Cardboard/Kraft Paper           | 2.9%         | 1.3%  | 0.8%      | Other Ferrous                            | 1.4%        | 1.5% | 0.9%      |
| High Grade Office Paper                    | 0.4%         | 0.4%  | 0.2%      | Aluminum Beverage & Cat Food Containers  | 0.8%        | 0.3% | 0.2%      |
| Mixed Recyclable Paper                     | 3.3%         | 1.6%  | 1.0%      | Other Aluminum                           | 0.5%        | 0.3% | 0.2%      |
| Compostable Paper                          | 10.3%        | 1.6%  | 1.0%      | Other Non-Ferrous                        | 0.1%        | 0.1% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 0.2%         | 0.1%  | 0.0%      |  |             |      |           |
| Remainder/Composite Paper                  | 1.1%         | 0.3%  | 0.2%      | <b>Glass</b>                             | <b>2.4%</b> |      |           |
|  |              |       |           | Glass Bottles and Jars                   | 1.5%        | 0.5% | 0.3%      |
| <b>Plastic</b>                             | <b>16.0%</b> |       |           | Remainder/Composite Glass                | 0.9%        | 1.2% | 0.7%      |
| PET #1 Bottles, Jars, or Containers        | 1.8%         | 0.4%  | 0.3%      |  |             |      |           |
| HDPE #2 Natural and Colored Bottles        | 1.4%         | 0.3%  | 0.2%      | <b>C&amp;D</b>                           | <b>6.8%</b> |      |           |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0%  | 0.0%      | Pallets/Crates                           | 0.0%        | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.1%         | 0.0%  | 0.0%      | Clean Lumber                             | 3.0%        | 2.1% | 1.3%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.3%         | 0.1%  | 0.0%      | Painted and Stained Wood                 | 0.3%        | 0.4% | 0.2%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0%  | 0.0%      | Other Engineered Wood                    | 2.2%        | 3.5% | 2.1%      |
| White Expanded Polystyrene (Styrofoam)     | 0.6%         | 0.1%  | 0.1%      | Wood Furniture                           | 0.0%        | 0.0% | 0.0%      |
| Recoverable Film                           | 0.4%         | 0.2%  | 0.1%      | Other Wood                               | 0.7%        | 0.7% | 0.4%      |
| All Other Film                             | 6.5%         | 0.7%  | 0.4%      | Asphalt Roofing                          | 0.0%        | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.1%         | 0.2%  | 0.1%      | Asphalt, Brick, Concrete, and Rocks      | 0.1%        | 0.1% | 0.1%      |
| Large Plastic Items                        | 1.6%         | 2.6%  | 1.6%      | Drywall/Gypsum Board                     | 0.4%        | 0.5% | 0.3%      |
| Remainder/Composite Plastic                | 3.2%         | 0.3%  | 0.2%      | Remainder/Composite C&D                  | 0.1%        | 0.1% | 0.0%      |
|  |              |       |           |  |             |      |           |
| <b>Organic</b>                             | <b>49.8%</b> |       |           | <b>Other</b>                             | <b>1.8%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 8.7%         | 3.4%  | 2.1%      | Tires                                    | 0.3%        | 0.5% | 0.3%      |
| Protein Food Waste, Unpackaged             | 4.2%         | 1.6%  | 1.0%      | Small Appliances                         | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 7.9%         | 4.1%  | 2.5%      | Large Electronics                        | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 0.9%         | 0.5%  | 0.3%      | Other Small Consumer Electronics         | 0.1%        | 0.1% | 0.0%      |
| Leaves, Grass, and Brush                   | 2.1%         | 2.1%  | 1.3%      | Items with CRTs                          | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.7%         | 0.8%  | 0.5%      | Other Larger Electronics                 | 0.0%        | 0.0% | 0.0%      |
| Textiles                                   | 6.2%         | 2.5%  | 1.5%      | Other Haz. or Household Haz. Waste (HHW) | 0.6%        | 0.6% | 0.3%      |
| Rubber/Leather                             | 0.7%         | 0.6%  | 0.4%      | All Other Wastes                         | 0.8%        | 1.1% | 0.7%      |
| Diapers and Sanitary Products              | 3.8%         | 1.4%  | 0.9%      |  |             |      |           |
| Carpet and Carpet Padding                  | 3.8%         | 4.5%  | 2.7%      | <b>Totals</b>                            | <b>100%</b> |      |           |
| Remainder/Composite Organic                | 10.6%        | 10.3% | 6.3%      | <b>Sample Count</b>                      | <b>7</b>    |      |           |

Confidence intervals calculated at a 90% confidence level.



## Milford Transfer Station

**Table B.9. Milford ICI Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-   | Std. Dev. | Material                                 | Mean        | +/-  | Std. Dev. |
|--|--------------|-------|-----------|--|-------------|------|-----------|
| <b>Paper</b>                               | <b>26.8%</b> |       |           | <b>Metal</b>                             | <b>6.2%</b> |      |           |
| Newspaper and Inserts                      | 0.7%         | 0.6%  | 0.4%      | Tin/Steel Containers                     | 0.7%        | 0.6% | 0.4%      |
| Corrugated Cardboard/Kraft Paper           | 12.3%        | 8.5%  | 5.2%      | Other Ferrous                            | 4.8%        | 7.7% | 4.7%      |
| High Grade Office Paper                    | 0.3%         | 0.3%  | 0.2%      | Aluminum Beverage & Cat Food Containers  | 0.4%        | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 2.5%         | 2.9%  | 1.7%      | Other Aluminum                           | 0.3%        | 0.2% | 0.1%      |
| Compostable Paper                          | 9.2%         | 3.6%  | 2.2%      | Other Non-Ferrous                        | 0.1%        | 0.1% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 0.0%         | 0.0%  | 0.0%      | <b>Glass</b>                             | <b>1.3%</b> |      |           |
| Remainder/Composite Paper                  | 1.9%         | 1.4%  | 0.9%      | Glass Bottles and Jars                   | 1.3%        | 0.9% | 0.6%      |
| <b>Plastic</b>                             | <b>17.5%</b> |       |           | Remainder/Composite Glass                | 0.0%        | 0.0% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 1.2%         | 0.2%  | 0.1%      | <b>C&amp;D</b>                           | <b>3.6%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 0.3%         | 0.1%  | 0.0%      | Pallets/Crates                           | 0.0%        | 0.0% | 0.0%      |
| Rigid HDPE #2 Containers                   | 0.1%         | 0.1%  | 0.1%      | Clean Lumber                             | 0.3%        | 0.4% | 0.3%      |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.0%  | 0.0%      | Painted and Stained Wood                 | 0.0%        | 0.0% | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.4%         | 0.3%  | 0.2%      | Other Engineered Wood                    | 0.1%        | 0.1% | 0.1%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0%  | 0.0%      | Wood Furniture                           | 0.0%        | 0.0% | 0.0%      |
| White Expanded Polystyrene (Styrofoam)     | 0.7%         | 1.0%  | 0.6%      | Other Wood                               | 0.4%        | 0.4% | 0.2%      |
| Recoverable Film                           | 0.3%         | 0.1%  | 0.1%      | Asphalt Roofing                          | 0.0%        | 0.0% | 0.0%      |
| All Other Film                             | 6.2%         | 2.2%  | 1.3%      | Asphalt, Brick, Concrete, and Rocks      | 2.7%        | 4.5% | 2.7%      |
| Agricultural Film & Marine Shrink Wrap     | 0.6%         | 0.9%  | 0.5%      | Drywall/Gypsum Board                     | 0.1%        | 0.2% | 0.1%      |
| Large Plastic Items                        | 1.3%         | 2.2%  | 1.3%      | Remainder/Composite C&D                  | 0.1%        | 0.1% | 0.1%      |
| Remainder/Composite Plastic                | 6.5%         | 5.2%  | 3.1%      | <b>Other</b>                             | <b>4.1%</b> |      |           |
| <b>Organic</b>                             | <b>40.6%</b> |       |           | Tires                                    | 0.0%        | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 6.4%         | 7.2%  | 4.4%      | Small Appliances                         | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 4.5%         | 5.0%  | 3.0%      | Large Electronics                        | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 5.9%         | 6.8%  | 4.1%      | Other Small Consumer Electronics         | 0.1%        | 0.2% | 0.1%      |
| Food Waste in Other Packaging              | 4.0%         | 4.1%  | 2.5%      | Items with CRTs                          | 0.0%        | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 8.3%         | 7.8%  | 4.8%      | Other Larger Electronics                 | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0%  | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.1%        | 0.1% | 0.1%      |
| Textiles                                   | 1.3%         | 0.8%  | 0.5%      | All Other Wastes                         | 3.8%        | 3.6% | 2.2%      |
| Rubber/Leather                             | 0.7%         | 0.5%  | 0.3%      | <b>Totals</b>                            | <b>100%</b> |      |           |
| Diapers and Sanitary Products              | 1.3%         | 2.0%  | 1.2%      | <b>Sample Count</b>                      | <b>4</b>    |      |           |
| Carpet and Carpet Padding                  | 0.0%         | 0.0%  | 0.0%      |  |             |      |           |
| Remainder/Composite Organic                | 8.3%         | 10.6% | 6.4%      |  |             |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table B.10 Milford Residential Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean         | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|--------------|------|-----------|
| <b>Paper</b>                               | <b>20.0%</b> |      |           | <b>Metal</b>                             | <b>3.1%</b>  |      |           |
| Newspaper and Inserts                      | 1.2%         | 0.6% | 0.3%      | Tin/Steel Containers                     | 1.0%         | 0.3% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 1.9%         | 1.4% | 0.9%      | Other Ferrous                            | 1.0%         | 1.4% | 0.8%      |
| High Grade Office Paper                    | 0.5%         | 0.2% | 0.1%      | Aluminum Beverage & Cat Food Containers  | 0.4%         | 0.2% | 0.1%      |
| Mixed Recyclable Paper                     | 1.4%         | 1.0% | 0.6%      | Other Aluminum                           | 0.5%         | 0.3% | 0.2%      |
| Compostable Paper                          | 12.3%        | 2.6% | 1.6%      | Other Non-Ferrous                        | 0.2%         | 0.2% | 0.1%      |
| Aseptic Boxes and Gable Top Cartons        | 0.1%         | 0.1% | 0.0%      |  |              |      |           |
| Remainder/Composite Paper                  | 2.6%         | 2.7% | 1.6%      | <b>Glass</b>                             | <b>2.9%</b>  |      |           |
| <b>Plastic</b>                             | <b>10.1%</b> |      |           | Glass Bottles and Jars                   | 2.0%         | 1.3% | 0.8%      |
| PET #1 Bottles, Jars, or Containers        | 1.4%         | 0.3% | 0.2%      | Remainder/Composite Glass                | 0.9%         | 1.3% | 0.8%      |
| HDPE #2 Natural and Colored Bottles        | 0.6%         | 0.2% | 0.1%      |  |              |      |           |
| Rigid HDPE #2 Containers                   | 0.3%         | 0.4% | 0.3%      | <b>C&amp;D</b>                           | <b>4.9%</b>  |      |           |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.0% | 0.0%      | Pallets/Crates                           | 0.7%         | 0.7% | 0.4%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.3%         | 0.1% | 0.1%      | Clean Lumber                             | 2.3%         | 1.8% | 1.1%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0% | 0.0%      | Painted and Stained Wood                 | 0.2%         | 0.3% | 0.2%      |
| White Expanded Polystyrene (Styrofoam)     | 0.4%         | 0.3% | 0.2%      | Other Engineered Wood                    | 0.7%         | 0.8% | 0.5%      |
| Recoverable Film                           | 0.3%         | 0.1% | 0.1%      | Wood Furniture                           | 0.0%         | 0.0% | 0.0%      |
| All Other Film                             | 4.1%         | 0.6% | 0.4%      | Other Wood                               | 0.8%         | 0.7% | 0.4%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Asphalt Roofing                          | 0.0%         | 0.0% | 0.0%      |
| Large Plastic Items                        | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks      | 0.0%         | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 2.5%         | 0.8% | 0.5%      | Drywall/Gypsum Board                     | 0.0%         | 0.0% | 0.0%      |
| <b>Organic</b>                             | <b>48.0%</b> |      |           | Remainder/Composite C&D                  | 0.2%         | 0.2% | 0.1%      |
| Vegetative Food Waste, Unpackaged          | 10.4%        | 4.7% | 2.8%      | <b>Other</b>                             | <b>11.0%</b> |      |           |
| Protein Food Waste, Unpackaged             | 3.1%         | 1.4% | 0.9%      | Tires                                    | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 6.7%         | 2.3% | 1.4%      | Small Appliances                         | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 0.7%         | 0.4% | 0.3%      | Large Electronics                        | 0.0%         | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 8.7%         | 5.7% | 3.5%      | Other Small Consumer Electronics         | 0.3%         | 0.3% | 0.2%      |
| Branches and Stumps                        | 3.6%         | 3.7% | 2.3%      | Items with CRTs                          | 0.0%         | 0.0% | 0.0%      |
| Textiles                                   | 3.6%         | 1.5% | 0.9%      | Other Larger Electronics                 | 0.0%         | 0.0% | 0.0%      |
| Rubber/Leather                             | 2.9%         | 2.2% | 1.3%      | Other Haz. or Household Haz. Waste (HHW) | 0.6%         | 0.4% | 0.2%      |
| Diapers and Sanitary Products              | 4.4%         | 2.0% | 1.2%      | All Other Wastes                         | 10.1%        | 4.4% | 2.7%      |
| Carpet and Carpet Padding                  | 2.9%         | 4.7% | 2.9%      |  |              |      |           |
| Remainder/Composite Organic                | 1.1%         | 0.7% | 0.4%      | <b>Totals</b>                            | <b>100%</b>  |      |           |
|  |              |      |           | <b>Sample Count</b>                      | <b>8</b>     |      |           |

Confidence intervals calculated at a 90% confidence level.

## Route 5 Transfer Station

**Table B.11. Route 5 Transfer Station ICI Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean        | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|-------------|------|-----------|
| <b>Paper</b>                               | <b>32.6%</b> |      |           | <b>Metal</b>                             | <b>6.1%</b> |      |           |
| Newspaper and Inserts                      | 5.1%         | 7.3% | 4.5%      | Tin/Steel Containers                     | 0.2%        | 0.1% | 0.1%      |
| Corrugated Cardboard/Kraft Paper           | 5.6%         | 5.3% | 3.2%      | Other Ferrous                            | 4.2%        | 6.4% | 3.9%      |
| High Grade Office Paper                    | 0.5%         | 0.3% | 0.2%      | Aluminum Beverage & Cat Food Containers  | 0.8%        | 0.4% | 0.2%      |
| Mixed Recyclable Paper                     | 2.4%         | 0.4% | 0.2%      | Other Aluminum                           | 0.3%        | 0.2% | 0.1%      |
| Compostable Paper                          | 16.8%        | 6.7% | 4.1%      | Other Non-Ferrous                        | 0.6%        | 0.9% | 0.5%      |
| Aseptic Boxes and Gable Top Cartons        | 0.0%         | 0.0% | 0.0%      | <b>Glass</b>                             | <b>6.3%</b> |      |           |
| Remainder/Composite Paper                  | 2.2%         | 2.3% | 1.4%      | Glass Bottles and Jars                   | 6.0%        | 4.2% | 2.6%      |
| <b>Plastic</b>                             | <b>17.9%</b> |      |           | Remainder/Composite Glass                | 0.3%        | 0.5% | 0.3%      |
| PET #1 Bottles, Jars, or Containers        | 2.7%         | 1.1% | 0.7%      | <b>C&amp;D</b>                           | <b>9.1%</b> |      |           |
| HDPE #2 Natural and Colored Bottles        | 0.9%         | 0.3% | 0.2%      | Pallets/Crates                           | 2.2%        | 3.7% | 2.2%      |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0% | 0.0%      | Clean Lumber                             | 5.0%        | 7.3% | 4.5%      |
| #3 to #7 Bottles or Jars                   | 0.0%         | 0.0% | 0.0%      | Painted and Stained Wood                 | 0.0%        | 0.0% | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.4%         | 0.2% | 0.1%      | Other Engineered Wood                    | 0.0%        | 0.0% | 0.0%      |
| All Other Rigid Plastic Packaging          | 0.2%         | 0.4% | 0.2%      | Wood Furniture                           | 0.0%        | 0.0% | 0.0%      |
| White Expanded Polystyrene (Styrofoam)     | 0.7%         | 0.3% | 0.2%      | Other Wood                               | 1.0%        | 1.6% | 1.0%      |
| Recoverable Film                           | 0.8%         | 0.3% | 0.2%      | Asphalt Roofing                          | 0.0%        | 0.0% | 0.0%      |
| All Other Film                             | 7.5%         | 2.1% | 1.3%      | Asphalt, Brick, Concrete, and Rocks      | 0.2%        | 0.3% | 0.2%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board                     | 0.3%        | 0.6% | 0.3%      |
| Large Plastic Items                        | 1.3%         | 1.4% | 0.8%      | Remainder/Composite C&D                  | 0.4%        | 0.6% | 0.3%      |
| Remainder/Composite Plastic                | 3.5%         | 1.8% | 1.1%      | <b>Other</b>                             | <b>3.1%</b> |      |           |
| <b>Organic</b>                             | <b>25.0%</b> |      |           | Tires                                    | 0.0%        | 0.0% | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 10.3%        | 5.9% | 3.6%      | Small Appliances                         | 0.0%        | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 2.5%         | 1.5% | 0.9%      | Large Electronics                        | 0.0%        | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 4.7%         | 2.1% | 1.3%      | Other Small Consumer Electronics         | 0.3%        | 0.3% | 0.2%      |
| Food Waste in Other Packaging              | 0.3%         | 0.3% | 0.2%      | Items with CRTs                          | 0.0%        | 0.0% | 0.0%      |
| Leaves, Grass, and Brush                   | 0.9%         | 0.7% | 0.4%      | Other Larger Electronics                 | 0.0%        | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0% | 0.0%      | Other Haz. or Household Haz. Waste (HHW) | 0.8%        | 0.8% | 0.5%      |
| Textiles                                   | 0.6%         | 0.5% | 0.3%      | All Other Wastes                         | 2.0%        | 1.2% | 0.7%      |
| Rubber/Leather                             | 0.9%         | 1.2% | 0.7%      | <b>Totals</b>                            | <b>100%</b> |      |           |
| Diapers and Sanitary Products              | 1.8%         | 1.3% | 0.8%      | <b>Sample Count</b>                      | <b>4</b>    |      |           |
| Carpet and Carpet Padding                  | 0.2%         | 0.4% | 0.2%      |  |             |      |           |
| Remainder/Composite Organic                | 2.9%         | 2.5% | 1.5%      |  |             |      |           |

Confidence intervals calculated at a 90% confidence level.

**Table B.12. Route 5 Transfer Station, Residential Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean         | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|--------------|------|-----------|
| <b>Paper</b>                               | <b>19.0%</b> |      |           | <b>Metal</b>                             | <b>2.7%</b>  |      |           |
| Newspaper and Inserts                      | 1.5%         | 1.5% | 0.9%      | Tin/Steel Containers                     | 1.0%         | 0.7% | 0.4%      |
| Corrugated Cardboard/Kraft Paper           | 0.5%         | 0.4% | 0.2%      | Other Ferrous                            | 0.2%         | 0.3% | 0.2%      |
| High Grade Office Paper                    | 0.6%         | 0.6% | 0.4%      | Aluminum Beverage & Cat Food Containers  | 0.9%         | 0.4% | 0.2%      |
| Mixed Recyclable Paper                     | 1.5%         | 0.5% | 0.3%      | Other Aluminum                           | 0.3%         | 0.2% | 0.1%      |
| Compostable Paper                          | 13.9%        | 4.1% | 2.5%      | Other Non-Ferrous                        | 0.4%         | 0.5% | 0.3%      |
| Aseptic Boxes and Gable Top Cartons        | 0.2%         | 0.1% | 0.0%      |  |              |      |           |
| Remainder/Composite Paper                  | 0.8%         | 0.6% | 0.4%      | <b>Glass</b>                             | <b>5.1%</b>  |      |           |
|  |              |      |           | Glass Bottles and Jars                   | 3.2%         | 0.9% | 0.5%      |
| <b>Plastic</b>                             | <b>12.5%</b> |      |           | Remainder/Composite Glass                | 1.9%         | 2.9% | 1.7%      |
| PET #1 Bottles, Jars, or Containers        | 1.7%         | 0.2% | 0.1%      |  |              |      |           |
| HDPE #2 Natural and Colored Bottles        | 1.2%         | 0.4% | 0.2%      | <b>C&amp;D</b>                           | <b>12.3%</b> |      |           |
| Rigid HDPE #2 Containers                   | 0.2%         | 0.3% | 0.2%      | Pallets/Crates                           | 0.0%         | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.1%         | 0.1% | 0.0%      | Clean Lumber                             | 5.2%         | 8.4% | 5.1%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.4%         | 0.3% | 0.2%      | Painted and Stained Wood                 | 0.5%         | 0.5% | 0.3%      |
| All Other Rigid Plastic Packaging          | 0.0%         | 0.0% | 0.0%      | Other Engineered Wood                    | 1.6%         | 2.3% | 1.4%      |
| White Expanded Polystyrene (Styrofoam)     | 0.7%         | 0.4% | 0.3%      | Wood Furniture                           | 4.8%         | 4.6% | 2.8%      |
| Recoverable Film                           | 0.4%         | 0.2% | 0.1%      | Other Wood                               | 0.1%         | 0.2% | 0.1%      |
| All Other Film                             | 5.0%         | 0.4% | 0.3%      | Asphalt Roofing                          | 0.0%         | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks      | 0.1%         | 0.1% | 0.1%      |
| Large Plastic Items                        | 0.0%         | 0.0% | 0.0%      | Drywall/Gypsum Board                     | 0.0%         | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 2.8%         | 1.3% | 0.8%      | Remainder/Composite C&D                  | 0.0%         | 0.1% | 0.0%      |
|  |              |      |           |  |              |      |           |
| <b>Organic</b>                             | <b>45.6%</b> |      |           | <b>Other</b>                             | <b>2.9%</b>  |      |           |
| Vegetative Food Waste, Unpackaged          | 14.2%        | 4.3% | 2.6%      | Tires                                    | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 7.9%         | 9.1% | 5.5%      | Small Appliances                         | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 5.7%         | 2.9% | 1.7%      | Large Electronics                        | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 1.0%         | 0.9% | 0.5%      | Other Small Consumer Electronics         | 0.5%         | 0.6% | 0.4%      |
| Leaves, Grass, and Brush                   | 6.3%         | 5.7% | 3.5%      | Items with CRTs                          | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.0%         | 0.0% | 0.0%      | Other Larger Electronics                 | 0.0%         | 0.0% | 0.0%      |
| Textiles                                   | 3.3%         | 2.6% | 1.6%      | Other Haz. or Household Haz. Waste (HHW) | 0.9%         | 0.8% | 0.5%      |
| Rubber/Leather                             | 0.4%         | 0.4% | 0.2%      | All Other Wastes                         | 1.5%         | 1.1% | 0.6%      |
| Diapers and Sanitary Products              | 5.8%         | 2.5% | 1.5%      |  |              |      |           |
| Carpet and Carpet Padding                  | 0.1%         | 0.1% | 0.1%      | <b>Totals</b>                            | <b>100%</b>  |      |           |
| Remainder/Composite Organic                | 1.0%         | 0.2% | 0.1%      | <b>Sample Count</b>                      | <b>4</b>     |      |           |

Confidence intervals calculated at a 90% confidence level.

## Jones Crossroads Landfill

**Table B.13. Jones Crossroads ICI Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-   | Std. Dev. | Material                                 | Mean         | +/-   | Std. Dev. |
|--|--------------|-------|-----------|--|--------------|-------|-----------|
| <b>Paper</b>                               | <b>27.2%</b> |       |           | <b>Metal</b>                             | <b>1.0%</b>  |       |           |
| Newspaper and Inserts                      | 0.1%         | 0.1%  | 0.1%      | Tin/Steel Containers                     | 0.4%         | 0.3%  | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 15.6%        | 12.7% | 7.7%      | Other Ferrous                            | 0.0%         | 0.0%  | 0.0%      |
| High Grade Office Paper                    | 0.2%         | 0.3%  | 0.2%      | Aluminum Beverage & Cat Food Containers  | 0.3%         | 0.2%  | 0.1%      |
| Mixed Recyclable Paper                     | 1.3%         | 1.1%  | 0.7%      | Other Aluminum                           | 0.2%         | 0.1%  | 0.1%      |
| Compostable Paper                          | 7.2%         | 3.5%  | 2.2%      | Other Non-Ferrous                        | 0.1%         | 0.1%  | 0.0%      |
| Aseptic Boxes and Gable Top Cartons        | 2.1%         | 3.3%  | 2.0%      | <b>Glass</b>                             | <b>1.6%</b>  |       |           |
| Remainder/Composite Paper                  | 0.6%         | 0.6%  | 0.4%      | Glass Bottles and Jars                   | 1.6%         | 1.3%  | 0.8%      |
| <b>Plastic</b>                             | <b>18.7%</b> |       |           | Remainder/Composite Glass                | 0.0%         | 0.0%  | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 1.8%         | 1.4%  | 0.9%      | <b>C&amp;D</b>                           | <b>12.5%</b> |       |           |
| HDPE #2 Natural and Colored Bottles        | 0.3%         | 0.3%  | 0.2%      | Pallets/Crates                           | 2.8%         | 3.0%  | 1.8%      |
| Rigid HDPE #2 Containers                   | 0.0%         | 0.0%  | 0.0%      | Clean Lumber                             | 0.1%         | 0.1%  | 0.1%      |
| #3 to #7 Bottles or Jars                   | 0.3%         | 0.3%  | 0.2%      | Painted and Stained Wood                 | 0.0%         | 0.0%  | 0.0%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.0%         | 0.1%  | 0.0%      | Other Engineered Wood                    | 0.2%         | 0.3%  | 0.2%      |
| All Other Rigid Plastic Packaging          | 0.1%         | 0.0%  | 0.0%      | Wood Furniture                           | 8.7%         | 12.1% | 7.4%      |
| White Expanded Polystyrene (Styrofoam)     | 3.3%         | 4.1%  | 2.5%      | Other Wood                               | 0.1%         | 0.1%  | 0.1%      |
| Recoverable Film                           | 0.1%         | 0.1%  | 0.0%      | Asphalt Roofing                          | 0.0%         | 0.0%  | 0.0%      |
| All Other Film                             | 9.6%         | 3.5%  | 2.2%      | Asphalt, Brick, Concrete, and Rocks      | 0.7%         | 1.0%  | 0.6%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0%  | 0.0%      | Drywall/Gypsum Board                     | 0.0%         | 0.0%  | 0.0%      |
| Large Plastic Items                        | 0.0%         | 0.0%  | 0.0%      | Remainder/Composite C&D                  | 0.0%         | 0.1%  | 0.0%      |
| Remainder/Composite Plastic                | 3.1%         | 2.0%  | 1.2%      | <b>Other</b>                             | <b>5.8%</b>  |       |           |
| <b>Organic</b>                             | <b>33.3%</b> |       |           | Tires                                    | 0.0%         | 0.0%  | 0.0%      |
| Vegetative Food Waste, Unpackaged          | 14.5%        | 8.4%  | 5.1%      | Small Appliances                         | 0.0%         | 0.0%  | 0.0%      |
| Protein Food Waste, Unpackaged             | 0.7%         | 0.5%  | 0.3%      | Large Electronics                        | 0.0%         | 0.0%  | 0.0%      |
| Food Waste in Plastic Packaging            | 1.3%         | 0.7%  | 0.5%      | Other Small Consumer Electronics         | 0.0%         | 0.0%  | 0.0%      |
| Food Waste in Other Packaging              | 0.6%         | 0.5%  | 0.3%      | Items with CRTs                          | 0.0%         | 0.0%  | 0.0%      |
| Leaves, Grass, and Brush                   | 1.7%         | 2.8%  | 1.7%      | Other Larger Electronics                 | 0.0%         | 0.0%  | 0.0%      |
| Branches and Stumps                        | 0.9%         | 1.5%  | 0.9%      | Other Haz. or Household Haz. Waste (HHW) | 0.8%         | 1.1%  | 0.6%      |
| Textiles                                   | 2.3%         | 2.6%  | 1.6%      | All Other Wastes                         | 5.0%         | 4.2%  | 2.5%      |
| Rubber/Leather                             | 0.3%         | 0.2%  | 0.1%      | <b>Totals</b>                            | <b>100%</b>  |       |           |
| Diapers and Sanitary Products              | 1.2%         | 0.9%  | 0.5%      | <b>Sample Count</b>                      | <b>8</b>     |       |           |
| Carpet and Carpet Padding                  | 2.2%         | 3.6%  | 2.2%      |  |              |       |           |
| Remainder/Composite Organic                | 7.6%         | 12.3% | 7.5%      |  |              |       |           |

Confidence intervals calculated at a 90% confidence level.

**Table B.14. Jones Crossroads Residential Hand Sort Data, June 2016**

| Material                                   | Mean         | +/-  | Std. Dev. | Material                                 | Mean         | +/-  | Std. Dev. |
|--|--------------|------|-----------|--|--------------|------|-----------|
| <b>Paper</b>                               | <b>17.5%</b> |      |           | <b>Metal</b>                             | <b>5.6%</b>  |      |           |
| Newspaper and Inserts                      | 1.3%         | 1.1% | 0.7%      | Tin/Steel Containers                     | 0.8%         | 0.4% | 0.2%      |
| Corrugated Cardboard/Kraft Paper           | 2.4%         | 1.9% | 1.2%      | Other Ferrous                            | 3.5%         | 3.9% | 2.4%      |
| High Grade Office Paper                    | 0.1%         | 0.1% | 0.0%      | Aluminum Beverage & Cat Food Containers  | 0.4%         | 0.1% | 0.1%      |
| Mixed Recyclable Paper                     | 1.3%         | 0.4% | 0.3%      | Other Aluminum                           | 0.4%         | 0.2% | 0.1%      |
| Compostable Paper                          | 11.5%        | 2.9% | 1.8%      | Other Non-Ferrous                        | 0.5%         | 0.4% | 0.2%      |
| Aseptic Boxes and Gable Top Cartons        | 0.0%         | 0.0% | 0.0%      |  |              |      |           |
| Remainder/Composite Paper                  | 1.0%         | 0.7% | 0.4%      | <b>Glass</b>                             | <b>2.3%</b>  |      |           |
|  |              |      |           | Glass Bottles and Jars                   | 2.2%         | 1.7% | 1.0%      |
| <b>Plastic</b>                             | <b>16.0%</b> |      |           | Remainder/Composite Glass                | 0.1%         | 0.1% | 0.0%      |
| PET #1 Bottles, Jars, or Containers        | 1.7%         | 0.5% | 0.3%      |  |              |      |           |
| HDPE #2 Natural and Colored Bottles        | 1.0%         | 0.6% | 0.4%      | <b>C&amp;D</b>                           | <b>2.1%</b>  |      |           |
| Rigid HDPE #2 Containers                   | 1.0%         | 1.1% | 0.6%      | Pallets/Crates                           | 0.0%         | 0.0% | 0.0%      |
| #3 to #7 Bottles or Jars                   | 0.2%         | 0.2% | 0.1%      | Clean Lumber                             | 0.1%         | 0.1% | 0.1%      |
| Injection Molded Tubs #2, #4, #5, #6, & #7 | 0.2%         | 0.2% | 0.1%      | Painted and Stained Wood                 | 0.5%         | 0.9% | 0.5%      |
| All Other Rigid Plastic Packaging          | 0.1%         | 0.1% | 0.0%      | Other Engineered Wood                    | 0.8%         | 0.7% | 0.4%      |
| White Expanded Polystyrene (Styrofoam)     | 0.7%         | 0.3% | 0.2%      | Wood Furniture                           | 0.0%         | 0.0% | 0.0%      |
| Recoverable Film                           | 0.8%         | 0.7% | 0.4%      | Other Wood                               | 0.6%         | 0.6% | 0.4%      |
| All Other Film                             | 7.2%         | 1.2% | 0.7%      | Asphalt Roofing                          | 0.0%         | 0.0% | 0.0%      |
| Agricultural Film & Marine Shrink Wrap     | 0.0%         | 0.0% | 0.0%      | Asphalt, Brick, Concrete, and Rocks      | 0.0%         | 0.0% | 0.0%      |
| Large Plastic Items                        | 0.6%         | 1.0% | 0.6%      | Drywall/Gypsum Board                     | 0.0%         | 0.0% | 0.0%      |
| Remainder/Composite Plastic                | 2.5%         | 1.1% | 0.6%      | Remainder/Composite C&D                  | 0.0%         | 0.0% | 0.0%      |
|  |              |      |           |  |              |      |           |
| <b>Organic</b>                             | <b>45.1%</b> |      |           | <b>Other</b>                             | <b>11.5%</b> |      |           |
| Vegetative Food Waste, Unpackaged          | 16.3%        | 5.0% | 3.0%      | Tires                                    | 0.0%         | 0.0% | 0.0%      |
| Protein Food Waste, Unpackaged             | 2.3%         | 0.8% | 0.5%      | Small Appliances                         | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Plastic Packaging            | 6.3%         | 2.3% | 1.4%      | Large Electronics                        | 0.0%         | 0.0% | 0.0%      |
| Food Waste in Other Packaging              | 2.1%         | 0.9% | 0.5%      | Other Small Consumer Electronics         | 0.4%         | 0.5% | 0.3%      |
| Leaves, Grass, and Brush                   | 2.6%         | 3.0% | 1.8%      | Items with CRTs                          | 0.0%         | 0.0% | 0.0%      |
| Branches and Stumps                        | 0.9%         | 1.5% | 0.9%      | Other Larger Electronics                 | 0.0%         | 0.0% | 0.0%      |
| Textiles                                   | 6.2%         | 3.7% | 2.2%      | Other Haz. or Household Haz. Waste (HHW) | 0.6%         | 0.6% | 0.3%      |
| Rubber/Leather                             | 1.7%         | 2.5% | 1.5%      | All Other Wastes                         | 10.4%        | 8.2% | 5.0%      |
| Diapers and Sanitary Products              | 3.6%         | 1.3% | 0.8%      |  |              |      |           |
| Carpet and Carpet Padding                  | 2.6%         | 3.6% | 2.2%      | <b>Totals</b>                            | <b>100%</b>  |      |           |
| Remainder/Composite Organic                | 0.5%         | 0.5% | 0.3%      | <b>Sample Count</b>                      | <b>6</b>     |      |           |

Confidence intervals calculated at a 90% confidence level.