
DELAWARE SOLID WASTE AUTHORITY STATEWIDE WASTE CHARACTERIZATION STUDY | CY 2025

FINAL REPORT, June 8, 2026



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EXECUTIVE SUMMARY

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 in the calendar year 2025. DSM sub-contracted with MidAtlantic Solid Waste Consultants (MSW Consultants) to conduct hand sorting of MSW and prepare statistical tables of the results.

DSWA contracted for a two-season study to characterize MSW delivered to DSWA's six transfer and disposal facilities. Ninety samples of residential MSW and one hundred and eight industrial, commercial and institutional (ICI) MSW were sorted between March 31 and April 11 (Season 1) and between October 6 and October 16 (Season 2), 2025.

MSW from both the residential and ICI sectors was subject to a statistical sampling process, and the representative, randomly chosen samples were hand sorted into 56 material types. An analysis of the weight data associated with each sample produced estimates of the average waste composition from each sector.

Targeted generator loads from specified ICI generator categories were also hand sorted as well as residential waste from multi-family buildings. The ICI sectors targeted and sorted were as follows:

- Large retail;
- Office;
- Restaurant;
- Convenience Stores; and
- Grocery Stores.

Self-haul waste loads were also visually characterized 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.

DSWA provided the Project Team with the total tonnage of Solid Waste delivered to each of DSWA's six facilities during calendar year (CY) 2025, exclusive of construction and demolition (C&D) waste, yard waste and special wastes. This refined tonnage data, multiplied by the waste characterization percentages derived from the sampling, yield total estimated tons by material type and generator type disposed at each DSWA facility, and in aggregate, statewide.

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

Note that this 2025 waste characterization mirrors the 2015/2016 study (as well as the earlier 2006 study), with the exception of C&D wastes which were excluded in 2025, so that DSWA can track changes in the composition of MSW disposed over time.

Results

Total Tonnage by Facility

Table 1 presents total residential, ICI, and self-haul MSW tonnage by facility which were used to calculate tons by material type delivered for disposal to each facility based on the sample data, and to aggregate the tonnage over the six DSWA facilities.

Table 1 Summary of Tonnage by Facility, CY 2025

Facility	MSW			Self-Haul			Total MSW + SH		
	Res	ICI	Total	Res	ICI	Total	Res	ICI	Total
Sandtown	45,274	37,042	82,316	7,258	4,889	12,147	52,532	41,931	94,463
Jones Crossroads	59,058	48,320	107,378	7,743	5,216	12,959	66,801	53,536	120,337
Cherry Island	211,051	172,678	383,728	17,728	11,941	29,669	228,778	184,619	413,397
Pine Tree	43,874	35,897	79,772	4,660	3,139	7,798	48,534	39,036	87,570
Milford	20,242	16,562	36,804	3,130	2,108	5,238	23,372	18,670	42,042
Route 5	57,238	46,831	104,070	3,927	2,645	6,572	61,165	49,477	110,642
Total	436,737	357,330	794,068	44,446	29,938	74,383	481,183	387,268	868,451

Residential and ICI Tonnage Allocation

The disposal facility data tracked by DSWA does not differentiate between residential and ICI MSW therefore the Project Team performed truck driver surveys at each facility to make this allocation. Based on those surveys, it was estimated that 55 percent of the waste delivered was collected from residential sources and 45 percent from ICI sources. This allocation is slightly different from the 2015/2016 analysis which allocated MSW to be 53 percent residential and 47 percent ICI waste.

Note that the relative allocation between residential and ICI is based on limited surveys of truck drivers and their estimates of the mix of residential and ICI wastes in that particular load collected and delivered that day. This procedure is identical to surveys of truck drivers carried out in past DSWA waste characterizations; as well as other statewide waste characterizations carried out by DSM and MSW Consultants, and therefore is a consistent methodology, even if it is, at best, a rough allocation. More importantly, the change in allocation is consistent with significant growth in population in Delaware between 2015 and 2025 (12 percent – roughly double the national growth rate in population – US Census), coupled with a decline of roughly 12,000 jobs in the industrial sector during this same time period (Delaware Business Roundtable).

Change in Population and Per Capita Disposal

Table 2 illustrates the change in the population, number of households and disposal (tons) between 2015/16 and 2025. As illustrated by Table 2, Delaware's population has grown by 12 percent since the

last waste characterization, while per capita disposal has increased by 24 percent. This is consistent with the increase in tonnage delivered to DSWA facilities over the past 10 years. This is also consistent with the sharp drop in per capita waste disposal that occurred between the 2006 and 2015/16 waste characterization studies, indicative of the impact that the 2008/2009 recession had on total tons disposed in Delaware, which was still being observed at the time of the 2015/16 waste characterization.

Per capita waste disposal in 2006 – before the introduction of universal recycling in Delaware – and before the 2008/2009 recession was 2,163 pounds, dropping to 1,325 pounds by 2015, and now up to 1,639 pounds, which is still significantly lower than 2006, indicative of the impact of universal recycling in Delaware – as well as the lightweighting of materials.

Note that the percent change in residential versus ICI MSW is a result of both changes in per capita residential disposal as well as the change in the allocation between residential and ICI waste between the two waste characterization studies.

Table 2 Change in Population and Tons Disposed, 2015/16 to 2025

2025	Unit	Change (%)	Per Capita (Lbs)	Percent Change (%)
Population	1,059,952	12%		
Households	402,038	12%		
Total MSW (tons)	868,451	39%	1639	24%
Residential Tons	481,183	50%	908	34%
ICI Tons	387,268	26%	731	13%
2015/16				
Population	945,934			
Households	359,677			
Total MSW (tons)	626,914		1325	
Residential Tons	320,159		677	
ICI Tons	306,755		649	

Statewide Aggregated Composition

Figure 1, below, compares the aggregated (combined residential and ICI MSW) materials composition (by percent) of waste disposed for each of the major material groups. Key observations include:

- Paper continues to decline as a percent of total MSW disposed – this is likely a combination of the success of Delaware’s Universal Recycling Law and overall declines in paper generation.
- Plastics continue to increase.
- Per Capita Organics (residential food waste) have increased significantly from roughly 137 lbs./capita/year in 2015/16 to roughly 210 lbs./capita/year in 2025.
- Glass continues to decline as plastics and aluminum replace glass as packaging materials.
- Remaining “Other” materials have increased, potentially as a combination of increased textiles and diapers disposal, and multi-materials disposal.

Figure 1 Comparison of Aggregate MSW Composition by Group, 2025 v 2015/16

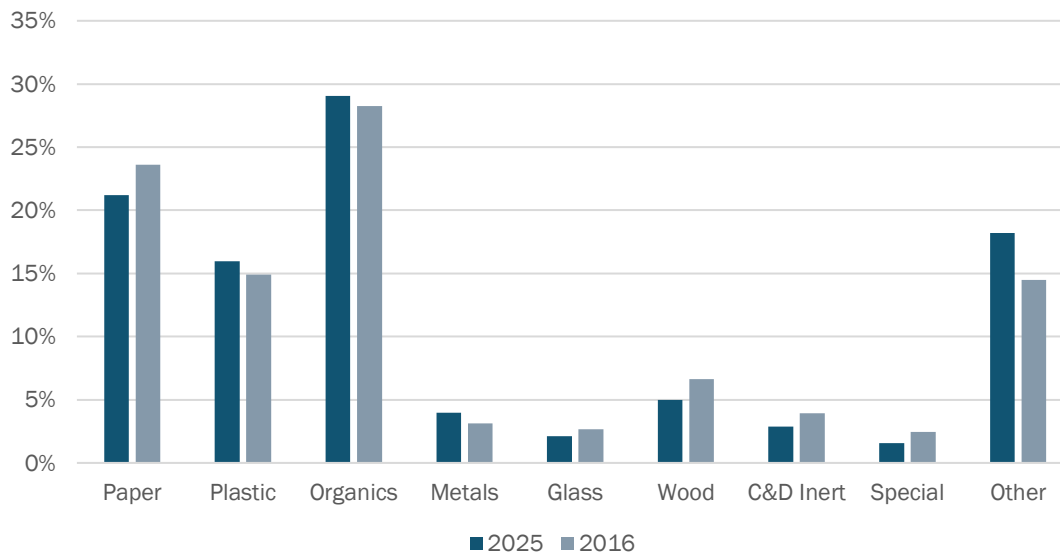


Figure 2 presents statewide composition (combined residential and ICI MSW disposed) by potential management category, showing materials disposed that could be delivered to the materials recovery facility (Single Stream), and materials that could conceivably be managed through an organics management facility. In general, there has been relatively little overall change in the percentage of these materials disposed between 2015/16 and 2025.

Figure 2 Comparison of Aggregate MSW Composition by Management Pathway, 2025 v 2015/16

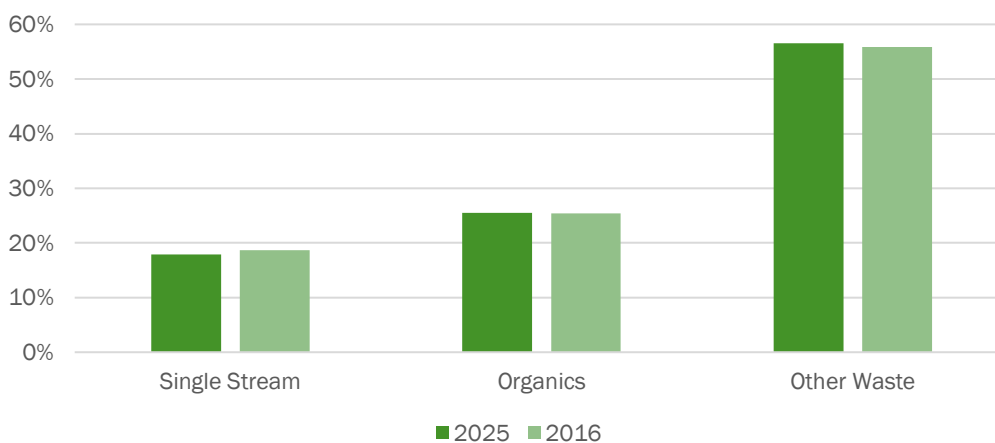


Table 3 then presents the top ten materials, by weight, of MSW disposed in Delaware in 2025. Of note is that the corrugated containers category (OCC) remains a significant material by weight despite its value as a recyclable. This is supported by the large margin of variability associated with OCC in the ICI samples indicating that there are still loads with large quantities of OCC disposed in commercial waste.

Table 3 Top Ten Material Categories in Aggregate MSW, 2025

Material Category	Est. Percent	Cumulative Percent	Est. Tons
Vegetative Food Waste, Unpackaged	9.4%	9.4%	81,467
Non-Recyclable Paper	7.8%	17.2%	67,694
Vegetative & Protein Food Waste in Plastic	6.3%	23.5%	54,702
All Other Film	5.9%	29.4%	51,586
Corrugated Cardboard/Kraft Paper	5.2%	34.6%	45,082
All Other Wastes	4.8%	39.4%	41,974
Mixed Recyclable Paper	4.8%	44.2%	41,525
Diapers, Sanitary Products	4.5%	48.7%	39,132
Textiles	4.3%	53.0%	37,456
Protein Food Waste, Unpackaged	4.0%	57.1%	35,074
Subtotal	57.1%		495,693
All Other Materials	42.9%		
Total	100.0%		868,451

Note that a second report outlining calculated recovery rates for key materials will be prepared by DSM for DSWA during the update of the State Solid Waste Plan, based on the results of this waste characterization study and the annual Recycling Public Advisory Council (RPAC) report. This second report will provide additional information for DSWA as to the success of current recycling programs.

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 sub-contracted with MidAtlantic Solid Waste Consultants (MSW Consultants), collectively, the Project Team, to conduct hand sorting of MSW, and to statistically analyze all sample data. The primary purpose of this 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 can be compared with past waste characterizations (2006 and 2015/16) to better understand trends in waste generation and disposal in Delaware, and to help guide DSWA future planning.

The study was carried out over the course of two seasons (spring and fall 2025), with waste sampling activities occurring at all six DSWA facilities. Subsequent to the fall field data collection event, the sample data were aggregated to estimate the statewide composition of residential and ICI waste disposed at DSWA facilities. The weight-based composition data, expressed as a percentage by material type, were then applied to total reported annual tons disposed by facility for 2025. The results are presented in this Final Report.

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 56 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 the collection and sorting of samples from targeted generator loads from the following specified ICI generator categories:

- 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 delivered to DSWA facilities were also carried out to characterize this waste stream for inclusion in the total waste characterization analysis.¹

¹ Excluding yard waste delivered to the yard waste recycling areas and construction and demolition waste (C&D).

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 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, statewide.

It should be noted that the sampling methodology for this 2025 waste characterization analysis is the same as that used to conduct the 2015/16 waste characterization study (Final Report, January 9, 2017). This should allow for an accurate comparison of waste disposal over the past ten years.

METHODOLOGY

This section briefly summarizes elements of the data collection and analysis methodology and allocates MSW into the residential and ICI sectors based on tonnage data from DSWA and hauler surveys conducted during the waste characterization study.

Host Facilities & Schedule

DSWA coordinated the schedule of host facilities for the waste characterization study. Each of DSWA's solid waste facilities hosted all aspects of field data collection - MSW hand sorting, self-haul visual assessments, and driver surveys. Prior to field data collection, the Project Team consulted with DSWA to confirm traffic flows, truck types, estimated residential versus ICI tonnage splits, operating hours, site layout, site-specific safety needs and targeted field study dates. Table 4 summarizes the field research schedule for the study. As shown, data were collected over two seasons: March into April 2025 (Season 1) and October 2025 (Season 2).

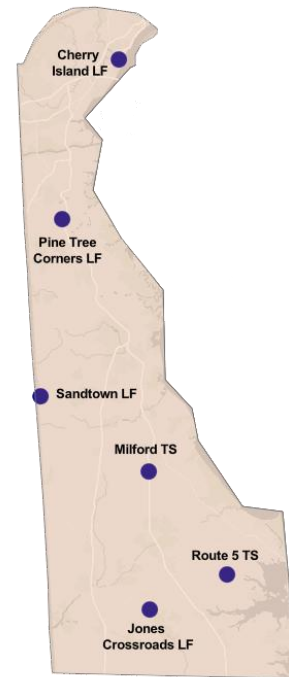
Table 4 Host Facilities and Field Data Collection Schedule

Research Component	Host Facility	Field Schedule	
		Season 1	Season 2
MSW Hand Sorts	Cherry Island Landfill, Wilmington	March 31, April 1-2	October 8-10
	Pine Tree TS, Townsend	April 3-4	October 6-7
	Sandtown Landfill, Felton	7-Apr	14-Oct
	Milford TS, Milford	8-Apr	13-Oct
	Route 5 TS, Harbeson	9-Apr	17-Oct
	Jones Crossroads Landfill, Georgetown	April 10-11	October 15-16
Self-Haul Visual Assessments	Cherry Island Landfill, Wilmington	31-Mar	7-Oct
	Pine Tree TS, Townsend	1-Apr	6-Oct
	Sandtown Landfill, Felton	2-Apr	9-Oct
	Milford TS, Milford	3-Apr	15-Oct
	Route 5 TS, Harbeson	9-Apr	8-Oct
	Jones Crossroads Landfill, Georgetown	10-Apr	14-Oct

Host Disposal Facilities

Figure 3 depicts the geographic location of the DSWA solid waste facilities that were involved in the field research component of the waste characterization study.

Figure 3 Map of Host Disposal Facilities



Definition of Waste Sectors

Disposed Waste

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 multi-family 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 ICI sources. This sector excludes C&D debris. Note that many front load trucks contain multi-family waste which most drivers (and haulers) would classify as ICI. The goal was to exclude, to the extent practical, sampling of multi-family household waste from trucks identified by the driver as collecting ICI waste. Instead, loads of multi-family waste were separately sampled to compare against the composition of single-family 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.

Targeted Generator Sampling

The 2015/16 Waste Characterization Study targeted six specific ICI generator types for sampling and sorting. These samples were obtained from trucks that were identified via a driver interview, or by prior arrangement with waste haulers, and were not obtained randomly. The same ICI generator types were again targeted for the 2025 Study as listed below. However, given difficulties in obtaining small retail loads during this study, a decision was made after Season 1 to stop attempting to source Small Retail loads. The ICI targeted generator types were:

- Small Retail,
- Large Retail,
- Office,
- Restaurant,
- Convenience Stores, and
- Grocery Stores.

Finally, the Project Team also targeted a limited number of multi-family (apartment) loads for comparison against single-family loads.

Delaware Disposed MSW Tonnage

The goal of a two-season waste characterization was to develop estimated tons disposed of MSW by material type and generator class (residential vs. ICI). To achieve this, the Project Team converted DSWA incoming scale data to tons by material type, both statewide and by facility following the protocol described below.

First, DSWA provided the Project Team with their compiled scale data for FY 2025, by category. The Project Team used the “Solid Waste” category from the DSWA “Waste by Facility and Material Type” database 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. Therefore, 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 disposed at the landfill, as that would be double counting.

Second, the truck driver survey data (321 surveys over two seasons), together with detailed scale data by material type were used to allocate tons by vehicle 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) were only applied to MSW, and not to C&D waste or the “Other” waste category. This waste characterization did not include C&D wastes or “Other” wastes, which include sludge, and residue from the Revolution Recovery facility (C&D processing).

Third, driver survey data were 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. The driver surveys asked the driver to estimate what percent of the load was residential (or multi-family) versus business (or institutional) waste, and the results of the driver surveys were used to allocate the Solid Waste category by vehicle type and between residential and ICI generators.

Note that due to budgetary constraints a single enumerator was assigned to each facility for one day each season to both conduct self-haul surveys and truck surveys. Typically, the self-haul surveys were

conducted in the morning and the hauler surveys in the afternoon. However, it became apparent during analysis of the data that the afternoon MSW loads skew toward residential while the morning loads skew toward ICI. Fortunately, there were several days when the hauler surveys were conducted in the morning which could be used to better estimate the split between residential and ICI. Ultimately it was decided to weigh the hauler surveys to better reflect the actual distribution, resulting in an estimated distribution of 55%/45% of residential to ICI. This is a slightly higher residential/ICI distribution than in 2015/16 (53%/47%), but it was agreed in discussions with DSWA staff that this was reasonable given the large increase in residential growth over the past ten years.

Fourth, while some bulky waste is included in DSWA's Solid Waste category – 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 but are reported as MSW in the DSWA data provided to the Project Team. Based on the 2025 truck survey data, the open top roll off waste that would be classified as MSW at the scale house (as opposed to C&D waste, which were excluded from the scale data) only represented five percent of the total MSW delivered to DSWA facilities. Further, a subsequent driver survey conducted by DSWA personnel indicated that only about 50 percent of the open top roll offs contained bulky waste as opposed to MSW. As such, it was determined that the roll off waste coded as MSW would remain in the final MSW waste quantities used to classify waste for this waste characterization study.

Finally, visual analyses of self-haul loads were conducted as part of this waste characterization. The visual characterization 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, 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.

As illustrated by Table 5, of the estimated 868,451 tons of MSW delivered to DSWA facilities during FY 2025, total MSW delivered by commercial haulers includes 436,737 tons of residential MSW and 357,330 tons of ICI MSW. An additional 74,383 tons of self-haul waste included 44,446 tons of residential MSW and 29,938 tons of ICI MSW.

Table 5 Allocated MSW by Sector and Facility, 2025

Facility	MSW			Self-Haul			Total MSW + SH		
	Res	ICI	Total	Res	ICI	Total	Res	ICI	Total
Sandtown	45,274	37,042	82,316	7,258	4,889	12,147	52,532	41,931	94,463
Jones Crossroads	59,058	48,320	107,378	7,743	5,216	12,959	66,801	53,536	120,337
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Milford	20,242	16,562	36,804	3,130	2,108	5,238	23,372	18,670	42,042

Facility	MSW			Self-Haul			Total MSW + SH		
	Res	ICI	Total	Res	ICI	Total	Res	ICI	Total
Route 5	57,238	46,831	104,070	3,927	2,645	6,572	61,165	49,477	110,642
Total	436,737	357,330	794,068	44,446	29,938	74,383	481,183	387,268	868,451

The tons shown in Table 5 serve as the basis for allocating residential and ICI tonnage from individual facilities into the Delaware statewide aggregate MSW composition.

Allocation of MSW Samples

The project scope specified the hand sorting of 40 samples of residential waste and 60 samples of ICI waste each season with each sample weighing between 200 and 250 pounds.

Tables 6 and 7 summarize planned and actual sample targets by generator sector for each facility and each season, respectively. Note that for the targeted ICI generator loads, because of the cost of obtaining the samples (which could include paying the company an hourly charge for the truck and driver to separately collect and deliver only the targeted categories), four samples were taken from a single load contracted for; and therefore contains multiple generators of the same type. A single sample could also be obtained from a roll-off identified as one of the targeted generator categories delivered to the facility during the time the field crew was at that facility. In addition, if a roll-off was randomly selected for ICI sampling but also identified as solely containing waste from one of the targeted generator types (e.g. grocery, large retail, or office) the sample was counted as both one of the ICI samples and one of the targeted samples.

Table 6 Planned and Actual MSW Samples by Location

Facility	Residential (Random)		Multi-Family (Random)		ICI (Random)		ICI (Targeted)		Total Actual Samples
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
Cherry Island LF	10	19	8	11	10	27	16	8	65
Pine Tree Corners TS	18	16	4	6	16	16	12	4	42
Sandtown LF	8	10	0	0	16	6		4	20
Milford TS	10	5	0	0	10	9		1	15
Route 5 TS	10	5	4	0	12	5	4	6	16
Jones Crossroads LF	8	15	0	3	8	8	16	14	40
Total	64	70	16	20	72	71	48	37	198

	Residential (Random)	Multi-Family (Random)	ICI (Random)	ICI (Targeted)	

Table 7 Planned and Actual MSW Samples by Generator Type

Generator/Origin	Season 1		Season 2		Project Total	
	Targeted	Actual	Adjusted Target	Actual	Targeted	Actual
Residential - Single Family	32	26	38	44	64	70
Multi-Family	8	10	8	10	16	20
ICI - Random	36	40	36	31	72	71
ICI - Targeted	24	17	26	20	48	37
ICI - Small Retail ^[1]	4	0	0	0	8	0
ICI - Large Retail	4	2	5	9	8	11
ICI - Convenience Stores	4	4	5	4	8	8
ICI - Office	4	4	5	1	8	5
ICI - Grocery	4	4	5	2	8	6
ICI - Restaurant	4	3	6	4	8	7
Total	100	93	108	105	200	198
<i>ICI - Warehouse/Distribution ^[2]</i>	<i>0</i>	<i>14</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>16</i>
Grand Totals	100	107	108	107	200	214

[1] Due to difficulty obtaining Small Retail loads in Season 1, no effort was made to obtain Small Retail loads in Season 2.

[2] During field data collection, these samples were erroneously classified as "Large Retail", and therefore multiple samples were collected of the same load. Because they were not selected randomly, they are not included in the study sample totals; however, the composition data for these samples is presented in Appendix B.

Vehicle Sampling Protocol & Manual Sorting

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 sample interval at each facility. Sample 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. This resulted in a sampling frequency number, which determined whether, for example, every third vehicle, sixth vehicle, or 20th vehicle was selected for sample collection.

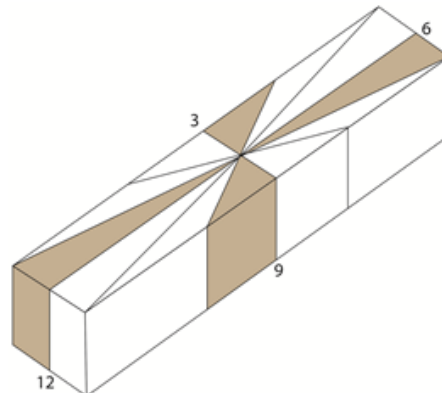
Vehicles meeting the definition of the *n*th vehicle were first surveyed by the Field Supervisor. For a vehicle to be eligible for sampling, the load must fit within the residential and ICI definitions (see above). For each vehicle selected for sampling, the Field Supervisor collected identification data regarding the waste type, vehicle type, hauler name, and DSWA number and then notified the scale house that a sample was being collected from a specific truck. The scale house would then set aside a weight ticket for the Field Supervisor to collect at the end of the day.

Selected loads of waste were tipped (see Figure) in the designated area at each host facility. From the tipped load, one sample of waste was selected based on a systematic “grab” from the load. The sample or “grab” procedure treated each tipped load as a clock face where the top of the load (the part closest to the front of the truck) was viewed as 12 o’clock and the first sample taken from this position. Subsequent samples would be taken from the 3 o’clock, 6 o’clock, and 9 o’clock positions. For the next four loads, the extraction point would shift to 1, 4, 7, and 10 o’clock, and so-on. This concept of systematically rotating around subsequent loads is shown in Figure .

Figure 4 Tipped Load to be Sampled



Figure 5 (at right)
Systematic Sampling Guide for Tipped Loads



With the assistance of a host facility operator, a sample of waste was removed by bucket loader from the designated area and brought to the sample staging area as shown in

Figure . Depending upon the availability of 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 loader bucket, 35-gallon cans or carts were arranged side-by-side, 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 help minimize sample collection bias, subsequent samples were collected from the loader bucket in an alternating fashion, that is, working from the left side of the bucket to the right side for one sample, and then from right to left on the next sample.

Figure 6
Example of Bucket Loader Sample Collection



Manual Sorting

The barrels containing the sample of waste were labeled with a unique identification number corresponding to each sample, then emptied onto a sorting table to be sorted into the various material categories. Figure shows photographs of a sorting operation at a transfer station (left) and

at a landfill (right). The pictures present the typical layout of the sorting table and bins into which each identified material is to be sorted.

Figure shows the sorting team crew chief proceeding through a sample weigh-out where all sorted materials are weighed on a calibrated scale and entered into a data management application.

Figure 7 Example of Sorting Table and Work Area



Figure 8 Example of Sample Weigh Out



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 a total of 134 visual surveys in April and 126 visual surveys in October, as illustrated by Table 8. Visual surveys were conducted similar to the procedure followed in *Construction and Demolition Waste Characterization, Jones Crossroads Landfill, December 2015* and performed for DSWA. The same visual form was used, but the enumerator was stationed at

the small vehicle unloading area. It should be noted here that a decision was made subsequent to the spring visuals to restrict self-haul visuals at Jones Crossroads to the lower level, ignoring the self-dumping contractor loads (primarily of C&D waste) delivered to the upper level of the landfill but not dumped at the working face.

Table 8
Visual Survey By Facility, April and October, 2025

Facility	April	October	Total
Cherry Island LF	23	21	44
Pine Tree Corners TS	22	25	47
Sandtown LF	22	18	40
Milford TS	21	25	46
Route 5 TS	21	12	33
Jones Crossroads LF	25	25	50
Total	134	126	260

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. These volume estimates are then converted to pounds based on the density of the various materials.

Note that there is significantly greater error in visual volumetric estimation compared to physical sorting. 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 bagged waste was then assumed to be the same composition as the average of the hand sorted residential and ICI waste.

Driver Surveys

Drivers were surveyed as they exited the facility to determine whether they were hauling residential or ICI waste, and if a combination, the estimated percentage of each. Over the course of the two seasons 275 driver surveys were conducted, as illustrated by Table 9, below.

Table 8 (at right)
Driver Surveys by Facility

Location	# of Surveys		
	Season 1	Season 2	Total
Cherry Island LF	48	42	90
Pine Tree Corners TS	27	23	50
Sandtown LF	23	21	44
Milford TS	9	10	19
Route 5 TS	21	31	52
Jones Crossroads LF	15	16	31
Total	143	132	275

As discussed previously, the majority of hauler surveys were conducted in the afternoon, which skews toward residential as opposed to ICI collections. If the hauler surveys were based purely on the total number of surveys conducted, the estimated split between residential and ICI would be 60/40, respectively. However, when surveys were weighted to include morning surveys at Cherry Island (spring) and Milford and RT 5 (fall) the split falls closest to a 55/45 ratio based on the weight of the trucks that were surveyed and the driver estimates of the percent residential versus ICI included in the load. As such, the Project Team decided to use the 55/45 residential/ICI split for subsequent analysis of waste composition. This is only slightly different than the 53/47 percent split used in the 2015/16 report and is consistent with observations concerning residential growth in Delaware over the past eight years.

Material Categories

The list of broader material groups, and more specific material categories with their underlying definitions used for the MSW manual sorting and self-haul visual assessments were developed with input from DSWA and are presented in Appendix A.

Table 9 presents the 56 material categories used for the MSW manual hand sorting, which are combined into nine material groups (e.g., Paper is a group, while Mixed Recyclable Paper and Compostable Paper are categories). Table 10 presents the 42 material categories and 9 material groups used for visual assessments of self-haul waste.

The 2025 waste characterization study added a new category from the 2015/16 study, namely the “Other Products Containing SAPs”. This category was added to measure the percentage of waste classified as non-biodegradable superabsorbent polymers (SAPs), which have been separated from the Diapers & Sanitary Products and the Remainder/Composite Organics categories. This category has increased significantly over the past ten years, especially for packaging of meats.

There are several issues to note with the items listed in Table 9. First, materials accepted at the DSWA single stream materials recovery facility are highlighted in dark blue and could conceivably have been separated by residents and businesses for recycling. The quantities disposed can be summed and compared to the quantities reported recycled by the Single Stream MRF to derive recovery rates by material type.

Second, the term “Compostable Paper” has been carried forward from the previous waste characterization study and does not imply that this material could (or should) be composted, only that if there were a composting (or anaerobic digestion) facility in Delaware this material could be included.

Third, organics that could be suitable for diversion to an organics processing facility are highlighted in green. Past analyses of the feasibility of constructing one or more state-wide organics processing facilities in Delaware have indicated that the cost of such a facility would not justify the diversion associated with processing this material, other than through capture of methane from the landfills, which is currently occurring.

Table 9 MSW Material Groups & Categories

Material Category	Material Category
Paper	Metals
 Newspaper & Inserts	 Tin/Steel Containers
 Corrugated Cardboard/Kraft Paper	 Other Ferrous
 High Grade Office Paper	 Aluminum Beverage & Cat Food Cont.
 Mixed Recyclable Paper	 Other Aluminum
 Compostable Paper	 Other Non-Ferrous
 Remainder/Composite Paper	Wood
 Aseptic Boxes & Gable Top Cartons	 Pallets/Crates
Plastic	 Clean Lumber
 PET #1 Bottles, Jars or Containers	 Painted & Stained Wood
 HDPE #2 Natural & Colored Bottles	 Other Engineered Wood
 Rigid HDPE #2 Containers	 Wood Furniture
 #3 to #7 Bottles or Jars	 Other Wood (R/C Wood)
 Injection Molded Tubs #2 & #4-7	C&D Inert
 All Other Rigid Plastic Packaging	 Asphalt Roofing
 White Styrofoam	 Asphalt, Brick, Concrete & Rocks
 Recoverable Film	 Drywall/Gypsum Board
 All Other Film	 Remainder/Composite C&D
 Agricultural Film & Marine Shrink Wrap	Special
 Large Plastic Items	 Tires
 Remainder/Composite Plastic	 Small Appliances
Organics	 Large Electronics
 Vegetative Food Waste, Unpackaged	 Other Small Consumer Electronics
 Protein Food Waste, Unpackaged	 Items with CRTs
 Vegetative and Protein Food Waste in Plastic	 Other Larger Electronics
 Vegetative and Protein Food Waste	 Other Hazardous or HHW
 Leaves, Grass & Brush	Other
 Branches & Stumps	 Textiles
 Remainder/Composite Organic	 Rubber / Leather
Glass	 Diapers, Sanitary Products
 Glass Bottles & Jars	 Other Products Containing SAPs
 Remainder/Composite Glass	 Carpet & Carpet Padding
	 All Other Wastes
 <i>Recyclable MGP</i>	 <i>Other Waste</i>
 <i>Organics</i>	

Table 10 Self-Haul Visual Survey Groups & Categories

Material Category	Material Category
Paper	Metal
OCC (Old Corrugated Cardboard) & Kraft Paper	HVAC Ducting
Remainder & Composite Other Paper	Wire Sheathing
Plastic	Other Ferrous
HDPE Buckets	Other Non-Ferrous
Clean Recoverable Film	C&D
Foamed Insulation	Concrete/Brick/Rock
R/C and Other Plastic	Asphalt Paving
Glass	Asphalt Roofing
R/C and Other Glass	Wood Roofing
Organics	Ceiling Tiles
Yard Waste	Vinyl Siding
R/C and Other Organics	Pallets/Crates
Special/Other	Clean Lumber
Appliances	Plywood
Electronics	Other Engineered Wood
Items with CRTs	Wood Furniture
Bulky Items	Painted/Stained Wood
Tires	Treated Wood
Lead Acid Batteries	Clean Gypsum Board
Vehicle Fluids	Painted/Papered Gypsum Board
Paint	Dirt/Sand/Gravel
Other Hazardous Materials	Fiberglass Insulation
Fines/Mixed Residue	R/C and Other C&D
	MSW
	Mixed MSW

These categories were integrated into the hand sort MSW category by inserting the totals for each material that best fit the 56 MSW categories for compilation of the total MSW tables by facility. A significant number of these materials were allocated to Metal, Wood, C&D Inert, Special, and Other (see Table 10 above).

Analytical Methods

Data Analysis

The statistical methods used in this study for manually sorted MSW samples follow the US EPA's guidance on solid (hazardous) waste sampling.² This approach involves obtaining samples that are relatively uniform in weight and converting the weight of each material category within a sample into a percentage of the sample's total weight. The average percentage and margin of error are then calculated across all samples.

Conversely, the volumetric estimates of self-haul visuals were converted to weight-based estimates using material densities and normalized in the field using scale tickets from the facility. As such, the absolute weight of each surveyed load of self-haul material was treated as a sample, and the underlying weights of each constituent in the load were not converted to percentages as is done with manually sorted MSW samples. The absolute load weights are retained because heavier self-haul samples should be given a higher weighting in the overall analysis than lighter self-haul loads as they are selected at random.

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 margin of error (MOE) column presents the range that the actual mean is expected to vary around the calculated mean at a 90 percent confidence interval.

In summary, the resulting statistical measures are provided in the results:

- **Sample Mean:** The sample mean, or average, composition is considered the “most likely” fraction for each material category in the waste stream.
- **Standard Deviation:** 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.
- **Margin of Error:** Margins of error (MOE) were calculated for each material category to provide a measure of the uncertainty in the sample mean. Because the estimated composition percentage is based on sampling, there is inherent variability in the estimate. The MOE quantifies this variability, reflecting the possible difference between the sample mean and the true population value due to sampling error.³ MOEs were calculated at a 90 percent level of confidence in this study.

² *Hazardous Waste Test Methods/SW-846*, Chapter 9: Sampling Plans, US EPA, November 22, 2023.

³ Adding and subtracting the margin of error from the mean composition percentage yields a confidence interval, which represents the range within which the true population composition is expected to fall, given the sample data.

RESULTS

Material Composition by Management Type

Data are presented in tabular 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.

This is then followed by the results for multi-family waste, self-haul waste deliveries and finally for the targeted generator ICI loads sampled.

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, glass, paper and plastic materials (mwp) 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 facility or anaerobic digester.

The material categories by management type are:

- Recyclable paper (accepted at Single Stream MRF);
- Recyclable metal and glass (accepted at Single Stream MRF);
- Recyclable plastic (accepted at Single Stream MRF);
- Vegetative food wastes, unpackaged;
- Protein food waste, unpackaged;
- Food waste in plastic packaging;
- Food waste in other packaging; and,
- All 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 delivered to the landfill that cannot realistically be diverted.

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 by virtue of being contained in packaging. Contamination can be a significant impediment to both aerobic and anaerobic processing systems.

Analysis of organic diversion options currently available to DSWA indicate that no state-wide technology currently makes economic sense (see *Analysis of Organics Diversion Alternatives, September 2017*), although DSWA is exploring small scale organics diversion opportunities.

State-Wide Aggregate Waste Composition

Table 12 presents the aggregated statewide composition of MSW delivered to the six DSWA facilities. This table combines Residential and ICI MSW based on the reported disposal by facility. All materials accepted at the single stream MRF are highlighted in blue, and organic materials that could be managed through composting or anaerobic digestion are highlighted in green. All other materials are highlighted in grey.

Figure 9 compares aggregated material group tonnage between 2025 and 2015/16, and Figure 10 compares the composition delivered for disposal between the three management categories between the same two time periods.

Table 13 then presents the top ten materials, by weight, disposed in 2025, and Figure 11 compares the top ten materials by weight-percent between 2025 and 2015/16.

The same format of tables and figures are then presented for Residential and ICI MSW, respectively.

All tables present the weighted average tons by material type and 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 (standard deviation).

The margin of error (MOE) is also presented to indicate how widely values within the data set are dispersed from the sample mean with a higher MOE denoting higher variation in the underlying samples for each material.

Statewide MSW Composition

Aggregate MSW

Table 12, on the next page, displays the estimated combined characterization of MSW (by percentage) delivered to DSWA facilities in Calendar Year (CY) 2025.

Table 11 Delaware Statewide Aggregate MSW Composition Detail

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	21.2%	10.5%	1.2%	184,259	Glass	2.1%	2.8%	0.4%	18,250
Newspaper & Inserts	0.3%	0.6%	0.1%	2,881	Glass Bottles & Jars	1.8%	2.6%	0.4%	15,993
Corrugated Cardboard/Kraft Paper	5.2%	9.1%	1.2%	45,082	Remainder/Composite Glass	0.3%	0.4%	0.1%	2,257
High Grade Office Paper	0.1%	0.7%	0.1%	1,077	Wood	5.0%	11.9%	1.0%	43,482
Mixed Recyclable Paper	4.8%	3.4%	0.4%	41,525	Pallets/Crates	0.6%	3.0%	0.3%	5,134
Non-Recyclable Paper	7.8%	4.3%	0.5%	67,694	Clean Lumber	0.4%	3.7%	0.2%	3,257
Remainder/Composite Paper	2.6%	2.3%	0.3%	22,652	Painted & Stained Wood	1.8%	6.2%	0.5%	15,584
Aseptic Boxes & Gable Top Cartons	0.4%	0.7%	0.1%	3,349	Other Engineered Wood	0.9%	6.1%	0.3%	7,656
Plastic	16.0%	9.8%	1.2%	138,790	Wood Furniture	1.0%	4.4%	0.5%	9,008
PET #1 Bottles, Jars or Containers	2.0%	1.1%	0.1%	17,462	Other Wood (R/C Wood)	0.3%	1.2%	0.2%	2,844
HDPE #2 Natural & Colored Bottles	0.6%	0.6%	0.1%	5,312	C&D Inert	2.9%	10.9%	0.7%	25,144
Rigid HDPE #2 Containers	0.2%	0.3%	0.0%	1,433	Asphalt Roofing	0.2%	4.3%	0.2%	1,854
#3-7 Bottles or Jars	0.1%	0.3%	0.0%	557	Asphalt, Brick, Concrete & Rocks	0.3%	2.5%	0.3%	2,442
Injection Molded Tubs #2 & #4-7	0.8%	0.9%	0.1%	7,174	Drywall/Gypsum Board	0.4%	4.0%	0.2%	3,752
All Other Rigid Plastic Packaging	0.2%	0.5%	0.1%	2,155	Remainder/Composite C&D	2.0%	8.3%	0.5%	17,096
White Styrofoam	0.7%	1.8%	0.2%	6,019	Special	1.6%	4.6%	0.4%	13,613
Recoverable Film	0.2%	0.7%	0.1%	1,429	Tires	0.1%	0.9%	0.1%	707
All Other Film	5.9%	3.3%	0.4%	51,586	Small Appliances	0.5%	2.0%	0.2%	4,640
Agricultural Film & Marine Shrink Wrap	0.6%	5.0%	0.7%	4,936	Large Electronics	0.3%	3.1%	0.2%	2,572
Large Plastic Items	2.5%	3.7%	0.5%	21,535	Other Small Consumer Electronics	0.1%	2.0%	0.1%	1,023
Remainder/Composite Plastic	2.2%	1.7%	0.2%	19,192	Items with CRTs				NF
Organics	29.0%	14.9%	1.7%	252,211	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	9.4%	7.4%	1.0%	81,467	Other Hazardous or HHW	0.5%	2.1%	0.3%	4,672
Protein Food Waste, Unpackaged	4.0%	6.6%	0.9%	35,074	Other	18.2%	16.1%	1.4%	158,105
Vegetative & Protein Food Waste in Plastic	6.3%	5.0%	0.6%	54,702	Textiles	4.3%	6.1%	0.9%	37,456
Vegetative & Protein Food Waste in Other	2.7%	2.0%	0.3%	23,079	Rubber / Leather	0.6%	1.3%	0.2%	5,538
Leaves, Grass & Brush	2.6%	5.2%	0.7%	22,360	Diapers, Sanitary Products	4.5%	5.3%	0.7%	39,132
Branches & Stumps	0.5%	2.4%	0.3%	4,731	Other Products Containing SAPs	0.1%	0.3%	0.1%	759
Remainder/Composite Organic	3.5%	4.5%	0.5%	30,798	Carpet & Carpet Padding	1.0%	4.7%	0.6%	8,560
Metals	4.0%	5.2%	0.6%	34,597	All Other Wastes	4.8%	5.1%	0.7%	41,974
Tin/Steel Containers	0.8%	1.0%	0.2%	6,797	Bulky Wastes in Self-Haul	2.8%	15.1%	0.4%	24,685
Other Ferrous	1.7%	4.2%	0.5%	14,607					
Aluminum Beverage & Cat Food Cont.	0.6%	0.5%	0.1%	5,006	<i>Hauler Collected MSW Tons</i>				794,068
Other Aluminum	0.4%	1.0%	0.1%	3,532	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				74,383
Other Non-Ferrous	0.5%	2.4%	0.2%	4,654	Totals	100.0%			868,451
					<i>Samples</i>	161			
Management Pathways									
Single Stream	17.9%	11.7%	1.6%	155,802	Other Waste	56.6%	17.5%	1.9%	491,236
Organics	25.5%	14.3%	1.7%	221,413					

NF: Not Found in Samples

Figure 9 Comparison of Aggregate MSW Composition by Group, 2025 v 2017

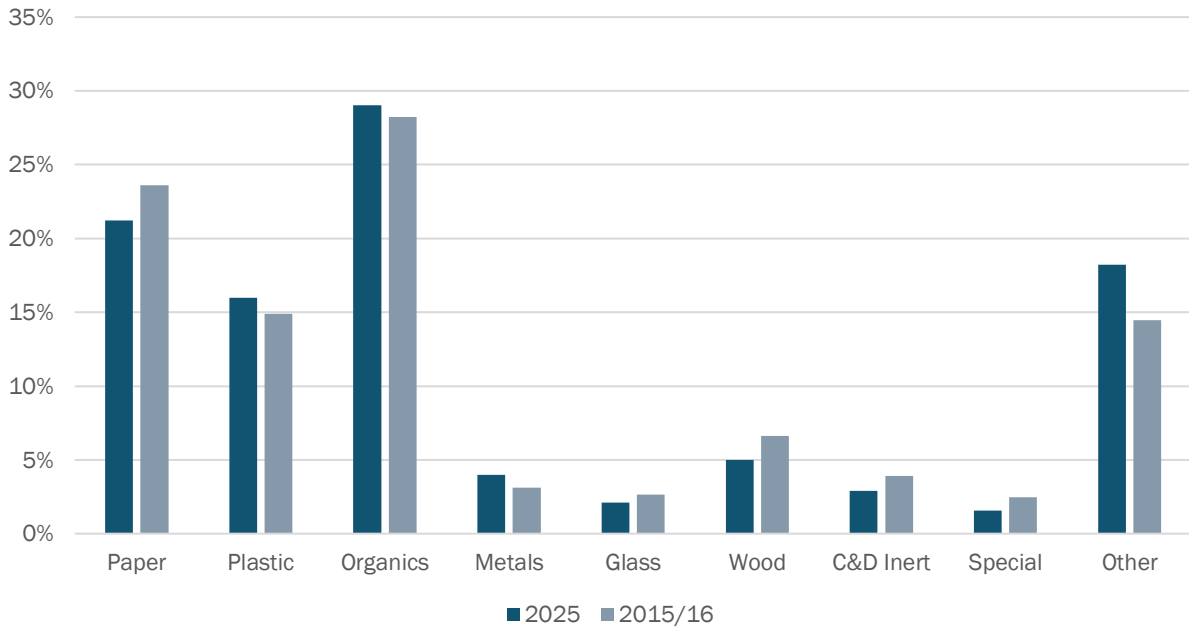
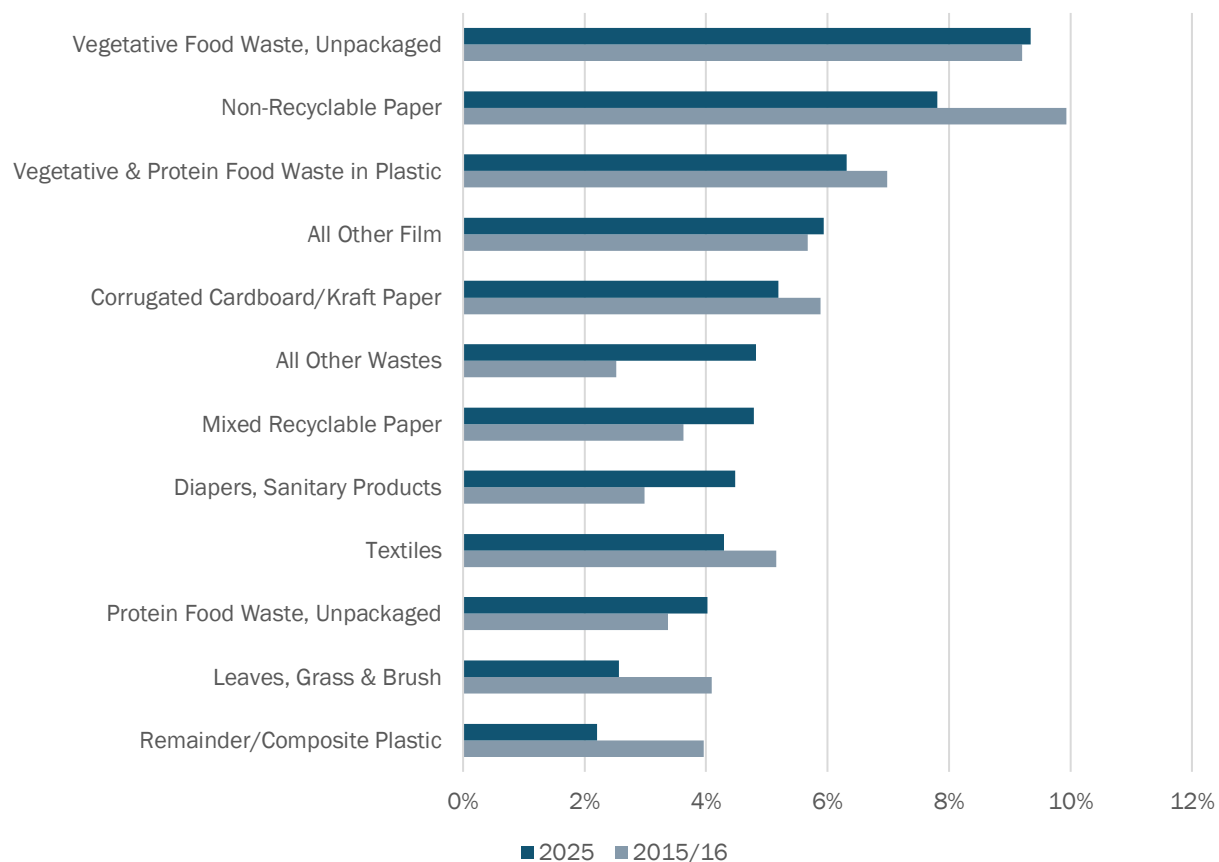


Table 12 Top Ten Material Categories in Aggregate MSW, 2025

Material Category	Est. Percent	Cumulative Percent	Est. Tons
Vegetative Food Waste, Unpackaged	9.4%	9.4%	81,467
Non-Recyclable Paper	7.8%	17.2%	67,694
Vegetative & Protein Food Waste in Plastic	6.3%	23.5%	54,702
All Other Film	5.9%	29.4%	51,586
Corrugated Cardboard/Kraft Paper	5.2%	34.6%	45,082
All Other Wastes	4.8%	39.4%	41,974
Mixed Recyclable Paper	4.8%	44.2%	41,525
Diapers, Sanitary Products	4.5%	48.7%	39,132
Textiles	4.3%	53.0%	37,456
Protein Food Waste, Unpackaged	4.0%	57.1%	35,074
Subtotal	57.1%		495,693
All Other Materials	42.9%		
Total	100.0%		868,451

Figure 10 Comparison of Most Prevalent Materials in Aggregate MSW, 2025 v 2015/16



Residential MSW

Table 14 (on the next page) displays the same material characterization, but for Residential MSW only delivered to DSWA facilities.

Table 14 Delaware Statewide Residential MSW Composition Detail, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	20.3%	8.4%	1.4%	97,904	Glass	2.3%	2.1%	0.4%	11,059
Newspaper & Inserts	0.4%	0.5%	0.1%	1,909	Glass Bottles & Jars	2.0%	1.9%	0.4%	9,556
Corrugated Cardboard/Kraft Paper	3.7%	4.9%	1.0%	17,638	Remainder/Composite Glass	0.3%	0.5%	0.1%	1,503
High Grade Office Paper	0.1%	0.3%	0.0%	255	Wood	4.3%	9.7%	1.1%	20,855
Mixed Recyclable Paper	5.0%	3.2%	0.6%	24,091	Pallets/Crates	0.3%	2.5%	0.3%	1,607
Non-Recyclable Paper	8.1%	4.2%	0.7%	38,973	Clean Lumber	0.2%	1.9%	0.2%	851
Remainder/Composite Paper	2.9%	2.3%	0.4%	13,748	Painted & Stained Wood	1.7%	5.8%	0.5%	8,170
Aseptic Boxes & Gable Top Cartons	0.3%	0.3%	0.1%	1,290	Other Engineered Wood	0.5%	3.5%	0.3%	2,558
Plastic	13.9%	5.7%	0.9%	66,673	Wood Furniture	1.3%	5.1%	0.9%	6,325
PET #1 Bottles, Jars or Containers	2.1%	0.9%	0.1%	10,321	Other Wood (R/C Wood)	0.3%	0.9%	0.2%	1,344
HDPE #2 Natural & Colored Bottles	0.6%	0.5%	0.1%	2,856	C&D Inert	1.9%	7.2%	0.7%	8,988
Rigid HDPE #2 Containers	0.1%	0.2%	0.0%	702	Asphalt Roofing	0.1%	1.7%	0.0%	254
#3-7 Bottles or Jars	0.1%	0.3%	0.1%	322	Asphalt, Brick, Concrete & Rocks	0.1%	0.7%	0.1%	489
Injection Molded Tubs #2 & #4-7	0.8%	0.6%	0.1%	3,666	Drywall/Gypsum Board	0.4%	3.3%	0.3%	1,816
All Other Rigid Plastic Packaging	0.3%	0.5%	0.1%	1,420	Remainder/Composite C&D	1.3%	5.6%	0.5%	6,428
White Styrofoam	0.4%	0.4%	0.1%	1,927	Special	1.2%	3.9%	0.4%	5,978
Recoverable Film	0.1%	0.3%	0.0%	385	Tires	0.0%	0.1%	0.0%	71
All Other Film	5.2%	2.3%	0.4%	24,830	Small Appliances	0.8%	2.6%	0.4%	3,712
Agricultural Film & Marine Shrink Wrap	0.0%	0.3%	0.0%	201	Large Electronics	0.2%	3.0%	0.2%	992
Large Plastic Items	2.2%	3.0%	0.5%	10,461	Other Small Consumer Electronics	0.0%	0.1%	0.0%	154
Remainder/Composite Plastic	2.0%	1.2%	0.2%	9,582	Items with CRTs				NF
Organics	32.1%	13.0%	1.9%	154,334	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	9.6%	6.4%	1.1%	45,986	Other Hazardous or HHW	0.2%	0.7%	0.1%	1,049
Protein Food Waste, Unpackaged	3.3%	2.8%	0.4%	15,751	Other	20.2%	16.4%	1.6%	97,261
Vegetative & Protein Food Waste in Plastic	7.4%	4.7%	0.8%	35,526	Textiles	4.2%	3.2%	0.6%	20,152
Vegetative & Protein Food Waste in Other	2.9%	1.8%	0.3%	14,136	Rubber / Leather	0.6%	1.0%	0.2%	2,670
Leaves, Grass & Brush	3.9%	5.6%	1.1%	18,878	Diapers, Sanitary Products	5.6%	4.5%	0.7%	26,850
Branches & Stumps	0.7%	2.5%	0.5%	3,217	Other Products Containing SAPs	0.1%	0.2%	0.0%	402
Remainder/Composite Organic	4.3%	4.5%	0.7%	20,840	Carpet & Carpet Padding	1.1%	5.5%	1.0%	5,167
Metals	3.8%	4.9%	0.7%	18,131	All Other Wastes	5.0%	4.9%	0.9%	23,882
Tin/Steel Containers	0.7%	0.5%	0.1%	3,501	Bulky Wastes in Self-Haul	3.8%	17.3%	0.6%	18,137
Other Ferrous	1.6%	3.9%	0.7%	7,939					
Aluminum Beverage & Cat Food Cont.	0.6%	0.4%	0.1%	2,702	Hauler Collected MSW Tons				436,737
Other Aluminum	0.4%	0.3%	0.1%	1,873	Tons of Non-C&D Materials from Self-haul Customers				44,446
Other Non-Ferrous	0.4%	2.8%	0.2%	2,116	Totals	100.0%			481,183
					Samples	90			
Management Pathways									
Single Stream	16.7%	9.4%	1.9%	80,228	Other Waste	55.6%	14.3%	1.9%	267,461
Organics	27.7%	12.4%	2.0%	133,493					

NF: Not Found in Samples

Figure 11 Comparison of Residential MSW Composition by Group, 2025 v 2015/16

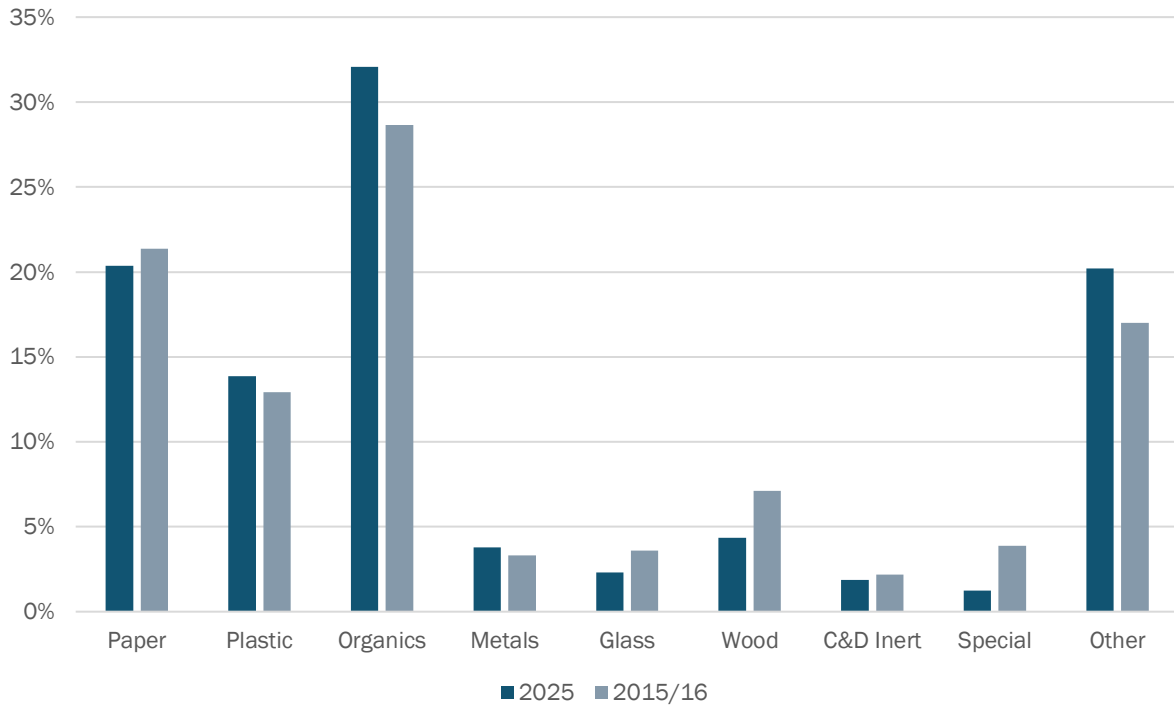
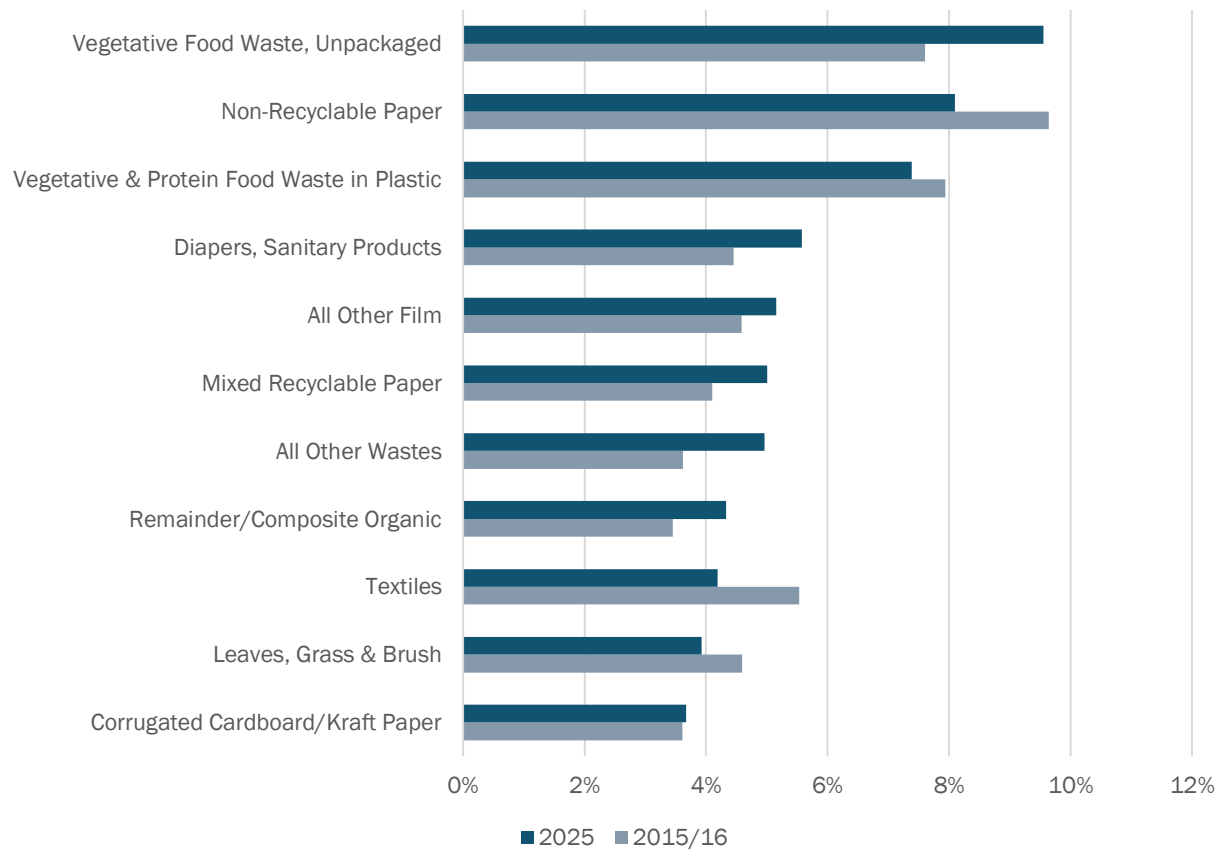


Table 15 Top Ten Material Categories in Residential MSW, 2025

Material Category	Est. Percent	Cumulative Percent	Est. Tons
Vegetative Food Waste, Unpackaged	9.6%	9.6%	45,986
Non-Recyclable Paper	8.1%	17.7%	38,973
Vegetative & Protein Food Waste in Plastic	7.4%	25.0%	35,526
Diapers, Sanitary Products	5.6%	30.6%	26,850
All Other Film	5.2%	35.8%	24,830
Mixed Recyclable Paper	5.0%	40.8%	24,091
All Other Wastes	5.0%	45.7%	23,882
Remainder/Composite Organic	4.3%	50.1%	20,840
Textiles	4.2%	54.3%	20,152
Leaves, Grass & Brush	3.9%	58.2%	18,878
Subtotal	58.2%		280,009
All Other Materials	41.8%		
Total	100.0%		481,183

Figure 12 Comparison of Most Prevalent Materials in Residential MSW, 2025 v 2015/16



ICI MSW

Table 16 represents non-residential MSW deliveries to DSWA facilities in 2025.

Table 16 Delaware Statewide ICI MSW Composition Detail, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE
Paper	22.3%	12.6%	2.2%	86,355	Glass	1.9%	3.5%	0.7%
Newspaper & Inserts	0.3%	0.7%	0.2%	972	Glass Bottles & Jars	1.7%	3.3%	0.7%
Corrugated Cardboard/Kraft Paper	7.1%	12.3%	2.4%	27,444	Remainder/Composite Glass	0.2%	0.4%	0.1%
High Grade Office Paper	0.2%	0.9%	0.2%	822	Wood	5.8%	14.2%	1.6%
Mixed Recyclable Paper	4.5%	3.7%	0.7%	17,434	Pallets/Crates	0.9%	3.4%	0.6%
Non-Recyclable Paper	7.4%	4.5%	0.8%	28,721	Clean Lumber	0.6%	5.2%	0.4%
Remainder/Composite Paper	2.3%	2.3%	0.5%	8,904	Painted & Stained Wood	1.9%	6.6%	0.8%
Aseptic Boxes & Gable Top Cartons	0.5%	0.9%	0.2%	2,059	Other Engineered Wood	1.3%	8.2%	0.6%
Plastic	18.6%	12.8%	2.4%	72,117	Wood Furniture	0.7%	3.4%	0.5%
PET #1 Bottles, Jars or Containers	1.8%	1.3%	0.3%	7,141	Other Wood (R/C Wood)	0.4%	1.5%	0.3%
HDPE #2 Natural & Colored Bottles	0.6%	0.6%	0.1%	2,456	C&D Inert	4.2%	14.1%	1.2%
Rigid HDPE #2 Containers	0.2%	0.4%	0.1%	731	Asphalt Roofing	0.4%	6.1%	0.5%
#3-7 Bottles or Jars	0.1%	0.3%	0.1%	235	Asphalt, Brick, Concrete & Rocks	0.5%	3.7%	0.6%
Injection Molded Tubs #2 & #4-7	0.9%	1.2%	0.2%	3,508	Drywall/Gypsum Board	0.5%	4.7%	0.3%
All Other Rigid Plastic Packaging	0.2%	0.4%	0.1%	735	Remainder/Composite C&D	2.8%	10.6%	0.9%
White Styrofoam	1.1%	2.6%	0.5%	4,093	Special	2.0%	5.4%	0.8%
Recoverable Film	0.3%	1.1%	0.2%	1,044	Tires	0.2%	1.3%	0.3%
All Other Film	6.9%	4.1%	0.7%	26,756	Small Appliances	0.2%	1.0%	0.2%
Agricultural Film & Marine Shrink Wrap	1.2%	7.4%	1.6%	4,735	Large Electronics	0.4%	3.2%	0.4%
Large Plastic Items	2.9%	4.4%	0.9%	11,073	Other Small Consumer Electronics	0.2%	3.0%	0.2%
Remainder/Composite Plastic	2.5%	2.2%	0.5%	9,610	Items with CRTs			
Organics	25.3%	16.3%	3.1%	97,877	Other Larger Electronics			
Vegetative Food Waste, Unpackaged	9.2%	8.5%	1.7%	35,481	Other Hazardous or HHW	0.9%	2.9%	0.6%
Protein Food Waste, Unpackaged	5.0%	9.3%	2.0%	19,323	Other	15.7%	15.4%	2.6%
Vegetative & Protein Food Waste in Plastic	5.0%	5.0%	0.8%	19,176	Textiles	4.5%	8.4%	1.8%
Vegetative & Protein Food Waste in Other	2.3%	2.2%	0.4%	8,943	Rubber / Leather	0.7%	1.5%	0.3%
Leaves, Grass & Brush	0.9%	3.9%	1.0%	3,482	Diapers, Sanitary Products	3.2%	6.0%	1.2%
Branches & Stumps	0.4%	2.3%	0.5%	1,514	Other Products Containing SAPs	0.1%	0.5%	0.1%
Remainder/Composite Organic	2.6%	4.4%	0.8%	9,957	Carpet & Carpet Padding	0.9%	3.3%	0.6%
Metals	4.3%	5.6%	0.9%	16,466	All Other Wastes	4.7%	5.3%	1.1%
Tin/Steel Containers	0.9%	1.4%	0.3%	3,296	Bulky Wastes in Self-Haul	1.7%	11.7%	0.7%
Other Ferrous	1.7%	4.5%	0.6%	6,669				
Aluminum Beverage & Cat Food Cont.	0.6%	0.6%	0.1%	2,305				
Other Aluminum	0.4%	1.5%	0.3%	1,659				
Other Non-Ferrous	0.7%	1.8%	0.3%	2,538				
					<i>Hauler Collected MSW Tons</i>			
					<i>Tons of Non-C&D Materials from Self-haul Customers</i>			
					Totals	100.0%		
					<i>Samples</i>	<i>71</i>		
Management Pathways								
Single Stream	19.5%	13.9%	2.5%	75,574	Other Waste	57.8%	20.8%	3.6%
Organics	22.7%	15.8%	3.0%	87,920				

NF: Not Found in Samples

Figure 13 Comparison of ICI MSW Composition by Group, 2025 v 2015/16

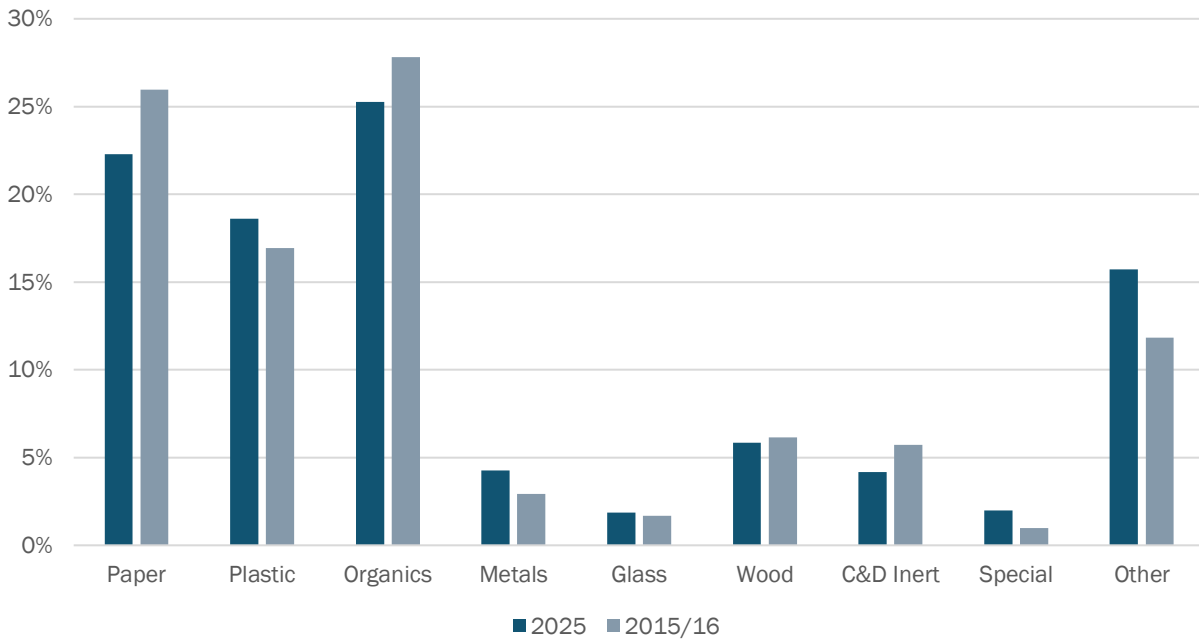
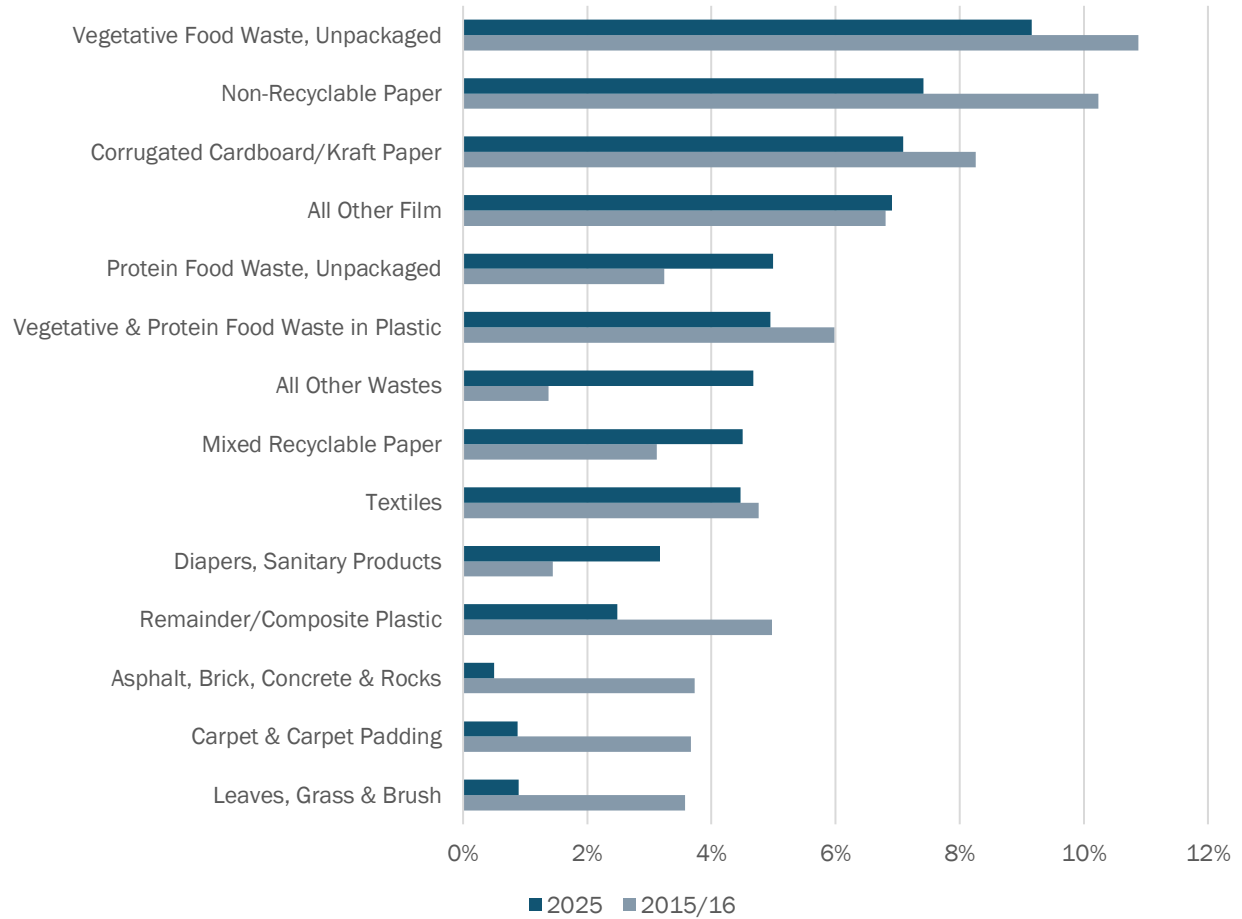


Table 17 Top Ten Material Categories in ICI MSW, 2025

Material Category	Est. Percent	Cumulative Percent	Est. Tons
Vegetative Food Waste, Unpackaged	9.2%	9.2%	35,481
Non-Recyclable Paper	7.4%	16.6%	28,721
Corrugated Cardboard/Kraft Paper	7.1%	23.7%	27,444
All Other Film	6.9%	30.6%	26,756
Protein Food Waste, Unpackaged	5.0%	35.6%	19,323
Vegetative & Protein Food Waste in Plastic	5.0%	40.5%	19,176
All Other Wastes	4.7%	45.2%	18,092
Mixed Recyclable Paper	4.5%	49.7%	17,434
Textiles	4.5%	54.2%	17,304
Diapers, Sanitary Products	3.2%	57.3%	12,282
Subtotal	57.3%		222,014
All Other Materials	42.7%		
Total	100.0%		387,268

Figure 14 Comparison of Most Prevalent Materials in ICI MSW, 2025 v 2015/16



AGGREGATE (RESIDENTIAL AND ICI) MSW

Table 18 Aggregate MSW Composition Detail for Cherry Island Landfill, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE
Paper	20.3%	10.6%	2.0%	84,004	Glass	2.3%	2.3%	0.5%
Newspaper & Inserts	0.3%	0.5%	0.1%	1,192	Glass Bottles & Jars	2.0%	2.1%	0.4%
Corrugated Cardboard/Kraft Paper	4.9%	9.5%	1.9%	20,052	Remainder/Composite Glass	0.3%	0.5%	0.1%
High Grade Office Paper	0.2%	0.7%	0.2%	647	Wood	5.7%	11.4%	1.6%
Mixed Recyclable Paper	4.3%	3.2%	0.6%	17,711	Pallets/Crates	0.7%	3.1%	0.5%
Non-Recyclable Paper	7.8%	4.9%	1.0%	32,165	Clean Lumber	0.4%	4.4%	0.3%
Remainder/Composite Paper	2.6%	2.5%	0.5%	10,816	Painted & Stained Wood	1.5%	5.4%	0.6%
Aseptic Boxes & Gable Top Cartons	0.3%	0.6%	0.1%	1,420	Other Engineered Wood	0.8%	5.8%	0.5%
Plastic	16.3%	11.9%	2.2%	67,183	Wood Furniture	1.9%	5.0%	1.1%
PET #1 Bottles, Jars or Containers	2.0%	1.2%	0.2%	8,245	Other Wood (R/C Wood)	0.3%	1.0%	0.2%
HDPE #2 Natural & Colored Bottles	0.6%	0.6%	0.1%	2,385	C&D Inert	3.0%	10.5%	1.2%
Rigid HDPE #2 Containers	0.1%	0.3%	0.1%	563	Asphalt Roofing	0.1%	3.2%	0.2%
#3-7 Bottles or Jars	0.1%	0.3%	0.1%	347	Asphalt, Brick, Concrete & Rocks	0.4%	2.6%	0.5%
Injection Molded Tubs #2 & #4-7	0.7%	0.7%	0.1%	2,814	Drywall/Gypsum Board	0.6%	4.2%	0.4%
All Other Rigid Plastic Packaging	0.4%	0.5%	0.1%	1,481	Remainder/Composite C&D	1.9%	7.5%	0.8%
White Styrofoam	0.8%	2.3%	0.5%	3,199	Special	1.7%	5.5%	0.6%
Recoverable Film	0.3%	1.0%	0.2%	1,240	Tires	0.0%	0.1%	0.0%
All Other Film	5.5%	3.2%	0.6%	22,676	Small Appliances	0.7%	2.7%	0.4%
Agricultural Film & Marine Shrink Wrap	1.0%	7.1%	1.5%	4,267	Large Electronics	0.3%	3.5%	0.2%
Large Plastic Items	2.8%	4.0%	0.8%	11,596	Other Small Consumer Electronics	0.2%	2.9%	0.2%
Remainder/Composite Plastic	2.0%	1.9%	0.4%	8,370	Items with CRTs			
Organics	28.1%	16.0%	3.0%	116,136	Other Larger Electronics			
Vegetative Food Waste, Unpackaged	9.1%	8.7%	1.8%	37,529	Other Hazardous or HHW	0.6%	1.8%	0.4%
Protein Food Waste, Unpackaged	3.7%	8.7%	1.8%	15,297	Other	19.2%	16.2%	2.2%
Vegetative & Protein Food Waste in Plastic	6.4%	4.8%	0.9%	26,634	Textiles	3.6%	4.7%	1.0%
Vegetative & Protein Food Waste in Other	2.4%	2.1%	0.4%	9,940	Rubber / Leather	0.4%	0.8%	0.2%
Leaves, Grass & Brush	2.6%	5.3%	1.1%	10,771	Diapers, Sanitary Products	5.0%	6.0%	1.2%
Branches & Stumps	0.4%	2.6%	0.6%	1,760	Other Products Containing SAPs	0.1%	0.5%	0.1%
Remainder/Composite Organic	3.4%	3.7%	0.8%	14,204	Carpet & Carpet Padding	1.2%	5.1%	1.1%
Metals	3.5%	4.8%	0.8%	14,283	All Other Wastes	6.1%	6.1%	1.3%
Tin/Steel Containers	0.7%	0.8%	0.2%	2,993	Bulky Wastes in Self-Haul	2.8%	15.4%	0.7%
Other Ferrous	1.6%	3.7%	0.7%	6,445				
Aluminum Beverage & Cat Food Cont.	0.5%	0.4%	0.1%	2,005				
Other Aluminum	0.3%	0.3%	0.1%	1,284				
Other Non-Ferrous	0.4%	3.0%	0.2%	1,555				
Management Pathways					<i>Hauler Collected MSW Tons</i>			
Single Stream	16.9%	11.8%	2.3%	70,052	<i>Tons of Non-C&D Materials from Self-haul Customers</i>			
Organics	24.7%	15.6%	3.0%	101,931	Totals	100.0%		
					<i>Samples</i>	<i>57</i>		
					Other Waste	58.4%	18.4%	3.2%

NF: Not Found in Samples

Table 19 Aggregate MSW Composition Detail for Pine Tree Transfer Station, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	23.8%	14.0%	3.3%	20,878	Glass	1.6%	1.4%	0.3%	1,421
Newspaper & Inserts	0.4%	0.6%	0.1%	357	Glass Bottles & Jars	1.3%	1.2%	0.3%	1,113
Corrugated Cardboard/Kraft Paper	7.2%	13.2%	3.4%	6,289	Remainder/Composite Glass	0.4%	0.4%	0.1%	308
High Grade Office Paper	0.3%	1.1%	0.3%	297	Wood	4.9%	13.6%	2.2%	4,272
Mixed Recyclable Paper	4.8%	4.1%	1.1%	4,195	Pallets/Crates	0.7%	3.9%	0.9%	593
Non-Recyclable Paper	7.0%	4.0%	0.9%	6,108	Clean Lumber	0.3%	4.8%	0.4%	264
Remainder/Composite Paper	3.4%	3.1%	0.8%	2,973	Painted & Stained Wood	1.7%	7.7%	0.9%	1,457
Aseptic Boxes & Gable Top Cartons	0.8%	1.4%	0.4%	658	Other Engineered Wood	0.7%	5.2%	0.5%	608
Plastic	17.7%	7.4%	1.6%	15,468	Wood Furniture	0.9%	5.5%	1.2%	814
PET #1 Bottles, Jars or Containers	1.9%	1.0%	0.2%	1,679	Other Wood (R/C Wood)	0.6%	1.3%	0.4%	536
HDPE #2 Natural & Colored Bottles	0.6%	0.4%	0.1%	528	C&D Inert	3.9%	13.8%	1.3%	3,420
Rigid HDPE #2 Containers	0.2%	0.4%	0.1%	158	Asphalt Roofing	0.3%	4.4%	0.3%	236
#3-7 Bottles or Jars	0.1%	0.2%	0.0%	53	Asphalt, Brick, Concrete & Rocks	0.8%	5.5%	0.9%	670
Injection Molded Tubs #2 & #4-7	1.6%	1.9%	0.5%	1,397	Drywall/Gypsum Board	0.5%	4.7%	0.4%	405
All Other Rigid Plastic Packaging	0.4%	0.7%	0.2%	365	Remainder/Composite C&D	2.4%	10.5%	0.9%	2,110
White Styrofoam	0.9%	1.5%	0.4%	829	Special	1.1%	2.1%	0.5%	927
Recoverable Film	0.2%	0.8%	0.2%	161	Tires	0.0%	0.7%	0.1%	30
All Other Film	6.6%	3.4%	0.8%	5,752	Small Appliances	0.3%	0.9%	0.2%	268
Agricultural Film & Marine Shrink Wrap	0.1%	0.6%	0.2%	131	Large Electronics	0.2%	1.0%	0.2%	135
Large Plastic Items	3.0%	4.0%	1.0%	2,628	Other Small Consumer Electronics	0.1%	0.2%	0.1%	46
Remainder/Composite Plastic	2.0%	1.3%	0.3%	1,787	Items with CRTs				NF
Organics	27.1%	12.8%	2.9%	23,740	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	7.5%	5.8%	1.4%	6,556	Other Hazardous or HHW	0.5%	1.6%	0.4%	448
Protein Food Waste, Unpackaged	3.5%	3.6%	0.9%	3,042	Other	15.9%	15.8%	2.8%	13,943
Vegetative & Protein Food Waste in Plastic	6.8%	4.1%	1.0%	5,968	Textiles	3.2%	2.7%	0.6%	2,832
Vegetative & Protein Food Waste in Other	2.3%	2.0%	0.5%	2,053	Rubber / Leather	0.6%	0.8%	0.2%	502
Leaves, Grass & Brush	2.1%	4.2%	1.0%	1,804	Diapers, Sanitary Products	4.8%	6.9%	1.7%	4,182
Branches & Stumps	0.2%	0.7%	0.2%	173	Other Products Containing SAPs	0.1%	0.1%	0.0%	45
Remainder/Composite Organic	4.7%	5.1%	1.2%	4,144	Carpet & Carpet Padding	2.3%	8.8%	2.3%	2,047
Metals	4.0%	3.7%	0.9%	3,501	All Other Wastes	3.2%	3.8%	0.9%	2,774
Tin/Steel Containers	0.6%	0.9%	0.2%	551	Bulky Wastes in Self-Haul	1.8%	12.2%	0.8%	1,561
Other Ferrous	1.6%	2.1%	0.5%	1,407					
Aluminum Beverage & Cat Food Cont.	0.6%	0.5%	0.1%	492	<i>Hauler Collected MSW Tons</i>				79,772
Other Aluminum	0.3%	0.3%	0.1%	294	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				7,798
Other Non-Ferrous	0.9%	1.8%	0.5%	757	Totals	100.0%			87,570
					<i>Samples</i>	38			
Management Pathways									
Single Stream	20.7%	15.0%	3.7%	18,132	Other Waste	56.9%	18.1%	3.8%	49,841
Organics	22.4%	11.2%	2.6%	19,597					

NF: Not Found in Samples

Table 20 Aggregate MSW Composition Detail for Sandtown Landfill, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	19.4%	7.8%	2.2%	18,286	Glass	1.6%	1.7%	0.7%	1,538
Newspaper & Inserts	0.2%	0.4%	0.2%	161	Glass Bottles & Jars	1.6%	1.7%	0.7%	1,487
Corrugated Cardboard/Kraft Paper	3.5%	4.8%	1.3%	3,277	Remainder/Composite Glass	0.1%	0.1%	0.0%	51
High Grade Office Paper				NF	Wood	4.8%	13.2%	3.5%	4,539
Mixed Recyclable Paper	4.6%	2.5%	0.9%	4,367	Pallets/Crates	0.7%	3.8%	0.8%	634
Non-Recyclable Paper	8.7%	4.0%	1.1%	8,197	Clean Lumber	0.1%	1.2%	0.2%	114
Remainder/Composite Paper	2.1%	1.1%	0.4%	2,025	Painted & Stained Wood	2.2%	6.4%	2.3%	2,073
Aseptic Boxes & Gable Top Cartons	0.3%	0.3%	0.1%	259	Other Engineered Wood	1.2%	6.3%	0.8%	1,107
Plastic	15.3%	9.1%	3.4%	14,432	Wood Furniture				NF
PET #1 Bottles, Jars or Containers	1.7%	0.8%	0.3%	1,648	Other Wood (R/C Wood)	0.6%	2.4%	1.1%	611
HDPE #2 Natural & Colored Bottles	0.8%	0.6%	0.2%	747	C&D Inert	1.9%	6.7%	1.3%	1,831
Rigid HDPE #2 Containers	0.1%	0.1%	0.1%	110	Asphalt Roofing				NF
#3-7 Bottles or Jars	0.2%	0.6%	0.3%	145	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	0.7%	0.6%	0.2%	643	Drywall/Gypsum Board	0.3%	1.9%	0.4%	300
All Other Rigid Plastic Packaging	0.1%	0.1%	0.1%	84	Remainder/Composite C&D	1.6%	6.5%	1.3%	1,531
White Styrofoam	0.6%	0.6%	0.2%	549	Special	2.6%	4.9%	1.9%	2,420
Recoverable Film				NF	Tires	0.6%	2.4%	1.1%	605
All Other Film	5.7%	3.3%	1.2%	5,338	Small Appliances	0.2%	0.5%	0.1%	186
Agricultural Film & Marine Shrink Wrap	0.2%	0.6%	0.3%	169	Large Electronics	0.2%	0.7%	0.3%	170
Large Plastic Items	2.8%	3.6%	1.5%	2,598	Other Small Consumer Electronics				NF
Remainder/Composite Plastic	2.5%	2.0%	0.8%	2,401	Items with CRTs				NF
Organics	29.6%	13.6%	4.0%	27,998	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	10.1%	5.6%	1.7%	9,508	Other Hazardous or HHW	1.5%	4.6%	2.0%	1,459
Protein Food Waste, Unpackaged	4.7%	3.1%	1.2%	4,453	Other	19.0%	14.9%	2.9%	17,916
Vegetative & Protein Food Waste in Plastic	5.5%	4.9%	1.5%	5,148	Textiles	5.1%	3.1%	1.2%	4,786
Vegetative & Protein Food Waste in Other	2.9%	2.0%	0.7%	2,740	Rubber / Leather	1.5%	2.6%	1.1%	1,392
Leaves, Grass & Brush	2.5%	3.6%	1.4%	2,405	Diapers, Sanitary Products	4.3%	3.3%	0.9%	4,026
Branches & Stumps	1.5%	4.3%	1.9%	1,461	Other Products Containing SAPs	0.1%	0.1%	0.1%	64
Remainder/Composite Organic	2.4%	4.6%	0.9%	2,283	Carpet & Carpet Padding				NF
Metals	5.8%	8.8%	2.3%	5,502	All Other Wastes	3.8%	3.7%	1.5%	3,612
Tin/Steel Containers	0.5%	0.6%	0.2%	498	Bulky Waste in Self-Haul	4.3%	16.8%	1.4%	4,035
Other Ferrous	3.2%	8.5%	1.9%	2,989	<i>Hauler Collected MSW Tons</i>				82,316
Aluminum Beverage & Cat Food Containers	0.8%	0.8%	0.3%	718	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				12,147
Other Aluminum	1.1%	2.7%	1.2%	1,030	Totals	100.0%			94,463
Other Non-Ferrous	0.3%	0.8%	0.2%	267	<i>Samples</i>		16		
Management Pathways									
Single Stream	15.0%	7.9%	2.8%	14,144	Other Waste	57.8%	15.3%	4.2%	54,603
Organics	27.2%	13.0%	4.0%	25,716					

NF: Not Found in Samples

Table 21 Aggregate MSW Composition Detail for Milford Transfer Station, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	18.6%	7.2%	1.7%	7,805	Glass	1.3%	1.1%	0.5%	538
Newspaper & Inserts	0.1%	0.3%	0.1%	47	Glass Bottles & Jars	1.0%	0.9%	0.5%	410
Corrugated Cardboard/Kraft Paper	5.0%	2.5%	0.7%	2,095	Remainder/Composite Glass	0.3%	0.4%	0.2%	128
High Grade Office Paper				NF	Wood	3.5%	6.9%	1.9%	1,465
Mixed Recyclable Paper	3.9%	2.6%	1.1%	1,650	Pallets/Crates	1.1%	2.7%	1.2%	444
Non-Recyclable Paper	7.0%	3.4%	1.2%	2,961	Clean Lumber	0.6%	3.7%	0.6%	253
Remainder/Composite Paper	2.1%	2.3%	0.5%	888	Painted & Stained Wood	0.7%	1.7%	0.8%	309
Aseptic Boxes & Gable Top Cartons	0.4%	0.3%	0.1%	164	Other Engineered Wood	0.8%	2.9%	0.9%	348
Plastic	15.4%	6.4%	1.8%	6,490	Wood Furniture	0.1%	2.7%	0.2%	49
PET #1 Bottles, Jars or Containers	1.9%	0.8%	0.2%	785	Other Wood (R/C Wood)	0.1%	0.4%	0.1%	63
HDPE #2 Natural & Colored Bottles	0.5%	0.4%	0.1%	227	C&D Inert	5.7%	13.4%	2.6%	2,389
Rigid HDPE #2 Containers	0.2%	0.3%	0.1%	85	Asphalt Roofing				NF
#3-7 Bottles or Jars	0.0%	0.1%	0.0%	12	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	0.7%	0.6%	0.3%	291	Drywall/Gypsum Board	0.0%	0.1%	0.0%	8
All Other Rigid Plastic Packaging	0.2%	0.3%	0.2%	70	Remainder/Composite C&D	5.7%	13.4%	2.6%	2,381
White Styrofoam	0.5%	0.4%	0.2%	206	Special	1.6%	3.2%	1.0%	692
Recoverable Film				NF	Tires				NF
All Other Film	7.1%	3.9%	1.2%	2,991	Small Appliances	1.2%	2.2%	1.1%	499
Agricultural Film & Marine Shrink Wrap	0.1%	0.5%	0.2%	60	Large Electronics	0.2%	2.6%	0.2%	65
Large Plastic Items	2.4%	2.1%	0.8%	1,019	Other Small Consumer Electronics	0.1%	0.1%	0.1%	32
Remainder/Composite Plastic	1.8%	0.9%	0.3%	743	Items with CRTs				NF
Organics	32.4%	14.0%	4.6%	13,619	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	10.8%	6.1%	2.7%	4,556	Other Hazardous or HHW	0.2%	0.4%	0.1%	96
Protein Food Waste, Unpackaged	5.9%	3.0%	0.9%	2,490	Other	17.7%	19.0%	3.6%	7,434
Vegetative & Protein Food Waste in Plastic	7.2%	9.6%	3.3%	3,021	Textiles	3.4%	2.8%	1.3%	1,448
Vegetative & Protein Food Waste in Other	2.1%	1.2%	0.5%	880	Rubber / Leather	0.5%	0.6%	0.2%	212
Leaves, Grass & Brush	3.0%	5.5%	2.7%	1,277	Diapers, Sanitary Products	2.3%	1.3%	0.5%	981
Branches & Stumps	1.1%	2.0%	1.0%	468	Other Products Containing SAPs	0.1%	0.3%	0.1%	60
Remainder/Composite Organic	2.2%	4.5%	0.9%	928	Carpet & Carpet Padding	0.4%	1.1%	0.4%	156
Metals	3.8%	2.9%	1.3%	1,611	All Other Wastes	5.5%	6.5%	3.5%	2,312
Tin/Steel Containers	0.6%	0.5%	0.2%	267	Bulky Wastes in Self-Haul	5.4%	20.8%	1.8%	2,265
Other Ferrous	1.6%	2.4%	1.2%	682					
Aluminum Beverage & Cat Food Cont.	0.7%	0.5%	0.2%	303	<i>Hauler Collected MSW Tons</i>				36,804
Other Aluminum	0.4%	0.9%	0.3%	186	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				5,238
Other Non-Ferrous	0.4%	0.7%	0.3%	172	Totals	100.0%			42,042
					<i>Samples</i>	14			
Management Pathways									
Single Stream	15.2%	5.9%	1.8%	6,406	Other Waste	54.6%	16.2%	4.2%	22,944
Organics	30.2%	13.5%	4.6%	12,692					

NF: Not Found in Samples

Table 22 Aggregate MSW Composition Detail for Route 5 Transfer Station, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	25.1%	9.1%	4.5%	27,725	Glass	2.2%	2.8%	1.4%	2,460
Newspaper & Inserts	0.7%	0.9%	0.5%	736	Glass Bottles & Jars	2.0%	2.6%	1.3%	2,202
Corrugated Cardboard/Kraft Paper	6.6%	6.7%	3.8%	7,256	Remainder/Composite Glass	0.2%	0.3%	0.2%	258
High Grade Office Paper				NF	Wood	3.9%	10.3%	2.3%	4,298
Mixed Recyclable Paper	6.2%	3.4%	1.9%	6,846	Pallets/Crates				NF
Non-Recyclable Paper	8.4%	2.8%	1.3%	9,346	Clean Lumber	0.6%	3.1%	0.6%	658
Remainder/Composite Paper	2.9%	2.5%	1.1%	3,187	Painted & Stained Wood	2.5%	5.5%	1.6%	2,795
Aseptic Boxes & Gable Top Cartons	0.3%	0.3%	0.1%	354	Other Engineered Wood	0.6%	5.5%	0.8%	679
Plastic	17.3%	5.9%	2.6%	19,097	Wood Furniture				NF
PET #1 Bottles, Jars or Containers	2.4%	0.9%	0.4%	2,685	Other Wood (R/C Wood)	0.1%	0.2%	0.1%	166
HDPE #2 Natural & Colored Bottles	0.7%	0.5%	0.3%	769	C&D Inert	1.7%	10.0%	1.5%	1,880
Rigid HDPE #2 Containers	0.2%	0.4%	0.2%	267	Asphalt Roofing	0.9%	9.4%	1.4%	1,002
#3-7 Bottles or Jars				NF	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	1.0%	0.4%	0.2%	1,153	Drywall/Gypsum Board	0.1%	0.3%	0.2%	133
All Other Rigid Plastic Packaging	0.0%	0.0%	0.0%	13	Remainder/Composite C&D	0.7%	3.7%	0.7%	745
White Styrofoam	0.4%	0.4%	0.1%	473	Special	0.8%	1.5%	0.9%	924
Recoverable Film	0.0%	0.2%	0.0%	12	Tires				NF
All Other Film	7.6%	3.0%	1.4%	8,439	Small Appliances	0.5%	1.5%	0.9%	594
Agricultural Film & Marine Shrink Wrap	0.1%	0.4%	0.2%	125	Large Electronics				NF
Large Plastic Items	2.0%	3.2%	1.8%	2,176	Other Small Consumer Electronics	0.1%	0.3%	0.2%	160
Remainder/Composite Plastic	2.7%	1.7%	0.9%	2,987	Items with CRTs				NF
Organics	27.2%	10.7%	4.5%	30,042	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	8.0%	4.6%	2.1%	8,826	Other Hazardous or HHW	0.2%	0.3%	0.2%	171
Protein Food Waste, Unpackaged	3.3%	3.4%	1.8%	3,679	Other	17.1%	14.2%	4.5%	18,949
Vegetative & Protein Food Waste in Plastic	4.9%	3.4%	1.8%	5,406	Textiles	5.6%	5.4%	2.8%	6,165
Vegetative & Protein Food Waste in Other	2.7%	1.7%	0.9%	3,003	Rubber / Leather	0.8%	0.9%	0.5%	849
Leaves, Grass & Brush	3.7%	7.0%	3.8%	4,077	Diapers, Sanitary Products	3.5%	3.5%	1.7%	3,892
Branches & Stumps	0.5%	1.1%	0.6%	602	Other Products Containing SAPs	0.1%	0.3%	0.2%	123
Remainder/Composite Organic	4.0%	4.0%	2.1%	4,449	Carpet & Carpet Padding	0.7%	2.5%	1.3%	827
Metals	4.8%	3.1%	1.2%	5,266	All Other Wastes	4.2%	2.8%	1.2%	4,686
Tin/Steel Containers	1.5%	1.8%	1.0%	1,621	Bulky Wastes in Self-Haul	2.2%	13.9%	1.4%	2,408
Other Ferrous	1.3%	1.6%	0.4%	1,422					
Aluminum Beverage & Cat Food Cont.	0.9%	0.4%	0.2%	957	<i>Hauler Collected MSW Tons</i>				104,070
Other Aluminum	0.4%	0.3%	0.1%	429	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				6,572
Other Non-Ferrous	0.8%	1.2%	0.5%	836	Totals	100.0%			110,642
					<i>Samples</i>	10			
Management Pathways									
Single Stream	22.5%	13.5%	7.6%	24,858	Other Waste	54.4%	15.4%	6.6%	60,191
Organics	23.1%	10.0%	4.7%	25,593					

NF: Not Found in Samples

Table 23 Aggregate MSW Composition Detail for Jones Crossroads Landfill, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	21.2%	9.9%	3.0%	25,562	Glass	2.4%	5.3%	2.0%	2,854
Newspaper & Inserts	0.3%	0.7%	0.2%	388	Glass Bottles & Jars	2.1%	4.9%	1.8%	2,586
Corrugated Cardboard/Kraft Paper	5.1%	9.7%	3.5%	6,112	Remainder/Composite Glass	0.2%	0.5%	0.2%	268
High Grade Office Paper	0.1%	0.5%	0.1%	132	Wood	4.5%	13.7%	1.7%	5,468
Mixed Recyclable Paper	5.6%	3.8%	1.3%	6,756	Pallets/Crates	0.5%	2.6%	0.8%	660
Non-Recyclable Paper	7.4%	4.0%	1.2%	8,918	Clean Lumber	0.1%	1.4%	0.1%	154
Remainder/Composite Paper	2.3%	1.5%	0.4%	2,763	Painted & Stained Wood	2.1%	8.3%	1.0%	2,571
Aseptic Boxes & Gable Top Cartons	0.4%	0.6%	0.2%	493	Other Engineered Wood	1.3%	8.2%	0.8%	1,544
Plastic	13.4%	6.6%	2.1%	16,120	Wood Furniture	0.3%	5.0%	0.3%	387
PET #1 Bottles, Jars or Containers	2.0%	1.2%	0.3%	2,418	Other Wood (R/C Wood)	0.1%	0.5%	0.1%	152
HDPE #2 Natural & Colored Bottles	0.5%	0.4%	0.1%	656	C&D Inert	2.7%	11.7%	1.3%	3,272
Rigid HDPE #2 Containers	0.2%	0.4%	0.1%	250	Asphalt Roofing	0.1%	0.3%	0.0%	63
#3-7 Bottles or Jars				NF	Asphalt, Brick, Concrete & Rocks	0.1%	0.8%	0.2%	173
Injection Molded Tubs #2 & #4-7	0.7%	1.0%	0.4%	877	Drywall/Gypsum Board	0.4%	6.0%	0.5%	503
All Other Rigid Plastic Packaging	0.1%	0.3%	0.1%	142	Remainder/Composite C&D	2.1%	10.2%	1.2%	2,532
White Styrofoam	0.6%	1.2%	0.4%	764	Special	1.3%	4.7%	1.2%	1,540
Recoverable Film	0.0%	0.1%	0.0%	15	Tires				NF
All Other Film	5.3%	2.9%	1.0%	6,391	Small Appliances	0.1%	0.3%	0.1%	132
Agricultural Film & Marine Shrink Wrap	0.2%	0.6%	0.2%	184	Large Electronics	0.9%	4.7%	1.2%	1,107
Large Plastic Items	1.3%	2.9%	1.1%	1,518	Other Small Consumer Electronics	0.1%	0.1%	0.0%	78
Remainder/Composite Plastic	2.4%	1.4%	0.4%	2,904	Items with CRTs				NF
Organics	33.8%	16.1%	4.6%	40,676	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	12.0%	6.9%	2.2%	14,492	Other Hazardous or HHW	0.2%	0.4%	0.1%	223
Protein Food Waste, Unpackaged	5.1%	4.6%	1.6%	6,114	Other	17.0%	17.4%	5.2%	20,412
Vegetative & Protein Food Waste in Plastic	7.1%	5.0%	1.5%	8,524	Textiles	6.3%	12.0%	4.6%	7,534
Vegetative & Protein Food Waste in Other	3.7%	2.1%	0.7%	4,463	Rubber / Leather	0.9%	1.6%	0.6%	1,096
Leaves, Grass & Brush	1.7%	4.0%	1.1%	2,025	Diapers, Sanitary Products	4.4%	4.7%	1.2%	5,337
Branches & Stumps	0.2%	0.9%	0.2%	267	Other Products Containing SAPs	0.0%	0.0%	0.0%	16
Remainder/Composite Organic	4.0%	6.4%	1.1%	4,791	Carpet & Carpet Padding	0.4%	1.6%	0.4%	494
Metals	3.7%	5.6%	2.0%	4,434	All Other Wastes	2.7%	2.0%	0.6%	3,286
Tin/Steel Containers	0.7%	0.7%	0.2%	866	Bulky Wastes in Self-Haul	2.2%	12.9%	0.8%	2,649
Other Ferrous	1.4%	3.6%	1.3%	1,662					
Aluminum Beverage & Cat Food Cont.	0.4%	0.3%	0.1%	531	<i>Hauler Collected MSW Tons</i>				107,378
Other Aluminum	0.3%	0.4%	0.1%	308	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				12,959
Other Non-Ferrous	0.9%	2.8%	0.9%	1,067	Totals	100.0%			120,337
					<i>Samples</i>	26			
Management Pathways									
Single Stream	18.5%	9.2%	2.5%	22,209	Other Waste	51.7%	17.0%	4.0%	62,243
Organics	29.8%	14.3%	4.3%	35,885					

NF: Not Found in Samples

RESIDENTIAL MSW

Table 24 Residential MSW Composition Detail for Cherry Island Landfill, 2025

Material Category		Mean	Std. Dev.	MOE	Tons	Material Category		Mean	Std. Dev.	MOE	Tons	
	Paper	19.2%	7.7%	1.9%	43,894		Glass	2.7%	2.1%	0.6%	6,102	
	Newspaper & Inserts	0.4%	0.4%	0.1%	801		Glass Bottles & Jars	2.3%	1.9%	0.5%	5,229	
	Corrugated Cardboard/Kraft Paper	3.2%	4.0%	1.2%	7,376		Remainder/Composite Glass	0.4%	0.6%	0.2%	873	
	High Grade Office Paper	0.0%	0.2%	0.0%	110		Wood	5.3%	8.9%	2.1%	12,223	
	Mixed Recyclable Paper	4.6%	3.0%	0.8%	10,540		Pallets/Crates	0.2%	1.2%	0.4%	490	
	Non-Recyclable Paper	7.8%	4.7%	1.3%	17,752		Clean Lumber	0.2%	1.2%	0.3%	566	
	Remainder/Composite Paper	3.0%	2.7%	0.8%	6,817		Painted & Stained Wood	1.6%	6.1%	0.8%	3,654	
	Aseptic Boxes & Gable Top Cartons	0.2%	0.3%	0.1%	499		Other Engineered Wood	0.4%	1.5%	0.4%	857	
							Wood Furniture	2.5%	6.1%	1.8%	5,832	
					Other Wood (R/C Wood)		0.4%	1.1%	0.3%	824		
	Plastic	12.7%	5.4%	1.3%	28,974		C&D Inert	2.2%	6.3%	1.5%	4,988	
	PET #1 Bottles, Jars or Containers	2.0%	0.8%	0.2%	4,666		Asphalt Roofing				NF	
	HDPE #2 Natural & Colored Bottles	0.6%	0.5%	0.1%	1,343		Asphalt, Brick, Concrete & Rocks	0.1%	0.7%	0.2%	316	
	Rigid HDPE #2 Containers	0.1%	0.2%	0.1%	300		Drywall/Gypsum Board	0.5%	3.2%	0.6%	1,064	
	#3-7 Bottles or Jars	0.1%	0.5%	0.1%	301		Remainder/Composite C&D	1.6%	4.4%	1.0%	3,608	
	Injection Molded Tubs #2 & #4-7	0.7%	0.5%	0.1%	1,501		Special	1.5%	5.2%	0.7%	3,402	
	All Other Rigid Plastic Packaging	0.4%	0.6%	0.2%	1,023		Tires	0.0%	0.2%	0.1%	71	
	White Styrofoam	0.4%	0.3%	0.1%	903		Small Appliances	0.9%	3.4%	0.6%	2,140	
	Recoverable Film	0.1%	0.3%	0.1%	342		Large Electronics	0.3%	4.1%	0.4%	792	
	All Other Film	4.4%	2.0%	0.5%	10,049		Other Small Consumer Electronics	0.0%	0.1%	0.0%	104	
	Agricultural Film & Marine Shrink Wrap				NF		Items with CRTs				NF	
	Large Plastic Items	2.2%	2.9%	0.9%	4,976		Other Larger Electronics				NF	
	Remainder/Composite Plastic	1.6%	0.8%	0.2%	3,571		Other Hazardous or HHW	0.1%	0.2%	0.1%	294	
		Organics	30.8%	13.8%	3.5%		70,499		Other	21.9%	17.3%	2.8%
Vegetative Food Waste, Unpackaged		8.7%	7.2%	2.1%	19,798		Textiles		3.9%	3.5%	1.0%	8,814
Protein Food Waste, Unpackaged		2.5%	2.7%	0.8%	5,800		Rubber / Leather		0.4%	0.9%	0.3%	886
Vegetative & Protein Food Waste in Plastic		7.6%	4.9%	1.4%	17,329		Diapers, Sanitary Products		5.4%	3.5%	1.0%	12,307
Vegetative & Protein Food Waste in Other		3.0%	2.0%	0.6%	6,815	Other Products Containing SAPs	0.1%		0.2%	0.0%	141	
Leaves, Grass & Brush		4.7%	6.4%	1.9%	10,661	Carpet & Carpet Padding	1.5%	6.2%	1.9%	3,499		
Branches & Stumps		0.8%	3.4%	1.0%	1,740	All Other Wastes	6.4%	5.5%	1.6%	14,647		
Remainder/Composite Organic		3.7%	2.4%	0.7%	8,357	Bulky Wastes in Self-Haul	4.3%	18.7%	1.0%	9,905		
	Metals	3.7%	5.9%	1.4%	8,496	Hauler Collected MSW Tons211,051						
	Tin/Steel Containers	0.6%	0.4%	0.1%	1,390	Tons of Non-C&D Materials from Self-haul Customers17,728						
	Other Ferrous	1.7%	4.4%	1.2%	3,961	Totals100.0%228,778						
	Aluminum Beverage & Cat Food Cont.	0.5%	0.3%	0.1%	1,098	Samples30						
	Other Aluminum	0.4%	0.3%	0.1%	805							
	Other Non-Ferrous	0.5%	4.0%	0.4%	1,242							
	Management Pathways											
	Single Stream	15.8%	7.5%	2.0%	36,176		Other Waste	57.0%	14.6%	3.1%	130,459	
	Organics	27.2%	14.0%	3.7%	62,143							

NF: Not Found in Samples

Table 25 Residential MSW Composition Detail for Pine Tree Transfer Station, 2025

Material Category					Material Category				
Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	21.1%	9.4%	2.8%	10,229	Glass	2.0%	1.5%	0.5%	994
Newspaper & Inserts	0.6%	0.7%	0.2%	283	Glass Bottles & Jars	1.6%	1.3%	0.4%	759
Corrugated Cardboard/Kraft Paper	4.3%	5.9%	1.9%	2,094	Remainder/Composite Glass	0.5%	0.4%	0.1%	235
High Grade Office Paper	0.0%	0.1%	0.0%	13	Wood	3.5%	11.5%	2.1%	1,690
Mixed Recyclable Paper	4.6%	3.2%	1.0%	2,252	Pallets/Crates	1.2%	5.0%	1.7%	558
Non-Recyclable Paper	7.5%	3.4%	1.0%	3,628	Clean Lumber	0.1%	1.2%	0.1%	34
Remainder/Composite Paper	3.7%	2.2%	0.7%	1,784	Painted & Stained Wood	1.2%	7.7%	0.7%	606
Aseptic Boxes & Gable Top Cartons	0.4%	0.3%	0.1%	175	Other Engineered Wood	0.4%	3.3%	0.4%	212
Plastic	16.9%	6.3%	1.8%	8,179	Wood Furniture	0.1%	2.1%	0.2%	57
PET #1 Bottles, Jars or Containers	2.2%	0.9%	0.2%	1,071	Other Wood (R/C Wood)	0.5%	0.9%	0.3%	223
HDPE #2 Natural & Colored Bottles	0.6%	0.4%	0.1%	306	C&D Inert	2.3%	9.0%	1.1%	1,128
Rigid HDPE #2 Containers	0.1%	0.2%	0.1%	63	Asphalt Roofing	0.1%	2.6%	0.2%	70
#3 to #7 Bottles or Jars	0.0%	0.1%	0.0%	21	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	1.2%	0.7%	0.2%	593	Drywall/Gypsum Board	0.6%	4.5%	0.6%	268
All Other Rigid Plastic Packaging	0.3%	0.3%	0.1%	162	Remainder/Composite C&D	1.6%	6.4%	0.9%	789
White Styrofoam	0.7%	0.6%	0.2%	336	Special	1.7%	2.5%	0.8%	807
Recoverable Film	0.0%	0.2%	0.0%	15	Tires				NF
All Other Film	5.8%	2.2%	0.6%	2,835	Small Appliances	0.5%	1.1%	0.4%	262
Agricultural Film & Marine Shrink Wrap	0.0%	0.0%	0.0%	5	Large Electronics	0.3%	1.3%	0.4%	135
Large Plastic Items	3.6%	4.1%	1.4%	1,743	Other Small Consumer Electronics	0.0%	0.1%	0.0%	14
Remainder/Composite Plastic	2.1%	1.4%	0.5%	1,028	Items with CRTs				NF
Organics	27.5%	11.1%	3.3%	13,360	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	6.0%	3.4%	1.1%	2,895	Other Hazardous or HHW	0.8%	2.0%	0.7%	396
Protein Food Waste, Unpackaged	2.5%	2.2%	0.7%	1,219	Other	20.8%	17.3%	4.4%	10,116
Vegetative & Protein Food Waste in Plastic	7.2%	3.9%	1.2%	3,478	Textiles	4.1%	2.8%	0.9%	1,967
Vegetative & Protein Food Waste	2.4%	1.7%	0.6%	1,172	Rubber / Leather	0.5%	0.8%	0.3%	237
Leaves, Grass & Brush	3.5%	5.1%	1.8%	1,713	Diapers, Sanitary Products	6.8%	8.4%	2.9%	3,322
Branches & Stumps	0.4%	0.9%	0.3%	173	Other Products Containing SAPs	0.0%	0.1%	0.0%	23
Remainder/Composite Organic	5.6%	4.9%	1.6%	2,710	Carpet & Carpet Padding	2.4%	10.4%	3.6%	1,175
Metals	4.2%	3.0%	1.0%	2,032	All Other Wastes	4.4%	4.5%	1.5%	2,139
Tin/Steel Containers	0.7%	0.5%	0.2%	320	Bulky Wastes in Self-Haul	2.6%	14.7%	1.2%	1,252
Other Ferrous	1.6%	1.8%	0.6%	796					
Aluminum Beverage & Cat Food Cont.	0.6%	0.4%	0.1%	303	<i>Hauler Collected MSW Tons</i>				43,874
Other Aluminum	0.4%	0.4%	0.1%	214	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				4,660
Other Non-Ferrous	0.8%	1.6%	0.5%	400	Totals	100.0%			48,534
					<i>Samples</i>	<i>22</i>			
Management Pathways									
Single Stream	17.3%	9.9%	3.1%	8,415	Other Waste	60.7%	13.6%	3.6%	29,469
Organics	21.9%	8.7%	2.5%	10,650					

NF: Not Found in Samples

Table 26 Residential MSW Composition Detail for Sandtown Landfill, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	20.6%	7.1%	2.8%	10,798	Glass	1.4%	0.8%	0.4%	759
Newspaper & Inserts	0.3%	0.5%	0.3%	161	Glass Bottles & Jars	1.4%	0.8%	0.4%	719
Corrugated Cardboard/Kraft Paper	2.4%	2.1%	0.8%	1,286	Remainder/Composite Glass	0.1%	0.1%	0.1%	40
High Grade Office Paper				NF	Wood	2.7%	11.0%	1.5%	1,430
Mixed Recyclable Paper	4.9%	2.6%	1.2%	2,565	Pallets/Crates	0.4%	4.5%	0.5%	208
Non-Recyclable Paper	10.3%	3.8%	1.5%	5,406	Clean Lumber	0.0%	0.7%	0.1%	23
Remainder/Composite Paper	2.3%	1.0%	0.4%	1,206	Painted & Stained Wood	0.9%	3.7%	0.8%	497
Aseptic Boxes & Gable Top Cartons	0.3%	0.4%	0.2%	174	Other Engineered Wood	1.3%	6.8%	1.1%	702
Plastic	13.6%	5.9%	2.6%	7,159	Wood Furniture				NF
PET #1 Bottles, Jars or Containers	1.9%	0.7%	0.2%	1,017	Other Wood (R/C Wood)				NF
HDPE #2 Natural & Colored Bottles	0.7%	0.5%	0.3%	361	C&D Inert	0.7%	5.6%	0.8%	393
Rigid HDPE #2 Containers	0.1%	0.2%	0.1%	77	Asphalt Roofing				NF
#3-7 Bottles or Jars				NF	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	0.7%	0.6%	0.3%	353	Drywall/Gypsum Board	0.3%	0.9%	0.5%	154
All Other Rigid Plastic Packaging	0.1%	0.2%	0.1%	64	Remainder/Composite C&D	0.5%	5.6%	0.6%	239
White Styrofoam	0.4%	0.4%	0.2%	234	Special	0.5%	0.7%	0.3%	264
Recoverable Film				NF	Tires				NF
All Other Film	5.3%	2.1%	0.9%	2,771	Small Appliances	0.3%	0.6%	0.2%	163
Agricultural Film & Marine Shrink Wrap	0.0%	0.1%	0.0%	12	Large Electronics				NF
Large Plastic Items	2.3%	3.2%	1.7%	1,187	Other Small Consumer Electronics				NF
Remainder/Composite Plastic	2.1%	1.1%	0.5%	1,083	Items with CRTs				NF
Organics	34.9%	11.3%	4.0%	18,330	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	12.5%	4.8%	2.0%	6,572	Other Hazardous or HHW	0.2%	0.2%	0.1%	101
Protein Food Waste, Unpackaged	5.2%	2.4%	1.1%	2,717	Other	19.6%	15.2%	2.7%	10,281
Vegetative & Protein Food Waste in Plastic	7.9%	5.3%	2.6%	4,143	Textiles	5.1%	2.7%	1.3%	2,659
Vegetative & Protein Food Waste in Other	2.4%	1.6%	0.8%	1,262	Rubber / Leather	0.8%	1.4%	0.7%	416
Leaves, Grass & Brush	3.7%	3.9%	2.0%	1,939	Diapers, Sanitary Products	6.2%	3.0%	1.3%	3,239
Branches & Stumps	0.2%	0.5%	0.3%	94	Other Products Containing SAPs	0.1%	0.1%	0.1%	43
Remainder/Composite Organic	3.1%	2.1%	1.0%	1,603	Carpet & Carpet Padding				NF
Metals	5.9%	6.4%	3.2%	3,117	All Other Wastes	3.3%	3.1%	1.6%	1,760
Tin/Steel Containers	0.8%	0.6%	0.3%	408	Bulky Waste in Self-Haul	4.1%	17.4%	1.6%	2,164
Other Ferrous	3.9%	5.6%	2.9%	2,033					
Aluminum Beverage & Cat Food Containers	0.6%	0.3%	0.1%	296	Hauler Collected MSW Tons				45,274
Other Aluminum	0.4%	0.2%	0.1%	224	Tons of Non-C&D Materials from Self-haul Customers				7,258
Other Non-Ferrous	0.3%	0.8%	0.2%	156	Totals	100.0%			52,532
					Samples	10			
Management Pathways									
Single Stream	14.2%	5.5%	2.3%	7,482	Other Waste	53.9%	12.3%	3.2%	28,323
Organics	31.8%	11.1%	4.2%	16,727					

Table 27 Residential MSW Composition Detail for Milford Transfer Station, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	17.2%	5.4%	2.1%	4,015	Glass	1.7%	1.1%	0.8%	388
Newspaper & Inserts	0.1%	0.3%	0.2%	33	Glass Bottles & Jars	1.2%	1.0%	0.8%	291
Corrugated Cardboard/Kraft Paper	4.5%	2.1%	0.9%	1,054	Remainder/Composite Glass	0.4%	0.5%	0.4%	97
High Grade Office Paper				NF	Wood	2.9%	6.7%	1.9%	685
Mixed Recyclable Paper	4.1%	2.4%	1.7%	948	Pallets/Crates	1.2%	2.6%	1.7%	272
Non-Recyclable Paper	6.5%	2.8%	1.7%	1,524	Clean Lumber	0.2%	3.2%	0.3%	43
Remainder/Composite Paper	1.7%	2.3%	0.4%	391	Painted & Stained Wood	1.2%	2.1%	1.4%	273
Aseptic Boxes & Gable Top Cartons	0.3%	0.1%	0.1%	65	Other Engineered Wood	0.1%	1.4%	0.1%	20
Plastic	15.3%	4.7%	2.0%	3,571	Wood Furniture	0.2%	3.6%	0.4%	49
PET #1 Bottles, Jars or Containers	1.6%	0.6%	0.3%	384	Other Wood (R/C Wood)	0.1%	0.1%	0.1%	28
HDPE #2 Natural & Colored Bottles	0.5%	0.2%	0.1%	114	C&D Inert	4.6%	6.2%	1.7%	1,077
Rigid HDPE #2 Containers	0.2%	0.3%	0.2%	37	Asphalt Roofing				NF
#3-7 Bottles or Jars				NF	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	0.7%	0.6%	0.5%	173	Drywall/Gypsum Board				NF
All Other Rigid Plastic Packaging	0.1%	0.3%	0.2%	34	Remainder/Composite C&D	4.6%	6.2%	1.7%	1,077
White Styrofoam	0.5%	0.2%	0.1%	111	Special	2.6%	4.1%	1.9%	601
Recoverable Film				NF	Tires				NF
All Other Film	6.1%	2.1%	1.1%	1,432	Small Appliances	2.0%	2.6%	2.0%	477
Agricultural Film & Marine Shrink Wrap				NF	Large Electronics	0.3%	3.4%	0.3%	65
Large Plastic Items	3.5%	1.8%	1.2%	809	Other Small Consumer Electronics	0.1%	0.1%	0.1%	15
Remainder/Composite Plastic	2.0%	0.7%	0.4%	477	Items with CRTs				NF
Organics	32.9%	12.4%	6.5%	7,694	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	11.4%	6.3%	4.3%	2,676	Other Hazardous or HHW	0.2%	0.2%	0.1%	45
Protein Food Waste, Unpackaged	6.5%	2.0%	0.8%	1,519	Other	18.6%	17.8%	5.2%	4,343
Vegetative & Protein Food Waste in Plastic	4.6%	1.7%	1.0%	1,066	Textiles	4.0%	2.9%	2.1%	929
Vegetative & Protein Food Waste in Other	2.2%	1.1%	0.7%	514	Rubber / Leather	0.3%	0.3%	0.2%	71
Leaves, Grass & Brush	4.2%	5.8%	4.4%	980	Diapers, Sanitary Products	2.4%	1.1%	0.7%	554
Branches & Stumps	1.5%	1.9%	1.5%	339	Other Products Containing SAPs	0.2%	0.3%	0.2%	56
Remainder/Composite Organic	2.6%	5.9%	1.5%	601	Carpet & Carpet Padding				NF
Metals	4.3%	2.8%	2.0%	998	All Other Wastes	6.8%	8.1%	6.2%	1,597
Tin/Steel Containers	0.8%	0.5%	0.3%	183	Bulky Wastes in Self-Haul	4.9%	19.7%	1.5%	1,136
Other Ferrous	1.9%	2.5%	1.9%	443					
Aluminum Beverage & Cat Food Cont.	0.9%	0.5%	0.4%	218	<i>Hauler Collected MSW Tons</i>				20,242
Other Aluminum	0.2%	0.2%	0.1%	57	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				3,130
Other Non-Ferrous	0.4%	0.4%	0.3%	97	Totals	100.0%			23,372
					<i>Samples</i>	5			
Management Pathways									
Single Stream	15.1%	4.9%	2.4%	3,535	Other Waste	54.5%	13.8%	5.9%	12,744
Organics	30.3%	11.6%	6.5%	7,093					

NF: Not Found in Samples

Table 28 Residential MSW Composition Detail for Route 5 Transfer Station, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	25.3%	10.5%	7.7%	15,494	Glass	3.5%	3.1%	2.5%	2,162
Newspaper & Inserts	0.5%	0.3%	0.2%	287	Glass Bottles & Jars	3.3%	2.9%	2.3%	1,990
Corrugated Cardboard/Kraft Paper	7.5%	8.3%	6.6%	4,558	Remainder/Composite Glass	0.3%	0.3%	0.2%	172
High Grade Office Paper				NF	Wood	3.1%	6.9%	2.4%	1,883
Mixed Recyclable Paper	6.2%	4.0%	3.1%	3,786	Pallets/Crates				NF
Non-Recyclable Paper	8.3%	3.1%	2.2%	5,095	Clean Lumber	0.2%	3.8%	0.3%	120
Remainder/Composite Paper	2.7%	2.2%	1.0%	1,626	Painted & Stained Wood	2.6%	5.6%	2.3%	1,613
Aseptic Boxes & Gable Top Cartons	0.2%	0.1%	0.1%	142	Other Engineered Wood	0.1%	1.2%	0.1%	33
Plastic	16.0%	5.6%	3.9%	9,805	Wood Furniture				NF
PET #1 Bottles, Jars or Containers	2.6%	1.0%	0.7%	1,608	Other Wood (R/C Wood)	0.2%	0.3%	0.2%	117
HDPE #2 Natural & Colored Bottles	0.8%	0.7%	0.5%	473	C&D Inert	0.6%	6.3%	0.6%	384
Rigid HDPE #2 Containers	0.1%	0.2%	0.2%	83	Asphalt Roofing	0.2%	4.2%	0.3%	120
#3-7 Bottles or Jars				NF	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	1.1%	0.5%	0.3%	666	Drywall/Gypsum Board	0.2%	0.4%	0.4%	133
All Other Rigid Plastic Packaging	0.0%	0.0%	0.0%	13	Remainder/Composite C&D	0.2%	4.6%	0.4%	131
White Styrofoam	0.2%	0.1%	0.1%	135	Special	1.0%	2.0%	1.6%	638
Recoverable Film	0.0%	0.2%	0.0%	12	Tires				NF
All Other Film	6.8%	2.9%	2.1%	4,167	Small Appliances	1.0%	2.0%	1.6%	594
Agricultural Film & Marine Shrink Wrap				NF	Large Electronics				NF
Large Plastic Items	1.7%	2.1%	1.7%	1,010	Other Small Consumer Electronics				NF
Remainder/Composite Plastic	2.7%	1.6%	1.2%	1,639	Items with CRTs				NF
Organics	31.2%	8.9%	5.4%	19,068	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	10.0%	4.4%	3.2%	6,099	Other Hazardous or HHW	0.1%	0.1%	0.1%	44
Protein Food Waste, Unpackaged	2.6%	1.0%	0.7%	1,607	Other	16.2%	13.2%	4.1%	9,914
Vegetative & Protein Food Waste in Plastic	6.1%	4.1%	3.2%	3,756	Textiles	4.4%	3.4%	2.7%	2,722
Vegetative & Protein Food Waste in Other	3.0%	1.3%	1.0%	1,822	Rubber / Leather	0.9%	0.9%	0.7%	525
Leaves, Grass & Brush	2.8%	4.0%	3.2%	1,695	Diapers, Sanitary Products	5.3%	3.9%	3.0%	3,225
Branches & Stumps	1.0%	1.3%	1.1%	602	Other Products Containing SAPs	0.2%	0.4%	0.3%	123
Remainder/Composite Organic	5.7%	4.7%	3.7%	3,486	Carpet & Carpet Padding				NF
Metals	3.0%	1.2%	0.9%	1,816	All Other Wastes	2.9%	1.1%	0.8%	1,794
Tin/Steel Containers	1.4%	0.6%	0.4%	831	Bulky Wastes in Self-Haul	2.5%	14.4%	0.9%	1,526
Other Ferrous	0.1%	0.1%	0.1%	39					
Aluminum Beverage & Cat Food Cont.	0.8%	0.4%	0.3%	478	<i>Hauler Collected MSW Tons</i>				57,238
Other Aluminum	0.6%	0.3%	0.2%	349	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				3,927
Other Non-Ferrous	0.2%	0.2%	0.2%	119	Totals	100.0%			61,165
					<i>Samples</i>	5			
Management Pathways									
Single Stream	24.4%	16.7%	13.2%	14,914	Other Waste	50.1%	14.0%	8.9%	30,670
Organics	25.5%	8.1%	5.3%	15,582					

NF: Not Found in Samples

Table 29 Residential MSW Composition Detail for Jones Crossroads Landfill, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	20.2%	7.3%	2.0%	13,473	Glass	1.0%	1.0%	0.4%	653
Newspaper & Inserts	0.5%	0.8%	0.3%	344	Glass Bottles & Jars	0.8%	0.8%	0.3%	567
Corrugated Cardboard/Kraft Paper	1.9%	1.8%	0.6%	1,270	Remainder/Composite Glass	0.1%	0.2%	0.1%	85
High Grade Office Paper	0.2%	0.7%	0.3%	132	Wood	4.4%	12.1%	2.4%	2,944
Mixed Recyclable Paper	6.0%	3.0%	1.0%	3,999	Pallets/Crates	0.1%	2.1%	0.2%	78
Non-Recyclable Paper	8.3%	3.6%	1.1%	5,568	Clean Lumber	0.1%	1.2%	0.1%	64
Remainder/Composite Paper	2.9%	1.3%	0.4%	1,924	Painted & Stained Wood	2.3%	5.0%	1.5%	1,527
Aseptic Boxes & Gable Top Cartons	0.4%	0.6%	0.2%	236	Other Engineered Wood	1.1%	5.7%	0.9%	736
Plastic	13.4%	4.5%	1.1%	8,984	Wood Furniture	0.6%	6.6%	0.6%	387
PET #1 Bottles, Jars or Containers	2.4%	1.1%	0.4%	1,574	Other Wood (R/C Wood)	0.2%	0.6%	0.2%	152
HDPE #2 Natural & Colored Bottles	0.4%	0.2%	0.1%	260	C&D Inert	1.5%	9.9%	1.0%	1,018
Rigid HDPE #2 Containers	0.2%	0.3%	0.1%	142	Asphalt Roofing	0.1%	0.4%	0.0%	63
#3-7 Bottles or Jars				NF	Asphalt, Brick, Concrete & Rocks	0.3%	1.1%	0.4%	173
Injection Molded Tubs #2 & #4-7	0.6%	0.8%	0.3%	380	Drywall/Gypsum Board	0.3%	5.2%	0.5%	197
All Other Rigid Plastic Packaging	0.2%	0.4%	0.2%	123	Remainder/Composite C&D	0.9%	8.4%	0.8%	584
White Styrofoam	0.3%	0.3%	0.1%	208	Special	0.4%	0.5%	0.2%	267
Recoverable Film	0.0%	0.1%	0.0%	15	Tires				NF
All Other Film	5.4%	2.0%	0.6%	3,576	Small Appliances	0.1%	0.3%	0.1%	77
Agricultural Film & Marine Shrink Wrap	0.3%	0.8%	0.3%	184	Large Electronics				NF
Large Plastic Items	1.1%	2.1%	0.8%	735	Other Small Consumer Electronics	0.0%	0.1%	0.0%	21
Remainder/Composite Plastic	2.7%	1.3%	0.4%	1,786	Items with CRTs				NF
Organics	38.0%	13.3%	3.5%	25,382	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	11.9%	5.7%	1.9%	7,946	Other Hazardous or HHW	0.3%	0.5%	0.2%	169
Protein Food Waste, Unpackaged	4.3%	3.3%	1.2%	2,891	Other	18.6%	14.7%	2.9%	12,408
Vegetative & Protein Food Waste in Plastic	8.6%	4.8%	1.6%	5,753	Textiles	4.6%	2.7%	0.9%	3,061
Vegetative & Protein Food Waste in Other	3.8%	1.7%	0.5%	2,552	Rubber / Leather	0.8%	1.3%	0.5%	535
Leaves, Grass & Brush	2.8%	5.0%	1.9%	1,890	Diapers, Sanitary Products	6.3%	5.1%	1.8%	4,204
Branches & Stumps	0.4%	1.2%	0.4%	267	Other Products Containing SAPs	0.0%	0.1%	0.0%	16
Remainder/Composite Organic	6.1%	7.8%	1.9%	4,084	Carpet & Carpet Padding	0.7%	2.1%	0.8%	494
Metals	2.5%	2.1%	0.8%	1,672	All Other Wastes	2.9%	2.2%	0.8%	1,946
Tin/Steel Containers	0.6%	0.3%	0.1%	369	Bulky Wastes in Self-Haul	3.2%	15.3%	1.2%	2,152
Other Ferrous	1.0%	2.0%	0.8%	667					
Aluminum Beverage & Cat Food Cont.	0.5%	0.3%	0.1%	308	<i>Hauler Collected MSW Tons</i>				59,058
Other Aluminum	0.3%	0.4%	0.2%	225	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				7,743
Other Non-Ferrous	0.2%	0.6%	0.1%	103	Totals	100.0%			66,801
					<i>Samples</i>	18			
Management Pathways									
Single Stream	14.5%	4.8%	1.2%	9,706	Other Waste	53.6%	13.8%	2.9%	35,797
Organics	31.9%	11.2%	3.0%	21,299					

NF: Not Found in Samples

ICI MSW

Table 30 ICI MSW Composition Detail for Cherry Island Landfill, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	21.7%	13.2%	3.8%	40,110	Glass	1.8%	2.5%	0.8%	3,335
Newspaper & Inserts	0.2%	0.5%	0.2%	391	Glass Bottles & Jars	1.6%	2.4%	0.7%	2,965
Corrugated Cardboard/Kraft Paper	6.9%	13.2%	4.1%	12,677	Remainder/Composite Glass	0.2%	0.3%	0.1%	370
High Grade Office Paper	0.3%	1.1%	0.3%	537	Wood	6.1%	14.0%	2.6%	11,217
Mixed Recyclable Paper	3.9%	3.5%	1.0%	7,172	Pallets/Crates	1.3%	4.3%	1.1%	2,313
Non-Recyclable Paper	7.8%	5.2%	1.5%	14,412	Clean Lumber	0.7%	6.5%	0.7%	1,248
Remainder/Composite Paper	2.2%	2.1%	0.6%	3,999	Painted & Stained Wood	1.5%	4.2%	0.9%	2,724
Aseptic Boxes & Gable Top Cartons	0.5%	0.8%	0.2%	921	Other Engineered Wood	1.4%	8.5%	1.0%	2,514
Plastic	20.7%	15.7%	4.6%	38,208	Wood Furniture	1.0%	3.2%	1.0%	1,925
PET #1 Bottles, Jars or Containers	1.9%	1.6%	0.5%	3,579	Other Wood (R/C Wood)	0.3%	1.0%	0.3%	492
HDPE #2 Natural & Colored Bottles	0.6%	0.7%	0.2%	1,042	C&D Inert	4.0%	14.1%	2.0%	7,364
Rigid HDPE #2 Containers	0.1%	0.4%	0.1%	263	Asphalt Roofing	0.3%	4.8%	0.5%	553
#3-7 Bottles or Jars	0.0%	0.1%	0.0%	46	Asphalt, Brick, Concrete & Rocks	0.7%	3.7%	1.2%	1,283
Injection Molded Tubs #2 & #4-7	0.7%	0.9%	0.3%	1,313	Drywall/Gypsum Board	0.7%	5.1%	0.5%	1,339
All Other Rigid Plastic Packaging	0.2%	0.4%	0.1%	458	Remainder/Composite C&D	2.3%	10.1%	1.3%	4,189
White Styrofoam	1.2%	3.4%	1.1%	2,296	Special	2.0%	5.8%	1.1%	3,709
Recoverable Film	0.5%	1.4%	0.4%	898	Tires				NF
All Other Film	6.8%	3.9%	1.1%	12,626	Small Appliances	0.4%	1.4%	0.4%	823
Agricultural Film & Marine Shrink Wrap	2.3%	10.5%	3.3%	4,267	Large Electronics	0.2%	2.7%	0.3%	303
Large Plastic Items	3.6%	4.9%	1.5%	6,620	Other Small Consumer Electronics	0.3%	4.3%	0.5%	602
Remainder/Composite Plastic	2.6%	2.5%	0.8%	4,799	Items with CRTs				NF
Organics	24.7%	17.7%	5.2%	45,636	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	9.6%	10.1%	3.1%	17,731	Other Hazardous or HHW	1.1%	2.6%	0.8%	1,981
Protein Food Waste, Unpackaged	5.1%	12.6%	3.9%	9,497	Other	15.8%	14.0%	3.6%	29,252
Vegetative & Protein Food Waste in Plastic	5.0%	4.1%	1.2%	9,305	Textiles	3.2%	5.9%	1.8%	5,877
Vegetative & Protein Food Waste in Other	1.7%	1.8%	0.6%	3,125	Rubber / Leather	0.3%	0.5%	0.1%	601
Leaves, Grass & Brush	0.1%	0.3%	0.1%	110	Diapers, Sanitary Products	4.6%	8.1%	2.5%	8,407
Branches & Stumps	0.0%	0.1%	0.0%	19	Other Products Containing SAPs	0.2%	0.7%	0.2%	309
Remainder/Composite Organic	3.2%	4.8%	1.5%	5,848	Carpet & Carpet Padding	0.8%	3.2%	1.0%	1,538
Metals	3.1%	2.9%	0.9%	5,787	All Other Wastes	5.8%	6.7%	2.0%	10,657
Tin/Steel Containers	0.9%	1.1%	0.3%	1,603	Bulky Wastes in Self-Haul	1.0%	9.6%	0.9%	1,864
Other Ferrous	1.3%	2.3%	0.7%	2,484					
Aluminum Beverage & Cat Food Cont.	0.5%	0.5%	0.1%	908	Hauler Collected MSW Tons				172,678
Other Aluminum	0.3%	0.4%	0.1%	479	Tons of Non-C&D Materials from Self-haul Customers				11,941
Other Non-Ferrous	0.2%	0.5%	0.1%	313	Totals	100.0%			184,619
					<i>Samples</i>	<i>27</i>			
Management Pathways									
Single Stream	18.3%	15.4%	4.6%	33,876	Other Waste	60.1%	22.0%	6.2%	110,955
Organics	21.6%	17.0%	5.0%	39,789					

NF: Not Found in Samples

Table 31 ICI MSW Composition Detail for Pine Tree Transfer Station, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	27.3%	17.6%	6.7%	10,649	Glass	1.1%	1.1%	0.4%	427
Newspaper & Inserts	0.2%	0.4%	0.2%	74	Glass Bottles & Jars	0.9%	1.0%	0.4%	354
Corrugated Cardboard/Kraft Paper	10.7%	17.9%	7.4%	4,195	Remainder/Composite Glass	0.2%	0.3%	0.1%	73
High Grade Office Paper	0.7%	1.5%	0.6%	285	Wood	6.6%	15.8%	4.3%	2,582
Mixed Recyclable Paper	5.0%	5.1%	2.1%	1,942	Pallets/Crates	0.1%	1.3%	0.2%	35
Non-Recyclable Paper	6.4%	4.5%	1.7%	2,480	Clean Lumber	0.6%	7.1%	0.9%	230
Remainder/Composite Paper	3.0%	3.9%	1.6%	1,189	Painted & Stained Wood	2.2%	7.8%	1.8%	851
Aseptic Boxes & Gable Top Cartons	1.2%	2.0%	0.8%	484	Other Engineered Wood	1.0%	6.9%	1.1%	396
Plastic	18.7%	8.6%	2.9%	7,289	Wood Furniture	1.9%	7.7%	2.8%	758
PET #1 Bottles, Jars or Containers	1.6%	1.0%	0.4%	608	Other Wood (R/C Wood)	0.8%	1.7%	0.7%	313
HDPE #2 Natural & Colored Bottles	0.6%	0.5%	0.2%	222	C&D Inert	5.9%	17.9%	2.5%	2,292
Rigid HDPE #2 Containers	0.2%	0.5%	0.2%	95	Asphalt Roofing	0.4%	6.0%	0.7%	165
#3-7 Bottles or Jars	0.1%	0.2%	0.1%	31	Asphalt, Brick, Concrete & Rocks	1.7%	8.2%	2.0%	670
Injection Molded Tubs #2 & #4-7	2.1%	2.7%	1.1%	804	Drywall/Gypsum Board	0.4%	4.9%	0.6%	137
All Other Rigid Plastic Packaging	0.5%	0.9%	0.4%	203	Remainder/Composite C&D	3.4%	14.0%	1.8%	1,321
White Styrofoam	1.3%	2.0%	0.8%	493	Special	0.3%	1.1%	0.2%	120
Recoverable Film	0.4%	1.2%	0.5%	146	Tires	0.1%	1.1%	0.1%	30
All Other Film	7.5%	4.4%	1.6%	2,917	Small Appliances	0.0%	0.1%	0.0%	6
Agricultural Film & Marine Shrink Wrap	0.3%	0.9%	0.4%	126	Large Electronics				NF
Large Plastic Items	2.3%	3.7%	1.5%	885	Other Small Consumer Electronics	0.1%	0.3%	0.1%	32
Remainder/Composite Plastic	1.9%	1.1%	0.4%	759	Items with CRTs				NF
Organics	26.6%	14.5%	5.3%	10,380	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	9.4%	7.3%	2.9%	3,661	Other Hazardous or HHW	0.1%	0.3%	0.1%	52
Protein Food Waste, Unpackaged	4.7%	4.5%	1.8%	1,823	Other	9.8%	10.8%	3.3%	3,828
Vegetative & Protein Food Waste in Plastic	6.4%	4.4%	1.7%	2,490	Textiles	2.2%	2.2%	0.9%	864
Vegetative & Protein Food Waste in Other	2.3%	2.2%	0.9%	881	Rubber / Leather	0.7%	0.8%	0.3%	266
Leaves, Grass & Brush	0.2%	0.9%	0.4%	91	Diapers, Sanitary Products	2.2%	2.7%	1.1%	860
Branches & Stumps				NF	Other Products Containing SAPs	0.1%	0.1%	0.0%	22
Remainder/Composite Organic	3.7%	5.1%	1.9%	1,434	Carpet & Carpet Padding	2.2%	6.4%	2.7%	872
Metals	3.8%	4.4%	1.8%	1,469	All Other Wastes	1.6%	1.7%	0.7%	635
Tin/Steel Containers	0.6%	1.2%	0.5%	232	Bulky Wastes in Self-Haul	0.8%	8.1%	1.0%	308
Other Ferrous	1.6%	2.4%	1.0%	611					
Aluminum Beverage & Cat Food Cont.	0.5%	0.6%	0.2%	189	<i>Hauler Collected MSW Tons</i>				35,897
Other Aluminum	0.2%	0.2%	0.1%	80	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				3,139
Other Non-Ferrous	0.9%	2.1%	0.9%	357	Totals	100.0%			39,036
					<i>Samples</i>	16			
Management Pathways									
Single Stream	24.9%	18.7%	7.4%	9,717	Other Waste	52.2%	21.6%	7.3%	20,372
Organics	22.9%	13.7%	5.1%	8,947					

NF: Not Found in Samples

Table 32 ICI MSW Composition Detail for Sandtown Landfill, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	17.9%	8.4%	3.9%	7,488	Glass	1.9%	2.3%	1.7%	779
Newspaper & Inserts				NF	Glass Bottles & Jars	1.8%	2.3%	1.7%	768
Corrugated Cardboard/Kraft Paper	4.7%	6.6%	2.8%	1,991	Remainder/Composite Glass	0.0%	0.1%	0.0%	11
High Grade Office Paper				NF	Wood	7.4%	15.2%	8.0%	3,109
Mixed Recyclable Paper	4.3%	2.3%	1.3%	1,802	Pallets/Crates	1.0%	2.4%	1.8%	426
Non-Recyclable Paper	6.7%	3.2%	1.6%	2,791	Clean Lumber	0.2%	1.7%	0.4%	91
Remainder/Composite Paper	2.0%	1.1%	0.6%	820	Painted & Stained Wood	3.8%	8.5%	5.3%	1,576
Aseptic Boxes & Gable Top Cartons	0.2%	0.3%	0.2%	85	Other Engineered Wood	1.0%	5.5%	1.2%	406
Plastic	17.3%	11.6%	7.3%	7,273	Wood Furniture				NF
PET #1 Bottles, Jars or Containers	1.5%	0.9%	0.6%	631	Other Wood (R/C Wood)	1.5%	3.5%	2.6%	611
HDPE #2 Natural & Colored Bottles	0.9%	0.7%	0.5%	386	C&D Inert	3.4%	7.7%	3.0%	1,438
Rigid HDPE #2 Containers	0.1%	0.1%	0.1%	33	Asphalt Roofing				NF
#3-7 Bottles or Jars	0.3%	0.8%	0.6%	145	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	0.7%	0.5%	0.3%	290	Drywall/Gypsum Board	0.3%	2.7%	0.6%	146
All Other Rigid Plastic Packaging	0.0%	0.1%	0.1%	20	Remainder/Composite C&D	3.1%	7.3%	3.0%	1,292
White Styrofoam	0.8%	0.8%	0.5%	315	Special	5.1%	6.4%	4.6%	2,157
Recoverable Film				NF	Tires	1.4%	3.5%	2.6%	605
All Other Film	6.1%	4.3%	2.7%	2,567	Small Appliances	0.1%	0.1%	0.1%	23
Agricultural Film & Marine Shrink Wrap	0.4%	0.9%	0.6%	157	Large Electronics	0.4%	1.0%	0.7%	170
Large Plastic Items	3.4%	4.0%	2.8%	1,410	Other Small Consumer Electronics				NF
Remainder/Composite Plastic	3.1%	2.7%	1.9%	1,318	Items with CRTs				NF
Organics	23.1%	13.4%	8.0%	9,668	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	7.0%	5.0%	3.2%	2,936	Other Hazardous or HHW	3.2%	6.5%	4.7%	1,358
Protein Food Waste, Unpackaged	4.1%	3.7%	2.5%	1,736	Other	18.2%	14.5%	6.0%	7,634
Vegetative & Protein Food Waste in Plastic	2.4%	1.6%	1.0%	1,005	Textiles	5.1%	3.6%	2.3%	2,127
Vegetative & Protein Food Waste in Other	3.5%	2.2%	1.4%	1,478	Rubber / Leather	2.3%	3.3%	2.4%	976
Leaves, Grass & Brush	1.1%	2.7%	2.0%	466	Diapers, Sanitary Products	1.9%	1.7%	1.2%	787
Branches & Stumps	3.3%	6.1%	4.4%	1,367	Other Products Containing SAPs	0.1%	0.1%	0.1%	21
Remainder/Composite Organic	1.6%	6.3%	1.5%	679	Carpet & Carpet Padding				NF
Metals	5.7%	11.1%	3.5%	2,384	All Other Wastes	4.4%	4.2%	2.9%	1,853
Tin/Steel Containers	0.2%	0.3%	0.2%	90	Bulky Waste in Self-Haul	4.5%	15.9%	2.5%	1,870
Other Ferrous	2.3%	11.1%	2.4%	956					
Aluminum Beverage & Cat Food Containers	1.0%	1.1%	0.8%	421	<i>Hauler Collected MSW Tons</i>				37,042
Other Aluminum	1.9%	3.9%	2.9%	807	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				4,889
Other Non-Ferrous	0.3%	0.7%	0.2%	111	Totals	100.0%			41,931
					<i>Samples</i>	6			
Management Pathways									
Single Stream	15.9%	10.0%	5.9%	6,662	Other Waste	62.7%	17.1%	9.1%	26,281
Organics	21.4%	12.8%	7.6%	8,988					

NF: Not Found in Samples

Table 33 ICI MSW Composition Detail for Milford Transfer Station, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	20.3%	8.6%	3.0%	3,790	Glass	0.8%	0.8%	0.5%	150
Newspaper & Inserts	0.1%	0.2%	0.1%	14	Glass Bottles & Jars	0.6%	0.7%	0.4%	119
Corrugated Cardboard/Kraft Paper	5.6%	2.8%	1.2%	1,041	Remainder/Composite Glass	0.2%	0.3%	0.2%	31
High Grade Office Paper				NF	Wood	4.2%	7.1%	3.7%	780
Mixed Recyclable Paper	3.8%	2.9%	1.5%	702	Pallets/Crates	0.9%	2.8%	1.6%	171
Non-Recyclable Paper	7.7%	4.0%	1.8%	1,437	Clean Lumber	1.1%	4.2%	1.4%	210
Remainder/Composite Paper	2.7%	2.0%	1.1%	497	Painted & Stained Wood	0.2%	0.4%	0.2%	36
Aseptic Boxes & Gable Top Cartons	0.5%	0.4%	0.2%	99	Other Engineered Wood	1.8%	3.8%	2.2%	328
Plastic	15.6%	8.1%	3.5%	2,919	Wood Furniture				NF
PET #1 Bottles, Jars or Containers	2.1%	1.0%	0.4%	401	Other Wood (R/C Wood)	0.2%	0.5%	0.3%	35
HDPE #2 Natural & Colored Bottles	0.6%	0.5%	0.3%	113	C&D Inert	7.0%	18.8%	5.6%	1,312
Rigid HDPE #2 Containers	0.3%	0.4%	0.2%	48	Asphalt Roofing				NF
#3-7 Bottles or Jars	0.1%	0.1%	0.1%	12	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	0.6%	0.6%	0.3%	118	Drywall/Gypsum Board	0.0%	0.1%	0.1%	8
All Other Rigid Plastic Packaging	0.2%	0.4%	0.2%	35	Remainder/Composite C&D	7.0%	18.8%	5.6%	1,304
White Styrofoam	0.5%	0.6%	0.3%	95	Special	0.5%	0.6%	0.4%	91
Recoverable Film				NF	Tires				NF
All Other Film	8.4%	5.1%	2.5%	1,560	Small Appliances	0.1%	0.4%	0.2%	22
Agricultural Film & Marine Shrink Wrap	0.3%	0.7%	0.4%	60	Large Electronics	0.0%	0.0%	0.0%	0
Large Plastic Items	1.1%	1.6%	0.9%	210	Other Small Consumer Electronics	0.1%	0.1%	0.1%	17
Remainder/Composite Plastic	1.4%	0.9%	0.4%	266	Items with CRTs				NF
Organics	31.7%	15.8%	6.7%	5,925	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	10.1%	5.9%	2.8%	1,880	Other Hazardous or HHW	0.3%	0.5%	0.3%	52
Protein Food Waste, Unpackaged	5.2%	3.8%	2.0%	971	Other	16.6%	20.4%	5.1%	3,091
Vegetative & Protein Food Waste in Plastic	10.5%	13.7%	7.7%	1,955	Textiles	2.8%	2.5%	1.3%	519
Vegetative & Protein Food Waste in Other	2.0%	1.4%	0.7%	366	Rubber / Leather	0.8%	0.7%	0.4%	141
Leaves, Grass & Brush	1.6%	4.8%	2.8%	297	Diapers, Sanitary Products	2.3%	1.6%	0.8%	427
Branches & Stumps	0.7%	2.1%	1.2%	128	Other Products Containing SAPs	0.0%	0.0%	0.0%	4
Remainder/Composite Organic	1.7%	1.1%	0.6%	327	Carpet & Carpet Padding	0.8%	1.6%	0.9%	156
Metals	3.3%	2.8%	1.5%	613	All Other Wastes	3.8%	2.8%	1.5%	715
Tin/Steel Containers	0.5%	0.4%	0.2%	84	Bulky Wastes in Self-Haul	6.0%	22.0%	3.7%	1,128
Other Ferrous	1.3%	2.2%	1.2%	240					
Aluminum Beverage & Cat Food Cont.	0.5%	0.4%	0.2%	85	<i>Hauler Collected MSW Tons</i>				16,562
Other Aluminum	0.7%	1.3%	0.8%	129	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				2,108
Other Non-Ferrous	0.4%	1.0%	0.6%	75	Totals	100.0%			18,670
					<i>Samples</i>	9			
Management Pathways									
Single Stream	15.4%	7.0%	2.7%	2,871	Other Waste	54.6%	18.8%	6.2%	10,200
Organics	30.0%	15.6%	6.9%	5,598					

NF: Not Found in Samples

Table 34 ICI MSW Composition Detail for Route 5 Transfer Station, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	24.7%	7.1%	3.6%	12,230	Glass	0.6%	0.5%	0.4%	298
Newspaper & Inserts	0.9%	1.3%	1.1%	450	Glass Bottles & Jars	0.4%	0.3%	0.2%	212
Corrugated Cardboard/Kraft Paper	5.5%	3.6%	3.0%	2,698	Remainder/Composite Glass	0.2%	0.4%	0.3%	86
High Grade Office Paper				NF	Wood	4.9%	13.3%	4.7%	2,415
Mixed Recyclable Paper	6.2%	2.6%	1.9%	3,060	Pallets/Crates				NF
Non-Recyclable Paper	8.6%	2.5%	1.3%	4,251	Clean Lumber	1.1%	1.6%	1.4%	538
Remainder/Composite Paper	3.2%	2.7%	2.4%	1,561	Painted & Stained Wood	2.4%	5.4%	2.4%	1,182
Aseptic Boxes & Gable Top Cartons	0.4%	0.4%	0.3%	212	Other Engineered Wood	1.3%	8.1%	2.1%	647
Plastic	18.8%	6.0%	3.6%	9,292	Wood Furniture				NF
PET #1 Bottles, Jars or Containers	2.2%	0.8%	0.6%	1,078	Other Wood (R/C Wood)	0.1%	0.2%	0.2%	49
HDPE #2 Natural & Colored Bottles	0.6%	0.2%	0.1%	296	C&D Inert	3.0%	13.2%	3.7%	1,496
Rigid HDPE #2 Containers	0.4%	0.5%	0.4%	184	Asphalt Roofing	1.8%	13.2%	3.3%	882
#3-7 Bottles or Jars				NF	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	1.0%	0.3%	0.2%	487	Drywall/Gypsum Board				NF
All Other Rigid Plastic Packaging				NF	Remainder/Composite C&D	1.2%	1.7%	1.5%	614
White Styrofoam	0.7%	0.4%	0.3%	338	Special	0.6%	0.5%	0.4%	287
Recoverable Film				NF	Tires				NF
All Other Film	8.6%	2.9%	1.9%	4,272	Small Appliances				NF
Agricultural Film & Marine Shrink Wrap	0.3%	0.5%	0.5%	125	Large Electronics				NF
Large Plastic Items	2.4%	4.2%	3.7%	1,165	Other Small Consumer Electronics	0.3%	0.5%	0.4%	160
Remainder/Composite Plastic	2.7%	1.8%	1.5%	1,349	Items with CRTs				NF
Organics	22.2%	10.7%	8.4%	10,974	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	5.5%	3.5%	2.9%	2,726	Other Hazardous or HHW	0.3%	0.5%	0.4%	127
Protein Food Waste, Unpackaged	4.2%	4.8%	4.2%	2,072	Other	18.3%	15.2%	9.6%	9,034
Vegetative & Protein Food Waste in Plastic	3.3%	1.1%	0.7%	1,650	Textiles	7.0%	6.8%	6.0%	3,443
Vegetative & Protein Food Waste in Other	2.4%	2.0%	1.8%	1,181	Rubber / Leather	0.7%	0.8%	0.7%	324
Leaves, Grass & Brush	4.8%	9.3%	8.3%	2,382	Diapers, Sanitary Products	1.3%	0.8%	0.7%	667
Branches & Stumps				NF	Other Products Containing SAPs				NF
Remainder/Composite Organic	1.9%	1.3%	1.1%	963	Carpet & Carpet Padding	1.7%	3.5%	3.1%	827
Metals	7.0%	3.3%	2.6%	3,450	All Other Wastes	5.8%	3.3%	2.8%	2,892
Tin/Steel Containers	1.6%	2.6%	2.3%	791	Bulky Wastes in Self-Haul	1.8%	13.2%	3.3%	882
Other Ferrous	2.8%	1.3%	1.0%	1,383					
Aluminum Beverage & Cat Food Cont.	1.0%	0.5%	0.4%	479	<i>Hauler Collected MSW Tons</i>				46,831
Other Aluminum	0.2%	0.2%	0.1%	80	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				2,645
Other Non-Ferrous	1.4%	1.4%	1.3%	717	Totals	100.0%			49,477
					<i>Samples</i>	5			
Management Pathways									
Single Stream	20.1%	7.5%	5.2%	9,944	Other Waste	59.7%	15.4%	10.9%	29,521
Organics	20.2%	11.4%	9.3%	10,011					

NF: Not Found in Samples

Table 35 ICI MSW Composition Detail for Jones Crossroads Landfill, 2025

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	22.6%	12.3%	6.5%	12,089	Glass	4.1%	7.5%	4.6%	2,201
Newspaper & Inserts	0.1%	0.2%	0.1%	44	Glass Bottles & Jars	3.8%	6.9%	4.2%	2,019
Corrugated Cardboard/Kraft Paper	9.0%	13.4%	8.1%	4,842	Remainder/Composite Glass	0.3%	0.7%	0.4%	182
High Grade Office Paper				NF	Wood	4.7%	15.5%	2.5%	2,524
Mixed Recyclable Paper	5.1%	4.5%	2.6%	2,757	Pallets/Crates	1.1%	3.0%	1.8%	582
Non-Recyclable Paper	6.3%	4.2%	2.4%	3,350	Clean Lumber	0.2%	1.7%	0.2%	90
Remainder/Composite Paper	1.6%	1.4%	0.8%	839	Painted & Stained Wood	2.0%	11.2%	1.5%	1,044
Aseptic Boxes & Gable Top Cartons	0.5%	0.6%	0.4%	258	Other Engineered Wood	1.5%	10.4%	1.4%	808
Plastic	13.3%	8.5%	4.7%	7,136	Wood Furniture				NF
PET #1 Bottles, Jars or Containers	1.6%	1.1%	0.6%	844	Other Wood (R/C Wood)				NF
HDPE #2 Natural & Colored Bottles	0.7%	0.5%	0.3%	397	C&D Inert	4.2%	13.6%	2.7%	2,254
Rigid HDPE #2 Containers	0.2%	0.4%	0.3%	108	Asphalt Roofing				NF
#3-7 Bottles or Jars				NF	Asphalt, Brick, Concrete & Rocks				NF
Injection Molded Tubs #2 & #4-7	0.9%	1.2%	0.7%	497	Drywall/Gypsum Board	0.6%	6.8%	1.0%	306
All Other Rigid Plastic Packaging	0.0%	0.1%	0.0%	19	Remainder/Composite C&D	3.6%	11.9%	2.7%	1,948
White Styrofoam	1.0%	1.6%	1.0%	556	Special	2.4%	6.8%	2.8%	1,273
Recoverable Film				NF	Tires				NF
All Other Film	5.3%	3.7%	2.1%	2,815	Small Appliances	0.1%	0.3%	0.2%	55
Agricultural Film & Marine Shrink Wrap				NF	Large Electronics	2.1%	6.8%	2.8%	1,107
Large Plastic Items	1.5%	3.7%	2.2%	783	Other Small Consumer Electronics	0.1%	0.2%	0.1%	57
Remainder/Composite Plastic	2.1%	1.5%	0.8%	1,118	Items with CRTs				NF
Organics	28.6%	17.8%	9.7%	15,294	Other Larger Electronics				NF
Vegetative Food Waste, Unpackaged	12.2%	8.1%	4.5%	6,546	Other Hazardous or HHW	0.1%	0.1%	0.1%	54
Protein Food Waste, Unpackaged	6.0%	5.6%	3.3%	3,223	Other	15.0%	20.1%	11.4%	8,004
Vegetative & Protein Food Waste in Plastic	5.2%	4.6%	2.7%	2,771	Textiles	8.4%	17.4%	10.6%	4,473
Vegetative & Protein Food Waste in Other	3.6%	2.5%	1.4%	1,911	Rubber / Leather	1.0%	1.9%	1.1%	561
Leaves, Grass & Brush	0.3%	0.7%	0.4%	135	Diapers, Sanitary Products	2.1%	2.6%	1.6%	1,133
Branches & Stumps				NF	Other Products Containing SAPs				NF
Remainder/Composite Organic	1.3%	1.4%	0.8%	707	Carpet & Carpet Padding				NF
Metals	5.2%	7.8%	4.6%	2,762	All Other Wastes	2.5%	1.6%	0.9%	1,340
Tin/Steel Containers	0.9%	0.9%	0.5%	497	Bulky Wastes in Self-Haul	0.9%	8.7%	1.2%	496
Other Ferrous	1.9%	4.8%	2.9%	995					
Aluminum Beverage & Cat Food Cont.	0.4%	0.4%	0.2%	222	<i>Hauler Collected MSW Tons</i>				48,320
Other Aluminum	0.2%	0.3%	0.2%	84	<i>Tons of Non-C&D Materials from Self-haul Customers</i>				5,216
Other Non-Ferrous	1.8%	3.9%	2.1%	965	Totals	100.0%			53,536
					<i>Samples</i>	8			
Management Pathways									
Single Stream	23.4%	11.0%	5.5%	12,503	Other Waste	49.4%	20.0%	8.6%	26,446
Organics	27.2%	17.0%	9.3%	14,587					

NF: Not Found in Samples

MULTI-FAMILY MSW COMPOSITION

Table 36 Multi-family MSW Composition Detail

Material Category	Mean	Std. Dev.	MOE	Material Category	Mean	Std. Dev.	MOE
Paper	21.7%	7.6%	0.6%	Glass	2.7%	2.3%	0.2%
Newspaper & Inserts	0.7%	0.9%	0.1%	Glass Bottles & Jars	2.3%	2.1%	0.2%
Corrugated Cardboard/Kraft Paper	5.2%	4.4%	0.4%	Remainder/Composite Glass	0.4%	0.7%	0.1%
High Grade Office Paper	0.2%	0.7%	0.1%	Wood	3.9%	7.3%	0.6%
Mixed Recyclable Paper	5.3%	3.2%	0.3%	Pallets/Crates	0.0%	0.0%	0.0%
Non-Recyclable Paper	7.1%	3.7%	0.3%	Clean Lumber	0.3%	1.4%	0.1%
Remainder/Composite Paper	2.7%	1.9%	0.2%	Painted & Stained Wood	0.9%	1.9%	0.2%
Aseptic Boxes & Gable Top Cartons	0.5%	1.1%	0.1%	Other Engineered Wood	0.2%	0.6%	0.0%
Plastic	14.7%	5.7%	0.5%	Wood Furniture	1.9%	6.4%	0.5%
PET #1 Bottles, Jars or Containers	2.3%	0.9%	0.1%	Other Wood (R/C Wood)	0.6%	1.6%	0.1%
HDPE #2 Natural & Colored Bottles	0.6%	0.6%	0.0%	C&D Inert	2.5%	9.2%	0.8%
Rigid HDPE #2 Containers	0.2%	0.2%	0.0%	Asphalt Roofing	0.0%	7.8%	0.6%
#3-7 Bottles or Jars	0.1%	0.1%	0.0%	Asphalt, Brick, Concrete & Rocks	0.3%	1.1%	0.1%
Injection Molded Tubs #2 & #4-7	0.7%	0.5%	0.0%	Drywall/Gypsum Board	0.5%	2.1%	0.2%
All Other Rigid Plastic Packaging	0.4%	0.6%	0.1%	Remainder/Composite C&D	1.8%	3.9%	0.3%
White Styrofoam	0.4%	0.3%	0.0%	Special	1.2%	1.5%	0.1%
Recoverable Film	0.2%	0.4%	0.0%	Tires	0.0%	0.0%	0.0%
All Other Film	4.5%	2.1%	0.2%	Small Appliances	0.7%	1.3%	0.1%
Agricultural Film & Marine Shrink Wrap	0.0%	0.0%	0.0%	Large Electronics	0.0%	0.0%	0.0%
Large Plastic Items	3.3%	3.9%	0.3%	Other Small Consumer Electronics	0.1%	0.2%	0.0%
Remainder/Composite Plastic	2.0%	1.2%	0.1%	Items with CRTs	0.0%	0.0%	0.0%
Organics	29.7%	11.3%	0.9%	Other Larger Electronics	0.0%	0.0%	0.0%
Vegetative Food Waste, Unpackaged	7.4%	4.6%	0.4%	Other Hazardous or HHW	0.5%	0.6%	0.1%
Protein Food Waste, Unpackaged	3.0%	2.9%	0.2%	Other	19.1%	14.5%	1.2%
Vegetative & Protein Food Waste in Plastic	9.2%	5.9%	0.5%	Textiles	3.6%	3.2%	0.3%
Vegetative & Protein Food Waste in Other	3.0%	2.0%	0.2%	Rubber / Leather	0.4%	0.7%	0.1%
Leaves, Grass & Brush	2.8%	4.2%	0.3%	Diapers, Sanitary Products	7.4%	9.4%	0.8%
Branches & Stumps	0.2%	0.7%	0.1%	Other Products Containing SAPs	0.1%	0.2%	0.0%
Remainder/Composite Organic	4.1%	2.6%	0.2%	Carpet & Carpet Padding	4.8%	13.4%	1.1%
Metals	4.4%	5.3%	0.4%	All Other Wastes	2.9%	1.8%	0.1%
Tin/Steel Containers	0.7%	0.5%	0.0%	Bulky Wastes in Self-Haul	N/A	N/A	N/A
Other Ferrous	2.5%	5.0%	0.4%				
Aluminum Beverage & Cat Food Cont.	0.6%	0.4%	0.0%				
Other Aluminum	0.3%	0.2%	0.0%				
Other Non-Ferrous	0.4%	1.1%	0.1%				
				Totals	100.0%		
				<i>Samples</i>	20		
Single Stream	19.3%	6.2%	0.5%	Other Waste	55.0%	11.6%	1.0%
Organics	25.6%	10.7%	0.9%				

Figure 15 Comparison of Multi-family MSW Composition by Group, 2025 v 2015/16

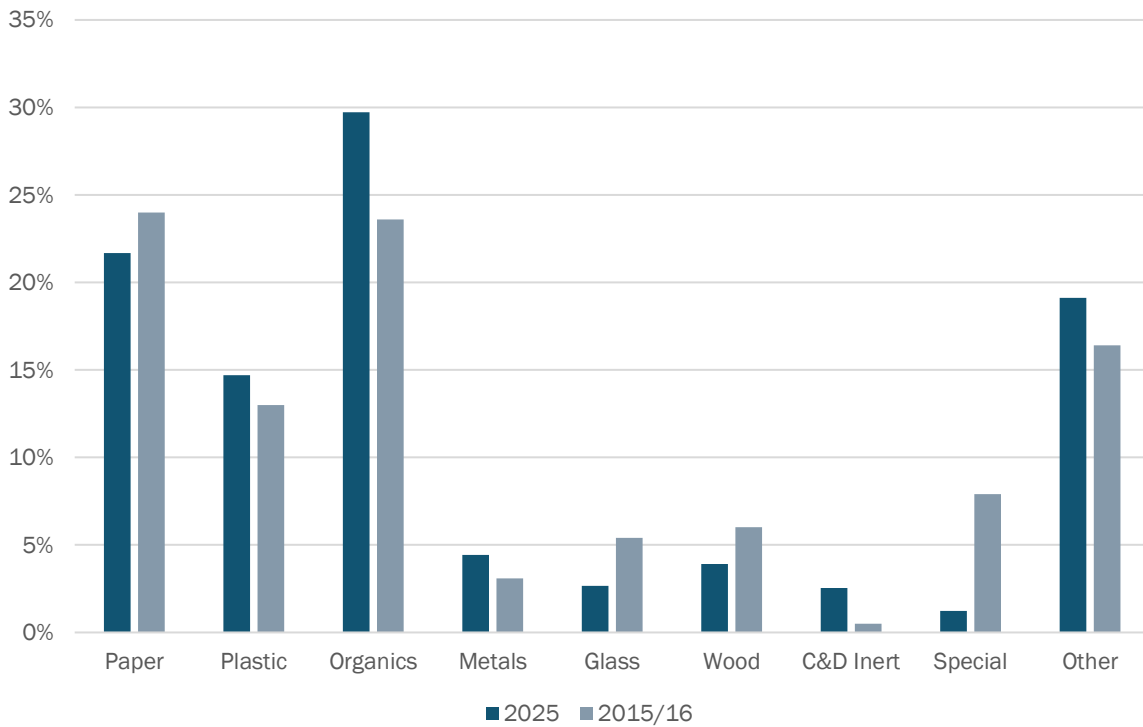


Table 37 Top Ten Material Categories in Multi-family MSW, 2025

Material Category	Est. Percent	Cumulative Percent
Vegetative & Protein Food Waste in Plastic	9.2%	9.2%
Vegetative Food Waste, Unpackaged	7.4%	16.6%
Diapers, Sanitary Products	7.4%	23.9%
Non-Recyclable Paper	7.1%	31.0%
Mixed Recyclable Paper	5.3%	36.4%
Corrugated Cardboard/Kraft Paper	5.2%	41.5%
Carpet & Carpet Padding	4.8%	46.3%
All Other Film	4.5%	50.8%
Remainder/Composite Organic	4.1%	54.9%
Textiles	3.6%	58.5%
Subtotal	58.5%	
All Other Materials	41.5%	
Total	100.0%	

SELF-HAUL LOADS

Table 38 Self-Haul MSW Composition Deta

Material Category	Mean	Std. Dev.	MOE	Tons	Material Category	Mean	Std. Dev.	MOE	Tons
Paper	1.9%	7.2%	1.0%	1,416	C&D	34.4%	43.7%	4.9%	25,607
OCC (Old Corrugated Cardboard) & Kraft Paper	1.7%	6.6%	1.0%	1,288	Concrete/Brick/Rock	0.3%	5.1%	0.4%	196
Remainder & Composite Other Paper	0.2%	2.2%	0.1%	128	Asphalt Paving				NF
Plastic	0.0%	0.4%	0.0%	32	Asphalt Roofing	2.4%	14.5%	2.4%	1,791
HDPE Buckets				NF	Wood Roofing	0.0%	0.3%	0.0%	8
Clean Recoverable Film	0.0%	0.2%	0.0%	11	Ceiling Tiles				NF
Foamed Insulation				NF	Vinyl Siding	1.2%	8.7%	1.1%	926
R/C & Other Plastic	0.0%	0.3%	0.0%	21	Pallets/Crates	1.3%	6.4%	0.8%	969
Glass	0.0%	0.0%	0.0%	0	Clean Lumber	2.6%	12.3%	1.7%	1,953
R/C & Other Glass				NF	Plywood	2.6%	11.9%	1.8%	1,898
Organics	1.2%	8.5%	1.0%	874	Other Engineered Wood	3.9%	14.2%	1.9%	2,920
Yard Waste				NF	Wood Furniture	0.8%	7.4%	0.6%	605
R/C & Other Organics	1.2%	8.5%	1.0%	874	Painted/Stained Wood	5.8%	16.5%	2.3%	4,285
Metal	3.5%	13.4%	2.1%	2,599	Treated Wood	0.8%	6.8%	0.6%	588
HVAC Ducting	0.2%	0.9%	0.1%	113	Clean Gypsum Board	1.5%	9.2%	1.2%	1,092
Wire Sheathing	0.7%	6.8%	1.1%	494	Painted/Papered Gypsum Board	1.7%	8.5%	1.2%	1,241
Other Ferrous	1.5%	9.0%	1.3%	1,114	Dirt, Sand & Gravel	0.5%	6.6%	0.8%	346
Other Non-Ferrous	1.2%	7.1%	1.1%	878	Fiberglass Insulation	0.1%	1.2%	0.2%	107
Special/Other	35.5%	42.0%	5.2%	26,393	R/C & Other C&D	9.0%	21.7%	2.5%	6,682
Appliances	0.5%	5.0%	0.8%	365	MSW	23.5%	38.9%	3.9%	17,462
Electronics	1.8%	9.5%	1.4%	1,313	Mixed MSW	23.5%	38.9%	3.9%	17,462
Items with CRTs				NF					
Bulky Items	33.2%	40.7%	5.1%	24,685					
Tires	0.0%	0.8%	0.1%	30					
Lead Acid Batteries				NF					
Vehicle Fluids				NF					
Paint				NF					
Other Hazardous Materials				NF	Totals	100.0%			74,383
Fines/Mixed Residue				NF	<i>Samples</i>	260			

NF: Not Found in Samples

Figure 16 Comparison of Self-haul MSW Composition by Group, 2025 v 2015/16

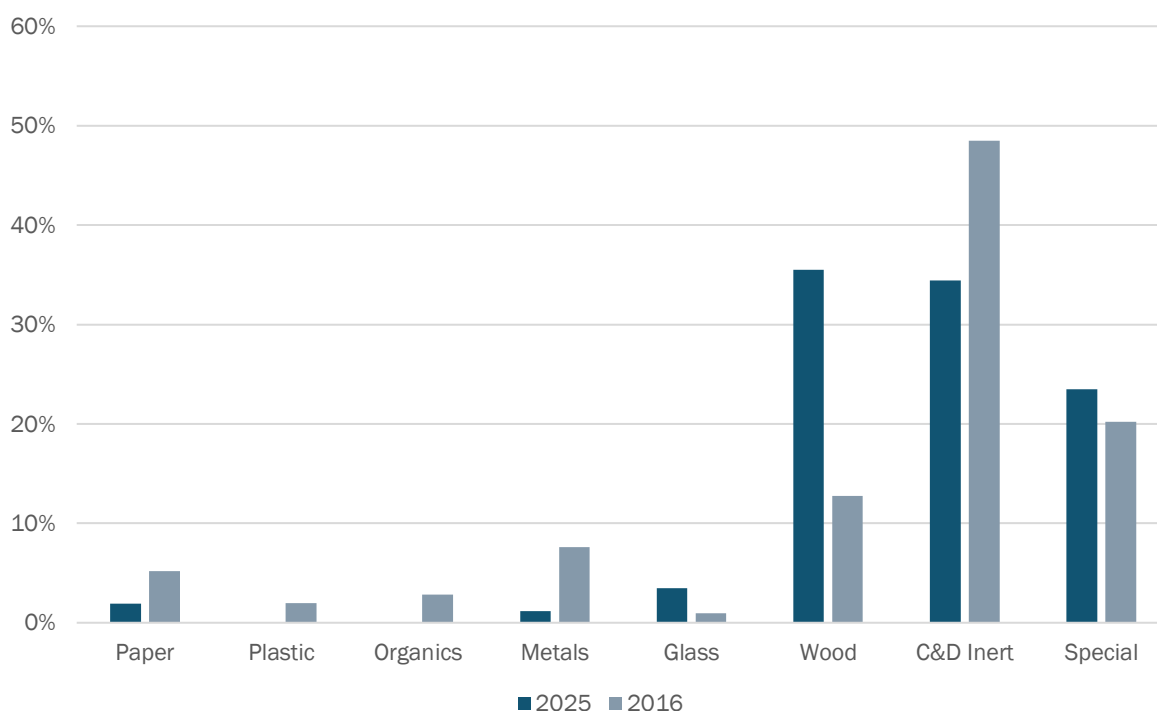


Figure 17 Comparison of Most Prevalent Materials in Self-haul MSW, 2025 v 2015/16

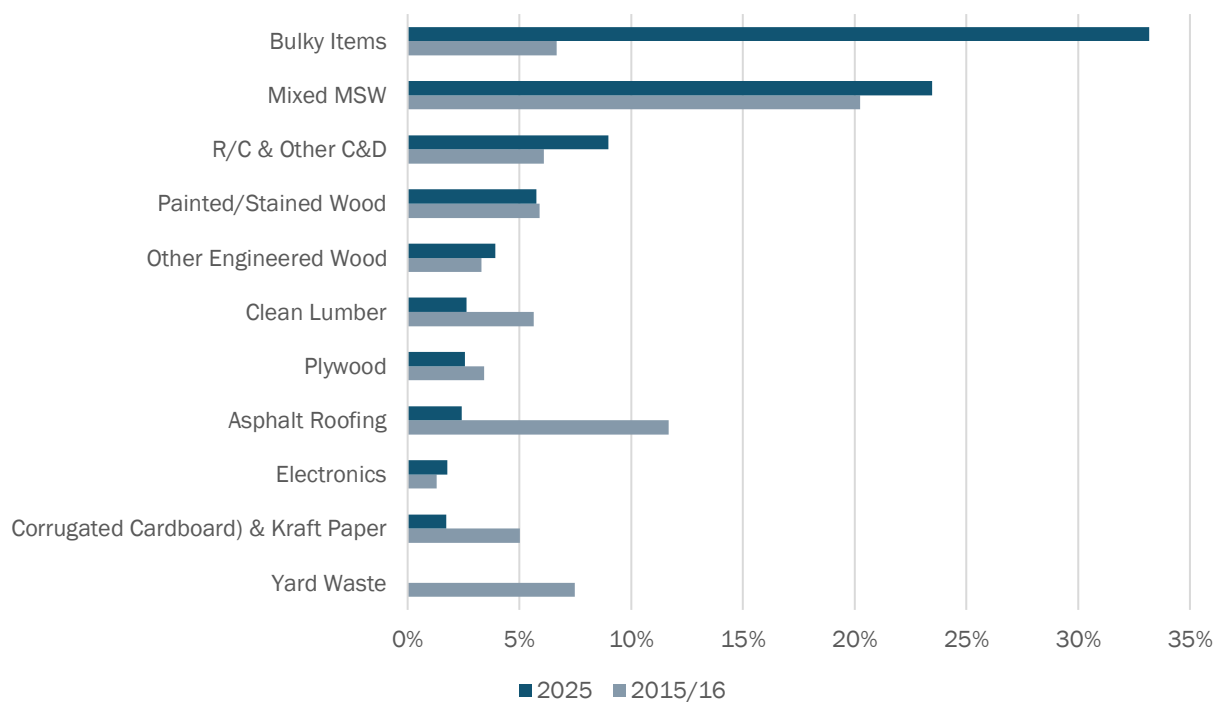


Table 39 Top Ten Material Categories in Self-haul MSW, 2025

Material Category	Est. Percent	Cumulative Percent	Est. Tons
Bulky Items	33.2%	33.2%	24,685
Mixed MSW	23.5%	56.7%	17,462
R/C & Other C&D	9.0%	65.6%	6,682
Painted/Stained Wood	5.8%	71.4%	4,285
Other Engineered Wood	3.9%	75.3%	2,920
Clean Lumber	2.6%	78.0%	1,953
Plywood	2.6%	80.5%	1,898
Asphalt Roofing	2.4%	82.9%	1,791
Electronics	1.8%	84.7%	1,313
OCC (Old Corrugated Cardboard) & Kraft Paper	1.7%	86.4%	1,288
Subtotal	86.4%		64,277
All Other Materials	13.6%		
Total	100.0%		74,383

TARGETED GENERATOR LOADS

Table 40 Grocery MSW Composition Detail

Material Category	Mean	Std. Dev.	MOE	Material Category	Mean	Std. Dev.	MOE
Paper	24.4%	4.6%	3.8%	Glass	0.3%	0.6%	0.5%
Newspaper & Inserts	0.3%	0.7%	0.5%	Glass Bottles & Jars	0.3%	0.6%	0.5%
Corrugated Cardboard/Kraft Paper	7.0%	3.6%	3.0%	Remainder/Composite Glass	0.0%	0.0%	0.0%
High Grade Office Paper	0.2%	0.5%	0.4%	Wood	2.0%	3.0%	2.4%
Mixed Recyclable Paper	4.1%	1.8%	1.5%	Pallets/Crates	0.7%	1.8%	1.5%
Non-Recyclable Paper	6.6%	3.8%	3.2%	Clean Lumber	0.0%	0.0%	0.0%
Remainder/Composite Paper	6.1%	5.1%	4.2%	Painted & Stained Wood	0.4%	0.9%	0.8%
Aseptic Boxes & Gable Top Cartons	0.0%	0.0%	0.0%	Other Engineered Wood	0.0%	0.0%	0.0%
Plastic	13.6%	4.1%	3.3%	Wood Furniture	0.0%	0.0%	0.0%
PET #1 Bottles, Jars or Containers	2.2%	1.2%	1.0%	Other Wood (R/C Wood)	0.9%	1.4%	1.2%
HDPE #2 Natural & Colored Bottles	0.1%	0.2%	0.2%	C&D Inert	0.0%	0.0%	0.0%
Rigid HDPE #2 Containers	0.0%	0.0%	0.0%	Asphalt Roofing	0.0%	0.0%	0.0%
#3-7 Bottles or Jars	0.0%	0.0%	0.0%	Asphalt, Brick, Concrete & Rocks	0.0%	0.0%	0.0%
Injection Molded Tubs #2 & #4-7	1.4%	1.1%	0.9%	Drywall/Gypsum Board	0.0%	0.0%	0.0%
All Other Rigid Plastic Packaging	0.1%	0.2%	0.1%	Remainder/Composite C&D	0.0%	0.0%	0.0%
White Styrofoam	0.6%	0.6%	0.5%	Special	0.1%	0.2%	0.1%
Recoverable Film	0.1%	0.2%	0.2%	Tires	0.0%	0.0%	0.0%
All Other Film	7.1%	4.9%	4.1%	Small Appliances	0.0%	0.0%	0.0%
Agricultural Film & Marine Shrink Wrap	0.0%	0.0%	0.0%	Large Electronics	0.0%	0.0%	0.0%
Large Plastic Items	1.0%	1.6%	1.3%	Other Small Consumer Electronics	0.1%	0.1%	0.1%
Remainder/Composite Plastic	0.9%	0.7%	0.6%	Items with CRTs	0.0%	0.0%	0.0%
Organics	52.5%	6.3%	5.2%	Other Larger Electronics	0.0%	0.0%	0.0%
Vegetative Food Waste, Unpackaged	12.0%	5.9%	4.9%	Other Hazardous or HHW	0.0%	0.0%	0.0%
Protein Food Waste, Unpackaged	16.3%	9.9%	8.1%	Other	6.2%	4.6%	3.8%
Vegetative & Protein Food Waste in Plastic	17.2%	10.9%	9.0%	Textiles	0.8%	1.4%	1.2%
Vegetative & Protein Food Waste in Other	5.1%	4.6%	3.8%	Rubber / Leather	0.2%	0.4%	0.3%
Leaves, Grass & Brush	0.0%	0.0%	0.0%	Diapers, Sanitary Products	0.0%	0.0%	0.0%
Branches & Stumps	0.0%	0.0%	0.0%	Other Products Containing SAPs	0.7%	0.8%	0.6%
Remainder/Composite Organic	1.9%	1.8%	1.5%	Carpet & Carpet Padding	0.0%	0.0%	0.0%
Metals	1.0%	1.2%	1.0%	All Other Wastes	4.4%	4.2%	3.5%
Tin/Steel Containers	0.2%	0.3%	0.2%	Bulky Wastes in Self-Haul	N/A	N/A	N/A
Other Ferrous	0.0%	0.1%	0.1%	<i>Hauler Collected MSW Tons</i>			
Aluminum Beverage & Cat Food Cont.	0.2%	0.1%	0.1%	<i>Tons of Non-C&D Materials from Self-haul Customers</i>			
Other Aluminum	0.3%	0.7%	0.6%	Totals	100.0%		
Other Non-Ferrous	0.2%	0.5%	0.4%	<i>Samples</i>	6		
Management Pathways							
Single Stream	16.1%	4.2%	3.5%	Other Waste	33.3%	10.1%	8.3%
Organics	50.6%	7.3%	6.0%				

Table 41 Restaurant MSW Composition Detail

Material Category	Mean	Std. Dev.	MOE	Material Category	Mean	Std. Dev.	MOE
Paper	28.4%	13.1%	9.6%	Glass	4.4%	2.9%	2.1%
Newspaper & Inserts	0.0%	0.0%	0.0%	Glass Bottles & Jars	3.5%	2.7%	2.0%
Corrugated Cardboard/Kraft Paper	12.1%	9.5%	6.9%	Remainder/Composite Glass	0.9%	0.7%	0.5%
High Grade Office Paper	0.0%	0.0%	0.0%	Wood	7.4%	6.5%	4.8%
Mixed Recyclable Paper	5.7%	6.9%	5.1%	Pallets/Crates	3.7%	6.6%	4.9%
Non-Recyclable Paper	8.7%	3.5%	2.6%	Clean Lumber	1.0%	1.9%	1.4%
Remainder/Composite Paper	1.8%	1.3%	1.0%	Painted & Stained Wood	0.0%	0.1%	0.0%
Aseptic Boxes & Gable Top Cartons	0.1%	0.1%	0.1%	Other Engineered Wood	0.0%	0.0%	0.0%
Plastic	20.5%	6.8%	5.0%	Wood Furniture	1.0%	2.8%	2.0%
PET #1 Bottles, Jars or Containers	2.3%	1.2%	0.9%	Other Wood (R/C Wood)	1.6%	4.2%	3.1%
HDPE #2 Natural & Colored Bottles	1.2%	1.0%	0.8%	C&D Inert	0.0%	0.1%	0.0%
Rigid HDPE #2 Containers	0.7%	0.7%	0.5%	Asphalt Roofing	0.0%	0.0%	0.0%
#3-7 Bottles or Jars	0.1%	0.1%	0.1%	Asphalt, Brick, Concrete & Rocks	0.0%	0.0%	0.0%
Injection Molded Tubs #2 & #4-7	0.5%	0.5%	0.3%	Drywall/Gypsum Board	0.0%	0.0%	0.0%
All Other Rigid Plastic Packaging	0.2%	0.4%	0.3%	Remainder/Composite C&D	0.0%	0.1%	0.0%
White Styrofoam	0.1%	0.1%	0.1%	Special	3.3%	4.7%	3.4%
Recoverable Film	0.2%	0.5%	0.3%	Tires	0.0%	0.0%	0.0%
All Other Film	5.7%	2.4%	1.8%	Small Appliances	1.7%	4.0%	3.0%
Agricultural Film & Marine Shrink Wrap	5.1%	8.9%	6.5%	Large Electronics	0.0%	0.0%	0.0%
Large Plastic Items	2.3%	2.9%	2.1%	Other Small Consumer Electronics	0.1%	0.2%	0.2%
Remainder/Composite Plastic	2.4%	1.0%	0.7%	Items with CRTs	0.0%	0.0%	0.0%
Organics	27.3%	10.3%	7.6%	Other Larger Electronics	1.3%	3.5%	2.6%
Vegetative Food Waste, Unpackaged	8.0%	7.0%	5.2%	Other Hazardous or HHW	0.1%	0.4%	0.3%
Protein Food Waste, Unpackaged	5.0%	4.2%	3.1%	Other	4.9%	5.3%	3.9%
Vegetative & Protein Food Waste in Plastic	6.2%	5.0%	3.7%	Textiles	1.3%	1.6%	1.2%
Vegetative & Protein Food Waste in Other	3.4%	2.3%	1.7%	Rubber / Leather	0.8%	0.5%	0.3%
Leaves, Grass & Brush	0.0%	0.0%	0.0%	Diapers, Sanitary Products	1.3%	2.6%	1.9%
Branches & Stumps	0.0%	0.0%	0.0%	Other Products Containing SAPs	0.1%	0.1%	0.1%
Remainder/Composite Organic	4.6%	4.7%	3.4%	Carpet & Carpet Padding	0.0%	0.0%	0.0%
Metals	3.8%	1.7%	1.3%	All Other Wastes	1.3%	1.9%	1.4%
Tin/Steel Containers	1.4%	1.8%	1.3%	Bulky Wastes in Self-Haul	N/A	N/A	N/A
Other Ferrous	0.2%	0.2%	0.2%				
Aluminum Beverage & Cat Food Cont.	0.7%	0.5%	0.3%				
Other Aluminum	1.4%	1.5%	1.1%				
Other Non-Ferrous	0.2%	0.4%	0.3%				
				<i>Hauler Collected MSW Tons</i>			
				<i>Tons of Non-C&D Materials from Self-haul Customers</i>			
				Totals	100.0%		
				<i>Samples</i>	<i>7</i>		
Management Pathways							
Single Stream	28.3%	12.4%	9.1%	Other Waste	49.0%	15.2%	11.2%
Organics	22.7%	9.8%	7.2%				

Table 42 Large Retail MSW Composition Detail

Material Category	Mean	Std. Dev.	MOE	Material Category	Mean	Std. Dev.	MOE
Paper	23.0%	11.2%	6.1%	Glass	0.5%	0.9%	0.5%
Newspaper & Inserts	0.0%	0.0%	0.0%	Glass Bottles & Jars	0.4%	0.8%	0.5%
Corrugated Cardboard/Kraft Paper	9.6%	4.7%	2.6%	Remainder/Composite Glass	0.0%	0.1%	0.1%
High Grade Office Paper	0.0%	0.0%	0.0%	Wood	14.7%	21.4%	11.7%
Mixed Recyclable Paper	5.8%	5.4%	2.9%	Pallets/Crates	1.2%	2.6%	1.4%
Non-Recyclable Paper	3.9%	4.9%	2.7%	Clean Lumber	3.5%	4.9%	2.7%
Remainder/Composite Paper	3.6%	3.5%	1.9%	Painted & Stained Wood	3.3%	7.0%	3.8%
Aseptic Boxes & Gable Top Cartons	0.1%	0.2%	0.1%	Other Engineered Wood	4.7%	8.5%	4.7%
Plastic	30.7%	18.6%	10.2%	Wood Furniture	1.2%	4.1%	2.2%
PET #1 Bottles, Jars or Containers	0.9%	1.2%	0.7%	Other Wood (R/C Wood)	0.8%	2.7%	1.5%
HDPE #2 Natural & Colored Bottles	0.3%	0.5%	0.3%	C&D Inert	7.2%	12.4%	6.8%
Rigid HDPE #2 Containers	0.2%	0.6%	0.3%	Asphalt Roofing	0.0%	0.0%	0.0%
#3-7 Bottles or Jars	0.0%	0.0%	0.0%	Asphalt, Brick, Concrete & Rocks	0.0%	0.0%	0.0%
Injection Molded Tubs #2 & #4-7	0.4%	0.9%	0.5%	Drywall/Gypsum Board	3.6%	7.3%	4.0%
All Other Rigid Plastic Packaging	0.3%	0.8%	0.5%	Remainder/Composite C&D	3.6%	7.1%	3.9%
White Styrofoam	3.6%	5.0%	2.7%	Special	0.4%	1.3%	0.7%
Recoverable Film	6.0%	7.7%	4.2%	Tires	0.0%	0.0%	0.0%
All Other Film	7.2%	4.6%	2.5%	Small Appliances	0.0%	0.0%	0.0%
Agricultural Film & Marine Shrink Wrap	0.6%	0.7%	0.4%	Large Electronics	0.0%	0.0%	0.0%
Large Plastic Items	3.5%	5.8%	3.2%	Other Small Consumer Electronics	0.0%	0.0%	0.0%
Remainder/Composite Plastic	7.7%	6.5%	3.6%	Items with CRTs	0.0%	0.0%	0.0%
Organics	16.8%	21.7%	11.9%	Other Larger Electronics	0.0%	0.0%	0.0%
Vegetative Food Waste, Unpackaged	2.8%	4.4%	2.4%	Other Hazardous or HHW	0.4%	1.3%	0.7%
Protein Food Waste, Unpackaged	1.4%	2.6%	1.4%	Other	4.0%	4.0%	2.2%
Vegetative & Protein Food Waste in Plastic	7.1%	14.5%	7.9%	Textiles	0.7%	1.2%	0.7%
Vegetative & Protein Food Waste in Other	2.2%	3.3%	1.8%	Rubber / Leather	0.1%	0.2%	0.1%
Leaves, Grass & Brush	0.0%	0.0%	0.0%	Diapers, Sanitary Products	0.5%	1.0%	0.5%
Branches & Stumps	0.0%	0.0%	0.0%	Other Products Containing SAPs	0.0%	0.0%	0.0%
Remainder/Composite Organic	3.2%	5.0%	2.7%	Carpet & Carpet Padding	0.0%	0.0%	0.0%
Metals	2.8%	3.5%	1.9%	All Other Wastes	2.6%	3.0%	1.6%
Tin/Steel Containers	0.0%	0.1%	0.1%	Bulky Wastes in Self-Haul	N/A	N/A	N/A
Other Ferrous	1.9%	2.9%	1.6%	Total	100.0%		
Aluminum Beverage & Cat Food Cont.	0.2%	0.3%	0.2%	Samples	11		
Other Aluminum	0.0%	0.0%	0.0%				
Other Non-Ferrous	0.6%	1.5%	0.8%				
Management Pathways							
Single Stream	18.1%	9.2%	5.0%	Other Waste	68.3%	21.5%	11.7%
Organics	13.6%	20.4%	11.2%				

Table 43 Convenience Store MSW Composition Detail

Material Category	Mean	Std. Dev.	MOE	Material Category	Mean	Std. Dev.	MOE
Paper	29.5%	7.0%	4.7%	Glass	2.3%	1.5%	1.0%
Newspaper & Inserts	1.5%	2.3%	1.5%	Glass Bottles & Jars	1.9%	1.4%	0.9%
Corrugated Cardboard/Kraft Paper	3.7%	2.6%	1.7%	Remainder/Composite Glass	0.4%	0.8%	0.5%
High Grade Office Paper	0.0%	0.1%	0.1%	Wood	2.0%	4.2%	2.8%
Mixed Recyclable Paper	6.1%	2.1%	1.4%	Pallets/Crates	1.3%	3.7%	2.5%
Non-Recyclable Paper	12.2%	5.2%	3.5%	Clean Lumber	0.0%	0.0%	0.0%
Remainder/Composite Paper	4.6%	2.1%	1.4%	Painted & Stained Wood	0.6%	1.0%	0.7%
Aseptic Boxes & Gable Top Cartons	1.4%	1.0%	0.7%	Other Engineered Wood	0.1%	0.3%	0.2%
Plastic	22.6%	5.6%	3.7%	Wood Furniture	0.0%	0.0%	0.0%
PET #1 Bottles, Jars or Containers	3.4%	1.2%	0.8%	Other Wood (R/C Wood)	0.0%	0.0%	0.0%
HDPE #2 Natural & Colored Bottles	2.4%	2.5%	1.6%	C&D Inert	2.7%	3.3%	2.2%
Rigid HDPE #2 Containers	0.2%	0.2%	0.1%	Asphalt Roofing	0.0%	0.0%	0.0%
#3-7 Bottles or Jars	0.0%	0.0%	0.0%	Asphalt, Brick, Concrete & Rocks	0.0%	0.0%	0.0%
Injection Molded Tubs #2 & #4-7	1.5%	1.4%	0.9%	Drywall/Gypsum Board	0.0%	0.0%	0.0%
All Other Rigid Plastic Packaging	0.0%	0.1%	0.0%	Remainder/Composite C&D	2.7%	3.3%	2.2%
White Styrofoam	0.9%	1.6%	1.1%	Special	1.7%	3.5%	2.4%
Recoverable Film	0.1%	0.3%	0.2%	Tires	0.0%	0.0%	0.0%
All Other Film	11.0%	4.9%	3.3%	Small Appliances	0.3%	1.0%	0.6%
Agricultural Film & Marine Shrink Wrap	0.0%	0.0%	0.0%	Large Electronics	0.0%	0.0%	0.0%
Large Plastic Items	0.8%	1.3%	0.9%	Other Small Consumer Electronics	0.1%	0.1%	0.1%
Remainder/Composite Plastic	2.3%	0.8%	0.5%	Items with CRTs	0.0%	0.0%	0.0%
Organics	30.3%	9.5%	6.4%	Other Larger Electronics	0.0%	0.0%	0.0%
Vegetative Food Waste, Unpackaged	13.3%	3.5%	2.3%	Other Hazardous or HHW	1.3%	3.6%	2.4%
Protein Food Waste, Unpackaged	4.4%	5.7%	3.8%	Other	6.7%	2.8%	1.9%
Vegetative & Protein Food Waste in Plastic	7.2%	3.3%	2.2%	Textiles	0.9%	1.0%	0.7%
Vegetative & Protein Food Waste in Other	2.9%	1.5%	1.0%	Rubber / Leather	0.3%	0.3%	0.2%
Leaves, Grass & Brush	0.2%	0.5%	0.4%	Diapers, Sanitary Products	0.6%	1.0%	0.6%
Branches & Stumps	0.0%	0.0%	0.0%	Other Products Containing SAPs	0.0%	0.0%	0.0%
Remainder/Composite Organic	2.3%	2.0%	1.3%	Carpet & Carpet Padding	0.0%	0.0%	0.0%
Metals	2.1%	0.4%	0.2%	All Other Wastes	4.8%	2.9%	2.0%
Tin/Steel Containers	0.3%	0.2%	0.2%	Bulky Wastes in Self-Haul	N/A	N/A	N/A
Other Ferrous	0.3%	0.4%	0.2%				
Aluminum Beverage & Cat Food Cont.	1.2%	0.5%	0.4%	<i>Hauler Collected MSW Tons</i>			
Other Aluminum	0.2%	0.1%	0.1%	<i>Tons of Non-C&D Materials from Self-haul Customers</i>			
Other Non-Ferrous	0.1%	0.1%	0.1%	Totals	100.0%		
				<i>Samples</i>	8		
Management Pathways							
Single Stream	22.3%	5.5%	3.7%	Other Waste	49.7%	10.2%	6.8%
Organics	28.0%	9.4%	6.3%				

Table 44 Office MSW Composition Detail

Material Category	Mean	Std. Dev.	MOE	Material Category	Mean	Std. Dev.	MOE
Paper	30.6%	15.6%	14.8%	Glass	0.3%	0.4%	0.4%
Newspaper & Inserts	0.0%	0.0%	0.0%	Glass Bottles & Jars	0.3%	0.4%	0.4%
Corrugated Cardboard/Kraft Paper	4.8%	3.2%	3.1%	Remainder/Composite Glass	0.0%	0.0%	0.0%
High Grade Office Paper	1.9%	2.8%	2.7%	Wood	13.3%	14.4%	13.7%
Mixed Recyclable Paper	12.3%	13.1%	12.5%	Pallets/Crates	10.3%	10.7%	10.2%
Non-Recyclable Paper	8.4%	6.0%	5.7%	Clean Lumber	0.0%	0.0%	0.0%
Remainder/Composite Paper	2.9%	2.3%	2.2%	Painted & Stained Wood	0.0%	0.0%	0.0%
Aseptic Boxes & Gable Top Cartons	0.4%	0.6%	0.6%	Other Engineered Wood	0.0%	0.0%	0.0%
Plastic	21.7%	8.9%	8.4%	Wood Furniture	3.1%	6.8%	6.5%
PET #1 Bottles, Jars or Containers	2.1%	1.5%	1.4%	Other Wood (R/C Wood)	0.0%	0.0%	0.0%
HDPE #2 Natural & Colored Bottles	0.1%	0.1%	0.1%	C&D Inert	3.4%	7.7%	7.3%
Rigid HDPE #2 Containers	0.4%	0.9%	0.8%	Asphalt Roofing	0.0%	0.0%	0.0%
#3-7 Bottles or Jars	0.0%	0.0%	0.0%	Asphalt, Brick, Concrete & Rocks	0.0%	0.0%	0.0%
Injection Molded Tubs #2 & #4-7	1.6%	1.0%	1.0%	Drywall/Gypsum Board	0.0%	0.0%	0.0%
All Other Rigid Plastic Packaging	0.2%	0.2%	0.2%	Remainder/Composite C&D	3.4%	7.7%	7.3%
White Styrofoam	0.4%	0.5%	0.5%	Special	1.8%	3.2%	3.1%
Recoverable Film	0.6%	1.4%	1.3%	Tires	0.0%	0.0%	0.0%
All Other Film	8.4%	2.8%	2.7%	Small Appliances	1.5%	3.3%	3.2%
Agricultural Film & Marine Shrink Wrap	0.1%	0.2%	0.1%	Large Electronics	0.0%	0.0%	0.0%
Large Plastic Items	3.8%	5.2%	5.0%	Other Small Consumer Electronics	0.4%	0.8%	0.7%
Remainder/Composite Plastic	4.1%	3.3%	3.2%	Items with CRTs	0.0%	0.0%	0.0%
Organics	15.1%	11.3%	10.7%	Other Larger Electronics	0.0%	0.0%	0.0%
Vegetative Food Waste, Unpackaged	5.7%	4.5%	4.3%	Other Hazardous or HHW	0.0%	0.0%	0.0%
Protein Food Waste, Unpackaged	2.8%	3.8%	3.6%	Other	9.1%	10.9%	10.4%
Vegetative & Protein Food Waste in Plastic	4.3%	3.4%	3.2%	Textiles	0.3%	0.4%	0.4%
Vegetative & Protein Food Waste in Other	2.3%	2.2%	2.1%	Rubber / Leather	0.4%	0.6%	0.6%
Leaves, Grass & Brush	0.0%	0.0%	0.0%	Diapers, Sanitary Products	0.3%	0.7%	0.6%
Branches & Stumps	0.0%	0.0%	0.0%	Other Products Containing SAPs	0.0%	0.0%	0.0%
Remainder/Composite Organic	0.1%	0.1%	0.1%	Carpet & Carpet Padding	0.0%	0.0%	0.0%
Metals	4.6%	4.0%	3.8%	All Other Wastes	8.1%	11.4%	10.9%
Tin/Steel Containers	0.0%	0.1%	0.1%	Bulky Wastes in Self-Haul	N/A	N/A	N/A
Other Ferrous	3.4%	4.3%	4.1%				
Aluminum Beverage & Cat Food Cont.	0.6%	0.4%	0.4%	<i>Hauler Collected MSW Tons</i>			
Other Aluminum	0.5%	0.9%	0.9%	<i>Tons of Non-C&D Materials from Self-haul Customers</i>			
Other Non-Ferrous	0.1%	0.1%	0.1%	Totals	100.0%		
				<i>Samples</i>	5		
Management Pathways							
Single Stream	24.2%	15.1%	14.4%	Other Waste	60.8%	16.3%	15.6%
Organics	15.1%	11.2%	10.7%				

ANALYSIS OF RESULTS

Total Tonnage by Facility

Table 45 presents total Residential, ICI, and Self-Haul tonnage by facility which were used to calculate tons by material type delivered to each facility based on the sample data, and to aggregate the tonnage over the six DSWA facilities.

Table 45 Summary of Tonnage by Facility, CY 2025

Facility	MSW			Self-Haul			Total MSW + SH		
	Res	ICI	Total	Res	ICI	Total	Res	ICI	Total
Sandtown	45,274	37,042	82,316	7,258	4,889	12,147	52,532	41,931	94,463
Jones Crossroads	59,058	48,320	107,378	7,743	5,216	12,959	66,801	53,536	120,337
Cherry Island	211,051	172,678	383,728	17,728	11,941	29,669	228,778	184,619	413,397
Pine Tree	43,874	35,897	79,772	4,660	3,139	7,798	48,534	39,036	87,570
Milford	20,242	16,562	36,804	3,130	2,108	5,238	23,372	18,670	42,042
Route 5	57,238	46,831	104,070	3,927	2,645	6,572	61,165	49,477	110,642
Total	436,737	357,330	794,068	44,446	29,938	74,383	481,183	387,268	868,451

Residential and ICI Tonnage Allocation

The data provided by DSWA does not differentiate between Residential and Industrial/Commercial/Institutional (ICI) MSW. This was accomplished by truck driver surveys at each facility. Based on those surveys, it was assumed that 55 percent of the waste delivered was collected from Residential sources and 45 percent from ICI sources. This allocation is slightly different from the 2015/2016 analysis which allocated MSW 53 percent Residential and 47 percent ICI. The Project Team, based on discussions with DSWA, believes the 2025 allocation is reasonable given the large growth in residential housing over the past ten years.

Change in Population and Per Capita Disposal

Table 46 illustrates the change in the population, number of households and disposal between 2015/16 and 2025. As illustrated by Table 46, Delaware's population has grown by 12 percent subsequent to the last waste characterization, while per capita disposal has increased by 24 percent. This is consistent with the increase in tonnage delivered to DSWA facilities over the past 10 years. This is also consistent with the sharp drop in per capita waste disposal that occurred between the 2006 and 2015/16 waste characterization studies indicative of the impact that the 2008/2009 recession had on total tons disposed in Delaware, which was still being observed at the time of the 2015/16 waste characterization.

Per capita waste disposal in 2006 – before introduction of universal recycling in Delaware – and before the 2008/2009 recession was 2,163 pounds, dropping to 1,325 pounds by 2015, and now up to 1,639 pounds, which is still significantly lower than 2006, indicative of the impact of universal recycling in Delaware – as well as light weighting on materials.

Note that the percent change in residential versus ICI MSW is a result of both changes in generation as well as the change in the allocation between residential and ICI waste between the two waste characterization studies.

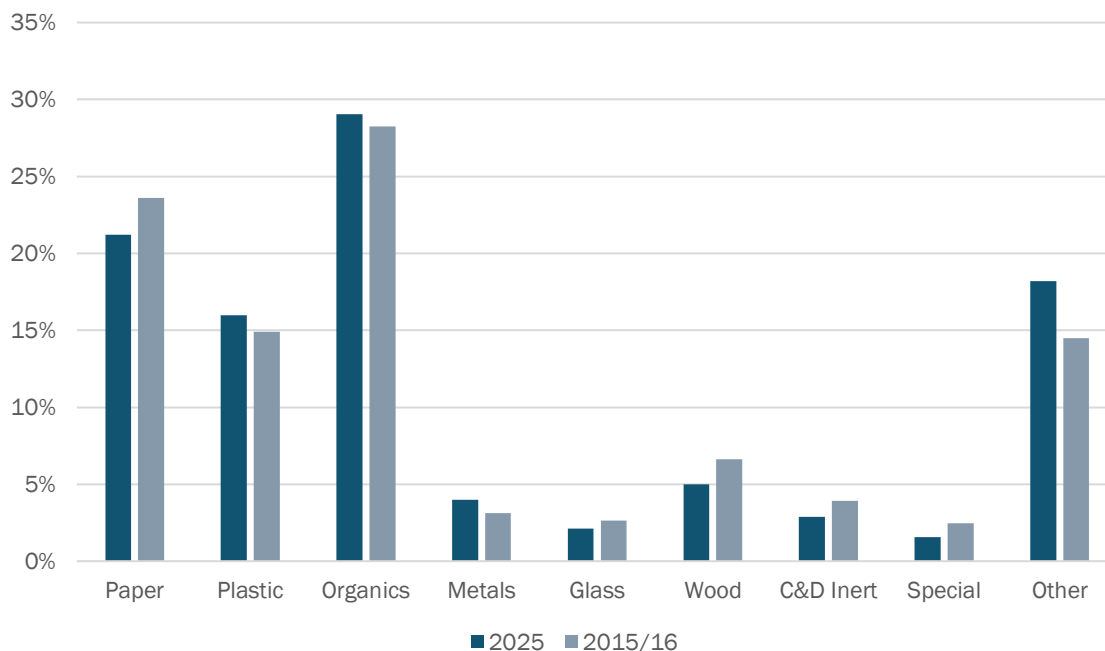
Table 46 Change in Population and Tons Disposed, 2015 to 2025

2025	Unit	Change (%)	Per Capita (Lbs)	Percent Change (%)
Population	1,059,952	12%		
Households	402,038	12%		
Total MSW (tons)	868,451	39%	1639	24%
Residential Tons	481,183	50%	908	34%
ICI Tons	387,268	26%	731	13%
2015/16				
Population	945,934			
Households	359,677			
Total MSW (tons)	626,914		1325	
Residential Tons	320,159		677	
ICI Tons	306,755		649	

State-Wide Aggregated Composition

Figure 18 compares aggregated (combined Residential and ICI MSW) materials composition (by percent) by major groups.

Figure 18 Comparison of Aggregate MSW Composition by Group, 2025 v 2015/16



Key observations include:

- Paper continues to decline as a percent of total MSW disposed – this is likely a combination of the success of Delaware’s Universal Recycling Law but also overall declines in paper generation rates.
- Plastics continue to increase.
- Per capita disposal of Organics have increased significantly since the 2015/16 waste characterization study.
- Glass continues to decline as plastics and aluminum replace glass as packaging materials.
- Remaining “Other” materials have increased, potentially as a combination of increased textiles and diapers disposal, and multi-materials disposal.

In general, there has been relatively little overall change in the percentage of these materials in the waste stream between 2015/16 and 2025.

Table 47 presents the top ten materials, by weight, of MSW disposed in Delaware in 2025. Of note is that corrugated containers remain a significant material by weight despite their value as a recyclable. In addition, with an aging population in the United States the use of disposable diapers has increased significantly on a weight basis.

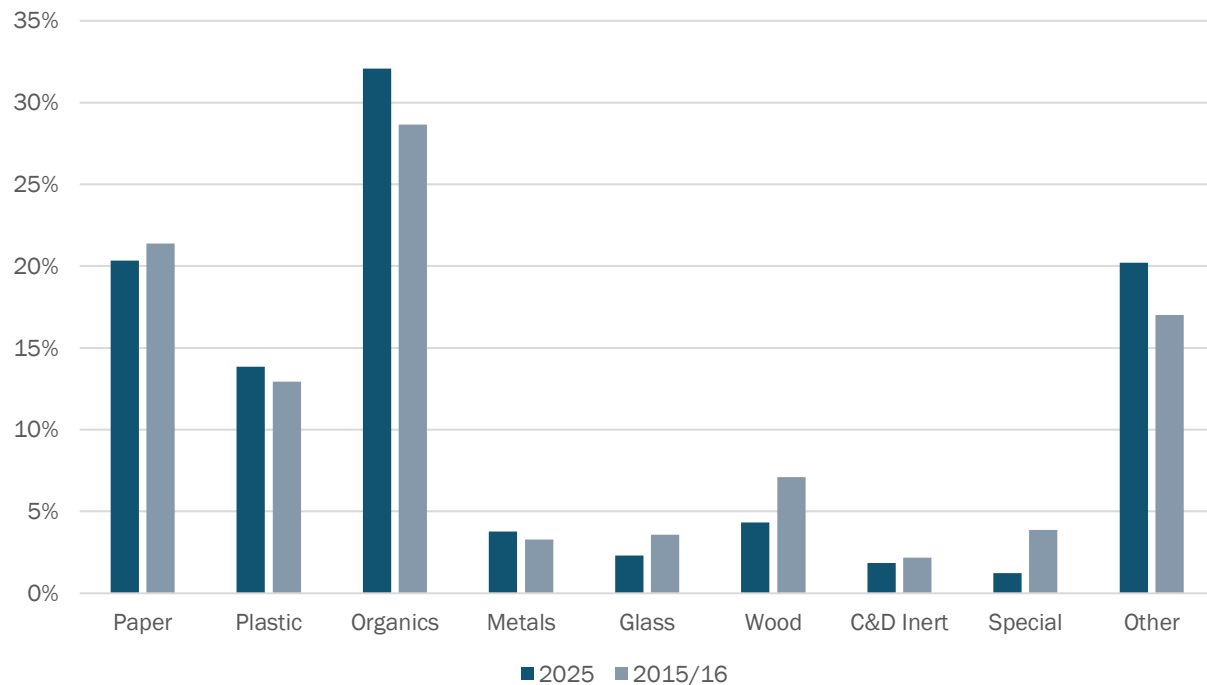
Table 47 Top Ten Material Categories in Aggregate MSW, 2025

Material Category	Est. Percent	Cumulative Percent	Est. Tons
Vegetative Food Waste, Unpackaged	9.4%	9.4%	81,467
Non-Recyclable Paper	7.8%	17.2%	67,694
Vegetative & Protein Food Waste in Plastic	6.3%	23.5%	54,702
All Other Film	5.9%	29.4%	51,586
Corrugated Cardboard/Kraft Paper	5.2%	34.6%	45,082
All Other Wastes	4.8%	39.4%	41,974
Mixed Recyclable Paper	4.8%	44.2%	41,525
Diapers, Sanitary Products	4.5%	48.7%	39,132
Textiles	4.3%	53.0%	37,456
Protein Food Waste, Unpackaged	4.0%	57.1%	35,074
Subtotal	57.1%		495,693
All Other Materials	42.9%		
Total	100.0%		868,451

State-Wide Residential Composition

As illustrated by Figure 19, changes in residential MSW composition mirror changes in aggregate composition, with paper declining as a percentage of MSW and plastic increasing (despite its light weight). Organics, as a percent of the total have also increased significantly.

Figure 19 Comparison of Residential Material Groups, 2015/16 to 2025



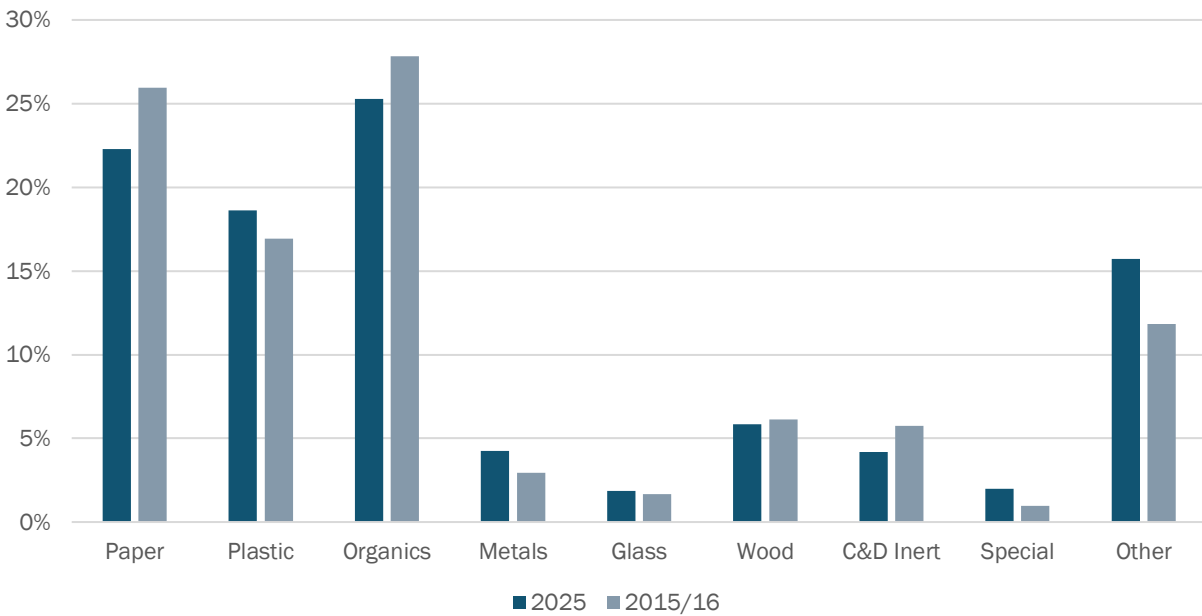
Single Family Versus Multi-Family Composition

A comparison of single family versus multi-family composition indicates that the single stream recycling program is more successful associated with single family housing when compared to multi-family housing. This is consistent with observations in other states, indicating a need for continued education targeting multi-family housing.

State-Wide ICI Composition

Figure 20 illustrates changes in ICI composition between 2015/16 and 2025. As illustrated by Figure 20, changes in ICI composition mirror changes in residential composition, again illustrating the lightweighting of materials over the past ten years.

Figure 20 Comparison of ICI Material Groups, 2015/16 to 2025



Note that one problem with combined ICI characterizations is that it lumps the results from many different generator types, which is the purpose of also targeting specific generator types. One key observation from the comparison of generator types is that convenience stores (primarily Wawa's and Royal Farms) have been successful in reducing food waste significantly when compared to 2015/16 when food waste from convenience stores was higher as a percentage of totals when compared to supermarkets.

Next Steps

One outgrowth of the waste characterization analysis is the ability to now revise the statewide solid waste management plan based on the data obtained from this report.

A second report outlining actual recovery rates for key materials will be prepared by DSM for DSWA during the update of the State Plan, based on the results of this Waste Characterization Study and the most recent annual RPAC recycling report. This second report will provide additional information for DSWA as to the success of current recycling programs and will provide DSWA with areas to target going forward to increase diversion of materials.

APPENDIX A: HANDSORT CATEGORIES

Material Category	Material Category
Paper	Glass
1 Newspaper and Inserts	31 Glass Bottles & Jars
2 Corrugated Cardboard/Kraft Paper	32 Remainder/Composite Glass
3 High Grade Office Paper	Wood
4 Mixed Recyclable Paper	33 Pallets/Crates
5 Compostable Paper	34 Clean Lumber
6 Remainder/Composite Paper	35 Painted and Stained Wood
7 Aseptic Boxes & Gable Top Cartons	36 Other Engineered Wood
Plastic	37 Wood Furniture
8 PET #1 Bottles, Jars or Containers	38 Other Wood (R/C Wood)
9 HDPE #2 Natural and Colored Bottles	C&D Inerts
10 Rigid HDPE #2 Containers	39 Asphalt Roofing
11 #3 to #7 Bottles or Jars	40 Asphalt, Brick, Concrete, and Rocks
12 Injection Molded Tubs #2, #4, #5, #6, and #7	41 Drywall/Gypsum Board
13 All Other Rigid Plastic Packaging	42 Remainder/Composite Construction and Demolition
14 White Styrofoam	Special
15 Recoverable Film	43 Tires
16 All Other Film	44 Small Appliances
17 Agricultural Film and Marine Shrink Wrap	45 Large Electronics
18 Large Plastic Items	46 Other Small Consumer Electronics
19 Remainder/Composite Plastic	47 Items with CRTs
Organics	48 Other Larger Electronics
20 Vegetative Food Waste, Unpackaged	49 Other Hazardous/Household Hazardous Waste (HHW)
21 Protein Food Waste, Unpackaged	Other
22 Vegetative and Protein Food Waste in Plastic	50 Textiles
23 Veg. and Prtn. FW in Metal, Glass, Paper, or Boxboard	51 Rubber / Leather
24 Leaves, Grass, and Brush	52 Diapers, Sanitary Products
25 Branches and Stumps	53 Other Products Containing SAPs
Metal	54 Carpet and Carpet Padding
26 Tin/Steel Containers	55 Remainder/Composite Organic
27 Other Ferrous	56 All Other Wastes
28 Aluminum Beverage and Cat Food Containers	
29 Other Aluminum	
30 Other Non-Ferrous	