

Appendix B: Waste Flow Analysis

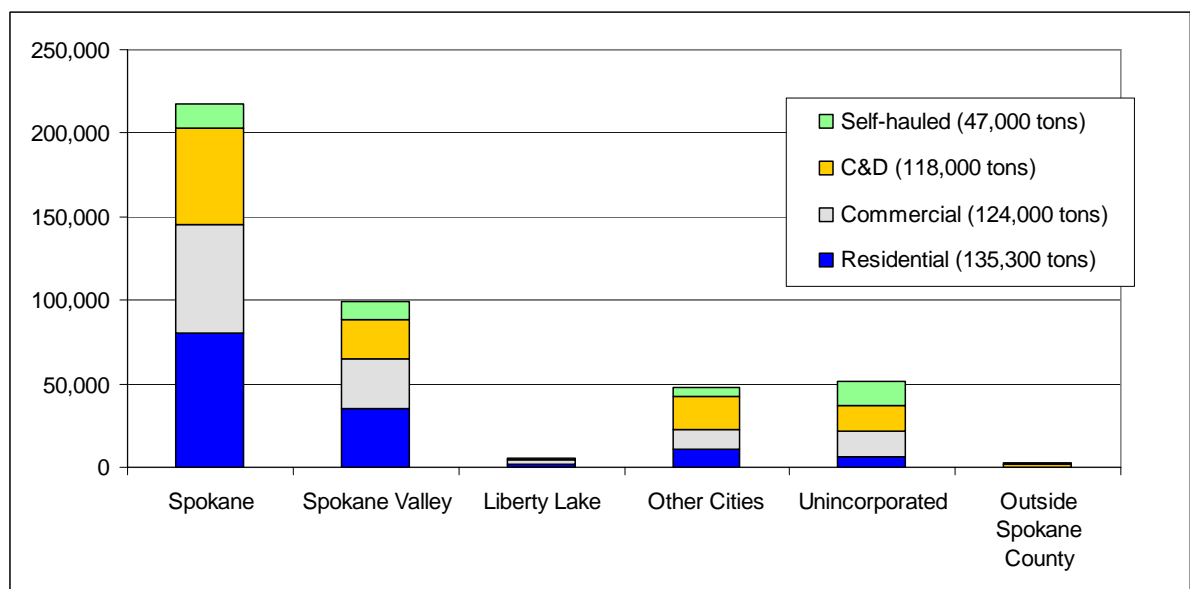
1.1 Introduction and Purpose

The objective of the waste flow analysis is to document the quantity and composition of waste associated with each of the four waste-producing sectors: commercial waste, residential waste, construction and demolition (C&D) waste, and self-hauled waste. The analysis also provides estimates of the amount of each recoverable material present in each waste stream and waste quantities for each jurisdiction within the county. These quantity and composition estimates serve to inform financial and other analysis models used in drafting Spokane County's Solid Waste Management Plan.

1.2 Overall Findings

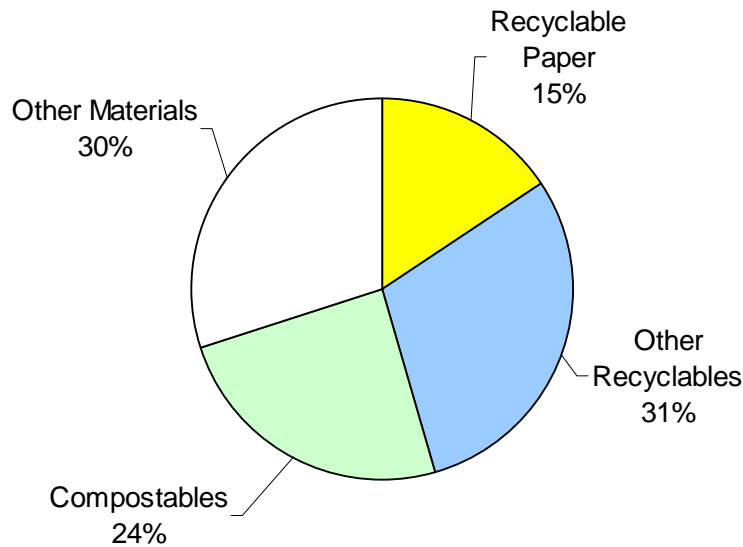
The estimated quantity of waste disposed from Spokane County in 2004 from residential, commercial, self-hauled, and C&D waste sectors totaled 424,300 tons. Residents contributed the largest share (135,300 tons), followed by the commercial waste stream (124,000 tons). C&D waste totaled 118,000 tons, and self-hauled waste, the smallest sector, totaled 47,000 tons. Waste from the City of Spokane accounts for the largest share of the County's waste, contributing almost 217,800 tons. Spokane Valley accounts for the next largest share with 99,300 tons. Waste from all other cities combined totals 53,000 tons. Unincorporated Spokane County accounts for 51,200 tons while a small fraction of waste, 3,000 tons comes from outside of Spokane County. Figure 1 shows these tons by waste sector and jurisdiction.

Figure 1: 2004 Disposed Tons by Jurisdiction and Waste Sector



A considerable portion of disposed tons could potentially be diverted from Spokane County's waste stream, either through recycling or composting. Of the 424,300 tons disposed, an estimated 296,800 tons (70%) could be recycled or composted. Figure 2 shows the proportion of Spokane County waste that consists of recyclable paper, other recyclables, compostables, and other materials.

*Figure 2: Waste Composition & Recoverability,
Overall Spokane County*



Materials with well established markets and relatively low recycling rates represent key opportunities to increase recycling in Spokane County. Key opportunities for increasing recycling include:

- **Paper**—Spokane County currently disposes of an estimated 7,300 tons of newspaper, 18,500 tons of cardboard, and 40,000 tons of mixed paper.
- **Plastics**—The supply of recyclable plastics currently disposed includes an estimated 1,400 tons of PETE, 2,000 tons of HDPE, and 18,100 tons of other recyclable plastics, including #3-#7 bottles and containers, as well as plastic film.
- **Glass**—Almost 8,300 tons of recyclable container glass is currently disposed in Spokane County.
- **Metal**— Overall, Spokane County recycles the majority of its metals, but opportunities may still exist for aluminum cans (700 tons disposed) and tin can/ other ferrous metal (18,200 tons disposed).
- **Organics**—Large portions of Spokane County's yard waste is currently composted; however, opportunities remain to divert food waste (65,000 tons disposed), wood (47,400 tons disposed), compostable paper (20,400 tons disposed), and textiles (8,500 tons disposed).

1.3 Summary of Methods

The following five sections outline the methods used to complete the waste flow analysis for Spokane County.

1.3.1 Waste Sectors Defined

To characterize the waste in Spokane County, four sources of waste generation were defined. These four waste sources are:

- **Commercial waste** – waste from businesses collected by the City of Spokane or by Washington Utilities and Transportation Commission (WUTC) permitted haulers.
- **Residential waste** – waste from single family residents or multi-family residents collected by the City of Spokane or by WUTC permitted haulers.
- **C&D waste** – inert waste generated from construction, remodeling, or demolition activities.
- **Self-hauled waste** – waste brought to a facility by an entity other than the City of Spokane or WUTC permitted hauler.

1.3.2 Quantities of Disposed Waste

Determining the quantity of disposed waste by sector and jurisdiction involved two methods of data collection. Cascadia first requested and obtained facility-specific disposal tonnage data from the Washington State Department of Ecology (Ecology) or from the System. Next, Cascadia staff and, for some facilities, disposal facility staff, conducted approximately 2,400 vehicle surveys. The vehicle surveys were conducted in the spring of 2006. Please refer to Attachment A for a copy of the surveyor instruction sheet and survey form. During the randomly chosen survey days, each vehicle during a 7.5 hour period was surveyed to determine the waste sector, jurisdiction of origin, and type of materials brought for disposal. The proportions from the survey data were then applied to the disposal tonnage quantity data to create waste profiles for each sector and each jurisdiction. For certain small cities in Spokane County, the resulting calculation of disposed tonnage based on the survey was unrealistically low. For these cities, an estimate of disposed tons by source (residential versus commercial) was obtained from the city's contracted hauler.

1.3.3 Quantities of Recycled Materials

Each year, Ecology conducts a confidential survey of all recyclers in Washington State to obtain recycling and diverted tonnage data by material type. To assess the quantity of material recycled or diverted from Spokane County, Cascadia requested and obtained two sources of data from Ecology related to the annual recycling survey. The first source showed 2004 Spokane County tons recycled and diverted by material. The second data file contained the list of Spokane County respondents from 2002, 2003, and 2004 survey years. Cascadia then examined the list of respondents to identify recyclers that had responded to the survey in 2002 or 2003 but had not responded in 2004. Cascadia interviewed these non-respondents to determine the quantity and type(s) of material they recycled and diverted in 2004. These tonnage figures were then added to Ecology's survey data to provide a more complete accounting of the total tonnage recycled and diverted from Spokane County's waste stream.

1.3.4 Waste Modeling

To characterize the waste disposed from each sector, Cascadia modeled each stream using existing waste characterization data and Spokane County disposal, recycling, and diversion tonnages.

To estimate the composition of residential waste, Cascadia first established the total generation (disposal plus recycling/diversion) of each material, based on the adjusted Ecology survey data and the residential waste composition profile from King County, Washington (excluding the City of Seattle).¹ Cascadia then derived disposal quantities for each material and adjusted the estimates based on findings from the Spokane County facility surveys.

For the commercial waste stream, Cascadia utilized industry group waste composition profiles from generator-based sampling conducted in California.² Based on Spokane County's employment data, and per employee disposal rates from the California studies, Cascadia estimated the waste composition and quantities for each of 36 industry groupings. By adding together these estimates for the individual industry groups and making adjustments to reconcile with known recycling figures, Cascadia estimated Spokane County's commercial sector waste composition profile. Attachment B contains the modeled composition data for each of the 36 industry groupings.

The composition of Spokane County's C&D and self-hauled waste was derived from waste composition studies conducted in King County, Washington (excluding the City of Seattle).³ Adjustments to the composition profiles were made to account for significant differences in recycling efforts or recycling availability in Spokane County. These composition estimates were also adjusted based on the facility survey findings and load observations.

1.3.5 Recoverability Categories

Waste materials were grouped into four categories based on their recoverability. The four categories are:

- Recyclable Paper – Paper materials that are recyclable in Spokane County either through curbside collection or drop-off programs.
- Other Recyclables – Non-paper materials that are recyclable/divertible in Spokane County.
- Compostables – Materials that can be composted.
- Other Materials – Disposed materials that can not be easily recycled/diverted in Spokane County.

¹ The data set used for the residential waste composition profile comes from the King County Monitoring Program 2002-2003 Waste Characterization Study and Customer Survey Report, April 2004, page E-3.

² The three generator based sampling studies used to model Spokane County's commercial waste stream are:
Statewide Waste Characterization Study: Results and Final Report, California Integrated Waste Management Board, 1999.

Characterization of Municipal Solid Waste for the City of Los Angeles, City of Los Angeles Bureau of Sanitation, Solid Resources Citywide Recycling Division, 2001.

Targeted Statewide Waste Characterization Study: Waste Disposal and Diversion Findings for Selected Industry Groups, California Integrated Waste Management Board, 2006.

³ The data set used for the self-hauled waste composition profile comes from the King County Monitoring Program Waste Characterization Study and Customer Survey Report, April 2004, page D-7. The C&D waste composition profile comes from the King County Waste Monitoring Program Construction and Demolition Waste Characterization and Recycling Industry Profile, 2002, page 2-8.

1.4 Findings

The following sections present the results of the waste flow analysis. Section 1.3.1 provides disposal estimates by Spokane County jurisdiction and waste sector. Sections 1.3.2 through 1.3.5 present the composition and recoverability of residential, commercial, self-hauled, and C&D disposed waste, respectively. Section 1.3.6 shows the estimated quantity of materials recycled in Spokane County while Section 1.3.7 concludes with commodity specific recycling rates and opportunities for increased diversion.

1.4.1 Quantities of Disposed Waste

Table 1 shows estimated tons disposed by jurisdiction and waste sector. As shown, the residential sector accounts for the largest share of the waste at 32% (135,300 tons), followed by the commercial sector with 29% (124,000 tons). C&D disposed waste accounted for an estimated 28% (118,000 tons) of Spokane County waste, while self-hauled material totaled 11% (47,000 tons).

Table 1: 2004 Tons Disposed by Jurisdiction and Waste Sector

Jurisdiction	Residential	Commercial	Self-hauled	C&D	Total
Spokane	80,764	64,641	14,682	57,686	217,773
Spokane Valley	35,075	30,018	10,766	23,471	99,331
Liberty Lake	2,017	2,185	424	893	5,520
Other Jurisdictions					
Airway Heights	999	1,039	872	12,342	15,252
Cheney	2,128	6,914	1,506	3,414	13,962
Deer Park	704	1,005	1,457	1,141	4,307
Fairchild Air Force Base	2,681	945	381	569	4,575
Fairfield	110	90	90	33	323
Latah	59	48	0	212	319
Medical Lake	3,518	691	863	1,235	6,308
Millwood	633	674	184	237	1,728
Rockford	90	74	0	0	165
Spangle	163	133	48	74	418
Waverly	77	63	0	0	141
Unincorporated County Outside Spokane County	258	71	1,431	1,217	2,977
Total	135,317	123,993	46,989	118,035	424,334
Proportion	32%	29%	11%	28%	100%

1.4.2 Composition and Recoverability of Residential Disposed Waste

Disposed waste from Spokane County residents totaled an estimated 135,000 tons in 2004. Figure 3 shows the proportion of the residential waste stream that consists of recyclable paper, other recyclables, compostable material, and other non-recyclable materials. Table 2 shows detailed composition results for residential waste.

- **Nearly a quarter (24%) of residential waste consists of recyclable paper.** This includes mixed paper (25,900 tons), cardboard and Kraft paper (4,200 tons), and newspaper (2,700 tons).
- **Other recyclables account for 20%.** Many of these recyclables are traditionally collected in curbside programs, such as glass containers (4,900 tons), metal food and beverage cans (3,500 tons), and plastic bottles and containers (3,400 tons).
- **More than a third (36%) of Spokane County's residential waste could be composted.** The compostable fraction includes food waste (35,900 tons), food soiled/compostable paper (8,300 tons), and yard wastes (4,700 tons).

Figure 3: Waste Composition & Recoverability, Residential Disposed Waste

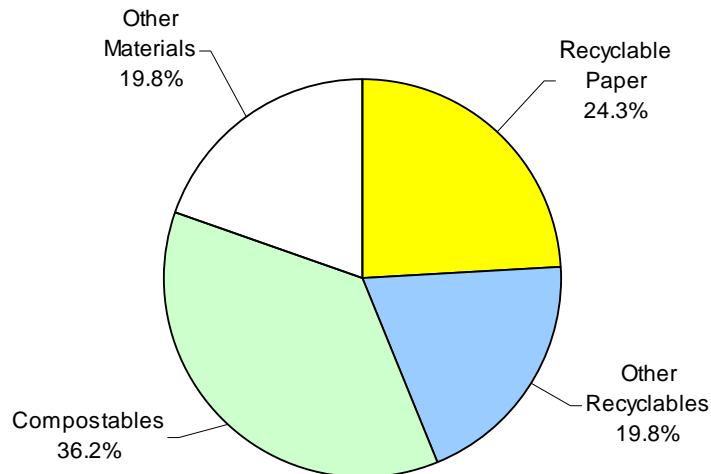


Table 2: Detailed Waste Composition, Residential Disposed Waste⁴

Material	Percent	Tons	Material	Percent	Tons
Recyclable Paper			Other Materials		
Newspaper	2.0%	2,680.6	Bleached polycoat paper	0.4%	486.9
OCC/Kraft paper	3.1%	4,231.8	Paper/other materials	1.2%	1,617.6
Mixed paper	19.1%	25,905.4	Gift wrap paper	0.1%	81.9
Subtotal	24.3%	32,817.8	Other paper	0.3%	472.3
Other Recyclables			Polystyrene foam	0.5%	638.2
PET #1 plastic bottles	0.5%	656.6	Other plastic packaging	0.7%	963.5
HDPE #2 plastic bottles	0.6%	843.1	Plastic products	0.6%	817.8
Other plastic containers	1.4%	1,931.5	Foam rubber/padding	0.1%	151.9
Plastic film and bags	4.9%	6,569.6	Plastic/other materials	0.8%	1,039.8
Glass containers	3.6%	4,883.0	Other colored glass containers	0.0%	0.2
Aluminum cans	0.3%	426.4	Other glass	0.4%	563.4
Other aluminum & nonferrous	0.4%	480.6	Mixed metals/materials	1.2%	1,585.9
Food cans & other ferrous	2.3%	3,120.8	Disposable diapers	4.2%	5,622.6
Gas metal cylinders	0.0%	63.0	Rubber products	0.2%	241.4
Textiles/clothes	1.9%	2,602.3	Animal carcasses	0.0%	0.0
Carpet/upholstery/other textiles	1.8%	2,376.2	Animal feces	3.2%	4,378.6
Dimensional lumber	1.6%	2,224.0	Miscellaneous organics	0.9%	1,272.9
Other wood	0.1%	133.7	Treated wood	0.2%	291.3
Electronics	0.2%	306.7	Contaminated wood	0.5%	631.5
Tires	0.0%	0.0	Roofing/siding	0.1%	92.7
Used oil	0.0%	0.0	Construction/demolition materials	1.2%	1,657.5
Vehicle batteries	0.0%	0.0	Ashes	0.1%	84.4
Household batteries	0.0%	22.8	Nondistinct fines	1.2%	1,620.9
Alkaline/button cell batteries	0.1%	99.0	Gypsum wallboard	0.5%	635.1
Subtotal	19.8%	26,739.3	Furniture/mattresses	0.9%	1,154.3
Compostables			Small appliances	0.1%	99.9
Food wastes	26.6%	35,930.0	Miscellaneous inorganics	0.3%	384.1
Prunings & Stumps	0.1%	172.6	Latex paint	0.0%	2.7
Yard wastes	3.4%	4,558.4	Oil-based paint	0.0%	9.0
Compostable paper	6.1%	8,270.7	Solvents/thinners	0.0%	0.0
Subtotal	36.2%	48,931.7	Adhesives/glues	0.0%	19.5
			Cleaners and corrosives	0.0%	13.4
			Pesticides/herbicides	0.0%	25.2
			Gas/fuel oil	0.0%	21.9
			Antifreeze	0.0%	12.6
			Medical waste	0.0%	48.4
			Mercury-containing waste	0.0%	1.3
			Other hazardous	0.1%	87.7
			Subtotal	19.8%	26,828.3
			Total	100.0%	135,317.0

⁴ Each Spokane County waste stream was modeled using existing waste composition data from different study years and/or jurisdictions in the western United States. For this reason, the material categories presented in Tables 2 through 5 will differ slightly for each waste stream.

1.4.3 Composition and Recoverability of Commercial Disposed Waste

Disposed waste from Spokane County businesses totaled an estimated 124,000 tons in 2004. Figure 4 shows the proportion of the commercial waste stream that consists of recyclable paper, other recyclables, compostable material, and other non-recyclable materials. Table 3 shows detailed composition results for commercial waste.

- **Over one-fifth (21%) of commercial disposed waste consists of recyclable paper.** This includes uncoated corrugated cardboard and paper bags (8,900 tons), colored and white ledger paper (5,600 tons), newspaper (4,300 tons), computer and other office paper (3,600 tons), and magazines and catalogs (2,800 tons).
- **Other recyclables account for 21% of the commercial disposed waste stream.** These recyclables include primarily film plastic (6,100 tons), recyclable lumber (4,900 tons), textiles (4,400 tons), glass containers (3,100 tons), ferrous metal (2,100 tons), and aluminum/tin/steel cans (1,300 tons).
- **More than a third (35%) of Spokane County's commercial waste could be composted.** The compostable fraction of this stream includes food waste (27,000 tons), food soiled/compostable paper (11,600 tons), and yard wastes (4,700 tons).

Figure 4: Waste Composition & Recoverability, Commercial Disposed Waste

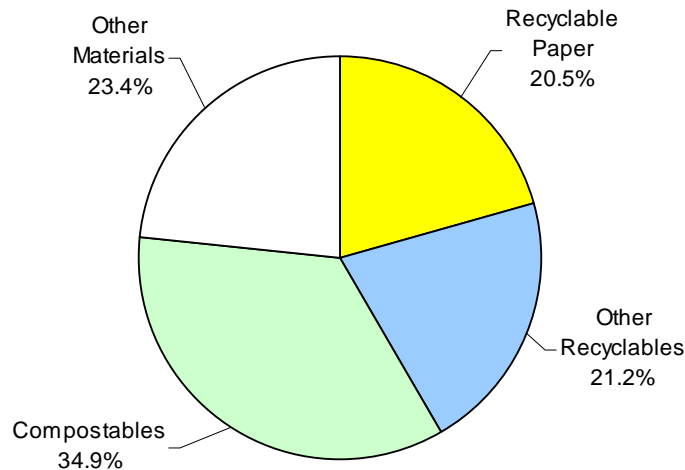


Table 3: Detailed Waste Composition, Commercial Disposed Waste

Material	Percent	Tons	Material	Percent	Tons
Recyclable Paper			Other Materials		
Newspaper	3.5%	4,335.8	Remainder/Composite Paper	8.1%	10,036.0
Uncoated Corrugated Cardboard	6.6%	8,134.5	Durable Plastic Items	1.8%	2,271.0
Paper Bags	0.6%	762.5	Remainder/Composite Plastic	2.2%	2,726.5
White Ledger Paper	4.3%	5,281.7	Flat Glass	0.3%	322.8
Computer Paper	0.5%	574.6	Other Colored Glass Bottles & Containers	0.0%	19.6
Colored Ledger Paper	0.2%	275.9	Remainder/Composite Glass	0.4%	484.3
Other Office Paper	2.4%	3,005.1	Remainder/Composite Metal	1.8%	2,225.7
Magazines and Catalogs	2.2%	2,754.1	Remainder/Composite Organic	4.9%	6,058.1
Phone Books and Directories	0.3%	328.9	Gypsum Board	0.2%	306.6
Subtotal	20.5%	25,453.2	Asphalt Roofing	0.0%	10.0
Other Recyclables			Remainder/Composite Construction & Demolition	1.4%	1,697.7
PETE Containers	0.5%	625.6	Bulky Items	0.3%	358.4
HDPE Containers	0.7%	895.2	Industrial Sludge	0.0%	10.6
Miscellaneous Plastic Containers	0.7%	814.5	Mixed Residue	0.5%	673.1
Film Plastic	4.9%	6,120.7	Ash	0.0%	45.2
Clear Glass Bottles & Containers	1.3%	1,595.6	Agricultural Crop Residues	0.0%	0.0
Green Glass Bottles & Containers	0.9%	1,098.4	Manures	0.0%	0.0
Brown Glass Bottles & Containers	0.3%	418.7	Sewage Solids	0.0%	0.0
Aluminum Cans	0.2%	247.6	Treated Medical Waste	0.0%	5.6
Tin/Steel Cans	0.8%	1,035.3	Remainder/Composite Special Waste	0.6%	694.5
Other Ferrous Metal	1.7%	2,067.4	Paint	0.2%	237.3
Other Non-Ferrous Metal	0.2%	267.7	Vehicle & Equipment Fluids	0.0%	3.7
Major Appliances	0.0%	10.8	Remainder/Composite Household Hazardous	0.6%	792.2
Textiles	3.6%	4,427.5	Subtotal	23.4%	28,978.8
Lumber	3.9%	4,859.0	Total	100.0%	123,993.2
Rock, Soil & Fines	0.5%	565.0			
Concrete	0.3%	366.6			
Asphalt Paving	0.3%	359.9			
Tires	0.3%	396.2			
Batteries	0.0%	54.2			
Used Oil	0.0%	19.3			
Subtotal	21.2%	26,245.3			
Compostables					
Food	21.8%	27,031.4			
Leaves & Grass	3.2%	4,029.5			
Prunings & Trimmings	0.6%	693.3			
Branches & Stumps	0.0%	7.1			
Compostable Paper	9.3%	11,554.6			
Subtotal	34.9%	43,316.0			

1.4.4 Composition and Recoverability of Self-hauled Disposed Waste

Disposed waste from Spokane County self-haulers totaled an estimated 47,000 tons in 2004. Figure 5 shows the proportion of the self-hauled waste stream that consists of recyclable paper, other recyclables, compostable material, and other non-recyclable materials. Table 4 shows detailed composition results for self-hauled waste.

- **Recyclable Paper accounts for roughly seven percent of the waste stream.** This material mainly consists of mixed paper (1,800 tons) and OCC/Kraft paper (1,200 tons).
- **Other recyclables account for almost a quarter of self-haul disposed waste (23%).** These recyclables consist primarily of dimensional lumber and other wood (4,500 tons), textiles like clothes, carpet, and upholstery (3,800 tons), plastic film and bags (700 tons), and metal food and beverage cans (600 tons).
- **Less than a fifth of Spokane County's self-hauled disposed waste (18%) could be composted.** This compostable fraction includes yard wastes (5,800 tons), food wastes (2,000 tons), and food soiled/compostable paper (500 tons).
- **Over half of Spokane County's self-hauled disposed waste is composed of non-recyclable "other materials."** These materials are primarily mixed construction/demolition waste and gypsum wall board (7,000 tons), furniture/mattresses and small appliances (4,500 tons), contaminated/treated wood and roofing/siding materials (4,300 tons), and mixed metals (2,300 tons).

Figure 5: Waste Composition & Recoverability, Self-Hauled Disposed Waste

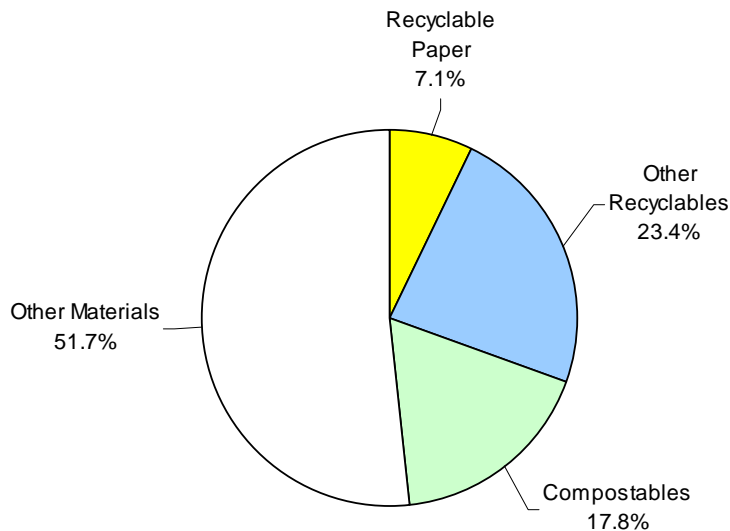


Table 4: Detailed Waste Composition, Self-Hauled Disposed Waste

Material	Percent	Tons	Material	Percent	Tons
Recyclable Paper			Other Materials		
Newspaper	0.6%	286.8	Bleached polycoat paper	0.1%	30.9
OCC/Kraft paper	2.6%	1,236.7	Paper/other materials	1.4%	667.6
Mixed paper	3.9%	1,810.0	Gift wrap paper	0.0%	14.1
Subtotal	7.1%	3,333.5	Other paper	0.2%	117.0
Other Recyclables			Polystyrene foam	0.2%	75.8
PET #1 plastic bottles	0.2%	73.3	Other plastic packaging	0.5%	219.4
HDPE #2 plastic bottles	0.2%	83.1	Plastic products	1.4%	638.9
Other plastic containers	0.3%	133.6	Foam rubber/padding	0.9%	400.1
Plastic film and bags	1.4%	661.2	Plastic/other materials	1.5%	683.9
Glass containers	0.5%	212.1	Other colored glass containers	0.0%	7.3
Aluminum cans	0.2%	71.1	Other glass	2.8%	1,335.6
Other aluminum & nonferrous	1.0%	465.2	Mixed metals/materials	4.9%	2,279.7
Food cans & other ferrous	0.1%	46.6	Disposable diapers	0.8%	382.5
Gas metal cylinders	0.0%	11.1	Rubber products	0.1%	66.9
Textiles/clothes	3.2%	1,494.0	Animal carcasses	0.0%	0.0
Carpet/upholstery/other textiles	4.8%	2,269.6	Animal feces	0.4%	176.4
Dimensional lumber	8.7%	4,110.6	Miscellaneous organics	0.4%	192.3
Other wood	0.9%	404.2	Treated wood	2.7%	1,271.0
Electronics	1.4%	657.7	Contaminated wood	3.8%	1,780.7
Tires	0.6%	285.3	Roofing/siding	2.6%	1,240.2
Used oil	0.0%	1.7	Construction/demolition wastes	10.6%	4,969.3
Vehicle batteries	0.0%	0.0	Ashes	0.0%	15.0
Household batteries	0.0%	15.5	Nondistinct fines	1.1%	524.3
Alkaline/button cell batteries	0.0%	12.4	Gypsum wallboard	4.4%	2,068.5
Subtotal	23.4%	11,008.3	Furniture/mattresses	6.8%	3,196.7
Compostables			Small appliances	2.7%	1,256.2
Food wastes	4.3%	2,000.0	Miscellaneous inorganics	1.1%	516.9
Prunings & Stumps	1.5%	701.8	Latex paint	0.1%	38.2
Yard wastes	10.9%	5,112.1	Oil-based paint	0.0%	2.1
Compostable paper	1.1%	528.7	Solvents/thinners	0.0%	4.7
Subtotal	17.8%	8,342.6	Adhesives/glues	0.0%	5.0
			Cleaners and corrosives	0.0%	15.0
			Pesticides/herbicides	0.1%	23.6
			Gas/fuel oil	0.0%	0.0
			Antifreeze	0.0%	0.0
			Medical waste	0.1%	36.5
			Mercury-containing waste	0.0%	13.9
			Other hazardous	0.1%	38.2
			Subtotal	51.7%	24,304.4
			Total	100.0%	46,988.7

1.4.5 Composition and Recoverability of C&D Disposed Waste

Disposed waste from Spokane County construction and demolition activities totaled an estimated 118,000 tons in 2004. Figure 6 shows the proportion of the C&D waste stream that consists of recyclable paper, other recyclables, compostable material, and other non-recyclable materials. Table 5 shows detailed composition results for C&D waste.

- **Over half (54%) of C&D disposed waste consists of other recyclables.** This includes mainly recyclable wood materials (38,700 tons), metal building materials (13,200 tons), and dirt and concrete (4,800 tons).
- **Compostables (2%) and recyclable paper (4%) represented minimal portions of the C&D waste stream.** Compostable materials were composed of yard wastes (2,400 tons), while recyclable paper consisted of OCC/Kraft Bags and Paper (4,100 tons).
- **“Other materials” account for approximately 40% of the C&D waste stream.** The most prevalent of these materials include non-recyclable wood products (17,600 tons), composition shingles and mixed/demolition gypsum scrap (12,700 tons), built-up roofing and tarpaper (5,500 tons), and non-recyclable paper (3,000 tons).

Figure 6: Waste Composition & Recoverability, C&D Disposed Waste

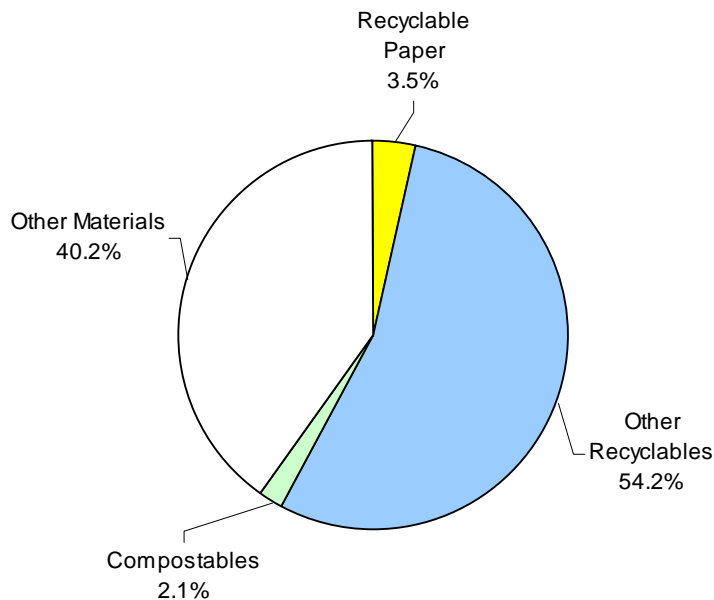


Table 5: Detailed Waste Composition, C&D Disposed Waste:

Material	Percent	Tons	Material	Percent	Tons
Recyclable Paper			Other Materials		
OCC/Kraft Bags or Paper	3.5%	4,122.0	Other Paper	2.5%	2,979.0
Subtotal	3.5%	4,122.0	ABS Pipe	0.4%	445.9
Other Recyclables			Other Plastics	0.4%	458.5
#2 Plastic Buckets	0.1%	150.2	Window Glass	1.3%	1,488.4
Plastic Film, Bags and Wrap	0.7%	824.1	Mirror Glass	0.0%	2.7
PVC Pipe	0.9%	1,087.0	Other/Non-Recyc. Glass	0.0%	58.2
Clear Containers	0.0%	48.6	Upholstery	0.2%	267.7
Green Containers	0.0%	-	Other Organics (e.g., rags)	0.5%	548.2
Brown Containers	0.0%	-	Creosote/Pressure Treated	2.0%	2,328.3
Drywall Corners/Metal Bindings	0.5%	567.4	Painted/Stained Wood	11.7%	13,778.4
Galvanized Steel	5.2%	6,092.7	Finished Furnishings	0.5%	561.4
Insulated Wire/Cable	0.3%	374.9	Other Wood	0.8%	928.9
Other Ferrous Metals	4.4%	5,173.8	Built-Up Roofing	2.0%	2,343.8
Other Nonferrous Metals	0.5%	617.3	Composition Shingles	6.3%	7,415.5
Large Appliances	0.3%	380.4	Tarpaper/Asphalt Felt	2.7%	3,154.5
Carpeting	2.3%	2,757.3	Mixed/Demo. Gypsum Scrap	4.5%	5,299.2
New Gypsum Scrap	2.6%	3,042.1	Other Mineral Aggregates	0.0%	52.0
New/Clean Used Lumber	8.6%	10,137.8	Tyvek Vapor Barrier	0.0%	16.2
New/Demo. Engineered Wood	9.9%	11,649.0	Polyurethane Foam/Carpet Padding	0.1%	161.9
Remanufacturing Scrap	0.2%	273.2	Laminate/Formica	0.1%	128.1
Pallets and Crates	3.0%	3,555.3	Fiberglass (Acoustical) Ceiling Panels	0.3%	319.1
Mixed Demo. Wood	4.4%	5,135.7	Structural Fiberglass	0.1%	73.1
Wood Roofing and Siding	4.2%	4,943.3	Linoleum	0.1%	68.8
Unfinished Furnishings	0.0%	8.4	Insulation	1.0%	1,154.2
Asphaltic Concrete	0.4%	442.0	Latex Paint	0.1%	78.7
Concrete With/Without Rebar	1.3%	1,527.9	Wood Preservatives	0.0%	-
Bricks/Masonry Tile	0.4%	456.5	Oil-Based Finishes	0.0%	21.2
Concrete Masonry Unit (CMU)	0.0%	56.6	Solvents and Thinners	0.0%	-
Clay Roofing Tile	0.1%	167.1	Adhesives and Glue	0.0%	24.5
Slate/Quarry Tile	0.1%	140.6	Asbestos	0.1%	67.1
Rock	0.4%	451.2	Other Haz Waste	0.0%	-
Dirt	2.7%	3,233.0	Other Miscellaneous Fines	2.2%	2,618.2
Gravel	0.5%	577.6	MSW	0.5%	616.2
Sand	0.0%	-	Subtotal	40.2%	47,457.7
Porcelain	0.1%	156.3	Total	100.0%	118,035.3
Subtotal	54.2%	64,027.2			
Compostables					
Leaves and Grass	0.3%	410.6			
Small Prunings	0.8%	939.5			
Large Prunings	0.6%	718.3			
Stumps and Logs	0.3%	360.0			
Subtotal	2.1%	2,428.4			

1.4.6 Quantities of Recycled Materials

The estimated quantity of material recycled from Spokane County totaled 258,200 tons. Table 6 shows the quantity of material recycled by material type. As shown, metals represent the largest share of material recycled with 88,500 tons. The second largest group was recycled paper, such as newspaper, cardboard, and mixed paper (62,900 tons). Recycled organics totaled 59,400 tons and included food waste, yard waste, and textiles.

Table 6: 2004 Spokane County Overall Tons Recycled, by Material

Material	Tons	Material	Tons
Paper	62,932	CDL	27,118
Corrugated Paper	32,327	Topsoil	157
High Grade	5,466	Land Clearing Debris	10,280
Industrial Paper	199	Wood	10,937
Mixed Paper	6,692	Carpet or Padding	247
Newspaper	18,249	C&D Debris	674
		Gypsum	4,803
		Reused Building Materials	20
Plastic	1,620	Hazardous Wastes	11,819
PET Bottles	603	Antifreeze	574
HDPE Plastics	671	Flourescent Light Bulbs	22
LDPE Plastics	334	Household Batteries	24
Other Recyclable Plastics	11	Industrial Batteries	0
		Oil Filters	51
Glass	4,574	Paint - Reused	194
Container Glass	4,574	Used Oil	8,251
		Used Oil for Energy Recovery	330
Metal	88,509	Vehicle Batteries	2,373
Aluminum Cans	1,565	Other Materials	2,211
Ferrous Metals	70,033	Electronics	97
Nonferrous Metals	11,239	Donated Food & Merchandise	40
Tin Cans	570	Miscellaneous	0
White Goods	5,101	Photographic Films	77
		Tires - Burned for energy	990
Organics	59,386	Tires - Recycled	1,008
Food Waste	5,835		
Yard Debris	49,230		
Textiles	4,322		
		Total Tons Recycled	258,169

1.4.7 Opportunities

Materials with well established markets and relatively low recycling rates represent key opportunities to increase recycling in Spokane County. The recycling rate is a measure of the amount recycled as a proportion of the amount generated (disposed plus recycled). Table 7 shows tons disposed, recycled and the recycling rate of key recyclables in Spokane County. As shown, key opportunities for increasing recycling include:

- **Paper**—With a current recycling rate of 49%, new or additional programs focused on recovering more paper from Spokane's waste stream (particularly mixed paper and cardboard) may prove cost effective. The untapped supply of fiber currently disposed in Spokane County includes 7,300 tons of newspaper, 18,500 tons of cardboard, and 40,000 tons of mixed paper. Markets for recycled fiber are currently strong, largely due to high demand from Asia. In addition to export markets, 10 to 12 new tissue mills are in the planning stages around the country, which will increase demand of recovered office paper. Prices for recycled fiber are currently high, but may be near their peak.
- **Plastics**—Overall, Spokane County residents and businesses recycled about 7% of recyclable plastics generated in 2004. The supply of recyclable plastics currently disposed includes an estimated 1,400 tons of PETE, 2,000 tons of HDPE, and 18,100 tons of other recyclable plastics, including plastic film and #3-#7 bottles and containers. Largely driven by strong overseas demand and rising oil prices, commodity pricing for recycled plastics have enjoyed an upswing since 2002. Strong domestic and global markets and a large, untapped supply make plastics recycling a key potential opportunity for Spokane County.
- **Glass**—Slightly more than a third (36%) of container glass generated in Spokane County was recycled. West Coast demand for recycled container glass is high, however, costs associated with transporting glass long distances limit end market opportunities for this commodity. An opportunity may exist for Spokane County to investigate and positively influence local end market opportunities. For example, niche opportunities exist in construction industries where glass can be used in place of rock for road bedding, pipe bedding, backfill for drainage, and other structural fill. Recycled glass has also been successfully used for specialty products such as tiles, abrasive sanding media, and water filtration media. Almost 8,300 tons of recyclable container glass is currently disposed in Spokane County.
- **Metal**— Overall, Spokane County recycles the majority of its metals, as shown by the relatively high (80%) recycling rate. Metals markets are strong, well established, and are currently enjoying high prices driven largely by global demand. Opportunities remain, however, to increase aluminum can and tin can/other ferrous metal recycling. The estimated recycling rate for aluminum cans was 68%, with about 700 tons of the material disposed in 2004. Tin cans and other ferrous metals account for an estimated 18,200 tons disposed, despite a high (80%) recycling rate.
- **Organics**—Large portions of Spokane County's yard waste is currently recycled through established drop-off collection sites and subsequent composting. However, opportunities remain to divert sizable quantities of food waste (65,000 tons disposed), wood (47,400 tons disposed), compostable paper (20,400 tons disposed), and textiles (8,500 tons disposed).

Table 7: Estimated 2004 Disposal Tons, Recycling Tons, and Recycling Rates of Select Recyclables

	Disposal Tons	Recycling Tons	Recycling Rate
Paper	65,726	62,932	49%
Newspaper	7,303	18,249	71%
Cardboard and Kraft	18,487	32,327	64%
Mixed Paper	39,936	12,357	24%
Plastic	21,469	1,620	7%
PETE	1,356	603	31%
HDPE	1,972	671	25%
Other Recyclable Plastics	18,142	345	2%
Glass	8,256	4,574	36%
Container Glass	8,256	4,574	36%
Metal	21,520	88,509	80%
Aluminum Cans	745	1,565	68%
Tin Cans & Ferrous Metals	18,178	70,603	80%
Nonferrous Metals	2,206	11,239	84%
White Goods	391	5,101	93%
Organics	111,542	59,386	35%
Food Waste	64,961	5,835	8%
Yard Debris	17,703	49,230	74%
Textiles	8,524	4,322	34%
Compostable Paper	20,354	0	0%
Wood	47,434	10,937	19%

Attachment A: Vehicle Survey Instruction Sheet and Field Form

STEP 1: As the vehicle approaches, determine the hauler type.

The hauler is considered commercial if it is one of the following:

- City of Spokane
- Empire Disposal
- Newman Lake Disposal
- Sunshine Disposal
- Waste Management

All other vehicles are considered self-haul.

STEP 2: Record Loop Tag Number or Dump Number.

Ask the driver for the loop tag number. If the driver was not given a loop tag, ask for the dump number.

Record either number in the space on the survey form.

At the end of the survey day, ask the scale house staff to print a report showing net weights, loop tag/dump number, and the time the vehicle entered the facility.

STEP 3: Record Time Vehicle is Surveyed.

Record the time to the nearest 10 minutes.

STEP 4: Ask the driver, "What jurisdiction or unincorporated area is this load from?"

Jurisdictions in Spokane County include:

- | | |
|----------------------------|------------------|
| • Airway Heights | • Millwood |
| • Cheney | • Rockford |
| • Deer Park | • Spangle |
| • Fairchild Air Force Base | • Spokane |
| • Latah | • Spokane Valley |
| • Liberty Lake | • Waverly |
| • Medical Lake | • Fairfield |

If the answer is not on the list, clarify if the load is from unincorporated Spokane County, or outside of Spokane County.

STEP 5a: If the hauler is commercial, ask the driver, "Is the waste from single-family residences (1-4 units per dwelling), multi-family residences (5+ units), businesses, or a combination of sources?"

Write 100% for loads from only one source. If the load is a combination of sources, ask the driver to estimate and record the relative percentage for each source, ensuring the sum of all three types equals 100%.

STEP 5b: If the hauler is self-haul, ask the driver, "Are you, or do you work for, a contractor AND is this waste from the job site?"

If yes, circle "B."

If no, ask the driver, "Are you hired to haul waste?"

If yes, circle "B."

If no, ask, "Is this waste from a home or a business?"

Circle the appropriate letter. If the load is from both sources, ask the driver to estimate and record the relative percentage for each source, ensuring the sum equals 100%.

STEP 6: Ask the driver, "What materials are in your load?"

Write 100% for loads consisting of one material type. If the load is a combination of material types, ask the driver to estimate and record the relative percentage for each, ensuring the sum of all types equals 100%.

The material types are defined as follows:

- MSW means municipal solid waste, mixed household or non-residential garbage
- Yard Waste means leaves, grass, prunings, brush
- Recyclables means occ, newspaper, recyclable mixed paper, and aluminum, glass, and plastic bottles, jars, and cans
- Aggregates means concrete, asphalt paving, gravel, bricks, uncontaminated soil
- Recoverable CDL means untreated/clean dimensional and engineered wood, pallets, untreated/clean gypsum board, scrap metal, stumps, logs
- Other CDL means material such as carpet, carpet padding, box springs, mattresses, bulky items, brown goods, asphalt roofing, contaminated soils, insulation, painted gypsum board
- Special Handling Material means material brought to the facility with a pre-arranged agreement with the facility. Material such as oily waste, large amounts of polystyrene, and drugs from the police department are considered Special Handling Materials.

Attachment B: Composition by Industry Group

	U - Manufacturing - Food / Kindred		13: Manufacturing - Apparel and Textiles		V - Manufacturing - Lumber & Wood Products		25.9: Manufacturing - Paper and Allied Products		K - Manufacturing - Printing / Publishing	
	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons
Recyclable Paper										
Newspaper	0.8%	12.5	0.5%	1.1	0.5%	4.2	3.8%	9.8	4.9%	40.7
Uncoated Corrugated Cardboard	6.0%	98.0	1.3%	2.9	4.3%	39.5	3.7%	9.3	9.0%	75.3
Paper Bags	1.0%	15.6	1.4%	3.0	0.4%	3.6	0.2%	0.5	0.7%	5.4
White Ledger Paper	1.3%	21.7	0.9%	2.0	0.9%	8.6	0.2%	0.5	4.8%	40.2
Computer Paper	0.2%	2.7	0.0%	0.0	0.0%	0.3	0.2%	0.6	0.3%	2.1
Colored Ledger Paper	0.3%	5.4	0.0%	0.1	0.1%	0.6	0.0%	0.0	0.7%	6.2
Other Office Paper	0.7%	11.9	0.7%	1.6	0.9%	8.4	0.2%	0.6	3.9%	32.6
Magazines and Catalogs	2.0%	31.9	0.3%	0.6	0.9%	8.0	0.7%	1.8	11.2%	93.8
Phone Books and Directories	1.1%	17.2	0.0%	0.0	0.3%	2.4	0.0%	0.0	0.2%	2.1
Subtotal	13.3%	216.9	5.3%	11.3	8.3%	75.8	9.1%	23.2	35.8%	298.4
Other Recyclables										
PETE Containers	0.5%	7.8	0.2%	0.4	0.1%	1.3	0.9%	2.2	0.1%	1.0
HDPE Containers	1.1%	18.6	0.0%	0.1	0.3%	3.0	0.2%	0.4	1.2%	9.9
Miscellaneous Plastic Containers	0.2%	3.8	0.1%	0.2	0.1%	1.2	0.1%	0.4	0.3%	2.2
Film Plastic	12.7%	206.8	5.1%	10.9	1.1%	10.2	4.3%	11.0	2.9%	24.2
Clear Glass Bottles & Containers	0.8%	12.4	0.4%	0.8	0.4%	3.9	0.9%	2.2	0.5%	4.5
Green Glass Bottles & Containers	0.0%	0.7	0.0%	0.1	0.2%	2.2	1.1%	2.7	0.0%	0.2
Brown Glass Bottles & Containers	0.3%	4.3	0.0%	0.0	0.1%	0.5	0.0%	0.0	0.0%	0.3
Aluminum Cans	0.1%	1.3	0.0%	0.1	0.1%	0.6	0.0%	0.1	0.0%	0.4
Tin/Steel Cans	1.0%	16.0	0.1%	0.1	0.7%	6.3	0.1%	0.3	1.9%	16.0
Other Ferrous Metal	2.6%	42.3	0.0%	0.0	5.6%	50.7	3.1%	7.9	2.5%	20.9
Other Non-Ferrous Metal	0.1%	1.3	0.0%	0.1	0.3%	2.7	0.1%	0.3	0.0%	0.2
Major Appliances	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Textiles	4.9%	79.4	56.2%	120.9	0.6%	5.2	1.3%	3.4	1.6%	13.3
Lumber	6.5%	106.6	0.1%	0.1	33.6%	305.7	3.7%	9.5	6.7%	56.2
Rock, Soil & Fines	0.0%	0.4	0.0%	0.0	2.0%	18.4	0.0%	0.0	0.0%	0.0
Concrete	0.7%	10.6	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Asphalt Paving	0.0%	0.0	0.2%	0.3	0.0%	0.0	0.0%	0.0	0.0%	0.0
Tires	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Batteries	0.0%	0.4	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Used Oil	0.0%	0.0	0.0%	0.0	0.0%	0.0	1.2%	3.1	0.0%	0.0
Subtotal	31.5%	512.8	62.3%	134.1	45.3%	412.0	17.0%	43.4	17.9%	149.4
Compostables										
Food	22.8%	370.8	3.7%	7.9	1.3%	11.5	3.4%	8.6	3.2%	26.3
Leaves & Grass	0.0%	0.0	0.0%	0.0	0.3%	3.1	0.0%	0.0	0.5%	3.9
Prunings & Trimmings	0.5%	7.7	0.0%	0.0	0.2%	1.8	0.0%	0.0	0.0%	0.1
Branches & Stumps	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Compostable Paper	10.5%	170.8	23.0%	49.4	8.2%	74.6	45.7%	116.9	24.3%	202.4
Subtotal	33.7%	549.3	26.6%	57.3	10.0%	91.0	49.1%	125.5	27.9%	232.8
Other Materials										
Remainder/Composite Paper	11.5%	187.2	2.2%	4.8	2.3%	21.2	9.0%	23.1	8.8%	73.7
Durable Plastic Items	1.3%	21.9	0.2%	0.5	0.8%	7.1	0.1%	0.2	1.8%	15.0
Remainder/Composite Plastic	3.2%	51.5	0.7%	1.5	0.4%	3.9	15.0%	38.2	3.3%	27.8
Flat Glass	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Other Colored Glass Bottles & Containers	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Glass	0.1%	1.6	0.1%	0.1	0.7%	6.1	0.0%	0.0	0.0%	0.1
Remainder/Composite Metal	1.7%	28.3	0.4%	0.9	3.1%	28.5	0.0%	0.0	0.2%	1.3
Remainder/Composite Organic	0.9%	14.3	1.8%	3.9	19.3%	175.3	0.4%	1.0	1.3%	10.5
Gypsum Board	0.7%	11.5	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Asphalt Roofing	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite C&D	0.1%	0.9	0.0%	0.1	7.1%	64.8	0.0%	0.0	0.1%	0.6
Bulky Items	0.0%	0.0	0.0%	0.0	0.5%	4.8	0.0%	0.0	2.0%	17.0
Industrial Sludge	0.0%	0.0	0.0%	0.0	1.2%	10.6	0.0%	0.0	0.0%	0.0
Mixed Residue	0.2%	3.9	0.3%	0.6	0.6%	5.0	0.4%	1.1	0.4%	3.4
Ash	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Agricultural Crop Residues	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Manures	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Sewage Solids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Treated Medical Waste	0.3%	5.6	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Special Waste	1.4%	22.1	0.0%	0.0	0.0%	0.1	0.0%	0.0	0.0%	0.0
Paint	0.0%	0.0	0.0%	0.0	0.3%	3.1	0.0%	0.0	0.5%	4.0
Vehicle & Equipment Fluids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Hazardous	0.0%	0.4	0.0%	0.1	0.0%	0.0	0.0%	0.0	0.0%	0.0
Subtotal	21.4%	349.1	5.8%	12.4	36.4%	330.6	24.9%	63.6	18.4%	153.2
Total	100.0%	1,628.1	100.0%	215.1	100.0%	909.4	100.0%	255.6	100.0%	833.8

	25: Manufacturing - Chemicals and Allied Products		R - Manufacturing - Other		18: Manufacturing - Primary and Fabricated Metal		Y - Manufacturing - Industrial / Machinery		T - Manufacturing - Electronic Equipment	
	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons
Recyclable Paper										
Newspaper	0.3%	0.8	1.2%	51.5	1.4%	32.0	2.7%	12.8	3.3%	38.9
Uncoated Corrugated Cardboard	6.2%	15.4	6.7%	291.9	5.2%	117.7	9.0%	42.1	6.7%	78.3
Paper Bags	0.9%	2.3	0.4%	16.8	3.8%	87.0	0.9%	4.1	0.9%	10.9
White Ledger Paper	4.2%	10.5	2.1%	92.6	2.0%	44.9	2.6%	12.3	4.6%	54.1
Computer Paper	0.0%	0.0	0.4%	15.6	0.6%	14.7	2.0%	9.3	0.7%	7.7
Colored Ledger Paper	0.1%	0.2	0.6%	27.1	0.0%	0.7	0.1%	0.4	0.1%	1.2
Other Office Paper	1.2%	3.0	0.5%	21.6	0.8%	18.0	1.1%	5.3	1.2%	14.5
Magazines and Catalogs	3.1%	7.6	2.9%	126.3	2.5%	56.0	1.4%	6.7	3.5%	41.4
Phone Books and Directories	0.0%	0.0	0.6%	27.0	0.0%	0.2	1.0%	4.6	0.2%	2.1
Subtotal	16.0%	39.6	15.5%	670.3	16.3%	371.2	20.9%	97.6	21.3%	249.1
Other Recyclables										
PETE Containers	3.9%	9.7	0.2%	7.1	0.3%	6.8	0.2%	1.1	0.4%	4.9
HDPE Containers	0.2%	0.5	0.4%	15.3	5.7%	130.4	0.6%	2.8	0.8%	9.2
Miscellaneous Plastic Containers	0.2%	0.6	0.3%	14.6	0.3%	5.8	0.3%	1.4	0.8%	9.3
Film Plastic	17.1%	42.3	2.8%	122.8	3.8%	86.9	6.1%	28.6	8.6%	100.9
Clear Glass Bottles & Containers	0.4%	1.0	0.3%	12.8	0.4%	9.9	1.0%	4.8	1.6%	19.3
Green Glass Bottles & Containers	0.0%	0.1	0.0%	0.4	0.1%	1.2	0.1%	0.3	0.2%	2.1
Brown Glass Bottles & Containers	0.0%	0.0	0.0%	0.1	0.1%	2.1	0.2%	0.9	0.2%	2.8
Aluminum Cans	0.1%	0.1	0.1%	2.5	0.0%	1.1	0.2%	1.0	0.2%	2.8
Tin/Steel Cans	0.0%	0.1	0.7%	30.1	0.3%	5.8	0.3%	1.4	0.9%	10.7
Other Ferrous Metal	2.2%	5.3	2.9%	124.1	10.2%	231.4	10.0%	46.8	6.2%	72.9
Other Non-Ferrous Metal	0.1%	0.2	0.0%	1.8	0.2%	4.0	0.2%	0.8	0.4%	5.1
Major Appliances	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Textiles	0.8%	1.9	3.9%	169.3	6.3%	143.8	1.3%	6.0	0.8%	9.5
Lumber	8.9%	22.0	14.5%	626.7	9.0%	203.8	8.3%	38.7	5.2%	60.5
Rock, Soil & Fines	0.0%	0.0	1.1%	48.8	0.0%	0.7	0.8%	3.6	0.5%	5.9
Concrete	0.6%	1.4	0.3%	11.3	0.0%	0.0	2.0%	9.3	3.1%	36.7
Asphalt Paving	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Tires	0.0%	0.0	1.0%	42.7	0.0%	0.0	1.7%	8.0	0.0%	0.2
Batteries	0.0%	0.0	0.0%	1.2	0.0%	1.0	0.0%	0.1	0.0%	0.3
Used Oil	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Subtotal	34.4%	85.2	28.4%	1,231.7	36.7%	834.6	33.3%	155.6	30.1%	353.2
Compostables										
Food	3.5%	8.7	2.2%	94.1	4.5%	101.7	2.9%	13.3	6.4%	75.3
Leaves & Grass	0.2%	0.5	4.2%	182.6	0.7%	16.4	2.1%	9.9	1.2%	13.9
Prunings & Trimmings	0.1%	0.3	0.1%	4.6	0.0%	0.2	0.0%	0.1	0.0%	0.3
Branches & Stumps	0.0%	0.0	0.0%	0.0	0.0%	0.0	1.5%	7.1	0.0%	0.0
Compostable Paper	9.8%	24.3	9.1%	395.9	6.0%	135.4	14.5%	67.8	9.9%	115.6
Subtotal	13.6%	33.7	15.6%	677.1	11.2%	253.7	21.0%	98.2	17.5%	205.0
Other Materials										
Remainder/Composite Paper	16.1%	39.9	5.2%	223.7	7.3%	167.1	4.7%	21.9	10.2%	119.0
Durable Plastic Items	0.1%	0.4	11.2%	485.3	0.4%	9.4	2.1%	9.9	2.8%	32.4
Remainder/Composite Plastic	13.9%	34.5	2.3%	101.1	3.7%	84.8	3.6%	16.7	3.8%	44.6
Flat Glass	0.0%	0.0	0.2%	7.0	0.0%	0.0	0.0%	0.2	0.2%	2.6
Other Colored Glass Bottles & Containers	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.5
Remainder/Composite Glass	0.0%	0.0	1.8%	77.7	0.0%	0.2	0.0%	0.2	1.2%	14.6
Remainder/Composite Metal	0.0%	0.0	2.6%	112.7	1.8%	40.4	4.4%	20.7	3.8%	44.0
Remainder/Composite Organic	1.4%	3.4	6.9%	299.1	7.2%	164.0	4.3%	20.2	2.5%	29.0
Gypsum Board	0.0%	0.0	1.3%	57.2	0.0%	0.0	0.0%	0.0	1.8%	21.1
Asphalt Roofing	0.0%	0.0	0.0%	1.7	0.0%	0.0	0.0%	0.1	0.0%	0.0
Remainder/Composite C&D	0.1%	0.2	0.3%	15.0	9.1%	208.0	0.6%	2.6	2.6%	30.6
Bulky Items	0.0%	0.0	0.5%	20.9	1.2%	26.3	0.3%	1.6	0.7%	8.6
Industrial Sludge	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Mixed Residue	0.7%	1.7	1.6%	67.4	0.4%	8.6	0.6%	2.9	0.8%	9.2
Ash	0.0%	0.0	0.0%	0.0	0.0%	0.1	1.9%	8.9	0.0%	0.0
Agricultural Crop Residues	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Manures	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Sewage Solids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Treated Medical Waste	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Special Waste	3.5%	8.6	6.6%	287.6	0.0%	0.0	1.3%	6.3	0.5%	5.7
Paint	0.0%	0.0	0.0%	0.0	4.6%	105.0	0.0%	0.0	0.0%	0.0
Vehicle & Equipment Fluids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.7%	3.4	0.0%	0.0
Remainder/Composite Hazardous	0.0%	0.0	0.0%	0.3	0.0%	0.0	0.0%	0.0	0.2%	2.8
Subtotal	35.9%	88.7	40.5%	1,756.7	35.8%	813.9	24.8%	115.6	31.1%	364.7
Total	100.0%	247.2	100.0%	4,335.8	100.0%	2,273.5	100.0%	466.9	100.0%	1,172.0

	W - Manufacturing - Transportation Equipment		25.3: Manufacturing - Furniture and Fixtures		8: Wholesale Trade - Durable Goods		E - Wholesale Trade - Nondurable Goods		F - Retail Trade - Automotive Dealers & Service Stations	
	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons
Recyclable Paper										
Newspaper	2.6%	11.5	0.4%	9.4	2.5%	91.5	2.5%	100.1	4.7%	126.0
Uncoated Corrugated Cardboard	9.8%	43.1	4.1%	88.5	4.6%	167.1	11.4%	464.5	10.3%	275.8
Paper Bags	0.9%	3.9	0.0%	1.0	0.8%	29.0	0.5%	19.0	0.5%	14.5
White Ledger Paper	4.4%	19.4	0.1%	3.0	3.3%	119.4	3.0%	120.6	1.6%	43.5
Computer Paper	1.0%	4.4	0.0%	0.0	0.4%	15.3	0.5%	21.5	0.5%	13.1
Colored Ledger Paper	0.0%	0.2	0.0%	0.2	0.2%	7.6	0.3%	10.4	0.0%	1.2
Other Office Paper	2.9%	12.9	0.2%	3.4	2.3%	83.3	1.5%	62.7	1.4%	37.3
Magazines and Catalogs	2.2%	9.7	0.2%	4.6	2.3%	84.2	3.4%	139.0	0.5%	14.1
Phone Books and Directories	0.9%	3.9	0.0%	0.0	0.0%	0.6	0.2%	9.2	0.2%	5.8
Subtotal	24.9%	108.9	5.2%	110.0	16.5%	597.8	23.2%	947.0	19.8%	531.3
Other Recyclables										
PETE Containers	0.4%	1.8	0.3%	7.0	0.5%	16.6	0.2%	9.3	0.7%	19.7
HDPE Containers	0.3%	1.5	0.3%	6.1	0.5%	18.9	0.3%	13.4	2.4%	63.2
Miscellaneous Plastic Containers	0.3%	1.4	0.0%	0.7	0.3%	12.2	0.2%	8.6	0.6%	15.1
Film Plastic	5.0%	21.9	4.6%	98.7	8.4%	303.7	7.6%	310.5	3.4%	91.6
Clear Glass Bottles & Containers	1.0%	4.2	0.1%	1.1	1.0%	35.1	1.0%	42.3	1.8%	49.1
Green Glass Bottles & Containers	0.1%	0.5	0.0%	0.0	0.0%	0.9	0.0%	2.0	0.3%	7.9
Brown Glass Bottles & Containers	0.0%	0.0	0.0%	0.8	0.0%	1.8	0.7%	30.4	0.3%	7.2
Aluminum Cans	0.2%	0.9	0.0%	0.1	0.3%	9.5	0.1%	4.4	0.3%	7.9
Tin/Steel Cans	0.4%	1.8	0.1%	1.3	1.3%	46.8	0.7%	29.2	0.7%	17.6
Other Ferrous Metal	4.8%	20.9	2.9%	62.0	6.4%	231.1	1.6%	65.6	8.1%	217.7
Other Non-Ferrous Metal	1.3%	5.6	0.0%	0.7	0.2%	6.1	0.1%	3.5	1.0%	26.5
Major Appliances	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Textiles	3.5%	15.4	9.4%	199.9	4.0%	144.1	0.4%	14.4	0.7%	17.8
Lumber	14.4%	63.1	9.7%	207.8	22.5%	814.1	4.2%	170.2	6.0%	162.5
Rock, Soil & Fines	2.3%	10.3	0.0%	0.0	0.0%	0.0	1.4%	59.0	2.2%	60.2
Concrete	0.0%	0.0	0.0%	0.0	0.1%	1.9	0.0%	0.1	0.7%	18.2
Asphalt Paving	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Tires	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.7%	27.6	9.1%	244.8
Batteries	0.1%	0.4	0.0%	0.0	0.1%	2.2	0.0%	0.7	0.0%	1.3
Used Oil	0.0%	0.0	0.0%	0.2	0.0%	0.0	0.0%	0.0	0.2%	5.2
Subtotal	34.2%	149.8	27.5%	586.2	45.4%	1,644.9	19.4%	791.4	38.5%	1,033.6
Compostables										
Food	4.4%	19.4	5.4%	115.3	5.2%	187.2	21.3%	869.7	6.0%	160.1
Leaves & Grass	0.1%	0.5	0.6%	12.4	1.0%	35.8	7.1%	287.5	3.0%	80.1
Prunings & Trimmings	1.0%	4.2	0.0%	0.0	0.0%	0.1	0.1%	3.5	0.1%	2.2
Branches & Stumps	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Compostable Paper	11.6%	50.6	1.9%	41.2	7.3%	263.4	13.3%	542.3	9.6%	258.0
Subtotal	17.1%	74.8	7.9%	168.9	13.4%	486.6	41.8%	1,702.9	18.6%	500.4
Other Materials										
Remainder/Composite Paper	7.5%	32.7	10.2%	217.8	7.5%	272.3	4.4%	180.6	5.7%	152.6
Durable Plastic Items	3.8%	16.8	0.3%	6.4	1.1%	38.9	3.4%	139.5	2.1%	55.3
Remainder/Composite Plastic	2.9%	12.8	2.1%	44.4	7.8%	281.5	1.2%	50.7	1.1%	30.3
Flat Glass	0.0%	0.2	0.0%	0.0	0.0%	1.0	0.0%	0.0	0.0%	0.0
Other Colored Glass Bottles & Containers	0.0%	0.0	0.0%	0.0	0.0%	1.5	0.0%	0.1	0.1%	2.1
Remainder/Composite Glass	0.1%	0.4	0.0%	0.3	0.0%	1.5	0.0%	1.1	1.4%	37.4
Remainder/Composite Metal	1.2%	5.3	0.0%	0.5	0.7%	24.8	0.6%	25.2	2.9%	78.1
Remainder/Composite Organic	3.1%	13.7	46.1%	984.8	5.2%	189.8	1.0%	42.7	3.6%	97.2
Gypsum Board	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Asphalt Roofing	0.0%	0.1	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite C&D	0.3%	1.5	0.0%	0.1	1.2%	44.9	0.0%	0.0	5.7%	153.0
Bulky Items	1.1%	5.0	0.0%	0.0	0.0%	0.0	0.1%	5.5	0.0%	0.0
Industrial Sludge	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Mixed Residue	1.8%	8.0	0.7%	14.8	0.9%	32.6	0.4%	14.8	0.4%	9.8
Ash	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Agricultural Crop Residues	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Manures	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Sewage Solids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Treated Medical Waste	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Special Waste	0.8%	3.6	0.0%	0.0	0.0%	0.0	4.3%	173.8	0.3%	6.9
Paint	0.0%	0.2	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Vehicle & Equipment Fluids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Hazardous	0.8%	3.7	0.0%	0.0	0.2%	5.5	0.0%	0.0	0.0%	0.0
Subtotal	23.8%	104.0	59.5%	1,269.0	24.7%	894.1	15.6%	634.0	23.2%	622.8
Total	100.0%	437.5	100.0%	2,134.1	100.0%	3,623.4	100.0%	4,075.3	100.0%	2,688.1

	7.4: Retail Trade - Apparel and Furniture Stores						11: Retail - Miscellaneous			
	BMG BB		Food Stores		Retail BB					
	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons		
Recyclable Paper										
Newspaper	3.4%	92.9	0.5%	0.2	1.1%	0.9	1.1%	0.1	4.1%	228.1
Uncoated Corrugated Cardboard	8.1%	223.9	5.7%	2.7	4.0%	3.3	5.7%	0.4	11.7%	643.6
Paper Bags	0.2%	6.3	0.4%	0.2	0.5%	0.4	0.3%	0.0	0.8%	44.4
White Ledger Paper	3.7%	103.1	0.5%	0.3	0.2%	0.2	1.2%	0.1	6.7%	371.6
Computer Paper	2.6%	72.8	0.0%	0.0	0.3%	0.3	0.2%	0.0	1.0%	56.2
Colored Ledger Paper	0.0%	0.9	0.0%	0.0	0.0%	0.0	0.3%	0.0	0.4%	22.9
Other Office Paper	1.6%	43.8	0.3%	0.1	0.2%	0.2	0.4%	0.0	1.4%	76.8
Magazines and Catalogs	1.2%	33.5	0.2%	0.1	0.2%	0.2	0.5%	0.0	3.2%	175.1
Phone Books and Directories	0.1%	2.5	0.1%	0.0	0.1%	0.1	0.0%	0.0	0.0%	0.0
Subtotal	21.0%	579.7	7.7%	3.6	6.6%	5.5	9.8%	0.7	29.3%	1,618.7
Other Recyclables										
PETE Containers	0.3%	7.3	0.2%	0.1	0.2%	0.2	0.4%	0.0	0.4%	23.0
HDPE Containers	0.1%	2.9	0.1%	0.1	0.5%	0.5	0.2%	0.0	0.7%	36.7
Miscellaneous Plastic Containers	0.3%	8.3	0.0%	0.0	0.3%	0.2	0.7%	0.0	0.4%	20.7
Film Plastic	3.8%	106.4	2.8%	1.3	5.8%	4.8	6.6%	0.5	4.7%	261.7
Clear Glass Bottles & Containers	0.3%	7.4	0.1%	0.1	0.4%	0.3	0.3%	0.0	1.4%	78.0
Green Glass Bottles & Containers	0.0%	0.2	0.0%	0.0	0.1%	0.0	0.1%	0.0	0.2%	11.2
Brown Glass Bottles & Containers	0.0%	0.1	0.0%	0.0	0.1%	0.1	0.0%	0.0	0.1%	4.5
Aluminum Cans	0.1%	3.2	0.1%	0.0	0.0%	0.0	0.1%	0.0	0.1%	4.4
Tin/Steel Cans	0.1%	3.0	0.1%	0.0	0.3%	0.3	0.2%	0.0	0.5%	29.1
Other Ferrous Metal	1.2%	33.9	4.2%	2.0	0.8%	0.7	2.9%	0.2	1.1%	60.4
Other Non-Ferrous Metal	0.0%	1.2	0.0%	0.0	0.2%	0.2	0.0%	0.0	0.3%	16.8
Major Appliances	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Textiles	2.3%	64.8	0.3%	0.1	0.1%	0.1	0.7%	0.1	1.1%	59.1
Lumber	10.5%	290.8	32.7%	15.4	4.2%	3.5	14.7%	1.0	1.8%	98.7
Rock, Soil & Fines	1.2%	31.9	1.5%	0.7	0.1%	0.1	3.4%	0.2	0.2%	10.5
Concrete	1.5%	40.9	8.8%	4.1	0.0%	0.0	0.0%	0.0	0.0%	0.0
Asphalt Paving	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Tires	0.0%	0.0	0.1%	0.1	0.0%	0.0	0.0%	0.0	0.3%	15.8
Batteries	0.0%	1.2	0.1%	0.0	0.0%	0.0	0.0%	0.0	0.1%	3.3
Used Oil	0.4%	10.5	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Subtotal	22.2%	613.9	51.2%	24.1	13.2%	11.0	30.1%	2.2	13.3%	734.1
Compostables										
Food	2.7%	75.5	1.6%	0.7	64.6%	53.8	16.9%	1.2	4.2%	232.2
Leaves & Grass	0.0%	0.9	1.3%	0.6	1.0%	0.8	2.1%	0.1	6.9%	381.5
Prunings & Trimmings	0.0%	0.0	0.2%	0.1	0.2%	0.2	1.1%	0.1	1.7%	96.2
Branches & Stumps	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Compostable Paper	14.0%	387.3	5.0%	2.4	3.3%	2.8	11.8%	0.8	14.9%	821.7
Subtotal	16.8%	463.8	8.1%	3.8	69.2%	57.6	31.9%	2.3	27.7%	1,531.6
Other Materials										
Remainder/Composite Paper	4.2%	116.4	1.3%	0.6	6.6%	5.5	3.5%	0.2	8.7%	482.5
Durable Plastic Items	4.1%	114.3	1.0%	0.5	0.8%	0.7	2.5%	0.2	1.6%	86.7
Remainder/Composite Plastic	3.4%	92.8	2.8%	1.3	2.1%	1.8	5.0%	0.4	5.5%	301.6
Flat Glass	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.2%	0.0	4.7%	260.8
Other Colored Glass Bottles & Containers	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Glass	0.1%	4.0	1.7%	0.8	0.0%	0.0	0.5%	0.0	0.1%	4.9
Remainder/Composite Metal	3.0%	82.1	4.9%	2.3	0.0%	0.0	2.7%	0.2	1.7%	96.2
Remainder/Composite Organic	23.8%	657.7	4.5%	2.1	0.6%	0.5	1.7%	0.1	3.1%	172.8
Gypsum Board	0.0%	0.0	5.8%	2.7	0.0%	0.0	1.0%	0.1	0.0%	0.0
Asphalt Roofing	0.0%	0.0	4.0%	1.9	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite C&D	0.2%	5.8	6.0%	2.8	0.9%	0.8	6.9%	0.5	2.9%	158.9
Bulky Items	0.0%	0.0	0.0%	0.0	0.0%	0.0	2.8%	0.2	0.0%	1.3
Industrial Sludge	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Mixed Residue	1.2%	33.7	0.0%	0.0	0.0%	0.0	0.1%	0.0	0.9%	49.7
Ash	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.3%	19.1
Agricultural Crop Residues	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Manures	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Sewage Solids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Treated Medical Waste	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Special Waste	0.0%	0.0	0.7%	0.3	0.0%	0.0	1.2%	0.1	0.0%	0.0
Paint	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.8
Vehicle & Equipment Fluids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Hazardous	0.0%	0.0	0.3%	0.1	0.0%	0.0	0.1%	0.0	0.0%	1.5
Subtotal	40.0%	1,106.7	33.0%	15.6	11.1%	9.2	28.2%	2.0	29.6%	1,636.9
Total	100.0%	2,764.1	100.0%	47.1	100.0%	83.2	100.0%	7.2	100.0%	5,521.4

	25.7: Air Transportation		S - Transportation - Other		P - Trucking & Warehousing		15: Motion Picture Industry		22: Communications	
	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons
Recyclable Paper										
Newspaper	7.0%	12.7	6.9%	97.4	2.8%	54.9	5.1%	6.4	3.5%	10.7
Uncoated Corrugated Cardboard	3.0%	5.3	6.8%	95.4	6.9%	135.1	10.5%	13.1	7.9%	24.2
Paper Bags	0.6%	1.1	0.9%	12.5	1.2%	23.4	0.8%	1.0	0.3%	1.0
White Ledger Paper	7.4%	13.3	4.6%	65.6	9.4%	183.8	10.3%	12.8	11.5%	34.9
Computer Paper	4.6%	8.3	1.0%	14.4	0.7%	14.1	0.0%	0.0	1.1%	3.2
Colored Ledger Paper	0.1%	0.2	0.3%	3.6	0.1%	1.4	0.7%	0.8	0.1%	0.2
Other Office Paper	10.2%	18.4	6.2%	87.3	2.9%	57.7	4.3%	5.3	3.3%	10.2
Magazines and Catalogs	2.7%	4.9	2.2%	31.4	1.0%	20.0	5.9%	7.3	5.0%	15.3
Phone Books and Directories	0.0%	0.0	0.2%	2.2	0.3%	6.0	0.0%	0.0	4.5%	13.8
Subtotal	35.6%	64.1	29.0%	409.8	25.4%	496.3	37.6%	46.8	37.3%	113.4
Other Recyclables										
PETE Containers	0.4%	0.8	0.6%	8.2	0.3%	5.1	1.2%	1.5	0.4%	1.2
HDPE Containers	0.2%	0.4	0.3%	4.3	0.7%	13.0	0.2%	0.3	0.1%	0.2
Miscellaneous Plastic Containers	0.5%	1.0	0.6%	8.9	0.9%	16.7	0.9%	1.1	0.4%	1.3
Film Plastic	7.6%	13.7	8.6%	121.4	2.9%	55.8	4.3%	5.3	1.9%	5.8
Clear Glass Bottles & Containers	1.8%	3.2	1.3%	17.7	0.9%	18.2	1.7%	2.2	0.5%	1.4
Green Glass Bottles & Containers	0.5%	1.0	0.5%	6.8	0.1%	2.4	0.1%	0.1	0.2%	0.6
Brown Glass Bottles & Containers	0.0%	0.0	0.2%	2.3	0.1%	1.4	0.5%	0.6	0.0%	0.1
Aluminum Cans	0.7%	1.3	0.3%	4.2	0.2%	4.1	0.5%	0.6	0.2%	0.5
Tin/Steel Cans	0.2%	0.4	0.4%	5.5	0.5%	9.2	0.5%	0.6	0.1%	0.3
Other Ferrous Metal	0.1%	0.1	2.4%	34.4	7.1%	138.2	0.7%	0.8	1.3%	4.0
Other Non-Ferrous Metal	0.1%	0.3	0.3%	4.0	0.2%	4.8	0.0%	0.1	0.0%	0.1
Major Appliances	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Textiles	0.3%	0.6	0.6%	8.9	0.8%	14.8	0.4%	0.5	0.5%	1.5
Lumber	18.6%	33.5	11.0%	155.9	13.3%	259.1	5.5%	6.9	5.2%	15.8
Rock, Soil & Fines	0.6%	1.0	0.1%	1.9	0.1%	2.6	0.7%	0.9	0.0%	0.0
Concrete	0.0%	0.0	0.0%	0.0	4.8%	94.0	0.0%	0.0	0.0%	0.0
Asphalt Paving	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Tires	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Batteries	1.0%	1.7	0.1%	0.9	0.0%	0.1	0.1%	0.1	0.0%	0.1
Used Oil	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Subtotal	32.8%	59.0	27.3%	385.5	32.7%	639.6	17.2%	21.4	10.8%	32.9
Compostables										
Food	7.0%	12.7	7.0%	99.0	3.9%	76.2	10.5%	13.1	3.6%	11.0
Leaves & Grass	0.6%	1.0	1.1%	16.2	0.5%	10.5	1.6%	2.0	1.1%	3.2
Prunings & Trimmings	0.0%	0.0	0.0%	0.0	1.8%	34.9	1.3%	1.6	0.0%	0.0
Branches & Stumps	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Compostable Paper	6.9%	12.4	7.5%	106.4	7.2%	141.6	8.2%	10.2	9.2%	28.0
Subtotal	14.5%	26.1	15.7%	221.6	13.5%	263.3	21.6%	26.8	13.9%	42.2
Other Materials										
Remainder/Composite Paper	10.4%	18.8	7.6%	107.3	3.4%	67.4	7.4%	9.3	3.5%	10.8
Durable Plastic Items	0.8%	1.4	1.2%	16.6	0.5%	10.2	0.8%	1.0	0.7%	2.3
Remainder/Composite Plastic	3.0%	5.4	1.5%	20.9	1.1%	21.3	4.1%	5.1	24.8%	75.4
Flat Glass	0.0%	0.0	0.2%	3.0	0.4%	8.7	0.2%	0.2	0.0%	0.0
Other Colored Glass Bottles & Containers	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Glass	0.1%	0.1	2.1%	29.3	1.2%	22.8	0.5%	0.6	0.0%	0.1
Remainder/Composite Metal	1.3%	2.3	3.0%	42.1	4.1%	81.0	2.3%	2.9	4.3%	13.0
Remainder/Composite Organic	1.0%	1.8	4.5%	62.9	5.0%	97.1	1.5%	1.9	0.7%	2.1
Gypsum Board	0.0%	0.0	4.0%	56.8	3.0%	58.6	0.0%	0.0	0.4%	1.2
Asphalt Roofing	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	1.5%	4.5
Remainder/Composite C&D	0.0%	0.0	1.5%	21.3	2.1%	40.7	2.7%	3.4	1.4%	4.3
Bulky Items	0.0%	0.0	0.0%	0.4	6.1%	119.1	3.6%	4.5	0.2%	0.5
Industrial Sludge	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Mixed Residue	0.4%	0.8	2.2%	31.5	0.3%	6.5	0.3%	0.4	0.3%	1.0
Ash	0.0%	0.0	0.1%	1.5	0.3%	5.1	0.0%	0.1	0.2%	0.5
Agricultural Crop Residues	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Manures	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Sewage Solids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Treated Medical Waste	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Special Waste	0.0%	0.0	0.0%	0.3	0.0%	0.6	0.0%	0.0	0.0%	0.0
Paint	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Vehicle & Equipment Fluids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Hazardous	0.0%	0.0	0.0%	0.0	0.9%	17.1	0.0%	0.0	0.0%	0.0
Subtotal	17.1%	30.7	27.9%	393.9	28.4%	556.1	23.6%	29.4	38.1%	115.9
Total	100.0%	179.9	100.0%	1,410.8	100.0%	1,955.2	100.0%	124.4	100.0%	304.4

	3: Finance, Insurance, Real Estate		L - Services - Business Services		5: Services - Business		M - Services - Education		2: Services - Medical/Health	
	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons
Recyclable Paper										
Newspaper	4.9%	234.2	2.1%	240.6	2.0%	49.6	1.3%	16.5	4.4%	788.4
Uncoated Corrugated Cardboard	3.6%	174.5	6.4%	739.5	5.9%	146.1	2.8%	36.1	8.1%	1,461.5
Paper Bags	0.5%	25.0	0.9%	99.0	0.3%	7.6	0.9%	12.0	0.3%	57.0
White Ledger Paper	21.8%	1,048.8	4.7%	544.3	7.1%	177.5	3.5%	44.4	3.7%	673.5
Computer Paper	0.0%	1.3	0.8%	86.8	1.2%	29.9	1.4%	18.2	0.2%	33.0
Colored Ledger Paper	0.3%	13.5	0.3%	32.3	0.1%	2.3	0.7%	9.3	0.1%	12.8
Other Office Paper	7.2%	347.4	2.0%	226.0	44.0%	1,096.6	2.1%	26.5	1.7%	310.4
Magazines and Catalogs	2.9%	138.9	1.4%	166.0	2.2%	56.0	1.0%	12.8	3.9%	709.1
Phone Books and Directories	0.1%	7.1	0.0%	0.0	0.0%	0.3	0.2%	2.3	1.1%	205.6
Subtotal	41.5%	1,990.7	18.6%	2,134.4	62.9%	1,566.0	13.9%	178.0	23.6%	4,251.3
Other Recyclables										
PETE Containers	2.0%	95.7	0.5%	52.1	0.2%	4.8	0.8%	9.7	0.4%	73.2
HDPE Containers	0.2%	7.3	0.7%	80.0	0.1%	3.0	0.3%	3.9	0.6%	115.4
Miscellaneous Plastic Containers	0.6%	26.7	0.5%	61.0	0.2%	5.9	1.3%	16.8	1.6%	284.6
Film Plastic	4.8%	230.1	6.2%	708.9	2.0%	49.4	3.9%	49.9	4.5%	814.9
Clear Glass Bottles & Containers	0.5%	24.5	1.3%	154.9	0.9%	21.4	0.9%	12.0	0.8%	144.7
Green Glass Bottles & Containers	0.1%	5.4	0.9%	106.5	0.2%	4.0	0.0%	0.4	0.0%	1.5
Brown Glass Bottles & Containers	0.0%	0.3	0.2%	17.6	0.1%	1.7	0.3%	3.5	0.1%	11.7
Aluminum Cans	0.7%	34.8	0.2%	20.4	0.3%	6.7	0.2%	2.4	0.2%	43.3
Tin/Steel Cans	0.2%	10.5	0.2%	20.2	0.1%	2.8	1.2%	15.0	1.0%	177.0
Other Ferrous Metal	1.6%	74.4	0.3%	35.2	0.2%	4.1	1.7%	21.9	0.2%	35.0
Other Non-Ferrous Metal	0.1%	4.9	0.1%	14.6	0.0%	1.2	0.3%	3.4	0.2%	28.1
Major Appliances	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.4%	5.4	0.0%	0.0
Textiles	0.1%	3.6	16.0%	1,841.1	3.6%	88.9	0.2%	2.7	5.1%	921.4
Lumber	0.1%	5.1	2.5%	284.8	1.4%	34.1	0.3%	3.5	0.2%	30.2
Rock, Soil & Fines	0.0%	0.7	0.7%	78.9	0.0%	0.0	0.0%	0.1	0.0%	0.0
Concrete	0.0%	0.0	0.0%	5.3	0.0%	0.0	0.0%	0.6	0.0%	0.0
Asphalt Paving	3.5%	170.3	0.0%	2.9	0.0%	0.0	0.0%	0.3	0.0%	0.0
Tires	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Batteries	0.3%	14.2	0.0%	4.8	0.0%	0.1	0.1%	0.8	0.0%	7.5
Used Oil	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.2	0.0%	0.0
Subtotal	14.8%	708.4	30.4%	3,489.1	9.2%	228.2	11.9%	152.5	14.9%	2,688.5
Compostables										
Food	17.2%	823.8	6.6%	760.2	2.5%	62.9	19.7%	251.0	21.1%	3,786.9
Leaves & Grass	1.1%	53.0	6.1%	705.1	5.6%	139.6	22.3%	284.2	1.7%	299.5
Prunings & Trimmings	0.0%	1.4	0.1%	9.0	0.0%	0.0	4.2%	53.2	0.2%	35.5
Branches & Stumps	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Compostable Paper	8.3%	396.6	16.2%	1,858.8	7.6%	188.9	12.9%	165.1	7.8%	1,400.6
Subtotal	26.6%	1,274.8	29.0%	3,333.1	15.7%	391.4	59.0%	753.6	30.7%	5,522.5
Other Materials										
Remainder/Composite Paper	10.7%	514.6	8.3%	948.8	3.1%	77.1	6.1%	78.1	10.1%	1,809.4
Durable Plastic Items	0.7%	31.7	1.7%	189.9	1.6%	40.3	2.3%	29.1	1.8%	322.6
Remainder/Composite Plastic	2.1%	100.8	1.1%	122.5	1.1%	27.9	0.9%	12.0	2.3%	422.4
Flat Glass	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.1%	24.4
Other Colored Glass Bottles & Containers	0.0%	0.0	0.0%	3.4	0.0%	0.0	0.0%	0.2	0.0%	0.0
Remainder/Composite Glass	0.0%	0.6	0.5%	59.6	0.0%	0.1	0.0%	0.4	0.0%	7.9
Remainder/Composite Metal	0.7%	31.9	6.3%	721.0	1.3%	32.4	1.2%	14.8	0.3%	57.6
Remainder/Composite Organic	2.7%	131.8	1.0%	119.4	3.9%	96.4	3.3%	41.8	11.0%	1,972.0
Gypsum Board	0.0%	0.0	0.3%	31.4	0.1%	1.4	0.0%	0.0	0.0%	0.0
Asphalt Roofing	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite C&D	0.0%	1.1	0.2%	28.7	0.4%	10.4	0.1%	1.3	0.0%	8.2
Bulky Items	0.0%	0.0	0.8%	91.7	0.3%	7.7	0.8%	10.8	0.0%	0.0
Industrial Sludge	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Mixed Residue	0.3%	13.3	1.0%	113.9	0.3%	7.9	0.3%	3.8	0.3%	59.5
Ash	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Agricultural Crop Residues	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Manures	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Sewage Solids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Treated Medical Waste	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Special Waste	0.0%	0.0	0.2%	22.4	0.0%	0.0	0.0%	0.0	0.8%	138.1
Paint	0.0%	0.0	0.6%	74.2	0.0%	0.0	0.0%	0.0	0.3%	48.0
Vehicle & Equipment Fluids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Hazardous	0.0%	0.1	0.0%	0.0	0.1%	3.2	0.0%	0.0	3.6%	655.4
Subtotal	17.2%	826.0	22.0%	2,526.8	12.2%	304.7	15.1%	192.2	30.7%	5,525.6
Total	100.0%	4,799.9	100.0%	11,483.4	100.0%	2,490.3	100.0%	1,276.3	100.0%	17,987.8

	D - Services - Other Misc.		Venues		17: Services - Hotel and Lodging		B - Retail Trade - Restaurants		G - Services - Other Professional		10: Government Facilities	
	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons	Percent	Tons
Recyclable Paper												
Newspaper	6.1%	146.6	2.9%	0.4	12.1%	472.2	2.6%	596.0	2.9%	126.6	4.2%	617.8
Uncoated Corrugated Cardboard	6.8%	163.6	4.3%	0.6	5.7%	222.7	6.0%	1,381.2	3.8%	165.0	4.7%	687.3
Paper Bags	0.7%	17.4	0.3%	0.1	0.4%	14.3	0.5%	118.2	0.4%	19.6	0.6%	85.5
White Ledger Paper	1.2%	29.9	1.0%	0.2	4.6%	180.9	0.2%	47.0	5.3%	230.1	6.3%	926.3
Computer Paper	0.3%	6.4	0.3%	0.0	1.6%	62.4	0.2%	40.7	0.3%	14.6	0.0%	4.6
Colored Ledger Paper	0.1%	3.1	0.3%	0.0	0.3%	12.4	0.1%	22.9	1.0%	41.9	0.2%	34.3
Other Office Paper	1.0%	24.5	0.2%	0.0	0.7%	26.1	0.3%	65.6	1.9%	84.8	1.2%	180.4
Magazines and Catalogs	1.6%	39.4	2.5%	0.4	2.0%	78.5	0.2%	40.4	4.0%	176.3	2.9%	422.9
Phone Books and Directories	0.3%	6.7	0.2%	0.0	0.0%	0.0	0.0%	0.7	0.1%	4.9	0.0%	1.6
Subtotal	18.2%	437.5	12.1%	1.8	27.3%	1,069.6	10.1%	2,312.6	19.8%	863.6	20.2%	2,960.6
Other Recyclables												
PETE Containers	0.6%	13.8	2.2%	0.3	0.4%	14.9	0.2%	41.5	0.4%	17.9	1.1%	157.5
HDPE Containers	1.5%	35.1	0.3%	0.0	0.6%	25.0	0.8%	186.8	0.6%	27.6	0.4%	59.7
Miscellaneous Plastic Containers	0.5%	12.0	1.6%	0.2	0.4%	17.4	0.4%	82.1	0.4%	17.5	1.1%	154.6
Film Plastic	4.7%	111.8	6.2%	0.9	2.7%	106.5	4.5%	1040.8	2.3%	98.9	5.9%	860.6
Clear Glass Bottles & Containers	1.2%	29.9	1.0%	0.1	3.5%	136.7	1.7%	390.8	1.4%	59.9	2.0%	288.7
Green Glass Bottles & Containers	0.4%	9.0	2.3%	0.3	1.6%	62.3	0.7%	165.8	0.5%	20.2	4.6%	679.3
Brown Glass Bottles & Containers	0.2%	4.0	0.9%	0.1	1.6%	63.4	0.6%	133.9	0.3%	11.2	0.8%	110.8
Aluminum Cans	0.2%	5.0	0.5%	0.1	0.3%	9.9	0.1%	23.2	0.1%	6.1	0.3%	44.2
Tin/Steel Cans	1.9%	45.6	0.7%	0.1	0.5%	19.2	1.9%	439.5	0.4%	16.4	0.4%	57.3
Other Ferrous Metal	5.2%	125.2	0.4%	0.1	0.1%	5.0	0.1%	29.3	0.2%	8.2	1.7%	254.4
Other Non-Ferrous Metal	0.4%	9.5	0.1%	0.0	0.3%	10.2	0.4%	84.8	0.1%	6.4	0.1%	18.2
Major Appliances	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	5.4
Textiles	4.7%	113.2	2.0%	0.3	1.7%	68.3	0.3%	71.1	0.3%	14.6	1.4%	207.5
Lumber	3.2%	75.9	0.4%	0.1	5.3%	206.3	0.8%	172.6	1.8%	77.0	1.6%	241.3
Rock, Soil & Fines	1.3%	30.7	0.0%	0.0	0.0%	0.0	0.0%	0.0	2.0%	85.3	0.8%	112.1
Concrete	0.0%	0.0	0.2%	0.0	0.0%	0.0	0.0%	0.0	1.2%	52.4	0.5%	79.8
Asphalt Paving	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.8%	186.1	0.0%	0.0	0.0%	0.0
Tires	2.4%	57.0	1.0%	0.1	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Batteries	0.0%	1.0	0.0%	0.0	0.0%	0.3	0.0%	0.7	0.1%	2.8	0.0%	7.0
Used Oil	0.0%	0.1	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Subtotal	28.3%	678.7	19.9%	2.9	19.1%	745.4	13.3%	3,048.9	12.0%	522.4	22.7%	3,338.6
Compostables												
Food	12.6%	303.5	25.8%	3.8	33.1%	1,295.6	57.3%	13,109.1	11.7%	510.7	23.7%	3,478.9
Leaves & Grass	6.0%	143.4	3.8%	0.6	4.2%	163.6	0.2%	42.4	19.8%	862.6	1.9%	272.0
Prunings & Trimmings	1.1%	27.6	0.7%	0.1	0.0%	0.1	0.0%	2.7	1.9%	82.5	2.2%	322.9
Branches & Stumps	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Compostable Paper	7.8%	187.5	14.3%	2.1	6.3%	246.1	5.1%	1,159.3	11.9%	519.9	9.6%	1,407.5
Subtotal	27.6%	662.0	44.5%	6.5	43.6%	1,705.4	62.5%	14,313.5	45.3%	1,975.7	37.3%	5,481.4
Other Materials												
Remainder/Composite Paper	7.0%	169.0	14.7%	2.2	4.2%	163.2	8.1%	1,848.2	9.4%	410.9	9.9%	1,458.5
Durable Plastic Items	1.8%	42.4	1.2%	0.2	0.8%	30.6	0.7%	154.1	2.3%	100.3	1.7%	256.9
Remainder/Composite Plastic	1.2%	28.4	3.5%	0.5	1.5%	58.7	0.6%	137.4	1.3%	57.0	2.8%	408.5
Flat Glass	0.0%	0.0	1.0%	0.1	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.1%	14.5
Other Colored Glass Bottles & Containers	0.0%	0.0	0.1%	0.0	0.0%	0.0	0.1%	11.7	0.0%	0.0	0.0%	0.0
Remainder/Composite Glass	0.7%	16.6	0.3%	0.0	0.3%	12.9	0.2%	36.7	0.9%	38.3	0.7%	107.0
Remainder/Composite Metal	6.8%	162.5	0.1%	0.0	0.5%	19.1	0.9%	215.2	2.0%	86.5	1.0%	151.9
Remainder/Composite Organic	5.9%	141.2	2.4%	0.3	2.4%	95.2	0.4%	86.9	4.4%	191.4	0.9%	133.8
Gypsum Board	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.2%	48.9	0.4%	15.8	0.0%	0.0
Asphalt Roofing	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1.7	0.0%	0.0
Remainder/Composite C&D	0.4%	9.2	0.0%	0.0	0.2%	8.7	2.7%	626.4	0.8%	36.7	1.4%	206.5
Bulky Items	1.2%	29.4	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.1%	3.1	0.0%	0.0
Industrial Sludge	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Mixed Residue	0.5%	12.1	0.0%	0.0	0.1%	3.7	0.2%	42.9	0.4%	19.1	0.6%	89.5
Ash	0.0%	0.5	0.0%	0.0	0.0%	0.0	0.0%	1.6	0.2%	7.8	0.0%	0.0
Agricultural Crop Residues	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Manures	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Sewage Solids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Treated Medical Waste	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Remainder/Composite Special Waste	0.1%	1.5	0.2%	0.0	0.0%	0.0	0.0%	0.0	0.4%	16.6	0.0%	0.0
Paint	0.0%	1.2	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.8
Vehicle & Equipment Fluids	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.2
Remainder/Composite Hazardous	0.4%	9.4	0.0%	0.0	0.0%	0.1	0.0%	0.1	0.4%	16.4	0.5%	75.9
Subtotal	26.0%	623.6	23.5%	3.5	10.0%	392.2	14.0%	3,210.1	23.0%	1,001.6	19.8%	2,903.9
Total	100.0%	2,401.7	100.0%	14.7	100.0%	3,912.6	100.0%	22,885.2	100.0%	4,363.3	100.0%	14,684.5